NOVARTIS

US Securities & Exchange Commission Form 20-F 2024

As filed with the Securities and Exchange Commission on January 31, 2025

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION

Washington D.C. 20549

Form 20-F

☐ REGISTRATION STATEMENT PURSUANT TO SECTION 12(b) OR 12(g) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☒ ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934 for the fiscal year ended December 31, 2024

OR

☐ TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

OR

☐ SHELL COMPANY REPORT PURSUANT TO SECTION 13 OR 15(d) OF THE SECURITIES EXCHANGE ACT OF 1934

Date of event requiring this shell company report……

For the transition period from _____ to _____

Commission file number 1-15024

Novartis AG

(Exact name of Registrant as specified in its charter)

N/A

(Translation of Registrant's name into English)

Switzerland

(Jurisdiction of incorporation or organization)

Lichtstrasse 35
4056 Basel, Switzerland

(Address of principal executive offices)

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Securities registered or to be registered pursuant to Section 12(b) of the Act:

Title of each class	Trading Symbol(s)	Name of each exchange on which registered
American Depositary Shares each representing 1 share	NVS	New York Stock Exchange
Ordinary shares, nominal value CHF 0.49 per share*	NOVN	New York Stock Exchange*

* Not for trading but only in connection with the registration of American Depositary Shares representing such ordinary shares.

Securities registered or to be registered pursuant to Section 12(g) of the Act:

None

Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:

None

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report:

1 975 089 248 ordinary shares

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.

Yes ☒ **No** ☐

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.

Yes ☐ **No** ☒

Note—Checking the box above will not relieve any registrant required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934 from their obligations under those Sections.

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes ☒ **No** ☐

Indicate by check mark whether the registrant has submitted electronically every Interactive Data File required to be submitted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit such files).

Yes ☒ **No** ☐

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, or an emerging growth company. See definition of "large accelerated filer," "accelerated filer," and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer ☒ Accelerated filer ☐ Non-accelerated filer ☐ Emerging growth company ☐

If an emerging growth company that prepares its financial statements in accordance with U.S. GAAP, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards† provided pursuant to Section 13(a) of the Exchange Act. ☐

† The term "new or revised financial accounting standard" refers to any update issued by the Financial Accounting Standards Board to its Accounting Standards Codification after April 5, 2012.

Indicate by check mark whether the registrant has filed a report on and attestation to its management's assessment of the effectiveness of its internal control over financial reporting under Section 404(b) of the Sarbanes-Oxley Act (15 U.S.C. 7262(b)) by the registered public accounting firm that prepared or issued its audit report. ☒

If securities are registered pursuant to Section 12(b) of the Act, indicate by check mark whether the financial statements of the registrant included in the filing reflect the correction of an error to previously issued financial statements. ☐

Indicate by check mark whether any of those error corrections are restatements that required a recovery analysis of incentive-based compensation received by any of the registrant's executive officers during the relevant recovery period pursuant to §240.10D-1(b). ☐

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP ☐ International Financial Reporting Standards as issued by the International Accounting Standards Board ☒ Other ☐

If "Other" has been checked in response to the previous question, indicate by check mark which financial statement item the registrant has elected to follow.

Item 17 ☐ **Item 18** ☐

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act).

Yes ☐ **No** ☒

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Introduction and use of certain terms

Novartis AG and its consolidated affiliates publish consolidated financial statements expressed in US dollars. Our consolidated financial statements responsive to Item 18 of this Annual Report on Form 20-F (Annual Report) are prepared in accordance with International Financial Reporting Standards Accounting Standards as issued by the International Accounting Standards Board. "Item 5. Operating and Financial Review and Prospects," together with the sections on products in development and key development projects of our businesses (see "Item 4. Information on the Company—Item 4.B. Business overview"), constitute the Operating and Financial Review ("*Lagebericht*"), as defined by the Swiss Code of Obligations.

Unless the context requires otherwise, the words "we," "our," "us," "Novartis," "Group," "Company," and similar words or phrases in this Annual Report refer to Novartis AG and its consolidated affiliates. However, each Novartis affiliate is legally separate from all other Novartis affiliate companies and manages its business independently through its respective board of directors or similar supervisory body or other top local management body, if applicable. Each executive identified in this Annual Report reports directly to other executives of the Novartis affiliate company that employs such executive, or to such company's board of directors.

In this Annual Report, references to "US dollars," "USD" or "$" are to the lawful currency of the United States of America; references to "CHF" are to Swiss francs; references to "euro" or "EUR" are to the lawful currency of the member states of the European Union in which it is the official currency; references to the "United States" or to "US" are to the United States of America; references to the "European Union" or to "EU" are to the European Union and its 27 member states; references to "Latin America" are to Central and South America, including the Caribbean; references to "Australasia" are to Australia, New Zealand, Melanesia, Micronesia and Polynesia, unless the context otherwise requires; references to the "EC" are to the European Commission; references to "associates" are to employees of our affiliates; references to the "SEC" are to the US Securities and Exchange Commission; references to the "FDA" are to the US Food and Drug Administration; references to the "EMA" are to the European Medicines Agency, an agency of the EU; references to the "CHMP" are to the Committee for Medicinal Products for Human Use of the EMA; references to "ADR" or "ADRs" are to Novartis American Depositary Receipts; references to "ADS" or "ADSs" are to Novartis American Depositary Shares; references to the "NYSE" are to the New York Stock Exchange, and references to "SIX" are to the SIX Swiss Exchange; references to "ECN" are to the Executive Committee of Novartis; references to "xRNA" are to our ribonucleic acids (RNA) technology platform; references to "GSK" are to GlaxoSmithKline plc; references to "Roche" are to Roche Holding AG; references to "Gyroscope Therapeutics" are to Gyroscope Therapeutics Holdings plc; references to "ADACAP" are to Advanced Accelerator Applications S.A.; references to "Novartis Gene Therapies" are to Novartis Gene Therapies, Inc.; references to "Endocyte" are to Endocyte, Inc.; references to "Chinook" are to Chinook Therapeutics, Inc.; references to "DTx Pharma" are to DTx Pharma, Inc; references to "Kate Therapeutics" are to "Kate Therapeutics Inc." and references to "MorphoSys" are to MorphoSys AG.

All product names appearing in italics are trademarks owned by or licensed to Novartis. Product names identified by a "™" are trademarks that are not owned by or licensed to Novartis and are the property of their respective owners.

Certain documents and information referenced in this Annual Report are available on our website. However, the information contained on our website, or any information that may be accessed by links on our website, is not included as part of, or incorporated by reference into, this Annual Report.

Forward-looking statements

This Annual Report contains certain forward-looking statements within the meaning of Section 27A of the Securities Act of 1933, as amended, Section 21E of the Securities Exchange Act of 1934, as amended (the "Exchange Act"), and the United States Private Securities Litigation Reform Act of 1995, as amended. Other written materials filed with or furnished to the SEC by Novartis, as well as other written and oral statements made to the public, may also contain forward-looking statements. Forward-looking statements can be identified by words such as "potential," "expect," "will," "plan," "pipeline," "outlook," "may," "could," "would," "anticipate," "seek," "likely," "ongoing," "estimate," "believe," "target," "intend," or similar terms, or by express or implied discussions regarding potential new products, potential new indications for existing products, or regarding potential future revenues from any such products or indications; or regarding the potential outcome, or financial or other impact on Novartis, of any of the transactions described; or regarding the potential impact of share buybacks; or regarding potential future sales or earnings of Novartis or potential shareholder returns; or regarding potential future credit ratings of Novartis; or by discussions of strategy, plans, expectations or intentions. Such forward-looking statements are based on the current beliefs and expectations of management regarding future events, and are subject to significant known and unknown risks and uncertainties. Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those set forth in forward-looking statements. You should not place undue reliance on these statements.

In particular, our expectations could be affected by, among other things:

- Uncertainties concerning trends toward healthcare cost-containment, including new laws and regulations, ongoing government, payer and general public pricing and reimbursement pressures and requirements for increased pricing transparency
- Uncertainties regarding our ability to competitively discover and develop high-value medicines and new indications for our existing products in our focus therapeutic areas and technology platforms
- Uncertainties regarding the success of key products, commercial priorities and strategy, including our ability to maintain and grow our business and to replace revenue and income lost to generic, biosimilar and other competition
- Our ability to obtain or maintain proprietary intellectual property protection
- Our ability to realize the strategic benefits, operational efficiencies or opportunities expected from our external business opportunities
- Uncertainties regarding development and adoption of advanced technologies, including artificial intelligence (AI)
- Our performance on environmental, social and governance matters
- Uncertainties regarding potential significant breaches of information security or disruptions of our information technology systems and our ability to comply with cybersecurity and data privacy laws and regulations
- Uncertainties surrounding the implementation of our new IT projects and systems
- Our reliance on outsourcing key business functions to third parties
- Uncertainties regarding actual or potential legal or regulatory proceedings
- Safety, quality, data integrity or manufacturing issues
- Our ability to identify, attract, integrate, develop and retain key personnel and qualified individuals for critical roles
- Our ability to adapt to major geopolitical and macroeconomic developments

These risks and others are discussed in more detail in this Annual Report, including under "Item 3. Key Information—Item 3.D. Risk factors," "Item 4. Information on the Company," and "Item 5. Operating and Financial Review and Prospects." Should one or more of these risks or uncertainties materialize, or should underlying assumptions prove incorrect, actual results may vary materially from those described in this Annual Report as anticipated, believed, estimated or expected. It is not possible to predict or identify all risk to our business. Consequently, you should not consider the foregoing to be a complete discussion of all potential risks or uncertainties. We provide the information in this Annual Report as of the date of its filing. We do not intend, and do not assume any obligation, to update any information or forward-looking statements set out in this Annual Report as a result of new information, future events or otherwise.

PART I

Item 1. Identity of Directors, Senior Management and Advisers

Not applicable.

Item 2. Offer Statistics and Expected Timetable

Not applicable.

Item 3. Key Information

3.A [Reserved]

3.B Capitalization and indebtedness

Not applicable.

3.C Reasons for the offer and use of proceeds

Not applicable.

3.D Risk factors

Our business faces significant risks and uncertainties. You should carefully consider all of the information set forth in this Annual Report and in other documents we file with or furnish to the SEC, including the following risk factors, before deciding to invest in or to maintain an investment in any Novartis securities. Our business, as well as our reputation, financial condition, results of operations, and share price, could be materially adversely affected by any of these risks, as well as other risks and uncertainties not currently known to us or not currently considered material.

Strategic risks

Pricing, reimbursement and access

Risk description
Pricing and reimbursement pressure, including pricing transparency and access to healthcare

Context and potential impact
Our business has continuously experienced significant pressures on the pricing of our products and on our ability to obtain and maintain satisfactory rates of reimbursement for our products from governments, insurers and other payers. These pressures have many sources, including growth of healthcare costs as a percentage of gross domestic product; funding restrictions and policy changes; and public controversies, political debate, investigations and legal proceedings regarding pharmaceutical pricing. Pressures on pricing may negatively impact both our product pricing and the availability of our products.

In addition, we face numerous cost-containment measures imposed by governments and other payers. These include government-imposed, industrywide price reductions, mandatory pricing systems, reference pricing systems, payers limiting access to treatments based on cost-benefit analyses, the importation of drugs from lower-cost countries to higher-cost countries, the shifting of the payment burden to patients through higher co-payments and co-pay accumulator programs, the limiting of physicians' ability to choose among competing medicines, the mandatory substitution of generic drugs for the patented equivalent, pressure on physicians to reduce the prescribing of patented prescription medicines, increasing pressure on intellectual property protections, and growing requirements for increased transparency on pricing. For more information on price controls, see "Item 4. Information on the Company—Item 4.B Business overview—Price controls."

Recent macroeconomic and geopolitical trends may have an impact on the likelihood of these pricing and reimbursement pressures occurring. Slow economic growth and the onset and expansion of war in certain parts of the world (which has contributed to challenges such as high energy costs and inflation) have led to increased strain on fiscal budgets in many major economies. In addition, legislative developments such as those in the US (e.g., the Inflation Reduction Act, or IRA) and in Europe (e.g., the EU Joint Health Technology Assessment and 2023 EU Pharmaceutical Legislation Update) pose potential further pressures on pricing and timelines for reimbursement in these countries as legislators seek to reduce growth in healthcare spending. These external factors may materially affect our ability to protect value-based prices to achieve and maintain an acceptable return on our investments in the research and development of our products; and may impact our ability to research and develop new products. For example, in August 2024, we acceded to a "maximum fair price" under the US IRA for our cardiovascular drug *Entresto* for 2026 to avoid fines or the removal of all our products from both Medicare and Medicaid. Other products of ours may be selected for the Medicare Drug Price Negotiation Program in the US or other price negotiation programs in the future.

Key products and commercial priorities

Risk description
Failure to deliver key commercial priorities and successfully launch new products

Context and potential impact
Our ability to maintain and grow our business and to replace revenue and income lost to generic, biosimilar and other competition depends heavily on the commercial success of our new or existing key products. The commercial success of these products could be impacted at any time by a number of factors, including pressure from new or existing competitive products, changes in the prescribing habits of healthcare professionals, slower than expected post-launch adoption, unexpected side effects or safety signals, supply chain issues or other product shortages, pricing pressure, regulatory proceedings, changes in labeling, loss of intellectual property protection, and global pandemics. In addition, our revenue and margins could be significantly impacted by the timing and rate of commercial acceptance of new products.

We operate in competitive and rapidly changing markets and could be adversely affected if we fail to keep pace with technological changes. Healthcare professionals, patients and payers may choose competitor products instead of ours for various reasons, including if they perceive them to be better in terms of efficacy, safety, cost, convenience or other reasons. The commercial success of our key products and launches in the face of increasing competition requires significant attention, management focus and resource allocation. Such competition could significantly affect the revenue from our products and our results of operations. This impact could also be compounded to the extent that such competition results in us making significant additional investments in research and development, marketing or sales. The continual development and usage of advanced technologies for new products and product enhancements is an important way in which we deliver our key commercial priorities and remain competitive. If we fail to keep pace with technological changes in our industry, including through the use of new and disruptive technologies such as artificial intelligence (AI), we may experience lower revenues and lower margins.

Furthermore, from time to time, we reassess how our business is organized to help ensure that we have the optimal structure with which to execute our strategy. An inability to successfully implement new organizational structures and operating models could have a material adverse effect on our results of operations and financial condition.

Research and development

Risk description
Failure to competitively discover and develop innovative medicines in our core therapeutic areas and leveraging our technology platforms

Context and potential impact
We engage in extensive and costly research and development activities, both through our own internal resources and through collaborations with third parties, in an effort to identify and develop new products and new indications for existing products that address unmet, ever-changing medical needs, while ensuring commercial viability and success. Our ability to grow our business and our product pipeline; to replace sales lost due to branded competition, entry of generics, or other reasons; and to bring products to market that take advantage of new and potentially disruptive technologies, including cell, gene and radioligand therapies, depends in significant part on the success of these efforts.

Failure to successfully develop our pipeline products is typically the result of the inherent uncertainty of science, suboptimal internal execution, or both. Key elements of internal execution include our ability to prioritize our investments in our highest potential value assets, optimize the transition of assets from research to development, integrate externally acquired assets in an efficient way, and execute the steps in our drug development process that enable our assets to be approved and reimbursed in a timely manner to positively impact clinical practice. We invest in new businesses, products, services and technologies, including AI, to achieve our goals, operate our business and reduce the time, effort and expense associated with identifying, developing and commercializing new products. Our investments in new technologies may not ultimately achieve the intended benefits, may not result in an adequate return of capital and, in pursuing new strategies, we may incur unanticipated liabilities. Further, a failure to successfully implement AI as part of our R&D strategy may put us at a competitive disadvantage and impact our productivity and pipeline value. For more information, see also “Item 4. Information on the Company—Item 4.B Business overview—Research and development.”

Our new products must undergo intensive preclinical and clinical testing and are approved by means of a highly complex, lengthy, and expensive approval process that varies substantially from country to country and may have specific requirements for the recruitment of patients for clinical trials. Additionally, if we fail to successfully progress late-stage assets and the core elements of drug development for key programs, this could have a negative impact on the development of our product pipeline, and ultimately on the success of our business and our financial results.

We may be unable to develop the necessary clinical evidence to support the desired indications and product profile for a particular disease that is needed to drive clinical adoption of our new products, and thereby achieve the full potential of our assets (also known as the “target product profile”). It is increasingly challenging to adequately recruit a sufficient number of patients in the US for clinical trials due to the cost and effort associated with expanding our operations for the recruitment of patients into such trials. Similarly, the post-approval regulatory burden has also increased, and may continue to increase, as regulators are increasingly focused on long-term data. These requirements make the maintenance of regulatory approvals and label expansions for our products increasingly expensive, and further heighten the risk of recalls, product withdrawals, changes to product specifications, loss of market share, and loss of revenue and profitability.

The clinical testing, regulatory processes and post-approval activities described above have become, and may in the future continue to become, more difficult during pandemics and periods of geopolitical and economic uncertainty. This is due to challenges related to recruiting, enrolling and treating patients in clinical trials, as well as ensuring the supply of trial materials.

Furthermore, our research and development activities must be conducted in an ethical and compliant manner. Among other things, we are concerned with patient safety (both pre- and post-product approval), data privacy, current Good Clinical Practices (cGCP) requirements, data integrity, the fair treatment of patients, diversity and inclusion in the recruitment of patients to clinical trials, and animal welfare. If we fail to properly manage such issues, we risk injury to third parties, damage to our reputation, negative financial consequences as a result of potential claims for damages, sanctions and fines, and the potential that investments in research and development activities may not bring the expected benefits to us. For a further description of the research and development of, and approval processes for, our products, see "Research and development" and "Regulation" under "Item 4. Information on the Company—Item 4.B Business overview."

Intellectual property

Risk description

Expiry, assertion or loss of intellectual property protection

Context and potential impact

Many of our products are protected by intellectual property rights, including patents and regulatory exclusivities, which may provide us with exclusive rights to market those products for a limited time, to enable our purpose of reimagining medicine by sustainably financing our research and development. However, the strength and duration of those rights can vary significantly from product to product and from country to country, and they may be successfully challenged by third parties or governmental authorities.

If we fail to obtain and maintain adequate intellectual property protection, we may not be able to prevent third parties from launching generic or biosimilar versions of our branded products or from using our proprietary technologies. Intellectual property protection relating to particular compound forms, uses, formulations, or processes may not preclude third parties from designing around our rights in order to compete with our products. Loss of intellectual property protection and the introduction of generic or biosimilar competition for a patented branded medicine in a country typically result in a significant reduction in net sales and operating income for the branded product. Such competition can occur after successful challenges to intellectual property rights or the regular expiration of the patent term or other intellectual property rights. Such competition can also result from the entry of generic or biosimilar versions of another medicine in the same therapeutic class as one of our drugs or in a competing therapeutic class, from a Declaration of Public Interest or the compulsory licensing of our intellectual property by governmental authorities, or as a result of a general weakening of intellectual property and governing laws in certain countries around the world. In addition, generic or biosimilar manufacturers may sometimes launch products "at risk" before the final resolution of legal proceedings concerning the infringement or validity of relevant patents or regulatory exclusivities.

We also rely in all aspects of our businesses on unpatented proprietary technology, know-how, trade secrets and other confidential information, which we seek to protect through various measures, including confidentiality agreements with employees, licensees, third-party collaborators, contractors and consultants who may have had access to such information. If these agreements are breached or our other protective measures should fail, we may not be able to prevent a third party from copying or otherwise obtaining and using our trade secrets or other intellectual property without authorization, and our contractual or other remedies may not be adequate to cover our losses. Further, others may independently and lawfully develop substantially similar or identical products that circumvent our intellectual property by means of alternative designs or processes or otherwise.

In addition, third parties may claim that our products or business infringes, misappropriates or otherwise violates patents or other intellectual property rights held by them. Claims of intellectual property infringement, misappropriation or other violations can be costly and time-consuming to resolve and may delay or prevent product launches. If successful, these actions may involve payment of future royalties or damages (including treble damages on US sales if we are found to have willfully infringed valid patent rights of a third party) and may also involve injunctive relief requiring the removal of one or more dosage strengths of a product from the market (or removal of a therapeutic indication from the product's approved labeling) for a period of time or throughout the life of the asserted intellectual property right. Such damages or such an injunction may have a material impact on our operating income and net sales. In any given year, we may experience a potentially significant impact on our net sales from products that have already lost intellectual property protection, as well as products that may lose protection during the year.

A third party may also claim that our owned or licensed patent rights are not infringed, or are invalid or unenforceable in a litigation. The outcome following such legal assertions is unpredictable, and the loss of patent rights as a result of such assertions could result in the introduction of generic or biosimilar competition for, and reduction in sales of, the branded product covered by such patent rights. The outcome may also result in our inability to obtain fair value for the use of our patents, or to obtain an injunction preventing the unlicensed practice of our patents. In addition, intellectual property protection in certain jurisdictions outside the EU and US is weak and we face heightened risks to our intellectual property rights in these jurisdictions, including competition with generic, infringing or counterfeit versions of our products at or after launch.

Because we may have substantially reduced marketing and research and development expenses related to products that are in their final years of exclusivity, the initial loss of protection for a product during a given year could also have an impact on our operating income for that year in an amount corresponding to a significant portion of the product's lost sales. The magnitude of the impact of generic or biosimilar competition on our income could depend on a number of factors. These include, with respect to income in a given year, the time of year at which the generic or biosimilar competitor is launched; the ease or difficulty of manufacturing a competitor product and obtaining regulatory approval to market it; the number of generic or biosimilar competitor products approved, including whether, in the US, a single competitor is granted an exclusive marketing period; whether an authorized generic is launched; the geographies in which generic or biosimilar competitor products are approved, including the strength of the market for generic or biosimilar pharmaceutical products in such geographies, and the comparative profitability of branded pharmaceutical products in such geographies; and our ability to successfully develop and launch new products for patients that may also offset the income lost to generic or biosimilar competition. For more information on the patent and generic competition status of our products, see "Item 4. Information on the Company—Item 4.B Business overview—Intellectual property."

Alliances, acquisitions and integration

Risk description

Failure to identify, execute or realize the expected benefits from our external business opportunities

Context and potential impact

As part of our strategy as a focused innovative medicines company, we routinely evaluate external opportunities that could strengthen our portfolio by acquiring and divesting products, entering businesses or entering into strategic alliances and collaborations. Additionally, strategic deals with new technology platforms and early-stage companies contribute to our innovation. For example, in 2024, we closed the acquisitions of MorphoSys AG, Mariana Oncology and Kate Therapeutics, and entered into several strategic partnerships for the development and commercialization of innovative products across our core therapeutic areas. This strategy relies on our ability to identify strategic external business opportunities, which may be limited, including assessing the value of early-stage companies ahead of competition, and to close transactions with third parties on mutually acceptable terms. The market for clinical-stage assets and cutting-edge technology platforms within our core therapeutic areas is highly competitive and we may be unsuccessful in acquiring businesses or assets or entering into strategic partnerships that may complement our existing portfolio.

Once the key terms of a strategic transaction have been agreed with a third party, we may not be able to complete the transaction as the result of, among other things, disagreement on the contractual terms or negative due diligence results. In addition, we cannot be sure that pre-transaction due diligence will identify all possible issues that might arise during and after the transaction. Our efforts on such transactions can also divert management's attention from our existing businesses and pursuing multiple transactions at the same time may impact our ability to efficiently conduct appropriate levels of pre-transaction technical due diligence, and to consummate such transactions.

After a transaction is closed, efforts to develop and commercialize acquired or licensed products, to integrate the acquired business or to achieve expected synergies may fail or may not fully meet expectations. This may occur due to difficulties in retaining key personnel, customers and suppliers; failure to obtain marketing approval or reimbursement within expected timeframes or at all; differences in corporate culture, standards, controls, processes and policies; or other factors. Transactions can also result in liabilities being incurred that were not known at the time of acquisition, or the creation of tax or accounting issues. Acquired businesses are not always in full compliance with legal, regulatory or Novartis standards, including, for example, current Good Manufacturing Practices (cGMP) or cGCP standards, which can be costly and time-consuming to remediate. Furthermore, our strategic alliances and collaborations with third parties may not achieve their intended goals and objectives within expected time frames, or at all. For more information about recent business acquisitions, see "Item 18. Financial Statements—Note 2. Significant acquisitions of businesses and spin-off of Sandoz business."

Similarly, we cannot ensure that we will be able to successfully divest or spin off businesses or other assets that we have identified for this purpose; or that any completed divestment or spin-off will achieve the expected strategic benefits, operational efficiencies or opportunities; or that the divestment or spin-off will ultimately maximize shareholder value.

Environmental, social and governance matters

Risk description

Failure to meet rapidly evolving environmental, social and governance expectations

Context and potential impact

Increasingly, in addition to financial results, companies are being scrutinized by various stakeholders for their performance on a variety of environmental, social and governance (ESG) matters, which can impact the long-term sustainability of a company's performance. An inability to successfully perform on ESG matters and to meet heightened and sometimes conflicting stakeholder expectations could result in negative impacts on our reputation, recruitment, retention, operations, financial results and share price.

Topics related to large societal changes such as social inequity, access to medicines and climate change are increasingly important to a wide range of our stakeholders. For example, a variety of organizations measure the performance of companies on ESG topics, and the results of these assessments are widely publicized. In addition, investments in funds that specialize in companies that perform well in such assessments are popular, and major institutional investors have publicly

emphasized the importance of such ESG measures in making their investment decisions. Our actions related to ESG topics may, in the long term, impact our operations and ability to achieve our strategic goals, and ultimately could have a potential negative impact on the value of Novartis.

We actively manage a broad range of ESG matters, taking into consideration their expected impact on the sustainability of our business over time, and the potential impact of our business on society and the environment. Our Sustainability & ESG Office, under guidance of the ESG Committee of the Executive Committee of Novartis, is tasked with developing our ESG strategy and tracking our performance against our ESG targets. Considering the fast pace of change of external expectations, including a range of upcoming regulations, there can be no certainty that we will manage such issues successfully, that the ESG standards we currently use to measure our performance against will remain the same, or that we will successfully meet society's or investors' expectations. Failure to meet rapidly evolving regulatory requirements, investor and societal expectations could also result in litigation or regulatory actions, which could have a material adverse impact on our reputation, recruitment, retention, operations, financial results, and share price. Additionally, partners in our value chain that we do not control may not comply with ESG commitments and goals we set for ourselves, which may have a negative impact on our business.

Sandoz spin-off

Risk description

We may not successfully achieve our goals related to our separation from Sandoz and our failure to do so may have an adverse impact on our business

Context and potential impact

In 2023, we completed the separation of Sandoz, our generics and biosimilars division, into a new Swiss publicly traded independent company, by way of a 100% spin-off. In connection with the Sandoz separation, we entered into a separation and distribution agreement and various other agreements. These agreements govern the separation and distribution and the relationship between Novartis and Sandoz going forward, including with respect to the allocation of assets and liabilities between Novartis and Sandoz. The agreements also provide for the performance of services by each company for the benefit of the other company for a period of time. The terms, scope and/or duration of these agreements could negatively impact our ability to pursue other strategic business interests as we will have to devote resources and capacity to fulfill our obligations that we may prefer to direct elsewhere. If we or Sandoz are unable to satisfy our respective obligations under these agreements, we could incur losses or experience operational challenges or difficulties. These agreements could also lead to disputes over the performance of obligations under these agreements or the allocation of our respective resources. For example, during the term of these agreements, we may have less flexibility to optimize our biologic manufacturing for our own products (or those of other third parties). In addition, pursuant to these agreements, we will perform technical development services for Sandoz, which may involve certain proprietary know-how. While we intend to retain the personnel involved in our technical research and development and to protect our trade secrets, provision of such services might create the incremental potential for the disclosure or misuse of such proprietary know-how, particularly in connection with technology transfer at the end of such arrangements.

Further, if the spin-off does not generally qualify as a tax-neutral transaction for Swiss and US federal income tax purposes, we, our shareholders, or both, could be subject to significant tax liabilities. The spin-off is intended to qualify for tax-neutral treatment for us and our shareholders for Swiss and US federal income tax purposes. If, however, the spin-off fails to qualify as tax-neutral for Swiss and US federal income tax purposes, we, our shareholders, or both, could recognize taxable gain with respect to the spin-off, resulting in Swiss and US income, withholding and capital gains tax consequences. In particular, if the spin-off does not qualify as tax neutral for Swiss and US federal income tax purposes, our shareholders who received shares of Sandoz in the spin-off as part of the separation would be subject to tax as if they had received a taxable distribution equal to the fair market value of such shares.

Operational risks

Cybersecurity and data protection

Risk description

Cybersecurity breaches, data loss and catastrophic loss of IT systems

Context and potential impact

We are heavily dependent on critical, complex and interdependent information technology (IT) systems, including internet-based systems to support our business processes. We also outsource significant parts of our IT infrastructure to third-party providers, including those who provide AI services and technology, and currently use these providers to perform business-critical IT services for us. We are therefore vulnerable to cybersecurity attacks and incidents on such networks and systems, whether our own or those of the third-party providers that we contract, and we have experienced, and may in the future experience, such cybersecurity threats and attacks. Cybersecurity threats and attacks take many forms, and the size, age and complexity of our IT systems make them potentially vulnerable to external and internal security threats; outages; malicious intrusions and attacks; cybercrimes, including state-sponsored cybercrimes; malware; ransomware; misplaced data, lost data or data errors; programming or human errors; or other similar events. We may not be able to anticipate all types of security threats, and we may not be able to implement preventive measures effective against all such security threats. The risk of such threats and attacks has increased, in part due to the rise of AI, and as virtual and remote working have become more common, and sensitive data is accessed by employees working in less secure, home-based environments. In addition, due to

our reliance on third-party providers, we have experienced, and may in the future experience, interruptions, delays or outages in IT service availability due to a variety of factors outside of our control, including technical failures, natural disasters, fraud, or security attacks experienced by or caused by third-party providers. Interruptions in the service provided by these third parties could affect our ability to perform critical tasks.

A significant information security or other event, such as a disruption or loss of availability of one or more of our IT systems, whether managed by us or a third-party service provider, has previously and could in the future negatively impact important business processes, such as the conduct of scientific research and clinical trials, the submission of data and information to health authorities, our manufacturing and supply chain processes, our shipments to customers, our compliance with legal obligations, and communication between employees and with third parties. In the ordinary course of business, we collect, store and transmit confidential information (including but not limited to intellectual property, proprietary business information and personal information). IT issues have previously led to, and could in the future lead to, the compromise of trade secrets, confidential information or other intellectual property that could be sold and used by competitors to accelerate the development or manufacturing of competing products; the compromise of personal financial and health information; and the compromise of IT security data such as usernames, passwords and encryption keys, as well as security strategies and information about network infrastructure, which could allow unauthorized parties to gain access to additional systems or data. In addition, malfunctions in software or medical devices that make significant use of IT could lead to a risk of direct harm to patients. The costs related to significant security breaches or disruptions could be material and any cybersecurity insurance that we may have in place may not cover such expenses. If the information technology systems of our third-party providers become subject to disruptions or security breaches, we may have insufficient recourse against such third parties and we may have to expend significant resources to mitigate the impact of such an event, and to develop and implement protections to prevent future events of this nature from occurring.

The occurrence of any of the events described above in the future could disrupt our business operations and result in enforcement actions or liability, including potential government fines and penalties, claims for damages, and shareholder litigation or allegations that the public health, or the health of individuals, has been harmed.

Any significant events of this type could require us to expend significant resources beyond those we already invest to remediate any damage, to further modify or enhance our protective measures, and to enable the continuity of our business.

Talent and external workforce management

Risk description

Inability to identify, attract, develop and retain qualified talent for critical roles or to effectively manage our external workforce could hinder our growth and result in increased information security, data and legal compliance risks

Context and potential impact

We rely on identifying, attracting, developing and retaining a diverse, highly skilled workforce across our business and functions to achieve our objectives. If we are unable to sustain our supply of key personnel—including senior members of our scientific and management teams, high-quality researchers and development specialists and skilled employees with key capabilities in key markets—our ability to achieve our major business objectives may be adversely affected. In addition, our brand and reputation could be negatively impacted.

The market for skilled talent has become increasingly competitive, and we anticipate this trend will persist in the long term. We face a challenge to attract and retain top talent in several areas, including biology, immunology, chemistry, clinical development, drug manufacturing, data, digital and IT, oncology, and advanced therapy platforms (i.e., gene and cell therapy, radioligand therapy and xRNA) and to maintain and strengthen our employer reputation. In addition, many pharmaceutical and biotechnology companies, universities and research centers, and government entities with significant capital are not only competing with us to attract the same skilled talent but are also aggressively pursuing our experienced talent. Additionally, if the performance of our leadership and management fail to build upon our capabilities, the results could be suboptimal performance of our teams and misalignment with strategic goals, and could hinder our ability to attract, develop and retain qualified talent in critical roles. Furthermore, if we are unable to retain and engage key talent of companies that we acquire and integrate, we may not be able to realize the full value of these acquisitions.

In recent years, we have adopted new ways of working that include location flexibility and increasingly recruiting from a global pool of talent. However, the success of our business continues to depend on having employees who possess local knowledge of, and experience in, our key markets. The external talent supply is especially limited in many of the geographies that are expected to be sources of growth for us. In the US, China and several other markets, the geographic mobility of talent is decreasing, as they find ample career opportunities available closer to home. Additionally, if we are unable to manage our external workforce effectively it could lead to suboptimal access to external capabilities, limited cost management, reduced engagement, increased IT and compliance risks, and impaired strategic decision-making.

The risks associated with the challenging talent market will be exacerbated if we are unable to retain and effectively develop employees, or to maintain an internal pipeline with critical skills, experiences, and leadership to deliver our business priorities. As a result, development, engagement, motivation, succession planning and performance rewards for our critical talent are essential to achieving our business priorities.

Strategic technology programs implementation

Risk description

Failure to successfully implement our IT strategy may disrupt our core business processes

Context and potential impact

We rely on various IT systems to operate our complex global business and several of our current IT systems are reaching the end of their useful life, which could cause disruptions to our operational stability. As a result, we are implementing several companywide IT programs to replace and consolidate outdated IT systems and to simplify and standardize our processes, systems and tools, and create a unified data marketplace. Implementation and operation of these new systems involves certain risks, including the potential for a failure of the new systems to operate as expected; a failure to properly integrate new systems with other systems we use; delays in adopting and scaling new systems; potential loss of data or information; a failure of, or potential issues with, systems related to our payment and procurement processes; compliance issues; and cost overruns and delays. Our inability to timely and successfully implement our IT strategy may prevent us from materializing expected business benefits or capitalizing on opportunities and could lead to business disruptions, cost inefficiencies and potential exposure to legal, regulatory and reputational risks as our internal controls could be negatively affected. Any disruptions or malfunctions of new systems could cause critical information to be delayed, lost, defective, corrupted, or rendered inadequate or inaccessible, which could negatively impact our operations, the effectiveness of our internal controls and financial condition.

Legal, regulatory, ethics and compliance

Risk description

Challenges posed by evolving legal and regulatory requirements, innovative and disruptive technologies, and societal expectations regarding ethical behavior

Context and potential impact

We are subject to an extensive and complex framework of laws and regulations across the jurisdictions in which we operate.

The laws and regulations relevant to the healthcare industry and applicable to us are broad in scope, are subject to change, and have evolving interpretations, which could require us to incur substantial costs associated with compliance or to alter one or more of our business practices. For example, we have been, are currently, and may in the future be, subject to various significant legal proceedings, such as private party litigation, government investigations and law enforcement actions worldwide. These types of matters may take various forms based on evolving government enforcement and private party litigation priorities, and could include, among other things, matters pertaining to: pricing; bribery and corruption; trade regulation and embargo legislation; product liability; commercial disputes; employment and wrongful discharge; antitrust and competition; securities; government benefit programs; reimbursement; rebates; healthcare fraud; sales and marketing practices; insider trading; occupational health and safety; environmental regulations; tax; cyber and data security; use of technologies, including AI; data privacy; regulatory interactions; disclosure compliance; and intellectual property. Such matters can involve civil or criminal proceedings and can retroactively challenge practices previously considered to be legal.

There is also a risk that governance of our medical and patient support activities, and of our interactions with governments, public officials/institutions, healthcare professionals, healthcare organizations and patient organizations may be inadequate or fail, or that we may undertake activities based on improper or inadequate scientific justification.

New requirements may also be imposed on us due to changing government and societal expectations regarding the healthcare industry, and acceptable corporate behavior generally. For example, we are faced with laws and regulations requiring changes in how we do business, including with respect to disclosures concerning our interactions with healthcare professionals, healthcare organizations and patient organizations. These laws and regulations include requirements that we disclose payments or other transfers of value made to healthcare professionals and organizations, as well as information relating to the costs and prices for our products, which represent evolving standards of acceptable corporate behavior. These requirements may cause us to incur significant costs, including substantial time and additional resources, that are necessary to bring our interactions with healthcare professionals and organizations into compliance with these evolving standards. There is also an increased risk of noncompliance with applicable laws and regulations as we pursue new strategies and make organizational changes that may cause responsibilities for compliance matters to become unclear. An actual or alleged failure to comply with the law or with heightened public expectations could lead to substantial liabilities, fines, penalties or other losses that may not be covered by insurance adequately or at all.

Legal proceedings and investigations are inherently unpredictable, and significant judgments sometimes occur. Consequently, we may in the future incur judgments that could involve large payments, including the potential repayment of amounts allegedly obtained improperly, and other penalties, including treble damages. In addition, such legal proceedings and investigations, even if meritless, may affect our reputation, may create a risk of potential exclusion from government reimbursement programs in the US and other countries, and may lead to civil litigation or criminal exposure. As a result, we have in the past and may again in the future enter into major settlements of such claims without bringing them to final legal adjudication, despite having potentially significant defenses against them, to limit the risks they pose to our business and reputation. Such settlements may require us to pay significant sums of money and to enter into corporate integrity or similar agreements, which are intended to regulate company behavior for extended periods. From time to time, we may also initiate challenges to laws or regulations that we believe are illegal or unconstitutional. The result of such litigation we may pursue is inherently uncertain and may negatively impact our business and reputation.

In addition, regardless of the outcome of any legal proceedings, such proceedings are costly and time-consuming and require significant attention from our management and could therefore have a material adverse effect on our business, financial condition, and results of operations.

For information on significant legal matters pending against us, see "Item 18. Financial Statements—Note 20. Provisions and other non-current liabilities" and "Item 18. Financial Statements—Note 27. Commitments and contingent liabilities."

External partner risk management and human rights

Risk description

Failure to maintain adequate governance and risk oversight over external partner relationships, and failure of external partners to meet their contractual, regulatory or other obligations

Context and potential impact

We rely on external partners for the performance of certain key business functions and services, including, among others, research and development, manufacturing operations and warehousing and distribution, certain finance functions, sales and marketing activities and data management. Many of our external partners do not have internal compliance systems or resources comparable to ours. As a result, our investment and efforts in relation to external partner management include focusing on risk management and the oversight of such external partners.

Our reliance on external partners poses certain risks, including the misappropriation of our intellectual property, the failure of the external partner to comply with our standards, including regulatory standards; societal expectations; environmental, anti-bribery and human rights standards and regulations; quality assurance requirements; unexpected supply disruptions; breach of our agreement by the external partner; and the unexpected termination or nonrenewal of our agreement by the external partner. Any of these risks could result in legal claims or proceedings, liability under applicable laws or significant regulatory penalties, and could disrupt our operations and have a negative impact on our reputation.

In addition, governments require us, and the public may expect us, to take responsibility for and report on compliance with various human rights, responsible sourcing and environmental practices, as well as other actions of our external partners around the world.

Ultimately, if external partners fail to meet their obligations to us, we may lose our investment in the relationship with the external partners or fail to receive the expected benefits of our agreements with such external partners. While we aim to identify and assess any risk of harm to society caused by our external partners' operations, should any of these external partners fail to comply with the law or our standards, or should they otherwise act inappropriately while performing services for us, we could be held responsible for their acts, our reputation may suffer, and penalties could be imposed on us.

Manufacturing and product quality

Risk description

Inability to ensure proper controls in product development and product manufacturing, and failure to comply with applicable regulations and standards

Context and potential impact

The development and manufacture of our products is complex and heavily regulated by governmental health authorities around the world, which may vary by country. Healthcare systems, healthcare providers and patients rely on us to meet the highest quality standards. Regardless of whether our products and the related raw materials are developed and manufactured at our own manufacturing sites or by third parties, we must ensure that all development, manufacturing, quality and supply processes comply with regulatory requirements, as well as our own quality standards in order to deliver novel therapies while ensuring patient safety. Failure to comply with regulatory requirements may result in warning letters, suspension of manufacturing, seizure of products, injunctions, product recalls, failure to secure product approvals, debarment, or harm to patients or our reputation.

In recent years, global health authorities have substantially intensified their scrutiny of manufacturers' compliance with regulatory requirements. Any significant failure by us or our third-party suppliers to comply with regulatory requirements, or with health authorities' expectations, may create the need to suspend clinical trials, suspend manufacturing, shut down production facilities or production lines, and recall clinical or commercial products. Additionally, we may acquire new companies or technology platforms that may not fully comply with regulatory requirements or expectations, which may pose legal, financial and reputation risks for us post-acquisition. A failure to fully comply with regulatory requirements could also lead to a delay in the approval of new products, an inability to ship or import our products, and significant penalties and reputational harm.

In addition, the technically complex manufacturing processes required to manufacture many of our products increase the risk of both production failures and product recalls, and can increase the cost of producing our goods. Some of our products require a supply of highly specialized raw materials, such as cell lines, tissue samples, bacteria, viral strains and radioisotopes. In addition, we manufacture and sell a number of sterile products, biologic products and products that involve advanced therapy platforms, such as gene and cell therapy, radioligand therapy, and xRNA, all of which are particularly complex and involve highly specialized manufacturing technologies. For more information, see "Item 4. Information on the Company—Item 4.B. Business overview—Production." As a result, even slight deviations at any point in their production processes or in the materials used have led to, and may in the future lead to, production failures or recalls.

Supply chain

Risk description
Inability to maintain continuity of product supply

Context and potential impact
Many of our products are produced using technically complex manufacturing processes and require a supply of highly specialized raw materials. For some of our products and raw materials, we may rely on a single source of supply. In addition, we manufacture and sell a number of sterile products, biologic products, and products that involve advanced therapy platforms, such as gene and cell therapy, radioligand therapy, and xRNA, all of which are particularly complex and involve highly specialized manufacturing technologies. Due to this complexity, there is a risk of production and supply of critical raw materials failures, which may result in supply interruptions or product recalls due to manufactured products not meeting required specifications.

In addition, due to the inherent complexities of our manufacturing processes and the supply chains for advanced therapy platforms, we are required to plan our production activities and purchase of materials well in advance. If we suffer from third-party raw material shortages, underestimate market demand for a product, or fail to accurately predict when a new product will be approved for sale, then we may not be able to produce sufficient product to meet demand. These issues could be made worse during a pandemic, or as a result of macroeconomic factors or geopolitical events, such as military actions and wars in certain parts of the world, and could lead to a sudden increase in demand for selected medicinal products, resulting in the short-term unavailability of critical materials; logistical and supply challenges that may lead to our inability to ship products from one location to another due to restrictions imposed; or our inability to properly operate a manufacturing site due to restrictions imposed.

Our or our suppliers' inability to manage such issues could lead to shutdowns, product shortages, or to us being entirely unable to supply products to patients for an extended period of time. Furthermore, as our products are intended to promote the health of patients, such shortages or shutdowns could harm our reputation and have led to, and could continue in the future to lead to, significant losses of sales revenue, potential litigation or allegations that the public health, or the health of individuals, has been harmed.

Data privacy

Risk description
Noncompliance with personal data protection laws and regulations

Context and potential impact
We operate in an industry that relies on the collection, processing, analysis and interpretation of large sets of patients' and other individuals' personal information, including via social media and mobile technologies. The operation of our business requires data to flow to our third-party contractors' systems and across the borders of numerous countries in which there are different, potentially conflicting, and frequently changing, data privacy laws in effect. Examples of such laws include: the EU General Data Protection Regulation (GDPR); Brazil's General Personal Data Protection Law; the Personal Information Protection Law in China; and different comprehensive consumer privacy laws in multiple US states. Such laws impose stringent requirements on how we and third parties with whom we contract collect, share, export, protect or otherwise process personal information, and provide for significant penalties for noncompliance. Security breaches of our systems or those of our third-party contractors, or other failures to protect the data we collect from misuse or breach by third parties, could expose such personal information to unauthorized persons which could result in legal claims or proceedings, liability under applicable data privacy laws and significant regulatory penalties, and which could disrupt our operations and have a negative impact on our reputation.

Events involving the substantial loss or unlawful access or disclosure of personal information, use of personal information without a legal basis, or other privacy violations could give rise to significant liability, reputational harm, damaged relationships with business partners, and potentially substantial monetary penalties and other sanctions under laws enacted or being enacted around the world. Such events could also lead to restrictions on our ability to use personal information and/or transfer personal information across country borders, which could interfere with critical business operations. In addition, there is a trend of increasing divergence of data privacy legal frameworks, not only across these frameworks but also within individual legal frameworks themselves. This divergence may increase compliance costs, constrain the implementation of global business processes and may lead to different approaches on the use of health data for scientific research, which may have a negative impact on our business and operations.

Falsified medicines

Risk description
Impact of falsified medicines on patient safety, and reputational and financial harm to us and our products

Context and potential impact
We continue to be challenged by the vulnerability of distribution channels to falsified medicines, which, as defined by the World Health Organization, include counterfeit, stolen, tampered and illegally diverted medicines.

Falsified medicines pose patient safety risks and can be seriously harmful or life-threatening. Reports of adverse events related to falsified medicines and increased levels of falsified medicines in the healthcare system affect patient confidence in genuine medicines and in healthcare systems in general. These events could also cause us substantial reputational and financial harm, and potentially lead to litigation if the adverse event from a falsified medicine is mistakenly attributed to our products. Stolen or illegally diverted medicines that are not properly stored and are later sold through unauthorized channels could adversely impact patient safety, our reputation and our business. Furthermore, there is a direct financial loss when falsified medicines replace sales of our products, or our products are recalled following the discovery of falsified products.

Emerging risks

Geopolitical developments

Risk description
Impact of geo- and socio-political threats

Context and potential impact
Geopolitical and social tensions and conflicts, such as government shutdowns, changes in government administrations, sovereign risks, acts of war or aggression and terrorist activities, have both a direct and indirect impact on the pharmaceutical industry and our operations. As a result of such tensions conflicts, certain countries have adopted or may in the future adopt additional, protectionist measures including the imposition of tariffs. Tariffs that are intended to shield domestic markets from foreign competition and the possibility of additional trade restrictions, such as export controls, could have a material impact on our business. If tariffs or export controls on pharmaceutical products or active pharmaceutical ingredients (APIs) were increased in certain parts of the world, our supply chain and flow of our products could be immediately disrupted. There is also an additional risk that aggressive monetary and fiscal policies by governments and central banks to curb inflation may prompt market-specific recessions and raise the cost-of-living, further putting pressure on pricing and cost containment for the pharmaceutical industry.

Collectively, unstable geo- and socio-political conditions could, among other things, disturb the international flow of goods and increase the costs and difficulties of international transactions. This could potentially impact our ability to develop and supply our products to patients in an undisrupted fashion, and further erode reimbursement mechanisms for our medicines.

Macroeconomic developments

Risk description
Impact of macroeconomic developments

Context and potential impact
Our business may be impacted by deteriorating macroeconomic and financial conditions directly affecting us, our suppliers, payers and consumers. Given that patients, in many countries, directly pay a sizable and increasing portion of their own healthcare costs, there is a risk that patients may cut back on prescription drugs due to financial constraints.

Negative macroeconomic developments may also adversely affect the ability of payers, as well as our distributors, customers, suppliers, and service providers, to pay for our products or to buy necessary inventory or raw materials, and to perform their obligations under agreements with us. Weakening growth, unstable market conditions and rising debt service costs may also increase the credit risk of our counterparties. Although we make efforts to monitor the financial condition and liquidity of these third parties, our ability to do so is limited, and some of them may become unable to fulfill their obligations in a timely manner or may even become insolvent. These risks may be elevated with respect to our interactions with fiscally challenged government payers, or with third parties with substantial exposure to such payers.

At the same time, significant changes, and potential future volatility in financial markets, the consumer and business environment, the competitive landscape, and the global political and security landscape make it increasingly difficult for us to predict our revenues and earnings, which may impact the success of our mid- and long-term planning.

Asset price corrections in financial markets may also result in lower returns on our financial investments. In addition, pricing pressures in developed markets resulting from efforts to reduce the cost of healthcare (e.g., the US IRA, which targets drug prices) may have a negative impact on our revenue and our net sales. In addition, inflation may have an impact on our operating costs in the form of higher prices for supplies, energy, raw materials, wages, and capital, which could reduce our net income.

Uncertainties around future central bank and other economic policies in the US and EU, including elevated interest rates, government shutdowns, debt ceilings or government funding, could also impact world trade. Sudden increases in economic, currency or financial market volatility in different countries, such as appreciation of the US dollar, have also impacted, and may continue to have an unpredictable impact on our business, or results of operations, including the conversion of our operating results into our reporting currency, the US dollar, as well as the value of our investments in our pension plans.

For more information about the effect of price controls on our business, see “Item 4. Information on the Company—Item 4.B—Business overview—Price controls.” See also “Item 5. Operating and Financial Review and Prospects—Item 5.B Liquidity and capital resources—Effects of currency fluctuations,” “Item 5. Operating and Financial Review and Prospects—Item 5.B Liquidity and capital resources—Condensed consolidated balance sheets,” “Item 18. Financial Statements—Note 15. Trade receivables” and “Item 18. Financial Statements—Note 28. Financial instruments – additional disclosures.”

Climate change

Risk description
Failure to manage physical and transition risks from climate change

Context and potential impact
We are exposed to a broad range of climate risks such as transition risks (e.g., regulatory frameworks, carbon pricing, and the cost of and access to capital) and physical risks (e.g., heat, water scarcity, rising sea levels, and flooding from severe weather events), which could vary in magnitude and impact across different countries.

Climate change has triggered, and may continue to trigger, the adoption of new regulatory requirements across the globe, such as in Switzerland, the EU, the United Kingdom, or Australia, as well as rapidly evolving societal expectations. As a result, we may be required to increase our investment in technology to reduce our energy use, water use and greenhouse gas emissions. In addition, legislative and regulatory action, both current and in the future, includes or could include, carbon

pricing, climate risk-related disclosures, and changes in zoning or building codes to increase climate resilience. As a result, the combined impact of these transition risks could increase our direct operating costs or be passed on to us through the impact on our supply chain. Further, any failure to achieve climate-related commitments we have made in the past, or that we make in the future, in the expected timeframe, or at all, could result in negative impacts on our reputation, our operations, and the price of our shares.

Climate change has created, and will continue to create, physical risks to our business and our supply chain. Some of our production facilities and supplier locations that depend on the availability of significant water supplies are located in areas where fresh water is increasingly scarce. Other facilities and suppliers are located in areas that, due to increasingly violent weather events, rising sea levels, or both, are increasingly at risk of substantial damage. In regions where such a risk is present, this has an impact not only on our own operations but also our distributed supply chain. Such events may result in the loss of life, increased costs, business interruptions, destruction of facilities, and disruption to healthcare systems that patients use to access our medicines.

Tax laws and developments

Risk description

Changes in tax laws or their application

Context and potential impact

Our multinational operations are taxed under the laws of the countries and other jurisdictions in which we operate. Changes in tax laws or in their application could lead to an increased risk of international tax disputes and an increase in our effective tax rate, which could adversely affect our financial results. The integrated nature of our worldwide operations can produce conflicting claims from tax authorities in different countries as to the profits to be taxed in the individual countries, including potential disputes relating to the prices our subsidiaries charge one another for intercompany transactions, known as transfer pricing. Most of the jurisdictions in which we operate have double tax treaties with other foreign jurisdictions, which provide a framework for mitigating the impact of double taxation on our revenues and capital gains. However, mechanisms developed to resolve such conflicting claims are largely untried and can be expected to be very lengthy. Accruals for tax contingencies are made based on experience, interpretations of tax law, and judgments about potential actions by tax authorities. However, due to the complexity of tax contingencies, the ultimate resolution of any tax matter may result in payments materially different from the amounts accrued.

In 2019, the Organization for Economic Co-operation and Development (OECD) launched a new initiative on behalf of the G20 to minimize profit shifting by working toward a global tax framework that ensures that corporate income taxes are paid where consumption takes place, in addition to introducing a global standard on minimum taxation combined with new tax dispute resolution processes. This project achieved OECD political consensus in October 2021, and the detailed principles are still under discussion by the OECD and political leaders. The implementation of certain of these new OECD principles began in 2024 in certain countries, including Switzerland. However, some countries already announced postponement to 2025 while others have not taken any implementation steps so far. Once changes to the tax laws in any jurisdiction in which we operate are enacted or substantially enacted, we will be subject to the OECD minimum tax regime, the aim of which is to bring the total amount of taxes paid on our profit in a given jurisdiction up to a minimum rate of 15%. In June 2023, the Swiss public voted to approve an amendment to the Swiss Constitution that provides the legal basis for the implementation of an OECD compliant minimum tax in Switzerland. In December 2023, the Swiss Federal Council partially implemented the OECD 15% minimum tax for the financial year 2024 in the form of a qualified domestic top-up tax (QDMTT), which will be assessed on certain qualifying profits earned by companies domiciled in Switzerland. This QDMTT will not be applied to qualifying profits earned by a company's affiliates domiciled in tax jurisdictions outside of Switzerland. In September 2024, the Swiss Federal Council announced implementation of the income inclusion rule in 2025 as a next step to further align with the new OECD global agreed standards. The timing and specific provisions of any further tax regulations remain subject to assessments in political and technical forums at both a federal and cantonal level.

Due to the ongoing discussion in many countries on the implementation and additional guidance from the OECD, the full impact of the OECD minimum tax project on our financial position, income statement and cash flows in the longer term cannot currently be estimated as the OECD continues to issue additional guidance aimed at providing more clarity on the application of the new global standards.

On September 12, 2023, the EU Commission published two draft directives relating to international tax. The draft Business in Europe: Framework for Income Taxation (BEFIT) directive provides common rules for determining the corporate tax base for EU-based entities that are part of a group with global consolidated revenues above EUR 750 million. The BEFIT proposal includes provisions for a formula-driven allocation of profits between relevant EU member states which would then be subject to the corporate income tax rate of the respective member state. The draft transfer pricing directive aims to harmonize transfer pricing rules within the EU consistent with the OECD Transfer Pricing Guidelines. It also clarifies processes for relieving double taxation within the EU. Both draft directives require unanimous agreement among EU member states before they can be further implemented. In the US, the IRA was signed into law on August 16, 2022. The IRA creates a 15% corporate alternative minimum tax on the profits of corporations whose average annual adjusted financial statement income exceeds USD 1.0 billion. The IRA also includes a one percent excise tax on certain corporate stock repurchases. Additionally, the IRA also contains provisions that affect tax-exempt entities, including tax credit opportunities to encourage investment in clean energy and expanded incentives for energy-efficient construction by tax-exempt entities.

While we have taken steps to comply with the evolving tax initiatives of the OECD, the US and the EU, and we will continue to do so, significant uncertainties remain as to the outcome of our efforts.

For more information, see "Item 18. Financial Statements—Note 6. Income taxes" and "Item 18. Financial Statements—Note 12. Deferred tax assets and liabilities."

General risks

Indebtedness

Risk description
Our indebtedness could adversely affect our operations

Context and potential impact
As of December 31, 2024, we had USD 21.4 billion of non-current financial debt, and USD 8.2 billion of current financial debt. Our current and long-term debt requires us to dedicate a portion of our cash flow to service interest and principal payments and, if interest rates rise, this amount may increase. As a result, our existing debt may limit our ability to use our cash flow to fund capital expenditures, to engage in transactions, or to meet other capital needs, or otherwise may place us at a competitive disadvantage relative to competitors that have less debt. Our debt could also limit our flexibility to plan for and react to changes in our business or industry, and increase our vulnerability to general adverse economic and industry conditions, including changes in interest rates or a downturn in our business or the economy. We may also have difficulty refinancing our existing debt or incurring new debt on terms that we would consider to be commercially reasonable, if at all.

Goodwill and intangible assets

Risk description
Goodwill and intangible assets resulting in significant impairment charges

Context and potential impact
We carry a significant amount of goodwill and other intangible assets on our consolidated balance sheet, including, in particular, substantial goodwill and other intangible assets obtained through acquisitions, including most recently through our acquisitions of Chinook Therapeutics, MorphoSys AG, Mariana Oncology and Kate Therapeutics. As a result, we have incurred, and may in the future incur further, significant impairment charges if the fair value of the intangible assets and the groupings of cash-generating units containing goodwill would be less than their carrying value on our consolidated balance sheet at any point in time.

We regularly review our intangible and tangible assets for impairment, including identifiable intangible assets and goodwill. If one or more events occur that would cause us to revise our estimates and assumptions used in analyzing the value of our goodwill and other intangible assets, such revision could result in an impairment charge in the period in which it occurs. Any significant impairment charges could have a material adverse effect on our results of operations and financial condition. In 2024, for example, we recorded goodwill and intangible asset impairment charges of USD 1.4 billion.

For a detailed discussion about how we determine whether an impairment has occurred, what factors could result in an impairment, and the impact of impairment charges on our results of operations, see Item 18. Financial Statements—Note 1. Accounting policies" and "Item 18. Financial Statements—Note 11. Goodwill and intangible assets other than goodwill."

Foreign currency exchange rates

Risk description
Negative effect on financial results due to foreign currency exchange rate fluctuations

Context and potential impact
Changes in exchange rates between the US dollar, which is our reporting currency, and other currencies has previously resulted in, and in the future may result in significant increases or decreases in our reported sales, costs and earnings as expressed in US dollars, and in the reported value of our assets, liabilities and cash flows.

In addition to ordinary market risk, there is a risk that countries could take affirmative steps that could significantly impact the value of their currencies. Such steps could include unconventional monetary policies, tariffs and potential withdrawals by countries from common currencies. In addition, countries facing local financial difficulties, including countries experiencing high inflation rates, and highly indebted countries facing large capital outflows, may impose controls on the exchange of foreign currency. Currency exchange controls and sanctions could limit our ability to distribute retained earnings from our local affiliates, or to pay intercompany payables due from those countries.

Despite measures undertaken to reduce or hedge against foreign currency exchange risks, as a significant portion of our earnings and expenditures are in currencies other than the US dollar, including expenditures in Swiss francs that are significantly higher than our revenue in Swiss francs, any such exchange rate volatility may negatively and materially impact our results of operations and financial condition, and may impact the reported value of our net sales, earnings, assets and liabilities. In addition, the timing and extent of such volatility can be difficult to predict. Furthermore, depending on the movements of particular foreign exchange rates, we may be materially adversely affected at a time when the same currency movements are benefiting some of our competitors.

For more information on the effects of currency fluctuations on our consolidated financial statements and on how we manage currency risk, see "Item 5. Operating and Financial Review and Prospects—Item 5.B Liquidity and capital resources—Effects of currency fluctuations" and "Item 18. Financial Statements—Note 28. Financial instruments – additional disclosures."

Key customers

Risk description
Concentration among our key customers

Context and potential impact
A significant portion of our global sales is made to a relatively small number of drug wholesalers, retail chains and other purchasing organizations. For example, our three most important customers globally accounted for approximately 17%, 13% and 7%, respectively, of net sales from continuing operations in 2024. The largest trade receivables outstanding were for these three customers, amounting to 19%, 12% and 7%, respectively, of the trade receivables at December 31, 2024. Historically, there has been a trend of consolidation among our customer base, which may continue in the future. As a result, we are exposed to a concentration of credit risk among our key customers. If one or more of our major customers experienced financial difficulties, the effect on us would be considerable, and could include a substantial loss of sales and an inability to collect amounts owed to us.

Environmental matters

Risk description
Impact of environmental liabilities

Context and potential impact
The environmental laws of various jurisdictions impose actual and potential obligations on us to investigate and remediate contaminated sites, including in connection with activities in the past by businesses that are no longer part of Novartis. In some cases, these remediation efforts may take many years. While we have set aside provisions for known worldwide environmental liabilities that are probable and estimable, there is no guarantee that additional costs will not be incurred beyond the amounts for which we have provided in our consolidated financial statements. If environmental contamination resulting from our facility operations, business activities or products adversely impacts third parties or if we fail to properly manage the safety of our facilities, including the safety of our employees and contractors, and the environmental risks, we may face substantial one-time and recurring costs and other penalties, and be required to increase our provisions for environmental liabilities.

Furthermore, our headquarters and a number of our major production and research facilities are located near earthquake fault lines in Basel, Switzerland. Other major facilities are located near major earthquake fault lines in various locations around the world. A major earthquake could result in loss of life, business interruptions and the destruction of our facilities. See also "Item 4. Information on the Company—Item 4.D Property, plants and equipment" and "Item 18. Financial Statements—Note 20. Provisions and other non-current liabilities."

Pension plans

Risk description
Inaccuracies in the assumptions and estimates used to calculate our pension plan and other post-employment obligations

Context and potential impact
We sponsor pension and other post-employment benefit plans in various forms that cover a significant portion of our current and former employees. For post-employment plans with defined benefit obligations, we are required to make significant assumptions and estimates about future events in calculating the expense and the present value of the liability related to these plans. These include assumptions about the discount rates we apply to estimate future defined benefit obligations and net periodic pension expense, as well as rates of future pension increases. In addition, our actuarial consultants provide our management with historical statistical information, such as withdrawal and mortality rates in connection with these estimates.

Assumptions and estimates that we use may differ materially from the actual results we experience due to changing market and economic conditions, higher or lower withdrawal rates, and longer or shorter life spans of participants, among other factors. Depending on events, such differences could have a material effect on our total equity, and may require us to make additional contributions to our pension funds.

For more information on obligations under retirement and other post-employment benefit plans and underlying actuarial assumptions, see "Item 18. Financial Statements—Note 24. Post-employment benefits for employees."

Item 4. Information on the Company

4.A History and development of Novartis

Novartis AG

Novartis AG was incorporated on February 29, 1996, under the laws of Switzerland as a stock corporation ("*Aktiengesellschaft*") with an indefinite duration. On December 20, 1996, our predecessor companies, Ciba-Geigy AG and Sandoz AG, merged into this new entity, creating Novartis. We are domiciled in and governed by the laws of Switzerland. Our registered office is located at the following address:

Novartis AG
Lichtstrasse 35
CH-4056 Basel, Switzerland
Telephone: +41-61-324-1111
Website: www.novartis.com

Novartis AG, our Swiss holding company, owns, directly or indirectly, all of our significant operating companies. For a list of our significant operating subsidiaries, see "Item 18. Financial Statements—Note 31. Novartis principal subsidiaries and associated companies."

For a description of important corporate developments since January 1, 2022, see "Item 18. Financial Statements—Note 2. Significant acquisitions of businesses and spin-off of Sandoz business." For information regarding the Company's material commitments for capital expenditures, see "Item 5. Operating and Financial Review and Prospects—Material contractual obligations and commitments."

The SEC maintains an internet site at *http://www.sec.gov* that contains reports, proxy and information statements, and other information regarding issuers that file electronically with the SEC.

4.B Business overview

Overview

Novartis is an innovative medicines company, engaged in the research, development, manufacturing, distribution, marketing and sale of a broad range of innovative pharmaceutical medicines. Our purpose is to reimagine medicine to improve and extend people's lives by leveraging our scientific expertise to find new ways to treat and cure disease. Our strategy is to focus on high-value, innovative medicines that alleviate society's greatest disease burdens through technology leadership in R&D and novel access approaches. To support our strategy, we have clear focus areas where we commit most of our time, energy and resources. These core therapeutic areas are cardiovascular, renal and metabolic; immunology; neuroscience; and oncology. For more information about our strategy, see "Item 5. Operating and Financial Review and Prospects—Overview—Our strategy."

In 2024, Novartis achieved net sales from continuing operations of USD 50.3 billion, and net income from continuing operations amounted to USD 11.9 billion. Headquartered in Basel, Switzerland, we employed 75 883 full-time equivalent employees as of December 31, 2024. Our products are sold in approximately 120 countries around the world.

Our operations are organized into the following five organizational units:

- *Biomedical Research* is our innovation engine, focused on creating new ways of fighting disease and turning scientific breakthroughs into new medicines with the potential to change lives.
- *Development* oversees the development of potential new medicines through clinical trials to confirm their safety and efficacy, and steers the way to regulatory approval for use by patients.
- *Operations* manufactures and delivers our medicines to customers, while also overseeing the global functions of IT, procurement and real estate services.
- The two commercial units, *US* and *International*, focus on their respective geographic areas. They work with customers to provide innovative medicines and services that improve treatment options and raise the quality of care for patients.

These organizational units are supported by our global functions in areas such as corporate affairs, ethics, risk and compliance, finance, legal, internal audit, people and organization and strategy and growth. For more information about our Development unit, see "—Research and development—Development program" below. For more information about our Operations unit see "—Item 4.D Property, plants and equipment" and "Item 18. Financial Statements—Note 3. Operating segment and Note 4. Revenues and geographical information."

Key marketed products

The following summaries describe certain Novartis key marketed products in certain indications. These products are listed according to year-end net sales. Some of them have lost patent protection or are otherwise subject to generic competition, while others are subject to patent challenges by potential generic competitors (see "—Intellectual property" for general information on intellectual property and regulatory data protection, and for more information on the status of patents and exclusivity for certain key marketed products).

While we typically seek to sell our marketed products throughout the world, not all products and indications are available in every country. The indications described in these summaries may therefore vary by country. In addition, a product may be available under different brand names depending on country and indication.

- *Entresto* (sacubitril/valsartan) is an oral, first-in-class angiotensin receptor-neprilysin inhibitor. *Entresto* enhances the protective effects of a hormone system called the natriuretic peptide system, and simultaneously suppresses the harmful effects of a hormone system called the renin-angiotensin-aldosterone system. It is approved:
  - In the US, the EU and other countries to treat adults who have symptomatic chronic heart failure with reduced ejection fraction (HFrEF). HFrEF is a disease in which the heart cannot pump blood efficiently
  - In the US and other countries to treat adult patients with chronic heart failure with preserved ejection fraction (HFpEF). HFpEF is a disease in which the heart's main pumping chamber (left ventricle) becomes stiff and unable to fill properly with blood
  - In the US, the EU and other countries to treat children and adolescents aged 1 year and older who have symptomatic chronic heart failure with left ventricular systolic dysfunction
  - In China, Japan and other countries to treat adult patients with essential hypertension (abnormally high blood pressure that is not the result of a medical condition)

- *Cosentyx* (secukinumab) is an injectable, fully human monoclonal antibody that selectively inhibits interleukin-17A (IL-17A), a cytokine involved in several immunological diseases. It is approved in the US, the EU and other countries to treat:
  - Adults and children aged 6 years and older with moderate-to-severe plaque psoriasis (this indication is also approved in China). Psoriasis is a debilitating systemic inflammatory disease that is characterized by the appearance of raised, red patches on the skin
  - Adults with active non-radiographic axial spondyloarthritis (nr-axSpA). nr-axSpA is a long-term inflammatory disease that is characterized by chronic back pain and is not visible on X-rays
  - Adults and children (aged 2 years and older in the US and 6 years and older in the EU) with active psoriatic arthritis (PsA). PsA is a type of progressive inflammatory arthritis that results in swollen and painful joints and tendons, which can cause structural damage to the bones and joints
  - Adults with active ankylosing spondylitis (AS). AS is a progressive inflammatory disease that is characterized by chronic back pain, is generally visible on X-rays, and can cause structural damage to the bones and joints
  - Children (aged 4 years and older in the US and 6 years and older in the EU) with active enthesitis-related arthritis (ERA) and children (aged 2 years and older in the US and 6 years and older in the EU) with active juvenile psoriatic arthritis (JPsA). ERA and JPsA are subtypes of juvenile idiopathic arthritis. If left untreated, they can lead to high levels of pain and disability
  - Adults with moderate to severe hidradenitis suppurativa (HS). HS is a chronic skin disease that causes recurring boil-like lumps that may burst into open wounds and cause irreversible scarring, often in the most intimate parts of the body

  An intravenous formulation of *Cosentyx* is approved in the US for the treatment of adults with active PsA, AS and nr-axSpA.

- *Kesimpta* (ofatumumab) is an anti-CD20 monoclonal antibody that enables the targeted depletion of B-cells, specifically in lymph nodes. *Kesimpta* is the only B-cell treatment for relapsing multiple sclerosis that is self-administered once-monthly via the *Sensoready* autoinjector pen, following three weekly starter doses. It is approved:
  - In the US to treat adults with relapsing forms of multiple sclerosis, including clinically isolated syndrome, relapsing-remitting multiple sclerosis and active secondary progressive multiple sclerosis. Multiple sclerosis is a disease in which the immune system attacks the protective covering of nerves (known as myelin)
  - In the EU to treat adults with relapsing forms of multiple sclerosis with active disease defined by clinical or imaging features (i.e., relapse, disability, or lesions detected by MRI scans)

  Approved indications vary across other countries. Ofatumumab was originally developed by Genmab and licensed to GlaxoSmithKline (GSK). Novartis obtained the rights to ofatumumab from GSK across all indications.

- *Kisqali* (ribociclib) is a selective oral cyclin-dependent inhibitor of kinases 4 and 6 (CDK4/6) – two enzymes involved in the control of cell cycle progression. *Kisqali* is approved in the US, the EU and other countries to treat:
  - Pre-, peri- and postmenopausal women, and men (US and other countries), with locally advanced or metastatic hormone receptor-positive (HR+)/human epidermal growth factor receptor 2-negative (HER2-) breast cancer, in combination with an aromatase inhibitor as initial endocrine-based therapy. HR+/HER2- breast cancer is the most common subtype of breast cancer
  - Pre-, peri- (EU) and postmenopausal women, and men (US), with locally advanced or metastatic HR+/HER2- breast cancer, in combination with fulvestrant, as a first- or second-line therapy

- Adults with HR+/HER2- stage II and III early breast cancer at high risk of recurrence, as an adjuvant treatment in combination with an aromatase inhibitor (US)
- Patients with HR+/HER2- early breast cancer at high risk of recurrence, as an adjuvant treatment in combination with an aromatase inhibitor (EU)

Kisqali was developed by our Biomedical Research organizational unit (formerly the Novartis Institutes for BioMedical Research) under a research collaboration with Astex Pharmaceuticals.

- *Promacta*/*Revolade* (eltrombopag) is a once-daily oral thrombopoietin receptor agonist that works by stimulating bone marrow cells to produce platelets. It is approved in the US, the EU and other countries to treat:
  - Immune thrombocytopenia (ITP) in patients who have had an insufficient response to or have failed previous therapies. ITP is a bleeding disorder caused by an unusually low number of platelets
  - Thrombocytopenia in patients with chronic hepatitis C to allow them to initiate and maintain interferon-based therapy
  - Patients with severe aplastic anemia (SAA). SAA is a condition in which the body does not produce enough blood cells

  Promacta/*Revolade* is marketed under a research, development and license agreement between Novartis and RPI Finance Trust (dba Royalty Pharma), as assignee of Ligand Pharmaceuticals.

- *Tafinlar* + *Mekinist* (dabrafenib + trametinib) is an oral combination therapy. *Tafinlar* and *Mekinist* are kinase inhibitors of the BRAF and MEK1/2 proteins, respectively, approved in combination to treat patients who have certain types of cancer with a change in the BRAF gene (called a BRAF V600 mutation), including:
  - Adults in the US, the EU and other countries with unresectable or metastatic melanoma with a BRAF V600 mutation. Melanoma is a form of skin cancer; unresectable melanoma cannot be removed with surgery and metastatic melanoma has spread to other parts of the body. *Tafinlar* and *Mekinist* are also approved as single agents for this indication
  - Adults in the US, the EU and other countries with stage III melanoma with a BRAF V600 mutation as an adjuvant treatment (following surgery)
  - Adults in the US, the EU and other countries with advanced non-small cell lung cancer (NSCLC) with a BRAF V600 mutation. NSCLC is the most common type of lung cancer
  - Adults and children aged 1 year and older in the US and other countries with unresectable or metastatic solid tumors with a BRAF V600E mutation whose cancer has progressed following prior treatment and who have no satisfactory alternative treatment options
  - Children aged 1 year and older in the US, the EU and other countries with low-grade glioma with a BRAF V600E mutation who require systemic therapy. Low grade gliomas are tumors that develop from brain cells.

  Approved indications and pharmaceutical forms vary by country. *Tafinlar* is provided in capsules and dispersible tablets. *Mekinist* is provided in tablets and powder for oral solution. Novartis has worldwide exclusive rights to develop, manufacture and commercialize trametinib granted by Japan Tobacco Inc.

- *Jakavi* (ruxolitinib) is an oral inhibitor of the JAK1 and JAK2 tyrosine kinases. It is the first JAK1/JAK2 inhibitor approved in the EU and other countries to treat:
  - Adults with myelofibrosis (MF), including primary myelofibrosis, post-polycythemia vera myelofibrosis and post-essential thrombocythemia myelofibrosis. MF is a rare blood cancer characterized by abnormal blood cell production and scarring in the bone marrow, which can lead to an enlarged spleen
  - Adults with polycythemia vera (PV) who are resistant or intolerant to a medication called hydroxyurea. PV is a rare blood cancer in which the bone marrow produces too many red blood cells, resulting in serious problems like clots
  - Patients aged 12 years and older with acute or chronic graft-versus-host disease (GvHD) and who have had an inadequate response to corticosteroids or other systemic therapies. GvHD occurs in stem-cell transplant patients when donor cells see the recipient's healthy cells as foreign and attack them

  Novartis licensed ruxolitinib from Incyte Corporation for development and commercialization in the indications of oncology, hematology and GvHD outside the US. Incyte Corporation markets ruxolitinib as Jakafi® in the US.

- *Tasigna* (nilotinib) is a twice-daily oral tyrosine kinase inhibitor that acts by blocking the BCR-ABL protein. It is approved in the US, the EU and other countries to treat:
  - Patients with Philadelphia chromosome-positive chronic myeloid leukemia (Ph+ CML) in the chronic and/or accelerated phase who are resistant or intolerant to existing treatment. Ph+ CML is a cancer that starts in the blood-forming cells of bone marrow
  - Newly diagnosed adults and children with Ph+ CML in the chronic phase

- *Xolair* (omalizumab) is an injectable prescription medicine and the only approved antibody designed to target and block immunoglobulin E (IgE). It is approved in the US, the EU and other countries to treat:
  - Adults and children aged 6 years and older with moderate-to-severe, or severe, persistent allergic asthma
  - Adults and children aged 12 years and older with chronic spontaneous urticaria/chronic idiopathic urticaria (hives)
  - Adults with nasal polyps or severe chronic rhinosinusitis with nasal polyps (CRSwNP). CRSwNP is a chronic inflammation of the nose and the sinuses with the presence of benign lesions (nasal polyps) on the lining of the nasal sinuses or nasal cavity

  Approved indications and pharmaceutical forms vary by country. *Xolair* is provided as lyophilized powder for reconstitution, and as liquid formulation in a pre-filled

syringe and pre-filled pen. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of operating income, but Novartis does not record any US sales. Novartis records all sales of *Xolair* outside the US.

- *Ilaris* (canakinumab) is an injectable, selective, high-affinity, fully human monoclonal antibody that inhibits interleukin-1 beta (IL-1 beta), a key cytokine in the inflammatory pathway. It is approved in the US, the EU and other countries to treat patients with certain debilitating rare autoinflammatory disorders, including:
  - Adults and children with periodic fever syndromes. Periodic fever syndromes are a set of rare disorders characterized by recurrent episodes of illness, with fever as the main symptom
  - Patients with Still's disease, including systemic juvenile idiopathic arthritis and adult-onset Still's disease. Still's disease is a disorder that causes fevers, rash and joint pain
  - Adults with acute gouty arthritis (a non-rare indication). Gouty arthritis is a type of arthritis characterized by pain, redness, tenderness and swelling in one or more joints

  Approved indications vary by country.

- *Pluvicto* (lutetium (^{177}Lu) vipivotide tetraxetan) is an intravenous radioligand therapy combining a targeting compound (a ligand) with a therapeutic radionuclide (a radioactive particle, in this case lutetium-177). *Pluvicto* delivers beta radiation selectively to PSMA-positive cells and the surrounding cells while minimizing off-target effects. It is approved in the US, the EU and other countries to treat:
  - Adults with prostate-specific membrane antigen-positive metastatic castration-resistant prostate cancer (PSMA-positive mCRPC), a type of advanced cancer that has spread to other parts of the body (metastatic). These patients have already been treated with other anticancer treatments (androgen receptor pathway inhibition and taxane-based chemotherapy)

- *Sandostatin* SC (octreotide acetate for injection) and *Sandostatin* LAR (octreotide acetate for injectable suspension) are somatostatin analogs approved in the US, the EU and other countries to treat:
  - Adults with acromegaly that is inadequately controlled by surgery or radiotherapy. Acromegaly is a chronic disease caused by the oversecretion of growth hormone
  - Patients with certain symptoms associated with carcinoid tumors and other types of functional gastrointestinal and pancreatic neuroendocrine tumors

  Sandostatin LAR is also approved in the EU and other countries to treat patients with advanced neuroendocrine tumors of the midgut or of unknown primary tumor origin.

- *Zolgensma* (onasemnogene abeparvovec) is a one-time intravenous gene therapy designed to address the genetic root cause of spinal muscular atrophy (SMA) by replacing the function of the missing or nonworking SMN1 gene. *Zolgensma* delivers a new working copy of the human SMN gene into a patient's cells. It is approved in the US, the EU and other countries to treat:
  - Babies and young children who have SMA with biallelic mutations in the SMN1 gene. SMA is a rare, genetic neuromuscular disease resulting in the progressive and irreversible loss of motor neurons, affecting muscle functions, including breathing, swallowing and basic movement

  Approved indications vary by country.

- *Lucentis* (ranibizumab) is a humanized, high-affinity antibody fragment that binds to vascular endothelial growth factor A (VEGF-A), a protein that can cause the growth of blood vessels in the eye, potentially leading to vision loss. *Lucentis* is an anti-VEGF therapy that is injected into the eye. It is approved in the EU and other countries to treat patients with certain eye conditions, including:
  - Adults with neovascular (wet) age-related macular degeneration (AMD). Wet AMD develops when abnormal blood vessels grow under the macula and leak blood and other fluids in the back of the eye, which damages the macula
  - Adults with proliferative diabetic retinopathy, moderately severe to severe non-proliferative diabetic retinopathy, and/or visual impairment due to diabetic macular edema. These conditions are complications of diabetes
  - Adults with visual impairment due to macular edema secondary to retinal vein occlusion (branch RVO or central RVO). Retinal vein occlusion is a blockage of the branch or central retinal veins, which carry blood away from the retina

  Approved indications vary by country. *Lucentis* is licensed from Genentech, and Novartis holds the rights to commercialize the product outside the US. Genentech holds the rights to commercialize *Lucentis* in the US.

- *Leqvio* (inclisiran) is the first and only approved small-interfering RNA therapy to reduce LDL cholesterol, a risk factor for atherosclerotic cardiovascular disease (ASCVD), which is caused by plaque buildup in the arteries. Leqvio is administered by a healthcare professional twice a year as an injection, except in the first year of treatment where, following an initial dose, another dose is required after three months. It is approved:
  - In the EU and other countries to treat adults with primary hypercholesterolemia (heterozygous familial and non-familial) or mixed dyslipidemia as an adjunct to diet. Leqvio is used in combination with a statin or statin with other lipid-lowering therapies in patients unable to reach LDL cholesterol goals with the maximum tolerated dose of a statin, or alone or in combination with other lipid-lowering therapies in patients who are statin-intolerant or for whom a statin is contraindicated. Primary hypercholesterolemia and mixed dyslipidemia are disorders characterized by high levels of fats (lipids) in the blood

  - In the US to treat adults with primary hyperlipidemia, including heterozygous familial hypercholesterolemia (HeFH), as an adjunct to diet and statin therapy to reduce LDL cholesterol. Primary hyperlipidemia, also known as high cholesterol, is characterized by high levels of fats in the blood

  Novartis obtained global rights to develop, manufacture and commercialize *Leqvio* under a license and collaboration agreement with Alnylam Pharmaceuticals, Inc.

- *Lutathera* (lutetium Lu 177 dotatate/lutetium (^{177}Lu) oxodotreotide) is an intravenous targeted radioligand therapy approved in the US, the EU and other countries to treat:
  - Patients with somatostatin receptor-positive gastroenteropancreatic neuroendocrine tumors (GEP-NETs). GEP-NETs are rare tumors found in the digestive tract

  Approved indications vary by country.

- *Scemblix* (asciminib) is an oral kinase inhibitor that works by binding to a part of the BCR-ABL protein called the ABL myristoyl pocket. It is approved:
  - In the EU and other countries to treat adults with Philadelphia chromosome-positive chronic myeloid leukemia (Ph+ CML) in the chronic phase (CP) who have previously been treated with two or more tyrosine kinase inhibitors (TKIs). Ph+ CML is a cancer that starts in the blood-forming cells of bone marrow
  - In the US to treat both newly diagnosed, and previously treated adults with Ph+ CML in CP
  - In the US and other countries to treat adults with Ph+ CML in the chronic phase with the T315I mutation. The T315I mutation causes resistance to most available TKI therapies and, as a result, patients with this mutation would otherwise have limited treatment options

- *Fabhalta* (iptacopan) is an oral Factor B inhibitor of the alternative complement pathway, a part of the innate immune system involved in triggering inflammation and fighting infections. It is approved:
  - In the US, the EU and other countries to treat adults with paroxysmal nocturnal hemoglobinuria (PNH). PNH is a rare chronic blood disorder in which red blood cells are susceptible to premature destruction by the complement system
  - In the US, for the reduction of proteinuria in adults with primary immunoglobulin A nephropathy (IgAN) at risk of rapid disease progression (generally UPCR ≥1.5 g/g). IgAN is a progressive, rare disease in which the immune system attacks the kidneys, which can cause glomerular inflammation and proteinuria

Compounds in development

The following table provides an overview of key projects currently in the Confirmatory Development stage and may also describe certain projects in the Early Development stage. Projects typically enter Confirmatory Development and become the responsibility of our Development organizational unit during Phase II testing. (For more information about our drug development program, see "—Research and development—Development program.") Projects are listed in alphabetical order by compound code, or by product name where applicable. Included are projects seeking to develop potential uses of new molecular entities as well as potential additional indications or new formulations for already marketed products. The table below, entitled "Projects removed from the development table since 2023," highlights changes to the table entitled "Selected development projects" from the previous year.

The year that each project entered the current phase of development refers to the year of the first patient's first visit in the first clinical trial of that phase. For projects in Phase II, the year generally refers to the first patient's first visit in the first trial in Confirmatory Development. In some cases, the first patient's first visit in a Phase II trial can occur before the Confirmatory Development stage.

A reference to a project being in registration means that an application has been submitted to a health authority for marketing approval. Compounds and new indications in development are subject to required regulatory approvals and, in certain instances, contractual limitations. These compounds and indications are in various stages of development throughout the world. It may not be possible to obtain regulatory approval for any or all of the new compounds and new indications referred to in the Form 20-F in any country or in every country. See "—Regulation" for more information on the approval process.

Selected development projects

Compound/ product	Common name	Mechanism of action	Potential indication	Category	Formulation/ route of administration	Year project entered current development phase	Planned filing dates/current phase
AVXS-101 (OAV101)	onasemno-gene abepar-vovec	Survival motor neuron (SMN) gene therapy	Spinal muscular atrophy (IT formulation)	Neuroscience	Intrathecal injection	2021	2025/III
Beovu	brolucizumab	VEGF inhibitor	Diabetic retinopathy	Global Health	Intravitreal injection	2024	Registration
Coartem	artemether + lumefantrine	PGH-1 (artemisinin combination therapy)	Malaria, uncomplicated (<5 kg patients)	Global Health	Oral	2024	Registration [1]
Cosentyx	secukinumab	IL-17A inhibitor	Giant cell arteritis	Immunology	Subcutaneous injection	2021	2025/III
			Polymyalgia rheumatica	Immunology	Subcutaneous injection	2023	2026/III
DAK539 [2]	pelabresib	BET inhibitor	Myelofibrosis	Oncology	Oral	2024	TBD / III
EXV811	atrasentan	ETA receptor antagonist	IgA nephropathy	Cardiovascular, Renal and Metabolic	Oral	2024	US registration
Fabhalta (LNP023)	iptacopan	CFB inhibitor	C3 glomerulopathy	Cardiovascular, Renal and Metabolic	Oral	2024	US, EU registration
			IC-MPGN	Cardiovascular, Renal and Metabolic	Oral	2023	≥2028/III
			Atypical hemolytic uremic syndrome	Oncology	Oral	2021	≥2028/III
			Myasthenia gravis [3]	Neuroscience	Oral	2024	2027/III
FUB523	zigakibart	Anti-APRIL monoclonal antibody	IgA nephropathy	Cardiovascular, Renal and Metabolic	Subcutaneous injection	2023	2027/III
KAE609	cipargamin	PfATP4 inhibitor	Malaria, uncomplicated	Global Health	Oral	2017	≥2028/II
			Malaria, severe	Global Health	Intravenous infusion	2022	≥2028/II
KLU156	ganaplacide + lumefantrine	Non-artemisinin plasmodium falciparum inhibitor	Malaria, uncomplicated	Global Health	Oral	2024	2026/III
Leqvio	inclisiran	siRNA (regulation of LDL-C)	Secondary prevention of cardiovascular events in patients with elevated levels of LDL-C	Cardiovascular, Renal and Metabolic	Subcutaneous injection	2018	2027/III
			Primary prevention cardiovascular risk reduction	Cardiovascular, Renal and Metabolic	Subcutaneous injection	2023	≥2028/III
LOU064	remibrutinib	BTK inhibitor	Chronic spontaneous urticaria	Immunology	Oral	2021	2025/III
			Chronic inducible urticaria	Immunology	Oral	2023	2026/III
			Multiple sclerosis	Neuroscience	Oral	2021	2027/III
			Myasthenia gravis [3]	Neuroscience	Oral	2024	≥2028/III
Lutathera	lutetium Lu 177 dotatate/ lutetium (^{177}Lu) oxodotreotide	Radioligand therapy targeting SSTR	Gastroenteropancreatic neuroendocrine tumors, 1st line in G2/3 tumors	Oncology	Intravenous infusion	2024	EU registration
LXE408	TBD	Proteasome inhibitor	Visceral leishmaniasis	Global Health	Oral	2022	≥2028/II
Pluvicto	lutetium Lu 177 vipivotide tetraxetan/ lutetium (^{177}Lu) vipivotide tetraxetan	Radioligand therapy targeting PSMA	Metastatic castration-resistant prostate cancer, pre-taxane	Oncology	Intravenous infusion	2024	US registration
			Metastatic hormone-sensitive prostate cancer	Oncology	Intravenous infusion	2021	2025/III
			Oligometastatic prostate cancer [3]	Oncology	Intravenous infusion	2024	≥2028/III
TQJ230	pelacarsen	ASO targeting lipoprotein(a)	Secondary prevention of cardiovascular events in patients with elevated levels of lipoprotein(a)	Cardiovascular, Renal and Metabolic	Subcutaneous injection	2019	2026/III

[1] Submission will use the MAGHP procedure in Switzerland to facilitate rapid approvals in the developing countries who are included in the MAGHP procedure
[2] Entered confirmatory development following the acquisition of MorphoSys AG
[3] Project added to selected development projects table in 2024 – entered Confirmatory Development

Compound/ product	Common name	Mechanism of action	Potential indication	Category	Formulation/ route of administration	Year project entered current development phase	Planned filing dates/current phase
VAY736	ianalumab	BAFF-R inhibitor	Lupus nephritis	Immunology	Subcutaneous injection	2022	≥2028/III
			Sjögren's syndrome	Immunology	Subcutaneous injection	2022	2026/III
			Systemic lupus erythematosus	Immunology	Subcutaneous injection	2023	≥2028/III
			Systemic scleroderma [3]	Immunology	Subcutaneous injection	2024	≥2028/II
			Immune thrombocytopenia, 1st line	Oncology	Intravenous infusion	2023	2027/III
			Immune thrombocytopenia, 2nd line	Oncology	Intravenous infusion	2023	2027/III
			Warm autoimmune hemolytic anemia (wAIHA)	Oncology	Intravenous infusion	2022	2027/III
Vijoice	alpelisib	PI3K-alpha inhibitor	Lymphatic malformations	Oncology	Oral	2023	≥2028/III
YTB323	rapcabtagene autoleucel	CD19 CAR-T	Severe refractory lupus nephritis/ systemic lupus erythematosus	Immunology	Intravenous infusion	2023	≥2028/II
			High-risk large B-cell lymphoma, 1st line	Oncology	Intravenous infusion	2023	≥2028/II
			Systemic scleroderma [3]	Immunology	Intravenous infusion	2024	≥2028/II
			Myositis [3]	Immunology	Intravenous infusion	2024	≥2028/II

[1] Submission will use the MAGHP procedure in Switzerland to facilitate rapid approvals in the developing countries who are included in the MAGHP procedure
[2] Entered confirmatory development following the acquisition of MorphoSys AG
[3] Project added to selected development projects table in 2024 – entered Confirmatory Development

Projects removed from the development table since 2023

Compound/product	Potential indication	Change	Reason
Fabhalta	IgA nephropathy	Commercialized	
Kisqali	Hormone receptor-positive (HR+)/human epidermal growth factor receptor 2-negative (HER2-) early breast cancer (adjuvant)	Commercialized	
Scemblix	Chronic myeloid leukemia, 1st line	Commercialized	
Xolair	Food allergy	Commercialized	
Cosentyx	Rotator cuff tendinopathy	Removed	Development discontinued
CFZ533	Sjögren's syndrome	Removed	Development discontinued
JDQ443	Non-small cell lung cancer (monotherapy and/or combination therapy)	Removed	Development discontinued
LNA043	Osteoarthritis	Removed	Development discontinued
QGE031	Food allergy	Removed	Development discontinued
XXB750	Hypertension	Removed	Development discontinued

Principal markets

Novartis sells products in approximately 120 countries worldwide. Net sales are primarily concentrated in the US and Europe. The following table sets forth aggregate net sales by region for each of the last three years:

	2024 net sales		2023 net sales		2022 net sales	
	USD millions	%	USD millions	%	USD millions	%
United States	21 146	42	17 959	40	15 935	38
Europe	15 557	31	14 997	33	14 371	34
Asia, Africa, Australasia	10 021	20	9 308	20	8 978	21
Canada and Latin America	3 593	7	3 176	7	2 922	7
Total	**50 317**	**100**	**45 440**	**100**	**42 206**	**100**
Of which in established markets [1]	37 371	74	33 725	74	31 386	74
Of which in emerging growth markets [1]	12 946	26	11 715	26	10 820	26

[1] Emerging growth markets comprise all markets other than the established markets of the US, Canada, Western Europe, Japan, Australia and New Zealand. Novartis definition of Western Europe includes Austria, Belgium, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Many of our products are used for chronic conditions that require patients to continue dosing of the product over long periods of time, ranging from months to years. However, certain of our marketed products and development projects, such as cell and gene therapies, are administered only once. Net sales of the vast majority of our products are not subject to material changes in seasonal demand.

Production

Our primary goal is to ensure the uninterrupted and timely supply of medicines that meet all product specifications and quality standards, and that are produced in the most cost-effective and sustainable manner. The manufacturing of our products is highly regulated by governmental health authorities around the world, including the US Food and Drug Administration (FDA) and European Medicines Agency (EMA). In addition to regulatory requirements, many of our products involve technically complex manufacturing processes or require highly specialized raw materials.

We manufacture our products across the following technologies at facilities worldwide: large molecules, small molecules, cell and gene therapy, xRNA therapy and radioligand therapy (see also "—Item 4.D Property, plants and equipment"). We are continuing to integrate ADACAP manufacturing sites into our existing manufacturing and supply structure for radioligand therapies. In addition, we generate contract manufacturing sales from chemistry, biotherapeutics, xRNA and cell and gene therapy, including fill and finish activities, which we include under "established brands" in our consolidated financial statements (see "Item 18. Financial Statements—Note 4. Revenues and geographic information").

In our manufacturing network, we maintain state-of-the-art processes, with quality as a priority, and require our suppliers to adhere to the same high standards we expect from our own people and processes. These processes include chemical and biological syntheses; radioisotope handling; sterile processing, including CAR-T cell processing; gene modification and delivery; and formulation and packaging. We are constantly working to improve our existing manufacturing processes, develop new and innovative technologies, and review and adapt our manufacturing network to maintain quality in our manufacturing processes and supply of products to customers and patients.

We produce raw materials for manufacturing in-house or purchase them from third-party suppliers. Where possible, we maintain multiple supply sources so that the business is not dependent on a single or limited number of suppliers. However, our ability to do so may at times be limited by regulatory or other requirements. We monitor market developments that could have an adverse effect on the supply of essential materials. Our suppliers of raw materials are required to comply with applicable regulations and Novartis quality standards.

Because the manufacturing of our products is complex and highly regulated by governmental health authorities and other regulators, uninterrupted supply cannot be guaranteed. If we or our third-party suppliers fail to comply with applicable regulations, then there could be a product recall or other disruption to our production activities. We have experienced supply interruptions for our products in the past, and there can be no assurance that supply will not be interrupted again in the future. For more information on the risks related to the manufacturing of our products, see "Item 3. Key Information—Item 3.D Risk factors—Manufacturing and product quality—Inability to ensure proper controls in product development and product manufacturing, and failure to comply with applicable regulations and standards." We have implemented a global manufacturing strategy to maximize business continuity in case of such events.

Marketing and sales

Although specific distribution patterns vary by country, Novartis generally sells its prescription drugs primarily to drug wholesalers, retailers, private health systems, government agencies, managed care providers, pharmacy benefit managers, and government-supported healthcare systems. We reach healthcare professionals and patients in many markets and across our core therapeutic areas through integrated channels including field force operations, patient support programs and Novartis-owned digital platforms.

We have 19 135 full-time equivalent field force employees, as of December 31, 2024, including supervisors and administrative personnel. These trained representatives present the therapeutic benefits and risks of our products to physicians, pharmacists, hospitals, insurance groups, managed care organizations and other healthcare professionals. In the US, Novartis advertises certain products via digital and traditional media channels, including the internet, television, newspapers and magazines. Novartis also pursues co-promotion or co-marketing opportunities as well as licensing and distribution agreements with other companies in various markets.

The marketplace for healthcare is constantly evolving. Customer groups beyond prescribers have increasing influence on treatment decisions and guidelines, while patients continue to become more informed stakeholders in their healthcare decisions and look for solutions to meet their changing needs. Novartis is responding by adapting our business practices to engage appropriately with patients, customer groups and other stakeholders, including by delivering innovative solutions to drive education, access and improved patient care.

The growing number of so-called "specialty" drugs in our portfolio, such as *Cosentyx* and *Kesimpta*, has resulted in increased engagement with specialty pharmacies. Because many of these drugs require special handling and administration, we are rolling out patient support programs across our priority markets that serve as a central resource for onboarding, education and support to help patients navigate their healthcare.

In the US, the US Centers for Medicare & Medicaid Services (CMS) is the largest single payer for healthcare services as a result of continuing changes in healthcare economics and an aging population. In addition, both commercial and government-sponsored managed care organizations continue to be among the largest groups of payers for healthcare services in the US. In other countries, national health services are often the only significant payer for healthcare services. In an effort to control prescription drug costs, almost all managed care organizations and national health services use formularies that list specific drugs that may be reimbursed and/or the level of reimbursement for each drug. Managed care organizations and national health services also use cost-benefit analyses to determine whether or not newly approved drugs will be added to a formulary and/or the level of reimbursement for that drug, and to determine whether or not to continue to reimburse existing drugs.

We have dedicated teams that actively seek to optimize patient access, including formulary positions, for our products.

The trend toward consolidation among distributors and retailers of our products continues in the US and internationally, both within and across countries. This has increased our customers' purchasing leverage and resulted in increased pricing pressure on our products. Moreover, we are exposed to increased concentration of credit risk as a result of the consolidation among our customers.

Drug pricing is an increasingly prominent issue in many countries as healthcare spending continues to rise. This issue has received significant attention in the US, especially with the passage of the Inflation Reduction Act (see "—Price controls" for more information). At Novartis, we aim to enable patient access through innovative pricing and access initiatives in the US, Europe and other markets. These include contract structures such as pay-over-time and outcome-based agreements.

Competition

The global pharmaceutical market is highly competitive. We compete against other major international corporations that have substantial financial and other resources, as well as against smaller companies that operate regionally or nationally. Competition within the industry is intense and extends across a wide range of activities, including pricing, product characteristics, customer service, sales and marketing, and research and development.

Like other companies selling patented pharmaceuticals, Novartis faces challenges from companies selling competing patented products. Generic forms of our products may follow the expiration of intellectual property protection or regulatory exclusivities, and generic companies may also gain entry to the market through successfully challenging our intellectual property rights and exclusivities. We use appropriate, legally permissible measures to defend those rights and exclusivities (see also "—Intellectual property" below).

There is ongoing consolidation in the pharmaceutical industry. At the same time, new entrants are looking to use their expertise to establish or expand their presence in healthcare. Technology companies, for instance, are seeking to benefit from the increasing importance of data and data management in our industry, including the use of artificial intelligence.

Research and development

The discovery and development of a new drug usually requires approximately 10 to 15 years from the initial research to bringing a drug to market. This includes approximately six to eight years from Phase I clinical trials to market entry. At each of these steps, there is a substantial risk that a therapeutic candidate will not meet the requirements to progress further. In such an event, we may be required to abandon the development of a potential therapy in which we have made a substantial investment.

We manage our research and development expenditures across our entire portfolio in accordance with our strategic priorities. We make decisions about whether or not to proceed with development projects on a project-by-project basis. These decisions are based on the project's potential to meet a significant unmet medical need or to improve patient outcomes, the strength of the science underlying the project, and the potential of the project (subject to the risks inherent in pharmaceutical development) to generate significant positive financial results for the Company. Once a management decision has been made to proceed with the development of a therapeutic candidate, the level of research and development investment required will be driven by many factors. These include the medical indications for which it is being developed, the number, sequence and timing of indications being pursued, whether the therapeutic candidate is of a chemical or biological nature, the stage of development, and the level of evidence necessary to demonstrate clinical efficacy and safety.

Research program

Our research and early development program is conducted by our Biomedical Research organizational unit, which is the innovation engine of Novartis. This unit is responsible for the discovery and first clinical evaluation of new medicines that bring value for patients and the Company. This requires hiring and retaining highly talented employees, focusing on fundamental disease mechanisms that are relevant across different disease areas, continuously improving technologies for drug discovery and potential therapies, working with patients to understand their diseases and the potential benefits of therapies, forming close alliances with clinical and commercial colleagues, and establishing strategic external alliances.

We have 5 582 full-time-equivalent scientists, physicians and business professionals at Biomedical Research sites in Basel, Switzerland; Cambridge, Massachusetts; East Hanover, New Jersey; San Diego, California; and Emeryville, California. They contribute to research in our core therapeutic areas of cardiovascular, renal and metabolic diseases; neuroscience; oncology; and immunology, among others. Research at the Friedrich Miescher Institute focuses on basic genetic and genomic research, and our Global Health Disease Area (formerly the Novartis Institute for Tropical Diseases) focuses on discovering new medicines to fight tropical diseases, including malaria and cryptosporidiosis.

All drug candidates go through clinical trials to enable an early assessment of the safety and efficacy of the drug while collecting basic information on how the drug moves through the body and is tolerated, and adhering to the guidance for early clinical testing set forth by health authorities. When assessments are favorable, our Development organizational unit conducts confirmatory trials on the drug candidates to generate data that can be submitted to regulatory authorities to secure approval for patient use.

Development program

Our Development organizational unit oversees and executes drug development activities in our core therapeutic areas, working collaboratively with Biomedical Research, our commercial units and other parts of the Company on our overall pipeline strategy. It includes centralized functions such as Regulatory Affairs, Medical Affairs and Global Clinical Operations, and has 12 773 full-time equivalent employees worldwide.

The traditional model of clinical development consists of three phases:

Phase I: The first clinical trials of a new compound – generally performed in a small number of healthy human volunteers or patients (e.g., in oncology) – to assess the drug's safety profile, including the safe dosage range. These trials also determine how a drug is absorbed, distributed, metabolized and excreted, and the duration of its action.

Phase II: Studies performed with patients who have the target disease, with the aim of continuing the Phase I safety assessment in a larger group, assessing the efficacy of the drug in the patient population, and determining the appropriate doses for further evaluation.

Phase III: Large-scale studies with up to several thousand patients, which aim to establish the safety and efficacy of the drug in specific indications for regulatory approval. Phase III trials may also be used to compare a new drug against a current standard of care to evaluate the overall benefit-risk relationship of the new medicine.

In each of these phases, physicians monitor consenting volunteers or patients closely to assess the safety and efficacy of a potential new drug or indication.

Although we use this traditional model, we take a flexible and efficient approach based on close collaboration across R&D, enabling Development teams to initiate later-stage planning in parallel with early evaluations and research teams to better support later-stage activities.

Our development process consists of two stages: Early Development to build confidence in the overall properties of the compound, followed by Confirmatory Development to confirm the concept in large numbers of patients. Early development consists of both Phase I studies in healthy volunteers as well as Phase Ib and Phase II studies in patients. This work includes a careful review of safety and tolerability, understanding of whether the drug is modulating the target of interest, and understanding of dose response and early evidence of disease efficacy. Biomedical Research conducts these trials and if this evaluation is positive, the drug moves to the Confirmatory Development stage and becomes the responsibility of Development.

Confirmatory Development has elements of traditional Phase II/III testing and includes trials aimed at confirming the safety and efficacy of the drug in the given indication, leading up to submission of a dossier to health authorities for approval. This stage can also include trials that compare the drug to the current standard of care for the disease in order to evaluate the drug's overall benefit-risk profile. Further, with new treatment approaches such as gene therapy for rare diseases, elements of Early and Confirmatory Development may be combined and suffice for registration under certain conditions such as high unmet medical need and clinical data showing highly favorable benefit-risk profiles. In these cases, additional post-approval studies may be required by the regulatory authorities to continue to gather important data to further support approval.

The vast amount of data that must be collected and evaluated makes clinical testing the most time-consuming and expensive part of new drug development. The next stage in the drug development process is to seek registration for the new drug. For more information, see "—Regulation."

The Innovation Management Board (IMB), chaired by our Chief Executive Officer, drives our R&D portfolio strategy. The IMB endorses new early- and late-stage development projects, strategic plans and portfolio-related priorities. It oversees our drug development budget; approves major project phase transitions; and makes key decisions, such as when to submit regulatory applications to health authorities or when to discontinue projects. IMB members include representatives from the Executive Committee of Novartis (ECN) and senior management with expertise in different fields.

To support our R&D strategy, we are investing in AI and other technologies that have the potential to enhance and accelerate the delivery of innovative medicines to patients. We are working with partners on scalable projects in early-stage research and in clinical development to help improve our decision-making and generate actionable insights across our core therapeutic areas—from designing new compounds to predicting drug safety and conducting clinical trials. In addition, we are continuously adapting our organizational setup to drive a leading and sustainable R&D performance, by building future capabilities across our Development organization and accessing global talent pools.

Alliances and acquisitions

Novartis enters into business development agreements with other pharmaceutical and biotechnology companies and with academic and other institutions to develop new products and access new markets. We license products that complement our current product line and are appropriate to our business strategy. We focus on strategic alliances and acquisition activities for key disease areas and indications that we expect to be growth drivers in the future. We review products and compounds we are considering licensing, using the same criteria that we use for our own internally discovered drugs.

In May 2024, Novartis acquired Mariana Oncology, a US based, preclinical biotechnology company focused on developing novel radioligand therapies across a range of solid tumors. The acquisition brings a robust portfolio of RLT programs, including MC-339, an actinium-based RLT being investigated in small cell lung cancer.

In May 2024, Novartis acquired an 89.7% interest in MorphoSys AG, a German based biopharmaceuticals company, which owns the following assets: pelabresib (late-stage BET inhibitor for myelofibrosis) and tulmimetostat (early-stage dual EZH2 and EZH1 inhibitor for solid tumors or lymphomas). In October 2024, Novartis completed the acquisition of the remaining outstanding

shares of MorphoSys AG, making MorphoSys AG a wholly-owned subsidiary of Novartis.

Additionally in October 2024, Novartis acquired Kate Therapeutics, Inc., a US based, preclinical biotechnology company focused on developing adeno-associated viruses (AAV)-based gene therapies to treat genetically defined muscle and heart diseases.

For more information about recent business acquisitions, see "Item 18. Financial Statements—Note 2. Significant acquisitions of businesses and spin-off of Sandoz business."

Regulation

The international pharmaceutical industry is highly regulated. Regulatory authorities around the world administer numerous laws and regulations regarding the testing, approval, manufacturing, importing, labeling and marketing of drugs, and review the safety and efficacy of pharmaceutical products. Extensive controls exist on the non-clinical and clinical development of pharmaceutical products. These regulatory requirements, and the implementation of them by local health authorities around the globe, are a major factor in determining whether a substance can be developed into a marketable product, and the amount of time and expense associated with that development.

Health authorities, including those in the US and the EU, have high standards of technical evaluation. The introduction of new pharmaceutical products generally entails a lengthy approval process. Products must be authorized or registered prior to marketing, and such authorization or registration must subsequently be maintained. In recent years, the registration process has required increased testing and documentation for the approval of new drugs, with a corresponding increase in the expense of product introduction.

To register a pharmaceutical product, a registration dossier containing evidence establishing the safety, efficacy and quality of the product must be submitted to regulatory authorities. Generally, a therapeutic product must be registered in each country in which it will be sold. In every country, the submission of an application to a regulatory authority does not guarantee that approval to market the product will be granted. Although the criteria for the registration of therapeutic drugs are similar in most countries, the formal structure of the necessary registration documents and the specific requirements, including risk tolerance, of the local health authorities can vary significantly from country to country. Even if a drug is registered and marketed in one country, the registration authority in another country may request additional information from the pharmaceutical company prior to registration or even reject the product. A drug may be approved for different indications in different countries.

The registration process generally takes between six months and several years, depending on the country, the quality of the data submitted, the efficiency of the registration authority's procedures, and the nature of the product. Many countries provide for accelerated processing of registration applications for innovative products of particular therapeutic interest. In recent years, the US and the EU have made efforts to harmonize registration requirements in order to achieve shorter development and registration times for medical products. However, the requirement in many countries to negotiate selling prices or reimbursement levels with government regulators and other payers can substantially extend the time until a product may finally be available to patients.

The following provides a summary of the regulatory processes in the principal markets served by our affiliates:

United States

In the US, applications for drug registration are submitted to and reviewed by the FDA. The FDA regulates the testing, manufacturing, labeling and approval for marketing of pharmaceutical products intended for commercialization in the US. The FDA continues to monitor the safety of pharmaceutical products after they have been approved for sale in the US market. The pharmaceutical development and registration process is typically intensive, lengthy and rigorous. When a pharmaceutical company has gathered data that it believes sufficiently demonstrates a drug's safety, efficacy and quality, the company may file a New Drug Application (NDA) or Biologics License Application (BLA), as applicable, for the compound. The NDA or BLA must contain all the scientific information that has been gathered about the compound. This typically includes information regarding the clinical experiences of patients tested in the drug's clinical trials. A Supplemental New Drug Application (sNDA) or Supplemental Biologics License Application (sBLA) must be filed for new indications and dosage forms for a previously approved drug.

Once an application is submitted, the FDA assigns reviewers from its staff, including experts in biopharmaceutics, chemistry, clinical microbiology, pharmacology/toxicology, and statistics. After a complete review, these content experts provide written evaluations of the NDA or BLA. These recommendations are consolidated and are used by senior FDA staff in its final evaluation of the NDA or BLA. Based on that final evaluation, the FDA then either approves the NDA or BLA, or provides a "complete response" letter if the NDA or BLA application is not approved. If not approved, the letter will state the specific deficiencies in the NDA or BLA that need to be addressed. The company making the application must then submit an adequate response to the deficiencies in order to restart the review procedure.

Once the FDA has approved an NDA, BLA, sNDA or sBLA, the company can make the new drug available for physicians and other healthcare providers to prescribe. The drug owner must submit periodic reports to the FDA, including any cases of adverse reactions. For some medications, the FDA requires additional post-approval studies (Phase IV) to evaluate long-term effects or to gather information on the use of the product under specified conditions.

Throughout the life cycle of a product, the FDA requires compliance with standards relating to good laboratory, clinical and manufacturing practices. The FDA also requires compliance with rules pertaining to the manner in which we may promote our products.

European Union

In the EU, there are three main procedures for application for authorization to market pharmaceutical products in more than one EU member state at the same time: the centralized procedure, the mutual recognition procedure and the decentralized procedure. It is also possible to obtain a national authorization for products intended for commercialization in a single EU member state only. The procedure used for first authorization must continue to be followed for subsequent changes, e.g., to add an indication for a licensed product.

Under the centralized procedure, applications are made to the EMA for an authorization that is valid for the European Union (all member states). The centralized procedure is mandatory for all biotechnology products; new chemical entities in cancer, neurodegenerative disorders, diabetes, AIDS, autoimmune diseases and other immune dysfunctions; advanced therapy medicines, such as gene therapy, somatic cell therapy and tissue-engineered medicines; and orphan medicines (medicines for rare diseases). It is optional for other new chemical entities, innovative medicinal products, and medicines for which authorization would be in the interest of public health. When a pharmaceutical company has gathered data that it believes sufficiently demonstrates a drug's safety, efficacy and quality, the company may submit an application to the EMA. The EMA then receives and validates the application, and the specialized committee for human medicines, the CHMP, appoints a rapporteur and co-rapporteur to review it. They use experts from their countries to carry out the assessment but can also draw on expertise from other member states ("multinational teams"). The entire review cycle must be completed within 210 days, although there are "clock stops" to allow the company to respond to questions set forth in the rapporteur and co-rapporteur's assessment report and agreed with the CHMP. The first clock stop is at Day 120 and the clock restarts on Day 121, when the company's complete response is received by the EMA. If there are further aspects of the dossier requiring clarification, the CHMP will issue further questions at Day 180, and may also request an oral explanation, in which case the sponsor must not only respond to the further questions but also appear before the committee to justify its responses. On Day 210, the CHMP will take a vote to recommend the approval or non-approval of the application, and their opinion is transferred to the European Commission (EC). The final EC decision under this centralized procedure is a single decision that is applicable to all member states. This decision occurs 60 days, on average, after a positive CHMP recommendation.

Under both the mutual recognition procedure (MRP) and the decentralized procedure (DCP), the assessment is led by one member state, called the reference member state (RMS), which then liaises with other member states, known as the concerned member states. In the MRP, the company first obtains a marketing authorization in the RMS, which is then recognized by the concerned member states within 90 days. In the DCP, the application is done simultaneously in the RMS and all concerned member states. During the DCP, the RMS drafts an assessment report within 120 days. Within an additional 90 days, the concerned member states review the application and can issue objections or requests for additional information. On Day 90, each concerned member state must be assured that the product is safe and effective, and that it will cause no undue risks to the public health. Once an agreement has been reached, each member state grants national marketing authorizations for the product.

After receiving the marketing authorizations, the company must submit periodic safety reports to the relevant health authority (EMA for the centralized procedure, national health authorities for DCP or MRP). In addition, pharmacovigilance measures must be implemented and monitored, including the collection, evaluation and expedited reporting of adverse events, and updates to risk management plans. For some medications, post-approval studies (Phase IV) may be imposed to complement available data with additional data to evaluate long-term effects (called a Post-Approval Safety Study, or PASS) or to gather additional efficacy data (called a Post-Approval Efficacy Study, or PAES).

European marketing authorizations have an initial duration of five years. The holder of the marketing authorization must actively apply for its renewal after this first five-year period. As part of the renewal procedure, the competent authority performs a full benefit-risk review of the product. Should the authority conclude that the benefit-risk balance is no longer positive, the marketing authorization can be suspended or revoked. Once renewed, the marketing authorization is valid for an unlimited period, unless it is determined that the product must be further monitored for safety reasons. In this case, the authority may require another renewal at 10 years. If the holder does not apply for renewal, the marketing authorization automatically lapses. Any marketing authorization that is not followed within three years of its granting by the actual placing on the market of the corresponding medicinal product ceases to be valid.

Price controls

In most of the markets where we operate, the prices of pharmaceutical products are subject to both direct and indirect price controls and to drug reimbursement programs with varying price control mechanisms. Due to increasing political pressure and governmental budget constraints, we expect these mechanisms to remain robust – and potentially even be strengthened – and to have a continued negative influence on the prices we are able to charge for our products.

Direct governmental efforts to control prices

United States: The Inflation Reduction Act of 2022 (IRA), signed into law in August 2022, mandates that eligible Medicare Part B and Part D drugs participate in what the statute calls the Drug Price Negotiation Program (Program); redesigned the Medicare Part D benefit, including a USD 2 000 out-of-pocket cap for Medicare beneficiaries going into effect in 2025; and imposed penalties for Medicare drugs that increase in price faster than the rate of inflation. Under the Program, the US government will set Medicare prices for selected products it has defined as single-sourced small-molecule drugs that have been on the market for seven years following FDA approval as well as single-sourced biologics that have

been on the market for 11 years after FDA approval, and will become effective for selected drugs two years later (nine years after FDA approval for eligible small molecules and 13 years after FDA approval for eligible biologics).

Medicare drugs with the highest total cost to the US government are selected for the Program as they become eligible. Exemptions include orphan drugs with a designation for one rare disease or condition, drugs with a total cost to Medicare of less than USD 200 million, and plasma-derived drugs.

The IRA will be implemented as follows:

- 10 eligible Medicare Part D drugs in 2026
- An additional 15 eligible Medicare Part D drugs in 2027
- An additional 15 eligible combined Medicare Part B and Part D drugs in 2028
- An additional 20 eligible combined Medicare Part B and Part D drugs in 2029
- An additional 20 eligible combined Medicare Part B and Part D drugs each year after 2029

On August 29, 2023, the US government released the list of the first 10 drugs to be subject to the Program, and *Entresto* was one of the selected products. Novartis has completed the process of participating because manufacturers that refuse to participate are subject to an excise tax of up to 95% of sales. Novartis has filed a lawsuit against the US Department of Health and Human Services (HHS) and the US Centers for Medicare & Medicaid Services because we believe the IRA's drug price-setting provisions are unconstitutional and will have long-lasting negative consequences for patients by limiting access to medicines now and in the future (for more information, see "Item 18. Financial Statements—Note 20. Provisions and other non-current liabilities"). We also expect to be affected by other provisions of the IRA, such as price increase penalties for Medicare drugs, and new mandatory rebates on eligible Medicare Part D sales.

In addition, as of December 31, 2024, 24 US states had passed legislation intended to impact pricing or requiring manufacturers to report price increases to states, with eight of these states also allowing for drug affordability (i.e., price control) review boards. The disclosure requirements vary by state. Many states require multiple types of reporting, including for new drug applications, new drug launches, prior notice of price increases, and quarterly or annual reporting.

Europe: In Europe, our operations are subject to significant price and marketing regulations. Many governments are introducing healthcare reforms in a further attempt to curb increasing healthcare costs. In some member states, these include reforms to permit the reimbursed use of off-label medicines, despite the presence of licensed alternatives on the market. In the EU, governments influence the price of pharmaceutical products through their control of national healthcare systems that fund a large part of the cost of such products to patients. The downward pressure on healthcare costs in general in the EU, particularly with regard to prescription drugs, is intense. Increasingly strict analyses are applied when evaluating the entry of new products, and as a result, access to innovative medicines is limited based on strict cost-benefit assessments. In addition, prices for marketed products are referenced within member states and across international borders, further impacting individual EU member state pricing. Member states also collaborate to enhance pricing transparency and have started conducting joint health technology assessments, joint pricing negotiations and/or joint purchasing. As an additional control for healthcare budgets, some EU countries have passed legislation to impose further mandatory rebates for pharmaceutical products and/or financial claw-backs on the pharmaceutical industry. The calculation of these rebates and claw-backs may lack transparency in some cases and can be difficult to predict.

Regulations favoring generics and biosimilars

In response to rising healthcare costs, most governments and private medical care providers have established reimbursement schemes that favor the substitution of more expensive brand-name pharmaceuticals by generic pharmaceuticals. All US states have generic substitution statutes. These statutes permit or require the dispensing pharmacist to substitute a less expensive generic drug instead of an original drug. Other countries, including many European countries, have similar laws. We expect that the pressure for generic substitution will continue to increase. In addition, the US, the EU and other jurisdictions are increasingly introducing laws and regulations encouraging the development of biosimilar versions of biologic drugs, which can also be expected to have an impact on pricing.

Cross-border sales

Price controls in one country can have an impact in other countries as a result of cross-border sales. In the EU, products that we have sold to customers in countries with stringent price controls can be legally resold to customers in other EU countries at a lower price than the price at which the product is otherwise available in the importing country (known as parallel trade). In North America, products that we have sold to customers in Canada – which has relatively stringent price controls – are sometimes resold into the US, again at a lower price than the price at which the product is otherwise sold in the US. Reimportation from Canada and other countries into the US for commercial purposes is currently illegal. An exception is that states may seek approval from the Secretary of HHS to establish a Canadian drug importation program. Seven US states (Colorado, Florida, Maine, New Hampshire, New Mexico, Texas and Vermont) have enacted laws authorizing the establishment of such a program. However, the Secretary of the HHS must approve each state importation plan before it can be implemented. As of December 31, 2024, Florida is the only state to receive FDA approval for a state importation plan, but has not yet implemented it.

We expect that pressures on pricing will continue worldwide and will likely increase. Because of these pressures, there can be no certainty that in every instance we will be able to charge prices for a product that, in a particular country or in the aggregate, would enable us to earn an adequate return on our investment in that product.

Intellectual property

Intellectual property (IP) rights, including patents, trademarks, copyrights, know-how, and trade secrets, as well as regulatory-based protections, are essential to our business as an innovative medicines company and protect our innovation and investments in research and development, manufacturing, and marketing of our products.

Patents

Patents may cover a product itself, including the product's active ingredient or other ingredients and its formulation. Patents may also cover processes for manufacturing a product, including processes for manufacturing intermediate substances used in the manufacture of the product. In addition, patents may cover particular uses of a product, such as its use to treat a particular disease, or its dosage regimen. Further, patents may cover tests for certain diseases or biomarkers – which can improve patient outcomes when administered with certain drugs – as well as assays, research tools, and other techniques used to identify new drugs.

United States

- In the US, an issued patent will generally receive a term of 20 years from the earliest application filing date and may be eligible for potential patent term adjustments if there are delays in prosecution of the patent by the United States Patent and Trademark Office (USPTO).
- A US pharmaceutical patent may also be eligible for a patent term extension (PTE) given that the development of a pharmaceutical product and its review by the FDA can take an extended period of time. PTE provides an extension of patent term to compensate for the time taken to conduct clinical trials and for the FDA's review process. The PTE may only extend the patent term for a maximum of five years and may not extend the patent term beyond 14 years from regulatory approval. For a patent to be eligible for PTE, the patent must claim the product, a method of using the product, or a method of manufacturing the product. In addition, only one patent may be extended for any product.

European Union

- Patent applications in Europe may be filed in the European Patent Office (EPO) or in the patent offices of particular countries. The term of a patent granted by the EPO or an EU country's patent office is 20 years from the earliest application filing date. A patent issued by the EPO may also become a Unitary Patent, enforceable in multiple countries in the EU.
- Given that the development of a pharmaceutical product and its review by health authorities in the EU can take an extended period of time, a pharmaceutical patent in the EU may be eligible for a patent term extension that is called a supplementary protection certificate (SPC). An SPC may only extend the term of a patent for a maximum of five years, and may not extend the term of the patent beyond 15 years from the date of the first EU marketing authorization for the product covered by the patent. There is no unified procedure among countries in the EU for obtaining an SPC and SPCs must be applied for and granted on a country-by-country basis.

Whether we are granted PTEs or SPCs, and the duration thereof, may depend upon many factors, including whether we have exercised due diligence during the product testing phase or regulatory review process, have applied for the extension within applicable deadlines, and satisfied all other applicable requirements. Moreover, the applicable time period or the scope of patent protection afforded could be less than we request.

RDP and market exclusivity

In addition to patent protection, various countries provide regulatory-based protection, including regulatory data protection (RDP) and/or other market exclusivities, for a prescribed period of time. RDP provides exclusivity that precludes a potential competitor from filing a regulatory application that relies on the sponsor's clinical trial data, or that precludes the regulatory authority from approving the application for a set period of time.

United States

- A new small-molecule active pharmaceutical ingredient receives five years of RDP, during which time a competitor generally may not obtain final approval of an application to the FDA based on a sponsor's clinical data.
- A new biologic active pharmaceutical ingredient receives 12 years of regulatory-based market exclusivity, during which time a competitor generally may not market the same or similar drug.
- The FDA may also request that a sponsor conduct pediatric studies and, in exchange, it will grant an additional six-month period of pediatric market exclusivity if the sponsor makes a timely submission of the reports of the pediatric studies in response to the FDA's written request. The sponsor must also have a patent-based and/or regulatory-based exclusivity period for the product to which the pediatric market exclusivity is appended.
- Orphan drug exclusivity (ODE) provides seven years of market exclusivity for drugs designated by the FDA as orphan drugs, meaning drugs that treat rare diseases affecting fewer than 200 000 people in the US. During this period, a potential competitor generally may not market the same or similar drug for the same indication even if the competitor's application does not rely on data from the sponsor.

European Union

- A new pharmaceutical ingredient receives eight years of data protection, during which a competitor cannot rely on the relevant data; a further period of two years of market exclusivity, during which the data can be used to support applications for marketing authorization but a competitive product cannot be launched; and a possible one-year extension of the market exclusivity period if, during the initial eight-year data exclusivity period, the sponsor registered a new therapeutic indication with "significant clinical benefit."
- ODE provides for 10 years of market exclusivity, during which time an application for the same or similar medicine for the same indication will not generally be accepted or granted. Under certain circumstances, this exclusivity can be extended with a two-year pediatric extension.

Third-party patents and challenges to intellectual property

Third parties can challenge our IP, including patents, PTEs, SPCs, RDP, and marketing exclusivities (such as pediatric extensions and ODE), through various proceedings. For example, patents in the US can be challenged in the USPTO through various proceedings, including *inter partes* review (IPR) and post-grant review (PGR) proceedings. They may also be challenged through patent infringement litigation under the Abbreviated New Drug Application (ANDA) provisions of the Hatch-Waxman Act or under the Biologics Price Competition and Innovation Act (BPCIA). In the EU, patents may be challenged through oppositions in the EPO, revocation actions before the Unified Patent Court, or national patents may be challenged in national courts or national patent offices. The outcomes of such challenges can be difficult to predict.

In addition to directly challenging our IP rights, in some circumstances a competitor may be able to market a generic version of one of our products by, for example, designing around our patents or marketing the generic product for non-patent-protected indications, or filing a separate New Drug Application (NDA) under the Hatch-Waxman Act (typically referred to as a 505(b)(2) application). Despite RDP, a competitor could opt to incur the costs of conducting its own clinical trials and preparing its own regulatory application and avoid our RDP altogether. There is a risk that some countries may seek to impose limitations on or seek not to recognize the availability of IP rights for pharmaceutical products, or limit the extent to which such rights may be enforced. Additionally, even though we may own, co-own or in-license patents protecting our products, and conduct freedom-to-operate analyses, a third party may nevertheless assert that one of our products infringes or otherwise violates a third-party patent or other intellectual property right for which we do not have a license, seeking remedies such as monetary damages or an injunction against our continued marketing of the product.

As a result, there can be no assurance that our IP rights will protect our products or that we will be able to avoid adverse effects from the loss of IP protection or from third-party patents or other intellectual property rights in the future. For more information on the risks related to IP, see "Item 3. Key Information—Item 3.D Risk factors—Intellectual property—Expiry, assertion or loss of intellectual property protection."

Intellectual property protection for certain key marketed products and compounds in development

The following chart lists our key marketed products together with the year in which, unless otherwise indicated, the basic composition of matter (CoM) patent protection (including granted PTEs, granted SPCs, and granted pediatric exclusivity periods) or regulatory exclusivity (for example, RDP or ODE), whichever lasts longer, is currently estimated to expire in the US and EU. We also sell these products in other countries, but do not include exclusivity loss on a country-by-country basis, which may vary considerably from the estimated loss in the US and EU. Generally, the dates in the table below for each of the products are estimated only for the purpose of business or financial planning. Moreover, where applicable, we provide information regarding current challenges involving the patents or regulatory exclusivities expiring on the listed dates. In addition, we may own, co-own, control, or have rights to additional, later-expiring patents relating, for example, to compound forms, methods of treatment or use, formulations, devices, processes, product-by-process, synthesis, purification, and assays. We may also be seeking or may have been granted forms of regulatory exclusivity that may expire later than the dates shown below. These later-expiring patents or RDP may or may not protect our products from generic or biosimilar competition after the date specified.

It is not possible to predict with certainty the length of patent or regulatory-based market exclusivity for any of our products because of the complex interaction between patent and regulatory forms of exclusivity and inherent uncertainties regarding IP litigation. There can be no assurance that a particular product will receive patent or regulatory-based market exclusivity for the full period of time that we estimate, or at all, and the products listed below may face generic or biosimilar competition in the US or EU earlier than the dates listed below. See "Item 3. Key Information—Item 3.D Risk factors—Intellectual property—Expiry, assertion or loss of intellectual property protection" for additional information.

Product	Year of Expiration (US)	Year of Expiration (EU) [1]
Entresto	2025 [2]	2026
Cosentyx	2029	2030
Kesimpta	2031	CoM patent expired [3]
Kisqali	2031 [4]	2032
Promacta/Revolade	CoM patent expired	2025
Tafinlar	2030	2029
Mekinist	2027	2029
Use of *Mekinist* with *Tafinlar* or *Tafinlar* with *Mekinist*	2031	2030
Jakavi	N/A	2027
Xolair	N/A	CoM patent expired [3]
Tasigna	CoM patent expired	CoM patent expired
Ilaris	CoM patent expired [3]	2025
Pluvicto	2034 [5]	2034 [5]
Zolgensma	2033	2033
Leqvio	2034 [5]	2035
Scemblix	2033 [5]	2037
Lutathera	2025 [6]	2027
Fabhalta	2034 [5]	2034 [5]

[1] SPC expiry dates are listed when an SPC has been granted in at least one of the following European markets: France, Germany, Italy, Spain, and the United Kingdom.
[2] Certain patents (including those expiring in 2025, 2026, and 2036) are being challenged in ANDA proceedings by generic manufacturers. In January 2025, the U.S. Court of Appeals for the Federal Circuit issued a decision confirming the validity of a combination patent expiring in July 2025 (with pediatric exclusivity).
[3] There is no generic or biosimilar competition for this product in this market.
[4] A CoM patent expiring in 2031 and other patents are being challenged in ANDA proceedings against generic manufacturers.
[5] We have applied for a PTE or SPC which is pending.
[6] ODE is not challenged, but formulation patents (expiring in 2038 or 2039 (with pediatric exclusivity)) are being challenged in patent proceedings against manufacturers having FDA applications referencing *Lutathera*.

Established Brands
Lucentis faces generic competition in the EU. For *Sandostatin* SC, there is generic competition in the US and the EU. For *Sandostatin* LAR, there is generic competition in the US and in most EU countries.

Compounds in development
We provide certain patent information for non-marketed compounds in development that have been submitted to the FDA and/or the EMA for registration but have not yet been approved by either agency. For these products, Novartis will seek all appropriate RDP, will continue to seek additional intellectual property protection for significant product developments, and will apply for PTEs and SPCs in keeping with the great importance we attach to intellectual property.

Trademarks
Our products are sold under brand names and logos which are generally protected as trademarks and/or through related intellectual property rights. Trademark registrations are for fixed, but renewable, terms and protection is provided, depending on the country, for as long as the trademark is registered and/or in use. Protecting our trademarks is of material importance to us

4.C Organizational structure

Organizational structure

See “Item 4. Information on the Company—Item 4.A History and development of Novartis” and “Item 4. Information on the Company—Item 4.B Business overview—Overview.”

Significant subsidiaries

See “Item 18. Financial Statements—Note 31. Novartis principal subsidiaries and associated companies.”

4.D Property, plants and equipment

Our principal executive offices are located in Basel, Switzerland. We operate through a number of affiliates that have offices, research and development facilities, and production sites throughout the world.

We generally own our facilities or have entered into long-term lease arrangements for them. Some of our principal facilities are subject to mortgages and other security interests granted to secure certain debts.

Our Operations organizational unit manages the production, quality and supply chain of our products through a network of 33 manufacturing sites, as well as through external suppliers, and warehouse and distribution centers. In addition, our Operations organizational unit also manages non-production real estate owned or leased by Novartis around the world.

The following table sets forth our major headquarters and most significant production, research and development, and administrative facilities. See also "—Item 4.B Business overview—Production" for a discussion of our manufacturing processes.

Major facilities

Location	Size of site (in square meters)	Major activity
Basel, Switzerland – St. Johann	481 448	Global Company headquarters; International organizational unit headquarters; research and development; production of drug substances and drug intermediates
Kundl and Schaftenau, Austria	480 000	Production of biotechnological products, active drug substances and nucleic acids, drug products and finished products; product development
East Hanover, New Jersey, US	258 180	US organizational unit headquarters; research and development
Cambridge, Massachusetts, US	179 939	Research and development
Menges, Slovenia	166 591	Production of small molecules and large molecules drug substances and drug intermediates; Research and development for Biologics
Shanghai, China	105 614	China country headquarters; research and development
Stein, Switzerland	64 700	Production of sterile vials, pre-filled syringes and ampoules; capsules and tablets; active pharmaceutical ingredients; and cell and gene therapies
Huningue, France	41 000	Production of drug substances for clinical and commercial supply
Durham, North Carolina, US	15 794	Manufacture, package and release commercial *Zolgensma* product and certain clinical development activities
Schweizerhalle, Switzerland	8 880	Manufacture of small-interfering RNA (siRNA) drug substance for *Leqvio*
Indianapolis, Indiana, US	8 230	Manufacture, package and release clinical and commercial *Pluvicto* and *Lutathera* product for US and Canada.
Ivrea, Italy	2 780	Galenic development and manufacture, package and release of radioligand therapy products in oncology (clinical & commercial) *Pluvicto* and *Lutathera* product

As our product portfolio evolves, the Company is adapting our manufacturing capacity and capabilities to meet our changing needs, shifting from high-volume products toward lower-volume, customized and personalized medicines. As of December 31, 2024, we have closed, exited, consolidated or sold 7 Novartis manufacturing sites post 2021. We continue expanding our capacity in new technologies such as cell culture, biopharmaceutical manufacturing and radioligand therapy, including the investment in in-house production of isotopes critical for production of radioligand therapies. We are leveraging innovation to increase the reliability and productivity of our manufacturing network, including using data and digital technologies. We continue to seek opportunities to manage our production facilities as efficiently as possible, optimize external spend, and simplify and standardize across our manufacturing network to help us increase our cost competitiveness and optimize the value of our products. At the same time, we are working to improve our environmental sustainability, for example by reducing energy, waste disposal and water consumption at our sites by making our manufacturing processes more efficient, introducing new technologies, and switching to clean and renewable energy solutions.

For a description of the impact of environmental matters, see "Item 3. Key Information—Item 3.D Risk factors—Environmental, social and governance matters—Failure to meet rapidly evolving environmental, social and governance expectations," "Item 3. Key Information—Item 3.D Risk factors—Environmental matters—Impact of environmental liabilities," and "Item 3. Key Information—Item 3.D Risk factors—Climate change—Failure to manage physical and transition risks from climate change." See also "Item 18. Financial Statements—Note 20. Provisions and other non-current liabilities."

Item 4A. Unresolved Staff Comments

Not applicable.

Item 5. Operating and Financial Review and Prospects

5.A Operating results

This operating and financial review should be read together with our consolidated financial statements in this Annual Report, which have been prepared in accordance with International Financial Reporting Standards (IFRS®) Accounting Standards as issued by the International Accounting Standards Board (see "Item 18. Financial Statements"). "Item 5. Operating and Financial Review and Prospects" with the sections on our compounds in development and selected development projects (see "Item 4. Information on the Company—Item 4.B Business overview") constitute the Operating and Financial Review (*Lagebericht*), as defined by the Swiss Code of Obligations.

The discussion of our operating and financial review and prospects for the years ended December 31, 2023 and December 31, 2022 can be found in "Item 5. Operating and Financial Review and Prospects — 5.A. Operating results — Results of operations – Financial year 2023 compared with 2022" of our Annual Report on Form 20-F filed on January 31, 2024.

Overview

Novartis is an innovative medicines company engaged in the research, development, manufacturing, distribution, marketing and sale of a broad range of innovative pharmaceutical medicines. Our purpose is to reimagine medicine to improve and extend people's lives by leveraging our scientific expertise to find new ways to treat and cure disease. Our operations are organized into five organizational units: Biomedical Research, Development, Operations, and two commercial units US and International. Global functions support these organizational units in the execution of their work. We focus on four core therapeutic areas with strong growth potential and high unmet patient needs—cardiovascular, renal and metabolic; immunology; neuroscience; and oncology. For more information about our organizational structure, see "Item 4. Information on the Company—Item 4.B Overview."

Following the September 15, 2023, shareholders' approval of the spin-off of the Sandoz business, Novartis reported the Company's consolidated financial statements as "continuing" and "discontinued" operations, in compliance with IFRS Accounting Standards. For more information, see "Item 18. Financial Statements—Note 1. Accounting policies."

The disclosures and commentary in this "Item 5. Operating and Financial Review and Prospects" focus on continuing operations. We also provide information on discontinued operations.

Continuing operations include the retained business activities of Novartis, comprising the innovative medicines business and continued corporate activities.

Discontinued operations include the Sandoz generic pharmaceuticals and biosimilars division and certain corporate activities attributable to Sandoz prior to the spin-off up to the distribution date of October 3, 2023, and certain other expenses related to the spin-off. Included in 2023 is also the IFRS Accounting Standards non-cash, non-taxable net gain on distribution of Sandoz Group AG to Novartis AG shareholders. Sandoz operated in the off-patent medicines segment and specialized in the development, manufacturing, and marketing of generic pharmaceuticals and biosimilars. The Sandoz business was organized globally into two franchises: Generics and Biosimilars.

Significant transactions are discussed in "Item 18. Financial Statements—Note 2. Significant acquisitions of businesses and spin-off of Sandoz business," and "Item 18. Financial Statements—Note 27. Commitments and contingent liabilities."

Our business environment

Progress in science and technology raises the possibility of new types of medicines and more efficient drug discovery. At the same time, many people struggle to access healthcare, while aging populations are putting pressure on healthcare systems. The major trends currently shaping our business environment include:

- ***Scientific progress is opening new paths to treat disease.*** Rapid progress in medical science is creating opportunities for new types of treatments. These advances highlight the importance of investment in R&D, including in next-generation technologies such as radioligand therapies and gene and cell therapies.
- ***Demand for high-quality healthcare continues to rise.*** Demand for medicines in areas such as cancer, cardiovascular disease and immunology continues to grow in key markets. The US and EU markets are expanding. China is growing rapidly, while spending in Japan is forecast to remain stable.
- ***Healthcare systems are under strain.*** In many countries, healthcare systems are under pressure. Long-term factors such as aging and lifestyle changes have led to a significant rise in noncommunicable illnesses such as cancer, diabetes and heart disease.
- ***The policy landscape is changing.*** Evolving legislation and regulations are changing how governments pay for medicines. In the US, the IRA will impose price controls on select drugs in the Medicare program. The EU is revising the legislative framework for medicines, with the aim of improving access and affordability, while China has rolled out a volume-based procurement program to reduce prices for eligible medicines. See "Item 3. Key Information—Item 3.D Risk factors—Pricing, reimbursement and access—Pricing and reimbursement pressure, including pricing transparency and

access to healthcare," and "Item 3. Key Information—Item 3.D Risk factors—Macroeconomic developments—Impact of macroeconomic developments."

- ***The market for healthcare is evolving.*** Customer groups have increasing influence on treatment decisions and guidelines, while patients continue to become more informed stakeholders in their healthcare decisions and look for solutions to meet their changing needs.
- ***Access to medicines remains a challenge.*** Many people around the world struggle to access healthcare and medicines. The issue is linked to demographic, social and economic challenges such as aging, poverty and inequality, as well as to structural issues such as limited healthcare infrastructure, shortages of trained healthcare workers, and the cost of healthcare and medicines. Improving access requires a holistic approach that acknowledges these complex factors and relies on stakeholder collaboration and partnerships.
- ***AI is poised to reshape the industry.*** Across the biopharmaceutical industry, we are beginning to realize the benefits of new technologies such as AI in automating processes and generating insights that could help us design new compounds, predict drug safety or speed up drug discovery. The extent to which companies can harness this potential will depend on their ability to aggregate and analyze large volumes of anonymized health data. See "Item 3. Key Information—Item 3.D Risk factors—Research and development—Failure to competitively discover and develop innovative medicines in our core therapeutic areas and leveraging our technology platforms."
- ***Healthcare systems aim to build climate resilience.*** Healthcare systems are aiming to build climate resilience, with 45 countries committing to net-zero carbon emissions in their health systems, according to the WHO. At the same time, climate change and nature loss continue to have adverse effects on human health, mainly from malnutrition, malaria, diarrhea and heat stress, with respiratory illnesses also on the rise due to air pollution. See "Item 3. Key Information—Item 3.D Risk factors—Climate change—Failure to manage physical and transition risks from climate change."

Our strategy

We focus on four core therapeutic areas with strong growth potential and high unmet patient needs: cardiovascular, renal and metabolic; immunology; neuroscience; and oncology. This focus enables us to build depth in these therapeutic areas, leveraging our scientific expertise to find new ways to treat and cure disease, intervene earlier in disease pathophysiology, and improve quality of life for patients. We focus our exploratory research work in these core therapeutic areas, but also look beyond them, recognizing that cultivating a robust pipeline and remaining on the leading edge of scientific discovery requires a slightly wider aperture in early research.

We are investing in technology platforms that we expect will deliver future high-value medicines. We focus on two established platforms (chemistry and biotherapeutics) plus three advanced platforms (radioligand therapy (RLT), xRNA, and gene and cell therapy) that will play an important role in delivering transformative new medicines.

We focus on priority markets—US, Germany, China and Japan—which together account for most of the expected growth in global healthcare spending over the next five years. Although these are our priority markets, we maintain a strong presence in other markets worldwide.

To support our focus areas, we have three strategic priorities:

- ***Deliver high-value medicines to accelerate growth.*** We aim to increase growth, driven by continued strong momentum in our existing portfolio of medicines—including *Entresto*, *Cosentyx*, *Kisqali*, *Kesimpta*, *Scemblix*, *Pluvicto* and *Leqvio*—and key upcoming launches. Over the longer term, we expect growth will come through delivering high-value medicines that sustain and replace our existing growth drivers. Our R&D strategy focuses on an end-to-end approach, covering research, development and commercialization. We concentrate resources on priority programs to maximize early-stage potential and ensure effective late-stage execution. We also focus on life-cycle management by enhancing the evidence base for key brands. We increase our chances of discovering new medicines by collaborating with outside researchers and biotech companies. Our network consists of academic and industry alliances working on joint research and drug discovery.
- ***Embed operational excellence to deliver returns.*** In an increasingly competitive environment, we are simplifying processes and reducing costs to become more efficient and effective in our decision-making and to free up resources for investment in new medicines. Our goal is to continue making attractive returns to shareholders while creating value for patients, healthcare systems and society. In our manufacturing sites, we are expanding capacity in strategic focus areas such as biopharmaceuticals and advanced technology platforms. For example, we are investing to expand our platform for RLT, a type of precision nuclear medicine that requires quick delivery to patients, since the activity of the radioisotope it contains diminishes over time. To ensure product quality, we maintain a quality management system for our medicines in compliance with requirements from health authorities and other regulators. We are also switching more of our production to renewable energy and reducing the environmental footprint of our sites.
- ***Strengthen our foundations.*** We continue to invest in the foundations of our long-term success. We have made progress in strengthening our culture to attract and retain talent, while developing artificial intelligence capabilities across our value chain and continuing to build trust with stakeholders and society.

Results of operations

Key figures[1]

(USD millions unless indicated otherwise)	Year ended Dec 31, 2024	Year ended Dec 31, 2023	Change in USD %	Change in constant currencies %[2]
Net sales from continuing operations	**50 317**	**45 440**	**11**	**12**
Other revenues	1 405	1 220	15	15
Cost of goods sold	– 12 827	– 12 472	– 3	– 3
Gross profit from continuing operations	**38 895**	**34 188**	**14**	**16**
Selling, general and administration	– 12 566	– 12 517	0	– 1
Research and development	– 10 022	– 11 371	12	12
Other income	1 175	1 772	– 34	– 34
Other expense	– 2 938	– 2 303	– 28	– 26
Operating income from continuing operations	**14 544**	**9 769**	**49**	**55**
Return on net sales (%)	28.9	21.5		
Loss from associated companies	– 38	– 13	– 192	– 179
Interest expense	– 1 006	– 855	– 18	– 21
Other financial income and expense	140	222	– 37	– 9
Income before taxes from continuing operations	**13 640**	**9 123**	**50**	**55**
Income taxes	– 1 701	– 551	– 209	– 221
Net income from continuing operations	**11 939**	**8 572**	**39**	**45**
Net income from discontinued operations before gain on distribution of Sandoz Group AG to Novartis AG shareholders		422	nm	nm
Gain on distribution of Sandoz Group AG to Novartis AG shareholders		5 860	nm	nm
Net income from discontinued operations		**6 282**	**nm**	**nm**
Net income	**11 939**	**14 854**	**nm**	**nm**
Basic earnings per share from continuing operations (USD)	**5.92**	**4.13**	**43**	**49**
Basic earnings per share from discontinued operations (USD)		3.02	nm	nm
Total basic earnings per share (USD)	**5.92**	**7.15**	**nm**	**nm**
Net cash flows from operating activities from continuing operations	**17 619**	**14 220**	**24**	
Non-IFRS measures[2]				
Free cash flow from continuing operations[2]	**16 253**	**13 160**	**24**	

[1] For information on continuing operations and discontinued operations, refer to the Overview section above in this Item 5 and "Item 18. Financial Statements—Note 1. Accounting policies ", "Item 18. Financial Statements—Note 2. Significant acquisitions of businesses and spin-off of Sandoz business—Distribution of Sandoz Group AG to Novartis AG shareholders," and "Item 18. Financial Statements—Note 29. Discontinued operations."

[2] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

nm = not meaningful

Company overview

Net sales from continuing operations were USD 50.3 billion, up 11% in USD reported terms and 12% measured in constant currencies (cc)[1] to remove the impact of exchange rate movements. Net sales growth was driven by volume growth of 14 percentage points. Generic competition had a negative impact of 2 percentage points and pricing was flat. Sales in the US were USD 21.1 billion (+18%) and in the rest of the world USD 29.2 billion (+6%, +8% cc).

Sales growth was mainly driven by continued strong performance from *Entresto* (USD 7.8 billion, +30%, +31% cc), *Cosentyx* (USD 6.1 billion, +23%, +25% cc), *Kesimpta* (USD 3.2 billion, +49%, +49% cc), *Kisqali* (USD 3.0 billion, +46%, +49% cc), *Pluvicto* (USD 1.4 billion, +42%, +42% cc) and *Leqvio* (USD 754 million, +112%, +114% cc), partly offset by erosion due to generic competition, mainly for *Lucentis* and *Gilenya*, and the Xiidra® divestment.

In the US (USD 21.1 billion, +18%), sales growth was mainly driven by *Entresto, Cosentyx, Kesimpta, Kisqali, Pluvicto* and *Leqvio*, partly offset by the Xiidra® divestment and the impact of generic competition on *Gilenya*. In Europe (USD 15.6 billion, +4%, +5% cc), sales growth was mainly driven by *Entresto, Kesimpta*, *Pluvicto* and *Kisqali*, partly offset by erosion due to generic competition, mainly for *Lucentis* and *Gilenya*. Sales in emerging growth markets[2] were USD 12.9 billion (+11%, +15% cc), including USD 3.9 billion of sales from China (+19%, +21% cc).

Operating income from continuing operations was USD 14.5 billion (+49%, +55% cc), mainly driven by higher net sales, lower impairments, amortization and

restructuring charges, partly offset by prior-year one-time income from legal matters and higher R&D investments. Operating income margin was 28.9% of net sales, increasing 7.4 percentage points (+8.1 percentage points cc).

Net income from continuing operations was USD 11.9 billion (+39%, +45% cc), mainly driven by higher operating income from continuing operations, partly offset by higher income taxes, mainly resulting from higher income before taxes from continuing operations in the current year and non-recurring tax benefits in the prior year. Basic earnings per share from continuing operations was USD 5.92 (+43%, +49% cc), growing faster than net income, benefiting from lower weighted average number of shares outstanding.

Net cash flows from operating activities from continuing operations amounted to USD 17.6 billion, compared with USD 14.2 billion in 2023. This increase was mainly driven by higher net income from continuing operations, adjusted for non-cash items and other adjustments, including divestment gains, lower payments out of provisions and lower income taxes paid, mainly due to the timing of income tax payments, partly offset by unfavorable changes in working capital and higher net interest paid and other financial payments.

Free cash flow[1] from continuing operations amounted to USD 16.3 billion (+24% USD), compared with USD 13.2 billion in 2023, driven by higher net cash flows from operating activities from continuing operations.

We also present our core results[1], which exclude the impact of amortization of intangible assets, impairments, business acquisitions, divestments, and other significant items, including restructuring and related items, to help investors understand our underlying performance.

Core operating income from continuing operations was USD 19.5 billion (+19%, +22% cc), mainly driven by higher net sales, partly offset by higher R&D investments. Core operating income margin from continuing operations was 38.7% of net sales, increasing 2.7 percentage points (+3.3 percentage points cc).

Core net income from continuing operations was USD 15.8 billion (+17%, +21% cc), mainly due to higher core operating income. Core basic earnings per share from continuing operations was USD 7.81 (+21%, +24% cc), growing faster than core net income from continuing operations, benefiting from lower weighted average number of shares outstanding.

As the Sandoz spin-off was completed on October 3, 2023, there were no operating results in 2024 related to discontinued operations. In 2023, discontinued operations net sales were USD 7.4 billion, operating income amounted to USD 265 million and net income from discontinued operations was USD 6.3 billion driven by the IFRS Accounting Standards non-cash, non-taxable, net gain on distribution of Sandoz Group AG to Novartis AG shareholders, which amounted to USD 5.9 billion.

Total Company net income was USD 11.9 billion in 2024, compared with USD 14.9 billion in 2023 and basic EPS was USD 5.92 compared with USD 7.15 in prior year as the prior year included the IFRS Accounting Standards non-cash, non-taxable, net gain on distribution of Sandoz Group AG to Novartis AG shareholders, which amounted to USD 5.9 billion. Net cash flows from operating activities for total Company amounted to USD 17.6 billion and free cash flow amounted to USD 16.3 billion.

[1] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."
[2] Novartis definition of emerging growth markets comprises all markets other than the established markets of the US, Canada, Western Europe, Japan, Australia and New Zealand. Novartis definition of Western Europe includes Austria, Belgium, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Net sales from continuing operations

The following table provides an overview of net sales from continuing operations by core therapeutic area and established brands:

(USD millions)	**Year ended Dec 31, 2024**	Year ended Dec 31, 2023[1]	Change in USD %	Change in constant currencies %[2]
Cardiovascular, renal and metabolic	8 576	6 390	34	36
Immunology	9 293	7 798	19	21
Neuroscience	4 750	3 651	30	31
Oncology	14 740	12 851	15	16
Established brands	12 958	14 750	– 12	– 11
Total net sales from continuing operations	**50 317**	**45 440**	**11**	**12**

[1] Reclassified to conform with 2024 presentation of brands by therapeutic area and established brands.
[2] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

The following table provides the top 20 product net sales from continuing operations in 2024, as well as the change compared with 2023:

			US		Rest of world			Total		
Brands	**Brand classification by therapeutic area or established brands**	**Key indications**	USD m	% change USD/cc[1]	USD m	% change USD	% change cc[1]	USD m	% change USD	% change cc[1]
Entresto	Cardiovascular, renal and metabolic	Chronic heart failure, hypertension	4 052	32	3 770	27	30	7 822	30	31
Cosentyx	Immunology	Psoriasis (PsO), ankylosing spondylitis (AS), psoriatic arthritis (PsA), non-radiographic axial spondyloarthritis (nr-axSPA), hidradenitis suppurativa (HS)	3 530	34	2 611	11	14	6 141	23	25
Kesimpta	Neuroscience	Relapsing forms of multiple sclerosis (MS)	2 183	43	1 041	62	65	3 224	49	49
Kisqali	Oncology	HR+/HER2- metastatic breast cancer and early breast cancer	1 678	63	1 355	29	36	3 033	46	49
Promacta/Revolade	Oncology	Immune thrombocytopenia (ITP), severe aplastic anemia (SAA)	1 181	– 2	1 035	– 3	1	2 216	– 2	– 1
Tafinlar + Mekinist	Oncology	BRAF V600+ metastatic and adjuvant melanoma, advanced non-small cell lung cancer (NSCLC), tumor agnostic with BRAF mutation indication, pediatric low grade glioma (pLGG)	848	7	1 210	7	10	2 058	7	9
Jakavi	Oncology	Myelofibrosis (MF), polycythemia vera (PV), graft-versus-host disease (GvHD)			1 936	13	15	1 936	13	15
Tasigna	Oncology	Chronic myeloid leukemia (CML)	848	– 4	823	– 15	– 12	1 671	– 10	– 8
Xolair[2]	Immunology	Severe allergic asthma (SAA), chronic spontaneous urticaria (CSU), nasal polyps, food allergy (FA)			1 643	12	15	1 643	12	15
Ilaris	Immunology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJIA, AOSD, gout)	798	16	711	6	12	1 509	11	14
Pluvicto	Oncology	PSMA-positive mCRPC patients post-ARPI, post-Taxane	1 157	26	235	298	296	1 392	42	42
Sandostatin Group	Established brands	Carcinoid tumors, acromegaly	805	– 3	474	– 2	2	1 279	– 3	– 1
Zolgensma	Neuroscience	Spinal muscular atrophy (SMA)	435	17	779	– 7	– 5	1 214	0	2
Lucentis	Established brands	Age-related macular degeneration (AMD), diabetic macular edema (DME), retinal vein occlusion (RVO)			1 044	– 29	– 28	1 044	– 29	– 28
Leqvio	Cardiovascular, renal and metabolic	Atherosclerotic cardiovascular disease (ASCVD)	385	88	369	146	148	754	112	114
Lutathera	Oncology	GEP-NETs gastroenteropancreatic neuroendocrine tumors	513	20	211	19	20	724	20	20
Exforge Group	Established brands	Hypertension	8	– 38	695	– 1	3	703	– 1	2
Scemblix	Oncology	Philadelphia chromosome-positive chronic myeloid leukemia (Ph+ CML) in chronic phase (CP); Ph+ CML in CP with the T315I mutation	436	48	253	113	116	689	67	68
Galvus Group	Established brands	Type 2 diabetes (RMS)			602	– 13	– 6	602	– 13	– 6
Diovan Group	Established brands	Hypertension	28	– 46	562	0	5	590	– 4	0
Top 20 brands total			**18 885**	**26**	**21 359**	**11**	**14**	**40 244**	**18**	**19**
Rest of portfolio			2 261	– 25	7 812	– 5	– 5	10 073	– 10	– 10
Total net sales from continuing operations			**21 146**	**18**	**29 171**	**6**	**8**	**50 317**	**11**	**12**

[1] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

[2] Net sales from continuing operations reflect *Xolair* sales for all indications.

For the table providing the net sales from continuing operations by core therapeutic area and established brands for 2024 and 2023, see "Item 18. Financial statements—Note 4. Revenues and geographic information."

For information about the approved indications for certain products described, see "Item 4. Information on the Company—Item 4.B Business overview— Products."

CARDIOVASCULAR, RENAL AND METABOLIC

Net sales in the cardiovascular, renal and metabolic therapeutic area were USD 8.6 billion (+34%, +36% cc), with sales growth mainly driven by *Entresto*.

Entresto (USD 7.8 billion, +30%, +31% cc) sustained robust, demand-led growth. In the US and Europe, *Entresto* penetration grew through the continued adoption of guideline-directed medical therapy in heart failure. In China and Japan, *Entresto* volume growth was fueled by heart failure as well as hypertension. In the US, Novartis is in ANDA litigation with generic manufacturers. Novartis successfully appealed to uphold the validity of its combination patent covering Entresto and combinations of sacubitril and valsartan, which expires in 2025 (with pediatric exclusivity). Several generics have received final approval in the US. Novartis filed a lawsuit against FDA challenging the approval of one generic ANDA, which is now on appeal. Any US commercial launch of a generic Entresto product prior to the final outcome of the combination patent litigation, or ongoing litigations involving other patents or the FDA, may be at risk of later litigation developments.

Leqvio (USD 0.8 billion, +112%, +114% cc) launch in the US and other markets is ongoing, delivering a medicine with effective and consistent LDL-C reduction in two maintenance doses per year. Focus remains on increased account and patient adoption and continuing medical education. *Leqvio* is registered in more than 105 countries world-wide and commercially available in 78 countries. Novartis obtained global rights to develop, manufacture and commercialize *Leqvio* under a license and collaboration agreement with Alnylam Pharmaceuticals.

IMMUNOLOGY

Net sales in the immunology therapeutic area reached USD 9.3 billion (+19%, +21% cc), with sales growth mainly driven by *Cosentyx*.

Cosentyx (USD 6.1 billion, +23%, +25% cc) sales grew mainly in the US, emerging growth markets and Europe, driven by strong demand from launches (including the HS indication and the IV formulation in the US) and volume growth in core indications (PsO, PsA, AS and nr-axSpA). Since initial approval in 2015, *Cosentyx* has shown sustained efficacy and a robust safety profile, treating more than 1.7 million patients across eight indications.

Xolair (USD 1.6 billion, ex-US +12%, +15% cc) growth was driven mainly by emerging growth markets. Novartis co-promotes *Xolair* with Genentech in the US and shares a portion of revenue as operating income but does not record any US sales.

Ilaris (USD 1.5 billion, +11%, +14% cc) sales grew across most regions, led by the US. Contributors to growth include strong performance in the Periodic Fever Syndromes and Still's disease indications.

NEUROSCIENCE

Net sales in the neuroscience therapeutic area were USD 4.8 billion (+30%, +31% cc), with sales growth mainly driven by *Kesimpta*.

Kesimpta (USD 3.2 billion, +49%, +49% cc) sales grew across all regions driven by increased demand and strong access. *Kesimpta* is a high efficacy B-cell therapy, with a favorable safety and tolerability profile and an at-home self-administration for a broad population of RMS patients. *Kesimpta* is now approved in 90 countries with more than 130,000 patients treated.

Zolgensma (USD 1.2 billion, 0%, +2% cc) sales were stable (USD) and grew slightly (cc) compared with prior year, as it continues to treat mainly incident patients in established markets. *Zolgensma* is now approved in 58 countries with more than 4,500 patients treated globally through clinical trials, early access programs and in the commercial setting.

Aimovig (USD 0.3 billion, +17%, +18% cc) sales grew mainly in Europe driven by increased demand for migraine prevention. Novartis commercializes *Aimovig* ex-US and ex-Japan, while Amgen retains all rights in the US and in Japan.

ONCOLOGY

Net sales in the oncology therapeutic area were USD 14.7 billion (+15%, +16% cc), with sales growth mainly driven by *Kisqali, Pluvicto, Scemblix* and *Jakavi*.

Kisqali (USD 3.0 billion, +46%, +49% cc) sales grew strongly across all regions, with increasing recognition of the consistently demonstrated overall survival benefit across all Ph3 clinical trials in HR+/ HER2- metastatic breast cancer (mBC), as well as Category 1 preferred NCCN guidelines recommendation and highest ESMO-MCBS scores in both mBC and early breast cancer (eBC) indications. *Kisqali* was approved for eBC in September 2024 in the US and November 2024 in the EU. In the fourth quarter, the *Kisqali* US eBC launch showed promising early uptake in line with the broad population of eBC patients, including those with node-negative disease, covered in the label. Novartis is in US ANDA litigation with generic manufacturers.

Promacta/Revolade (USD 2.2 billion, –2%, –1% cc) sales declined slightly following discontinued proactive promotion in most markets.

Tafinlar + Mekinist (USD 2.1 billion, +7%, +9% cc) sales grew mainly in emerging growth markets, the US and Japan driven by demand in BRAF+ adjuvant melanoma, NSCLC, pediatric low-grade glioma, and tumor agnostic indications, while maintaining demand in the highly competitive BRAF+ metastatic melanoma market.

Jakavi (USD 1.9 billion, +13%, +15% cc) sales grew across all regions driven by strong demand in all indications. Incyte retains all rights to ruxolitinib (Jakafi®) in the US.

Tasigna (USD 1.7 billion, –10%, –8% cc) sales declined across all regions due to lower demand and increasing competition.

Pluvicto (USD 1.4 billion, +42%, +42% cc) sales grew in the US and Europe. *Pluvicto* is the only radioligand therapy approved by the FDA for the treatment of adult patients with progressive, PSMA-positive metastatic castration-resistant prostate cancer, who have already been treated with other anti-cancer treatments (ARPI and taxane-based chemotherapy). *Pluvicto* is now on the market in several ex-US countries. Novartis is in patent

litigation with a manufacturer developing a radiopharmaceutical to treat PSMA-positive prostate cancer.

Lutathera (USD 0.7 billion, +20%, +20% cc) sales grew across all regions due to increased demand, and earlier line adoption (within indication) in the US and Japan. Novartis is in patent litigation with manufacturers having FDA applications referencing *Lutathera*.

Scemblix (USD 0.7 billion, +67%, +68% cc) sales grew across all regions, demonstrating continued high unmet need for effective and tolerable treatment options for adult CML patients previously treated with two or more tyrosine kinase inhibitors, as well as initial uptake among early-line patients in the US following FDA accelerated approval in October 2024.

Piqray/Vijoice (USD 0.4 billion, –11%, –11% cc) sales declined mostly in the US due to increased competition.

Kymriah (USD 0.4 billion, –13%, –12% cc) sales declined across most regions, partly offset by strong performance in pediatric and young adult patients up to 25 years of age with B-cell acute lymphoblastic leukemia (pALL) in the US, and follicular lymphoma indication uptake ex-US.

Fabhalta (USD 0.1 billion) launch continues in PNH globally, as well as in IgA nephropathy in the US following FDA accelerated approval in this indication in August 2024.

ESTABLISHED BRANDS

The established brands had net sales of USD 13.0 billion (–12%, –11% cc).

Sandostatin Group (USD 1.3 billion, –3%, –1% cc) sales declined slightly, primarily in the US, partly due to generics entry in the fourth quarter.

Lucentis (USD 1.0 billion, ex-US –29%, –28% cc) sales declined in Europe, emerging growth markets, and Japan, mainly due to competition.

Exforge Group (USD 0.7 billion, –1%, +2% cc) sales declined slightly (USD) and grew slightly (cc), with growth mainly in emerging growth markets.

Galvus Group (USD 0.6 billion, –13%, –6% cc) sales declined mainly in Europe, primarily due to generic competition, partly offset by growth in emerging growth markets.

Diovan Group (USD 0.6 billion, –4%, 0% cc) sales declined (USD) and remained stable (cc), as a decline in the US offset growth primarily in emerging growth markets.

Gilenya (USD 0.6 billion, –40%, –39% cc) sales declined due to competition, mainly in the US and Europe.

Operating income from continuing operations

(USD millions unless indicated otherwise)	**Year ended Dec 31, 2024**	Year ended Dec 31, 2023	Change in USD %	Change in constant currencies %[1]
Gross profit from continuing operations	**38 895**	**34 188**	**14**	**16**
Selling, general and administration	– 12 566	– 12 517	0	– 1
Research and development	– 10 022	– 11 371	12	12
Other income	1 175	1 772	– 34	– 34
Other expense	– 2 938	– 2 303	– 28	– 26
Operating income from continuing operations	**14 544**	**9 769**	**49**	**55**
Return on net sales (%)	28.9	21.5		

[1] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

Operating income from continuing operations was USD 14.5 billion (+49%, +55% cc), mainly driven by higher net sales from continuing operations lower impairments, amortization and restructuring charges, partly offset by prior-year one-time income from legal matters and higher R&D investments. Operating income margin from continuing operations was 28.9% of net sales from continuing operations, increasing 7.4 percentage points (+8.1 percentage points cc). Other revenue as a percentage of net sales from continuing operations increased by 0.1 percentage points (0.1 percentage points cc). Cost of goods sold as a percentage of net sales from continuing operations decreased by 1.9 percentage points (2.3 percentage points cc). R&D expenses as a percentage of net sales from continuing operations decreased by 5.1 percentage points (5.4 percentage points cc). SG&A expenses as a percentage of net sales from continuing operations decreased by 2.5 percentage points (2.8 percentage points cc). Other income and expense as a percentage of net sales from continuing operations decreased the margin by 2.2 percentage points (2.5 percentage points cc).

Non-IFRS measure Core operating income from continuing operations[1]

(USD millions unless indicated otherwise)	Year ended Dec 31, 2024	Year ended Dec 31, 2023	Change in USD %	Change in constant currencies %
Core gross profit from continuing operations	**41 872**	**37 959**	**10**	**12**
Core selling, general and administration	– 12 564	– 12 489	– 1	– 1
Core research and development	– 9 302	– 8 600	– 8	– 8
Core other income	273	392	– 30	– 30
Core other expense	– 785	– 890	12	13
Core operating income from continuing operations	**19 494**	**16 372**	**19**	**22**
Core return on net sales (%)	38.7	36.0		

[1] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

The adjustments made to operating income from continuing operations to arrive at core operating income from continuing operations amounted to USD 5.0 billion (compared with USD 6.6 billion in the prior year). For more information, see "—Non-IFRS measures as defined by Novartis—2024 and 2023 reconciliation from IFRS Accounting Standards results to non-IFRS core results."

Core operating income from continuing operations was USD 19.5 billion (+19%, +22% cc), mainly driven by higher net sales from continuing operations, partly offset by higher R&D investments. Core operating income margin from continuing operations was 38.7% of net sales from continuing operations, increasing 2.7 percentage points (+3.3 percentage points cc). Core other revenue as a percentage of net sales from continuing operations increased by 0.1 percentage points (cc). Core cost of goods sold as a percentage of net sales from continuing operations increased by 0.3 percentage points (cc). Core R&D expenses as a percentage of net sales from continuing operations decreased by 0.7 percentage points (cc). Core SG&A expenses as a percentage of net sales from continuing operations decreased by 2.6 percentage points (cc). Core other income and expense as a percentage of net sales from continuing operations increased the margin by 0.2 percentage points (cc).

Research and development

The following table provides an overview of the continuing operations reported research and development expense and the non-IFRS measure core research and development expense[1]:

(USD millions unless indicated otherwise)	Year ended Dec 31, 2024	Year ended Dec 31, 2023	Change in USD %	Change in constant currencies %[1]
Research and exploratory development	– 4 027	– 3 640	– 11	– 10
Confirmatory development	– 5 995	– 7 731	22	22
Total research and development expense	**– 10 022**	**– 11 371**	**12**	**12**
Research and development as % of net sales from continuing operations	19.9	25.0		
Non-IFRS measures				
Core research and exploratory development[1]	– 3 370	– 2 988	– 13	– 12
Core confirmatory development[1]	– 5 932	– 5 612	– 6	– 6
Total core research and development expense	**– 9 302**	**– 8 600**	**– 8**	**– 8**
Core research and development as % of net sales from continuing operations	18.5	18.9		

[1] Core research and development expense exclude impairments, amortization and certain other items. For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

Research and exploratory development expenses increased by 11% (–10% cc) to USD 4.0 billion. Confirmatory development expenses amounted to USD 6.0 billion, decreasing by 22% (+22% cc) versus prior year mainly due to lower impairments from discontinuation of early stage development projects. Research and development as a percentage of net sales from continuing operations decreased by 5.1 percentage points to 19.9% of net sales from continuing operations.

Total core research and development expenses amounted to USD 9.3 billion, increasing by 8% (–8% cc) versus prior year mainly due to higher investments in recently acquired assets. Core research and development as a percentage of net sales from continuing operations decreased by 0.4 percentage points (+0.7 percentage points cc) to 18.5% of net sales from continuing operations.

Non-operating income and expense

The term "non-operating income and expense" includes all income and expense items outside operating income from continuing operations. The following table provides an overview of non-operating income and expense from continuing operations:

(USD millions unless indicated otherwise)	**Year ended Dec 31, 2024**	Year ended Dec 31, 2023	Change in USD %	Change in constant currencies %[1]
Operating income from continuing operations	**14 544**	**9 769**	**49**	**55**
Loss from associated companies	– 38	– 13	– 192	– 179
Interest expense	– 1 006	– 855	– 18	– 21
Other financial income and expense	140	222	– 37	– 9
Income before taxes	**13 640**	**9 123**	**50**	**55**
Income taxes	– 1 701	– 551	– 209	– 221
Net income from continuing operations	**11 939**	**8 572**	**39**	**45**
Net income from discontinued operations before gain on distribution of Sandoz Group AG to Novartis AG shareholders		422	nm	nm
Gain on distribution of Sandoz Group AG to Novartis AG shareholders		5 860	nm	nm
Net income from discontinued operations		**6 282**	nm	nm
Net income	**11 939**	**14 854**	**nm**	**nm**
Basic earnings per share from continuing operations (USD)	**5.92**	**4.13**	**43**	**49**
Basic earnings per share from discontinued operations (USD)		3.02	nm	nm
Total basic earnings per share (USD)	**5.92**	**7.15**	**nm**	**nm**

[1] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."
nm = not meaningful

Interest expense and other financial income and expense

Interest expense amounted to USD 1.0 billion compared with USD 855 million in the prior year mainly due to an increase in financial debts.

Other financial income and expense amounted to an income of USD 140 million, broadly in line with the prior-year.

Income taxes

The tax rate was 12.5% compared with 6.0% in the prior year period. The current year tax rate was favorably impacted by the effect of changes in uncertain tax positions and other items that mostly offset. The prior year tax rate was favorably impacted by the effect of tax benefits from the write-down of investments in subsidiaries, non-taxable net gains on unrealized foreign currency results, recognition of deferred tax assets on prior years tax loss carry-forwards, non-taxable income related to legal matters, and other items including impact of tax rate changes. Excluding these impacts, the current year tax rate would have been 15.0% compared with 15.3% in the prior year period. The decrease from the prior year was mainly the result of a change in profit mix, partially offset by the impact of a tax charge related to the expansion of products included in the Swiss patent box regime, and the impact of a Pillar Two tax charge in Switzerland.

Net income from continuing operations

Net income from continuing operations was USD 11.9 billion (+39%, +45% cc), mainly driven by higher operating income from continuing operations, partly offset by higher income taxes, mainly resulting from higher income before taxes from continuing operations in the current year and non-recurring tax benefits in the prior year.

Earnings per share from continuing operations

Basic earnings per share from continuing operations was USD 5.92 (+43%, +49% cc), growing faster than net income from continuing operations, benefiting from lower weighted average number of shares outstanding.

Non-IFRS measure Core non-operating income and expense[1]

The following table provides an overview of the non-IFRS measure core non-operating income and expense from continuing operations:

(USD millions unless indicated otherwise)	Year ended Dec 31, 2024	Year ended Dec 31, 2023	Change in USD %	Change in constant currencies %
Core operating income from continuing operations	**19 494**	**16 372**	**19**	**22**
Core loss from associated companies	– 12	– 13	8	18
Core interest expense	– 1 006	– 855	– 18	– 21
Core other financial income and expense	295	430	– 31	– 27
Core income before taxes from continuing operations	**18 771**	**15 934**	**18**	**21**
Core income taxes	– 3 016	– 2 488	– 21	– 25
Core net income from continuing operations	**15 755**	**13 446**	**17**	**21**
Core basic EPS from continuing operations (USD)	**7.81**	**6.47**	**21**	**24**

[1] For an explanation of non-IFRS measures and reconciliation tables, see "—Non-IFRS measures as defined by Novartis."

Core interest expense and other financial income and expense

Core interest expense amounted to USD 1.0 billion compared with USD 855 million in the prior year mainly due to an increase in financial debts.

Core other financial income and expense amounted to an income of USD 295 million compared with an income of USD 430 million in the prior year, mainly due to lower interest income and higher currency losses.

Core income taxes

The core tax rate (core taxes as a percentage of core income before tax) was 16.1% and 15.6% in the prior year. The increase from the prior year was mainly the result of a change in profit mix and the impact of a tax charge related to the expansion of products included in the Swiss patent box regime, and the impact of a Pillar Two tax charge in Switzerland.

Core net income from continuing operations

Core net income from continuing operations was USD 15.8 billion (+17%, +21% cc), mainly due to higher core operating income from continuing operations.

Core earnings per share from continuing operations

Core basic earnings per share from continuing operations was USD 7.81 (+21%, +24% cc), growing faster than core net income from continuing operations, benefiting from lower weighted average number of shares outstanding.

Discontinued operations

Discontinued operations include the Sandoz, generic pharmaceuticals and biosimilars division and certain corporate activities attributable to Sandoz prior to the spin-off up to the distribution date of October 3, 2023 and certain other expenses related to the spin-off. Included in 2023 is also the IFRS Accounting Standards non-cash, non-taxable net gain on the distribution of Sandoz Group AG to Novartis AG shareholders of USD 5.9 billion, representing mainly the excess amount of the IFRS Accounting Standards distribution liability, which is the estimated fair value of the Sandoz business distributed to Novartis AG shareholders, over the then carrying value of Sandoz business net assets. There were no operating results for 2024 related to discontinued operations.

In 2023, discontinued operations net sales were USD 7.4 billion, operating income amounted to USD 265 million and net income from discontinued operations was USD 6.3 billion driven by the IFRS Accounting Standards non-cash, non-taxable, net gain on distribution of Sandoz Group AG to Novartis AG shareholders, which amounted to USD 5.9 billion.

For further information, see "Item 18. Financial Statements—Note 1. Accounting policies; Note 2. Significant acquisitions of businesses and spin-off of Sandoz business—Distribution of Sandoz Group AG to Novartis AG shareholders and —Note 29. Discontinued operations."

Total Company

Total Company net income was USD 11.9 billion in 2024, compared with USD 14.9 billion in 2023 and basic EPS was USD 5.92 compared to USD 7.15 in prior year as the prior year included the IFRS Accounting Standards non-cash, non-taxable, net gain on distribution of Sandoz Group AG to Novartis AG shareholders, which amounted to USD 5.9 billion. Net cash flows from operating activities for total Company amounted to USD 17.6 billion and free cash flow amounted to USD 16.3 billion.

Factors affecting comparability of year-on-year results of operations

Significant transactions

The comparability of the year-on-year results of our operations for the total Company can be significantly affected by acquisitions and divestments. As part of our long-term strategy to focus Novartis as a leading medicines company, we announced and/or completed several acquisitions and divestments during 2024 and 2023.

A detailed description of significant transactions in 2024 and 2023 can be found in "Item 18. Financial Statements—Note 2. Significant acquisitions of businesses and spin-off of Sandoz business."

Internal control over financial reporting

The Company's management has assessed the effectiveness of internal control over financial reporting. The Company's independent registered public accounting firm also issued an opinion on the effectiveness of internal control over financial reporting. Both the Company's management and its independent registered public accounting firm concluded that the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024. For more information, see "Item 15. Controls and Procedures."

Approach to risk management

See "Item 6. Directors, Senior Management and Employees—Item 6.C Board practices—Corporate governance—Information and control systems—Risk management" and "Item 18. Financial Statements—Note 28. Financial instruments – additional disclosures."

Non-IFRS measures as defined by Novartis

Novartis uses certain non-IFRS Accounting Standards metrics when measuring performance, especially when measuring current-year results against prior periods, including core results, constant currencies and free cash flow. These are referred to by Novartis as non-IFRS measures.

Despite the use of these measures by management in setting goals and measuring the Company's performance, these are non-IFRS measures that have no standardized meaning prescribed by IFRS Accounting Standards. As a result, such measures have limits in their usefulness to investors.

Because of their non-standardized definitions, the non-IFRS measures (unlike IFRS Accounting Standards measures) may not be comparable to the calculation of similar measures of other companies. These non-IFRS measures are presented solely to permit investors to more fully understand how the Company's management assesses underlying performance. These non-IFRS measures are not, and should not be viewed as, a substitute for IFRS Accounting Standards measures, and should be viewed in conjunction with the consolidated financial statements prepared in accordance with IFRS Accounting Standards.

As an internal measure of Company performance, these non-IFRS measures have limitations, and the Company's performance management process is not solely restricted to these metrics.

Core results

The Company's core results – including core operating income, core net income and core earnings per share – exclude fully the amortization and impairment charges of intangible assets, excluding software, net gains and losses on fund investments and equity securities valued at fair value through profit and loss, impact of IAS Standards 29 "Financial reporting in Hyperinflationary Economies" to other financial income and expense, and certain acquisition- and divestment-related items. The following items that exceed a threshold of USD 25 million are also excluded: integration- and divestment-related income and expenses; divestment gains and losses; restructuring charges/releases and related items; legal-related items; impairments of property, plant and equipment, software, and financial assets, and income and expense items that management deems exceptional and that are or are expected to accumulate within the year to be over a USD 25 million threshold.

Novartis believes that investor understanding of the Company's performance is enhanced by disclosing core measures of performance, since core measures exclude items that can vary significantly from year to year, they enable better comparison of business performance across years. For this same reason, Novartis uses these core measures in addition to IFRS Accounting Standards measures and other measures as important factors in assessing the Company's performance.

The following are examples of how these core measures are used:

- In addition to monthly reports containing financial information prepared under IFRS Accounting Standards, senior management receives a monthly analysis incorporating these non-IFRS core measures.
- Annual budgets are prepared for both IFRS Accounting Standard measures and non-IFRS core measures.

As an internal measure of Company performance, the core results measures have limitations, and the Company's performance management process is not solely restricted to these metrics. A limitation of the core results measures is that they provide a view of the Company's operations without including all events during a period, such as the effects of an acquisition, divestment, or amortization/impairments of intangible assets, impairments to property, plant and equipment and restructurings and related items.

Constant currencies

Changes in the relative values of non-US currencies to the US dollar can affect the Company's financial results and financial position. To provide additional information that may be useful to investors, including changes in sales volume, we present information about our net sales and various values relating to operating and net income that are adjusted for such foreign currency effects.

Constant currency calculations have the goal of eliminating two exchange rate effects so that an estimate can be made of underlying changes in the consolidated income statement excluding the impact of fluctuations in exchanges rates:

- The impact of translating the income statements of consolidated entities from their non-USD functional currencies to USD
- The impact of exchange rate movements on the major transactions of consolidated entities performed in currencies other than their functional currency.

We calculate constant currency measures by translating the current year's foreign currency values for sales and other income statement items into USD (excluding the IAS Standards 29 "Financial Reporting in Hyperinflationary Economies" adjustments to the local currency income statements of subsidiaries operating in hyperinflationary economies), using the average exchange rates from the prior year and comparing them to the prior year values in USD.

We use these constant currency measures in evaluating the Company's performance, since they may assist us in evaluating our ongoing performance from year to year. However, in performing our evaluation, we also consider equivalent measures of performance that are not affected by changes in the relative value of currencies.

Growth rate calculation

For ease of understanding, Novartis uses a sign convention for its growth rates such that a reduction in operating expenses or losses compared with the prior year is shown as a positive growth.

Free cash flow

Novartis defines free cash flow as net cash flows from operating activities less purchases of property, plant and equipment. Management believes that this definition provides a performance measure that focuses on core operating activities, and also excludes items that can vary significantly from year to year, thereby enabling better comparison of business performance across years.

Free cash flow is a non-IFRS measure, which means it should not be interpreted as a measure determined under IFRS Accounting Standards. Free cash flow is not intended to be a substitute measure for net cash flows from operating activities as determined under IFRS Accounting Standards. Free cash flow is presented as additional information because management believes it is a useful supplemental indicator of the Company's ability to operate without reliance on additional borrowing or use of existing cash. Free cash flow is a measure of the net cash generated that is available for investment in strategic opportunities, returning to shareholders and for debt repayment.

Additional information

Net debt

Novartis calculates net debt as current financial debts and derivative financial instruments plus non-current financial debt less cash and cash equivalents and marketable securities, commodities, time deposits and derivative financial instruments.

Net debt is presented as additional information because it sets forth how management monitors net debt or liquidity and management believes it is a useful supplemental indicator of the Company's ability to pay dividends, to meet financial commitments, and to invest in new strategic opportunities, including strengthening its balance sheet.

For the table that shows the Company's net debt, see "— Item 5.B Liquidity and capital resources — Company liquidity, financial debts and net debt."

Reconciliation from IFRS Accounting Standards results to non-IFRS measure core results

The following tables provide an overview of the reconciliation from IFRS Accounting Standards results to non-IFRS measure core results:

2024 and 2023 reconciliation from IFRS Accounting Standards results to non-IFRS measure core results – Total Company

(USD millions unless indicated otherwise)	**2024**	2023
IFRS Accounting Standards operating income from continuing operations	**14 544**	**9 769**
Amortization of intangible assets	**3 174**	**3 730**
Impairments		
Intangible assets	1 401	3 044
Property, plant and equipment related to the company-wide rationalization of manufacturing sites	18	5
Other property, plant and equipment	9	39
Total impairment charges	**1 428**	**3 088**
Acquisition or divestment of businesses and related items		
- Income	– 458	– 174
- Expense	483	149
Total acquisition or divestment of businesses and related items, net	**25**	**– 25**
Other items		
Divestment gains	– 45	– 225
Financial assets – fair value adjustments	45	105
Restructuring and related items		
- Income	– 123	– 229
- Expense	487	1 180
Legal-related items		
- Income		– 608
- Expense	89	66
Additional income	– 183	– 602
Additional expense	53	123
Total other items	**323**	**– 190**
Total adjustments	**4 950**	**6 603**
Core operating income from continuing operations	**19 494**	**16 372**
as % of net sales	38.7%	36.0%
Loss from associated companies	– 38	– 13
Core adjustments to loss from associated companies, net of tax	26	
Interest expense	– 1 006	– 855
Other financial income and expense	140	222
Core adjustments to other financial income and expense	155	208
Income taxes, adjusted for above items (core income taxes)	– 3 016	– 2 488
Core net income from continuing operations	**15 755**	**13 446**
Core net income from discontinued operations [1]		889
Core net income	**15 755**	**14 335**
Core net income attributable to shareholders of Novartis AG	**15 757**	**14 331**
Core basic EPS from continuing operations (USD) [2]	**7.81**	**6.47**
Core basic EPS from discontinued operations (USD) [1, 2]		0.43
Core basic EPS (USD) [2]	**7.81**	**6.90**

[1] For details on discontinued operations reconciliation from IFRS Accounting Standards net income to core net income, refer to page 55.

[2] Core earnings per share (EPS) is calculated by dividing core net income attributable to shareholders of Novartis AG by the weighted average number of shares used in the basic EPS calculation outstanding in a reporting period.

2024 and 2023 reconciliation from IFRS Accounting Standards results to non-IFRS measure core results – Total Company

2024 (USD millions unless indicated otherwise)	IFRS Accounting Standards results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment of businesses and related items[3]	Other items[4]	Core results
Gross profit from continuing operations	**38 895**	**2 965**	**– 9**		**21**	**41 872**
Operating income from continuing operations	**14 544**	**3 174**	**1 428**	**25**	**323**	**19 494**
Income before taxes from continuing operations	**13 640**	**3 174**	**1 428**	**25**	**504**	**18 771**
Income taxes[5]	– 1 701	– 592	– 74	– 8	– 641	– 3 016
Net income from continuing operations	**11 939**					**15 755**
Net income	**11 939**					**15 755**
Basic EPS from continuing operations (USD)[6]	**5.92**					**7.81**
Basic EPS (USD)[6]	**5.92**					**7.81**
The following are adjustments to arrive at core gross profit from continuing operations						
Cost of goods sold	– 12 827	2 965	– 9		21	– 9 850
The following are adjustments to arrive at core operating income from continuing operations						
Selling, general and administration	– 12 566				2	– 12 564
Research and development	– 10 022	209	500	23	– 12	– 9 302
Other income	1 175		– 1	– 458	– 443	273
Other expense	– 2 938		938	460	755	– 785
The following are adjustments to arrive at core income before taxes from continuing operations						
Loss from associated companies	– 38				26	– 12
Other financial income and expense	140				155	295

[1] Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products; research and development includes the amortization of acquired rights to scientific infrastructure and technologies

[2] Impairments: cost of goods sold and research and development include net impairment charges related to intangible assets; other income and other expense include net impairment charges related to property, plant and equipment; other expense also includes a goodwill impairment

[3] Acquisition or divestment of businesses and related items, including integration charges: research and development and other expense include integration cost charges; other income includes divestment gains; other income and other expense include transitional service-fee income and expenses related to the Sandoz distribution, and adjustments to provisions

[4] Other items: cost of goods sold, selling, general and administration, research and development, other income and other expense include restructuring income and charges related to the initiative to implement a new streamlined organizational model, the company-wide rationalization of manufacturing sites and other net restructuring charges and related items; cost of goods sold and research and development also include contingent consideration adjustments; other income and other expense include adjustments to environmental provisions, fair value adjustments on financial assets, a fair value adjustment on a contingent receivable and other costs and items; other income also includes divestment gains; other expense includes legal related items and a curtailment adjustment; loss from associated companies includes a divestment adjustment related to the sale of an investment in associated companies; other financial income and expense includes the impact of IAS Standards 29 "Financial Reporting in Hyperinflationary Economies" for subsidiaries operating in hyperinflationary economies, currency devaluation losses, an adjustment related to the gain on sale of financial assets and interests on tax related items

[5] Taxes on the adjustments between IFRS Accounting Standards and core results, for each item included in the adjustment, take into account the tax rate that will finally be applicable to the item based on the jurisdiction where the adjustment will finally have a tax impact. Generally, this results in amortization and impairment of intangible assets other than goodwill and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items, although this is not always the case for items arising from legal settlements in certain jurisdictions. Adjustments related to income from associated companies are recorded net of any related tax effect. Due to these factors and the differing effective tax rates in the various jurisdictions, the tax on the total adjustments of USD 5.1 billion to arrive at the core results before tax amounts to USD 1.3 billion and the average tax rate on the total adjustments was 25.6%.

[6] Core earnings per share (EPS) is calculated by dividing core net income attributable to shareholders of Novartis AG by the weighted average number of shares used in the basic EPS calculation outstanding in a reporting period.

2023 (USD millions unless indicated otherwise)	IFRS Accounting Standards results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment of businesses and related items[3]	Other items[4]	Core results
Gross profit from continuing operations	**34 188**	**3 319**	**310**		**142**	**37 959**
Operating income from continuing operations	**9 769**	**3 730**	**3 088**	**– 25**	**– 190**	**16 372**
Income before taxes from continuing operations	**9 123**	**3 730**	**3 088**	**– 25**	**18**	**15 934**
Income taxes from continuing operations[5]	– 551	– 677	– 561	– 9	– 690	– 2 488
Net income from continuing operations	**8 572**					**13 446**
Net income from discontinued operations[6]	6 282					889
Net income	**14 854**					**14 335**
Basic EPS from continuing operations (USD)[7]	**4.13**					**6.47**
Basic EPS from discontinued operations (USD)[7]	3.02					0.43
Basic EPS (USD)[7]	**7.15**					**6.90**
The following are adjustments to arrive at core gross profit from continuing operations						
Cost of goods sold	– 12 472	3 319	310		142	– 8 701
The following are adjustments to arrive at core operating income from continuing operations						
Selling, general and administration	– 12 517				28	– 12 489
Research and development	– 11 371	411	2 737	32	– 409	– 8 600
Other income	1 772		– 10	– 174	– 1 196	392
Other expense	– 2 303		51	117	1 245	– 890
The following are adjustments to arrive at core income before taxes from continuing operations						
Other financial income and expense	222				208	430

[1] Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products and other production-related intangible assets; research and development includes the amortization of acquired rights to technologies

[2] Impairments: cost of goods sold, research and development, other income and other expense include net impairment charges related to intangible assets; other income and other expense includes also net impairment charges related to property, plant and equipment

[3] Acquisition or divestment of businesses and related items, including restructuring and integration charges: research and development include restructuring and integration cost charges; other income includes a favorable stamp duties tax settlement related to a prior periods acquisition; other income and other expense include also transitional service-fee income and expenses related to the Sandoz distribution, restructuring and integration costs charges and reversals

[4] Other items: cost of goods sold, selling, general and administration, research and development, other income and other expense include restructuring income and charges related to the initiative to implement a new streamlined organizational model, the company-wide rationalization of manufacturing sites and other net restructuring charges and related items; cost of goods sold and research and development also include contingent consideration adjustments; cost of goods sold and selling, general and administration includes also adjustments to provisions; research and development also include a write-off of prepaid expenses for a terminated development project; other income and other expense include fair value adjustments, divestment gains, losses and gains on financial assets, legal related items, adjustments to environmental provisions; other income includes also gains from the divestment of products and curtailment gains; other expenses also includes a fair value adjustment on a contingent receivable and other costs and items; other financial income and expense includes the impact of IAS Standards 29 “Financial reporting in Hyperinflationary Economies” for subsidiaries operating in hyperinflationary economies and foreign exchange losses

[5] Taxes on the adjustments between IFRS Accounting Standards and core results, for each item included in the adjustment, take into account the tax rate that is applicable to the item based on the jurisdiction where the adjustment has a tax impact. Generally, this results in amortization and impairment of intangible assets and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items, although this is not always the case for items arising from legal settlements in certain jurisdictions. Due to these factors and the differing statutory tax rates in the various jurisdictions, the tax on the total adjustments of USD 6.8 billion to arrive at the core results before tax amounts to USD 1.9 billion and the average tax rate on the adjustments was 28.4%.

[6] For details on discontinued operations reconciliation from IFRS Accounting Standards net income to core net income refer to page 55.

[7] Core earnings per share (EPS) is calculated by dividing core net income attributable to shareholders of Novartis AG by the weighted average number of shares used in the basic EPS calculation outstanding in a reporting period.

2023 reconciliation from IFRS Accounting Standards results to non-IFRS measure core results – Discontinued operations

2023 (USD millions unless indicated otherwise)	IFRS Accounting Standards results	Amortization of intangible assets[1]	Impairments[2]	Acquisition or divestment of businesses and related items	Other items[3]	Core results
Gross profit from discontinued operations	**3 403**	**165**	**34**		**57**	**3 659**
Operating income from discontinued operations	**265**	**165**	**43**		**712**	**1 185**
Income before taxes from discontinued operations	**214**	**165**	**43**		**718**	**1 140**
Income taxes from discontinued operations[4]	208	– 29	– 8		– 422	– 251
Net income from discontinued operations	**422**					**889**
Gain on distribution of Sandoz Group AG to Novartis AG shareholders	5 860			– 5 860		
Net income from discontinued operations	**6 282**					**889**
Basic EPS from discontinued operations (USD)[5]	**3.02**					**0.43**
The following are adjustments to arrive at core gross profit from discontinued operations						
Cost of goods sold	– 4 044	165	34		57	– 3 788
The following are adjustments to arrive at core operating income from discontinued operations						
Selling, general and administration	– 1 728				25	– 1 703
Research and development	– 671		10			– 661
Other income	56		– 1		– 24	31
Other expense	– 795				654	– 141
The following are adjustments to arrive at core income before taxes from discontinued operations						
Other financial income and expense	– 20				6	– 14

[1] Amortization of intangible assets: cost of goods sold includes the amortization of acquired rights to currently marketed products and other production-related intangible assets

[2] Impairments: cost of goods sold and research and development include impairment charges related to intangible assets; other income includes a reversal of impairment charges related to property, plant and equipment

[3] Other items: cost of goods sold, selling, general and administration, other income and other expense include charges related to the Sandoz distribution, the company-wide rationalization of manufacturing sites and other net restructuring charges and related items; cost of goods sold and selling, general and administration also include adjustments to provisions; other expense includes legal-related items; other financial income and expense includes the impact of IAS Standards 29 "Financial reporting in Hyperinflationary Economies" for subsidiaries operating in hyperinflationary economies

[4] Taxes on the adjustments between IFRS Accounting Standards and core results, for each item included in the adjustment, take into account the tax rate that will finally be applicable to the item based on the jurisdiction where the adjustment will finally have a tax impact. Generally, this results in amortization and impairment of intangible assets and acquisition-related restructuring and integration items having a full tax impact. There is usually a tax impact on other items, although this is not always the case for items arising from legal settlements in certain jurisdictions. Adjustments related to income from associated companies are recorded net of any related tax effect. Due to these factors and the differing effective tax rates in the various jurisdictions, the tax on the total adjustments of USD 926 million to arrive at the core results before tax amounts to USD 459 million and the average tax rate on the adjustments was 49.5%.

[5] Core earnings per share (EPS) is calculated by dividing core net income attributable to shareholders of Novartis AG by the weighted average number of shares used in the basic EPS calculation outstanding in a reporting period.

5.B Liquidity and capital resources

The following table summarizes the Company's cash flows and net debt:

(USD millions)	**2024**	2023
Net cash flows from operating activities from continuing operations	17 619	14 220
Net cash flows from operating activities from discontinued operations		238
Net cash flows (used in)/from investing activities from continuing operations	– 7 513	6 719
Net cash flows used in investing activities from discontinued operations		– 1 123
Net cash flows used in financing activities from continuing operations	– 11 742	– 17 564
Net cash flows from financing activities from discontinued operations		3 286
Effect of exchange rate changes on cash and cash equivalents	– 298	100
Net change in cash and cash equivalents	**– 1 934**	**5 876**
Change in marketable securities, commodities, time deposits and derivative financial instruments	963	– 10 378
Change in current and non-current financial debts and derivative financial instruments	– 4 987	1 564
Change in net debt	**– 5 958**	**– 2 938**
Net debt at January 1	– 10 183	– 7 245
Net debt at December 31	**– 16 141**	**– 10 183**

Cash flow

Net cash flows from operating activities from continuing operations amounted to USD 17.6 billion, compared with USD 14.2 billion in 2023. This increase was mainly driven by higher net income from continuing operations, adjusted for non-cash items and other adjustments, including divestment gains, lower payments out of provisions and lower income taxes paid, mainly due to the timing of income tax payments, partly offset by unfavorable changes in working capital and higher net interest paid and other financial payments.

In 2023, net cash flows from operating activities from discontinued operations amounted to USD 0.2 billion (2024: nil).

Net cash outflows used in investing activities from continuing operations amounted to USD 7.5 billion, compared with USD 6.7 billion net cash inflows in 2023.

In the current year, net cash outflows used in investing activities from continuing operations were mainly driven by USD 3.9 billion net cash outflows for acquisitions and divestments of businesses, including the acquisition of Kate Therapeutics for USD 0.4 billion; the acquisition of Mariana Oncology for USD 1.0 billion (USD 1.04 billion, net of cash acquired of USD 80 million); and the acquisition of MorphoSys for USD 2.3 billion (USD 2.5 billion, net of cash acquired of USD 0.2 billion). In addition, the cash outflows for purchases of intangible assets amounted to USD 2.4 billion; purchases of property, plant and equipment amounted to USD 1.4 billion; purchases of financial assets amounted to USD 0.2 billion and net purchases of marketable securities, commodities and time deposits amounted to USD 0.7 billion. These cash outflows were partly offset by cash inflows of USD 1.0 billion from the sale of financial assets (including USD 0.7 billion proceeds from the sale of Sandoz Group AG shares by consolidated foundations); and by USD 0.2 billion from the sale of intangible assets and property, plant and equipment.

In 2023, net cash inflows from investing activities from continuing operations of USD 6.7 billion were driven by the net proceeds of USD 10.6 billion from the sale of marketable securities, commodities and time deposits; USD 2.0 billion from the sale of intangible assets (including USD 1.75 billion cash proceeds from the divestment of the 'front of eye' ophthalmology assets to Bausch + Lomb); USD 0.3 billion from the sale of financial assets; and USD 0.2 billion from the sale of property, plant and equipment (including proceeds from the sale and leaseback of real estate). These cash inflows were partly offset by cash outflows of USD 3.6 billion for acquisitions and divestments of businesses, net (including the acquisition of Chinook Therapeutics for USD 3.1 billion, net of cash acquired of USD 0.1 billion, and the acquisition of DTx for USD 0.5 billion, net of cash acquired of USD 0.1 billion); USD 1.7 billion for purchases of intangible assets; USD 1.1 billion for purchases of property, plant and equipment; and USD 0.1 billion for purchases of financial assets.

In 2023, net cash outflows used in investing activities from discontinued operations amounted to USD 1.1 billion (2024: nil).

Net cash outflows used in financing activities from continuing operations amounted to USD 11.7 billion, compared with USD 17.6 billion in 2023.

In the current year, net cash outflows used in financing activities from continuing operations were mainly driven by USD 8.3 billion for net treasury share transactions; USD 7.6 billion for the dividend payment; the USD 2.15 billion repayment of a US dollar bond at maturity, and the USD 0.3 billion repayments of other current financial debts. Cash outflows for MorphoSys shares purchased outside the Offer amounted to USD 0.3 billion, which included a USD 0.2 billion payment to the former remaining minority shareholders in connection with the "squeeze-out." These cash outflows were partly offset by cash inflows from the issuance of bonds totaling

USD 6.1 billion (Swiss franc denominated bonds with a notional amount of CHF 2.2 billion, equivalent to USD 2.5 billion, and US dollar denominated bonds with a notional amount of USD 3.7 billion). The change in current financial debts resulted in net cash inflows of USD 1.0 billion.

In 2023, net cash outflows used in financing activities from continuing operations of USD 17.6 billion were mainly driven by USD 8.6 billion for net treasury share transactions; USD 7.3 billion for the dividend payment; USD 2.2 billion for the repayment of two EUR denominated bonds (notional amounts of EUR 1.25 billion and of EUR 0.75 billion) at maturity. Payments of lease liabilities amounted to USD 0.3 billion. These cash outflows were partly offset by cash inflows of USD 0.5 billion from the net increase in current financial debts.

In 2023, net cash inflows from financing activities from discontinued operations amounted to USD 3.3 billion (2024: nil).

Non-IFRS measure Free cash flow

Free cash flow is a non-IFRS measure, see "—Item 5.A Operating results—Non-IFRS measures as defined by Novartis—Free cash flow" for further information.

The following table is a reconciliation of the three major categories of the IFRS Accounting Standards consolidated statements of cash flows to the non-IFRS measure free cash flow:

	2024			2023		
(USD millions)	IFRS Accounting Standards cash flow	Adjustments	Free cash flow	IFRS Accounting Standards cash flow	Adjustments	Free cash flow
Net cash flows from operating activities from continuing operations	**17 619**		**17 619**	**14 220**		**14 220**
Net cash flows from operating activities from discontinued operations				238		238
Total net cash flows from operating activities	**17 619**		**17 619**	**14 458**		**14 458**
Net cash flows (used in)/from investing activities from continuing operations	**– 7 513**	**6 147**	**– 1 366**	**6 719**	**– 7 779**	**– 1 060**
Net cash flows used in investing activities from discontinued operations				– 1 123	904	– 219
Total net cash flows (used in)/from investing activities [1]	**– 7 513**	**6 147**	**– 1 366**	**5 596**	**– 6 875**	**– 1 279**
Net cash flows used in financing activities from continuing operations	**– 11 742**	**11 742**	**0**	**– 17 564**	**17 564**	**0**
Net cash flows from financing activities from discontinued operations				3 286	– 3 286	0
Total net cash flows used in financing activities [2]	**– 11 742**	**11 742**	**0**	**– 14 278**	**14 278**	**0**
Non-IFRS measure free cash flow from continuing operations			**16 253**			**13 160**
Non-IFRS measure free cash flow from discontinued operations						19
Total non-IFRS measure free cash flow			**16 253**			**13 179**

[1] With the exception of purchases of property, plant and equipment, all net cash flows (used in)/from investing activities from continuing operations and from discontinued operations are excluded from the free cash flow.

[2] Net cash flows (used in)/from financing activities from continuing operations and from discontinued operations are excluded from the free cash flow.

The following table is a summary of the non-IFRS measure free cash flow:

(USD millions)	**2024**	2023
Operating income from continuing operations	**14 544**	**9 769**
Reversal of non-cash items and other adjustments		
Depreciation, amortization and impairments	6 114	8 383
Change in provisions and other non-current liabilities	696	61
Other	817	728
Operating income from continuing operations adjusted for non-cash items	**22 171**	**18 941**
Dividends received from associated companies and others	1	2
Interest received and other financial receipts	489	735
Interest paid and other financial payments	– 971	– 768
Income taxes paid	– 2 258	– 2 787
Payments out of provisions and other net cash movements in non-current liabilities	– 1 107	– 1 534
Change in inventories and trade receivables less trade payables	– 1 261	– 1 571
Change in other net current assets and other operating cash flow items	555	1 202
Net cash flows from operating activities from continuing operations	**17 619**	**14 220**
Purchases of property, plant and equipment	– 1 366	– 1 060
Non-IFRS measure free cash flow from continuing operations	**16 253**	**13 160**
Non-IFRS measure free cash flow from discontinued operations [1]		19
Total non-IFRS measure free cash flow	**16 253**	**13 179**

[1] In 2023, the free cash flow from discontinued operations was a cash inflow of USD 19 million, consisting of USD 238 million net cash inflows from operating activities from discontinued operations, less purchases of property, plant and equipment by discontinued operations of USD 219 million.

Free cash flow from continuing operations amounted to USD 16.3 billion (+24% USD), compared with USD 13.2 billion in 2023, driven by higher net cash flows from operating activities from continuing operations.

For the total Company, free cash flow amounted to USD 16.3 billion, compared with USD 13.2 billion in 2023.

Condensed consolidated balance sheets

(USD millions)	**Dec 31, 2024**	Dec 31, 2023
Assets		
Non-current assets		
Property, plant and equipment	9 458	9 514
Right-of-use assets	1 415	1 410
Goodwill	24 756	23 341
Intangible assets other than goodwill	26 915	26 879
Investments in associated companies	119	205
Deferred tax assets	4 359	4 309
Financial assets	2 015	2 607
Other non-current assets	3 505	1 199
Total non-current assets	**72 542**	**69 464**
Current assets		
Inventories	5 723	5 913
Trade receivables	7 423	7 107
Income tax receivables	133	426
Marketable securities, commodities, time deposits and derivative financial instruments	1 998	1 035
Cash and cash equivalents	11 459	13 393
Other current assets	2 968	2 607
Total current assets	**29 704**	**30 481**
Total assets	**102 246**	**99 945**
Equity and liabilities		
Total equity	**44 126**	**46 750**
Liabilities		
Non-current liabilities		
Financial debts	21 366	18 436
Lease liabilities	1 568	1 598
Deferred tax liabilities	2 419	2 248
Provisions and other non-current liabilities	4 075	4 523
Total non-current liabilities	**29 428**	**26 805**
Current liabilities		
Trade payables	4 572	4 926
Financial debts and derivative financial instruments	8 232	6 175
Lease liabilities	235	230
Current income tax liabilities	1 599	1 893
Provisions and other current liabilities	14 054	13 166
Total current liabilities	**28 692**	**26 390**
Total liabilities	**58 120**	**53 195**
Total equity and liabilities	**102 246**	**99 945**

Assets

Total non-current assets of USD 72.5 billion increased by USD 3.1 billion compared with December 31, 2023.

Intangible assets other than goodwill were broadly in line with December 31, 2023, mainly as the impact of the business acquisitions of Kate Therapeutics, Mariana Oncology, and MorphoSys and additions, were offset by amortization, impairments and unfavorable currency translation effects.

Goodwill increased by USD 1.4 billion mainly due to the impact of the business acquisitions of Kate Therapeutics, Mariana Oncology and MorphoSys, partially offset by an impairment and unfavorable currency translation effects.

Financial assets decreased by USD 0.6 billion mainly due to the sale of Sandoz Group AG shares by consolidated foundations.

Other non-current assets increased by USD 2.3 billion mainly due the increase of prepaid post-employment benefit plans. This increase is due to the pension plans in Switzerland not being required to continue to apply the IFRS Standards limitation on recognition of fund surplus (the asset ceiling) as at December 31, 2024.

Property, plant and equipment, right-of-use assets, deferred tax assets and investments in associated companies were broadly in line with December 31, 2023.

Total current assets of USD 29.7 billion decreased by USD 0.8 billion compared with December 31, 2023.

Cash and cash equivalents decreased by USD 1.9 billion mainly as cash generated through operating activities of USD 17.6 billion and net proceeds from changes in financial debts of USD 4.7 billion, were offset by the USD 7.6 billion dividend payment, USD 8.3 billion for net purchases of treasury shares, USD 3.9 billion mainly for the business acquisitions of Kate Therapeutics, Mariana Oncology and MorphoSys, USD 3.6 billion for net purchases of property, plant and equipment and intangible assets, and other net cash outflows from investing and financing activities and currency effects of USD 0.8 billion.

Marketable securities, commodities, time deposits and derivative financial instruments increased by USD 1.0 billion. Trade receivables increased by USD 0.3 billion, mainly driven by the increase in net sales and other current assets increased by USD 0.4 billion. Income tax receivables decreased by USD 0.3 billion. Inventories were broadly in line with December 31, 2023.

We consider our provisions for doubtful trade receivables to be adequate. We particularly monitor the level of trade receivables in countries deemed to have an elevated credit risk. We consider macroeconomic environment, historical experience, country and political risks, in addition to other relevant information when assessing risk. These risk factors are monitored regularly to determine any adjustments to risk classification. The majority of the past due trade receivables from elevated credit risk countries are due from local governments or from government-funded entities. Deteriorating credit, economic conditions and other factors in these elevated credit risk countries have resulted in, and may continue to result in an increase in the average time that it takes to collect these trade receivables and may require the Company to re-evaluate the expected credit loss amount of these trade receivables in future periods. As at December 31, 2024, amounts past due for more than one year were not significant in elevated credit risk countries.

For a table showing an overview of the aging analysis of total trade receivables and the total amount of the provision for doubtful trade receivables as at December 31, 2024, and 2023, see "Item 18. Financial Statements—Note 15. Trade receivables."

There is also a risk that certain countries could devalue their currency. Currency exposures are described in more detail in "—Effects of currency fluctuations."

Liabilities

Total non-current liabilities of USD 29.4 billion increased by USD 2.6 billion compared with December 31, 2023.

Non-current financial debts increased by USD 2.9 billion mainly due to the issuance of Swiss franc denominated bonds of USD 2.5 billion (notional amount of CHF 2.2 billion), the issuance of US dollar denominated bonds with a notional amount of USD 3.7 billion and financial debts acquired through the MorphoSys business acquisition of USD 0.6 billion, partly offset by the reclassification of USD 3.3 billion from non-current to current financial debts consisting of two US dollar denominated bonds with notional amount of USD 2.8 billion and a Swiss franc denominated bond of notional amount of CHF 0.5 billion all maturing in 2025.

Provisions and other non-current liabilities decreased by USD 0.4 billion. Non-current lease liabilities and deferred tax liabilities were broadly in line with December 31, 2023.

Total current liabilities of USD 28.7 billion increased by USD 2.3 billion compared with December 31, 2023.

Current financial debts and derivative financial instruments increased by USD 2.1 billion compared with December 31, 2023, mainly due to the issuance of commercial paper notes under the US commercial paper program and the reclassification of USD 3.3 billion from non-current to current financial debts consisting of two US dollar denominated bonds with notional amount of USD 2.8 billion and a Swiss franc denominated bond of notional amount of CHF 0.5 billion all maturing in 2025, partly offset by the repayment of a US dollar bond at maturity of USD 2.15 billion.

Trade payables decreased by USD 0.4 billion. Provisions and other current liabilities increased by USD 0.9 billion mainly driven by the increase in provisions for deductions from revenue. Current income tax liabilities decreased by USD 0.3 billion. Current lease liabilities were broadly in line with December 31, 2023.

In our key countries, Switzerland and the United States, assessments have been agreed by the tax authorities up to 2020 in Switzerland and up to 2016 in the United States.

Novartis believes that its total provisions are adequate based upon currently available information. However, given the inherent difficulties in estimating these liabilities, Novartis may incur additional costs beyond the amounts provided. Management believes that such additional amounts, if any, would not be material to the Company's financial condition but could be material to the results of operations or cash flows in a given period.

Equity

The Company's equity decreased by USD 2.6 billion to USD 44.1 billion compared with December 31, 2023.

This decrease was mainly driven by the net income of USD 11.9 billion, actuarial gains from defined benefit plans of USD 2.0 billion (mainly due to Swiss pension plans not being required to apply the asset ceiling in 2024) and favorable impact from equity-based compensation of USD 1.1 billion being more than offset by the purchase of treasury shares of USD 8.5 billion, the cash-dividend to Novartis AG shareholders of USD 7.6 billion and unfavorable currency translation effects of USD 1.6 billion.

Summary of equity movements attributable to Novartis AG shareholders

	Number of outstanding shares (in millions)		Equity attributable to Novartis AG shareholders	
	2024	2023	**2024 USD millions**	2023 USD millions
Balance at beginning of year	**2 044.0**	**2 119.6**	**46 667**	**59 342**
Shares acquired to be canceled	– 77.5	– 87.5	– 8 316	– 8 369
Other share purchases	– 1.2	– 1.6	– 134	– 148
Equity-based compensation plans, exercise of options and employee transactions	9.7	13.2	1 060	1 050
Taxes on treasury share transactions			– 68	14
Transaction costs, net of taxes				– 214
Dividends			– 7 624	– 7 255
Dividend in kind to effect the spin-off of Sandoz				– 13 962
Net income of the year attributable to shareholders of Novartis AG			11 941	14 850
Other comprehensive income attributable to shareholders of Novartis AG			592	1 200
Changes in non-controlling interests			– 226	
Other movements	0.1	0.3	154	159
Balance at end of year	**1 975.1**	**2 044.0**	**44 046**	**46 667**

In 2024, Novartis repurchased a total of 77.5 million shares for USD 8.3 billion on the SIX Swiss Exchange second trading line. These purchases included 68.8 million shares (USD 7.3 billion) under the up-to USD 15 billion share buyback announced in July 2023 (with up to USD 5.4 billion still to be executed). In addition, 8.7 million shares (USD 1.0 billion) were repurchased to mitigate the impact of share deliveries under the equity-based compensation plans for employees. Furthermore, 1.2 million shares (equity value of USD 0.1 billion) were repurchased from employees. In the same period, 9.8 million shares (equity value of USD 1.1 billion) were delivered as a result of share deliveries related to employee equity-based compensation plans. Consequently, the total number of shares outstanding decreased by 68.9 million versus December 31, 2023. These treasury share transactions resulted in an equity decrease of USD 7.4 billion and a net cash outflow of USD 8.3 billion.

In 2023, Novartis repurchased a total of 87.5 million shares for USD 8.4 billion on the SIX Swiss Exchange second trading line. These repurchases included 52.8 million shares (USD 4.9 billion) under the USD 15 billion share buyback (announced in December 2021 and completed in June 2023) and 23.0 million shares (USD 2.3 billion) under the new up-to USD 15 billion share buyback announced in July 2023. In addition, 11.7 million shares (USD 1.2 billion) were repurchased to mitigate the impact of share deliveries under the equity-based compensation plans for employees. Furthermore, 1.6 million shares (equity value of USD 0.1 billion) were repurchased from employees. In the same period, 13.5 million shares (equity value of USD 1.1 billion) were delivered as a result of options exercised and share deliveries related to the equity-based compensation plans for employees. Consequently, the total number of shares outstanding decreased by 75.6 million versus December 31, 2022. These treasury share transactions resulted in an equity decrease of USD 7.4 billion and a net cash outflow of USD 8.6 billion.

Treasury shares

As at December 31, 2024, our holding of treasury shares amounted to 214.9 million shares, or approximately 10% of the total number of issued shares. Approximately 86.0 million treasury shares were held in entities that restrict their availability for use.

As at December 31, 2023, our holding of treasury shares amounted to 233.5 million shares, or approximately 10% of the total number of issued shares. Approximately 93.8 million treasury shares were held in entities that restrict their availability for use.

Effects of currency fluctuations

We transact our business in many currencies other than the US dollar, our reporting currency.

The following table provides an overview of net sales and operating expenses from continuing operations based on IFRS Accounting Standards values, for the most important currencies to the Company:

	2024		2023	
Currency	Net sales from continuing operations %	Operating expenses from continuing operations %[1]	Net sales from continuing operations %	Operating expenses from continuing operations %[1]
US dollar (USD)	44	39	42	37
Euro (EUR)	23	23	24	20
Swiss franc (CHF)	1	18	1	22
Chinese yuan (CNY)	8	5	7	4
Japanese yen (JPY)	4	2	4	2
Canadian dollar (CAD)	2	1	2	1
British pound (GBP)	2	2	2	5
Russian ruble (RUB)	1	0	1	0
Brazilian real (BRL)	2	1	2	1
Australian dollar (AUD)	1	0	1	0
Other currencies	12	9	14	8

[1] Operating expenses include cost of goods sold; selling, general and administration; research and development; other income and other expense.

We prepare our consolidated financial statements in US dollars. As a result, fluctuations in the exchange rates between the US dollar and other currencies can have a significant effect on both the Company's results of operations as well as the reported value of our assets, liabilities and cash flows. This in turn may significantly affect reported earnings (both positively and negatively) and the comparability of period-to-period results of operations.

For purposes of our consolidated balance sheets, we translate assets and liabilities denominated in other currencies into US dollars at the prevailing market exchange rates as of the relevant balance sheet date. For purposes of the Company's consolidated income and cash flow statements, revenue, expense and cash flow items in local currencies are translated into US dollars at average exchange rates prevailing during the relevant period. As a result, even if the amounts or values of these items remain unchanged in the respective local currency, changes in exchange rates have an impact on the amounts or values of these items in our consolidated financial statements.

Because our expenditure in Swiss francs is significantly higher than our revenue in Swiss francs, volatility in the value of the Swiss franc can have a significant impact on the reported value of our earnings, assets and liabilities, and the timing and extent of such volatility can be difficult to predict.

The Company manages its global currency exposure by engaging in hedging transactions where management deems appropriate, after taking into account the natural hedging afforded by our global business activity. In 2024 and 2023, we entered into various contracts that change in value with movements in foreign exchange rates, to preserve the value of assets, commitments and expected transactions. We use forward contracts and foreign currency options to hedge. For more information on how these transactions affect our consolidated financial statements and on how foreign exchange rate exposure is managed, see "Item 18. Financial Statements—Note 1. Accounting policies," "Item 18. Financial Statements—Note 5. Interest expense and other financial income and expense," "Item 18. Financial Statements—Note 15. Trade receivables," "Item 18. Financial Statements—Note 27. Commitments and contingent liabilities" and "Item 18. Financial Statements—Note 28. Financial instruments – additional disclosures."

The following table sets forth the foreign exchange rates of the US dollar against key currencies used for foreign currency translation when preparing the Company's consolidated financial statements:

	Average for year			Year-end		
USD per unit	**2024**	2023	Change in %	**2024**	2023	Change in %
Australian dollar (AUD)	0.660	0.665	– 1	0.622	0.683	– 9
Brazilian real (BRL)	0.186	0.200	– 7	0.162	0.206	– 21
Canadian dollar (CAD)	0.730	0.741	– 1	0.696	0.755	– 8
Swiss franc (CHF)	1.136	1.113	2	1.107	1.189	– 7
Chinese yuan (CNY)	0.139	0.141	– 1	0.137	0.141	– 3
Euro (EUR)	1.082	1.082	0	1.041	1.107	– 6
British pound (GBP)	1.278	1.243	3	1.256	1.275	– 1
Japanese yen (JPY (100))	0.661	0.713	– 7	0.640	0.707	– 9
Russian ruble (RUB (100))	1.080	1.185	– 9	0.889	1.111	– 20

The following table provides a summary of the currency impact on key Company figures due to their conversion into US dollars, the Company's reporting currency. For additional information on the constant currency calculation ("cc"), see "—Item 5.A Operating results—Non-IFRS measures as defined by Novartis—Constant currencies."

Currency impact on key figures

	Change in USD % 2024	Change in constant currencies % 2024	Percentage point currency impact 2024
Net sales from continuing operations	11	12	– 1
Operating income from continuing operations	49	55	– 6
Net income from continuing operations	39	45	– 6
Basic earnings per share (USD) from continuing operations	43	49	– 6
Core operating income from continuing operations	19	22	– 3
Core net income from continuing operations	17	21	– 4
Core basic earnings per share (USD) from continuing operations	21	24	– 3

nm = not meaningful

For additional information on the effects of currency fluctuations, see "Item 18. Financial Statements—Note 28. Financial instruments – additional disclosures."

Company liquidity, financial debts and net debt

The following table shows Company liquidity, financial debts and net debt:

(USD millions)	2024	2023
Non-current financial debts	– 21 366	– 18 436
Current financial debts and derivative financial instruments	– 8 232	– 6 175
Total financial debts	**– 29 598**	**– 24 611**
Less liquidity		
Cash and cash equivalents	11 459	13 393
Marketable securities, commodities, time deposits and derivative financial instruments	1 998	1 035
Total liquidity	**13 457**	**14 428**
Net debt at December 31 [1]	**– 16 141**	**– 10 183**

[1] For further information about the net debt measure, which is a non-IFRS measure, see "—Item 5.A Operating results—Non-IFRS measures as defined by Novartis—Net debt."

The Company's net debt as at December 31, 2024, increased to USD 16.1 billion, compared with USD 10.2 billion as at December 31, 2023.

Total financial debts amounted to USD 29.6 billion as at December 31, 2024, compared with USD 24.6 billion as at December 31, 2023. Non-current financial debts increased by USD 2.9 billion mainly due to the issuance of Swiss franc denominated bonds of USD 2.5 billion (notional amount of CHF 2.2 billion), the issuance of US dollar denominated bonds with a notional amount of USD 3.7 billion and financial debts acquired through the MorphoSys business acquisition of USD 0.6 billion, partly offset by the reclassification of USD 3.3 billion from non-current to current financial debts consisting of two US dollar denominated bonds with notional amount of USD 2.8 billion and a Swiss franc denominated bond of notional amount of CHF 0.5 billion all maturing in 2025.

Current financial debts and derivative financial instruments increased by USD 2.1 billion compared with December 31, 2023, mainly due to the issuance of commercial paper notes under the US commercial paper program and the reclassification of USD 3.3 billion from non-current to current financial debts consisting of two US dollar denominated bonds with notional amount of USD 2.8 billion and a Swiss franc denominated bond of notional amount of CHF 0.5 billion all maturing in 2025, partly offset by the repayment of a US dollar bond at maturity of USD 2.15 billion.

Novartis has a US commercial paper program under which it can issue up to USD 9.0 billion in the aggregate of unsecured commercial paper notes. Novartis also has a Japanese commercial paper program under which it can issue up to JPY 150 billion (approximately USD 1.0 billion) of unsecured commercial paper notes. Commercial paper notes totaling USD 4.1 billion under these two programs were outstanding as at December 31, 2024 (2023: USD 3.3 billion).

In May 2024, Novartis replaced its existing USD 6.0 billion credit facility with a syndicate of banks (which was undrawn at its replacement date and December 31, 2023 and had a maturity date of September 2025) with a new USD 6.0 billion credit facility with a syndicate of banks. This credit facility is intended to be used as a backstop for the US commercial paper program. This facility matures in May 2029, and was undrawn as at December 31, 2024.

Total liquidity decreased to USD 13.5 billion compared with USD 14.4 billion as at December 31, 2023.

As of year-end 2024, Moody's Ratings rated the Company Aa3 for long-term maturities and P-1 for short-term maturities and S&P Global Ratings rated the company AA- for long-term maturities and A-1+ for short-term maturities.

Liquidity and financial debt by currency

The following table provides a breakdown of liquidity and financial debt by currency as at December 31:

	Liquidity in % 2024[1]	Liquidity in % 2023[1]	Financial debt in % 2024[2]	Financial debt in % 2023[2]
USD	59	67	65	67
CHF	7	7	13	7
EUR	30	22	18	23
JPY			2	1
Other	4	4	2	2
	100	**100**	**100**	**100**

[1] Liquidity includes cash and cash equivalents and marketable securities, including debt securities, commodities and time deposits.
[2] Financial debt includes non-current and current financial debt.

Bonds

In May 2024, a 10-year US dollar denominated bond of USD 2.15 billion with a coupon of 3.40% was repaid at maturity.

In June 2024, five Swiss franc denominated bonds totaling CHF 2.2 billion were issued: a 3-year bond of CHF 650 million with a coupon of 1.60%, a 7-year bond of CHF 435 million with a coupon of 1.65%, a 10-year bond of CHF 645 million with a coupon of 1.75%, a 16-year bond of CHF 280 million with a coupon of 1.85% and a 25-year bond of CHF 190 million with a coupon of 1.85%.

In September 2024, four US dollar denominated bonds totaling USD 3.70 billion were issued: a 5-year bond of USD 1.00 billion with a coupon of 3.80%, a 7-year bond of USD 0.85 billion with a coupon of 4.00%, a 10-year bond of USD 1.10 billion with a coupon of 4.20% and a 30-year bond of USD 0.75 billion with a coupon of 4.70%.

In August 2023, a 5-year EUR denominated bond of EUR 750 million with a coupon of 0.50% was repaid at maturity.

In September 2023, a 7-year EUR denominated bond of EUR 1.25 billion with a coupon of 0.125% was repaid at maturity.

Liquidity/short-term funding

The Company's liquidity amounted to USD 13.5 billion as at December 31, 2024, compared with USD 14.4 billion as at December 31, 2023. Total non-current and current financial debts, including derivatives, amounted to USD 29.6 billion as at December 31, 2024, compared with USD 24.6 billion as at December 31, 2023.

The debt/equity ratio increased to 0.67:1 as at December 31, 2024, compared with 0.53:1 as at December 31, 2023. The net debt increased to USD 16.1 billion as at December 31, 2024, compared with USD 10.2 billion as at December 31, 2023.

We continuously track our liquidity position and asset/liability profile. This involves modeling cash flow maturity profiles based on both historical experiences and contractual expectations to project our liquidity requirements. We seek to preserve prudent liquidity and funding capabilities. We are confident that we have sufficient liquidity to support our normal business activities for the foreseeable future.

Certain countries have legal or economic restrictions on the ability of subsidiaries to transfer funds to the Company in the form of cash dividends, loans or advances, but these restrictions do not have an impact on the ability of the Company to meet its cash obligations.

We are not aware of any significant demands to change the level of liquidity needed to support our normal business activities. We make use of various borrowing facilities provided by several financial institutions. We also successfully issued various bonds in previous years and raised funds through our commercial paper programs.

The maturity schedule of our net debt can be found in "Item 18. Financial Statements—Note 28. Financial instruments – Additional disclosures—Nature and extent of risks arising from financial instruments—Liquidity risk."

Material contractual obligations and commitments

The Company's material contractual obligations and commitments, entered into from time to time, consist of the following:

- Non-current financial debt, including current portion (see "Item 18. Financial Statements—Note 19. Non-current financial debt"). For the table showing the maturity schedule of our current and non-current financial debt, see "Item 18. Financial Statements—Note 28. Financial instruments—additional disclosures—Nature and extent of risks arising from financial instruments— Liquidity risk";
- Leases on assets used in operations entered into in the ordinary course of business (see "Item 18. Financial Statements— Note 10. Right-of-use assets and lease liabilities");
- Long-term research and development agreements with various institutions and pharmaceutical companies related to intangible assets. These agreements provide for potential milestone payments by Novartis, which are dependent on successful clinical development, or meeting specified sales targets, or other conditions that are specified in the agreements (see "Item 18. Financial Statements—Note 27. Commitments and contingent liabilities—Research and development commitments");
- Commitments related to the acquisition of businesses and interests in intellectual property focused on key disease areas and indications that the Company expects to be growth drivers in the future (see "Item 18. Financial Statements—Note 27. Commitments and contingent Liabilities—Other commitments"). In addition, certain business acquisition arrangements include contingent payments, which the shareholders of the acquired company are eligible to receive upon the achievement of specified milestones. For the table showing the maturity schedule of contingent consideration liabilities, see "Item 18. Financial Statements—Note 28. Financial instruments—additional disclosures—Nature and extent of risks arising from financial instruments—Liquidity risk";
- Unfunded independent pension and other post-employment benefit plans (see "Item 18. Financial Statements – Note 24. Post-employment benefits for employees"); and
- Property, plant and equipment purchase commitments in the ordinary course of business (see "Item 18. Financial Statements—Note 9. Property, plant and equipment").

The Company intends to fund contractual obligations and commitments related to leases, long-term research and development agreements, property, plant and equipment, and unfunded independent pension and other post-employment benefit plans with available cash and short- and long-term borrowings.

5.C Research and development, patents and licenses

Our research and development spending from continuing operations totaled USD 10.0 billion and USD 11.4 billion (non-IFRS measure core research and development from continuing operations USD 9.3 billion and USD 8.6 billion) for the years 2024 and 2023, respectively.

Novartis has numerous products in various stages of development. For further information on these products in development, see "Item 4. Information on the Company—Item 4.B Business overview."

As described in the risk factors section and elsewhere in this Annual Report, our drug development efforts are subject to the risks and uncertainties inherent in any new drug development program. Due to the risks and uncertainties involved in progressing through preclinical development and clinical trials, and the time and cost involved in obtaining regulatory approvals, among other factors, we cannot reasonably estimate the timing, completion dates and costs, or range of costs, of our drug development programs, or of the development of any particular development compound (see "Item 3. Key Information—Item 3.D Risk factors"). In addition, for a description of the research and development process for the development of new drugs and our other products, and the regulatory process for their approval, see "Item 4. Information on the Company—Item 4.B Business overview."

5.D Trend information

See "—Item 5.A Operating results", "—Item 5.B Liquidity and capital resources" and "Item 4. Information on the Company—Item 4.B Business overview" for trend information.

5.E Critical accounting estimates

Not applicable.

Item 6. Directors, Senior Management and Employees

6.A Directors and senior management

The information set forth under "Item 6. Directors, Senior Management and Employees—Item 6.C Board practices—Corporate governance—Board of Directors" and "Item 6. Directors, Senior Management and Employees—Item 6.C Board practices—Corporate governance—Executive Committee" is incorporated by reference.

6.B Compensation

Dear shareholder,

On behalf of the Compensation Committee of Novartis, I am pleased to present our 2024 Compensation Report.

2024 company performance

Novartis delivered an excellent performance in 2024, driven by sales growth in key brands and more cost-effective operations. Compared with the prior year, net sales from continuing operations increased by 12% measured in constant currencies (cc), core operating income increased by 22% (cc) and free cash flow increased by USD 3.1 billion. Sales growth was mainly driven by *Entresto*, *Cosentyx*, *Kesimpta*, and *Kisqali*. The Company's performance led to two guidance upgrades for net sales and three for core operating income.

The compensation of the members of the Executive Committee of Novartis (ECN) is largely determined by performance evaluations conducted on both a short-term basis through the Annual Incentive and a long-term basis via the Long-Term Performance Plan (LTPP).

As an innovative medicines company, we consider innovation core to the value we bring to society. Innovation and certain ESG targets (e.g., access to medicines) are included in the Annual Incentive targets of all Executive Committee members. There are further innovation milestones which comprise 25% of the LTPP performance measurement. In 2024, our innovation highlights included the approval of *Fabhalta* in EU, China and Japan for adult patients with paroxysmal nocturnal hemoglobinuria (PNH), as well as in the US for adult patients with immunoglobulin A nephropathy (IgAN). We also received accelerated approval in the US for *Scemblix* for newly diagnosed patients with chronic myeloid leukemia (CML) and *Kisqali* was approved in the EU and US to reduce the risk of recurrence in people with early breast cancer.

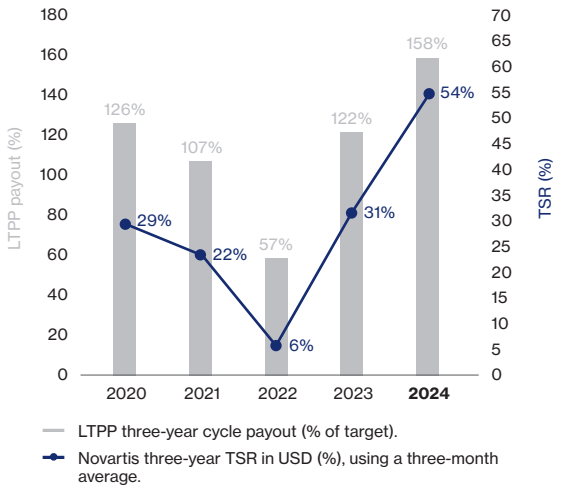
2024 realized compensation

The company's performance in 2024 resulted in a total realized compensation for the CEO of CHF 19 165 899, of which 88.5% was made up of variable components, which comprised an Annual Incentive at 160% of target and a 2022-2024 LTPP at 158% of target. The LTPP represents the largest component of the realized compensation.

The 2022-2024 LTPP cycle delivered strong results versus target, with both third-party sales CAGR (compound annual growth rate) and core operating income CAGR (both in cc) exceeding the level required for a maximum payout. Three-year sales performance from growth brands *Entresto*, *Pluvicto, Kesimpta* and *Kisqali*, all considerably exceeded expectations. Our bottom line was further strengthened through savings generated by our organizational transformation. Innovation performance was solid, as evidenced by the advances listed above. Our share price performance and year-on-year dividend increases resulted in a total return to shareholders of 54% over the performance cycle which ranked 5th out of our 15 global healthcare peer companies (including Novartis). In addition, the 2022-2024 LTPP cycle payout accrued a 15.5% increase in share price between grant and vesting. In line with our plan rules, an additional two-year holding period applies for the CEO (and CFO) vested shares (i.e. until January 2027). The Board of Directors did not make any discretionary adjustments to the incentive outcomes.

The chart below illustrates the strong correlation between the LTPP payout over the past five years and the three-year total shareholder return (TSR), demonstrating consistent alignment with shareholders' experience.

HISTORIC LTPP PAYOUT VERSUS TSR



The performance outcomes described above also contributed to the total aggregated realized compensation of the other ECN members which was CHF 56 580 414.

For further details on the realized compensation, including a comparison with 2023 realized compensation, see "—CEO and Executive Committee 2024 realized compensation."

Executive Committee compensation system changes

At the beginning of 2024, the Board of Directors incorporated significant changes into our executive compensation system, which were shaped with input from our shareholders as described in detail in last year's Compensation Report. These changes were strongly supported at the 2024 Annual General Meeting (AGM), for which I would like to express my appreciation. We are confident that the changes place us in a better position to attract and retain the best talent on a global scale. No further material changes were made to the 2025 Executive Committee compensation system.

Compensation Committee membership changes
I would like to express my sincere gratitude to William Winters, who will step down from the Compensation Committee and the Board of Directors at the 2025 AGM, for his engagement and invaluable contributions throughout his 12-year tenure. At the 2025 AGM, we will propose to shareholders the nomination of John Young as a new member of the Compensation Committee. To facilitate his onboarding, John attended the last four Compensation Committee meetings as a guest.

2025 Annual General Meeting (AGM)
At the 2025 AGM, as in prior years, shareholders will be asked to vote on:

- The maximum aggregate amount of compensation for the Board of Directors from the 2025 AGM to the 2026 AGM. Board fees will remain unchanged compared with the prior term, with the exception of the annual Board Chair fee, which will be CHF 3.5 million from the 2025 AGM.
- The maximum aggregate amount of compensation for the Executive Committee for the financial year 2026, which remains the same as in the previous year.
- This 2024 Compensation Report (advisory vote), which follows the same structure as in the previous year.

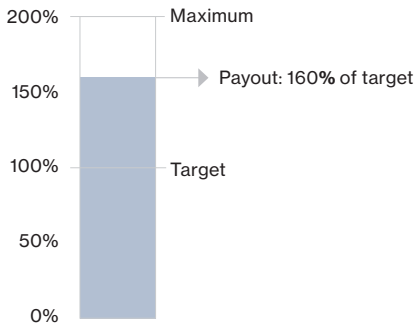
We trust that this Report and our 2025 Say-on-Pay brochure provide you with the information required for you to vote in favor of the above. We continue to welcome your feedback, which is invaluable in driving improvements in our Executive Committee and Board of Directors' compensation systems and practices.

Simon Moroney, D.Phil.
Chair of the Compensation Committee

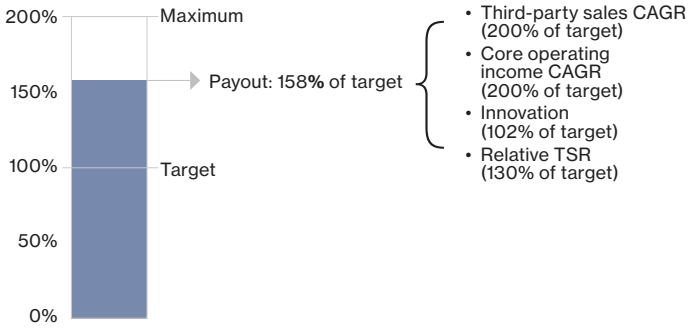
Executive Committee and Board 2024 compensation at a glance

CEO pay for performance

2024 Annual Incentive
% of target



2022-2024 Long-Term Performance Plan (LTPP) cycle
% of target



CEO and Executive Committee total realized compensation

The 2024 total realized compensation for the CEO and Executive Committee members was CHF 75 746 314. For more information, see "—2024 CEO Annual Incentive balanced scorecard", "—2022-2024 LTPP cycle performance outcomes" and "—CEO and Executive Committee 2024 realized compensation."

		2024 base salary	2024 pension benefits	2024 Annual Incentive	2022 – 2024 LTPP cycle	Other 2024 compensation	
	Currency	Cash (amount)	Amount	Cash & Equity	Equity (value at vesting date)	Amount	Total 2024 realized compensation (incl. share price movement)
Vasant Narasimhan (CEO)	CHF	1 865 483	172 722	4 494 788	12 468 155	164 750	19 165 899
Aggregate realized compensation of the other 10 Executive Committee members	CHF	8 985 234	1 959 918	15 051 053	23 212 440	7 371 770	56 580 414
Total	**CHF**	**10 850 717**	**2 132 640**	**19 545 841**	**35 680 595**	**7 536 520**	**75 746 314**

Board compensation

The total actual compensation earned by Board members in the financial year 2024 is shown in the table below. For more information, see "—Board member total compensation earned for the financial year 2024."

CHF	2024 total compensation
Board Chair	3 803 784
Other members of the Board	4 818 134
Total	**8 621 918**

CEO compensation and performance

2024 fixed pay and benefits

Annual base salary	The CEO 2024 base salary was: CHF 1 872 800 (2.4% salary increase effective as of March 1, 2024, in line with ordinary salary increases received by other Swiss employees).
Pension and other benefits	The CEO is a member of the Novartis Swiss pension funds, which provide company contributions on the base salary and an Annual Incentive up to the legal cap on the insured salary of CHF 882 000. No supplementary pension plans or savings plans are provided. The CEO's employer pension contributions represent 9.2% of the base salary.

2024 CEO Annual Incentive balanced scorecard

This section presents the balanced scorecard for the CEO. Financial performance is measured in constant currencies (cc) to reflect operational performance that can be influenced. Performance outcomes for compensation purposes may differ from reported numbers in accordance with our compensation adjustments policy.

Measure	Weight (%)	Target	Performance[1]	Target achievement
Financial performance (cc)	**60**			**Significantly above**
Net sales (USD million)	24	47 838	49 755	Significantly above
Core operating income (USD million)	18	17 512	19 025	Significantly above
Free cash flow as a % of net sales	18	30.1%	32.3%	Significantly above

[1] Performance outcomes from compensation purposes are measured in cc and may differ from reported numbers in accordance with our compensation adjustments policy to consider items not known at the time of target setting e.g. favorable impacts from delayed US generic entry assumptions and M&A/BD&L deal costs.

As communicated in the 2023 Compensation Report, in 2024, core operating income replaced operating income in the ECN financial measures. The Board reviewed the core adjustments made on operating income (as indicated in Item 5. Operating and Financial Review and Prospects – 5.A Operating results – Non-IFRS measures as defined by Novartis – Reconciliation from IFRS Accounting Standards results to non-IFRS measure core result) to arrive at the performance outcomes in the table above and decided not to make any discretionary adjustments to the pay outcomes.

2024 CEO Annual Incentive balanced scorecard (continued)

At the start of the performance cycle, the Board sets the CEO specific targets against each of the four strategic objectives listed below. We provide here a summary of those targets that most heavily impact overall performance and their respective achievement.

Measure	Weight (%) / Performance	Target achievement
Strategic objectives	**40**	**Above**
Maintain growth momentum and ensure successful launches (10%)	• Sales performance for growth drivers was 106% of the 2024 target in cc, largely driven by *Cosentyx and Entresto*. • Recent launches: *Leqvio*, *Scemblix*, *Lutathera*, *Fabhalta* and *Pluvicto* achieved combined sales in line with 2024 target in cc. • US sales grew strongly 18%, mainly driven by *Entresto, Cosentyx, Kesimpta, Kisqali, Pluvicto* and *Leqvio*, partly offset by the Xiidra® divestment and the impact of generic competition on *Gilenya*. • Achieved 110% of target sales calls across our top 8 markets.	Significantly above
Deliver pipeline and drive R&D productivity (10%)	• 7 (vs. target of 6) key approvals secured: iptacopan (*Fabhalta*) for PNH approved in EU, China and Japan, and for IgAN approved in the US, *Kisqali* for early breast cancer approved in the US and EU, as well as *Scemblix* 1L in the US. • 15 (vs. target of 10) regulatory filings submitted, including *Atrasentan* IgAN in US and China, *Scemblix* 1L in the US, China and Japan, Iptacopan C3G in US, EU, China and Japan, IgAN in China, *Pluvicto* mCRPC, pre-taxane in US and *Pluvicto* mCRPC, post-taxane in China. Remibrutinib CSU submission was delayed to early 2025. • 8 (vs. target of 6) new compounds transitioned into late-stage clinical development. • 24 complementary BD&L/M&A deals signed, including the acquisitions of MorphoSys, Mariana Oncology, Kate Therapeutics, Calypso and IFM Due; deals with PTC Therapeutics, Arvinas, PeptiDream, DrenBio, Lindy Biosciences, Baiyu, Monte Rosa Tx, Ratio Therapeutics; and a partnership with Versant to create Borealis. The acquisition of Morphosys has faced significant challenges though work is ongoing on the acquired assets.	Met
Execute on operational excellence & productivity (10%)	• Core operating margin reached 38.7%, bringing us closer to achieving our 2027 aspiration of 40%. • Lean Digital Core, our transformation program to future-proof the processes and technologies to enable core business capabilities, was launched in Turkey and Spain, and towards deployment in Germany, Netherlands, UK and the US. • Workday, our Human Capital Management program was successfully launched on schedule in April. • AI tools and technologies were used to generate: 3 (vs. 2 target) molecular leads, which progressed to in vivo studies, 1 (vs. 1 target) new target for Parkinson's disease, and 10 (vs. 10 target) trial design improvements.	Met
Strengthen foundations (ESG / Human Capital) (10%)	• Maintained strong reputation across key external ESG indices: #1 in the 2024 Access to Medicine Index, CDP's Climate Change and Water Security "A Lists" (only company in our peer group to achieve that score), AA ratings with MSCI. • Across our portfolio, our medicines reached 296 million patients in approximately 120 countries. We continued to implement a global access strategy for 100% of new medicines launched. • Collaboration with The Max Foundation provided access to >100,000 patients across over 70 LMICs to key Novartis medicines such as *Glivec*, *Tasigna*, *Scemblix*, *Kisqali* and *Femara*. • Scope 1, Scope 2 and Scope 3 emissions reduced by 15% from a 2022 base year, keeping us on track for our 2040 net zero target. Water consumption and waste reduced by 9% and 17% from the prior year, respectively.	Above
Total	**100**	
Overall assessment and payout for CEO		**Above**

2024 was another strong performance exceeding external (consensus) and internal (targets) expectations. Sales, profit and free cash flow growth were strong. The focus on innovative medicines and simplification of our operations after the organizational restructuring are having a visible impact across the company. The Research and Development units performed in line with our plan with targeted project timelines acceleration across R&D, and complementary BD&L/M&A deals were signed to bolster the company's pipeline, although the Morphosys acquisition resulted in some unexpected challenges. In view of these achievements, the Board of Directors decided on an Annual Incentive payout for the CEO amounting to **CHF 4 494 788**, which is **160%** of target, within the range of 0-200%.

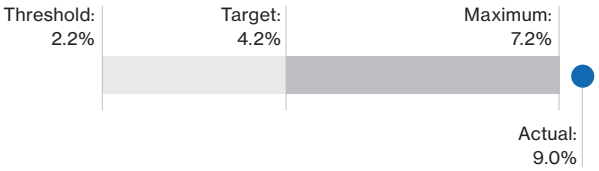
2022-2024 LTPP cycle performance outcomes

The charts below illustrate the very strong performance of the 2022-2024 LTPP cycle against target. The financial LTPP targets were recalibrated to take the Sandoz spin-off into account. Given that these metrics measure the compound annual growth rate, Sandoz targets were removed for the financial years 2023 and 2024. For the relative TSR measure, the dividend in kind distribution was treated as a one-time dividend that is not reinvested.

THIRD-PARTY SALES CAGR

(25% weighting)

Vesting range 0-200% of target



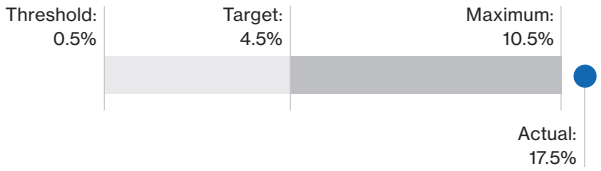
Our transformation into a pure-play innovative medicines company enabled a more focused allocation of resources and operational execution on priority brands. The following brands each exceeded their 2022-2024 sales target (set at the beginning of the cycle) by over USD 1 billion:

- *Entresto*: we strengthened our commercial focus and excellence across our targeted geographies.
- *Pluvicto*: product supply issues were promptly addressed as a higher eligible patient pool in the US drove increased sales.
- *Kesimpta*: streamlining our focus on neuroscience resulted in a larger share gain for the treatment of multiple sclerosis across several markets.
- *Kisqali:* following positive results from NATALEE and MONALEESA studies, we enhanced our investment and resource allocation in this brand.

CORE OPERATING INCOME (COI) CAGR

(25% weighting)

Vesting range 0-200% of target



COI CAGR outcome was equally successful reaching mid-teens growth as our strong sales performance was further strengthened by savings generated by our organizational transformation activities.

INNOVATION

(25% weighting)

Innovation performance was solid, supported by 21 successful submissions across the three-year cycle, including the following highlights:

- approval of *Fabhalta* for PNH in the EU, Japan and China
- regulatory approval of *Lutathera* in pediatric GEP-NET in the US
- submission and accelerated approval of *Scemblix* 1L CML in the US
- approval of *Fabhalta* IgAN in the US
- submission of atrasentan IgAN to the FDA
- submission of *Pluvicto* mCRPC, pre-taxane to the FDA

Additionally, we presented *Kisqali* NATALEE updated data in eBC and Renal portfolio data at ERA (*Fabhalta*, atrasentan, zigakibart)

Based on input from the Science & Technology Committee (STC), the Board of Directors approved a payout of 102% for this metric.

RELATIVE TOTAL SHAREHOLDER RETURN (TSR)

(25% weighting)

Novartis position in the peer group	Payout range (% of target)
Position 1 – 2	170% – 200%
Position 3 – 5	130% – 160%
Position 6 – 8	80% – 120%
Position 9 – 15	0%

→ Actual ranking 5th = 130% of target

TSR for the 2022-2024 cycle was 53.6%. As a result, Novartis ranked No. 5 out of 15 healthcare companies (including Novartis), as our share price performance, growing dividend and spin-off of our generics business, Sandoz, generated considerable value to shareholders. Applying the payout curve directly, this resulted in a payout of 130% under this metric.

2022-2024 LTPP CYCLE PAYOUT

Overall, the Board of Directors approved a 2022-2024 LTPP cycle payout at **158%** of target, within the range of 0-200%. This resulted in an LTPP payout of **CHF 12 468 155** for the CEO, including dividend equivalents of CHF 1 128 701 and keep-whole awards (granted in connection with the Sandoz spin-off) of CHF 727 766. The Board of Directors and the Compensation Committee did not exercise any discretion and no adjustments were made in the evaluation of performance.

3rd party sales CAGR 200% x 25% + **COI CAGR** 200 % x 25% + **Innovation** 102 % x 25% + **Relative TSR** 130% x 25% → **Final vesting** 158% of target

Interim update regarding ongoing LTPP cycles

The performance tracking against target for our ongoing LTPP performance cycles is reported below.

2023-2025 LTPP cycle

After the first two years of the three-year LTPP cycle, third-party sales CAGR and core operating income CAGR are tracking significantly ahead of target, supported by the strong operational performance in financial years 2023 and 2024. Innovation is on track. At the end of 2024, the relative TSR for Novartis was in the top three of our global healthcare peer group.

PERFORMANCE MEASURES	TRACKING
Third-party sales CAGR (25%)	●
Core operating income CAGR (25%)	●
Innovation (25%)	●
Relative TSR (25%)	●

● On or ahead of target

2024-2026 LTPP cycle

After the first year of the three-year LTPP cycle, net sales CAGR and core operating income CAGR are ahead of target and innovation is tracking on target. At the end of 2024, the relative TSR for Novartis was fourth among our global healthcare peer group.

PERFORMANCE MEASURES	TRACKING
Net sales CAGR (25%)	●
Core operating income CAGR (25%)	●
Innovation (25%)	●
Relative TSR (25%)	●

CEO and Executive Committee

CEO and Executive Committee 2024 realized compensation

To aid shareholders' understanding of the link between pay and performance, the Compensation Report discloses the realized compensation for the CEO on an individual basis, and for the other ECN members on an aggregated basis. Disclosing realized compensation means that the Annual Incentive and the LTPP are disclosed at the end of their respective performance cycles, reflecting actual payouts based on performance.

The total actual payout may vary year on year depending on multiple factors, including the composition of the Executive Committee and the tenure of its members (as new members may not have equity vestings), compensation increases, payout of variable compensation based on actual performance, share price fluctuations, and dividend equivalents.

The table below shows compensation for all ECN members for the financial year 2024, including base salary, pension, other benefits, 2024 Annual Incentive, 2022-2024 LTPP cycle payout, and any buyouts paid or vesting within the year. The table also includes the total 2023 realized compensation for all Executive Committee members for comparison.

To determine the appropriateness of 2024 CEO and executive compensation payouts under the Annual Incentive and LTPP, the Board of Directors and the Compensation Committee reviewed management's performance against targets set at the beginning of the cycles as described in "—2024 CEO Annual Incentive balanced scorecard" and "—2022-2024 LTPP cycle performance outcomes."

The incentive performance outcomes, combined with base salary and other benefits, pension, keep-whole awards (awards granted in connection with the Sandoz spin-off) and dividend equivalents, resulted in 2024 total realized compensation for the CEO of **CHF 19 165 899**, an increase of 18% compared with 2023 (CHF 16 248 178). This increase was largely driven by the higher performance payout of the 2022-2024 LTPP cycle (**158%** compared with 122% payout for the 2021-2023 LTPP cycle).

Realized compensation for the CEO and Executive Committee (2024 compared with 2023)

	2024			2023		
In CHF (gross) [1]	**CEO**	**Other ECN**[2]	**Total**	**CEO**	**Other ECN**[3]	**Total**
Annual base salary	1 865 483	8 985 234	10 850 717	1 822 334	8 551 936	10 374 269
Annual Incentive (performance achieved)	4 494 788	15 051 053	19 545 841	5 075 255	15 449 571	20 524 826
Thereof cash	*3 146 304*	*7 279 690*	*10 425 994*	*2 537 599*	*6 149 179*	*8 686 778*
Thereof equity	*1 348 484*	*7 771 363*	*9 119 847*[4]	*2 537 656*	*9 300 392*	*11 838 048*[5]
LTPP (performance achieved)	12 468 155	23 212 440	35 680 595[6]	8 921 546	15 100 093	24 021 639[7]
Other payments [8]	164 750	7 371 770	7 536 520[9]	258 918	6 475 697	6 734 615
Pension benefits [10]	172 722	1 959 918	2 132 640[11]	170 125	1 627 708	1 797 833[12]
Total	**19 165 899**	**56 580 414**	**75 746 314**	**16 248 178**	**47 205 005**[13]	**63 453 183**

[1] All compensation amounts are stated gross, before the deduction of social security contributions and income tax paid by the Executive Committee members. Amounts for Executive Committee members paid in USD were converted at a rate of USD 1.00 = CHF 0.8805, which is the same average exchange rate used in the Company's 2024 consolidated financial statements (a similar rule applies to payments made in other currencies during the year).
[2] Aggregate realized compensation of the other 10 Executive Committee members.
[3] Aggregate realized compensation of the other 11 Executive Committee members, including a member who stepped down during the financial year 2023. For more information, see item 6B of the 2023 Annual Report.
[4] The portion of the Annual Incentive delivered in equity is rounded up to the nearest share, based on the closing share price on the grant date (January 24, 2025) of CHF 90.26 per Novartis share and USD 99.97 per ADR. At the start of the 2024 performance period, Vasant Narasimhan, Aharon Gal, Harry Kirsch, Steffen Lang and Klaus Moosmayer had met their shareholding requirement and therefore received at least 30% of their Annual Incentive in equity. All other Executive Committee members who had not yet met their shareholding requirement at the start of the 2024 performance period, received at least 50% of their Annual Incentive in equity.
[5] The portion of the Annual Incentive delivered in equity is rounded up to the nearest share, based on the closing share price on the grant date (January 24, 2024) of CHF 93.53 per Novartis share and USD 107.55 per ADR.
[6] The amount represents the underlying share value of the 397 777 realized LTPP PSUs to the CEO and other Executive Committee members for the 2022-2024 LTPP cycle, including dividend equivalents for the three-year cycle of value CHF 1 128 701 for the CEO and CHF 2 017 311 for the other Executive Committee members. The taxable value is determined using the closing share price, on the day the payout factor is approved by the Board of Directors (January 24, 2025), of CHF 90.26 per Novartis share and USD 99.97 per ADR. Includes vested keep-whole shares received in connection with the Sandoz spin-off. During the course of the 2022 performance period, Victor Bulto was promoted to the Executive Committee and Shreeram Aradhye rejoined Novartis. As such, the information disclosed reflects their pro-rata 2022-2024 LTPP payout attributable to the period in which they were members of the Executive Committee. Aharon Gal, Fiona Marshall and Patrick Horber joined Novartis after the 2022-2024 LTPP awards were made, and therefore did not receive an LTPP award for the 2022-2024 LTPP cycle.
[7] Based on the closing share price of January 24, 2024 of CHF 93.53 per Novartis share and USD 107.55 per ADR for all members.
[8] Includes any other perquisites, benefits in-kind, and international assignment benefits as per the global mobility policy (e.g., housing, international health insurance, children's school fees, tax equalization). The compensation and benefits elements related to the period after the step-down dates are also reported under 'other payments'.
[9] In line with the buyout policy of Novartis (see "—CEO and Executive Committee: appointments"), includes 8 607 vested ADRs (for a total value of USD 834 580), which vested partially on March 31, 2024, and partially on May 1, 2024, to Fiona Marshall to replace compensation that she forfeited when leaving her previous employer. Includes also 3 116 vested RSUs and 39 976 PSUs (for a total value of CHF 3 955 219), which vested partially on January 20, 2024, on February 1, 2024 and on January 26, 2025 as well as CHF 1 058 274 paid in cash in March 2024, to Patrick Horber to replace compensation that he forfeited when leaving his previous employer. Includes also 3 050 vested RSUs (for a total value of CHF 279 472), which vested on February 26, 2024, to Shreeram Aradhye to replace compensation that he forfeited when leaving his previous employer.
[10] Includes social security contributions to the extent that they result in a pension entitlement. Includes also contributions to company provided pension plans.
[11] This amount is out of total social security employer contributions of CHF 3 279 227 and pension employer contributions of CHF 2 158 144 paid in 2024 for all Executive Committee members.
[12] This amount is out of total social security employer contributions of CHF 1 933 476 and pension employer contributions of CHF 1 852 898 paid in 2023 for all Executive Committee members.
[13] Includes CHF 5 975 824 for the member who stepped down during 2023.

Pay for performance assessment

To assess whether the target-setting process provided for sufficiently stringent targets in the 2022-2024 LTPP cycle, the Compensation Committee reviewed the past five LTPP payouts. It found a strong correlation between the LTPP payout and the three-year total shareholder return, as shown in the table below, demonstrating alignment with shareholders' experience. The Committee also recognized the high variability of payouts across the years.

	2020[1]	2021	2022	2023	**2024**
LTPP three-year cycle payout (% of target)	126%	107%	57%	122%	**158%**
Novartis three-year TSR in USD (%)[2]	29%	22%	6%	31%	**54%**

[1] For this cycle, two LTI plans existed (with different metrics): LTPP (75% NCVA, 25% Innovation) and LTRPP (100% rTSR), which merged into one plan from 2021. Payout represents the average CEO weighted payout.

[2] The starting share price and ending share price for the TSR measure are calculated as the average of the closing share prices over the 3 months prior to December 31, with the closing prices of all trading days equally weighted to derive the average.

The Board of Directors reviewed the overall 2024 incentive outcomes against the performance of the company, acknowledging the period of uncertainty at the time the targets were set, and decided that pay and performance are well aligned. As with prior years, it decided that no adjustments were required and did not apply any discretion to the 2022-2024 LTPP payout.

CEO and Executive Committee 2024 compensation at grant

In accordance with the Swiss Code of Obligations, Novartis discloses total compensation at grant value for the CEO and Executive Committee.

The table below provides the following compensation information for the CEO, the CFO and the Presidents of our International and US organizations individually, while for all other ECN target pay is aggregated:

- 2024 base salary
- Actual cash portion and portion deferred in equity of the 2024 Annual Incentive
- 2024-2026 LTPP cycle awards, which are reported at target grant date value, based on the assumption that the awards will vest at 100% achievement, excluding any share price movement and dividend equivalents that may be accrued over the performance cycle. The future payout will be determined only after the performance cycle concludes in three years (i.e., at the end of 2026), with a performance factor of 0% to 200% of the target value
- Other payments for 2024, which include other benefits, either paid in cash or granted in equity during the year
- 2024 pension benefits
- Total 2024 and total 2023 compensation at grant, for comparative purposes

The highest-paid individual in 2024 was Vasant Narasimhan, CEO of Novartis.

The CEO 2024 compensation at grant increased compared with 2023 mainly due to the CEO LTPP target increase from 325% to 400%, effective 2024-2026 LTPP cycle, as communicated in the 2023 Compensation Report, which received strong support from shareholders. The compensation at grant for all Executive Committee members is lower compared with 2023 (CHF 62 887 204 versus CHF 68 365 598) mainly due to a reduction in the number of members reported (in 2023, one member stepped down, compared with none in 2024).

Compensation at grant value for the CEO and Executive Committee (2024 compared with 2023)

In CHF (gross) [1]	Annual base salary	2024 Annual Incentive (performance achieved)[2]	2024-2026 LTPP cycle PSUs (target amount)[3]	Other payments[4]	Pension benefits[5]	Total 2024[6]	Total 2023[7]
Vasant Narasimhan	1 865 483	4 494 788	7 491 285	164 750	172 722	14 189 029	13 270 592
Victor Bulto	874 838	1 690 570	2 201 344	742 432	257 848	5 767 033	5 159 769
Patrick Horber	1 000 000	2 040 028	2 500 057	174 940	177 773	5 892 798	6 684 992[8]
Harry Kirsch	1 130 067	1 996 791	2 949 749	13 415	176 533	6 266 554	6 527 912
Other ECN members	5 980 329	9 323 664	13 706 862	413 171	1 347 764	30 771 790	31 124 272
Subtotal	**10 850 717**	**19 545 841**	**28 849 298**	**1 508 708**	**2 132 640**	**62 887 204**	**62 767 536**
Member who stepped down	–	–	–	–	–	–	5 598 062
Subtotal	**–**	**–**	**–**	**–**	**–**	**–**	**5 598 062**
Total	**10 850 717**	**19 545 841**	**28 849 298**	**1 508 708**	**2 132 640**	**62 887 204**	**68 365 598**

[1] All compensation amounts are stated gross, before the deduction of social security contributions and income tax paid by the Executive Committee members. Amounts for Executive Committee members paid in USD were converted at a rate of USD 1.00 = CHF 0.8805, which is the same average exchange rate used in the Company's 2024 consolidated financial statements (a similar rule applies to payments made in other currencies during the year).
[2] The portion of the Annual Incentive delivered in equity is rounded up to the nearest share, based on the closing share price on the grant date (January 24, 2025) of CHF 90.26 per Novartis share and USD 99.97 per ADR. For the Annual Incentive split between cash and equity, see ''—Realized compensation for the CEO and Executive Committee (2024 compared with 2023)''.
[3] The amounts represent the underlying share value of the target number of PSUs granted to Executive Committee members for the three-year performance cycle, based on the closing share price on the grant date (January 24, 2024) of CHF 93.53 per Novartis share and USD 107.55 per ADR for all members.
[4] Includes any other perquisites, benefits in-kind and international assignment benefits as per the global mobility policy (e.g., housing, international health insurance, children's school fees, tax equalization).
[5] Includes social security contributions to the extent that they result in a pension entitlement. Includes also contributions to company provided pension plans. This amount is out of total social security employer contributions of CHF 3 279 227 and pension employer contributions of CHF 2 158 144 paid in 2024 for all Executive Committee members.
[6] Compensation at grant for the 11 Executive Committee members.
[7] Compensation at grant for the 12 Executive Committee members, including Marie-France Tschudin who stepped down during the financial year 2023. For more information, see item 6B of the 2023 Annual Report.
[8] In line with the Company's buyout policy (see "—CEO and Executive Committee: appointments"), Patrick Horber received in 2023 buyout awards of CHF 1 058 274 in cash to be paid out in March 2024 as well as CHF 3 084 694 in PSUs subject to LTPP performance conditions, and CHF 2 292 624 in RSUs, both of which will vest between 2024 and 2026, in lieu of the Annual Incentive and LTI that he forfeited when leaving his previous employer.

Number of equity instruments granted to the CEO and Executive Committee (2024 compared with 2023)

	Variable compensation[1]				
	2024 Annual Incentive (performance achieved) equity (number)[2]	2024-2026 LTPP cycle PSUs (target amount)[3]	Other equity/PSUs (number)	**Total 2024**	**Total 2023**
Vasant Narasimhan	14 940	80 095	–	95 035	96 815
Victor Bulto	9 603	23 246	–	32 849	34 412
Patrick Horber	11 301	26 730	–	38 031	63 690[4]
Harry Kirsch	14 380	31 538	–	45 918	58 528
Other ECN members	51 302	146 220	–	197 522[5]	207 812
Subtotal	**101 526**	**307 829**	**–**	**409 355**	**461 257**
Members who stepped down	–	–	–	–	39 208[6]
Subtotal	**–**	**–**	**–**	**–**	**39 208**
Total	**101 526**	**307 829**	**–**	**409 355**	**500 465**

[1] The values of these awards are reported in the table "—Compensation at grant value for the CEO and Executive Committee."
[2] Vested shares, restricted shares and/or RSUs granted under the Annual Incentive for the 2024 performance period.
[3] Target number of PSUs granted under the LTPP for the 2024-2026 performance cycle.
[4] In line with the Company's buyout policy (see "—CEO and Executive Committee: appointments"), Patrick Horber received buyout awards of 36 129 PSUs subject to LTPP performance conditions, and 26 852 RSUs, both of which will vest between 2024 and 2026, to replace compensation that he forfeited when leaving his previous employer.
[5] For the other seven active members at December 31, 2024.
[6] Marie-France Tschudin stepped down from the Executive Committee on September 15, 2023, and ended her contractual notice period on September 30, 2024. The LTPP grant for the 2023-2025 performance cycle, included in the table above, will vest at the end of the performance cycle on a pro-rata basis subject to the plan rules.

Additional disclosures and other statutory information

Fixed and variable compensation

The following table summarizes the annual base salary and variable compensation at grant for the financial year 2024 for the CEO and Executive Committee.

	Annual base salary	Variable compensation[1]
Vasant Narasimhan	13.3%	86.7%
Victor Bulto	15.9%	84.1%
Patrick Horber	17.5%	82.5%
Harry Kirsch	18.6%	81.4%
Other ECN members[2]	20.3%	79.7%
Total	**17.9%**	**82.1%**

[1] See the table "–Compensation at grant value for the CEO and Executive Committee" with regard to the disclosure principles of variable compensation.
[2] For the other seven active members at December 31, 2024.

Other payments to Executive Committee members

During 2024 (like 2023), no other payments or waivers of claims other than those set out in the tables (including the footnotes) contained in this Compensation Report were made to Executive Committee members or to "persons closely linked" to them.

Executive Committee compensation approved by shareholders

The total compensation dispensed by the Company in 2024 is within the Say-on-Pay budget approved by the shareholders at the 2023 AGM (CHF 90 000 000).

Payments to former Executive Committee members

Under the employment contracts of Executive Committee members and in line with the Company's LTI plan rules, payments were made to 8 former members. Of these payments, CHF 8 281 897 (CHF 8 725 507 in 2023) relate to the vesting of LTI awards. In addition, contractual amounts totaling CHF 1 913 169 (CHF 5 028 812 in 2023). In 2024, there were no payments made in relation to tax equalization on variable compensation granted during international assignments/commuter arrangements (CHF 221 718 in 2023). In 2024, the highest paid former Executive Committee member was Marie-France Tschudin who received CHF 6 195 281 (comprising the base salary, the Annual Incentive, realized LTI and other benefits). In 2023, John Tsai was the highest paid former Executive Committee member, receiving CHF 3 537 225. No other payments (or waivers of claims) were made to former Executive Committee members or to "persons closely linked" to them during 2024 (like 2023).

Persons closely linked

"Persons closely linked", a definition used throughout the Annual Report, are (i) their spouse or equivalent, (ii) their children (under 18 years of age), (iii) any legal entities that they own or otherwise control, and (iv) any legal or natural person who is acting as their fiduciary.

Malus and clawback

Consistent with our "—CEO and Executive Committee compensation philosophy and system," in 2024 there was no legal or factual basis on which to exercise malus or clawback for current or former Executive Committee members.

Award and delivery of equity to Novartis employees

During 2024, 10.0 million restricted shares (or ADRs), RSUs and target PSUs were granted, and 9.6 million Novartis vested shares (or ADRs) were delivered to Novartis employees under various equity-based participation plans. Current unvested equity instruments held by employees represent 0.93% of issued shares (based on a total of 1.8 million restricted shares, 15.5 million RSUs and 3.1 million target PSUs). Novartis delivers treasury shares to employees to fulfill these obligations and aims to offset the dilutive impact from its equity-based participation plans.

Note 26 to the Company's audited consolidated financial statements

The total expense for the year for compensation awarded to Executive Committee, using IFRS Accounting Standards measurement rules, is presented in Note 26 to the Company's audited consolidated financial statements.

Shares, ADRs and other equity rights owned by Executive Committee members as at December 31, 2024[1] (compared with prior year)

The following table shows, in alphabetical order after the CEO, the total number of shares, ADRs and other equity rights owned by the CEO and the other Executive Committee members and "persons closely linked" to them as at December 31, 2024. At this date, no members of the Executive Committee, either individually or together with "persons closely linked" to them, owned 1% or more of the outstanding shares or ADRs of Novartis. As at December 31, 2024, all members who had served at least five years on the Executive Committee had met or exceeded their personal Novartis share ownership requirements.

	Vested shares and ADRs[1]	Unvested shares and other equity rights[2]	Equity ownership level as a multiple of annual base salary[3]	Unvested target PSUs (e.g., LTPP)[4]	**Total as at December 31, 2024**	Total as at December 31, 2023
Vasant Narasimhan	352 526	75 885	20x	213 942	642 353	497 334
Shreeram Aradhye	–	22 059	2x	57 918	79 977	37 096
Victor Bulto	6 841	28 324	3x	48 293	83 458	62 090
Aharon Gal	30 160	13 626	4x	21 151	64 937	93 763
Karen Hale	31 313	26 726	5x	63 576	121 615	72 190
Patrick Horber	24 038	38 862	5x	53 086	115 986	49 644
Harry Kirsch	408 163	35 770	34x	101 254	545 187	460 964
Robert Kowalski	425	22 009	2x	47 779	70 213	47 535
Steffen Lang	94 227	29 054	12x	64 981	188 262	202 250
Fiona Marshall	4 444	48 453	4x	38 161	91 058	66 517
Klaus Moosmayer	33 664	15 283	6x	39 550	88 497	68 142
Subtotal	**985 801**	**356 051**		**749 691**	**2 091 543**	**1 657 525**
Members who stepped down	–	–		–	–	150 802
Subtotal	**–**	**–**		**–**	**–**	**150 802**
Total	**985 801**	**356 051**		**749 691**	**2 091 543**	**1 808 327**

[1] Includes holdings of persons closely linked to Executive Committee members (see definition "—Persons closely linked").

[2] Includes unvested shares and ADRs as well as other equity rights applicable for the determination of equity amounts for the share ownership requirements, as per the definition "—CEO and Executive Committee: share ownership requirements." Also includes unvested keep-whole awards received in connection with the Sandoz spin-off.

[3] The multiple is calculated based on the full-year annual base salary and the closing share price as at the end of the 2024 financial year. The share price and ADR price on the final trading day of 2024 was CHF 88.70 and USD 97.31, respectively.

[4] The target number of PSUs is disclosed pro-rata to December 31, 2024, unless the award qualified for full vesting under the relevant plan rules. Also includes unvested keep-whole awards received in connection with the Sandoz spin-off.

CEO and Executive Committee compensation philosophy and system

Compensation philosophy

Our compensation philosophy aims to ensure that we attract and retain outstanding Executive Committee members and reward them according to their success in implementing the Company strategy, as well as their contribution to Company performance and long-term value creation. The main elements of our compensation philosophy are set out in the table below.

Pay for performance	• Variable compensation is tied directly to the achievement of strategic Company targets
Shareholder alignment	• Our incentives are significantly weighted toward long-term equity-based plans • Measures under the Long-Term Incentive plans are calibrated to promote the creation of shareholder value • Executive Committee members are expected to build and maintain substantial shareholdings
Balanced rewards	• Balanced set of measures to create sustainable value • Mix of targets based on financial metrics, strategic objectives, and performance versus our competitors
Business ethics	• The Novartis Values and Behaviors are an integral part of our compensation system • They underpin the assessment of overall performance for the Annual Incentive
Competitive compensation	• Total compensation must be sufficient to attract and retain key global talent • Overarching emphasis on pay for performance

Approach to market benchmarking

Significant competition continues to exist for top executive talent with deep expertise and the requisite competencies and proven performance within the pharmaceutical and biotechnology industries. For this reason, external peer compensation data is one of a number of key reference points considered by the Board of Directors and the Compensation Committee when making decisions on executive pay, to help ensure that the compensation system and levels at Novartis remain competitive. Novartis is committed to transparency in its benchmarking practices, including the disclosure of its healthcare peer group to shareholders on an annual basis.

The Compensation Committee believes in a rigorous approach to peer group construction and maintenance. Furthermore, it believes that using a consistent set of global peers that is similar to Novartis in size and scope of operations enables shareholders to evaluate compensation year on year and make pay-for-performance comparisons.

Although Novartis is headquartered in Switzerland, more than a third of its sales come from the US market, and the US therefore represents a significant talent pool for the recruitment of executives by the Company. The Compensation Committee uses a pay comparator group of global healthcare companies to ensure that Novartis is able to attract and retain key talent globally. To ensure European and local practices are fully taken into account, the Compensation Committee also uses a cross-industry peer group of Europe-headquartered multinational companies of a similar size and scope. Following an extensive review in 2024, both peer groups remain unchanged compared with 2023.

GLOBAL HEALTHCARE PEER COMPANIES

AbbVie	Eli Lilly & Co.	Novo Nordisk
Amgen	Gilead Sciences	Pfizer
AstraZeneca	GlaxoSmithKline	Roche
Biogen	Johnson & Johnson	Sanofi
Bristol-Myers Squibb	Merck & Co.	

EUROPEAN PEER COMPANIES

Anheuser-Busch InBev	L'Oréal	Roche
AstraZeneca	Merck KGaA	Siemens
Bayer	Nestlé	Sanofi
BMW	Novo Nordisk	Unilever
GlaxoSmithKline	Reckitt Benckiser	

Components of CEO and Executive Committee compensation

The compensation of the CEO and Executive Committee is comprised of fixed pay, including an annual base salary, pension and other benefits, in addition to a variable annual incentive and long-term incentive, which are entirely performance based.

Fixed pay and benefits

Annual base salary	• The annual base salary is based on the individual's role, skills and experience. It is reviewed on an annual basis based on an external benchmark for the role, the performance of the individual, business performance and the external environment, salary increases across the Company and market movements.
Pension and other benefits	• Pension and other benefits are provided to the Executive Committee members on the same terms as to all other employees based on local country practices and regulations. No supplementary pension plans or savings plans are provided. • Pension and other benefits do not constitute a significant proportion of total compensation. • Globally the Company operates both defined benefit and defined contribution pension plans (see also Note 24 to the Company's consolidated financial statements). • Novartis may provide other benefits according to local market practice. These include the provision of a company car, tax and financial planning, and insurance benefits.

2024 Annual Incentive

PLAN OVERVIEW

Target Annual Incentive	Annual base salary **x** Target incentive % **=** Target Annual Incentive
On-target opportunities	• CEO: 150% of annual base salary. • Other Executive Committee members: 80% to 120% of annual base salary.

Performance measures	• An Annual Incentive balanced scorecard containing:
	  • Financial performance measures (60% weighting) related to the Company
	  • Strategic objectives (40% weighting)
	• The balanced scorecard targets and achievements of the CEO are detailed in "—2024 CEO Annual Incentive balanced scorecard."
	• The balanced scorecards for individual Executive Committee members include the same company financial targets (60% weighting) as well as individual qualitative and quantitative targets (40% weighting).
	• Values and Behaviors are a key component of the Annual Incentive and are embedded in our culture. As such, members of the Executive Committee are expected to demonstrate these to the highest standards.

Target setting	• Financial targets are set at the beginning of each financial year and align with the strategic plan proposed by management to the Board of Directors for approval. • The strategic objectives are aligned with the most important priorities in any performance year.
Payout ranges	• The payout schedule for the Annual Incentive incorporates performance against financial and strategic objectives. The payout range is 0% to 200% of on-target opportunity based on performance, as shown below:

PERFORMANCE	PAYOUT (% of on-target)
Outstanding	170% – 200%
Exceeds expectations	130% – 160%
Meets expectations	80% – 120%
Partially meets expectations	40% – 70%
Below expectations	0%

Payout formula	Annual base salary **x** Target incentive % **x** Payout factor (% of target: 0%–200%) **=** Realized Annual Incentive
Payout vehicle	• At the end of the performance period, 50% is paid in cash, and the remaining 50% is delivered in Novartis equity (restricted shares or RSUs) deferred for three years. If the shareholding requirement is met, the portion of the Annual Incentive that is mandatorily deferred in equity is reduced to 30%. • Executives may choose to receive all or part of the cash portion of their Annual Incentive in Novartis shares or American Depositary Receipts (ADRs; US only) that will not be subject to forfeiture conditions. In the US, awards may also be delivered in cash under the US deferred compensation plan.
Dividend rights, voting rights and settlement	• Novartis restricted shares and ADRs carry voting rights and dividends during the vesting period. • RSUs are of equivalent value but do not carry voting rights and dividends during the vesting period. Following the vesting period, settlement of RSUs is made in unrestricted Novartis shares or ADRs.

2022–2024 LTPP cycle

PLAN OVERVIEW

Award vehicle

Performance share units (PSUs) are granted at the beginning of the three-year performance cycle and vest at the end of the cycle to the extent that performance conditions have been met. At the time of vesting, they are converted into Novartis shares.
PSUs carry dividend equivalents that are paid in shares at the end of the cycle.

Grant formula

At the start of the performance cycle, PSUs are granted under the LTPP, as follows:

Step 1	Annual base salary	x	Target incentive %	=	Grant value
Step 2	Grant value	/	Share price	=	Target number of PSUs

Target opportunity

- CEO: 325% of annual base salary
- Other Executive Committee members: between 180% and 260% of annual base salary

Performance measures

- Third-party sales CAGR (25%)
- Core operating income CAGR (25%)
- Innovation (25%)
- Relative TSR (25%)

Target setting

Financial targets: Targets for third-party sales CAGR and core operating income CAGR are set based on the three-year strategic plan of the Company.
Innovation: Development targets are based on targeted filings communicated at the start of each three-year performance cycle, weighted 70%. For cycle 2022-2024, Biomedical Research targets consider the expected Net Present Value (eNPV) of programs transitioning to late-stage clinical development. Effective 2024-2026 LTPP cycle, given the earlier involvement from our commercial and strategy and growth business areas, all projects transitioning to late-stage clinical development have strategic value and are therefore scored equally.

Payout range

Financial targets: When assessing performance, achievements for threshold, target and maximum payout are defined for each metric, and a payout curve is applied to determine the corresponding payout between 0-200% against target.
Innovation: At the end of the cycle, the Compensation Committee determines, following input from the STC, the payout factor based on the number of relevant clinical milestones achieved against the target score.
Relative TSR: Performance on TSR is assessed relative to our global healthcare peer group, as outlined below. A three-month averaging method is used for both the start and the end of the performance cycle. Companies are then ranked in order of highest to lowest TSR in USD. No payout for below median TSR applies.

Global healthcare peer group			**Novartis position in the peer group**	**Payout range (% of target)**
AbbVie	Eli Lilly & Co	Novo Nordisk	Position 1 – 2	170% – 200%
Amgen	Gilead Sciences	Pfizer	Position 3 – 5	130% – 160%
AstraZeneca	GlaxoSmithKline	Roche	Position 6 – 8	80% – 120%
Biogen	Johnson & Johnson	Sanofi	Position 9 – 15	0%
Bristol-Myers Squibb	Merck & Co.			

The Board of Directors may use its discretion on each metric, including deciding on the payout within the ranges where appropriate. In doing so, it takes into consideration factors such as the underlying assumptions of the targets set at the beginning of the cycle, overall economic conditions, currency fluctuations and other unforeseeable situations.

Payout formula

Target number of PSUs	x	Payout factor	+	Dividend equivalents	=	Realized PSUs

CEO and Executive Committee share ownership requirements

CEO and Executive Committee members are required to own a minimum multiple of their annual base salary in Novartis equity as set out in the table below. The Compensation Committee reviews compliance with the share ownership guideline on an annual basis.

Function	Ownership level	Additional holding requirements	Time for achieving level	Equity included in determination
CEO	6 x annual base salary	Equity vesting under the LTPP for a minimum of two years after the vesting date	Within five years of hire or promotion. In the event of a substantial rise or drop in the share price, the Board of Directors may, at its discretion, amend the time period accordingly.	• Vested and unvested Novartis shares or ADRs, and RSUs acquired under Novartis compensation plans (unvested PSUs excluded) • Other shares and vested options of Novartis shares or ADRs that are owned directly or indirectly by "Persons closely linked" to an Executive Committee member
CFO	3 x annual base salary			
Other ECN members		None		

CEO and Executive Committee: appointments

ELEMENT OF COMPENSATION	POLICY
Level	The overall package should be market-competitive to enable the recruitment of global executive talent with deep expertise and competencies. The Compensation Committee may appoint individuals who are new to a role on an annual base salary (and/or incentives) that is below the market level, with a view to increase this toward market level over a period of three to four years as an individual develops in the role. If the scope of an existing Executive Committee member's role changes significantly during the year, the Compensation Committee may make adjustments to the individual's base salary (and/or incentives) in consideration of the benchmark of the new role and the Executive Committee appointments compensation policy.
Annual base salary	This prudent approach ensures pay levels are merit-based, with increases dependent on strong performance and proven ability in the role over a sustained period.
Incentives	The compensation package will normally include the key compensation elements and incentive opportunities in line with those offered to current Executive Committee members. In exceptional circumstances, higher incentive opportunities than those offered to current Executive Committee members may be provided at the Compensation Committee's discretion. Performance measures may include business-specific measures tailored to the specific role.
Pension and other benefits	Newly appointed Executive Committee members are eligible for the local country pension plan and other benefits in line with the wider employee group.
Buyouts	The Compensation Committee seeks to balance the need to offer competitive compensation opportunities to acquire the talent required by the business with the principle of maintaining a strong focus on pay for performance. As such, when an individual forfeits variable compensation as a result of an appointment at Novartis, the Compensation Committee may offer replacement awards to compensate the commercial equivalent value or fair value of payments and awards forfeited by the individual, in such form as the Compensation Committee considers appropriate, taking into account relevant factors. Relevant factors include the expected value of the forfeited award, the replacement vehicle (i.e., cash, restricted share units, restricted shares or performance share units), whether the award is contingent on meeting performance conditions or not, the timing of forfeiture (i.e., Novartis mirrors the blocking or vesting period of the forfeited award) and the leaver conditions, in case the recruited individual leaves Novartis prior to the end of the blocking or vesting period.
International mobility	If individuals are required to relocate or be assigned away from their home location to take up their position, relocation support may be provided in line with our global mobility policies (e.g., relocation support, tax equalization). This includes ongoing US state income tax liabilities on behalf of US citizens locally employed outside the US who have US workdays and therefore, US state taxable compensation that generates a US state tax liability.

CEO and Executive Committee: termination arrangements

Elements	Retirement, termination by the Company for reasons other than performance or conduct, and change of control	Voluntary resignation	Termination by the Company for misconduct or poor performance	Death or long-term disability
Annual Incentive for period between start of notice and termination date	Pro-rata Annual Incentive is paid to reflect the portion of the year the individual was employed.	Annual Incentive is fully forfeited.		Pro-rata Annual Incentive is paid to reflect the portion of the year the individual was employed.
Unvested equity: mandatory deferral of Annual Incentive into restricted shares/ restricted share units (RSUs)	Awards are released on the original blocking end date. Is subject to forfeiture in the event that a leaver joins a competitor company before the original vesting date.	Unvested restricted shares and restricted share units (RSUs) are forfeited.		Accelerated vesting is applied.
Unvested equity: voluntary deferral of Annual Incentive into restricted shares/RSUs/ American Depository Receipts (ADRs) (ADRs applicable for US employees only)	Awards are not subject to forfeiture during the deferral period.			
Unvested equity: Long-Term Incentive performance share units (PSUs)	Awards vest on the regular vesting date, subject to performance, on a pro-rata basis for time spent with the Company during the performance cycle. Is subject to forfeiture in the event that a leaver joins a competitor company before the vesting date.	All of the award is forfeited.		Accelerated vesting at target is applied.
Unvested equity: Buyouts or previous equity grants in restricted shares/ restricted share units (RSUs)	Accelerated vesting is applied to equity pro-rated until last date of employment.	All of the award is forfeited.		Accelerated vesting is applied.

Further details are provided in in our "—Risk Management principles."

Malus and clawback policy

Any incentive compensation paid to Executive Committee members is subject to malus and clawback rules. This means that the Board of Directors for the CEO, and the Compensation Committee for the other Executive Committee members, may decide – subject to applicable law – to retain any unpaid or unvested incentive compensation (malus), or to recover incentive compensation that has been paid or vested in the past (clawback). This applies in cases where the payout has resulted from a violation of laws or conflicts with internal management standards, including Company and accounting policies, as well as with US Securities and Exchange Commission (SEC) Rule requirements.

This principle applies to both the short-term Annual Incentive and all long-term incentive plans.

CEO and Executive Committee performance management

To foster a high-performance culture, the Company applies a performance management process based on quantitative and qualitative criteria. The CEO and the other Executive Committee members are subject to a formal three-step process, which consists of objective setting, performance evaluation and compensation determination. This process is explained in the chart below.

Performance targets are generally set before the start of the relevant performance cycle. A rigorous framework is in place for establishing targets to ensure they are suitably robust, challenging and aligned with the strategic priorities of the Company.

The key factors taken into account when setting targets include:

- Internal and external market expectations
- The strategic priorities of Novartis
- Regulatory factors (e.g., new launches, patent expiries)
- Investment in capital expenditure
- Novartis Values and Behaviors

The targets are challenged at multiple stages before they are ultimately approved by the Board of Directors. In line with good governance practices, the Compensation Committee works to set targets that are ambitious and challenging but do not encourage undue risk-taking.

Following the end of the performance cycle, the Board of Directors and the Compensation Committee consider performance against the targets originally set. The CEO and Executive Committee members are not present while the Board of Directors and the Compensation Committee discuss their individual performance evaluations and determine their individual compensation. Prior to determining the final outcome, related factors such as performance relative to peers, wider market conditions, general industry trends and best practice are used to inform the overall performance assessment.

Objective setting	Performance evaluation	Compensation determination
• The CEO proposes his targets to the Board Chair; they are then reviewed and approved by the Board of Directors. • For other Executive Committee members, targets for their business units or functions are initially discussed with the CEO and subsequently approved by the Board of Directors.	• The CEO's performance against the individual balanced scorecard is assessed by the Board of Directors. • For Executive Committee members, the CEO discusses each member's performance (assessed against their individual balanced scorecard) with the Board Chair before making recommendations to the Board of Directors for final determination. • Periodic assessments, including at the mid-year stage, ensure progress is suitably tracked.	• A recommendation for the CEO's variable pay is made by the Compensation Committee to the Board of Directors for final determination. • For the LTPP financial measures' payout schedules, a formulaic approach applies, and the Compensation Committee can also exercise judgment to ensure there is appropriate alignment between payout levels and overall performance achieved. The same principle of discretion applies to the relative TSR and innovation performance measures. • The CEO's recommendations for other Executive Committee members are considered and approved by the Compensation Committee, after which the Board of Directors is notified of the outcomes.

Executive Committee 2025 compensation

Each year, we collaborate with our independent external advisors to benchmark the compensation levels of the Executive Committee members and assess the competitiveness of their total target compensation. 2025 compensation increases have been made after taking into account demonstrated performance and ability in role as outlined in "—CEO and Executive Committee: appointments." In accordance with our policy to increase total target compensation towards a more market competitive level over a period of three to four years as an individual develops in the role, we have made the following changes effective 2025:

Victor Bulto, President, US
Mr. Bulto, appointed in April 2022, delivered strong results with significant overperformance across key brands and launches for *Cosentyx HS*, *Fabhalta*, *Scemblix*, and *Kisqali*. Mr. Bulto will receive a 3.5% increase in annual base salary and a 30 ppts increase in LTPP target, as a percentage of annual base salary.

Patrick Horber, President, International
Mr. Horber, appointed in December 2023, demonstrated notable successes across key International geographies, delivering nearly USD 1 billion sales above target. Mr. Horber will receive a 3.5% increase in annual base salary and a 30 ppts increase in LTPP target, as a percentage of annual base salary.

Following a strong performance, a further four Executive Committee members, who assumed their role in the last four years, will receive an increase in annual base salary between 1.6-6.0%, and/or a 10 ppts increase in their Annual Incentive and/or LTPP target, as a percentage of annual base salary.

All other Executive Committee members, including the CEO, will receive ordinary base salary increases received by other employees in their country of employment (1.6% for Switzerland and 3.5% for US), effective March 1, 2025. Their Annual Incentive and LTPP targets remain unchanged.

Pay practice for other employees

The Board of Directors is committed to ensuring fair and competitive compensation practices across the entire organization. Recent such examples include an approved global budget of over USD 384 million for salary adjustments during 2025, maintaining our existing Equal Pay International Coalition (EPIC) and Living Wage commitments globally, starting a new global program to implement our renewed EPIC commitments in view of the EU Directive and expanding our all-employee share purchase plan which is now available to employees in over 50 countries globally. More details can be found in the Novartis in Society Integrated Report 2024.

Board compensation

Board member total compensation earned for the financial year 2024 (compared with 2023)

	Positions as per December 31						Share-based compensation					
	Board membership	Audit and Compliance Committee	Compensation Committee	Governance, Sustainability and Nomination Committee	Science & Technology Committee	Risk Committee	Cash (CHF) (A)	Shares (CHF) (B)	Shares (number) [1]	Social security (CHF) (C) [2]	**Total 2024 (CHF) (A)+(B)+(C) [3]**	Total 2023 (CHF)
Joerg Reinhardt	Board Chair						1 900 000	1 900 000	20 078	3 784	**3 803 784**	3 803 784
Simon Moroney	Vice-Chair		Chair		•		230 000	230 000	2 430	–	**460 000**	460 000
Patrice Bula	Lead Independent Director		•	Chair			205 000	205 000	2 166	3 784	**413 784**	413 784
Nancy C. Andrews	•				•	•	180 000	180 000	1 902	–	**360 000**	360 000
Ton Buechner	•	•				Chair	35 000	385 000	3 278	4 675	**424 675**	424 675
Elizabeth Doherty	•	Chair				•	225 000	225 000	2 377	–	**450 000**	450 000
Bridgette Heller	•	•	•	•			215 000	215 000	2 271	–	**430 000**	430 000
Daniel Hochstrasser	•	•		•			195 000	195 000	2 059	4 675	**394 675**	376 341
Frans van Houten	•	•			•		113 750	276 250	2 551	–	**390 000**	394 675
Ana de Pro Gonzalo	•	•				•	195 000	195 000	2 059	–	**390 000**	390 000
Charles L. Sawyers	•			•	•		180 000	180 000	1 902	–	**360 000**	360 000
William T. Winters	•		•	•			–	360 000	3 804	–	**360 000**	360 000
John D. Young	•				Chair [4]	•	192 500	192 500	1 977	–	**385 000**	304 675
Subtotal							**3 866 250**	**4 738 750**	**48 854**	**16 918**	**8 621 918**	**8 527 933**
Board members who stepped down							–	–	–	–	**–**	63 784 [5]
Subtotal							**–**	**–**	**–**	**–**	**–**	**63 784**
Total							**3 866 250**	**4 738 750**	**48 854**	**16 918**	**8 621 918**	**8 591 717**

[1] The amounts shown represent the gross number of shares delivered to each Board member in 2024 for the respective Board member's service period. The number of shares reported in this column represent: (i) the second and final equity installment delivered in February 2024 (based on the closing share price of February 1, 2024 of CHF 90.54) for their service from the 2023 AGM to the 2024 AGM; and (ii) the first of two equity installments delivered in July 2024 (based on the closing share price of July 15, 2024 of CHF 99.10) for their service from the 2024 AGM to the 2025 AGM. The second and final equity installment for their service from the 2024 AGM to the 2025 AGM will take place in February 2025.

[2] Includes social security contributions to the extent that they result in a pension entitlement.

[3] All amounts are before the deduction of social security contributions and income tax paid by the Board members.

[4] From March 5, 2024.

[5] Includes the compensation earned by Andreas von Planta, who stepped down at the 2023 AGM.

Compensation approved and dispensed

In CHF		**Board of Directors**
Compensation earned during the financial year 2024	A	8 621 918
Compensation earned for the period January 1 to February 28, 2024 (2 months)	B	1 435 009
Compensation to be earned for the period from January 1 to February 29, 2025 (2 months)	C	1 437 820
Total compensation earned for the period from the 2024 AGM to the 2025 AGM	A-B+C	8 624 729
Amount approved by shareholders at the 2024 AGM		8 780 000
Compensation dispensed by the Company within the approved amount		Yes

Shares, ADRs and share options owned by Board members

The total number of vested Novartis shares and ADRs owned by members of the Board of Directors and "persons closely linked" to them as at December 31, 2024, is shown in the table below. As at this date, no members of the Board, either individually or together with "persons closely linked" to them, owned 1% or more of the outstanding shares (or ADRs) of Novartis. As at that date, no members of the Board of Directors held any share options to purchase Novartis shares.

	Number of shares at December 31, 2024[1,2]	Number of shares at December 31, 2023
Joerg Reinhardt	675 414	655 336
Simon Moroney	7 814	5 992
Patrice Bula	13 406	11 240
Nancy C. Andrews	11 962	10 536
Ton Buechner	26 236	22 958
Elizabeth Doherty	16 625	14 843
Bridgette Heller	7 917	6 214
Daniel Hochstrasser	4 883	2 824
Frans van Houten	18 878	17 115
Ana de Pro Gonzalo	3 966	2 422
Charles L. Sawyers	18 919	17 493
William T. Winters	33 489	30 777
John D. Young	2 070	682
Total	**841 579**	**798 432**

[1] Includes holdings of persons closely linked to Board members (see definition "—persons closely linked").
[2] Each share provides entitlement to one vote.

Additional disclosures and other statutory information

Other payments to Board members

During 2024 (like 2023), no payments (or waivers of claims) other than those set out in the Board member compensation table titled "—Board member total compensation earned for the financial year 2024" (including in the table footnotes) were made to current members of the Board or to "persons closely linked" to them.

Payments to former Board members

During 2024 (like 2023), no payments (or waivers of claims) were made to former Board members or to "persons closely linked" to them.

Note 26 to the Group's audited consolidated financial statements

The total expense for the year for compensation awarded to Board members, using IFRS Accounting Standards measurement rules, is presented in Note 26 to the Group's audited consolidated financial statements.

Board compensation philosophy and fee structure

Philosophy and benchmarking

Aligned with market practice in Switzerland, the Board of Directors sets compensation for its members at a level that allows for the attraction of high-caliber individuals, including both Swiss and international members, who have global experience.

Given their focus on corporate strategy, supervision and governance, Board members do not receive variable compensation. Each year at the AGM, shareholders are requested to approve, in a binding vote, the total compensation of the Board of Directors until the following AGM.

The Board of Directors sets the level of compensation for its Chair and other members to be in line with relevant benchmark companies, including other large Switzerland-based multinational companies such as ABB, Holcim, Nestlé, Richemont, Roche, Swiss Re, UBS and Zurich Insurance. This peer group, which remains the same as last year, was chosen due to the comparability of Swiss legal requirements, including broad personal and individual liabilities under Swiss law (and criminal liability under Swiss rules regarding board and executive committee compensation related to the Swiss Code of Obligations), and under US law, where applicable (due to the Company's secondary listing on the New York Stock Exchange). To ensure independent decision-making, the peer group used for the Board of Directors is different to that used for the Executive Committee. Each year, the Board of Directors reviews the compensation of its members, including the Board Chair, based on a proposal by the Compensation Committee and advice from its independent advisor, including relevant benchmarking information.

The Board Chair's contract and the Board of Directors compensation policy do not provide for any termination-related payments.

Share ownership requirements for Board members

To ensure their interests are aligned with those of shareholders the Board Chair is required to own a minimum of 30 000 Novartis shares, and other members of the Board of Directors are required to own at least 5 000 Novartis shares, within five years of having joined the Board of Directors.

Board members are prohibited from hedging or pledging their ownership positions in Novartis shares that are part of their guideline share ownership requirement and are required to maintain this requirement for 12 months after having retired from the Board of Directors. As at December 31, 2024, all current and former members of the Board of Directors who were required to meet the minimum share ownership requirements did so.

Board fee structure

The AGM 2024-2025 annual fee rates for Board membership and additional functions are included in the table below. These were approved by the Board of Directors and remain unchanged from the prior term. Aggregate Board compensation is aligned with other large Swiss companies.

Board members receive only fixed compensation and do not receive additional fees for attending meetings. Fees paid are at least 50% in Novartis shares (up to 100% at the choice of each Board member) and the remainder is paid in cash. Board members bear the full cost of their employee social security contributions, if any.

For 2024, the Board Chair voluntarily waived the increase in compensation to which he is contractually entitled.

AGM 2024-2025 annual fee	CHF 000s
Board Chair	3 800
Board membership	280
Vice-Chair	50
Lead Independent Director	20
Chair of the Audit and Compliance Committee	130
Chair of the Compensation Committee	90
Chair of the following committees: • Governance, Nomination and Corporate Responsibilities Committee • Science & Technology Committee • Risk Committee	70
Membership of the Audit and Compliance Committee	70
Membership of the following committees: • Compensation Committee • Governance, Nomination and Corporate Responsibilities Committee • Science & Technology Committee • Risk Committee	40

Board members do not receive any company pension, insurance or other benefits, unless mandated by local legislation. Novartis will pay mandatory employer contributions for the incoming Board Chair as required by law, should his nomination be approved at the 2025 AGM.

AGM 2025-2026 changes

The Board of Directors approved an annual Board Chair compensation of CHF 3.5 million effective from the 2025 AGM, which is in line with our peer group median. No further changes will be made to the Board fees from the 2025 AGM to the 2026 AGM.

Compensation governance

Legal framework

The Swiss Code of Obligations and the corporate governance guidelines of the SIX Swiss Exchange require listed companies to disclose certain information about the compensation of board and executive committee members, their equity participation, and loans made to them. This Annual Report fulfills that requirement in addition to being in line with the principles of the Swiss Code of Best Practice for Corporate Governance of the Swiss Business Federation (economiesuisse). For more information, see "—Corporate Governance" in Section 6C of this Annual Report.

Compensation decision-making authorities

Authority for decisions related to compensation is governed by the Articles of Incorporation, Board Regulations and the Compensation Committee Charter, which are all published on the Company website: www.novartis.com/investors/company-overview/corporate-governance. The Compensation Committee serves as the supervisory and governing body for compensation policies and plans within Novartis, and has overall responsibility for determining, reviewing and proposing compensation policies and plans for approval by the Board of Directors in line with the Compensation Committee Charter. The discussions and conclusions of each committee meeting are delivered to the full Board of Directors. A summary of the compensation decision-making authorities is set out below.

Approval process for key compensation decisions

	CEO	Board Chair	Compensation Committee	Board of Directors	AGM
Executive Compensation					
CEO					
Performance target setting and assessment		○		●	
Individual compensation			○	●	
Other EC members					
Performance target setting and assessment	○	●		●	
Individual compensation	○	●	●		
All Executive Committee					
Maximum aggregate amount of fixed and variable long-term compensation			○	●	Binding vote
Board Compensation					
Board of Directors					
Fee structure for individual roles on the Board of Directors			○	●	
Maximum aggregate amount of compensation for the next term of office			○	●	Binding vote
Other					
Board members, Executive Committee and other employees					
Compensation report			○	●	Advisory vote
Compensation policy and principles			○	●	
Variable short-term and long-term compensation payout factors for the Group			○	●	

○ Propose ● Endorse ● Approve

Committee member independence

The Compensation Committee is composed exclusively of members of the Board of Directors who meet the independence criteria set forth in the Board Regulations. From the 2024 AGM, the Compensation Committee consisted of the following four members: Simon Moroney (as Chair), Patrice Bula, Bridgette Heller, and William Winters. William Winters will step down from the Board and Compensation Committee at the 2025 AGM. John Young will be proposed for nomination to the Compensation Committee at the 2025 AGM.

Role of the Compensation Committee's independent advisor

The independent external compensation advisor supports the Compensation Committee in determining the design and implementation of compensation and benefits.

In 2024, the Compensation Committee retained Mitul Shah of Deloitte LLP, who was appointed in July 2022, as its independent compensation advisor. The independent advisor from Deloitte LLP and his respective team that advised and supported the Compensation Committee are not responsible or rewarded for work on senior compensation beyond support provided to the Compensation Committee and the People & Organization function.

Meetings held in 2024 and self-evaluation

In 2024, the Compensation Committee held six formal meetings. For the approval of the Board of Directors, in line with prior years, it collaborated with the Science & Technology Committee to review and endorse the innovation targets and achievements of the 2024 Annual Incentive and the 2022-2024 LTPP. The Compensation Committee conducted a self-evaluation in 2024.

Risk management principles

The Compensation Committee, with support from its independent compensation advisor, reviews market trends in compensation, and changes in corporate governance rules and best practices. Together with the Risk Committee, it also reviews the Novartis compensation systems to ensure that they do not encourage inappropriate or excessive risk-taking, and instead encourage behaviors that support sustainable value creation. A summary of the risk management principles is outlined below.

RISK MANAGEMENT PRINCIPLES

- Rigorous performance management process, with approval of targets and evaluation of performance of the CEO by the Board of Directors
- Balanced mix of short-term and long-term variable compensation elements
- Novartis Values and Behaviors are a key component of the Annual Incentive and are embedded in our culture
- Clawback and malus principles apply to all elements of the variable compensation
- Performance-vesting Long-Term Incentives only, with three-year cycles
- All variable compensation is capped at 200% of target
- Contractual notice period of 12 months
- Post-contractual non-compete period is limited to a maximum of 12 months from the end of employment. Resulting compensation, if applicable, will not exceed the average annual compensation (annual base salary plus Annual Incentive) of the previous three financial years
- Good and bad leaver provisions apply to variable compensation of leavers
- No severance payments or change-of-control clauses
- Share ownership requirements; no hedging or pledging of Novartis share ownership
- No loans granted to current or former members of the Executive Committee and the Board of Directors or to "Persons closely linked" to them

Mandates outside the Novartis Group

According to article 34 of the Articles of Incorporation (https://www.novartis.com/investors/company-overview/corporate-governance), limitations apply to mandates outside the Novartis Group for Board members and Executive Committee members (see "-Item 6.C Board Practices-Board of Directors-Mandates outside the Novartis Group" and "-Item 6.C Board Practices-Executive Committee-Mandates outside the Novartis Group"). The following external mandates are subject to these limitations and are therefore presented in the Compensation Report.

Board Members

Joerg Reinhardt
Swiss Re AG, Switzerland ●
• Member of the Board

Nancy C. Andrews
Charles River Laboratories International, Inc., US ●
• Member of the Board
• Chair of the Science and Technology Committee
Maze Therapeutics, Inc., US
• Member of the Board

Ton Buechner
Burckhardt Compression AG, Switzerland ●
• Board Chair
• Chair of the Strategy and Sustainability Committee
Swiss Prime Site AG, Switzerland ●
• Board Chair
• Chair of the Sustainability Committee
Tonality Holding AG, Switzerland (private holding)*
• Director
Bandinnera GmbH, Switzerland (private holding)*
• Manager
Great Apes Aviation GmbH, Switzerland (private holding)*
• Manager

Patrice Bula
Schindler AG, Switzerland ●
• Vice Chair of the Board
Froneri Lux Topco Sarl, Luxembourg
• Board Chair
European Pizza Group TopCo Sarl, Luxembourg ●
• Board Chair
New Tiger LLC, US
• Member of the Board
• Chair of the ESG Committee

Elizabeth (Liz) Doherty
Corbion NV, Netherlands ●
• Member of the Board
• Chair of the Audit Committee
Royal Philips NV, Netherlands ●
• Member of the Supervisory Board
• Chair of the Audit Committee
Freya Holdco S.à r.l., Luxembourg ●
• Member of the Advisory Committee

Bridgette Heller
Aramark, US ●
• Member of the Board
DexCom, Inc., US ●
• Member of the Board
Integral Ad Science Inc., US ●
• Member of the Board
Newman's Own Inc., US
• Member of the Board

Daniel Hochstrasser
Daniel Hochstrasser AG, Switzerland
• Board Chair
• CEO

Frans van Houten
Absci Corporation, US ●
• Board Chair ●
• Chair of Nominating and Corporate Governance Committee ●
Castor EDC, NL
• Board Chair
Synthesis Health Inc. US
• Member of the Board
FvH Capital BV, NL (private family holding)
• Director
Affidea Group BV, NL ●
• Member of the Board

Simon Moroney
Biotalys NV, Belgium ●
• Board Chair
• Chair of the Remuneration and Nomination Committee

Ana de Pro Gonzalo
Mobico Group PLC, UK ●
• Member of the Board
STMicroelectronics NV, Switzerland ●
• Member of the Supervisory Board
• Chair of the Audit Committee

Charles Sawyers
–

William Winters
Standard Chartered Bank plc., UK ●
• Member of the Board
• CEO

John Young
Arvinas Inc, US ●
• Member of the Board
• Chair of the Compensation Committee ●
Johnson Controls International plc., Ireland ●
• Member of the Board

Executive Committee members

Steffen Lang
Bachem Holding AG, Switzerland ●
• Board member

Other Executive Committee members
–

● in listed companies ● 2024 new mandate vs. 2023
* under common ownership

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6.C Board practices

Corporate governance

Framework

Novartis is committed to effective corporate governance, and our corporate governance framework is intended to support sustainable financial performance and long-term value creation for our shareholders, patients, employees and other stakeholders based on our Values and Behaviors.

Novartis AG is subject to and compliant with the laws and regulations of Switzerland (in particular Swiss company and securities law, SIX Swiss Exchange rules and the Swiss Code of Best Practice for Corporate Governance) and the securities laws of the United States, including New York Stock Exchange (NYSE) listing standards applicable to foreign private issuers of securities.

The Novartis corporate governance principles are described in key governance documents, in particular in our Articles of Incorporation and the Organizational Regulations of Novartis AG ("Board Regulations") (www.novartis.com/investors/company-overview/corporate-governance).

The Governance, Sustainability and Nomination Committee (GSNC) regularly reviews both the corporate governance principles and the key governance documents against evolving best practice standards and new developments in line with our commitment to maintaining the highest standards.

Governance bodies

GENERAL MEETING OF SHAREHOLDERS

Approves operating and financial review, Novartis Group consolidated financial statements, and financial statements of Novartis AG; decides appropriation of available earnings and dividend; approves compensation of Board and Executive Committee; elects Board members, Board Chair, Compensation Committee members, Independent Proxy and external auditor; adopts and modifies Articles of Incorporation

BOARD OF DIRECTORS

AUDIT AND COMPLIANCE COMMITTEE | COMPENSATION COMMITTEE | GOVERNANCE, SUSTAINABILITY AND NOMINATION COMMITTEE | RISK COMMITTEE | SCIENCE & TECHNOLOGY COMMITTEE

Sets strategic direction of Novartis, appoints and oversees key executives, approves major transactions and investments, adopts and modifies Board Regulations

EXECUTIVE COMMITTEE

Responsible for operational management of Novartis

EXTERNAL AUDITOR

Provides opinion on compliance of Novartis Group consolidated financial statements and the financial statements of Novartis AG with applicable standards and Swiss law, on compliance of the Compensation Report with applicable law, and on effectiveness of internal controls over financial reporting.

Group structure and shareholders

Group structure

Novartis AG and Group companies

Novartis AG, the Group's holding company, is a corporation organized under Swiss law with issued registered shares and registered office at Lichtstrasse 35, CH-4056 Basel, Switzerland.

The principal subsidiaries and associated companies of the Novartis Group are shown in "Item 18. Financial Statements—Note 31. Novartis principal subsidiaries and associated companies."

Organizational structure

Novartis is an innovative medicines company. Its five organizational units represent parts of the Company along the research and development/production/commercialization continuum. These are Biomedical Research, Development, Operations and the two commercial units – US and International – which focus on their respective geographic areas.

Shareholdings

Listed companies belonging to the Novartis Group

Novartis owns 70.68% of Novartis India Ltd., with its registered office in Mumbai, India, and a listing on the BSE (formerly known as the Bombay Stock Exchange) (ISIN INE234A01025, symbol: HCBA). The total market value of the 29.32% free float of Novartis India Ltd. was USD 77.7 million on December 31, 2024, using the quoted market share price at year-end. Applying this share price to all shares of Novartis India Ltd, the market capitalization of the whole company was USD 265.0 million, and that of the shares owned by Novartis was USD 187.3 million.

Shareholders

Significant shareholders

According to the Share Register, as of December 31, 2024, the following registered shareholders, including nominees and the American Depositary Share (ADS) depositary, held more than 2% of the total share capital, with the right to vote all their shares based on exemptions granted by the Board (see "—Item 6.C Board practices—Shareholder participation—Voting rights, restrictions and representation—Registration restrictions"):*

	% holding of share capital Dec 31, 2024
Shareholders registered for their own account:	
UBS Fund Management (Switzerland) AG, Basel	5.3
Emasan AG, Basel[1]	4.1
Credit Suisse Funds AG, Zurich[2]	

[1] According to a disclosure notification filed with Novartis AG and the SIX Swiss Exchange, the beneficial owner of the shares registered for Emasan AG is Sandoz – Fondation de Famille, Liechtenstein.
[2] Credit Suisse Funds AG merged into UBS Fund Management (Switzerland) AG on April 30, 2024.

	% holding of share capital Dec 31, 2024
Shareholders registered as nominees:	
Nortrust Nominees Ltd., London	3.5
The Bank of New York Mellon, New York	2.8
Through The Bank of New York Mellon, Everett	*1.3*
Through The Bank of New York Mellon, New York	*1.0*
Through The Bank of New York Mellon, SA/NV, Brussels	*0.5*
Shareholder acting as American Depositary Share (ADS) depositary:	
JPMorgan Chase Bank, N.A., New York	8.0

According to a disclosure notification filed with Novartis AG, Norges Bank (Central Bank of Norway), Oslo, held 2.3% of the share capital but was not registered in the Share Register as of December 31, 2024.

According to a disclosure notification filed with Novartis AG and the SIX Swiss Exchange, BlackRock, Inc., New York, held between 5% and 10% but was registered with less than 2% of the share capital as of December 31, 2024.

Disclosure notifications pertaining to shareholdings filed with Novartis AG and the SIX Swiss Exchange are published on the latter's electronic publication platform: www.ser-ag.com/en/resources/notifications-market-participants/significant-shareholders.html.

* 9.7% of the share capital is held as treasury shares by Novartis AG or its fully owned subsidiaries (including Swiss foundations controlled by Novartis AG). Percentages in the two tables below are calculated on the basis of 2 189 930 497 ordinary shares including such treasury shares.

Duty to make an offer

According to the Swiss Federal Act on Financial Infrastructures, anyone who – directly, indirectly or acting in concert with third parties – acquires equity securities exceeding 33.3% of the voting rights of a company (whether or not such rights are exercisable) is required to make an offer to acquire all listed equity securities of that company. A company may raise this threshold up to 49% of the voting rights ("opting up") or may, under certain circumstances, waive the threshold ("opting out"). Novartis AG has not adopted any such measures.

Cross shareholdings

Novartis AG has no cross shareholdings in excess of 5% of capital, or voting rights with any other company.

Overview on shareholder structure

The following tables relate only to registered shareholders and cannot be assumed to represent the entire investor base because nominees and JPMorgan Chase Bank, N.A., as ADS depositary, are registered as shareholders for a large number of beneficial owners.

As of December 31, 2024, Novartis AG had approximately 186 000 registered shareholders.

Number of registered shareholders/shares

As of December 31, 2024 [1]	Number of registered shareholders	% of share capital
1–100	39 042	0.10
101–1 000	108 290	1.97
1 001–10 000	35 269	4.41
10 001–100 000	2 986	3.42
100 001–1 000 000	428	5.90
1 000 001–5 000 000	57	5.54
5 000 001 or more	24	34.14
Total registered shareholders/shares [2]	186 096	55.48
Unregistered shares		44.52
Total		**100.00**

[1] At the record date of the 2024 Annual General Meeting of Shareholders (AGM), unregistered shares amounted to 22.8%.
[2] Including 9.7% of the share capital held as treasury shares by Novartis AG or its fully owned subsidiaries (including Swiss foundations controlled by Novartis AG).

Registered shareholders by type

As of December 31, 2024	Shareholders in %	Shares in %
Individual shareholders	96.94	20.47
Legal entities [1]	3.03	45.14
Nominees, fiduciaries and ADS depositary	0.03	34.39
Total	**100.00**	**100.00**

[1] Excluding 9.7% of the share capital held as treasury shares by Novartis AG or its fully owned subsidiaries (including Swiss foundations controlled by Novartis AG).

Registered shareholders by country[1]

As of December 31, 2024	Shareholders in %	Shares in %
Belgium	0.10	1.04
Canada	0.03	0.57
France	2.11	0.51
Germany	5.94	2.12
Ireland	0.58	0.65
Luxembourg	0.06	1.00
Sweden	0.08	0.57
Switzerland [2]	84.80	56.50
United Kingdom	0.70	10.89
United States	0.22	23.85
Other countries	5.38	2.30
Total	**100.00**	**100.00**

[1] Registered shares held by nominees are shown in the country where the company/affiliate entered in the Share Register as shareholder has its registered office.
[2] Excluding 9.7% of the share capital held as treasury shares by Novartis AG or its fully owned subsidiaries (including Swiss foundations controlled by Novartis AG).

Capital structure

Share capital

As of December 31, 2024, the share capital amounted to CHF 1 073 065 943.53 fully paid-in and divided into 2 189 930 497 registered shares with a nominal value of CHF 0.49 each.

Shares are listed on the SIX Swiss Exchange (ISIN CH0012005267, symbol: NOVN) and on the New York Stock Exchange (NYSE) in the form of American Depositary Receipts (ADRs) representing American Depositary Shares (ADSs) (ISIN US66987V1098, symbol: NVS).

No conditional capital exists as of December 31, 2024 nor has a capital band been introduced in the Company's Articles of Incorporation.

Shares, participation certificates, non-voting equity securities, profit-sharing certificates

Shares are issued as uncertificated securities (in the sense of the Swiss Code of Obligations) and as book entry securities (in terms of the Swiss Act on Intermediated Securities). All shares have equal voting rights and carry equal entitlements to dividends. No participation certificates, non-voting equity securities (Genussscheine) or profit-sharing certificates have been issued.

Convertible securities and options

Novartis AG has not issued convertible or exchangeable bonds, warrants, options or other securities granting rights to shares, other than certain instruments granted under or in connection with equity-based participation plans of employees.

Limitation on transferability

No transferability restrictions are imposed on shares (for registration restrictions, see "—Item 6.C Board practices—Shareholder participation—Voting rights, restrictions and representation—Registration restrictions"). The registration of shareholders in the Share Register or in the ADR register kept by JPMorgan Chase Bank, N.A., does not affect the tradability of shares or ADRs.

Changes to share capital

AGM	Shareholder decision	Shares canceled	Average repurchase share price (CHF)[1]
2022	• Capital reduction by CHF 15.35 million (from CHF 1 217 210 460.00 to CHF 1 201 860 626.00) • Authorization of the Board to repurchase shares up to a maximum of CHF 10 billion between the 2022 AGM and the 2025 AGM [2]	30 699 668	81.82
2023	• Capital reduction by CHF 63.12 million (from CHF 1 201 860 626.00 to CHF 1 138 738 876.00) • Authorization of the Board to repurchase shares up to a maximum of CHF 10 billion between the 2023 AGM and the 2026 AGM [3]	126 243 500	81.56
2024	• Capital reduction by CHF 42.90 million (from CHF 1 115 964 098.48 to CHF 1 073 065 943.53)	87 547 255	86.36

EGM	Shareholder decision
2023	• Capital reduction by CHF 22.77 million (from CHF 1 138 738 876.00 to CHF 1 115 964 098.48) by reducing the par value of each share from CHF 0.50 to CHF 0.49

AGM	Proposal to the shareholders	Shares to be canceled	Average repurchase share price (CHF)[1]
2025	• Capital reduction by CHF 37.98 million (from CHF 1 073 065 943.53 to CHF 1 035 086 714.83) • Authorization of the Board to repurchase shares up to CHF 10 billion between the 2025 AGM and the 2028 AGM [4]	77 508 630	94.23

[1] All shares were repurchased on the SIX Swiss Exchange second trading line.
[2] In addition to the remaining authorization from the 2021 AGM
[3] In addition to the remaining authorization from the 2022 AGM
[4] In addition to the remaining authorization from the 2023 AGM

Key Novartis share data

	2024	2023	2022
Issued shares	**2 189 930 497**	**2 277 477 752**	**2 403 721 252**
Treasury shares [1]	214 841 249	233 443 766	284 112 195
Outstanding shares at December 31	**1 975 089 248**	**2 044 033 986**	**2 119 609 057**
Weighted average number of shares outstanding	**2 018 281 520**	**2 076 794 140**	**2 181 180 341**

[1] Approximately 86 million treasury shares (2023: 94 million 2022: 99 million) are held in Novartis entities that restrict their availability for use.

Per-share information[1]

	2024	2023	2022
Basic earnings per share from continuing operations (USD)	5.92	4.13	2.77
Diluted earnings per share from continuing operations (USD)	5.87	4.10	2.76
Net cash flows from operating activities from continuing operations (USD)	8.73	6.85	5.98
Year-end equity for Novartis AG shareholders (USD)	22.30	22.83	28.00
Dividend (CHF) [2]	3.50	3.30	3.20
Dividend (USD) [3]	3.87	3.76	3.51

[1] Calculated on the weighted average number of shares outstanding, except year-end equity.
[2] 2024: proposal to shareholders for approval at the AGM on March 7, 2025.
[3] Translated into US dollars at the December 31, 2024, rate of USD 1.107 to the Swiss franc. This translation is an example only, and should not be construed as a representation that the Swiss franc amount represents, or has been or could be converted into US dollars at that or any other rate. 2023 and 2022, dividends are translated into US dollars at the Bloomberg Market System Rate on the payment date.

Key ratios – December 31

	2024	2023	2022
Price/earnings ratio [1]	16.6	14.1	28.3
Dividend yield (%) [1]	3.9	3.9	3.8

[1] Based on the Novartis share price at December 31 of each year

Key data on ADRs issued in the US

	2024	2023	2022
Year-end ADR price (USD)	97.31	100.97	90.72
High [1]	120.89	105.13	93.75
Low [1]	92.57	80.03	74.61
Number of ADRs outstanding [2]	174 267 912	189 633 312	225 435 680

[1] Based on daily closing prices
[2] The depositary, JPMorgan Chase Bank, N.A., holds one Novartis AG share for every ADR issued.

Share price (CHF)

	2024	2023	2022
Year-end share price	88.70	84.87	83.59
High [1]	102.70	93.87	87.82
Low [1]	84.52	74.62	73.98
Year-end market capitalization (USD billions) [2]	**193.9**	**206.3**	**191.5**
Year-end market capitalization (CHF billions) [2]	**175.2**	**173.5**	**177.2**

[1] Based on daily closing prices
[2] Market capitalization is calculated based on the number of shares outstanding (excluding treasury shares). Market capitalization in USD is based on the market capitalization in CHF converted at the year-end CHF/USD exchange rate.

Shareholder participation

Shareholder engagement

Shareholder engagement is fundamental to our commitment to governance and transparency, and the feedback we receive during these engagements helps us create long-term and sustainable value.

We concentrate our outreach efforts on our largest 100 shareholders – portfolio managers, buy-side professionals, stewardship teams and ESG analysts – who represent approximately 60% of our ownership. While the Board Chair, CEO and CFO, together with Investor Relations, are accountable for ensuring effective shareholder engagement, other senior managers from within and outside the Executive Committee also participate in the meetings. We conduct regular outreach to investors throughout the year.

TYPES OF ENGAGEMENTS (SELECT EXAMPLES):

- AGM and quarterly results webcasts
- Bank conferences and management roadshows
- "Meet Novartis Management" capital markets event
- Pipeline updates i.e. ASCO investor event, Renal Portfolio Update webcast
- Governance roadshow and teleconferences
- Board Chair's meetings with Swiss, US and UK investors
- Annual ESG investor event, captioned "Impact and Sustainability"

TOPICS DISCUSSED WITH SHAREHOLDERS DURING 2024:

ACCELERATE GROWTH AND RETURNS:
- Growth drivers (including *Entresto*, *Cosentyx*, *Kesimpta*, *Kisqali* and *Pluvicto*)
- Replacement power
- Innovation milestones (i.e. *Scemblix*, *Fabhalta*, *Kisqali*)
- Policy and pricing environment

DELIVER THROUGH OPERATIONAL EXCELLENCE:
- Progress on financial, strategic and operational performance
- Return on R&D investments
- Capital allocation strategy
- New organizational model

STRENGTHEN FOUNDATIONS:
- Strong governance and focus on key ESG factors
- Enabling access to medicines with the Novartis Access Principles
- Progress on ESG targets: including carbon, water, waste, gender balance in management

COMPENSATION AND GOVERNANCE:
- Diversity of the Board, the Executive Committee, and the Company
- Board renewal, succession planning and evaluation
- The linking of the compensation system to performance and strategic priorities

Voting rights, restrictions and representation

REGISTRATION

Shareholders have the right to vote and to execute all other rights as granted under Swiss law and the Articles of Incorporation (see, in particular, articles 17 and 18 of the Articles of Incorporation).

Each share registered with the right to vote by the third business day before the General Meeting entitles the holder to one vote at General Meetings. Article 5, paragraph 2 of the Articles of Incorporation provides that to be registered with voting rights, shareholders must declare that they acquired the shares in their own name and for their own account. According to article 5, paragraph 3 of the Articles of Incorporation, the Board may register nominees with the right to vote. The Share Register is a non-public register subject to statutory confidentiality and data privacy.

The Articles of Incorporation are available at www.novartis.com/investors/company-overview/corporate-governance.

REGISTRATION RESTRICTIONS

Article 5, paragraph 2 of the Articles of Incorporation provides that no shareholder shall be registered with the right to vote for more than 2% of the share capital. Given that shareholder representation at General Meetings has traditionally been comparatively low in Switzerland, Novartis AG considers registration restrictions necessary to prevent a minority shareholder from dominating a General Meeting. The Board may, upon request, grant an exemption. Considerations include if the shareholder supports our goal of creating sustainable value and has a long-term investment horizon. Exemptions are in force for the registered shareholders listed in "—Item 6.C Board practices—Group structure and shareholders—Shareholders—Significant shareholders." An exemption also applies to Norges Bank (Central Bank of Norway), Oslo, which as of December 31, 2024, was not registered but held 2.3% according to a disclosure notification filed with Novartis AG. No further exemptions were requested in 2024. The same restrictions indirectly apply to ADR holders.

Article 5, paragraph 3 of the Articles of Incorporation provides that no nominee shall be registered with the right to vote for more than 0.5% of the registered share capital. The Board may, upon request, grant an exemption from this restriction if the nominee discloses the names, addresses and number of shares of the persons for whose account it holds 0.5% or more of the registered share capital. Exemptions are in force for the nominees listed in "—Item 6.C Board practices—Group structure and shareholders—Shareholders—Significant shareholders," and for the nominee Citibank, London, which in 2015 requested an exemption, but as of December 31, 2024, was not registered in the Share Register. The same restrictions indirectly apply to ADR holders.

According to article 5, paragraph 4 of the Articles of Incorporation, shareholders, ADR holders, or nominees who are linked to each other or who act in concert to circumvent registration restrictions are treated as one person or nominee for the purposes of the restrictions on registration.

The registration restrictions may be changed by resolution of the General Meeting, with approval of at least two-thirds of the votes represented at the meeting.

The Articles of Incorporation are available at www.novartis.com/investors/company-overview/corporate-governance.

ATTENDANCE, REPRESENTATION AND WEB PORTAL

Registered shareholders will receive a personal invitation letter to the General Meetings with an access code to log in to our web portal, and – if the shareholder did not use the web portal in the past – a printed invitation brochure and a registration/proxy form. By returning the registration/proxy form or using the web portal, shareholders can order an admission ticket for the General Meeting or appoint a representative of their choice by means of a written proxy or the Independent Proxy to vote their shares on their behalf.

If the Independent Proxy is appointed, shareholders can also give voting instructions on agenda items or on alternative or additional motions related to the agenda items either (i) following the recommendations of the Board for such alternative or additional motions; or (ii) opposing such alternative or additional motions. They can also abstain from voting.

ADR HOLDERS

ADR holders have the rights enumerated in the deposit agreement (such as the right to give voting instructions and to receive dividends). The ADS depositary of Novartis AG – JPMorgan Chase Bank, N.A., New York – holds the shares underlying the ADRs and is registered as a shareholder in the Share Register. An ADR is not a share, and an ADR holder is not a Novartis AG shareholder. Each ADR represents one share. ADR holders exercise their voting rights by instructing the depositary to exercise their voting rights. The ADS depositary exercises the voting rights for registered shares underlying ADRs for which no voting instructions have been given by providing a discretionary proxy to an uninstructed independent designee. Such designee must be a shareholder.

Annual General Meeting (AGM)

CONVENING

The AGM must be held within six months of the end of our financial year (December 31), and normally takes place in late February or early March. According to article 12a of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the Board may foresee that shareholders who cannot be present at the venue of the AGM may exercise their rights through electronic means. The Board may at any time until June 30, 2028[1] also order that the AGM be held electronically without a venue. Extraordinary General Meetings may be requested by the Board, the external auditor, or shareholders representing at least 5% of the share capital.

AGENDA

Shareholders representing shares with an aggregate nominal value of at least CHF 1 million may request that an item be included in a General Meeting agenda. Such requests must be made in writing at least 45 days before the meeting, specifying the requested item and proposal. If an explanatory statement is to be included in the notice of meeting, it must be submitted within the same period, and formulated in a short, clear and concise manner.

POWERS

According to article 17 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following powers are vested exclusively in the General Meeting:

- Adoption and amendment of the Articles of Incorporation
- Election and removal of the Board Chair, the Board and Compensation Committee members, the Independent Proxy and the external auditor
- Approval of the management report, the consolidated financial statements and the report on non-financial matters
- Approval of the financial statements of Novartis AG, and the decision on the appropriation of available earnings shown on the balance sheet, in particular with regard to dividends (including any repayment of the statutory capital reserves and the approval of interim dividends and the interim financial statements required for such purpose)
- Approval of the maximum aggregate compensation of the Board (from one AGM until the next AGM) and of the Executive Committee (for the financial year following the AGM). If the maximum aggregate amount of compensation already approved by the AGM is not sufficient to cover the compensation of newly appointed or promoted Executive Committee members, Novartis may use up to 40% of the amount last approved for the newly appointed or promoted Executive Committee members
- Discharge of Board and Executive Committee members
- Delisting of the shares of Novartis AG
- Decisions on other matters that are reserved by law or by the Articles of Incorporation (e.g., advisory vote on the Compensation Report) to the General Meeting

1 In accordance with the statement by the Board issued on February 10, 2023, Novartis commits to submitting the corresponding authorization again to a shareholder vote at the 2025 Annual General Meeting, regardless of the time limitation stipulated in the Articles of Incorporation.

STATUTORY QUORUMS

The General Meeting passes resolutions and elections with an absolute majority of the votes represented at the meeting. However, under article 18 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the approval of two-thirds of the votes represented at the meeting is required for:

- An alteration of the purpose of Novartis AG
- The consolidation of shares, unless the approval of all affected shareholders is required
- An increase of the share capital out of equity, by contribution in kind, for the purpose of an acquisition of property or the grant of special rights
- An increase of the share capital out of equity, by contributions in kind by way of set-off against a receivable and the grant of special rights
- A restriction or cancellation of rights of options to subscribe
- The introduction of a conditional capital or a capital band
- An implementation of restrictions on the transfer of registered shares, and the removal of such restrictions
- The creation of shares with increased voting powers
- The change of the currency of the share capital
- The introduction of the deciding vote for the presiding officer at the General Meeting of Shareholders
- A provision in the Articles of Incorporation allowing to hold the General Meeting of Shareholders abroad
- The delisting of the shares of Novartis AG
- A change of the registered office of Novartis AG
- The introduction of an arbitration clause in the Articles of Incorporation
- The merger, split or transformation of Novartis AG under the Merger Act (subject to mandatory provisions)
- The dissolution of Novartis AG

Board of Directors

Composition (as per December 31, 2024)

BOARD CHAIR: J. Reinhardt

VICE-CHAIR: S. Moroney

LEAD INDEPENDENT DIRECTOR: P. Bula

N. Andrews
T. Buechner
E. Doherty
B. Heller
D. Hochstrasser
F. van Houten
A. de Pro Gonzalo
C. Sawyers
W. Winters
J. Young

AUDIT AND COMPLIANCE COMMITTEE	COMPENSATION COMMITTEE	GOVERNANCE, SUSTAINABILITY AND NOMINATION COMMITTEE	RISK COMMITTEE	SCIENCE & TECHNOLOGY COMMITTEE
E. Doherty (Chair)	S. Moroney (Chair)	P. Bula (Chair)	T. Buechner (Chair)	J. Young (Chair)
T. Buechner	P. Bula	B. Heller	N. Andrews	N. Andrews
B. Heller	B. Heller	D. Hochstrasser	E. Doherty	F. van Houten
D. Hochstrasser	W. Winters	C. Sawyers	A. de Pro Gonzalo	S. Moroney
F. van Houten		W. Winters	J. Young	C. Sawyers
A. de Pro Gonzalo				

Election and term of office

Board members (including the Board Chair) and Compensation Committee members are elected individually by shareholders at the General Meeting for a one-year term of office. The term of office expires at the end of the next AGM.

According to article 20, paragraph 3 of the Articles of Incorporation, a member shall not serve on the Board for more than 12 years. Under special circumstances and if deemed to be in the best interest of the Company, the Board may recommend exceptions to the shareholders (www.novartis.com/investors/company-overview/corporate-governance).

The term limit supports our commitment to renew the Board on an ongoing basis and follows international best practice.

Succession planning

The GSNC prepares and reviews succession plans for the Board on an annual basis. These plans are discussed by the Board in private meetings. A search for a new Board member is launched – normally with the support of a professional executive search company – with individual selection criteria defined based on the evolving needs of the Company and a continuing focus on diversity, skills and experience. The set of competencies (further explained in "—Item 6.C Board practices—Board of Directors—Board skills") and a balance between continuity of experience and fresh perspectives are also important criteria for the GSNC when evaluating new candidates. Candidates are interviewed by the Board Chair, members of the GSNC, other Board members, and members of the Executive Committee. The GSNC then makes a recommendation to the full Board, and the Board ultimately decides who should be proposed for election at the upcoming AGM.

Independence

All Board members – including the Board Chair – are non-executive and independent, pursuant to applicable corporate governance rules and Novartis independence criteria, which are outlined in Appendix II to the Board Regulations (www.novartis.com/investors/company-overview/corporate-governance). In particular, no Board member is or was a member of the management of Novartis AG or of any other Novartis Group company in the last three financial years up to December 31, 2024, or has or had, a significant business relationship with Novartis AG or with any other Novartis Group company.

The independence of Board members is assessed annually. Each Board member completes an independence questionnaire that is reviewed by the GSNC. The GSNC then submits a proposal to the full Board, and the Board determines the independence status of each Board member.

The Board members are also subject to procedures to avoid conflicts of interest which are outlined in the Board Regulations (www.novartis.com/investors/company-overview/corporate-governance). Based on such procedures, Simon Moroney did not participate in any discussions regarding the acquisition of MorphoSys AG and did not have access to any underlying documents.

Diversity

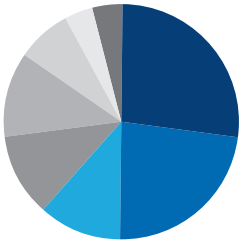
Novartis is dedicated to fostering an inclusive Board where individuals from all genders and ethnic backgrounds can thrive and contribute their unique insights. A diverse Board ensures that the appropriate balance of skills, expertise, experience, and cultural background is represented to discharge its responsibilities and to support long-term value creation for shareholders, patients, employees and other stakeholders.

Diversity remains a critical focus area for the Board, and the GSNC continuously examines opportunities to further increase the Board's diversity when identifying new Board member candidates. The GSNC considers gender, age, nationality, ethnicity and viewpoints, professional background, and expertise in its selection process.

Regarding gender diversity, the Board pledges to sustain its efforts to achieve 50% representation of both genders in the composition of the Board, within a range of +/- 10%.

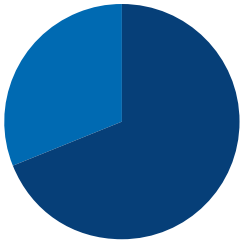
Diversity profile

Nationality[1]



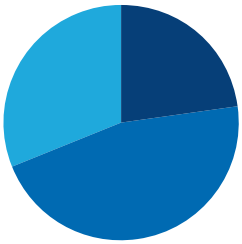
American	27%
Swiss	23%
British	11.5%
Dutch	11.5%
German	11.5%
Spanish	7.5%
Irish	4%
New Zealander	4%

Gender



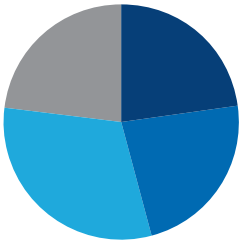
Male	69%
Female	31%

Age



55–60	23%
61–65	46%
>65	31%

Tenure



<3 y	23%
3–6 y	23%
7–9 y	31%
>9 y	23%

[1] Please note that six Board members have dual nationalities. Each of these nationalities is counted as a half in the above chart.

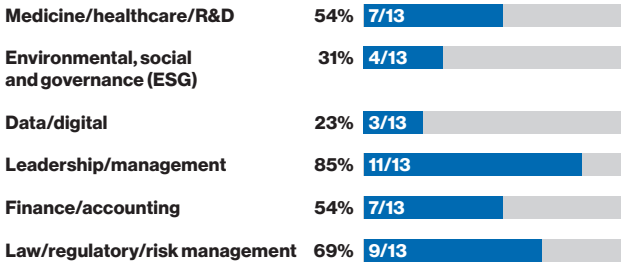
Board skills

Upon proposal by the GSNC, the Board has determined a diverse set of competencies for its members that aligns with our status as a listed company, as well as our business portfolio, geographic reach and culture. Within this set of competencies, Board members were asked to identify their most relevant skills based on their educational background, professional experience and personal achievements.

The GSNC assesses the set of competencies as well as the individual skills annually to ensure that an appropriate balance of skills, expertise, experience and diversity is represented on the Board.

To learn more about our Board members and their individual skills, see "—Item 6.C Board practices—Board of Directors—Members of the Board of Directors."

Board skill distribution



Members of the Board of Directors

Joerg Reinhardt, Ph.D.

Chair since 2013 | Nationality: German | Year of birth: 1956

Joerg Reinhardt is a healthcare industry veteran whose career spans nearly 40 years. After receiving his doctorate in pharmaceutical sciences, Mr. Reinhardt joined Sandoz Pharma Ltd., a predecessor to Novartis, in 1982. He held a number of senior leadership positions at Novartis, including Chief Operating Officer and Head of the Vaccines and Diagnostics Division. Additionally, he led Bayer HealthCare AG as chair of the board of management and the executive committee from 2010 to 2013.

Professional experience
- Chair of the board of management and the executive committee, Bayer HealthCare AG, Germany (2010–2013)
- Chief Operating Officer, Novartis AG, Switzerland (2008–2010)
- Head of the Vaccines and Diagnostics Division, Novartis AG, Switzerland (2006–2008)
- Various managerial positions at Sandoz Pharma Ltd. and Novartis AG, Switzerland (1982–2006)

Mandates
Current:
- Board member, Swiss Re AG, Switzerland
- Chair of the board of trustees, Institute of Molecular and Clinical Ophthalmology Basel (IOB), Switzerland
- Chair of the board of trustees, Novartis Foundation, Switzerland

Past:
- Senate member, Helmholtz Association of German Research Centers, Germany (2021-2023)

Education
- Doctorate in pharmaceutical sciences, Saarland University, Germany

Key skills
Medicine/healthcare/R&D · Environmental, social and governance (ESG) · Leadership/management · Law/regulatory/risk management

Simon Moroney, D.Phil.

Board member since 2020 | Vice-Chair since 2022 | Nationality: German/New Zealander | Year of birth: 1959

As co-founder and CEO of MorphoSys AG, Simon Moroney played a central role in establishing the company as a force in the field of therapeutic antibodies, with one of the broadest pipelines of drug candidates in the industry. Mr. Moroney holds both a doctorate and a Master's degree in chemistry.

Professional experience
- Co-founder and CEO, MorphoSys AG, Germany (1992–2019)
- Research associate, Department of Pharmacology, University of Cambridge, UK (1991–1992)
- Assistant professor, Department of Chemistry, University of British Columbia, Canada (1989–1990)

Mandates
- Chair of the board of directors and the remuneration and nomination committee, Biotalys NV, Belgium

Education
- Doctorate in chemistry, University of Oxford, UK
- Master's degree in chemistry, University of Waikato, New Zealand

Key skills
Medicine/healthcare/R&D · Environmental, social and governance (ESG) · Leadership/management · Law/regulatory/risk management

Nancy C. Andrews, M.D., Ph.D.

Board member since 2015 | Nationality: American/Swiss | Year of birth: 1958

Nancy C. Andrews has extensive experience as a physician, scientist, professor and senior administrator at leading academic institutions and hospitals. Her distinguished career spans more than 30 years, with leadership roles at both Harvard Medical School and the Duke University School of Medicine. Since 2023, Dr. Andrews is credited with conducting research that led to advances in understanding iron biology and iron diseases.

Professional experience
- Professor in residence of pediatrics, Harvard Medical School, US (2023-present)
- Executive vice president and chief scientific officer, Boston Children's Hospital, US (2021–present)
- Dean emerita, Duke University School of Medicine, and vice chancellor emerita for academic affairs, Duke University, US (2017–present)
- Dean, Duke University School of Medicine, and vice chancellor for academic affairs, Duke University, US (2007–2017)
- Professor of pediatrics, pharmacology and cancer biology, Duke University, US (2007–2021)
- Dean for basic sciences and graduate studies, Harvard Medical School, US (2003–2007)
- Director, Harvard/MIT M.D.-Ph.D. Program, US (1999–2003)
- Biomedical research investigator, Howard Hughes Medical Institute, US (1993–2006)

Mandates
Current:
- Board member and chair of the science and technology committee, Charles River Laboratories International Inc., US
- Board member, Maze Therapeutics Inc., US
- Home secretary (since July 2023) and council member, National Academy of Sciences, US

Past:
- Chair, American Academy of Arts and Sciences, US (2017 – 2023)
- Member of the executive committee of the corporation, Massachusetts Institute of Technology, US (2019-2022)
- Council member, National Academy of Medicine, US (2013–2019)
- Member of the scientific management review board, National Institutes of Health, US (2014–2019)
- Chair, Burroughs Wellcome Fund, US (2011–2019)

Education
- Doctor of medicine, Harvard Medical School, US
- Doctorate in biology, Massachusetts Institute of Technology, US
- Master's and bachelor's degrees in molecular biophysics and biochemistry, Yale University, US

Key skills
Medicine/healthcare/R&D · Leadership/management

Ton Buechner

Board member since 2016 | Nationality: Dutch/Swiss | Year of birth: 1965

Ton Buechner is an engineer by training who started his career in the oil and gas construction industry. Before becoming the CEO of Sulzer AG, he held several divisional leadership roles at the company and worked in markets including Asia. Mr. Buechner most recently served as CEO and chair of the executive board of AkzoNobel NV, where he introduced industry-leading ESG policies.

Professional experience
- CEO and chair of the executive board, AkzoNobel NV, Netherlands (2012–2017)
- CEO, Sulzer AG, Switzerland (2007–2011)
- President, Sulzer Pumps, Switzerland (2003–2006)
- President, Sulzer Turbomachinery Services, Switzerland (2000–2002)
- Various managerial positions at Sulzer AG, China and Switzerland (1994–2000)

Mandates
Current:
- Chair of the board of directors and the strategy and sustainability committee, Burckhardt Compression AG, Switzerland
- Chair of the board of directors and the sustainability committee, Swiss Prime Site AG, Switzerland
- Member of advisory committee to the Ministry of Economic Affairs and Climate Policy ("Adviescommissie Maatwerkafspraken Verduurzaming Industrie"), Netherlands

Past:
- Member of the presidential and shareholder committees, Voith GmbH & Co. KGaA, Germany (2014–2020)
- Member of the supervisory board, Voith GmbH & Co. KGaA, Germany (2014–2018)

Education
- Master of business administration, IMD business school, Switzerland
- Master's degree in civil engineering, Delft University of Technology, Netherlands

Key skills
Environmental, social and governance (ESG) · Leadership/management
Finance/accounting · Law/regulatory/risk management

Patrice Bula

Board member since 2019 | Lead Independent Director since 2022 | Nationality: Swiss | Year of birth: 1956

Patrice Bula has 40 years of global management experience and is a leader in the consumer goods industry across established and emerging markets. He has served in various senior roles at Nestlé SA, including as general manager of its businesses in China, Germany and South Africa. Most recently, he successfully led the Nestlé Group's brand strategies, digital marketing transformation and Nespresso business.

Professional experience
- Executive vice president and head of strategic business units, marketing, sales and Nespresso, Nestlé SA, Switzerland (2011–2021)
- Market head of the Greater China region, Nestlé SA, Switzerland (2007–2011)
- Market head of Germany, Nestlé SA, Switzerland (2003–2007)
- Head of the confectionery and biscuits strategic business unit, Nestlé SA, Switzerland (2000–2003)
- Various managerial positions at Nestlé SA, Switzerland (1980–2000)

Mandates
Current:
- Board member and vice chair, Schindler AG, Switzerland
- Board chair, European Pizza Group Topco Sarl, Luxembourg
- Board chair, Froneri Lux Topco Sarl, Luxembourg
- Board member and chair of the ESG committee, New Tiger LLC, US

Past:
- Co-chair (2020–2021) and board member (2015–2021), Cereal Partners Worldwide SA, Switzerland (Nestlé representative)
- Board member, Froneri Lux Topco Sarl, Luxembourg (Nestlé representative) (2016–2020)
- Board member, Bobst Group SA, Switzerland (2017–2019)
- Chair, Blue Bottle Coffee Inc., US (Nestlé representative) (2017–2019)
- Chair, Nestlé Nespresso SA, Switzerland (Nestlé representative) (2011–2019)
- Board member, Hsu Fu Chi Food Companies, China (Nestlé representative) (2011–2019)

Education
- Program for executive development, IMD business school, Switzerland
- Master's degree in economic sciences, HEC Lausanne, Switzerland

Key skills
Environmental, social and governance (ESG) Data/digital Leadership/management Finance/accounting

Elizabeth (Liz) Doherty

Board member since 2016 | Nationality: British/Irish | Year of birth: 1957 | Audit Committee Financial Expert

Elizabeth (Liz) Doherty is an expert in finance and accounting who has broad operational experience in international consumer and retail businesses. She began her career in internal audit at Unilever PLC and has held senior finance and accounting roles there and at other companies including Tesco PLC and Reckitt Benckiser Group PLC.

Professional experience
- CFO (interim), Cognita Schools Ltd., UK (2014–2015)
- CFO and board member, Reckitt Benckiser Group PLC, UK (2011–2013)
- CFO (interim), City Inn, UK (2010)
- CFO, Brambles Ltd., Australia (2007–2009)
- Group international finance director, Tesco PLC, UK (2001–2007)
- Various managerial positions at Unilever PLC, UK (1981–2001)

Mandates
Current:
- Board member and chair of the audit committee, Corbion NV, Netherlands
- Member of the supervisory board and chair of the audit committee, Royal Philips NV, Netherlands
- Member of the advisory committee, Freya Holdco S.à.r.l., Luxembourg

Past:
- Advisor, Affinity Petcare SA and GB Foods SA, Spain (2017–2023)
- Board member, Dunelm Group PLC, UK (2013–2019)
- Board member, HM Courts & Tribunals Service, UK (2015–2019)
- Board member, Ministry of Justice, UK (2015–2019)
- Board member, Delhaize Group, Belgium (2013–2016)
- Board member, Nokia Corp., Finland (2013–2016)

Education
- Fellow, Chartered Institute of Management Accountants, UK
- Bachelor's degree in liberal studies in science (physics), University of Manchester, UK

Key skills
Leadership/management Finance/accounting Law/regulatory/risk management

Bridgette Heller

Board member since 2020 | Nationality: American | Year of birth: 1961

Bridgette Heller has proven experience in the standalone divisions of companies such as Johnson & Johnson, Merck & Co. Inc. and Danone SA, and has served on the audit committees of ADT Corp. and Tech Data Corp. During her career, she has overseen the performance of CFOs and made decisions on strategic R&D priorities. Ms. Heller is an advocate for diversity, equity and inclusion, and traveled globally to reinforce Danone's commitment to infant and maternal health, inclusive diversity, an equitable workforce for women, and sustainable communities. She is co-founder and CEO of the Shirley Proctor Puller Foundation, an education and youth empowerment nonprofit, and devotes much of her time to strengthening education and sustainability in an underserved community in the US.

Professional experience
- Co-founder and CEO, Shirley Proctor Puller Foundation, US (2019–present)
- EVP and president of specialized nutrition, Danone SA, Netherlands (2017–2019)
- EVP of early life nutrition, Danone SA, Netherlands (2016–2019)
- EVP and president of consumer care, Merck & Co. Inc., US (2010–2015)
- Global president of the baby global business unit, Johnson & Johnson, US (2007–2009)
- President of the US baby, kids and wound care business and of global innovation development, Johnson & Johnson, US (2005–2007)
- Managing partner, Heller Associates: Ideas for Growth Inc., US (2004–2005)
- CEO, Chung's Gourmet Foods, US (2003–2004)
- Various managerial positions at Kraft Foods Inc., US (1985–2003)

Mandates
Current:
- Board member, Aramark, US
- Board member, Dexcom Inc., US
- Board member, Integral Ad Science Inc., US
- Board member, Newman's Own Inc., US
- Member of the advisory board, Kellogg School of Management at Northwestern University, US
- Member of the board of trustees, Northwestern University, US
- Board member, Newman's Own Foundation, US
- Board member, Shirley Proctor Puller Foundation, US

Past:
- Board member, Tech Data Corp., US (2016–2020)
- Board member, ADT Corp., US (2012–2016)
- Board member, Girls Inc., US (2002–2014)

Education
- Master's degree in marketing and management policy, Kellogg School of Management at Northwestern University, US
- Bachelor's degree in economics and computer studies, Northwestern University, US

Key skills
Medicine/healthcare/R&D · Environmental, social and governance (ESG) · Data/digital · Leadership/management · Finance/accounting · Law/regulatory/risk management

Daniel Hochstrasser

Board member since 2022 | Nationality: Swiss | Year of birth: 1960

Daniel Hochstrasser is an independent dispute resolution specialist practicing in Zurich, Switzerland. He led Bär & Karrer, one of the leading Swiss law firms, from 2011 to 2021 as CEO/Senior Partner. In addition, he was the head of the firm's dispute resolution practice for 15 years. He frequently represented parties in complex disputes arising from matters such as M&A transactions, industrial and infrastructure projects, and license, distribution and development agreements, particularly in the pharmaceutical industry. He has published extensively on arbitration and litigation, and lectures at the University of Zurich and the University of St. Gallen in Switzerland.

Professional experience
- Attorney-at-law, Daniel Hochstrasser AG, Switzerland (since January 2023)
- Attorney-at-law and partner, Bär & Karrer AG, Switzerland (1993–December 2022)
- Senior partner and chair of the board of directors, Bär & Karrer AG, Switzerland (2011-2021)
- Lawyer, District Court of Affoltern, Court of Appeals/Court of Cassation of Zurich, Switzerland (1987–1992)
- In-house lawyer, Staubli SA, France (1986–1987)

Mandates
Current:
- Chair of the board of directors, Daniel Hochstrasser AG, Switzerland
- Board member, Finland Arbitration Institute, Finland
- Vice president, ICC Court of Arbitration, France
- Member of the Ethics Court, Zurich Bar Association, Switzerland

Past:
- Chair of the board of directors, Bär & Karrer AG, Switzerland (2011-2021)
- Member, ICC Court of Arbitration, France (2015-2021)
- Member of the Court, Swiss Arbitration Chambers, Switzerland (2004–2014)

Education
- Master of laws (LL.M.), Cornell Law School, US
- Bar examination, Switzerland
- Licentiatus iuris, University of Zurich, Switzerland

Key skills
Law/regulatory/risk management

Frans van Houten

Board member since 2017 | Nationality: Dutch | Year of birth: 1960

Frans van Houten is passionate about purpose-driven innovation, entrepreneurship and business transformation to drive customer value and competitiveness. Under his leadership as CEO of Royal Philips, the company transformed into a leading health technology solutions company, leveraging data and informatics to improve healthcare provider results, and became a forerunner across ESG dimensions, having become carbon neutral in its operations since 2020 and recycling over 90% of its waste. Mr. van Houten was an initiator of the World Economic Forum Compact for Responsive and Responsible Leadership as well as founder and co-chair of the Platform to Accelerate the Circular Economy.

Professional experience
- CEO and chair of the executive committee and the board of management, Royal Philips NV, Netherlands (2011–2022)
- Interim management, ING Group NV, Netherlands (2009–2010)
- CEO and chair of the management board, NXP Semiconductors NV (formerly Philips Semiconductors NV), Netherlands (2004–2009)
- Various managerial positions at Royal Philips Electronics NV, Netherlands (1986–2004)

Mandates
Current:
- Board chair, Absci Corporation, US
- Board chair, Castor EDC, Netherlands
- Board member, Affidea Group, Netherlands
- Board chair, Synthesis Health Inc. US

Past:
- Member of the steering committee, European Round Table for Industry (ERT), Belgium (2014-2022)
- Vice chair and member of the supervisory board, Philips Lighting, Netherlands (2016–2017)

Education
- Master's degree in economics and business management, Erasmus University Rotterdam, Netherlands
- Bachelor's degree in economics, Erasmus University Rotterdam, Netherlands

Key skills
Medicine/healthcare/R&D Environmental, social and governance (ESG) Data/digital
Leadership/management Finance/accounting Law/regulatory/risk management

Ana de Pro Gonzalo

Board member since 2022 | Nationality: Spanish | Year of birth: 1967 | Audit Committee Financial Expert

Since starting her career at Arthur Andersen, Ana de Pro Gonzalo has worked across a variety of industries, ranging from construction and real estate to engineering and telecommunications. With deep expertise in finance, capital markets and technology, she has held executive positions at several multinational companies. Most recently, she spent 10 years as chief financial officer of Amadeus IT Group, a leading software provider for the global travel and tourism industry.

Professional experience
- Chief financial officer, Amadeus IT Group SA, Spain (2010–2020)
- Corporate general manager, Sacyr Vallehermoso SA, Spain (2002–2010)
- Deputy general manager and finance director, Metrovacesa SA, Spain (1994–2002)
- Senior auditor, Arthur Andersen SA, Spain (1990–1994)

Mandates
Current:
- Board member, Mobico Group PLC, UK
- Member of the supervisory board and chair of the Audit Committee, STMicroelectronics NV, Netherlands

Past:
- Board member, Indra Sistemas SA, Spain (2020-2022)
- Board member, Merlin Properties Socimi SA, Spain (2015–2017)

Education
- General management program (PDG), IESE Business School, Spain
- Bachelor's degree in business studies, Complutense University of Madrid, Spain

Key skills
Environmental, social and governance (ESG) Data/digital Leadership/management
Finance/accounting Law/regulatory/risk management

Charles L. Sawyers, M.D.

Board member since 2013 | Nationality: American | Year of birth: 1959

Charles L. Sawyers is a highly accomplished expert and leader in cancer research. As a physician and prominent scientist, he has a deep understanding of the benefits of drugs for patients and society at large, and the importance of access to medicines. Dr. Sawyers co-developed the Novartis cancer drug *Gleevec/Glivec* and has received numerous honors and awards, including the Lasker-DeBakey Clinical Medical Research Award.

Professional experience
- Chair of the human oncology and pathogenesis program, Memorial Sloan Kettering Cancer Center, US (2006–present)
- Professor of medicine (2008–present), and professor of cell and developmental biology (2011–present), Weill Cornell Graduate School of Medical Sciences, US
- Investigator, Howard Hughes Medical Institute, US (2002–2006 and 2008–present)
- Associate chief, division of hematology-oncology, University of California, Los Angeles, US (1996–2006)

Mandates
Current:
- Member, National Academy of Medicine, US
- Member, National Academy of Sciences, US
- Investigator, Howard Hughes Medical Institute, US

Past:
- Member, National Cancer Advisory Board, US (2012–2020)
- President, American Association for Cancer Research, US (2013–2014)

Education
- Doctor of medicine, Johns Hopkins University School of Medicine, US
- Bachelor's degree, Princeton University, US

Key skills
Medicine/healthcare/R&D

William T. Winters

Board member since 2013 | Nationality: British/American | Year of birth: 1961

William T. Winters has extensive leadership experience in the financial sector. He began his career at JPMorgan Chase & Co. in 1983 and has held management roles across several market areas and in corporate finance. Mr. Winters founded Renshaw Bay LLP, an alternative asset management firm, and now serves as CEO of Standard Chartered PLC, where he is leading a digital transformation of the global bank.

Professional experience
- CEO, Standard Chartered PLC, UK (2015–present)
- Chair and CEO, Renshaw Bay LLP, UK (2011–2015)
- Co-CEO of the investment bank, JPMorgan Chase & Co., UK (2004–2010)
- Various managerial positions at JPMorgan Chase & Co., UK and US (1983–2004)

Mandates
Current:
- Board member, Standard Chartered Bank PLC, UK

Past:
- Commissioner, Independent Commission on Banking, UK (2010–2011)

Education
- Master of business administration, Wharton School of the University of Pennsylvania, US
- Bachelor's degree in international relations, Colgate University, US

Key skills
Environmental, social and governance (ESG) Data/digital Leadership/management
Finance/accounting Law/regulatory/risk management

John D. Young

Board member since March 2023 | Nationality: British/American | Year of birth: 1964

A scientist by training, John D. Young has over 35 years of experience in the healthcare industry and brings a wealth of experience in leadership, strategy, business development and commercialization of innovative medicines to the Novartis Board of Directors. He joined Pfizer in 1987 as a sales representative and held positions of increasing seniority across the company, including as a member of Pfizer's executive leadership team for a decade. As Pfizer's group president and chief business officer from 2019 until 2022, Mr. Young also played an integral role in the development and delivery of the Pfizer-BioNTech COVID-19 vaccine.

Professional experience
- Senior advisor to the CEO, Pfizer, US (2022)
- Group president and chief business officer, Pfizer, US (2019-2022)
- Group president, innovative health business, Pfizer, US (2018)
- Group president, essential health business, Pfizer, US (2014-2017)
- President and general manager, global primary care business unit, Pfizer, US (2012-2013)
- Regional president, primary care business unit for Europe and Canada, Pfizer, UK (2009-2012)
- Various managerial positions, Pfizer, UK and Australia (1987–2008)

Mandates
Current:
- Board member and chair of the compensation committee, Arvinas Inc, US
- Board member, Johnson Controls International, Ireland

Past:
- Board member, Imbria Pharmaceuticals, US (2022-2024)
- Board member, Haleon, UK (2022-February 2023)
- Board member, GSK Consumer Health Joint Venture, UK (2019-2022)
- Board member, Biotechnology Innovation Organization (BIO), US (2018-2021)
- US bio-pharmaceutical representative, UK Government Life Sciences Council, UK (2007-2021)
- Board member, National Committee for US China Relations, US (2014-2017)
- Board member, European Federation of Pharmaceutical Industries and Associations (EFPIA), Belgium (2012-2017)

Education
- Master of business administration, University of Strathclyde, UK
- Bachelor's degree in biological sciences, University of Glasgow, UK

Key skills
Medicine/healthcare/R&D · Leadership/management · Finance/accounting · Law/regulatory/risk management

Corporate Secretary

Charlotte Pamer-Wieser, Ph.D.

Honorary Chairman

Daniel Vasella, Ph.D.[1]

1 Mr. Vasella does not attend Board meetings and is not provided with Board documents.

Self-assessment

The Board and its committees conduct a self-assessment once a year, covering topics including Board composition, purpose, scope and responsibilities; succession planning; Board processes and governance; interaction between the Board and the Executive Committee; Board meetings and pre-reading material; team effectiveness; and Board Chair and peer evaluation. Every third year, this process is conducted by an independent external consultant.

The 2023 review was undertaken by the consulting firm Egon Zehnder and its results discussed with the Board of Directors and separately with the Executive Committee during the first half of 2024, where Egon Zehnder shared key observations and recommendations. The results of the 2023 in-depth assessment determined that Novartis has a Board that is performing well and improving, where Directors are highly engaged and have a good rapport, and where there is effective succession and rejuvenation in place. Feedback from management on the Board's evaluation showed that the Executive Committee welcomes the interactions with the Board and its members, as well as the balanced supportive/challenging dynamics and rich discussions. The report made several recommendations for the Board's consideration, including preparing for the transition to a new Board Chair in 2025 and areas where the Board should focus its attention in the future.

The 2024 self-assessment was conducted internally:

Questionnaire

- Each Board member fills out an anonymous survey.
- A report identifying key strengths and challenges is produced for the Board and its committees.

Review

- Based on the results, the Board Chair and the committee chairs each lead a qualitative review with their colleagues and then with the entire Board.
- In addition, the Vice-Chair leads a qualitative review of the Board Chair's performance, without the Chair being present, and then provides the Board Chair with the Board's feedback.

Outcome

- The last self-assessment for 2024 determined that the Board and its committees are functioning effectively and efficiently.
- The feedback confirmed that the Board has an open culture, where different views are encouraged and respected, and that the Board is prepared to adapt and change as circumstances require.
- The results also identified key areas on which to focus, such as further development of Novartis strategy, sustained innovation and product pipeline, as well as the impact of the current geopolitical situation including US and China. The evaluation also showed that the Board has a key focus on supporting the Board Chair transition.

Trainings

The Board receives regular briefings and trainings on ethics, risks and compliance, ESG and other relevant topics. In 2024, each Board member completed training on the following:

- The US Healthcare Ecosystem, by Adam Fein
- Adverse event refresher
- Code of Ethics
- External partner risk management
- Antitrust / Fair Competition Policy updates
- "Fit to Commit", which focused on anti-bribery, insider trading, conflicts of interest and D&I
- Data ethics and information management, covering key cybersecurity, information management and personal information risks, including AI use

Our Chief Legal Officer also provides regular updates to the Board members on developments related to insider trading laws and regulations and briefs members of the Board and the Executive Committee on an annual basis on their respective duties. In addition, the Company offers a broad range of external training to its Board members.

Role of the Board and its committees

The Board is responsible for the overall direction and oversight of management, and holds the ultimate decision-making authority, with the exception of decisions reserved for shareholders. Board members are expected to commit the time and effort required to fulfil all their Board and committee responsibilities.

The Board has delegated certain duties and responsibilities to its five committees led by a Board-elected committee chair, as set out in the Board Regulations (www.novartis.com/investors/company-overview/corporate-governance). In some cases, these responsibilities are of an advisory or preparatory nature. In other cases, the committee has decision-making power that is subject to final Board approval, or the responsibilities have been fully delegated to the committee. All committees have the authority to retain external consultants.

Any Board member may request a Board or committee meeting and the inclusion of an agenda item. Before meetings, Board members receive materials to help them prepare for the discussions and to inform decision-making.

Attendance at Board and Board Committee Meetings in 2024

Name	Position	Board	Audit and Compliance Committee	Compensation Committee	Governance, Sustainability and Nomination Committee	Risk Committee	Science & Technology Committee
J. Reinhardt	Board Chair	11/11					
S. Moroney	Vice-Chair	10/11		6/6			6/6
P. Bula	Lead Independent Director	11/11		6/6	4/4		
N. Andrews	Member	9/11				2/4	4/6
T. Buechner	Member	10/11	7/7			4/4	
E. Doherty	Member	11/11	7/7			4/4	
B. Heller	Member	10/11	7/7	6/6	4/4		
D. Hochstrasser	Member	11/11	7/7		4/4		
F. van Houten	Member	10/11	7/7				6/6
A. de Pro Gonzalo	Member	10/11	7/7			4/4	
C. Sawyers	Member	10/11			4/4		5/6
W. Winters	Member	11/11		6/6	4/4		
J. Young	Member	11/11				4/4	6/6

Further details can be found on pages 115 – 120.

Board of Directors

Primary responsibilities

- Strategy: decides on the ultimate direction of the Company's business (including portfolio, markets, acquisitions and divestments), considering also key ESG aspects
- Structure and organization: determines major changes in the Group's structure and organization
- Culture: oversees the strategy and implementation of the corporate culture
- Ethics and compliance: oversees the Company's ethics and compliance framework, including the approval of fundamental corporate policies such as the Novartis Code of Ethics
- Risk management: oversees the Company's risk management system, the most significant risks, and how these risks are managed
- Finance: determines the Company's accounting system, financial controls and financial planning; and reviews and approves the Annual Report (including the Compensation Report)
- Non-financial reporting: reviews and approves the Company 's annual reporting on non-financial matters
- People and organization: nominates or appoints, removes, and determines responsibilities of key executives, and succession planning

Key activities in 2024

- Oversaw the Company's strategy to deliver high-value medicines that alleviate society's greatest disease burdens through technology leadership in R&D and novel access approaches
- Reviewed the development of the talent pipeline in the context of strengthening the Company's foundations and leadership bench
- Discussed longer-term Board succession planning and required profiles, including the nomination of a new Board Chair and a new Board member for election at the 2025 AGM
- Reviewed strategic considerations around mergers and acquisitions (including the acquisition of Mariana Oncology and MorphoSys), and the Company's larger strategic moves to drive sustainable growth
- Regularly reviewed the Company's overall performance
- Discussed updates from the US, International and Operations units
- Reviewed the Research Development Commercial Continuum Execution and the priorities of the different Therapeutic areas
- Discussed the Company's ESG strategy, plans and developments, including updates on non-financial disclosure regulations and the non-financial reporting governance of the Company.
- Discussed and reviewed the annual Board self-evaluation including the 2023 in-depth exercise performed by the external firm Egon Zehnder
- Discussed and assessed the geopolitical situation, with a special focus on the impact of the US election
- Received an update on the Southern Europe, Russia & Central Europe Cluster Business and the Company's strategic ambitions and technology platforms in Slovenia

Meetings

Number of meetings held	11
Number of members	13
Approximate average duration (hours)	5:35
Meeting attendance	96%

The Board met 10 times in 2024. Regular meetings were held in January, April, June, August, October and December and special meetings called to deal with ad hoc matters. Board committees typically meet the day before the meeting of the full Board. The Board held virtual, hybrid and physical meetings, with participants joining in person whenever possible.

J. Reinhardt (Board Chair)	11
S. Moroney (Vice-Chair)	10
P. Bula (Lead Independent Director)	11
N. Andrews	9
T. Buechner	10
E. Doherty	11
B. Heller	10
D. Hochstrasser	11
F. van Houten	10
A. de Pro Gonzalo	10
C. Sawyers	10
W. Winters	11
J. Young	11

Documents

- Articles of Incorporation of Novartis AG
- Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

Audit and Compliance Committee

Primary responsibilities

- Supervises the external auditor, and selects and nominates the external auditor for election by the shareholders (FD)**
- Oversees Internal Audit (FD)**
- Oversees accounting policies, financial controls, and compliance with accounting and internal control standards (FD)**
- Approves financial statements for the first three quarters of each calendar year and the corresponding financial results releases (FD)**, and reviews the annual financial statements and the corresponding financial results releases (FBA)***
- Reviews the non-financial data contained in the Group's annual reporting (FBA)***
- Oversees compliance with laws, regulations and internal policies related to its subject matter expertise (FD)**
- Reviews updates with regards to Quality Assurance and patient safety twice a year and Health Safety & Environment once a year (FD)**
- Reviews updates from the SpeakUp Office twice a year (FD)**
- Reviews the Group's tax policy every two years (FD)**
- Reviews updates in closed sessions with the Chief Financial Officer, Chief Audit Officer, and external auditor (FD)**

Key activities in 2024

- Reviewed accounting and financial reporting, focusing on areas involving significant risk or judgment
- Reviewed non-financial reporting
- Received an update on the Company's approach to non-financial reporting and assurance, in joint session with GSNC
- Received an update on the Novartis fraud risk management framework, including the assessment against the Committee of Sponsoring Organizations of the Treadway Commission (COSO) principles
- Liaised with the Risk Committee to ensure adequate oversight of the Company's key transformation projects (Enterprise Data Governance and Management and Lean Digital Core (LDC) program)
- Monitored progress on the integrated assurance approach
- Evaluated the performance of the external auditor of Novartis, KPMG, during 2024
- Received reports and updates from Internal Audit; Quality; Ethics, Risk & Compliance; the SpeakUp Office; Health, Safety & Environment; and Legal, and discussed progress on identifying and remedying the root causes of any associated issues or problems.

Meetings

Number of meetings held	7
Number of members	6
Approximate average duration (hours)	2:33
Meeting attendance	100%

E. Doherty (Chair, Audit Committee Financial Expert)	7
T. Buechner	7
B. Heller	7
D. Hochstrasser	7
F. van Houten	7
A. de Pro Gonzalo (Audit Committee Financial Expert)	7

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

* A/P = advisory or preparatory task
** FD = fully delegated task
*** FBA = task subject to final Board approval

Compensation Committee

Primary responsibilities

- Designs, reviews and recommends compensation policies and programs to the Board (FBA)***
- Advises the Board on the compensation of Board members and the CEO (A/P)*
- Decides on the compensation of Executive Committee members (FD)**
- Prepares the Compensation Report and the Say-on-Pay brochure, and submits them to the Board for approval (FBA)***

Key activities in 2024

- Made decisions relating to Executive Committee and wider employee compensation during the year
- Determined the critical performance measures (including financial, strategic, operational, innovation and ESG) to be considered in Executive incentive plan targets
- Assessed the achievement of incentive plan targets for Executive Committee members
- Reviewed shareholder and proxy advisor feedback related to Novartis compensation practices and disclosures, in addition to those of peer companies
- Reviewed disclosures in the Novartis Compensation Report
- Proposed appropriate peer companies for comparisons of board and executive committee compensation, and assessed the Company's level of compensation against the peer group
- Reviewed incentive plan rules to secure pay-for-performance alignment while preserving market competitiveness
- Reflected on the effectiveness of the Company's compensation programs in view of becoming a pure-play innovative medicines company

Meetings

Number of meetings held	6
Number of members	4
Approximate average duration (hours)	1:20
Meeting attendance	100%

S. Moroney (Chair)	6
P. Bula	6
B. Heller	6
W. Winters	6

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

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*** FBA = task subject to final Board approval

Governance, Sustainability and Nomination Committee

Primary responsibilities

- Oversees the Company's strategy, governance and progress on sustainability, including access to medicines and healthcare, global health, environmental sustainability, human capital management and other material ESG aspects (FBA)***
- Recommends corporate governance best practices to the Board (FBA)***
- Reviews the Articles of Incorporation and Board Regulations on a periodic basis (FD)**
- Reviews the composition and size of the Board and its committees as well as the skills matrix on a regular basis (FBA)***
- Identifies new Board member candidates and recommends to the Board whether existing Board members should stand for re-election (FBA)***
- Prepares and reviews succession plans for the Board Chair, the Vice-Chair, the Lead Independent Director, Board members, committee members and chairs, and the CEO (FBA)***
- Reviews the independence of each Board member on an annual basis (FBA)***
- Reviews directorships and agreements of Board members for conflicts of interest, and deals with conflicts of interest (FBA)***

Key activities in 2024

- Discussed the composition of, and the succession for, the Novartis Board and its committees on a regular basis
- Discussed benchmarking data concerning the board size, composition, diversity, and committee structure of peer companies
- Discussed the new Swiss legal requirements on non-financial reporting and the corresponding shareholder vote on the 2023 report on non-financial matters at the 2024 AGM
- Received an update on the Company's approach to non-financial reporting and assurance, (in joint session with ACC)
- Reviewed an update on ESG Strategy with a focus on trends regarding ESG disclosure regulations and environmental sustainability
- Regularly reviewed updates on the ESG Scorecard to track progress against the sustainability targets for Innovation & Access, Human Capital Management, Environmental Sustainability and Ethical Standards; reviewed the 2025 ESG targets
- Received an update on Novartis Global Health programs and pipeline
- Received an update on human capital management focused on leadership development, our company culture, and workforce diversity
- Received an update on environmental sustainability, which covered performance against the targets for climate, water, and waste; the approach to reducing scope 3 emissions (including supplier engagement); and the Novartis strategy on biodiversity
- Reviewed the company's performance to date, upcoming regulations and future Novartis targets on gender balance, equal pay, and pay transparency
- Evaluated the results of the 2024 AGM as well as investor and analyst feedback from ESG and Governance roadshows held during 2024

Meetings

Number of meetings held	4
Number of members	5
Approximate average duration (hours)	1:31
Meeting attendance	100%

P. Bula (Chair)	4
B. Heller	4
D. Hochstrasser	4
C. Sawyers	4
W. Winters	4

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

* A/P = advisory or preparatory task
** FD = fully delegated task
*** FBA = task subject to final Board approval

Risk Committee

Primary responsibilities

- Oversees the risk management system and processes (FBA)***
- Reviews, together with management, the prioritization and handling of risks, the risk portfolio, and actions implemented by management (FBA)***
- Performs deep dives into key risk areas and fosters a culture of smart risk-taking (FBA)***
- Reviews updates on cyber security on an annual basis (FD)**
- Reviews regular updates from designated risk owners as well as the Chief Ethics, Risk & Compliance Officer and/or the Head of Risk & Resilience (FD)**

Key activities in 2024

- Received updates on Enterprise Risk Management mitigation measures and results
- Received an update on the artificial intelligence strategy in Biomedical Research and Development organizational units
- Received an update on the falsified medicines risk environment and the progress made in reducing risk for Novartis and its patients
- Discussed the outcome of the Risk Intelligence Forum 2024 and emergency and crisis management
- Reviewed the pricing reimbursement, access and regulatory process risk update for both the US and International units
- Analyzed opportunities and risks around talent management in key areas, including external workforce and human capital management
- Received updates and closely monitored the strategic technology program implementations, with a special focus on the Lean Digital Core (LDC) program
- Received a deep-dive update on cyber security, including AI and data loss protection
- Evaluated the risks associated with current geopolitical developments (including US election scenarios)
- Received an update on the Company's supply chain

Meetings

Number of meetings held	4
Number of members	5
Approximate average duration (hours)	1:51
Meeting attendance	90%

T. Buechner (Chair)	4
N. Andrews	2
E. Doherty	4
A. de Pro Gonzalo	4
J. Young	4

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

* A/P = advisory or preparatory task
** FD = fully delegated task
*** FBA = task subject to final Board approval

Science & Technology Committee

Primary responsibilities

- Monitors emerging scientific, data-related, technological and research trends and issues, and brings recommendations to the Board (FBA)***
- Assists the Board with setting the Company's strategy for science, data, technology and research (A/P)*
- Assists the Board with oversight and evaluation of the performance of the scientific, technological and research teams within the Company in relation to the strategy (FBA)***
- Reviews key portfolio developments by T/A, key research activities, and R&D performance vs. industry benchmarks (A/P)*
- Reviews of progress vs. goals for Research & Development. (FD)**
- Reviews other matters in relation to science, data, technology and research that the committee may, at its own discretion, deem desirable in connection with its responsibilities (A/P)*

Key activities in 2024

- Reviewed the strategy of the Neuroscience Therapeutic Area
- Discussed the strategy of our Technical Research & Development organizational unit
- Reviewed the role of the Science & Technology Committee (STC) and approved the updated STC Charter
- Reviewed the preclinical and early clinical Portfolio Strategy of the Oncology Disease Area
- Reviewed the preclinical and early clinical Portfolio Strategy of the Cardiovascular Metabolism Disease Area
- Provided guidance to Merger & Acquisition (M&A) and Business Development & Licensing (BD&L) teams on scientific aspects of key deals
- Portfolio Updates from Biomedical Research and Development; review of external landscape by Strategy & Growth
- Reviewed R&D performance metrics, including benchmarking, and the Biomedical Research and Development organizational units' plans to enhance performance

Meetings

Number of meetings held	6
Number of members	6
Approximate average duration (hours)	3:55
Meeting attendance	92%

J. Young (Chair)	6
N. Andrews	4
F. van Houten	6
S. Moroney	6
C. Sawyers	5

Documents

- Board Committees Charter, Appendix I to the Board Regulations

www.novartis.com/investors/company-overview/corporate-governance

* A/P = advisory or preparatory task
** FD = fully delegated task
*** FBA = task subject to final Board approval

Board Chair

The Board Chair leads the Board to represent the interests of all stakeholders and ensure an appropriate balance of power between the Board and the Executive Committee. In this role, the Board Chair:

- Provides leadership to the Board
- Supports and mentors the CEO
- Ensures that the Board and its committees work effectively
- Sets the agenda, style and tone of Board discussions, promoting constructive dialogue and effective decision-making
- Ensures onboarding programs for new Board members, and continuous education for and specialization of all Board members
- Ensures the Board's annual performance evaluation
- Promotes effective relationships and communication between Board and Executive Committee members
- Ensures effective communication with the Company's shareholders, other stakeholders and the public

Vice-Chair and Lead Independent Director

Vice-Chair

The Vice-Chair has the following responsibilities:

- Leads the Board in the event that, and for as long as, the Board Chair is incapacitated
- Leads the yearly session of the Board members to evaluate the performance of the Board Chair, during which the Board Chair is not present

The Vice-Chair also provides advice and support to the Board Chair.

Lead Independent Director

To support adequate control mechanisms, the Board Regulations outline the role of the Lead Independent Director. The Lead Independent Director has the following responsibilities:

- Chairs the sessions of the independent Board members
- Leads the independent Board members in the event of a crisis or matter requiring their separate consideration or decision

The roles of the Vice-Chair and the Lead Independent Director can be held by two Board members or by one Board member (combined role).

The Board appointed Simon Moroney as Vice-Chair and Patrice Bula as Lead Independent Director, both roles effective as of March 4, 2022.

Mandates outside the Novartis Group

According to article 34, paragraph 1 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following limitations on mandates apply:

	Maximum number of mandates
Mandates	10
Other listed companies[1]	4

[1] Holding a chair position of the board of directors in other listed companies counts as two mandates.

According to article 34, paragraph 3 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following mandates are not subject to the above-mentioned limitations:

	Maximum number of mandates
Mandates in companies that are controlled by Novartis AG	No limit
Mandates held at the request of Novartis AG or companies controlled by it	5

"Mandates" shall mean any membership in the board of directors, in the executive board or in the advisory board, or a comparable function under foreign law, in a company with an economic purpose. Mandates in different legal entities that are under joint control are deemed to be one mandate.

For a full list of all external mandates subject to the above-mentioned limitations, please refer to the Compensation Report (see "—Item 6.B Compensation—Mandates outside the Novartis Group").

Executive Committee

Composition (as per December 31, 2024)

Vasant (Vas) Narasimhan
Chief Executive Officer

Shreeram Aradhye
President, Development & Chief Medical Officer

Victor Bulto
President, US

Aharon (Ronny) Gal
Chief Strategy & Growth Officer

Karen L. Hale
Chief Legal Officer

Patrick Horber
President, International

Harry Kirsch
Chief Financial Officer

Robert (Rob) Kowalski
Chief People & Organization Officer

Steffen Lang
President, Operations

Fiona H. Marshall
President, Biomedical Research

Klaus Moosmayer
Chief Ethics, Risk & Compliance Officer

Role of the Executive Committee

The Board has appointed the Executive Committee members and delegated overall responsibility for and oversight of the operational management of Novartis to them, including:

- Recruiting, appointing and promoting senior management
- Ensuring the efficient operation of the Group and the achievement of optimal results
- Promoting an active internal and external communications policy
- Developing policies and strategic plans for Board approval, and implementing those approved
- Submitting the following to the Board for approval: investments, divestments, transactions, contracts and litigations with a value exceeding USD 500 million, and capital market and other important financing transactions, as well as all other matters of fundamental significance to the Novartis Group
- Preparing and submitting quarterly and annual reports to the Board and its committees
- Informing the Board of all matters of fundamental significance to the businesses
- Dealing with any other matters delegated by the Board

There are no contracts between Novartis and third parties whereby Novartis would delegate any business management tasks to such third parties.

Chief Executive Officer

With the support of the Executive Committee, the CEO is responsible for the operational management of Novartis. These responsibilities include effectively implementing the Company strategy, delivering financial results, and shaping a corporate culture of empowerment and responsibility to help drive innovation, performance and reputation.

In addition to other Board-assigned duties, the CEO leads the Executive Committee, and is responsible for building and maintaining an effective executive team. With the support of the Executive Committee, the CEO is responsible for:

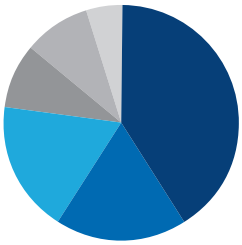
- Ensuring Novartis has the capabilities to achieve its long-term strategic objectives
- Developing robust management succession and development plans for presentation to the Board
- Promoting effective communication with shareholders and other stakeholders
- Ensuring Novartis conducts its business in a legal and ethical manner
- Developing an effective risk control framework for all business activities
- Ensuring the flow of information to the Board is accurate, timely and clear

Diversity

The composition of the Executive Committee of Novartis as of December 31, 2024, in terms of nationality, gender, age and length of tenure, is shown in the following charts:

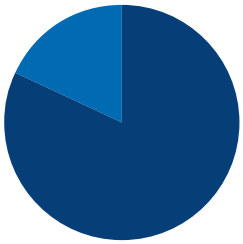
Diversity profile

Nationality[1]



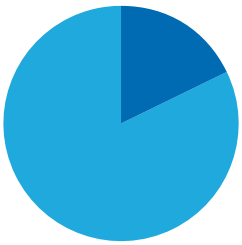
- American 41%
- German 18%
- Swiss 18%
- British 9%
- Spanish 9%
- Israeli 5%

Gender



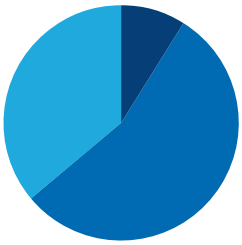
- Male 82%
- Female 18%

Age



- <45 0%
- 45–50 18%
- >50 82%

Tenure



- <2 y 9%
- 2–4 y 55%
- >4 y 36%

[1] Please note that three Executive Committee members have dual nationalities. Each of these nationalities is counted as a half in the above chart.

Mandates outside the Novartis Group

According to article 34, paragraph 2 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following limitations on mandates apply:

	Maximum number of mandates
Mandates	6
Other listed companies[1]	2

[1] Holding a chair position of the board of directors in other listed companies is not allowed.

According to article 34, paragraph 3 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance), the following mandates are not subject to the above-mentioned limitations:

	Maximum number of mandates
Mandates in companies that are controlled by Novartis AG	No limit
Mandates held at the request of Novartis AG or companies controlled by it	5

"Mandates" shall mean any membership in the board of directors, in the executive board or in the advisory board, or a comparable function under foreign law, in a company with an economic purpose. Mandates in different legal entities which are under joint control are deemed one mandate.

For a full list of all external mandates subject to the above-mentioned limitations, please refer to the Compensation Report (see "—Item 6.B Compensation—Mandates outside the Novartis Group").

Members of the Executive Committee

Vasant (Vas) Narasimhan, M.D.

Chief Executive Officer since 2018 | Nationality: American | Year of birth: 1976

Professional experience
- Global Head of Drug Development and Chief Medical Officer, Novartis AG, Switzerland (2016–2018)
- Global Head of Development, Novartis Pharmaceuticals, Switzerland (2014–2016)
- Global Head of Biopharmaceuticals and Oncology Injectables, Sandoz International, Germany (2014)
- Global Head of Development, Novartis Vaccines, US (2012–2014)
- North America Region Head, Novartis Vaccines, and US Country President, Novartis Vaccines and Diagnostics, US (2008–2012)
- Joined Novartis in 2005

Mandates
Current:
- Member, National Academy of Medicine, US
- Board member, Pharmaceutical Research and Manufacturers of America (PhRMA), US
- Committee member, Biopharmaceutical CEOs Roundtable (BCR), International Federation of Pharmaceutical Manufacturers & Associations (IFPMA), Switzerland

Past:
- Chair, Pharmaceutical Research and Manufacturers of America (PhRMA), US (2023–2024)

Education
- Doctor of medicine, Harvard Medical School, US
- Master's degree in public policy, John F. Kennedy School of Government, Harvard University, US
- Bachelor's degree in biological sciences, University of Chicago, US

Shreeram Aradhye, M.D.

President, Development and Chief Medical Officer since May 2022 | Nationality: American | Year of birth: 1962

Professional experience
- Executive vice president & chief medical officer, Dicerna Pharmaceuticals, US (2020–March 2022)
- Executive vice president & chief development officer, Axcella Health, US (2019–2020)
- Global Head, Medical Affairs and Chief Medical Officer, Pharmaceuticals, Novartis, US & Switzerland (2017–2019)
- Global Head, Development Franchise, Neuroscience, and US Head, Development, Novartis, US & Switzerland (2013–2017)
- Executive Global Program Head, Multiple Sclerosis, Novartis, Switzerland (2012–2013)
- Head, Global Development India, Novartis, India (2011–2012)
- Head, Global Clinical Development & Medical Affairs, Biosimilars, Sandoz, Germany (2009–2011)
- Joined Novartis in 1999 holding positions of increasing responsibility

Education
- Chief resident and teaching fellow in internal medicine, Newton Wellesley Hospital, US
- Resident in internal medicine, Newton Wellesley Hospital, US
- Fellow in nephrology, St Luke's Roosevelt Medical Center, US
- Resident in internal medicine (M.D.), All India Institute of Medical Sciences, India
- Bachelor of medicine and bachelor of surgery, All India Institute of Medical Sciences, India

Victor Bulto

President, US since April 2022 | Member of the Executive Committee as of May 2022 | Nationality: Spanish | Year of birth: 1978

Professional experience
- President, Novartis Pharmaceuticals Corporation, US (2019–April 2022)
- Vice President & Head US Immunology & Dermatology Franchise, US (2017–2019)
- Vice President & Head US Alcon Pharmaceuticals, US (2016–2017)
- Head Neuroscience Franchise, Region Europe, Novartis, Switzerland (2013–2016)
- Business Franchise Head Neuroscience, Novartis, Spain (2012–2013)
- Business Franchise Head Neuroscience/MS, Respiratory, Osteoarticular, Spain, Novartis (2010–2012)
- Marketing Head Respiratory, Osteoarticular, Novartis, Spain (2009–2010)

Mandates
- Board member, Biotechnology Innovation Organization (BIO), US
- Board member, Advisory Board of the Leonard D. Schaeffer Center for Health Policy & Economics, US

Education
- Master of business administration, ESADE Business School, Spain
- Master's degree in health economics and pharmacoeconomics, Pompeu Fabra University Spain
- Master's degree in chemical engineering, Ramon Llull University, Spain
- Bachelor's of science degree in chemistry, Ramon Llull University, Spain

Aharon (Ronny) Gal, Ph.D.

Chief Strategy & Growth Officer since July 2022 | Nationality: Israeli/American | Year of birth: 1966

Professional experience
- Senior analyst, US biopharmaceutical, Sanford Bernstein, US (2020–June 2022)
- Senior analyst, US specialty pharmaceuticals and Biotech, Sanford Bernstein, US (2016–2020)
- Senior analyst, US specialty pharmaceuticals and EU mid-cap pharmaceuticals, Sanford Bernstein, US, UK (2013–2016)
- Senior analyst, US specialty pharmaceuticals, Sanford Bernstein, US (2004–2013)
- Vice president, Canon US Life Sciences, US (2003–2004)
- Consultant, team leader, manager, The Boston Consulting Group, Inc., US, Singapore, China (1996–2002)

Education
- Ph.D. in biochemistry, Massachusetts Institute of Technology, US
- B.Sc. in chemistry, Emory University, US

Karen L. Hale

Chief Legal Officer since 2021 | Nationality: American | Year of birth: 1968

Professional experience
- Vice president, deputy general counsel, AbbVie Inc., US (2019–2021)
- Vice president, chief ethics and compliance officer, AbbVie Inc., US (2013–2019)
- Vice president, litigation and legal specialty operations, AbbVie Inc., US (2013)
- Divisional vice president, commercial litigation, Abbott Laboratories, US (2006–2012)
- Began practicing law in 1994 and joined Abbott in 1997

Education
- Bar memberships: Illinois and Virginia, US
- Juris doctor, William & Mary Law School, US
- Bachelor's degree in economics, Duke University, US

Patrick Horber M.D.

President, International since December 2023 | Nationality: Swiss | Year of birth: 1970

Professional experience
- Senior vice president, AbbVie, president Immunology, AbbVie, US (July 2023–September 2023)
- President, US commercial operations, Immunology, AbbVie, US (2020–June 2023)
- Vice president and head of global marketing and commercial operations, AbbVie, US (2019–2020)
- Vice president and managing director, AbbVie, Germany (2015–2019)
- Managing director, AbbVie, Switzerland (2013–2015)
- Managing director, Abbott, Switzerland (2012–2012)
- Leadership roles at headquarters and country operations, Roche (2005–2012)

Mandates
Current:
- Member of the board of the European Federation of Pharmaceutical Industries and Associations

Past:
- Member of the board and chair of the strategy and politics committee, Verband Forschender Arzneimittelhersteller, Germany (2016–2019)
- Interpharma, the association of Switzerland's research-based pharmaceutical industry
  - Chair of the Executive Committee (2015–2015)
  - Member of the President's Bureau (2015–2015)
  - Member of the Executive Committee and the Board (2013–2015)

Education
- Doctor of medicine (M.D.), University of Zurich, Switzerland

Harry Kirsch

Chief Financial Officer since 2013 | Nationality: German/Swiss | Year of birth: 1965

Professional experience
- Chief Financial Officer Pharmaceuticals Division, Novartis Pharma AG, Switzerland (2010–2013)
- Chief Financial Officer of Pharma Europe, Novartis Pharma AG, Switzerland (2008–2010)
- Head of Business Planning & Analysis for the Pharmaceuticals Division, Novartis Pharma AG, Switzerland (2005–2008)
- Head Finance Global Primary Care, Novartis Pharma AG, Switzerland (2003 – 2005)
- Finance positions at Procter & Gamble (1991 – 2003)

Mandates
Past:
- Represented Novartis on the board of GlaxoSmithKline Consumer Healthcare Holdings Ltd. (2015–2018)

Education
- Diploma degree in industrial engineering and economics (Diplom-Wirtschaftsingenieur), University of Karlsruhe, Germany

Robert (Rob) Kowalski

Chief People & Organization Officer since September 2021 | Nationality: American | Year of birth: 1968

Professional experience
- Executive Vice President and Global Head of Regulatory Affairs (2018–2021), and US Head of Global Drug Development (2009–2015 and 2017–2021), Novartis Pharmaceuticals Corporation, US
- Ad interim President, Novartis Corporation, US (2021)
- Ad interim Head of Global Drug Development and Chief Medical Officer, Novartis AG, Switzerland (2018)
- Senior Vice President and Head of Regulatory Affairs, Novartis Pharmaceuticals Corporation, US (2009–2015 and 2017–2018)
- Senior Vice President and Head of Regulatory Affairs, Novartis Pharma AG, Switzerland (2015–2017)
- Global Head of Country Medical Development, Novartis Pharmaceuticals Corporation, US (2010–2011)
- Previously held regulatory leadership roles at Schering-Plough Corporation (now Merck) and Pharmacia Corporation (now Pfizer)

Mandates
Past:
- Member of the advisory board, Industry Pharmacists Organization, US (2015 -2024)

Education
- Doctor of pharmacy, University of Wisconsin-Madison, US
- Bachelor's degree in pharmaceutical sciences, University of Wisconsin-Madison, US

Steffen Lang, Ph.D.

President, Operations since April 2022 | Nationality: German/Swiss | Year of birth: 1967

Professional experience
- Global Head of Novartis Technical Operations (NTO) (2017–April 2022)
- Global Head of Biologics Technical Development and Manufacturing, Novartis Technical Operations, Switzerland (2015–2017)
- Global Head of Technical Research and Development, Novartis Pharmaceuticals, Switzerland (2009–2015)
- Joined Novartis in 1994 as Head of Laboratory in Research, and over the years held positions of increasing responsibility within Pharmaceuticals Development

Mandates
- Board member, Bachem Holding AG, Switzerland

Education
- Doctorate in pharmaceutical technology, Swiss Federal Institute of Technology, Switzerland
- Master's degree in pharmaceutical sciences, University of Heidelberg, Germany

Fiona H. Marshall, Ph.D.

President, Biomedical Research since November 2022 | Nationality: British | Year of birth: 1964

Professional experience
- Senior vice president, head of discovery, preclinical and translational medicine, Merck & Co., US, (2021–September 2022)
- Vice president, global head of neuroscience, Merck & Co., US (2019–2021)
- Vice president, head of UK discovery research, Merck & Co., UK (2018–2019)
- Executive vice president and chief scientific officer, Sosei Heptares, UK (2015–2018)
- Chief scientific officer and founder, Heptares Therapeutics, UK (2006–2018)

Mandates
- Member of the Scientific Advisory Board, SciLifeLab, Sweden
- Fellow, Royal Society, UK Academy of Medical Sciences, and Royal Society of Biology, all UK

Education
- Doctorate in neuroscience, University of Cambridge, UK
- Bachelor's degree in biochemistry, University of Bath, UK

Klaus Moosmayer, Ph.D.

Chief Ethics, Risk & Compliance Officer since 2018 | Nationality: German | Year of birth: 1968

Professional experience
- Chief compliance officer, Siemens AG, Germany (2014–2018)
- Chief counsel compliance, Siemens AG, Germany (2009–2013)
- Compliance operating officer, Siemens AG, Germany (2007–2009)

Mandates
Current:
- Board member, SwissHoldings, the Swiss federation representing Swiss-based multinational companies, Switzerland
- Member of the executive board, Business at OECD (BIAC), Paris
- Co-founder and honorary board member, European Chief Compliance and Integrity Officers' Forum

Past:
- Co-Chair, B20 Integrity & Compliance Taskforce under the G20 presidencies of Indonesia (2022), Italy (2021), Saudi Arabia (2020), Argentina (2018), and Chair of the Task Force under the G20 presidency of Germany (2017)
- Chair of the Anti-Corruption Committee of the Business and Industry Advisory Committee (BIAC), Organization for Economic Co-operation and Development (OECD), Paris (2013–2020)

Education
- First and second state examination in law, Germany
- Doctor of jurisprudence, University of Freiburg, Germany

Information and control systems

The Board's information and control systems vis-à-vis management include a steady flow of information from senior management; monthly financial reports; a comprehensive and integrated risk management framework; and the independent evaluation of our risk management and internal control framework by the Internal Audit function (see "Item 15. Controls and Procedures").

Information from senior management

The Board ensures that it receives sufficient information from the Executive Committee through:

- Monthly CEO reporting (encompassing progress against company targets, including financial results) and frequent communications from the CEO on current developments
- Executive Committee meeting minutes
- Regular meetings and teleconferences by the Board and/or Board committees with the CEO and/or other members of the Executive Committee (e.g., the CFO, the Chief Legal Officer, the Chief Ethics, Risk & Compliance Officer), and regular meetings and teleconferences with senior management (e.g., the Chief Audit Officer)
- Information from Executive Committee members or other Novartis employees, and visits to Novartis sites

To obtain an outside view, the Board and/or Board committees occasionally invite external advisors (e.g., the independent advisor of the Compensation Committee, the external auditor) to attend a meeting and/or share their observations about a specific topic.

Monthly financial reports

Novartis produces comprehensive, consolidated (unaudited) financial statements on a monthly basis for the Company. These are typically available no more than 10 days after the end of the month, and include the following:

- Consolidated income statement of the month and year to date, in accordance with IFRS Accounting Standards, as well as adjustments to arrive at core results that are not aligned with IFRS measures, as defined by Novartis (see "Item 5. Operating and Financial Review and Prospects—Item 5.A Operating results—Non-IFRS measures as defined by Novartis"). The IFRS Accounting Standards and core figures that are not aligned with IFRS measures are compared with the prior-year period and targets in both USD and on a constant currency basis.
- Supplementary data on a monthly and year-to-date basis, such as free cash flow and earnings per share on a USD basis

Management information related to the consolidated income statements and free cash flow is made available to Board members through the monthly CEO Report, which includes an analysis of key deviations from the prior year or target.

Prior to the release of each quarter's results, the Board receives the actual consolidated financial statement information and an outlook of the full-year results in accordance with IFRS Accounting Standards and core results that are not aligned with IFRS measures (as defined by Novartis), together with related commentary.

Annually, during the third quarter, the Board approves the Company's strategic plan for the next three years. In the fourth quarter of the year, the Board approves the operating targets for the following year as well as the financial targets for the following three-year period, including a projected consolidated income statement in USD prepared in accordance with IFRS Accounting Standards and non-IFRS measures as defined by Novartis (core results).

The Board does not have direct access to the Novartis financial and management reporting systems but can, at any time, request more detailed information.

Risk management

Overview

At Novartis, our continued success depends on our ability to manage risk. Our Board has ultimate oversight of the Enterprise Risk Management (ERM) system and regularly reviews the most significant risks and how these are managed. As explained below, the Board is supported by its committees. Furthermore, our Internal Audit function provides an independent evaluation of risk management (see "—Item 6.C Board practices—Information and control systems—Internal Audit").

BOARD COMMITTEES

RISK COMMITTEE
- Oversees the risk management system and processes
- Reviews, together with management, the prioritization and handling of risks, the risk portfolio, and actions implemented by management
- Performs deep dives into key risk areas and fosters a culture of smart risk-taking
- Receives updates on cyber security on an annual basis
- Receives regular updates from designated risk owners as well as the Chief Ethics, Risk & Compliance Officer and/or the Head of Corporate Ethics, Risk & Compliance

AUDIT AND COMPLIANCE COMMITTEE
- Ensures that Internal Audit plans are aligned with key risks, and that the function provides independent assurance and insights around these risks
- Works closely with the Risk Committee to minimize gaps in risk coverage
- Receives a semiannual presentation from the Chief Ethics, Risk & Compliance Officer
- Receives a quarterly presentation from the Chief Audit Officer on progress achieved in implementing the risk-based audit plan, and key insights about audit and advisory activities
- Pays particular attention to financial risk
- Has closed sessions with the Chief Audit Officer and, upon request, with the Chief Ethics, Risk & Compliance Officer

COMPENSATION COMMITTEE
- Works closely with the Risk Committee to ensure that the compensation system does not lead to excessive risk-taking (see "—Item 6.B Compensation—Compensation governance—Risk management principles")

EXECUTIVE COMMITTEE OF NOVARTIS

- Regularly assesses risks and fosters a culture of risk awareness, in line with the Novartis Values and Behaviors and the Novartis Code of Ethics

ETHICS, RISK & COMPLIANCE

- Governs the Novartis Code of Ethics
- Provides an integrated ERM framework (which is described in the following section)
- Governs the global compliance program within Novartis
- Administers the Enterprise Policy Management and global Internal Controls framework

SENIOR LEADERS OF ORGANIZATIONAL UNITS AND GLOBAL FUNCTIONS, AT ALL LEVELS

- Provide appropriate risk management within their area of responsibility
- Establish adequate risk prevention and mitigation strategies when risk exposure is identified, including tracking progress and providing resources for possible actions
- Assess emerging risks, trends and overall exposure as part of the ERM process

Enterprise Risk Management framework

The Ethics, Risk & Compliance (ERC) function provides an integrated ERM framework to obtain a holistic view of Company risks and drive a culture of smart risk-taking. Under the leadership of the Chief Ethics, Risk & Compliance Officer, the Corporate ERC team is responsible for the overall ERM process which is a fundamental pillar of our Integrated Assurance. This process covers, but is not limited to, risks associated with:
- The research, development, manufacturing, marketing and sales of products
- Finance, taxes, intellectual property, compliance with law and regulations, security, product safety, technology, human resources, and health, safety and environmental protection
- Business objectives and strategies, including mergers and acquisitions
- External factors (e.g. risk amplifiers) such as the social, political and economic environment

The ERM process continued to evolve in 2024. The Corporate ERC team conducted risk workshops and collaborated with all risk assurance and monitoring functions to identify key risks across the Company. Each Novartis unit organized a focused risk workshop including leadership team members. In parallel, risk workshops were held in top countries by revenue and in certain focus markets. Once key risks were identified, mitigation action plans were created to address them in an effective way. The findings from these workshops were consolidated into the Novartis Risk Radar, which enables senior management, the Executive Committee and the Board to focus discussions on key risks and more closely align our corporate strategy with our risk exposure and ways of working.

In 2024, the Corporate ERC team further developed the ERM framework within the Novartis Corporate ERC organization. We developed additional risk management training and launched our risk intelligence forum, an event that brought together internal and external speakers to address emerging trends and threats. We also integrated a critical scope of activities (Trade Sanctions Governance) into the Corporate ERC team. Furthermore, steady progress has been made in our Integrated Assurance journey by creating a holistic control framework linked to enterprise policies, and by further strengthening our Corporate ERC Assurance team by integrating Labor Rights and Data Privacy External Partner Audits to ensure a harmonized and coordinated monitoring process across the Company.

SpeakUp Office

Our SpeakUp Office provides a safe place for employees to report potential misconduct, including the option to do so anonymously.

Global Security

Global Security proactively collects and shares threat intelligence to protect Novartis from situations that may compromise the safety of people, products and assets, and/or the reputation of our organization. Global Security protects patients from counterfeit products and, as part of the SpeakUp process, performs fair and timely investigations into high-risk cases of alleged internal misconduct. It also provides personal security advice and support for Novartis executives and other employees with the utmost discretion.

Internal Audit

Internal Audit Purpose and Function

The Internal Audit function supports the Board and Executive Committee by providing independent assurance. It evaluates the effectiveness, efficiency, and adequacy of processes and controls, ensuring that Novartis meets its strategic objectives, manages major risks, and complies with applicable policies, laws, and regulations.

The Chief Audit Officer (CAO) reports administratively to the CEO and functionally to the Chair of the Audit and Compliance Committee (ACC). The CAO meets with the ACC at least quarterly and annually reaffirms the organizational independence of the Internal Audit function to the ACC.

In 2024, Internal Audit executed a risk-based audit plan, with results reported to audited units, the Executive Committee, and the ACC. Audit findings and action plans are centralized to ensure efficient follow-up. To the right is a summary of the audits and advisory activities conducted in 2024, along with key methodology steps for managing the Internal Audit cycle.

2024 INTERNAL AUDIT ACTIVITIES

AUDITS
52

ADVISORIES
24

Internal Audit cycle methodology includes:

- Discovery (planning): Ongoing monitoring and information gathering through continuous risk assessments, utilizing business interviews, and biannual calibration of the audit plan. The plan is reviewed and approved by the Audit Committee (ACC) every six months.
- Execution and Reporting: 37 engagements delivered in 2024, all linked to group risks, emerging topics and company-wide initiatives.
- Follow Up: Management is responsible for resolving issues, supported by Internal Audit to ensure timely closure of high-risk observations.

Internal Audit performed 95% of planned activities (equating to 76 of 80 engagements) in 2024.

Auditors

Duration of the mandate and terms of office

On behalf of the Board, the ACC selects and nominates an independent auditor for election at the AGM. KPMG commenced its auditing mandate for Novartis in 2022. Richard Broadbelt, Auditor in charge, and Heidi Broom-Hirst, Global Audit Partner, began serving in their roles in 2022 and 2023, respectively. The ACC together with KPMG will ensure that these partners are rotated at least every five years.

Auditing fees and additional fees

The ACC monitors and preapproves the fees paid to the external auditor for all audit and non-audit services. It has developed and approved a policy with clear guidelines on the engagement of the independent auditor firm. This policy is designed to help ensure that the independence of the external auditor is maintained. It limits the scope of services that the external auditor may provide to the Company, stipulating certain permissible types of audit-related and non-audit services, including tax services and other services that have been preapproved by the ACC. The ACC preapproves all other services on a case-by-case basis.

The external auditor is required to report periodically to the ACC about the scope of the services it has provided to the Company and the fees for the services it has performed to date. KPMG fees for professional services related to the 12-month periods ended December 31, 2024, and December 31, 2023, are as follows:

	2024 USD million	2023 USD million
Audit services	25.3	26.8
Audit-related services	1.9	2.5
Tax services	0.1	0.3
Other services	0.0	0.0
Total	**27.3**	**29.6**

Audit services include work performed to issue opinions on consolidated financial statements and parent company financial statements of Novartis AG, to issue opinions related to the effectiveness of the Company's internal control over financial reporting, and to issue reports on local statutory financial statements. Also included are audit services that can generally only be provided by the statutory auditor, such as the audits of the Compensation Report, special purpose financial statement in connection with divestment transactions, information systems and the related control environment; and reviews of quarterly financial results.

Audit-related services include other assurance services provided by the independent auditor but not restricted to those that can only be provided by the statutory auditor. They include services such as: limited assurance on selected sustainability information in the Novartis in Society Integrated Report, audits of pension and other employee benefit plans; audit services in connection with non-recurring transactions; assurance of the Compensation Report of Novartis; and other audit-related services.

Tax services include tax compliance and assistance with historical tax matters.

Other services include license fees for use of accounting and other reporting guidance databases and, in 2024, additionally procedures related to training on emerging topics and benchmarking studies.

Information to the Board and the ACC

The ACC, acting on behalf of the Board, is responsible for overseeing the activities of the external auditor. In 2024, this committee held seven meetings. KPMG was invited to all of these meetings to attend the discussions on auditing matters and any other matters relevant to its audit.

The ACC recommended to the Board to approve the audited consolidated financial statements and the separate parent company financial statements of Novartis AG for the year ended December 31, 2024. The Board proposed the acceptance of these financial statements for approval by the shareholders at the next AGM.

The ACC regularly evaluates the performance of the external auditor and, based on this, once a year determines whether the external auditor should be proposed to the shareholders for re-election. To assess the performance of the external auditor, the ACC requests input from management and holds private meetings with the CFO and the Chief Audit Officer and, if necessary, obtains an independent external assessment. Criteria applied for the performance assessment of the external auditor include an evaluation of: its technical and operational competence; its independence and objectivity; the sufficiency of the resources it has employed; its focus on areas of significant risk to Novartis; its willingness to probe and challenge; its ability to provide effective, practical recommendations; and the openness and effectiveness of its communications and coordination with the ACC, the Internal Audit function and management.

Once a year, the Auditor in charge and the Global Audit Partner report to the Board on the external auditor's activities during the current year, and on the audit plan for the coming year.

On an annual basis, the external auditor provides the ACC with written disclosures required by the US Public Company Accounting Oversight Board, and the committee and the external auditor discuss the external auditor's independence from Novartis.

Information policy

Novartis is committed to open and transparent communication with shareholders, investors, financial analysts, customers, suppliers and other stakeholders. Novartis disseminates information about material developments in its businesses in a broad and timely manner that complies with the rules of the SIX Swiss Exchange and the NYSE.

Communications

Novartis publishes this Annual Report to provide information on the Group's results and operations. Novartis discloses financial results in accordance with IFRS Accounting Standards on a quarterly basis, and issues press releases from time to time regarding business developments.

Novartis publishes press releases related to financial results and material events to the US Securities and Exchange Commission (SEC) via Form 6-K. An archive containing annual reports, US SEC Form 20-F, quarterly results releases and all related materials – including presentations and conference call webcasts – is available at www.novartis.com/investors.

Novartis also publishes the Novartis in Society Integrated Report, available at www.novartis.com/reportinghub, which provides an overview of our business, strategy and performance, and describes how we create value for stakeholders and society. The Novartis in Society Integrated Report is prepared in accordance with Art. 964b of the Swiss Code of Obligations, and in alignment with recommendations and standards issued by the Integrated Reporting Framework, the Sustainability Accounting Standards Board (SASB), and the Global Reporting Initiative (GRI).

The information on Board and Executive Committee compensation is outlined in the Compensation Report (see "—Item 6.B Compensation" in general, and for certain compensation information with respect to our Board that is responsive to Item 6.C.2 of Form 20-F, see "—Item 6.B Compensation—Board compensation philosophy and fee structure—Philosophy and benchmarking"). Please also refer to articles 29-35 of the Articles of Incorporation (www.novartis.com/investors/company-overview/corporate-governance). No change-of-control or 'golden parachute' clauses benefit Board members, Executive Committee members, or other members of senior management. Employment contracts with Executive Committee members are either for a fixed term not exceeding one year or for an indefinite period with a notice period not exceeding 12 months, and do not contain commissions for the acquisition or transfer of enterprises or severance payments. No loans or credits are granted to Board and Executive Committee members.

Information contained in reports and releases issued by Novartis is only correct and accurate at the time of release. Novartis does not update past releases to reflect subsequent events, and advises against relying on them for current information.

Investor Relations

Investor Relations manages the Company's interactions with the international financial community. Several events are held each year to provide institutional investors and analysts with various opportunities to learn more about Novartis.

Investor Relations is based at the Company's headquarters in Basel. Part of the team is located in the US to coordinate interaction with US investors. More information is available at www.novartis.com/investors.

Website information

Topic	Information
Share capital	Articles of Incorporation of Novartis AG https://www.novartis.com/sites/novartiscom/files/statuten-en.pdf Novartis key share data www.novartis.com/investors/share-data-analysis
Shareholder rights	Articles of Incorporation of Novartis AG www.novartis.com/investors/company-overview/corporate-governance
Annual General Meeting of Shareholders	Annual General Meeting of Shareholders www.novartis.com/investors/shareholder-information/annual-general-meeting
Board Regulations	Board Regulations www.novartis.com/investors/company-overview/corporate-governance
Novartis code for senior financial officers	Novartis Code of Ethical Conduct for CEO, ECN and Senior Financial Officers of Novartis www.novartis.com/investors/company-overview/corporate-governance
Novartis in Society Integrated Report	Novartis in Society Integrated Report www.novartis.com/reportinghub
Novartis Annual Report and Form 20-F	Novartis Annual Report and Form 20-F www.novartis.com/reportinghub
Novartis Financial Data	Novartis Financial Data www.novartis.com/investors/financial-data
Press releases	Press releases www.novartis.com/news/news-archive?type=media_release Email service www.novartis.com/news/stay-up-to-date
Additional information (including event calendar, registered office, contact and email addresses, phone numbers, etc.)	Novartis Investor Relations www.novartis.com/investors

The information on our website is not, and shall not be deemed to be, a part of this Annual Report or incorporated herein.

Quiet periods

According to our Global Insider Policy, employees who have access to material non-public information on a regular basis are designated as Continuing Insiders and are banned from trading in Novartis securities during quiet periods. Limited exemptions for the expiry of options or warrants within a quiet period apply. Our quarterly quiet periods commence on the first trading day of each calendar quarter and end at the beginning of the first trading day after the subsequent release of the quarterly and/or annual results.

In 2024, the following quiet periods applied:

- January 1, 2024 until (and including) January 31, 2024
- April 1, 2024 until (and including) April 23, 2024
- July 1, 2024 until (and including) July 18, 2024
- October 1, 2024 (and including) October 29, 2024

6.D Employees

The table below sets forth the breakdown of the total year-end number of our full-time equivalent employees by main category of activity and geographic area for the past three years.

For the year ended December 31, 2024 (full-time equivalents)	Marketing and sales	Research and development	Production and supply	Operations[1]	General and administration	Total
USA	5 179	5 083	1 323	591	427	**12 603**
Canada and Latin America	1 707	413	336	1 062	173	**3 691**
Europe	7 908	8 923	11 823	3 993	1 505	**34 152**
Asia/Africa/Australasia	12 327	4 204	2 717	5 514	675	**25 437**
Total	**27 121**	**18 623**	**16 199**	**11 160**	**2 780**	**75 883**

For the year ended December 31, 2023 (full-time equivalents)	Marketing and sales	Research and development	Production and supply	Operations[1]	General and administration	Total
USA	5 219	5 194	1 310	659	464	**12 846**
Canada and Latin America	1 732	461	327	1 019	182	**3 721**
Europe	8 426	8 519	11 811	4 035	1 668	**34 459**
Asia/Africa/Australasia	12 347	4 061	2 718	5 182	723	**25 031**
Total	**27 724**	**18 235**	**16 166**	**10 895**	**3 037**	**76 057**

For the year ended December 31, 2022 (full-time equivalents)	Marketing and sales	Research and development	Production and supply	Operations[1]	General and administration	Total
USA	6 003	5 358	1 740	825	599	**14 525**
Canada and Latin America	2 678	514	809	1 071	270	**5 342**
Europe	14 078	10 483	18 781	5 028	2 483	**50 853**
Asia/Africa/Australasia	15 856	4 841	3 841	5 513	932	**30 983**
Total	**38 615**	**21 196**	**25 171**	**12 437**	**4 284**	**101 703**
Thereof continuing operations[2]	*30 420*	*18 681*	*14 826*	*12 437*	*3 313*	*79 677*
Thereof discontinued operations[2]	*8 195*	*2 515*	*10 345*		*971*	*22 026*

[1] relates to full time equivalent employees (FTEs) from our Operations unit, excluding the Operations units' production and supply FTEs
[2] Continuing operations include the retained business activities of Novartis, comprising the innovative medicines business and continued corporate activities. Discontinued operations include the Sandoz generic pharmaceuticals and biosimilars division and certain corporate activities attributable to Sandoz prior to the spin-off up to the distribution date of October 3, 2023.

A significant number of our employees are represented by unions or works councils. We have not experienced any material work stoppages in recent years, and we consider our employee relations to be good.

6.E Share ownership

The information set forth under "Item 6. Directors, Senior Management and Employees—Item 6.B Compensation—CEO and Executive Committee—Additional disclosures and other statutory information—Shares, ADRs and other equity rights owned by Executive Committee members as at December 31, 2024 (compared with prior year)" and under "Item 6. Directors, Senior Management and Employees—Item 6.B Compensation—Board compensation—Shares, ADRs and share options owned by Board members" is incorporated by reference. For more information on our equity-based participation plans, see the information set forth under "Item 18. Financial Statements—Note 25. Equity-based participation plans for employees," which is incorporated by reference.

6.F Disclosure of a registrant's action to recover erroneously awarded compensation

Not applicable.

Item 7. Major Shareholders and Related Party Transactions

7.A Major shareholders

Novartis shares are widely held. As of December 31, 2024, Novartis had approximately 186 000 shareholders listed in the Share Register of Novartis, representing approximately 55.5% of issued shares. Based on the Novartis Share Register and excluding treasury shares, approximately 56.5% of the shares registered by name were held in Switzerland, and approximately 23.9% were held in the US. Approximately 20.5% of the shares registered in the Share Register were held by individual investors, while approximately 45.1% were held by legal entities, excluding 9.7% of our share capital held as treasury shares by Novartis AG or its fully owned subsidiaries (including Swiss foundations controlled by Novartis AG), and 34.4% were held by nominees, fiduciaries and the ADS depositary.

Based on the Share Register, we believe that we are not directly or indirectly owned or controlled by another corporation or government, or by any other natural or legal persons. There are no arrangements that may result in a change of control.

As December 31, 2024, the following shareholders held more than 5% of the total share capital of Novartis:

	Ordinary shares beneficially owned as of Dec 31, 2024	% share capital beneficially owned as of Dec 31, 2024[1]
BlackRock, Inc.	139 392 071	7.1[2]
UBS Fund Management (Switzerland) AG	115 988 883	5.9

[1] Calculated on the basis of 1 975 089 248 ordinary shares outstanding as of December 31, 2024, excluding shares held as treasury shares by Novartis AG or its fully owned subsidiaries (including Swiss foundations controlled by Novartis AG).
[2] This information is based solely on the Schedule 13G filed by BlackRock, Inc. on February 2, 2024 with the SEC.

As of December 31, 2024, no other shareholder held more than 5% of our share capital.

The Articles of Incorporation provide that no shareholder shall be registered with the right to vote shares comprising more than 2% of the registered share capital. The Board of Directors may, upon request, grant an exemption from this restriction. See "Item 6. Directors, Senior Management and Employees—Item 6.C Board practices—Shareholder participation—Voting rights, restrictions and representation—Registration restrictions" for additional information.

7.B Related party transactions

The information set forth under "Item 18. Financial Statements—Note 26. Transactions with related parties" is incorporated by reference.

7.C Interests of experts and counsel

Not applicable.

Item 8. Financial Information

8.A Consolidated statements and other financial information

See “Item 18. Financial Statements.”

Dividend policy

Subject to the dividend policy described below, our Board of Directors expects to recommend the payment of a dividend in respect of each financial year. If approved by our shareholders at the relevant annual shareholders’ meeting, the dividends will be payable shortly following such approval. Any shareholder who purchases our shares before the ex-dividend date and holds the shares until that date shall be deemed to be entitled to receive the dividends approved at that meeting. Dividends are reflected in our financial statements in the year in which they are approved by our shareholders.

Our dividend policy is to pay a growing annual dividend in Swiss francs per share. This policy is subject to our financial conditions and outlook at the time, the results of our operations, and other factors.

The Board will propose a dividend of CHF 3.50 per share to the shareholders for approval at the Annual General Meeting to be held on March 7, 2025. Because we pay dividends in Swiss francs, exchange rate fluctuations will affect the US dollar amounts received by holders of ADRs. For the amount of dividends we paid in the past three years, see “Item 18. Financial Statements—Note 18. Equity.”

Disclosure pursuant to Section 219 of the Iran Threat Reduction and Syria Human Rights Act (ITRA)

At Novartis, our purpose is to reimagine medicine to improve and extend people’s lives, regardless of where they live. This includes the compliant sale of medicines and other healthcare products worldwide. To help us fulfill this mission, we have for many years maintained a branch office located in Iran.

As of October 18, 2010, a non-US Novartis affiliate entered into a non-binding Memorandum of Understanding (MoU) with the Ministry of Health and Medical Education of the Islamic Republic of Iran. Pursuant to the MoU, the Iranian Ministry of Health acknowledges certain benefits that may apply to sales of certain of our medicines by third-party distributors in Iran. These include fast-track registration, market exclusivity, end-user subsidies, and exemptions from customs tariffs. Novartis receives no payments from the Iranian Ministry of Health under the MoU, and the MoU creates no obligations on the part of either Novartis or the Iranian Ministry of Health.

From time to time, including in 2024, certain Novartis non-US affiliates made payments to government entities in Iran related to patents, trademarks and exit fees.

From time to time, including in 2024, certain Novartis non-US affiliates enter into agreements with hospitals, research institutes, medical associations and universities in Iran to provide grants and sponsor congresses, seminars and symposia, and with doctors and other healthcare professionals for consulting services, including participation in advisory boards and investigator services for observational (non-interventional) studies. Some hospitals and research institutes are owned or controlled by the government of Iran, and some doctors and healthcare professionals are employed by hospitals that may be public or government-owned.

Because we have operations in Iran, including employees, we obtain services and have other dealings incidental to our activities in that country, including paying taxes and salaries either directly or indirectly through a service provider, and obtaining office rentals, insurance, electricity, water and telecommunications services, office and similar supplies, and customs-related services from Iranian companies that may be owned or controlled by the government of Iran. In addition, from time to time, representatives of our non-US affiliates participate in meetings with Iranian officials to discuss issues relevant to our business and the pharmaceutical industry.

Certain Novartis non-US affiliates maintain local accounts at banks that are, as of November 5, 2018, on the Specially Designated Nationals and Blocked Persons List (SDN List). These non-US affiliates make local transactions for employee payroll and local vendor payment purposes. These transactions are conducted for the purpose of facilitating the provision of medicine to Iran, in line with the humanitarian exceptions contained in Section 11 of Executive Order 13902 and other applicable sanctions legal authorities. No transactions are made with an Iranian financial institution designated on the SDN List in connection with Iran’s support for international terrorism or proliferation of weapons of mass destruction.

8.B Significant changes

None.

Item 9. The Offer and Listing

9.A Offer and listing details

Our ordinary shares are listed in Switzerland on the SIX Swiss Exchange under the symbol “NOVN.” Our ADSs, each representing one ordinary share, are traded on the New York Stock Exchange under the symbol “NVS.”

9.B Plan of distribution

Not applicable.

9.C Markets

See “—Item 9.A Offer and listing details.”

9.D Selling shareholders

Not applicable.

9.E Dilution

Not applicable.

9.F Expenses of the issue

Not applicable.

Item 10. Additional Information

10.A Share capital

Not applicable.

10.B Memorandum and articles of association

The following is a non-exhaustive summary of certain provisions of our Articles of Incorporation ("Articles"); the Board Regulations; and Swiss law, particularly the Swiss Code of Obligations ("Swiss CO"), and is qualified in its entirety by reference to the Articles and the Board Regulations, which are an exhibit to the Form 20-F, and to Swiss law.

10.B.1 Company purpose

Novartis AG is registered in the commercial register of the canton of Basel-Stadt, Switzerland, under number CHE-103.867.266. Our business purpose, as stated in Article 2 of the Articles, is to hold interests in enterprises in the area of healthcare or nutrition. We may also hold interests in enterprises in the areas of biology, chemistry, physics, information technology or related areas. We may acquire, mortgage, liquidate or sell real estate and intellectual property rights in Switzerland or abroad. In pursuing our business purpose, we strive to create sustainable value.

10.B.2 Directors

According to our Articles, the Board of Directors ("Board") consists of a minimum of eight and a maximum of 16 members. The members of the Board (including the Board Chair) are elected individually by the General Meeting of Shareholders ("General Meeting") for a one-year term of office lasting until the completion of the next Annual General Meeting of Shareholders ("AGM").

(a) A Board resolution requires the affirmative majority of the votes cast. According to our Board Regulations, a member of our Board ("Director") may not participate in decisions and resolutions on matters that affect, or reasonably might affect, the Director's interests or the interests of a person close to the Director (but the Director may participate in the discussion).
(b) Compensation of the Directors is subject to the approval of the aggregate amounts of such compensation by a shareholders' resolution under the Swiss CO.
(c) The Articles prohibit the granting of loans or credits to Directors.
(d) The Articles provide that a Director shall not serve on the Board for more than 12 years. The Board may, under certain circumstances and if deemed in the best interests of the Company, recommend exceptions to this rule to the General Meeting.
(e) Our Directors are not required to be shareholders at the time of the election by the General Meeting. However, according to our share ownership guidelines, to ensure their interests are aligned with those of our shareholders, the Board Chair is required to own a minimum of 30 000 Novartis AG shares, and other Directors are required to own at least 5 000 Novartis AG shares within five years of having joined the Board.

10.B.3 Shareholder rights

Because Novartis AG has only one class of registered shares, the following information applies to all shareholders.

(a) Under the Swiss CO, we may only pay dividends out of balance sheet profits or out of distributable reserves. In any event, under the Swiss CO, while the Board may propose that a dividend be paid, we may only pay dividends upon shareholders' approval at a General Meeting. Furthermore, the Swiss CO requires us to accrue general legal reserves under certain circumstances so long as these reserves amount to less than 20% of our registered share capital, and Swiss law and the Articles permit us to accrue additional reserves beyond the statutory reserves. Our auditors must confirm that the dividend proposal of our Board conforms with the Swiss CO and the Articles. Our Board expects to recommend the payment of a dividend in respect of each financial year. See "Item 6. Directors, Senior Management and Employees—Item 6.C Board Practices—Capital Structure—Limitation on transferability—Per-share information" and "Item 8. Financial Information—Item 8.A. Consolidated statements and other financial information—Dividend policy."

Dividends are usually due and payable shortly after the shareholders have passed a resolution approving the payment. Dividends that have not been claimed within five years after the due date revert to us and are allocated to our general reserves. For information about deduction of the withholding tax or other duties from dividend payments, see "—Item 10.E Taxation."

(b) Each share is entitled to one vote at a General Meeting. Voting rights may only be exercised for shares registered with the right to vote on the record date for the applicable General Meeting. To do so, the shareholder must file a share registration form with us, setting forth the shareholder's name, address and citizenship (or, in the case of a legal entity, its registered office). If the shareholder has not timely registered its shares, then the shareholder may not vote at, or participate in, a General Meeting.

To vote its shares, the shareholder must also explicitly declare that it has acquired the shares in its own name and for its own account. If the shareholder refuses to make such a declaration, the shares may not be voted unless the Board recognizes such shareholder as a nominee.

The Articles provide that no shareholder shall be registered with the right to vote shares comprising more than 2% of the registered share capital. The Board may, upon request, grant an exemption from this restriction. Considerations include whether the shareholder supports our goal of creating sustainable value and has a long-term investment horizon. Furthermore, the Articles provide that no nominee shall be registered with the right to vote shares comprising more than 0.5% of the registered share capital. The Board may, upon request, grant an exemption from this restriction if the nominee discloses the names, addresses, and number of shares of the persons for whose account it holds 0.5% or more of the registered share capital. The same restrictions indirectly apply to ADR holders. We have in the past granted exemptions from the 2% rule for shareholders and the 0.5% rule for nominees.

For purposes of the 2% rule for shareholders and the 0.5% rule for nominees, groups of companies and groups of shareholders acting in concert are considered to be one shareholder. These rules also apply to shares acquired or subscribed by the exercise of subscription, option or conversion rights.

After hearing the registered shareholder or nominee, the Board may cancel, with retroactive effect as of the date of registration, the registration of the shareholders if the registration was effected based on false information.

Registration restrictions in the Articles may only be removed upon a resolution carrying a two-thirds majority of the votes represented at a General Meeting.

Except as noted below, shareholders' resolutions require the approval of an absolute majority of the votes present at a General Meeting. As a result, abstentions have the effect of votes against such resolutions. Some examples of shareholders' resolutions requiring a vote by such "absolute majority of the votes" are:

- Adoption and amendment of the Articles
- Election and removal of the Board Chair, the Board and Compensation Committee members, the Independent Proxy and the external auditor
- Approval of the management report, the consolidated financial statements and the report on non-financial matters
- Approval of the financial statements of Novartis AG, and the decision on the appropriation of available earnings shown on the balance sheet, in particular with regard to dividends (including any repayment of the statutory capital reserves and the approval of interim dividends and the interim financial statements required for such purpose), if any
- Approval of the maximum aggregate compensation of the Board (from an AGM until the next AGM) and of the Executive Committee (for the financial year following the AGM)
- Discharge of Board and Executive Committee members from liability for matters disclosed to the General Meeting
- Decision on other matters that are reserved by law or by the Articles (e.g., advisory vote on the Compensation Report) to the General Meeting

According to the Articles and Swiss law, the following matters require the approval of a "supermajority" of at least two-thirds of the votes present at a General Meeting:

- Alteration of the purpose of Novartis AG
- The consolidation of shares, unless the approval of all affected shareholders is required
- Increase of the share capital out of equity, by contributions in kind or by way of set-off against receivable, or the grant of special rights
- Restriction or cancellation of subscription rights
- Introduction of a conditional capital or capital band
- Creation of shares with increased voting powers
- Implementation of restrictions on the transfer of registered shares, and the removal of such restrictions
- Change of the currency of the share capital
- Introduction of the deciding vote for the presiding officer at the General Meeting
- A provision in the Articles allowing the General Meeting to be held abroad
- Delisting of the shares of the Company
- Change of the registered office of Novartis AG
- Introduction of an arbitration clause in the Articles
- Merger, split or transformation of Novartis AG under the Swiss Merger Act (subject to mandatory statutory provisions)
- Dissolution of Novartis AG

Our shareholders are required, on an annual basis, to elect all Directors (including the Board Chair), the Compensation Committee members, the external auditor and the Independent Proxy. The Articles do not provide for cumulative voting of shares.

At a General Meeting, shareholders can be represented by a legal representative or, by means of a written proxy, by a representative of choice. Furthermore, a shareholder may be represented by the Independent Proxy. Votes are taken either by a show of hands or by electronic voting, unless the General Meeting resolves to have a ballot or where a ballot is ordered by the chair of the meeting. ADSs, each representing one Novartis AG share and evidenced by ADRs, are issued by our depositary JPMorgan Chase Bank, N.A., New York, and not by us. The ADR is vested with rights defined and enumerated in the Deposit Agreement (such as the rights to vote, to receive a dividend and to receive a share of Novartis AG in exchange for a certain number of ADRs). The enumeration of rights, including any limitations on those rights in the Deposit Agreement, is final. There are no other rights given to the ADR holders. Only the ADS depositary, holding our shares underlying the ADRs, is registered as shareholder in our share register. An ADR is not a Novartis AG share, and an ADR holder is not a Novartis AG shareholder.

The Deposit Agreement between our depositary, the ADR holder and us has granted certain indirect rights to vote to the ADR holders. ADR holders may not attend a General Meeting in person. ADR holders exercise their voting rights by instructing JPMorgan Chase Bank, N.A., our depositary, to exercise the voting rights attached to the registered shares underlying the ADRs. Each ADR represents one Novartis AG share. JPMorgan Chase Bank, N.A., exercises the voting rights for registered shares underlying ADRs for which no voting instructions have been given by providing a discretionary proxy to an uninstructed independent designee. Such designee has to be a shareholder of Novartis AG. The same voting restrictions apply to ADR holders as to those holding Novartis AG shares (i.e., the right to vote up to 2% of the Novartis AG registered share capital – unless otherwise granted an exemption by the Board – and the disclosure requirement for nominees).

(c) Shareholders have the right to allocate the profit shown on our balance sheet and to distribute dividends by vote taken at the General Meeting, subject to the legal requirements described above.

(d) Under the Swiss CO, any surplus arising out of a liquidation of Novartis AG (i.e., after the settlement of all claims of all creditors) would be distributed to the shareholders in proportion to the paid-in nominal value of their shares.

(e) The Swiss CO limits a corporation's ability to hold or repurchase its own shares. We and our subsidiaries may only repurchase shares if we have sufficient freely disposable equity in the amount of the purchase price of the acquired shares. The aggregate nominal value of all Novartis AG shares held by us and our subsidiaries may not exceed 10% of our registered share capital. However, it is accepted that a Swiss corporation may repurchase its own shares beyond the statutory limit of 10% if the repurchased shares are clearly earmarked for cancellation. In addition, we are required to recognize a negative position, or if our subsidiaries acquire our shares, to create a special reserve on our balance sheet in the amount of the purchase price of the acquired shares. Repurchased shares held by us or our subsidiaries do not carry any rights to vote at a General Meeting but are entitled to the economic benefits generally connected with the shares.

Under the Swiss CO, we may not cancel treasury shares without the approval of a capital reduction by our shareholders given that shareholders have not approved the introduction of a capital band.

(f) Not applicable.

(g) Since all of our issued and outstanding shares have been fully paid in, our shareholders are not obliged to make further contributions with respect to their shares.

(h) See "—Item 10.B.3(b) Shareholder rights" and "—Item 10.B.7 Change in control."

10.B.4 Changes to shareholder rights

Under the Swiss CO, we may not issue new shares without the prior approval of a capital increase by our shareholders. If a capital increase is approved, then our shareholders would generally have certain pre-emptive rights to obtain newly issued shares in an amount proportional to the nominal value of the shares they already hold. These pre-emptive rights could be excluded in certain limited circumstances with the approval of a resolution adopted at a General Meeting by a supermajority of two-thirds of the votes. In addition, we may not create shares with increased voting powers or place restrictions on the transfer of registered shares without the approval of a resolution adopted at a General Meeting by a supermajority of votes. In addition, see "—Item 10.B.3(b) Shareholder rights" with regard to the Board's ability to cancel the registration of shares under limited circumstances.

10.B.5 Shareholder meetings

Under the Swiss CO and the Articles, we must hold an AGM within six months after the end of our financial year. A General Meeting may be convened by the Board or, if necessary, by the external auditor. The Board is further required to convene an extraordinary General Meeting if so resolved by a General Meeting, or if so requested by shareholders by signed petition representing at least 5% of the share capital, specifying the items for the agenda and their proposals. Shareholders representing shares with an aggregate nominal value of at least CHF 1 000 000 may request that an item be included in a General Meeting agenda. A General Meeting is convened by publishing a notice in the Swiss Official Gazette of Commerce (*Schweizerisches Handelsamtsblatt*) at least 20 days prior to such meeting. Shareholders may also be informed by mail. Neither the Swiss CO nor the Articles require a quorum for a General Meeting. In addition, see "—Item 10.B.3(b) Shareholder rights" regarding conditions for exercising a shareholder's right to vote at a General Meeting.

10.B.6 Limitations

There are no limitations under the Swiss CO or our Articles on the right of non-Swiss residents or nationals to own or vote shares other than the restrictions applicable to all shareholders and holders of ADRs described in "—Item 10.B.3(b) Shareholder rights."

10.B.7 Change in control

The Articles and the Board Regulations contain no provision that would have an effect of delaying, deferring or preventing a change in control of Novartis AG and that would operate only with respect to a merger, acquisition or corporate restructuring involving us or any of our subsidiaries.

According to the Swiss Merger Act, shareholders may pass a resolution to merge with another corporation at any time. Such a resolution would require the consent of at least two-thirds of all votes present at the necessary General Meeting.

Under the Swiss Financial Market Infrastructure Act, shareholders and groups of shareholders acting in concert who acquire more than 33 1/3% of our shares would be under an obligation to make an offer to acquire all remaining Novartis AG shares. Novartis AG has neither opted out from the mandatory takeover offer obligation nor opted to increase the threshold for mandatory takeover offers in its Articles.

10.B.8 Disclosure of shareholdings

Under the Swiss Financial Market Infrastructure Act, persons who directly, indirectly or in concert with other parties acquire or dispose of our shares or purchase or sale rights relating to our shares are required to notify us and the SIX of the level of their holdings whenever such holdings reach, exceed or fall below certain thresholds – 3%, 5%, 10%, 15%, 20%, 25%, 33 1/3%, 50% and 66 2/3% – of the voting rights represented by our share capital (whether exercisable or not). This also applies to anyone who has discretionary power to exercise voting rights associated with our shares. Following receipt of such notification, we are required to inform the public by publishing the information via the electronic publication platform operated by the SIX.

An additional disclosure obligation exists under rules of the SIX that requires us to disclose the identity of all of our shareholders (or related groups of shareholders) as published pursuant to the paragraph above, in Item 6.C of this Annual Report. See "Item 6. Directors, Senior Management and Employees—Item 6.C Board practices—Group structure and shareholders—Shareholders—Significant shareholders."

10.B.9 Differences in the law

See the references to Swiss law throughout this "—Item 10.B Memorandum and articles of association."

10.B.10 Changes in capital

The requirements of the Articles regarding changes in capital are not more stringent than the requirements of Swiss law.

10.C Material contracts

Sandoz Spin-Off

In connection with the spin-off of Sandoz, we entered into a Separation and Distribution Agreement, dated September 30, 2023, a Tax Matters Agreement, dated September 30, 2023 and several other agreements with Sandoz to effect the separation of the Sandoz business and provide a framework for our relationship with Sandoz after the spin-off.

The Separation and Distribution Agreement sets forth the parties' agreements regarding the principal actions to be taken in connection with the separation of the Sandoz business and the spin-off, by way of a distribution of shares of Sandoz Group AG by Novartis AG to Novartis shareholders, including the conditions of the spin-off and the rights and obligations of the parties with respect to the separation and distribution. The Separation and Distribution Agreement identifies the assets to be transferred, liabilities to be assumed and contracts to be assigned to each of Novartis and Sandoz as part of the internal transactions effected prior to the distribution and provides for when and how such transfers, assumptions and assignments should occur. Each party agreed to indemnify the other and each of the other's directors, officers, managers, members, agents and employees against certain liabilities incurred in connection with the spin-off and the parties' respective businesses (subject to certain exceptions).

The Tax Matters Agreement imposes certain restrictions and indemnity obligations on Sandoz designed to preserve the tax-neutral nature of the spin-off for Swiss tax and US federal income tax purposes.

The Tax Matters Agreement also provides that Sandoz will be liable for any taxes accruing in the ordinary course of business of Novartis and its subsidiaries before the spin-off if such taxes are attributable to entities which are transferred or allocated to the Sandoz Group as part of the spin-off, whereas Novartis will remain liable for any other taxes accruing before the spin-off in the ordinary course of business, to the extent not attributed to Sandoz.

10.D Exchange controls

There are no Swiss governmental laws, decrees or regulations that affect – in a manner material to Novartis AG – the export or import of capital, including the availability of cash and cash equivalents for use by Novartis or any foreign exchange controls that affect the remittance of dividends, interest or other payments to non-residents or non-citizens of Switzerland who hold Novartis AG securities.

10.E Taxation

The taxation discussion set forth below is intended only as a descriptive summary and does not purport to be a complete analysis or listing of all potential tax effects relevant to the ownership or disposition of our shares or ADRs. The statements of US and Swiss tax laws set forth below are based on the laws and regulations in force as of the date of this 20-F—including the current Convention Between the US and the Swiss Confederation for the Avoidance of Double Taxation with Respect to Taxes on Income, entered into force on December 19, 1997 (the Treaty); the US Internal Revenue Code of 1986, as amended (the Code); Treasury regulations; rulings; judicial decisions; and administrative pronouncements—and may be subject to any changes in US and Swiss law, and in any double taxation convention or treaty between the US and Switzerland occurring after that date, which changes may have retroactive effect.

Swiss taxation

Swiss residents

Withholding Tax on dividends and distributions. Dividends that we pay and similar cash or in-kind distributions that we may make to a holder of shares or ADRs (including distributions of liquidation proceeds in excess of the nominal value, stock dividends and, under certain circumstances, proceeds from repurchases of shares by us in excess of the nominal value) are generally subject to a Swiss federal withholding tax (the Withholding Tax) at a current rate of 35%. Under certain circumstances, distributions out of capital contribution reserves made by shareholders after December 31, 1996, are exempt from the Withholding Tax. We are required to withhold Withholding Tax due from the gross distribution and to pay the Withholding Tax to the Swiss Federal Tax Administration. The Withholding Tax is refundable in full to Swiss tax residents who are the beneficial owners of the taxable distribution at the time it is resolved and duly report the gross distribution received on their personal tax return or in their financial statements for tax purposes, as the case may be.

Income tax on dividends. A Swiss tax resident who receives dividends and similar distributions (including stock dividends and liquidation surplus) on shares or ADRs is required to include such amounts in the shareholder's personal income tax return. However, distributions out of qualified capital contribution reserves are not subject to income tax. A corporate shareholder may claim substantial relief from taxation of dividends and similar distributions received if the shares held represent a fair market value of at least CHF 1 million.

Capital gains tax upon disposal of shares. Under current Swiss tax law, the gain realized on shares held by a Swiss resident who holds shares or ADRs as part of his private property is generally not subject to any federal, cantonal or municipal income taxation on gains realized on the sale or other disposal of shares or ADRs. However, gains realized upon a repurchase of shares by us may be characterized as taxable dividend income if certain conditions are met. Book gains realized on shares or ADRs held by a Swiss corporate entity or by a Swiss resident individual as part of the shareholder's business property are, in general, included in the taxable income of such person. However, the Federal Law on the Direct Federal Tax of December 14, 1990, and several cantonal laws on direct cantonal taxes provide for exceptions for Swiss corporate entities holding more than 10% of our voting stock for more than one year.

Residents of other countries

Recipients of dividends and similar distributions on our shares who are neither residents of Switzerland for tax purposes nor hold shares as part of a business conducted through a permanent establishment situated in Switzerland (Non-Resident Holders) are not subject to Swiss income taxes in respect of such distributions. Moreover, gains realized by such recipients upon the disposal of shares are not subject to Swiss income taxes.

Non-Resident Holders of shares are, however, subject to the Withholding Tax on dividends and similar distributions mentioned above and, under certain circumstances, to the Stamp Duty described below. Such Non-Resident Holders may be entitled to a partial refund of the Withholding Tax if the country in which they reside has entered into a bilateral treaty for the avoidance of double taxation with Switzerland. Non-Resident Holders should be aware that the procedures for claiming treaty refunds (and the time frame required for obtaining a refund) may differ from country to country. Non-Resident Holders should consult their own tax advisors regarding receipt, ownership, purchase, sale or other dispositions of shares or ADRs, and the procedures for claiming a refund of the Withholding Tax.

As of January 1, 2025, Switzerland has entered into bilateral treaties for the avoidance of double taxation with respect to income taxes with the following countries, whereby a part of the above-mentioned Withholding Tax may be refunded (subject to the limitations set forth in such treaties):

Albania
Algeria
Argentina
Armenia
Australia
Austria
Azerbaijan
Bahrain
Bangladesh
Belarus
Belgium
Brazil
Bulgaria
Canada
Chile
China
Colombia
Croatia
Cyprus
Czechia
Denmark
Ecuador
Egypt
Estonia
Ethiopia
Finland
France
Georgia
Germany
Ghana
Greece
Hong Kong
Hungary
Iceland
India
Indonesia
Iran
Ireland
Israel
Italy
Ivory Coast
Jamaica
Japan
Kazakhstan
Republic of Korea
(South Korea)
Kosovo
Kuwait
Kyrgyzstan
Latvia
Liechtenstein
Lithuania
Luxembourg
Malaysia
Malta
Mexico
Moldova
Mongolia
Montenegro
Morocco
Netherlands
New Zealand
North Macedonia
Norway
Oman
Pakistan
Peru
Philippines
Poland
Portugal
Qatar
Romania
Russia
Saudi Arabia
Serbia
Singapore
Slovak Republic
Slovenia
South Africa
Spain
Sri Lanka
Sweden
Taiwan
Tajikistan
Thailand
Trinidad and Tobago
Tunisia
Türkiye
Turkmenistan
Ukraine
United Arab Emirates
United Kingdom
United States of America
Uruguay
Uzbekistan
Venezuela
Vietnam
Zambia

Tax treaty negotiations are underway, or have been conducted, with Angola, Bosnia and Herzegovina, Cameroon, Costa Rica, Jordan, Kenya, Libya, Nigeria, Rwanda, Senegal, Syria and Zimbabwe. Tax treaty negotiations between Switzerland and some of the countries listed in the immediately preceding sentence have been ongoing for an extended period of time, and we are not certain when or if such negotiations will be completed, or when or if the corresponding treaties will come into effect.

A Non-Resident Holder of shares or ADRs will not be liable for any Swiss taxes other than the Withholding Tax described above and, if the transfer occurs through or with a Swiss bank or other Swiss securities dealer, the Stamp Duty described below. If, however, the shares or ADRs of Non-Resident Holders can be attributed to a permanent establishment or a fixed place of business maintained by such person within Switzerland during the relevant tax year, the shares or ADRs may be subject to Swiss income taxes in respect of income and gains realized on the shares or ADRs, and such person may qualify for a full refund of the Withholding Tax based on Swiss tax law.

Residents of the US. A Non-Resident Holder who is a resident of the US for purposes of the Treaty is eligible for a reduced rate of tax on dividends equal to 15% of the dividend, provided that such holder (i) qualifies for benefits under the Treaty; (ii) is not a company (or, if it is a company, such company directly holds less than 10% of our voting stock); and (iii) does not conduct business through a permanent establishment or fixed base in Switzerland to which the shares or ADRs are attributable. Such an eligible holder must apply for a refund of the amount of the Withholding Tax in excess of the 15% Treaty rate. A Non-Resident Holder who is a resident of the US for purposes of the Treaty is eligible for a reduced rate of tax on dividends equal to 5% of the dividend, provided that such holder (i) is a company; (ii) qualifies for benefits under the Treaty; (iii) holds directly at least 10% of our voting stock; and (iv) does not conduct business through a permanent establishment or fixed place of business in Switzerland to which the shares or ADRs are attributable. Such an eligible holder must apply for a refund of the amount of the Withholding Tax in excess of the 5% Treaty rate. Claims for refunds must be filed on Swiss Tax Form 82 (82C for corporations; 82I for individuals; 82E for other entities), which may be obtained from any Swiss Consulate General in the US or from the Federal Tax Administration of Switzerland at the address below, together with an instruction form. Four copies of the form must be duly completed, signed before a notary public of the US, and sent to the Federal Tax Administration of Switzerland, Eigerstrasse 65, CH-3003 Bern, Switzerland. The form must be accompanied by suitable evidence of deduction of Swiss tax withheld at source, such as certificates of deduction, signed bank vouchers or credit slips. The form may be filed on or after July 1 or January 1 following the date the dividend was payable, but no later than December 31 of the third year following the calendar year in which the dividend became payable. For US resident holders of ADRs, JPMorgan Chase Bank, N.A., as depositary, will comply with these Swiss procedures on behalf of the holders, and will remit the net amount to the holders.

Stamp Duty upon transfer of securities. The sale of shares, whether by Swiss residents or Non-Resident Holders, may be subject to federal securities transfer Stamp Duty of 0.15%, calculated on the sale proceeds, if the sale occurs through or with a Swiss bank or other Swiss securities dealer, as defined in the Swiss Federal Stamp Duty Act. The Stamp Duty has to be paid by the securities dealer and may be charged to the parties in a taxable transaction who are not securities dealers. Stamp Duty may also be due if a sale of shares occurs with or through a non-Swiss bank or securities dealer, provided that (i) such bank or dealer is a member of the SIX, and (ii) the sale takes place on the SIX. In addition to this Stamp Duty, the sale of shares by or through a member of the SIX may be subject to a minor stock exchange levy.

US federal income taxation

The following is a general discussion of the material US federal income tax consequences of the ownership and disposition of our shares or ADRs that may be relevant to you if you are a US Holder (as defined below). Because this discussion does not consider any specific circumstances of any particular holder of our shares or ADRs, persons who are subject to US taxation are strongly urged to consult their own tax advisors as to the overall US federal, state and local tax consequences, as well as to the overall Swiss and other foreign tax consequences, of the ownership and disposition of our shares or ADRs. In particular, additional or different rules may apply to US expatriates; banks and other financial institutions; regulated investment companies; traders in securities who elect to apply a mark-to-market method of accounting; dealers in securities or currencies; tax-exempt entities; insurance companies; broker-dealers; investors liable for alternative minimum tax; investors that hold shares or ADRs as part of a straddle, hedging or conversion transaction; holders whose functional currency is not the US dollar; partnerships or other pass-through entities; persons who acquired our shares pursuant to the exercise of employee stock options or otherwise as compensation; and persons who hold, directly, indirectly or by attribution, 10% or more of our outstanding shares. This discussion generally applies only to US Holders who hold the shares or ADRs as a capital asset (generally, for investment purposes), and whose functional currency is the US dollar. Investors are urged to consult their own tax advisors concerning whether they are eligible for benefits under the Treaty.

For purposes of this discussion, a US Holder is a beneficial owner of our shares or ADRs who is (i) an individual who is a citizen or resident of the US for US federal income tax purposes; (ii) a corporation (or other entity taxable as a corporation for US federal income tax purposes) created or organized in or under the laws of the US or a state thereof or the District of Columbia; (iii) an estate the income of which is subject to US federal income taxation regardless of its source; or (iv) a trust (i) subject to the primary supervision of a US court and the control of one or more US persons, or (ii) that has a valid election in place to be treated as a US person. If a partnership (or other entity treated as a partnership for US federal income tax purposes) holds shares or ADRs, the tax treatment of a partner generally will depend upon the status of the partner and the activities of the partnership. Partners in a partnership that holds shares or ADRs are urged to consult their own tax advisor regarding the specific tax consequences of owning and disposing of such shares or ADRs by the partnership.

For US federal income tax purposes, a US Holder of ADRs generally will be treated as the beneficial owner of our shares represented by the ADRs. However, see the discussion below under "Dividends" regarding certain statements made by the US Treasury concerning depositary arrangements.

This discussion assumes that each obligation in the Deposit Agreement and any related agreement will be performed in accordance with its terms.

Dividends. US Holders will be required to include in gross income, as an item of ordinary income, the full amount (without reduction for any Withholding Tax) of the dividend paid with respect to our shares or ADRs at the time that such dividend is received by the US Holder, in the case of shares, or by the depositary, in the case of ADRs. For this purpose, a "dividend" will include any distribution paid by us with respect to our shares or ADRs (other than certain pro rata distributions of our capital stock) paid out of our current or accumulated earnings and profits, as determined under US federal income tax principles. To the extent the amount of a distribution by us exceeds our current and accumulated earnings and profits, such excess will first be treated as a tax-free return of capital to the extent of a US Holder's tax basis in the shares or ADRs (with a corresponding reduction in such tax basis), and thereafter will be treated as capital gain, which will be long-term capital gain if the US Holder held our shares or ADRs for more than one year. Under the Code, dividend payments by us on the shares or ADRs are not eligible for the dividends received deduction generally allowed to corporate shareholders.

Dividend income in respect of our shares or ADRs will constitute income from sources outside the US for US foreign tax credit purposes. Subject to the limitations and conditions provided in the Code, US Holders generally may claim as a credit against their US federal income tax liability, any Withholding Tax withheld from a dividend. The rules governing the foreign tax credit are complex. Each US Holder is urged to consult its own tax advisor concerning whether, and to what extent, a foreign tax credit will be available with respect to dividends received from us. Alternatively, a US Holder may claim the Withholding Tax as a deduction for the taxable year within which the Withholding Tax is paid or accrued, provided a deduction is claimed for all of the foreign income taxes the US Holder pays or accrues in the particular year. A deduction does not reduce US tax on a dollar-for-dollar basis like a tax credit. The deduction, however, is not subject to the limitations applicable to foreign tax credits, but may be subject to other limitations, and each US Holder is urged to consult its own tax advisor.

The US Treasury has expressed concern that parties to whom ADRs are released may be taking actions inconsistent with the claiming of foreign tax credits for US Holders of ADRs. Accordingly, the summary above of the creditability of the Withholding Tax could be affected by future actions that may be taken by the US Treasury.

In general, a US Holder will be required to determine the amount of any dividend paid in Swiss francs, including the amount of any Withholding Tax imposed thereon, by translating the Swiss francs into US dollars at the spot rate on the date the dividend is actually or constructively received by a US Holder, in the case of shares, or by the depositary, in the case of ADRs, regardless of whether the Swiss francs are in fact converted into US dollars. If a US Holder converts the Swiss francs so received into US dollars on the date of receipt, the US Holder generally should not recognize foreign currency gain or loss on such conversion. If a US Holder does not convert the Swiss francs so received into US dollars on the date of receipt, the US Holder will have a tax basis in the Swiss francs equal to the US dollar value on such date. Any foreign currency gain or loss that a US Holder recognizes on a subsequent conversion or other disposition of the Swiss francs generally will be treated as US source ordinary income or loss.

For a non-corporate US Holder, the US dollar amount of any dividends paid that constitute qualified dividend income generally will be taxable at a maximum rate of 15% (or 20% in the case of taxpayers with annual income that exceeds certain thresholds), provided that the US Holder meets certain holding period and other requirements. In addition, the dividends could be subject to a 3.8% net investment income tax. This tax is applied against the lesser of the US Holder's net investment income or the amount by which modified adjusted gross income exceeds a statutory threshold amount based on filing status. We currently believe that dividends paid with respect to our shares and ADRs will constitute qualified dividend income for US federal income tax purposes, provided that the US Holder meets certain holding period and other requirements. US Holders of shares or ADRs are urged to consult their own tax advisors regarding the availability to them of the reduced dividend rate in light of their own particular situation and the computations of their foreign tax credit limitation with respect to any qualified dividends paid to them, as applicable.

Sale or other taxable disposition. Upon a sale or other taxable disposition of shares or ADRs, US Holders generally will recognize capital gain or loss in an amount equal to the difference between the US dollar value of the amount realized on the disposition and the US Holder's tax basis (determined in US dollars) in the shares or ADRs. This capital gain or loss generally will be US source gain or loss and will be treated as long-term capital gain or loss if the holding period in the shares or ADRs exceeds one year. In the case of a non-corporate US Holder, any long-term capital gain generally will be subject to US federal income tax at preferential rates, with a maximum rate of 15% (or 20% in the case of taxpayers with annual income that exceeds certain thresholds). In addition, the gains could be subject to a 3.8% investment income tax. This tax is applied against the lesser of the US Holder's net investment income or the amount by which modified adjusted gross income exceeds a statutory threshold amount based on filing status. The deductibility of capital losses is subject to significant limitations under the Code. Deposits or withdrawals of our shares by US Holders in exchanges for ADRs will not result in the realization of gain or loss for US federal income tax purposes.

US information reporting and backup withholding. Dividend payments with respect to shares or ADRs and proceeds from the sale, exchange or other disposition of shares or ADRs received in the United States or through US-related financial intermediaries may be subject to information reporting to the US Internal Revenue Service (IRS) and possible US backup withholding. Certain exempt recipients (such as corporations) are not subject to these information reporting and backup withholding requirements. Backup withholding will not apply to a US Holder who furnishes a correct taxpayer identification number and makes any other required certification or who is otherwise exempt from backup withholding. Any US Holders required to establish their exempt status generally must provide a properly executed IRS Form W-9 (Request for Taxpayer Identification Number and Certification). Backup withholding is not an additional tax. Amounts withheld as backup withholding may be credited against a US Holder's US federal income tax liability, and a US Holder may obtain a refund of any excess amounts withheld under the backup withholding rules by timely filing the appropriate claim for refund with the IRS and furnishing any required information.

10.F Dividends and paying agents

Not applicable.

10.G Statement by experts

Not applicable.

10.H Documents on display

Any statement in the Form 20-F about any of our contracts or other documents is not necessarily complete. If the contract or document is filed as an exhibit to the Form 20-F, the contract or document is deemed to modify the description contained in the Form 20-F. You must review the exhibits themselves for a complete description of the contract or document.

The SEC maintains an internet site at http://www.sec.gov that contains reports and other information regarding issuers that file electronically with the SEC. These SEC filings are also available to the public from commercial document retrieval services.

We are required to file or furnish reports and other information with the SEC under the Exchange Act and regulations under that act. As a foreign private issuer, we are exempt from the rules under the Exchange Act prescribing the form and content of proxy statements, and our officers, directors and principal shareholders are exempt from the reporting and short-swing profit recovery provisions contained in Section 16 of the Exchange Act.

10.I Subsidiary information

Not applicable.

10.J Annual report to security holders

We intend to submit any annual report to security holders required to be furnished on Form 6-K in electronic format in accordance with the EDGAR Filer Manual.

Item 11. Quantitative and Qualitative Disclosures About Market Risk

The major financial risks facing us are managed centrally by the Company's treasury function, which has established processes and procedures to identify, aggregate and manage our financial risk exposure. The Company's treasury function is included in management's internal control assessment.

For information about the effects of currency fluctuations and how we manage currency risk, see "Item 5. Operating and Financial Review and Prospects—Item 5.B Liquidity and capital resources."

The information set forth under "Item 18. Financial Statements—Note 28. Financial instruments – additional disclosures" is incorporated by reference.

Item 12. Description of Securities Other than Equity Securities

12.A Debt securities

Not applicable.

12.B Warrants and rights

Not applicable.

12.C Other securities

Not applicable.

12.D American Depositary Shares

Fees payable by ADR holders

According to the deposit agreement that we entered into with JPMorgan Chase Bank, N.A. (JPMorgan), as depositary (as amended from time to time, the "Deposit Agreement"), holders of our ADRs may have to pay to JPMorgan, either directly or indirectly, fees or charges up to the amounts set forth below:

Category	Depositary actions	Associated fee
Depositing or substituting underlying shares	Acceptance of shares surrendered, and issuance of ADSs in exchange, including surrenders and issuances in respect of: — Share distributions — Stock split — Rights — Merger — Exchange of shares or any other transaction or event or other distribution affecting the ADSs or the deposited shares	USD 5.00 for each 100 ADSs (or portion thereof)
Withdrawing underlying shares	Acceptance of ADSs surrendered for withdrawal of deposited shares or for ADSs that are cancelled or reduced for any other reason	USD 5.00 (or less) for each 100 ADSs (or portion thereof) surrendered
Cash distributions	Distributing cash distributions made or any elective cash/stock dividend offered	USD 0.05 (or less) per ADS
Selling or exercising rights	Distribution or sale of shares, the fee being in an amount equal to the fee for the execution and delivery of ADRs that would have been charged as a result of the deposit of such shares	USD 5.00 for each 100 ADSs (or portion thereof)
Depositary services	Services performed by the depositary in administering the ADRs	USD 0.05 (or less) per ADS per calendar year (or portion thereof)
Expenses of the depositary	Expenses incurred on behalf of holders in connection with: — Compliance with foreign exchange control regulations or any law or regulation relating to foreign investment — The depositary's or its custodian's compliance with applicable law, rule or regulation — Stock transfer or other taxes and other governmental charges — Cable, telex and facsimile transmission and delivery — Expenses of the depositary in connection with the conversion of foreign currency into US dollars (which are paid out of such foreign currency) — Any other charge payable by any of the depositary or its agents	Expenses payable at the sole discretion of the depositary by billing holders or by deducting charges from one or more cash dividends or other cash distributions

The depositary's principal executive office is located at 383 Madison Avenue, 11th Floor, New York, New York 10179.

Fees payable by the depositary to the issuer

Pursuant to a letter agreement effective as of May 11, 2017, as amended from time to time ("the Agreement"), JPMorgan, as our ADS depositary, has agreed to make an annual contribution payment to Novartis at the end of each 12-month period beginning on the effective date of the Agreement and on each subsequent anniversary of the effective date of the Agreement (each such 12-month period is a "Contract Year"). Beginning in the sixth Contract Year, this annual contribution payment will equal: (a)(1) the applicable fixed contribution amount reflected in the table below, based on the average daily balance during such Contract Year of outstanding ADSs backed by ordinary shares less (a)(2) the custody costs, fees and expenses (including, without limitation, any central securities depository fees, charges and expenses) incurred during the applicable Contract Year (the items in (a)(2) collectively are the "Custody Costs") plus (b) 70% of the gross issuance and cancellation fees collected by JPMorgan under the Deposit Agreement during such Contract Year minus (c) that portion (if any) of JPMorgan's legal fees, charges and out-of-pocket expenses in excess of USD 50 000 for such Contract Year.

Average Daily Balance Range Start	Average Daily Balance Range End	Fixed contribution
At least 30 000 000	Up to 66 999 999	USD 340 000
At least 67 000 000	Up to 133 999 999	USD 680 000
At least 134 000 000	Up to 200 999 999	USD 1 020 000
At least 201 000 000	Up to 267 999 999	USD 1 360 000
At least 268 000 000		USD 1 700 000

The fixed contribution amount payable under (a)(1) in respect of a given Contract Year shall be zero if the average daily balance of outstanding ADSs backed by ordinary shares is less than 30 000 000 during such Contract Year. If the Custody Costs for a Contract Year exceed the fixed contribution amount for such Contract Year, JPMorgan will reduce the contribution payable to us by an amount equal to such deficit.

JPMorgan has further agreed to waive the USD 0.05 per ADS issuance fees that would normally be owed by Novartis in connection with our deposits of shares as part of our employee stock ownership and employee participation plans. Novartis is responsible for reimbursing JPMorgan for all taxes and governmental charges required to have been withheld and/or paid, and not so withheld and/or paid, arising from such waived fees.

PART II

Item 13. Defaults, Dividend Arrearages and Delinquencies

None.

Item 14. Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

Item 15. Controls and Procedures

(a) Novartis AG's Chief Executive Officer and Chief Financial Officer, after evaluating the effectiveness of our disclosure controls and procedures (as defined in Exchange Act Rule 13a-15(e)) as of the end of the period covered by this Annual Report, have concluded that, as of such date, our disclosure controls and procedures were effective.

(b) Report of Novartis Management on Internal Control Over Financial Reporting: The Board of Directors and management of the Company are responsible for establishing and maintaining adequate internal control over financial reporting. The Company's internal control over financial reporting was designed to provide reasonable assurance to the Company's management and Board of Directors regarding the reliability of financial reporting and the preparation and fair presentation of its published consolidated financial statements.

Internal controls over financial reporting, no matter how well designed, have inherent limitations. Therefore, even those internal controls over financial reporting determined to be effective may not prevent or detect misstatements and can provide only reasonable assurance with respect to financial statement preparation and presentation. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

The Company's management assessed the effectiveness of the Company's internal control over financial reporting as of December 31, 2024. In making this assessment, it used the criteria established in *Internal Control—Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO). Based on our assessment, management concluded that, as of December 31, 2024, the Company's internal control over financial reporting is effective based on those criteria.

KPMG AG, Switzerland, an independent registered public accounting firm, has issued an unqualified opinion on the effectiveness of the Company's internal control over financial reporting, which is included in this Annual Report under "Item 18. Financial Statements—Report of independent registered public accounting firm."

(c) See the report of KPMG AG, an independent registered public accounting firm, included under "Item 18. Financial Statements—Report of independent registered public accounting firm."

(d) There were no changes to our internal control over financial reporting that occurred during the period covered by this Annual Report that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

Item 16A. Audit Committee Financial Expert

Our Audit and Compliance Committee has determined that Elizabeth Doherty and Ana de Pro Gonzalo possess specific accounting and financial management expertise, and that they are "audit committee financial experts" as defined in Item 16A of Form 20-F. The Board of Directors has also determined that each member of the Audit and Compliance Committee is "independent" in accordance with the applicable requirements set forth under the listing standards of the NYSE and Rule 10A-3 under the Exchange Act, and has sufficient experience and ability in finance and compliance matters to enable them to adequately discharge their responsibilities.

Item 16B. Code of Ethics

In addition to our Code of Ethics and Doing Business Ethically Policy, which are applicable to all of our employees, we have adopted Ethical Conduct Requirements that impose additional obligations on our principal executive officer, principal financial officer, principal accounting officer, and persons performing similar functions. This document is accessible on our internet website at:
https://www.novartis.com/investors/company-overview/corporate-governance

Item 16C. Principal Accountant Fees and Services

The information set forth under “Item 6. Directors, Senior Management and Employees—Item 6.C Board practices—Corporate governance—Auditors” is incorporated by reference.

Item 16D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

Item 16E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

2024	Total number of shares purchased (a)[1]	Average price paid per share in USD (b)	Total number of shares purchased as part of publicly announced plans or programs (c)[2]	Maximum approximate value of shares that may yet be purchased under the plans or programs (CHF millions) (d)	Maximum approximate value of shares that may yet be purchased under the plans or programs (USD millions) (e)[3]
Jan. 1-31	841 830	108.13	8 630	10 763	12 464
Feb. 1-29	5 398 671	102.67	5 250 000	10 291	11 707
Mar. 1-31	5 020 196	98.75	5 000 000	9 852	10 881
Apr. 1-30	5 277 417	95.84	5 250 000	9 394	10 297
May 1-31	5 023 993	101.01	5 000 000	8 935	9 879
Jun. 1-30	6 215 536	106.01	6 200 000	8 348	9 284
Jul. 1-31	9 242 395	109.41	9 200 000	7 450	8 451
Aug. 1-31	8 422 486	115.30	8 400 000	6 620	7 807
Sep. 1-30	8 421 852	116.90	8 400 000	5 789	6 878
Oct. 1-31	9 244 519	114.53	9 200 000	4 881	5 641
Nov. 1-30	8 421 763	105.46	8 400 000	4 101	4 654
Dec. 1-31	7 223 212	100.09	7 200 000	3 459	3 830
Total	**78 753 870**	**107.30**	**77 508 630**		

[1] Column (a) shows shares repurchased on the SIX Swiss Exchange second trading line plus shares we purchased from employees who had obtained the shares through a Novartis Employee Ownership Plan. See “Item 18. Financial Statements – Note 25 Equity-based participation plans for employees.”

[2] Column (c) shows shares repurchased on the SIX Swiss Exchange second trading line under the CHF 10 billion share buyback authority approved at the 2022 AGM until exhausted on March 20, 2024. Since March 20, 2024, the share repurchases are executed under the additional CHF 10 billion authority approved at the 2023 AGM. See “Item 6. Directors, Senior Management and Employees – Item 6C. Board Practices – Our capital structure – Changes in capital.”

[3] Column (e) shows the Swiss franc amount from column (d) converted into US dollars as of the month-end, using the Swiss franc/US dollar exchange rate at the applicable month-end.

Item 16F. Change in Registrant's Certifying Accountant

Not applicable.

Item 16G. Corporate Governance

Novartis AG is subject to and compliant with the laws and regulations of Switzerland (in particular, Swiss company and securities laws, SIX Swiss Exchange rules and the Swiss Code of Best Practice for Corporate Governance) and the securities laws of the United States, including NYSE listing standards, as applicable to foreign private issuers of securities. The following summarizes some significant ways in which our corporate governance practices differ from those followed by domestic listed US companies under the listing standards of the NYSE:

- Novartis AG shareholders do not receive written reports directly from Board committees.

- External auditors are appointed by shareholders at the Annual General Meeting of Shareholders (AGM), as opposed to being appointed by the Audit and Compliance Committee.

- While shareholders cannot vote on all equity compensation plans, they are entitled to hold separate, yearly binding votes on Board and Executive Committee compensation.

- The Board has set up a separate Risk Committee that oversees the risk management system and processes, as opposed to delegating this responsibility to the Audit and Compliance Committee.

- The full Board is responsible for overseeing the performance evaluation of the Board and Executive Committee.

- The full Board is responsible for setting objectives relevant to the CEO's compensation and for evaluating his performance.

Item 16H. Mine Safety Disclosure

Not applicable.

Item 16I. Disclosure Regarding Foreign Jurisdictions that Prevent Inspections

Not applicable.

Item 16J. Insider Trading Policies

We are committed to compliance with laws and regulations and to financial integrity. We have adopted an insider trading policy that governs the purchase, sale, and other dispositions of Novartis securities by directors, management, and employees that is reasonably designed to promote compliance with applicable insider trading laws, rules and regulations, and listing standards. A copy of the policy is included as Exhibit 11.1 to the Form 20-F.

Item 16K. Cybersecurity

Risk management and strategy

Protecting the security and integrity of the IT systems under our control and safeguarding the privacy of our customers, patients and employees is a top priority for us at all levels. Cybersecurity and data privacy risks are among the core enterprise risks evaluated through our annual enterprise risk management assessment.

The Chief Security Officer oversees our cybersecurity risk management program in partnership with our Chief Information Officer and other business leaders. The program was developed to assess, identify and manage risks from cybersecurity threats and respond to cybersecurity breaches and cyberattacks, and to protect and preserve the confidentiality, integrity, and continued availability of information owned by, or in the care of Novartis.

Governance

To address cybersecurity threats and prevent IT system interruptions, the Information Security & Compliance (ISC) team, which is headed by our Chief Security Officer, has implemented enterprise-wide policies, processes and practices. Our Chief Security Officer reports to our Chief Information Officer, and is a subject matter expert on information security, privacy, information technology strategy and management with over 20 years of relevant experience across a number of industries, including pharmaceuticals, consumer goods, financial services and consulting. Our Chief Information Officer has 25 years of experience as an IT professional, including 15 years with Novartis, and is responsible for our technology strategy, delivery and operations globally. Our ISC team assesses our systems against our policies and processes, reviews gaps, and prioritizes remediation. Key performance indicators are reported to the Executive Committee of Novartis. The Executive Committee is responsible for oversight of the Company's cybersecurity strategy.

We seek to follow industry best practices, such as the NIST Cybersecurity Framework and ISO 27001 to manage information security. Novartis has risk-based services continuity and systems recovery plans in place for key business processes, which are tested periodically. We also conduct ongoing internal vulnerability analyses (including simulated hacking) as well as external testing via third parties to ensure the effectiveness of our cybersecurity controls. We require employees to report IT security incidents to a Cyber Security Operations Center (CSOC) that operates 24 hours a day, 7 days a week. CSOC is a function within ISC that is responsible for investigating all security incidents and alerts including determining the threat type, incident scope and incident severity. Where appropriate, major incidents are escalated to our Chief Executive Officer, who may then inform our Board of the incident pursuant to our internal procedures. Novartis has not experienced any cybersecurity threats, including as a result of cybersecurity incidents, that have materially affected or are reasonably likely to materially affect Novartis, including its business strategy, results of operations or financial condition. See "Item 3. Key Information—Item 3.D. Risk factors—Operational risks—Cybersecurity and data protection" for information on risks to Novartis from cybersecurity threats.

As part of its enterprise risk management oversight, the Risk Committee of our Board is responsible for ensuring that the Company has implemented an appropriate and effective risk management system and process, including annually reviewing updates on cybersecurity. The Risk Committee receives updates on cybersecurity risks, which address a wide range of topics, including recent developments, security incidents, evolving standards, vulnerability assessments, third-party and independent reviews, the threat environment, technological trends and information security considerations arising with respect to the peers and vendors of Novartis. At least once each year, the Risk Committee discusses the Company's approach to cybersecurity risk management with the Chief Security Officer.

PART III

Item 17. Financial Statements

See response to “Item 18. Financial Statements.”

Item 18. Financial Statements

The following financial statements are filed as part of this Annual Report.

Item 19. Exhibits

1.1	Articles of Incorporation of Novartis AG, as amended March 5, 2024 (English translation).
1.2	Organizational Regulations of Novartis AG, effective January 1, 2025.
2.1	Form of Second Amended and Restated Deposit Agreement among Novartis AG, JPMorgan Chase Bank, N.A., as depositary, and all Holders and Beneficial Owners from time to time of American Depositary Receipts issued thereunder (incorporated by reference to Exhibit 99.A to the Registration Statement on Form F-6 as filed with the SEC on December 16, 2022).
2.2	Form of American Depositary Receipt (included in Exhibit 2.1 incorporated by reference to Exhibit 99.A to the Registration Statement on Form F-6 as filed with the SEC on December 16, 2022).
2.3	Description of Securities registered under Section 12 of the Exchange Act.
2.4	Indenture, dated as of February 10, 2009, among Novartis Capital Corporation, Novartis Securities Investment Ltd. and Novartis Finance S.A., as issuers, Novartis AG, as guarantor, and HSBC Bank USA, National Association, as trustee (incorporated by reference to Exhibit 4.1 of the Registrants' Registration Statement on Form F-3 (File Nos. 333-207004, 333-207004-01 and 333-207004-02) filed with the SEC on September 18, 2015).
4.1	Separation and Distribution Agreement by and between Novartis AG and Sandoz Group AG, dated as of September 30, 2023 (incorporated by reference to Exhibit 4.1 to Novartis AG's Annual Report on Form 20-F (File No. 001-15024) as filed with the SEC on January 31, 2024).
4.2	Tax Matters Agreement by and between Novartis AG and Sandoz Group AG, dated as of September 30, 2023 (incorporated by reference to Exhibit 4.2 to Novartis AG's Annual Report on Form 20-F (File No. 001-15024) as filed with the SEC on January 31, 2024).
8.1	For a list of all of our principal subsidiaries and associated companies, see "Item 18. Financial Statements—Note 31. Novartis principal subsidiaries and associated companies."
11.1	Novartis AG Insider Policy.
12.1	Certification of Vasant Narasimhan, Chief Executive Officer of Novartis AG, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
12.2	Certification of Harry Kirsch, Chief Financial Officer of Novartis AG, pursuant to Section 302 of the Sarbanes-Oxley Act of 2002.
13.1	Certification of Vasant Narasimhan, Chief Executive Officer of Novartis AG, pursuant to Section 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
13.2	Certification of Harry Kirsch, Chief Financial Officer of Novartis AG, pursuant to Section 18 U.S.C. Section 1350, as adopted pursuant to Section 906 of the Sarbanes-Oxley Act of 2002.
15.1	Consent of KPMG AG.
97.1	Novartis AG Policy Governing the Recovery of Erroneously Awarded Compensation (incorporated by reference to Exhibit 97.1 to Novartis AG's Annual Report on Form 20-F (File No. 001-15024) as filed with the SEC on January 31, 2024).
101.INS	XBRL Instance Document
101.SCH	XBRL Taxonomy Extension Schema Document
101.CAL	XBRL Taxonomy Extension Calculation Linkbase Document
101.DEF	XBRL Taxonomy Extension Definition Linkbase Document
101.LAB	XBRL Taxonomy Extension Label Linkbase Document
101.PRE	XBRL Taxonomy Extension Presentation Linkbase Document
104	Cover Page Interactive Data File (embedded within the Inline XBRL document and included in Exhibit 101).

The total amount of long-term debt securities authorized under any instrument, other than the instrument listed above, does not exceed 10% of the total assets of the Company and its subsidiaries on a consolidated basis. We hereby agree to furnish to the SEC, upon its request, a copy of any such instrument defining the rights of holders of long-term debt of the Company or of its subsidiaries for which consolidated or unconsolidated financial statements are required to be filed.

SIGNATURES

The registrant hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

Novartis AG

By: /s/ Harry Kirsch
Name: Harry Kirsch
Title: *Chief Financial Officer of Novartis*

By: /s/ Karen Hale
Name: Karen Hale
Title: *Chief Legal Officer of Novartis*

Date: January 31, 2025

Novartis consolidated financial statements

Consolidated income statements

(For the years ended December 31, 2024, 2023 and 2022)

(USD millions unless indicated otherwise)	Note	2024	2023	2022
Net sales from continuing operations	4	**50 317**	**45 440**	**42 206**
Other revenues	4	1 405	1 220	1 255
Cost of goods sold		– 12 827	– 12 472	– 11 582
Gross profit from continuing operations		**38 895**	**34 188**	**31 879**
Selling, general and administration		– 12 566	– 12 517	– 12 193
Research and development		– 10 022	– 11 371	– 9 172
Other income		1 175	1 772	696
Other expense		– 2 938	– 2 303	– 3 264
Operating income from continuing operations		**14 544**	**9 769**	**7 946**
Loss from associated companies		– 38	– 13	– 11
Interest expense	5	– 1 006	– 855	– 800
Other financial income and expense	5	140	222	42
Income before taxes from continuing operations		**13 640**	**9 123**	**7 177**
Income taxes	6	– 1 701	– 551	– 1 128
Net income from continuing operations		**11 939**	**8 572**	**6 049**
Net income from discontinued operations before gain on distribution of Sandoz Group AG to Novartis AG shareholders	29		422	906
Gain on distribution of Sandoz Group AG to Novartis AG shareholders	2		5 860	
Net income from discontinued operations	29		**6 282**	**906**
Net income		**11 939**	**14 854**	**6 955**
Attributable to:				
Shareholders of Novartis AG		*11 941*	*14 850*	*6 955*
Non-controlling interests		*– 2*	*4*	*0*
Basic earnings per share (USD) from continuing operations		5.92	4.13	2.77
Basic earnings per share (USD) from discontinued operations			3.02	0.42
Total basic earnings per share (USD)	7	**5.92**	**7.15**	**3.19**
Diluted earnings per share (USD) from continuing operations		5.87	4.10	2.76
Diluted earnings per share (USD) from discontinued operations			3.00	0.41
Total diluted earnings per share (USD)	7	**5.87**	**7.10**	**3.17**

The accompanying Notes form an integral part of the consolidated financial statements.

Consolidated statements of comprehensive income

(For the years ended December 31, 2024, 2023 and 2022)

(USD millions)	Note	2024	2023	2022
Net income		**11 939**	**14 854**	**6 955**
Other comprehensive income				
Items that are or may be recycled into the consolidated income statement				
Cash flow hedge, net of taxes	8	– 24		
Net investment hedge, net of taxes	8	91	– 50	91
Currency translation effects, net of taxes	8	– 1 566	1 375	– 450
Total of items that are or may be recycled		– 1 499	1 325	– 359
Items that will never be recycled into the consolidated income statement				
Actuarial gains/(losses) from defined benefit plans, net of taxes	8	2 024	– 160	– 103
Fair value adjustments on equity securities, net of taxes	8	64	37	– 382
Total of items that will never be recycled		2 088	– 123	– 485
Total comprehensive income		**12 528**	**16 056**	**6 111**
Total comprehensive income for the year attributable to:				
Shareholders of Novartis AG		*12 533*	*16 050*	*6 116*
Continuing operations		*12 533*	*10 115*	*5 181*
Discontinued operations			*5 935*	*935*
Non-controlling interests		*– 5*	*6*	*– 5*

The accompanying Notes form an integral part of the consolidated financial statements.

Consolidated balance sheets

(At December 31, 2024 and 2023)

(USD millions)	Note	2024	2023
Assets			
Non-current assets			
Property, plant and equipment	9	9 458	9 514
Right-of-use assets	10	1 415	1 410
Goodwill	11	24 756	23 341
Intangible assets other than goodwill	11	26 915	26 879
Investments in associated companies		119	205
Deferred tax assets	12	4 359	4 309
Financial assets	13	2 015	2 607
Other non-current assets	13	3 505	1 199
Total non-current assets		**72 542**	**69 464**
Current assets			
Inventories	14	5 723	5 913
Trade receivables	15	7 423	7 107
Income tax receivables		133	426
Marketable securities, commodities, time deposits and derivative financial instruments	16	1 998	1 035
Cash and cash equivalents	16	11 459	13 393
Other current assets	17	2 968	2 607
Total current assets		**29 704**	**30 481**
Total assets		**102 246**	**99 945**
Equity and liabilities			
Equity			
Share capital	18	793	825
Treasury shares	18	– 53	– 41
Reserves		43 306	45 883
Equity attributable to Novartis AG shareholders		**44 046**	**46 667**
Non-controlling interests		80	83
Total equity		**44 126**	**46 750**
Liabilities			
Non-current liabilities			
Financial debts	19	21 366	18 436
Lease liabilities	10	1 568	1 598
Deferred tax liabilities	12	2 419	2 248
Provisions and other non-current liabilities	20	4 075	4 523
Total non-current liabilities		**29 428**	**26 805**
Current liabilities			
Trade payables		4 572	4 926
Financial debts and derivative financial instruments	21	8 232	6 175
Lease liabilities	10	235	230
Current income tax liabilities		1 599	1 893
Provisions and other current liabilities	22	14 054	13 166
Total current liabilities		**28 692**	**26 390**
Total liabilities		**58 120**	**53 195**
Total equity and liabilities		**102 246**	**99 945**

The accompanying Notes form an integral part of the consolidated financial statements.

Consolidated statements of changes in equity

(For the years ended December 31, 2024, 2023 and 2022)

(USD millions)	Note	Share capital	Treasury shares	Reserves: Retained earnings	Reserves: Total value adjustments	Equity attributable to Novartis shareholders	Non-controlling interests	Total equity
Total equity at January 1, 2022		**901**	**– 48**	**70 989**	**– 4 187**	**67 655**	**167**	**67 822**
Net income				6 955		6 955	0	6 955
Other comprehensive income	8				– 839	– 839	– 5	– 844
Total comprehensive income				**6 955**	**– 839**	**6 116**	**– 5**	**6 111**
Dividends	18.1			– 7 506		– 7 506		– 7 506
Purchase of treasury shares	18.2		– 66	– 10 844		– 10 910		– 10 910
Reduction of share capital	18	– 11	15	– 4				
Exercise of options and employee transactions	18.2		1	87		88		88
Equity-based compensation	18.2		6	848		854		854
Shares delivered to Alcon employees as a result of the Alcon spin-off	18.2		0	5		5		5
Taxes on treasury share transactions				14		14		14
Decrease of treasury share repurchase obligation under a share buyback trading plan	18.7			2 809		2 809		2 809
Changes in non-controlling interests	18.3						– 81	– 81
Fair value adjustments on financial assets sold	8			4	– 4			
Value adjustments related to divestments	8			– 34	34			
Other movements	18.4			217		217		217
Total of other equity movements		**– 11**	**– 44**	**– 14 404**	**30**	**– 14 429**	**– 81**	**– 14 510**
Total equity at December 31, 2022		**890**	**– 92**	**63 540**	**– 4 996**	**59 342**	**81**	**59 423**
Net income				14 850		14 850	4	14 854
Other comprehensive income	8				1 200	1 200	2	1 202
Total comprehensive income				**14 850**	**1 200**	**16 050**	**6**	**16 056**
Dividends	18.1			– 7 255		– 7 255		– 7 255
Dividend in kind to effect the spin-off of Sandoz Group AG	2			– 13 962		– 13 962		– 13 962
Purchase of treasury shares	18.2		– 51	– 8 466		– 8 517		– 8 517
Reduction of share capital	18	– 65	94	– 29				
Exercise of options and employee transactions	18.2		2	144		146		146
Equity-based compensation	18.2		6	898		904		904
Shares delivered to Sandoz employees as a result of the Sandoz spin-off	18.2		0	30		30		30
Taxes on treasury share transactions				14		14		14
Transaction costs, net of taxes	18.5			– 214		– 214		– 214
Changes in non-controlling interests	18.3						– 4	– 4
Fair value adjustments on financial assets sold	8			– 1	1			
Value adjustments related to divestments	8			– 29	29			
Other movements	18.4			129		129		129
Total of other equity movements		**– 65**	**51**	**– 28 741**	**30**	**– 28 725**	**– 4**	**– 28 729**
Total equity at December 31, 2023		**825**	**– 41**	**49 649**	**– 3 766**	**46 667**	**83**	**46 750**
Net income				11 941		11 941	– 2	11 939
Other comprehensive income	8				592	592	– 3	589
Total comprehensive income				**11 941**	**592**	**12 533**	**– 5**	**12 528**
Dividends	18.1			– 7 624		– 7 624		– 7 624
Purchase of treasury shares	18.2		– 44	– 8 406		– 8 450		– 8 450
Reduction of share capital	18	– 32	26	6				
Equity-based compensation plans	18.2		6	1 054		1 060		1 060
Taxes on treasury share transactions				– 68		– 68		– 68
Changes in non-controlling interests	18.3			– 226		– 226	2	– 224
Value adjustments related to financial assets sold and divestments	8			81	– 81			
Other movements	18.4			154		154		154
Total of other equity movements		**– 32**	**– 12**	**– 15 029**	**– 81**	**– 15 154**	**2**	**– 15 152**
Total equity at December 31, 2024		**793**	**– 53**	**46 561**	**– 3 255**	**44 046**	**80**	**44 126**

The accompanying Notes form an integral part of the consolidated financial statements.

Consolidated statements of cash flows

(For the years ended December 31, 2024, 2023 and 2022)

(USD millions)	Note	2024	2023	2022
Net income from continuing operations		**11 939**	**8 572**	**6 049**
Adjustments to reconcile net income from continuing operations to net cash flows from operating activities from continuing operations				
Reversal of non-cash items and other adjustments	23.1	10 232	10 369	10 631
Dividends received from associated companies and others		1	2	1
Interest received		489	645	252
Interest paid		– 855	– 751	– 667
Other financial receipts			90	71
Other financial payments		– 116	– 17	– 26
Income taxes paid	23.2	– 2 258	– 2 787	– 1 702
Net cash flows from operating activities from continuing operations before working capital and provision changes		**19 432**	**16 123**	**14 609**
Payments out of provisions and other net cash movements in non-current liabilities		– 1 107	– 1 534	– 774
Change in net current assets and other operating cash flow items	23.3	– 706	– 369	– 796
Net cash flows from operating activities from continuing operations		**17 619**	**14 220**	**13 039**
Net cash flows from operating activities from discontinued operations			238	1 197
Total net cash flows from operating activities		**17 619**	**14 458**	**14 236**
Purchases of property, plant and equipment		– 1 366	– 1 060	– 916
Proceeds from sale of property, plant and equipment		86	237	158
Purchases of intangible assets		– 2 448	– 1 693	– 1 323
Proceeds from sale of intangible assets		80	1 955	170
Purchases of financial assets		– 193	– 106	– 115
Proceeds from sale of financial assets		957	348	133
Purchases of other non-current assets				– 1
Proceeds from sale of other non-current assets		3		
Acquisitions and divestments of interests in associated companies, net		– 10	– 11	– 24
Acquisitions and divestments of businesses, net	23.4	– 3 911	– 3 558	– 840
Purchases of marketable securities, commodities and time deposits		– 3 455	– 641	– 34 695
Proceeds from sale of marketable securities, commodities and time deposits		2 744	11 248	39 357
Net cash flows (used in)/from investing activities from continuing operations		**– 7 513**	**6 719**	**1 904**
Net cash flows used in investing activities from discontinued operations	29		– 1 123	– 436
Total net cash flows (used in)/from investing activities		**– 7 513**	**5 596**	**1 468**
Dividends paid to shareholders of Novartis AG		– 7 624	– 7 255	– 7 506
Purchases of treasury shares		– 8 331	– 8 719	– 10 652
Proceeds from exercised options and other treasury share transactions, net		30	153	100
Proceeds from non-current financial debts	23.5	6 143		
Repayments of the current portion of non-current financial debts	23.5	– 2 160	– 2 223	– 2 575
Change in current financial debts	23.5	958	546	252
Repayments of other current financial debts	23.5	– 289		
Payments of lease liabilities	23.5	– 262	– 258	– 262
Payments from changes in ownership interests in consolidated subsidiaries		– 293		
Other financing cash flows, net		86	192	– 38
Net cash flows used in financing activities from continuing operations		**– 11 742**	**– 17 564**	**– 20 681**
Net cash flows from financing activities from discontinued operations	29		3 286	119
Total net cash flows used in financing activities		**– 11 742**	**– 14 278**	**– 20 562**
Net change in cash and cash equivalents before effect of exchange rate changes		**– 1 636**	**5 776**	**– 4 858**
Effect of exchange rate changes on cash and cash equivalents		– 298	100	– 32
Net change in cash and cash equivalents		**– 1 934**	**5 876**	**– 4 890**
Cash and cash equivalents at January 1		13 393	7 517	12 407
Cash and cash equivalents at December 31		**11 459**	**13 393**	**7 517**

The accompanying Notes form an integral part of the consolidated financial statements.

Notes to the Novartis consolidated financial statements

1. Accounting policies

Novartis is a multinational group of companies (Novartis or Company) specializing in the research, development, manufacturing and marketing of a broad range of innovative pharmaceutical medicines. The Company is headquartered in Basel, Switzerland.

The consolidated financial statements of the Company are prepared in accordance with International Financial Reporting Standards (IFRS®) Accounting Standards as issued by the International Accounting Standards Board. They are prepared in accordance with the historical cost convention, except for items that are required to be accounted for at fair value.

The Company's financial year-end is December 31, which is also the annual closing date of the individual entities' financial statements incorporated into the Company's consolidated financial statements.

The preparation of financial statements requires management to make certain estimates and assumptions, either at the balance sheet date or during the year, which affect the reported amounts of revenues, expenses, assets, and liabilities, including the distribution liability and the non-cash, non-taxable gain recognized in connection with the distribution of Sandoz Group AG to Novartis AG shareholders, and contingent amounts.

Estimates are based on historical experience and other assumptions that are considered reasonable under the given circumstances and are regularly monitored. Actual outcomes and results could differ from those estimates and assumptions. Revisions to estimates are recognized in the period in which the estimate is revised.

At the Novartis AG Extraordinary General Meeting, held on September 15, 2023, our shareholders approved the spin-off of the Sandoz business. Following the shareholder approval, IFRS Accounting Standards required the Sandoz Division and selected portions of corporate activities attributable to Sandoz's business, as well as certain expenses related to the spin-off (the "Sandoz business") to be reported as discontinued operations in the consolidated financial statements. As a result, the Sandoz business has been presented as discontinued operations in the consolidated financial statements. This required the year ended December 31, 2023 consolidated income statement, consolidated statement of comprehensive income and consolidated statement of cash flows to present separately continuing operations from discontinued operations, with comparative amounts in 2022 restated on a consistent basis. For further information and disclosures refer to the section "—Distribution of Sandoz Group AG to Novartis AG shareholders" in this Note 1, and in Note 2, and Note 29.

Listed below are the material accounting policies of significance to Novartis or, in cases where IFRS Accounting Standards provide alternatives, the option adopted by Novartis.

Scope of consolidation

The consolidated financial statements include all entities, including structured entities, over which Novartis AG, Basel, Switzerland, directly or indirectly has control (generally as a result of owning more than 50% of the entity's voting interest). Consolidated entities are also referred to as "subsidiaries."

In cases where Novartis does not fully own a subsidiary, it has elected to value any remaining outstanding non-controlling interest at the time of acquiring control of the subsidiary at its proportionate share of the fair value of the net identified assets.

Investments in associated companies (generally defined as investments in entities in which Novartis holds between 20% and 50% of voting shares or over which it otherwise has significant influence) and joint ventures are accounted for using the equity method, except for selected venture fund investments for which the Company has elected to apply the method of fair value through the consolidated income statement.

Foreign currencies

The consolidated financial statements of Novartis are presented in US dollars (USD). The functional currency of a subsidiary is generally the local currency of that entity. The functional currency used for the reporting of certain Swiss and foreign finance entities is USD instead of their respective local currencies. This reflects the fact that the cash flows and transactions of these entities are primarily denominated in this currency.

For subsidiaries using a functional currency other than USD, the subsidiary's results, financial position and cash flows are translated into USD using the following exchange rates:

- Income, expense and cash flows for each month using the average exchange rate, with the US dollar values for each month being aggregated during the year
- Balance sheet using year-end exchange rates
- Resulting exchange rate differences are recognized in other comprehensive income

Distribution of Sandoz Group AG to Novartis AG shareholders

At the Extraordinary General Meeting (EGM) of Novartis AG shareholders, held on September 15, 2023, the Novartis AG shareholders approved a special distribution by way of a dividend in kind to effect the spin-off of Sandoz Group AG.

The September 15, 2023, shareholder approval for the spin-off required the Sandoz Division and selected

portions of corporate activities attributable to Sandoz's business, as well as certain expenses related to the spin-off (the "Sandoz business") to be reported as discontinued operations.

The shareholder approval on September 15, 2023, for the spin-off the Sandoz business, required the recognition of a distribution liability at the fair value of the Sandoz business. Novartis policy is to measure the distribution liability at the fair value of the Sandoz business net assets taken as a whole. The distribution liability was recognized through a reduction in retained earnings. It was required to be adjusted at each balance sheet date for changes in its estimated fair value, up to the date of the distribution to shareholders through retained earnings. Any resulting impairment of the business assets to be distributed would have been recognized in the consolidated income statements in "Other expense" of discontinued operations, at the date of initial recognition of the distribution liability or at subsequent dates resulting from changes of the distribution liability valuation.

At the October 4, 2023, distribution settlement date, the resulting gain, which is measured as the excess amount of the distribution liability over the then-carrying value of the net assets of the business distributed, was recognized on the line "Gain on distribution of Sandoz Group AG to Novartis AG shareholders" within the income statement of discontinued operations.

The recognition of the distribution liability required the use of valuation techniques for the purposes of impairment testing of the Sandoz business' assets to be distributed and for the measurement of the fair value of the distribution liability. These valuations required the use of management assumptions and estimates related to the Sandoz business' future cash flows, market multiples, and the opening share price of Sandoz Group AG on the first day of trading its shares on the SIX Swiss Exchange, to estimate day one market value, and control premiums to apply in estimating the Sandoz business fair value. These fair value measurements are classified as "Level 3" in the fair value hierarchy. The section "—Goodwill and intangible assets other than goodwill" in this Note 1 provides additional information on key assumptions that are highly sensitive in the estimation of fair values using valuation techniques.

Transaction costs that are directly attributable to the Distribution (spin-off) of the Sandoz business to Novartis AG shareholders by way of a dividend in kind, and that would otherwise have been avoided, were accounted for as a deduction from equity (within retained earnings). Prior to the recognition of the distribution liability, these costs were recorded as prepaid expenses in the consolidated balance sheet.

For additional disclosures, refer to the section "—Distribution of Sandoz Group AG to Novartis AG shareholders" in Note 2 and Note 29.

Acquisition of assets and businesses

Assets separately acquired are recorded at cost, which includes the purchase price and any directly attributable costs for bringing the asset into the condition to operate as intended. Expected costs for obligations to dismantle and remove property, plant and equipment and restore the site when it is no longer used are included in their cost.

Acquired businesses are accounted for by applying the acquisition method, unless the optional concentration test is applied. The optional concentration test allows for an election on a transaction-by-transaction basis to account for the acquired business as an asset separately acquired when substantially all of the fair value of the gross assets acquired is concentrated in a single identifiable asset or group of similar identifiable assets.

The acquisition method requires that the assets acquired and liabilities assumed be recorded at their respective fair values on the date the Company obtains control. The excess of the fair value of the total purchase consideration transferred over the fair value of the acquired assets and assumed liabilities is recognized as goodwill. The valuations are based on information available at the acquisition date. Acquisition-related costs are expensed as incurred.

The application of the acquisition method requires certain estimates and assumptions to be made, especially concerning the fair values of the acquired intangible assets, inventories, property, plant and equipment and the liabilities assumed at the acquisition date, and the useful lives of the intangible assets and property, plant and equipment. Estimates of fair value require the use of valuation techniques. These valuations require the use of management assumptions and estimates, including the value of comparable assets in the market, amount and timing of future cash flows, outcomes and costs of research and development activities, probability of obtaining regulatory approval, long-term sales forecasts, actions of competitors, discount rates and terminal growth rates. The section "—Goodwill and intangible assets other than goodwill" in this Note 1 provides additional information on key assumptions that are highly sensitive in the estimation of fair values using valuation techniques.

Goodwill and intangible assets other than goodwill

Goodwill arises on applying the acquisition method on the acquisition of a business and is the excess of the fair value of the consideration transferred to acquire the business over the underlying fair value of the net identified assets acquired. Goodwill is allocated to groups of cash-generating units (CGUs) that is expected to benefit from the synergies of the combination, which are usually represented by the operating segment. Goodwill is tested for impairment at the level of this group of CGUs annually, or when facts and circumstances warrant, and any impairment charges are recorded under "Other expense" in the consolidated income statement.

Purchased intangible assets other than goodwill are initially recorded at cost. Intangible assets that have been acquired through a business combination are initially recorded at fair value using the acquisition method of accounting.

Intangible assets available for use with a definitive useful life (which includes the categories Currently marketed products and Other intangible assets) are

amortized on a straight-line basis and evaluated for potential impairment whenever facts and circumstances indicate that their carrying value may not be recoverable.

Acquired research and development intangible assets that have not yet obtained marketing approval are recognized as in-process research and development (IPR&D). IPR&D is not amortized as it is not yet available for use. It is evaluated for potential impairment on an annual basis or when facts and circumstances warrant. Once a project included in IPR&D has received marketing approval from a regulatory authority, it is transferred to the "Currently marketed products" category of intangible assets.

An asset, a CGU or a grouping of CGUs is considered impaired when its balance sheet carrying amount exceeds its estimated recoverable amount, which is defined as the higher of its fair value less costs of disposal and its value in use. Usually, Novartis applies the fair value less costs of disposal method for its impairment assessment. In most cases, no directly observable market inputs are available to measure the fair value less costs of disposal. An estimate is therefore derived indirectly and is based on net present value techniques utilizing post-tax cash flows and discount rates. In the limited cases where the value-in-use method would be applied, net present value techniques would be applied using pre-tax cash flows and discount rates.

Fair value less costs of disposal reflects estimates of assumptions that market participants would be expected to use when pricing the asset or CGU, and for this purpose, management considers the range of economic conditions that are expected to exist over the remaining useful life of the asset. These valuations are classified as "Level 3" in the fair value hierarchy.

The estimates used in calculating the net present values are highly sensitive and depend on assumptions specific to the nature of the Company's activities with regard to:

- Amount and timing of projected future cash flows
- Sales forecasts
- Actions of competitors (launch of competing products, marketing initiatives, etc.)
- Sales erosion rates after the end of a patent, loss of exclusivity or other intellectual property rights protection, and timing of the entry of generic competition
- Outcome of research and development activities (compound efficacy, results of clinical trials, etc.)
- Amount and timing of projected costs to develop IPR&D into commercially viable products
- Profit margins
- Probability of obtaining regulatory approval
- Future tax rate
- Appropriate terminal growth/decline rate
- Appropriate discount rate

Generally, for intangible assets with a definite useful life, Novartis uses cash flow projections for the whole useful life of these assets. For goodwill, Novartis generally utilizes cash flow projections for a three-year period based on management forecasts, with a terminal value based on cash flow projections usually in line with inflation rates for later periods.

Probability-weighted scenarios are typically used.

Discount rates used consider the Company's estimated weighted average cost of capital, adjusted for specific asset, country and currency risks associated with cash flow projections, to approximate the discount rate that market participants would use to value the asset.

Due to the above factors, actual cash flows and values could vary significantly from forecasted future cash flows and related values derived using discounting techniques.

Cash and cash equivalents

Cash and cash equivalents include highly liquid investments with original maturities of three months or less, which are readily convertible to known amounts of cash. Bank overdrafts are presented within current financial debts on the consolidated balance sheet.

Marketable securities and non-current financial assets

Marketable securities are financial assets held for short-term purposes that are principally traded in liquid markets and are classified within current assets on the consolidated balance sheet. The financial impacts related to these financial assets are recorded in "Other financial income and expense" in the consolidated income statement. Non-current financial assets held for long-term strategic purposes are classified within non-current assets on the consolidated balance sheet. The financial impacts related to these financial assets are recorded in "Other income" and "Other expense" in the consolidated income statement.

Marketable securities and non-current financial assets are initially recorded at fair value on their trade date, which is different from the settlement date when the transaction is ultimately effected. Quoted securities are remeasured at each reporting date to fair value based on current market prices. If the market for a financial asset is not active or no market is available, fair values are established using valuation techniques. The majority of non-quoted investments are initially valued at fair value through the purchase price established between a willing buyer and seller. Non-quoted investments are subsequently adjusted based on values derived from discounted cash flow analysis or other pricing models. These investment values are classified as "Level 3" in the fair value hierarchy.

The Company classifies and accounts for its marketable securities and non-current financial assets in the following categories:

- Debt securities are valued at fair value through other comprehensive income with subsequent recycling into the consolidated income statement, as they meet both the "solely payment of principal and interest" and the business model criteria. Unrealized gains and losses, except exchange gains and losses, are recorded as a fair value adjustment in the consolidated statement of comprehensive income. They are recognized in the consolidated income statement when the debt instrument is sold, at which time the gain/loss is transferred to "Other financial income and expense." Exchange

gains and losses related to debt instruments are immediately recognized in the consolidated income statement in "Other financial income and expense."
- Fund investments and equity securities of the Novartis Venture Fund are valued at fair value through profit and loss (FVPL). Unrealized gains and losses, including exchange gains and losses, are recognized in the consolidated income statement in "Other income" for gains and "Other expense" for losses.
- Equity securities held as strategic investments, typically held outside of the Novartis Venture Fund, are generally designated at the date of acquisition as financial assets valued at fair value through other comprehensive income with no subsequent recycling through profit and loss. Unrealized gains and losses, including exchange gains and losses, are recorded as a fair value adjustment in the consolidated statement of comprehensive income. They are reclassified to retained earnings when the equity security is sold. If these equity securities are not designated at the date of acquisition as financial assets valued at fair value through other comprehensive income, they are valued at FVPL, as described above.
- Other non-current financial assets, such as loans and long-term receivables from customers, advances and other deposits, are valued at amortized cost, which reflects the time value of money less any allowances for expected credit losses.

The Company assesses on a forward-looking basis the expected credit losses associated with its debt securities valued at fair value through other comprehensive income. Impairments on debt securities are recorded in "Other financial income and expense."

For other financial assets valued at amortized cost, impairments, which are based on their expected credit losses, and exchange rate losses are included in "Other expense" in the consolidated income statement. Exchange rate gains and interest income, using the effective interest rate method, are included in "Other income" or "Other financial income" in the consolidated income statement, depending on the nature of the item.

Derivative financial instruments

Derivative financial instruments are initially recognized in the balance sheet at fair value and are remeasured to their current fair value at the end of each subsequent reporting period. The valuation of a forward exchange rate contract is based on the discounted cash flow model, using interest rate curves and forward rates at the reporting date as observable inputs.

Options are valued based on a modified Black-Scholes model using volatility and exercise prices as major observable inputs.

The Company enters into certain derivative financial instruments for the purpose of hedging to reduce volatility in the Company's performance due to exposure to various business-related risks. The risk mitigation is obtained because the derivative's value or cash flows are expected, wholly or partly, to offset changes in the value or cash flows of the recognized assets or liabilities. The overall strategy aims to mitigate the currency and interest rate risk of positions that are contractually agreed, and to partially mitigate the exposure risk of selected anticipated transactions.

Certain derivative financial instruments meet the criteria for hedge accounting treatment. A prerequisite for obtaining this accounting-hedge relationship is extensive documentation on inception and proving on a regular basis that the economic hedge is effective for accounting purposes. Other derivative financial instruments do not meet the criteria to qualify for hedge accounting or are not designated in a hedge relationship. Changes in the fair value of these derivative instruments are recognized immediately in "Other financial income and expense" in the consolidated income statement.

In addition, the Company has designated certain long-term debt components as hedges of the translation risk arising on certain net investments in foreign operations. On consolidation, foreign currency differences arising on long-term debt designated as net investment hedges of a foreign operation are recognized in other comprehensive income and accumulated in currency translation effects, to the extent that the hedge is effective. The foreign currency differences arising from hedge ineffectiveness are recognized in the income statement in "Other financial income and expense."

When a hedged net investment is disposed of, the proportionate portion of the cumulative amount recognized in equity in relation to the hedged net investment is transferred to the consolidated income statement as an adjustment to the gain or loss on disposal.

Inventories

Inventory is valued at the lower of acquisition or production cost determined on a first-in, first-out basis and net realizable value. This value is used for the "Cost of goods sold" in the consolidated income statement. Unsaleable inventory is fully written off in the consolidated income statement under "Cost of goods sold."

Trade receivables

Trade receivables are initially recognized at their invoiced amounts, including any related sales taxes less adjustments for estimated revenue deductions such as rebates, chargebacks and cash discounts.

Provisions for doubtful trade receivables are established using a forward-looking expected credit loss model (ECL). Charges for doubtful trade receivables are recorded as marketing and selling costs recognized in the consolidated income statement within "Selling, general and administration" expenses.

Legal and environmental liabilities

Novartis and its subsidiaries are subject to contingencies arising in the ordinary course of business, such as patent litigation, environmental remediation liabilities and other product-related and commercial litigation, and governmental investigations and proceedings. A provision is recorded when there is a probable outflow of resources for which a reliable estimate can be made of the outcome of the legal or other disputes against the subsidiary.

Contingent consideration

In the acquisition or divestment of a business, it is necessary to recognize contingent future amounts due to previous owners, representing contractually defined potential amounts as a liability or an asset. Usually for Novartis, these are linked to milestone or royalty payments related to certain assets and are recognized as a financial liability or financial asset at fair value, which is then remeasured at each subsequent reporting date. These estimations typically depend on factors such as technical milestones or market performance, and are adjusted for the probability of their likelihood of payment, and are appropriately discounted to reflect the impact of time.

Changes in the fair value of contingent consideration liabilities in subsequent periods are recognized in the consolidated income statement in "Cost of goods sold" for currently marketed products and in "Research and development" for IPR&D. Changes in contingent consideration assets are recognized in "Other income" or "Other expense," depending on their nature.

The effect of unwinding the discount over time is recognized for contingent consideration liabilities in "Interest expense" and for contingent consideration assets as interest income recognized in the consolidated income statement within "Other financial income and expense."

Defined benefit pension plans and other post-employment benefits

The liability in respect of defined benefit pension plans and other post-employment benefits is the defined benefit obligation calculated annually by independent actuaries using the projected unit credit method. The current service cost for defined benefit pension plans and other post-employment benefit plans is included in the personnel expenses of the various functions in which employees are employed, and the net interest on the net defined benefit liability or asset is recognized as "Other expense" or "Other income."

Revenue recognition

Revenue on the sale of Novartis products and services, which is recorded as net sales to third parties in the line "Net sales from continuing operations" in the consolidated income statement, is recognized when a contractual promise to a customer (performance obligation) has been fulfilled by transferring control over the promised goods and services to the customer, substantially all of which is at the point in time of shipment to, or receipt of, the products by the customer or when the services are performed. If contracts contain customer acceptance provisions, revenue is recognized upon the satisfaction of the acceptance criteria. If a contract contains more than one performance obligation, the consideration is allocated based on the standalone selling price of each performance obligation. The amount of revenue recognized is based on the consideration Novartis expects to receive in exchange for its goods and services, when it is highly probable that a significant reversal will not occur.

The consideration Novartis receives in exchange for its goods or services may be fixed or variable. Variable consideration is recognized when it is highly probable that a significant reversal will not occur. The most common elements of variable consideration are listed below.

- Rebates and discounts granted to wholesalers, retailers, government agencies (including US Medicaid and US Federal Medicare programs), government supported healthcare systems, private health systems, pharmacy benefit managers, managed healthcare organizations, purchasing organizations and other direct and indirect customers, as well as chargebacks are provisioned and recorded as revenue deductions at the time the related revenues are recorded, or when the incentives are offered. The provision represents estimates of the related obligations, requiring the use of judgment when estimating the effect of these revenue deductions. These rebates and discounts, applied using provision rates, are estimated based on the terms and conditions in the individual government agencies, states, plans and customer agreements (which may be subject to challenge or change in interpretative guidance by government authorities, payers and customers), historical experience, product sales and growth rate, population growth, product pricing including inflation impacts, the mix of contracts and products, the level of inventory in the distribution channel, regulations, channels and payers, as appropriate to the individual rebate and discount arrangements. These rebate provisions are adjusted based on established processes and experiences, for example from filing data with individual government agencies, states, and plans. There is often a time lag between the recording of revenue deductions and the final accounting for them.
- Refunds granted to healthcare providers under innovative pay-for-performance agreements (i.e. outcome based arrangements) are provisioned and recorded as a revenue deduction at the time the related sales are recorded. The provision represents estimates of the related obligations, requiring the use of judgment when estimating the effect of these revenue deductions. They are calculated on the basis of historical experience and clinical data available for the product, as well as the specific terms of the individual

agreements. In cases where historical experience and clinical data are not sufficient for a reliable estimation of the outcome, revenue recognition is deferred until the uncertainty is resolved, until such history is available or the period when the refund right has expired. The provisions for revenue deductions under innovative pay-for-performance agreements are adjusted periodically based on established processes and actual experience, including the products actual outcomes achieved compared with the anticipated predefined targets.

- Cash discounts are offered to customers to encourage prompt payment and are provisioned and recorded as revenue deductions at the time the related sales are recorded.
- Sales returns provisions are recognized and recorded as revenue deductions when there is historical experience of Novartis agreeing to customer returns and Novartis can reasonably estimate expected future returns. The provision represents estimates of the related obligations, requiring the use of judgment when estimating the effect of these revenue deductions. In doing so, the estimated rate of return is applied, determined on the basis of historical experience of customer returns and considering any other relevant factors. This is applied to the amounts invoiced, also considering the amount of returned product to be destroyed versus product that can be placed back in inventory for resale. Where shipments are made on a resale or return basis, without sufficient historical experience for estimating sales returns, revenue is only recorded when there is evidence of consumption or when the right of return has expired. The provisions for sales returns are adjusted periodically based on established processes and actual experience.

Net sales to third parties and provisions for revenue deductions are adjusted periodically to reflect experience and to reflect actual amounts as rebates, refunds, discounts and returns are processed. There is often a time lag between recording of revenue deductions and the final accounting for them. The provision represents estimates of the related obligations, requiring the use of judgment when estimating the effect of these revenue deductions.

"Other revenue" includes income from profit-sharing arrangements with our collaboration partners, and royalty and milestone income from the out-licensing of intellectual property when Novartis retains an interest in the intellectual property through a license. Royalty income earned from a license is recognized when the underlying sales have occurred. Milestone income is recognized at the point in time when it is highly probable that the relevant milestone event criteria are met, and the risk of reversal of revenue recognition is remote. "Other revenue" also includes revenue from activities such as manufacturing or other services rendered, to the extent such revenue is not recorded under net sales, and is recognized when control transfers to the third party and our performance obligations are satisfied.

Research and development

Internal research and development (R&D) costs are fully charged to "Research and development" in the consolidated income statement in the period in which they are incurred. The Company considers that regulatory and other uncertainties inherent in the development of new products preclude the capitalization of internal development expenses as an intangible asset until marketing approval from a regulatory authority is obtained in a major market such as the United States, the European Union, Switzerland, China or Japan.

Payments made to third parties such as contract research and development organizations in compensation for subcontracted R&D, that are deemed not to transfer intellectual property to Novartis are expensed as internal R&D expenses in the period in which they are incurred. Such payments are only capitalized if they meet the criteria for recognition of an internally generated intangible asset, usually when marketing approval has been received from a regulatory authority in a major market.

Payments made to third parties to in-license or acquire intellectual property rights, compounds and products, including initial upfront and subsequent milestone payments, are capitalized, as are payments for other assets, such as technologies to be used in R&D activities. If additional payments are made to the originator company to continue performing R&D activities, an evaluation is made as to the nature of the payments. Such additional payments will be expensed if they are deemed to be compensation for subcontracted R&D services not resulting in an additional transfer of intellectual property rights to Novartis. Such additional payments will be capitalized if they are deemed to be compensation for the transfer to Novartis of additional intellectual property developed at the risk of the originator company. Subsequent internal R&D costs in relation to IPR&D and other assets are expensed, since the technical feasibility of the internal R&D activity can only be demonstrated by the receipt of marketing approval for a related product from a regulatory authority in a major market.

Costs for post-approval studies performed to support the continued registration of a marketed product are recognized as marketing expenses. Costs for activities that are required by regulatory authorities as a condition for obtaining marketing approval in a major market are capitalized and recognized as currently marketed products.

Inventory produced ahead of regulatory approval is fully provisioned, and the charge is included in "Other expense" in the consolidated income statement, as its ultimate use cannot be assured. If this inventory can subsequently be sold, the provision is released to "Other income" in the consolidated income statement, either on approval by the appropriate regulatory authority or, exceptionally in Europe, on recommendation by the Committee for Medicinal Products for Human Use (CHMP), if approval is virtually certain.

Share-based compensation

Vested Novartis shares and American Depositary Receipts (ADRs) that are granted as compensation are valued at their market value on the grant date and are immediately expensed in the consolidated income statement.

The fair values of unvested restricted shares (RSs), restricted share units (RSUs) and performance share units (PSUs) in Novartis shares and ADRs granted to employees as compensation are recognized as an expense over the related vesting period. The expense recorded in the consolidated income statement is included in the personnel expenses of the various functions in which the employees are employed.

Unvested restricted shares, restricted ADRs and RSUs are only conditional on the provision of services by the plan participant during the vesting period. They are valued at fair value on the grant date. As RSUs do not entitle the holder to dividends, the fair value is based on the Novartis share price at the grant date adjusted for the net present value of the dividends expected to be paid during the holding period. The fair value of these grants, after making adjustments for assumptions related to forfeiture during the vesting period, is expensed on a straight-line basis over the respective vesting period.

PSUs are subject to the achievement of certain performance criteria and require plan participants to provide services during the vesting period. The performance criteria are based on Novartis internal performance metrics and, for certain plans, also variables that can be observed in the market, which for Novartis plans is the Novartis total shareholder return (TSR) relative to a specific peer group of companies over the vesting period. The expense is recognized in the consolidated income statement on a straight-line basis over the vesting period, and is determined based on a bifurcation into the components based on the performance criteria related to Novartis internal performance metrics and TSR. The number of equity instruments that finally vest is determined at the vesting date. The following paragraphs provide an overview of the accounting policies for the determination of the components of the PSU share-based compensation plan expense.

The portion of the PSUs expense that is subject to performance criteria based on Novartis internal performance metrics over the vesting period is determined based on assumptions concerning the expected performance against the internal performance metrics throughout the vesting period. The assumptions are based on the Company's targets for those performance metrics, and the expected forfeitures due to plan participants not meeting their service conditions. The assumptions are periodically adjusted over the vesting period. For this portion of the PSUs expense, any change in estimates for past services is recorded immediately as an expense or income in the consolidated income statement, and amounts for the remaining vesting period are expensed on a straight-line basis. As a result, at the end of the vesting period, the expense during the entire vesting period represents the amount that will finally vest.

The portion of the PSUs expense that is subject to performance criteria based on Novartis TSR relative to a specific peer group of companies over the vesting period is determined based on the total fair value of the grant over the vesting period. IFRS Accounting Standards require that these variables that can be observed in the market are taken into account in determining the fair value of the PSUs at the grant date. Novartis determined the fair value of these PSUs at the date of grant using a Monte Carlo simulation model. For this portion of the PSUs expense, adjustments to expense recognized in the consolidated income statement are only made if a plan participant does not fulfill the service conditions.

Measuring the fair values of PSUs granted that include TSR performance criteria requires the use of estimates. The Monte Carlo simulation used to determine the fair value of the PSUs TSR performance criteria requires the probability of factors related to uncertain future events; the term of the award; the grant price of underlying shares or ADRs; expected volatilities; the expected correlation matrix of the underlying equity instruments with those of the peer group of companies; and the risk-free interest rate as input parameters.

If a plan participant leaves Novartis for reasons other than retirement, disability or death, then unvested restricted shares, restricted ADRs, RSUs and PSUs are forfeited, unless determined otherwise by the provision of the plan rules or by the Compensation Committee of the Novartis Board of Directors, for example, in connection with a reorganization or divestment.

Income taxes

Income taxes comprise current income taxes and deferred income taxes and are recognized in the same periods as the revenues and expenses to which they relate. Income taxes include interest and penalties incurred during the period, insofar as they are considered an income tax. Income taxes related to items recognized directly to other comprehensive income or to equity are recognized together with the corresponding item, to which the income tax is attributable, directly in other comprehensive income or in equity.

Deferred income taxes are determined using the comprehensive liability method and are calculated on the temporary differences that arise between the tax base of an asset or liability and its carrying value for financial reporting purposes, except for those temporary differences related to investments in subsidiaries and associated companies, where the timing of their reversal can be controlled and it is probable that the difference will not reverse in the foreseeable future. Since the retained earnings of subsidiaries are reinvested, withholding or other taxes on eventual distribution of a subsidiary's retained earnings are only recognized when a dividend is declared or has been planned. Furthermore, deferred income taxes are recognized for the net tax effects of net operating loss carryforwards and tax credits.

The Company applies the IFRS Accounting Standards exception to not recognize or disclose information about deferred tax assets and liabilities related to Pillar Two income taxes.

The carrying amount of deferred tax assets is reduced to the extent that it is not probable that

sufficient taxable profits will be available to enable all or part of the asset to be recovered. In evaluating our ability to recover our deferred tax assets in the jurisdiction from which they arise, we consider all available positive and negative evidence, including scheduled reversals of deferred tax liabilities, projected future taxable income, tax-planning strategies, and results of recent operations.

The estimated amounts for current and deferred tax assets or liabilities, including amounts related to any uncertain tax positions, are based on applicable tax law and regulations in the various tax jurisdictions, in which the Company operates, which are subject to interpretations based on currently known facts and circumstances.

Tax returns are based on an interpretation of tax laws and regulations, and reflect estimates based on these judgments and interpretations. The tax returns are subject to examination by the competent taxing authorities, which may result in an assessment being made requiring payments of additional tax, interest or penalties.

The calculation of income tax assets and liabilities involves dealing with uncertainties in the application of complex tax laws and regulations in a multitude of jurisdictions across our global operations. As a result, inherent uncertainties exist in the estimates of the tax positions. Tax liabilities for uncertain tax provisions are recognized on the consolidated balance sheets within current income tax liabilities.

Impact of new IFRS Accounting Standards, amendments and interpretations in 2024

No new IFRS Accounting Standards were adopted by the Company in 2024, 2023 and 2022. There were no new IFRS Accounting Standards amendments or interpretations that became effective in 2024, 2023 and 2022 that had a material impact on the Company's consolidated financial statements.

In 2024, the following new IFRS Accounting Standard, which is not yet effective, was issued by the International Accounting Standards Board:

IFRS 18 Presentation and Disclosure in Financial Statements

IFRS 18 Presentation and Disclosure in Financial Statements was issued by the International Accounting Standards Board in April 2024. IFRS 18 will become effective on January 1, 2027, and is required to be applied retrospectively to comparative periods presented, with early adoption permitted. Upon adoption, IFRS 18 replaces International Accounting Standards (IAS®) Standards 1 – Presentation of Financial Statements.

IFRS 18 sets out new requirements focused on improving financial reporting by:

- requiring additional defined structure to the statement of profit or loss (i.e. consolidated statement of income), to reduce diversity in the reporting, by requiring five categories (operating, investing, financing, income taxes and discontinued operations) and defined subtotals and totals (operating income, income before financing, income taxes and net income),
- requiring disclosures in the notes to the financial statements about management-defined performance measures (i.e. non-IFRS measures), and
- adding new principles for aggregation and disaggregation of information in the primary financial statements and notes.

IFRS 18 will not impact the recognition or measurement of items in the financial statements, but it might change what an entity reports as its "operating profit or loss", due to the classification of certain income and expense items between the five categories of the consolidated income statement. It might also change what an entity reports as operating activities, investing activities and financing activities within the statement of cash flows, due to the change in classification of certain cash flow items between these three categories of the cash flows statement. Novartis is currently assessing the impact of adopting IFRS 18.

Based on the Company's assessment, there were no other IFRS Accounting Standards, amendments or interpretations not yet effective in 2024, 2023 or 2022 that would have been expected to have a material impact on the Company's consolidated financial statements.

2. Significant acquisitions of businesses and spin-off of Sandoz business

The Company applied the acquisition method of accounting for businesses acquired, and did not elect to apply the optional concentration test to account for acquired business as an asset separately acquired.

Significant acquisitions of businesses in 2024

Acquisition of Kate Therapeutics Inc.
On October 31, 2024, Novartis acquired Kate Therapeutics Inc. (Kate Therapeutics), a US based, preclinical-stage biotechnology company focused on developing adeno-associated viruses (AAV) based gene therapies to treat genetically defined muscle and heart diseases.

The purchase price consisted of a cash payment of USD 427 million (including purchase price adjustments of USD 2 million) and potential additional milestones of up to USD 700 million, which Kate Therapeutics shareholders are eligible to receive upon the achievement of specified development milestones.

The fair value of the total purchase consideration was USD 518 million, consisting of a cash payment of USD 427 million and the fair value of contingent consideration of USD 91 million. The purchase price allocation resulted in net identifiable assets of USD 234 million, consisting primarily of IPR&D intangible assets of USD 135 million, other intangible assets (scientific infrastructure) of USD 135 million, cash and cash equivalents of USD 6 million, net deferred tax liabilities of USD 41 million and other net liabilities of USD 1 million. Goodwill amounted to USD 284 million.

The results of operations since the date of acquisition were not material.

Acquisition of Mariana Oncology Inc.
On May 3, 2024, Novartis acquired Mariana Oncology Inc. (Mariana Oncology), a US based, preclinical-stage biotechnology company focused on developing novel radioligand therapies (RLTs) with a portfolio of RLT programs across a range of solid tumor indications.

The purchase price consisted of a cash payment of USD 1.04 billion and potential additional milestones of up to USD 750 million, which Mariana Oncology shareholders are eligible to receive upon the achievement of specified milestones.

The fair value of the total purchase consideration was USD 1.28 billion, consisting of a cash payment of USD 1.04 billion and the fair value of contingent consideration of USD 239 million. The purchase price allocation resulted in net identifiable assets of USD 754 million, consisting primarily of IPR&D intangible assets of USD 344 million, other intangible assets (scientific infrastructure) of USD 473 million, cash and cash equivalents of USD 80 million, net deferred tax liabilities of USD 133 million and other net liabilities of USD 10 million. Goodwill amounted to USD 528 million.

The results of operations since the date of acquisition were not material.

Acquisition of MorphoSys AG
On February 5, 2024, Novartis entered into an agreement to acquire MorphoSys AG (MorphoSys), a Germany-based, global biopharmaceutical company developing innovative medicines in oncology. The acquisition of MorphoSys adds to our oncology pipeline pelabresib, a late-stage BET inhibitor for myelofibrosis and tulmimetostat, an early-stage investigational dual inhibitor of EZH2 and EZH1 for solid tumors or lymphomasis.

On April 11, 2024, Novartis, through a subsidiary, commenced a voluntary public takeover offer (the "Offer") to acquire all outstanding shares of MorphoSys for EUR 68 per share, representing a total consideration of approximately EUR 2.6 billion in cash on a fully diluted basis. The settlement of the Offer was conditional on a minimum acceptance threshold of 65% of the MorphoSys outstanding shares.

Novartis purchased during the Offer acceptance period MorphoSys shares on the market for a total amount of EUR 0.3 billion (USD 0.3 billion). The closing conditions of the Offer, including the minimum acceptance threshold of 65%, were fulfilled by the end of the Offer acceptance period, and the acquisition of MorphoSys closed on May 23, 2024, with the settlement payment amounting to EUR 1.7 billion (USD 1.9 billion) to the MorphoSys shareholders for their tendered shares. Subsequent to May 23, 2024, Novartis acquired additional MorphoSys outstanding shares through the German statutory two-week extension period of the Offer (ending on May 30, 2024) for EUR 0.3 billion (USD 0.3 billion). As a result, as at May 30, 2024, Novartis held 89.7% of the total outstanding share capital of MorphoSys. Total cash paid for the MorphoSys shares purchased by Novartis through to the end of the statutory two-week extension period of the Offer amounted to EUR 2.3 billion (USD 2.5 billion). Non-controlling interests represented 10.3% of the MorphoSys outstanding shares amounting to USD 0.1 billion and were recognized in equity.

In June 2024, outside the Offer Novartis purchased an additional 1.7% of MorphoSys shares for EUR 44 million (USD 47 million). As a result, at June 30, 2024, Novartis held approximately 91.4% of outstanding MorphoSys shares.

On July 4, 2024, Novartis filed a public purchase offer to delist the MorphoSys shares admitted to trading on regulated markets and acquire all MorphoSys AG shares and American Depository Shares (ADS) not held directly by Novartis. In August 2024, the delisting of the MorphoSys shares admitted to trading on regulated markets was completed, and Novartis purchased an additional 3.2% of MorphoSys shares for EUR 83 million (USD 90 million). As a result, at September 30, 2024, Novartis held approximately 94.5% of the outstanding MorphoSys shares.

On October 15, 2024, the "squeeze-out" of the remaining minority shareholders of MorphoSys was completed by way of a merger into a wholly-owned Novartis entity. As a result, Novartis held 100% of the outstanding shares of MorphoSys and non-controlling

interests in equity were reduced to nil. On October 21, 2024, Novartis paid EUR 144 million (USD 156 million) to the former remaining minority shareholders in connection with the "squeeze-out."

The fair value of the total purchase consideration for the 89.7% stake held on May 30, 2024, was USD 2.5 billion (including cash acquired). The purchase price allocation resulted in net identifiable assets of USD 0.7 billion, consisting primarily of intangible assets other than goodwill of USD 1.1 billion, comprising IPR&D intangible assets of USD 0.6 billion and other intangible assets (customer out-licensing contracts) of USD 0.5 billion, financial investments and other receivables of USD 0.2 billion, marketable securities of USD 0.4 billion, cash and cash equivalents of USD 0.2 billion, financial debt to third parties of USD 0.9 billion, net deferred tax liabilities of USD 0.1 billion and other net liabilities of USD 0.2 billion. Non-controlling interests amounted to USD 0.1 billion, which were recognized at the non-controlling interests' proportionate share of MorphoSys identifiable net assets. Goodwill as at the acquisition date amounted to USD 1.9 billion.

The results of operations since the date of acquisition were not material.

Following the completion of management's analysis of the third-party integrated safety report related to certain clinical trial data readouts, that became available prior to closing of the MorphoSys acquisition, the necessity to perform an interim impairment test of the goodwill attributable to the MorphoSys business acquired at the provisional level of the grouping of CGUs of the MorphoSys business was triggered. This impairment test required the use of valuation techniques to estimate the fair value less cost of disposal of the MorphoSys business. These valuations required the use of management assumptions and estimates related to the MorphoSys business' future cash flows and assumptions on, among others, discount rate (8.5%) and terminal growth/decline rates (-15.0%). These fair value measurements are classified as "Level 3" in the fair value hierarchy. The section "—Goodwill and intangible assets other than goodwill" in Note 1 provides additional information on key assumptions that are highly sensitive in the estimation of fair values using valuation techniques. The interim impairment test indicated an impairment of the goodwill attributable to the MorphoSys business in the amount of USD 0.9 billion, which was recognized as "Other expense" in the consolidated income statement. As at December 31, 2024, the remaining carrying value of the goodwill attributable to the MorphoSys business amounting to USD 1.0 billion was allocated to the grouping of CGUs at the level of the operating segment of the Company, which is the level where the future synergies will be realized.

Significant acquisitions of businesses in 2023

Acquisition of DTx Pharma, Inc.

In the second quarter of 2023, Novartis entered into an agreement to acquire all outstanding shares of DTx Pharma, Inc. (DTx), a US based, pre-clinical stage biotechnology company focused on leveraging its proprietary FALCON platform to develop siRNA therapies for neuroscience indications. DTx's lead program, DTx-1252 targets the root cause of CMT1A—the overexpression of PMP22, a protein that causes the myelin sheath that supports and insulates nerves in the peripheral nervous system to function abnormally. The transaction also includes two additional pre-clinical programs for other neuroscience indications. The transaction closed on July 14, 2023.

The purchase price consisted of a cash payment of USD 0.6 billion and potential additional milestones of up to USD 0.5 billion, which the DTx shareholders are eligible to receive upon the achievement of specified milestones.

The fair value of the total purchase consideration was USD 0.6 billion. The amount consisted of a cash payment of USD 0.6 billion and the fair value of contingent consideration of USD 30 million, which DTx shareholders are eligible to receive upon the achievement of specified milestones. The purchase price allocation resulted in net identifiable assets of USD 0.4 billion, consisting primarily of IPR&D intangible assets of USD 0.4 billion, cash of USD 0.1 billion and net deferred tax liabilities of USD 0.1 billion. Goodwill amounted to USD 0.2 billion.

The 2023 results of operations since the date of acquisition were not material.

Acquisition of Chinook Therapeutics, Inc

On June 12, 2023, Novartis entered into an agreement to acquire all outstanding shares of Chinook Therapeutics, Inc. (Chinook Therapeutics), a US based clinical stage biopharmaceutical company with two late-stage medicines in development for rare, severe chronic kidney diseases. The acquisition closed on August 11, 2023.

The purchase price consisted of a cash payment of USD 3.2 billion and potential additional payments of up to USD 0.3 billion, which Chinook Therapeutics shareholders are eligible to receive upon the achievement of specified milestones.

The fair value of the total purchase consideration was USD 3.3 billion. The amount consisted of an upfront cash payment of USD 3.2 billion and the fair value of contingent consideration of USD 0.1 billion, which Chinook Therapeutics shareholders are eligible to receive upon achievement of specified milestones. The purchase price allocation resulted in net identifiable assets of USD 2.4 billion, consisting primarily of IPR&D intangible assets of USD 2.5 billion, net deferred tax liabilities of USD 0.4 billion and other net assets of USD 0.3 billion, including cash of USD 0.1 billion. Goodwill amounted to USD 0.9 billion.

The 2023 results of operations since the date of acquisition were not material.

Distribution of Sandoz Group AG to Novartis AG shareholders

On July 18, 2023, Novartis announced that its Board of Directors had unanimously endorsed the proposed separation of the Sandoz business to create an independent company by way of a spin-off and to seek shareholder approval for the spin-off of the Sandoz business into a separately traded standalone company, following the complete structural separation of the Sandoz business

into a standalone company (the Sandoz business or Sandoz Group AG) and subject to the satisfaction of certain conditions and Novartis AG shareholder approval.

At the EGM held on September 15, 2023, Novartis AG shareholders approved a special distribution by way of a dividend in kind to effect the spin-off of Sandoz Group AG, subject to the completion of certain conditions precedent to the distribution. Upon shareholder approval, the Sandoz business was reported as discontinued operations and the distribution liability was recognized at its fair value, which exceeded the carrying value of the Sandoz business net assets.

The conditions precedent to the spin-off were met and on October 3, 2023 the spin-off of the Sandoz business was effected by way of a distribution of a dividend in kind of Sandoz Group AG shares to Novartis AG shareholders and American Depositary Receipt (ADR) holders (the Distribution). Through the Distribution, each Novartis AG shareholder received one Sandoz Group AG share for every five Novartis AG shares and each Novartis ADR holder received one Sandoz ADR for every five Novartis ADR that they held at the close of business on October 3, 2023. As of October 4, 2023, the shares of Sandoz Group AG have been listed on the SIX Swiss Exchange (SIX) under the stock symbol "SDZ".

On September 18, 2023, the Sandoz business entered into financing arrangements with a group of banks under which on September 28, 2023, it borrowed a total amount of USD 3.3 billion. These borrowings consisted of a bridge loan in EUR (EUR 2.4 billion) and term loans in EUR (EUR 0.2 billion) and USD (USD 0.5 billion). In addition, the Sandoz business borrowed approximately USD 0.4 billion under a number of local bilateral facilities in different countries. This resulted in a total gross debt of USD 3.7 billion. These outstanding borrowings of the Sandoz business legal entities were recognized in the September 30, 2023 consolidated balance sheet within Liabilities related to discontinued operations and within financing activities cash flows from discontinued operations. Prior to the Distribution on October 3, 2023, Sandoz business legal entities paid approximately USD 3.3 billion in cash to Novartis and its affiliates through a series of intercompany transactions.

At the Distribution date on October 3, 2023, the dividend in kind distribution liability to effect the Distribution (spin-off) of the Sandoz business amounted to USD 14.0 billion, measured by reference to the October 4, 2023 opening Sandoz Group AG share price and applying a control premium. The dividend in kind distribution liability was recorded as a reduction to equity (retained earnings) and remained in excess of the then carrying value of the Sandoz business net assets, which amounted to USD 8.6 billion (see Note 29).

Certain consolidated foundations own Novartis AG dividend-bearing shares that restricts their availability for use by Novartis. These Novartis AG shares are accounted for as treasury shares. Through the Distribution, these foundations received Sandoz Group AG shares representing an approximate 4.31% equity interest in Sandoz Group AG. Upon the loss of control of Sandoz Group AG through the Distribution on October 3, 2023, the financial investment in Sandoz Group AG was recognized at its initial fair value based on the opening traded share price of Sandoz Group AG on October 4, 2023 (a Level 1 hierarchy valuation). At initial recognition, on October 4, 2023, the Sandoz Group AG financial investment had a fair value of USD 0.5 billion, and was reported in the fourth quarter of 2023 on the consolidated balance sheet as a financial asset. Management has designated this investment at fair value through other comprehensive income.

The total non-taxable, non-cash gain recognized at the Distribution date of the spin-off of the Sandoz business amounted to USD 5.9 billion, which consists of:

(USD millions)	Oct 3, 2023
Net assets derecognized [1]	– 8 647
Derecognition of distribution liability	13 962
Difference between net assets and distribution liability	**5 315**
Recognition of Sandoz Group AG shares obtained through consolidated foundations	492
Currency translation gains recycled into the consolidated income statement	357
Transaction costs and other items recognized in the consolidated income statement	– 304
Gain on distribution of Sandoz Group AG to Novartis AG shareholders	**5 860**

[1] See Note 29 for additional information.

For additional disclosures on discontinued operations, refer to Note 29.

Significant transactions in 2022

Acquisition of Gyroscope Therapeutics Holdings plc

On December 22, 2021, Novartis entered into an agreement to acquire all outstanding shares of Gyroscope Therapeutics Holdings plc (Gyroscope), a UK-based ocular gene therapy company. Gyroscope focuses on the discovery and development of gene therapy treatments for retinal indications. The purchase price consisted of a cash payment of USD 0.8 billion, subject to certain customary purchase price adjustments, and potential additional milestone payments of up to USD 0.7 billion, which Gyroscope shareholders are eligible to receive upon the achievement of specified milestones. The acquisition closed on February 17, 2022.

The fair value of the total purchase consideration was USD 1.0 billion. The amount consisted of an upfront cash payment of USD 0.8 billion (including customary purchase price adjustments) and the fair value of contingent consideration of USD 0.2 billion, which Gyroscope shareholders are eligible to receive upon the achievement of specified milestones. The purchase price allocation resulted in net identifiable assets of USD 0.9 billion, consisting primarily of IPR&D intangible assets of USD 1.1 billion and net deferred tax liabilities of USD 0.2 billion. Goodwill amounted to USD 0.1 billion.

The 2022 results of operations since the date of acquisition were not material.

Fair value of assets and liabilities arising from acquisitions of businesses

The following table presents the fair value of assets and liabilities acquired through acquisitions of businesses and the total purchase consideration for the years ended December 31, 2024 and 2023:

(USD millions)	**2024**	2023
Property, plant and equipment	20	18
Right-of-use assets	47	16
In-process research and development	1 424	2 931
Other intangible assets	1 156	15
Deferred tax assets	465	34
Non-current financial and other assets	31	164
Trade receivables and financial and other current assets	613	183
Cash and cash equivalents	242	226
Deferred tax liabilities	– 799	– 474
Current and non-current financial debts	– 852	
Current and non-current lease liabilities	– 47	– 51
Trade payables and other liabilities	– 297	– 231
Net identifiable assets acquired	**2 003**	**2 831**
Non-controlling interests	– 75	
Goodwill	2 701	1 094
Total purchase consideration for acquisitions of businesses	**4 629**	**3 925**

The significant business acquisitions in 2024, were Kate Therapeutics, Mariana Oncology and MorphoSys. The goodwill arising out of 2024 acquisitions is not tax deductible and is attributable to synergies, including the cost synergies from pre-acquisition in-licensed IP from MorphoSys, accounting for deferred tax liabilities on acquired assets, and the assembled workforce. In 2024, an impairment of goodwill was recognized related to the MorphoSys business acquisition of USD 0.9 billion. See Acquisition of MorphoSys AG section of this Note 2 for additional information.

In 2023, the significant business acquisitions were the acquisition of DTx Pharma and Chinook Therapeutics. The goodwill arising out of these acquisitions is attributable to synergies, accounting for deferred tax liabilities on acquired assets and the assembled workforce. In 2023, no goodwill was tax deductible.

3. Operating segment

Following the September 15, 2023, shareholder approval of the spin-off of the Sandoz business (see Note 1 and Note 2), the Company reported its consolidated financial statements as “continuing operations” and “discontinued operations” (see Note 1).

Continuing operations include the retained business activities of Novartis, comprising the innovative medicines business (previously the Innovative Medicines Division) and the continuing corporate activities.

Discontinued operations include the Sandoz generic pharmaceuticals and biosimilars business (the Sandoz Division) and certain corporate activities attributable to Sandoz’s business, as well as certain expenses related to the spin-off. Included in 2023 is also the IFRS Accounting Standards non-cash, non-taxable net gain on the Distribution of Sandoz Group AG to Novartis AG shareholders. For further details and disclosures on discontinued operations, refer to Note 1, Note 2 and Note 29.

The Company’s continuing operations are engaged in the research, development, manufacturing, distribution, commercialization and sale of innovative medicines, with a focus on the core therapeutic areas: cardiovascular, renal and metabolic; immunology; neuroscience; oncology; and established brands.

Following the spin-off of the Sandoz business, on October 3, 2023, Novartis operates as a single global operating segment innovative medicines company that is engaged in the research, development, manufacturing, distribution and commercialization and sale of innovative medicines. The Company’s research, development manufacturing and supply of products and functional activities are managed globally on a vertically integrated basis. Commercial efforts that coordinate marketing, sales and distribution of these products are organized by geographic region, therapeutic area and established brands.

The Executive Committee of Novartis (ECN), chaired by the CEO, is the governance body responsible for allocating resources and assessing the business performance of the operating segment of the Company on a global basis and is the chief operating decision-maker (CODM) for the Company.

The determination of a single operating segment is consistent with the financial information regularly reviewed by the CODM for purposes of assessing performance and allocating resources.

See Note 4 for revenues and geographic information disclosures.

4. Revenues and geographic information

Net sales information

Net sales from continuing operations comprise the following:

(USD millions)	**2024**	2023	2022
Net sales to third parties from continuing operations	**50 317**	**44 635**	**41 385**
Sales to discontinued operations		805	821
Net sales from continuing operations	**50 317**	**45 440**	**42 206**

Geographic information

The following table shows countries that accounted for more than 5% of net sales from continuing operations for the years ended December 31, 2024, 2023 and 2022, or more than 5% of total of selected non-current assets, for the years ended December 31, 2024 and 2023:

	Net sales from continuing operations[1]						Total of selected non-current assets[2]			
(USD millions)	**2024**	**%**	2023	%	2022	%	**2024**	**%**	2023	%
Country										
Switzerland	1 315	3	1 308	3	1 036	2	18 759	30	19 396	32
United States	21 146	42	17 959	40	15 935	38	34 999	55	34 059	55
China	3 890	8	3 267	7	2 948	7	530	1	547	1
Germany	3 660	7	3 367	7	3 101	7	1 554	2	88	
France	1 792	4	1 749	4	1 754	4	2 640	4	3 085	5
Other	18 514	36	17 790	39	17 432	42	4 603	8	4 389	7
Total	**50 317**	**100**	**45 440**	**100**	**42 206**	**100**	**63 085**	**100**	**61 564**	**100**

[1] Net sales from continuing operations by location of customer

[2] Total of property, plant and equipment; right-of-use assets; goodwill; intangible assets other than goodwill; investment in associated companies and other non-current assets excluding post-employment benefit assets

Net sales from continuing operations by region[1]

The following table shows net sales from continuing operations by region for the years ended December 31, 2024, 2023 and 2022:

	2024 USD m	2023 USD m	Change (2023 to 2024) USD %	2022 USD m	Change (2022 to 2023) USD %
US	21 146	17 959	18	15 935	13
Europe	15 557	14 997	4	14 371	4
Asia/Africa/Australasia	10 021	9 308	8	8 978	4
Canada and Latin America	3 593	3 176	13	2 922	9
Total	**50 317**	**45 440**	**11**	**42 206**	**8**
Of which in established markets	37 371	33 725	11	31 386	7
Of which in emerging growth markets	12 946	11 715	11	10 820	8

[1] Net sales from continuing operations by location of customer. Emerging growth markets comprise all markets other than the established markets of the US, Canada, Western Europe, Japan, Australia and New Zealand. Novartis definition of Western Europe includes Austria, Belgium, Finland, France, Germany, Greece, Iceland, Ireland, Italy, Luxembourg, Malta, The Netherlands, Norway, Portugal, Spain, Sweden, Switzerland, and the United Kingdom.

Information about major customers

The Company's largest, second-largest and third-largest customers account for approximately 17%, 13% and 7% of net sales from third parties from continuing operations, respectively (2023: 15%, 13% and 8%, respectively; 2022: 16%, 12% and 8%, respectively).

The highest amounts of trade receivables outstanding were for these same three customers and amounted to approximately 19%, 12% and 7%, respectively, of the trade receivables at December 31, 2024 (2023: 17%, 13% and 8%, respectively).

Net sales from continuing operations by core therapeutic area and established brands

	2024 USD m	2023 USD m[1]	Change (2023 to 2024) USD %	2022 USD m[1]	Change (2022 to 2023) USD %
Cardiovascular, renal and metabolic					
Entresto	7 822	6 035	30	4 644	30
Leqvio	754	355	112	112	217
Total cardiovascular, renal and metabolic	**8 576**	**6 390**	**34**	**4 756**	**34**
Immunology					
Cosentyx	6 141	4 980	23	4 788	4
Xolair[2]	1 643	1 463	12	1 365	7
Ilaris	1 509	1 355	11	1 133	20
Total immunology	**9 293**	**7 798**	**19**	**7 286**	**7**
Neuroscience					
Kesimpta	3 224	2 171	49	1 092	99
Zolgensma	1 214	1 214	0	1 370	– 11
Aimovig	312	266	17	218	22
Total neuroscience	**4 750**	**3 651**	**30**	**2 680**	**36**
Oncology					
Kisqali	3 033	2 080	46	1 231	69
Promacta/Revolade	2 216	2 269	– 2	2 088	9
Tafinlar + Mekinist	2 058	1 922	7	1 770	9
Jakavi	1 936	1 720	13	1 561	10
Tasigna	1 671	1 848	– 10	1 923	– 4
Pluvicto	1 392	980	42	271	262
Lutathera	724	605	20	471	28
Scemblix	689	413	67	149	177
Piqray/Vijoice	449	505	– 11	373	35
Kymriah	443	508	– 13	536	– 5
Fabhalta[3]	129	1	nm		nm
Total oncology	**14 740**	**12 851**	**15**	**10 373**	**24**

	2024 USD m	2023 USD m[1]	Change (2023 to 2024) USD %	2022 USD m[1]	Change (2022 to 2023) USD %
Established brands					
Sandostatin Group	1 279	1 314	– 3	1 238	6
Lucentis	1 044	1 475	– 29	1 874	– 21
Exforge Group	703	713	– 1	743	– 4
Galvus Group	602	692	– 13	859	– 19
Diovan Group	590	613	– 4	652	– 6
Gilenya	552	925	– 40	2 013	– 54
Contract manufacturing[4]	1 152	1 490	– 23	1 200	24
Other[4]	7 036	7 528	– 7	8 532	– 12
Total established brands[4]	**12 958**	**14 750**	**– 12**	**17 111**	**– 14**
Total net sales from continuing operations	**50 317**	**45 440**	**11**	**42 206**	**8**

[1] Reclassified to conform with 2024 presentation of brands by therapeutic area and established brands.
[2] Net sales from continuing operations reflect *Xolair* sales for all indications.
[3] Net sales from continuing operations reflect *Fabhalta* sales for all indications.
[4] Effective January 1, 2023, the discontinued operations Sandoz business transferred to Novartis continuing operations its bio-technology manufacturing services to other companies' activities (included in Contract manufacturing) and the *Coartem* brand (included in Other). The financial information of the Novartis continuing operations and discontinued operations were adapted accordingly in 2022, in compliance with IFRS Accounting Standards. See Note 3 for additional information.

nm = not meaningful

Net sales from continuing operations of the top 20 brands in 2024

Brands	Brand classification by therapeutic area or established brands	Key indications	US USD m	Rest of world USD m	Total USD m
Entresto	Cardiovascular, renal and metabolic	Chronic heart failure, hypertension	4 052	3 770	7 822
Cosentyx	Immunology	Psoriasis (PsO), ankylosing spondylitis (AS), psoriatic arthritis (PsA), non-radiographic axial spondyloarthritis (nr-axSPA), hidradenitis suppurativa (HS)	3 530	2 611	6 141
Kesimpta	Neuroscience	Relapsing forms of multiple sclerosis (MS)	2 183	1 041	3 224
Kisqali	Oncology	HR+/HER2- metastatic breast cancer and early breast cancer	1 678	1 355	3 033
Promacta/Revolade	Oncology	Immune thrombocytopenia (ITP), severe aplastic anemia (SAA)	1 181	1 035	2 216
Tafinlar + Mekinist	Oncology	BRAF V600+ metastatic and adjuvant melanoma, advanced non-small cell lung cancer (NSCLC), tumor agnostic with BRAF mutation indication, pediatric low grade glioma (pLGG)	848	1 210	2 058
Jakavi	Oncology	Myelofibrosis (MF), polycythemia vera (PV), graft-versus-host disease (GvHD)		1 936	1 936
Tasigna	Oncology	Chronic myeloid leukemia (CML)	848	823	1 671
Xolair [1]	Immunology	Severe allergic asthma (SAA), chronic spontaneous urticaria (CSU), nasal polyps, food allergy (FA)		1 643	1 643
Ilaris	Immunology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJIA, AOSD, gout)	798	711	1 509
Pluvicto	Oncology	PSMA-positive mCRPC patients post-ARPI, post-Taxane	1 157	235	1 392
Sandostatin Group	Established brands	Carcinoid tumors, acromegaly	805	474	1 279
Zolgensma	Neuroscience	Spinal muscular atrophy (SMA)	435	779	1 214
Lucentis	Established brands	Age-related macular degeneration (AMD), diabetic macular edema (DME), retinal vein occlusion (RVO)		1 044	1 044
Leqvio	Cardiovascular, renal and metabolic	Atherosclerotic cardiovascular disease (ASCVD)	385	369	754
Lutathera	Oncology	GEP-NETs gastroenteropancreatic neuroendocrine tumors	513	211	724
Exforge Group	Established brands	Hypertension	8	695	703
Scemblix	Oncology	Philadelphia chromosome-positive chronic myeloid leukemia (Ph+ CML) in chronic phase (CP); Ph+ CML in CP with the T315I mutation	436	253	689
Galvus Group	Established brands	Type 2 diabetes (RMS)		602	602
Diovan Group	Established brands	Hypertension	28	562	590
Top 20 brands total			**18 885**	**21 359**	**40 244**
Rest of portfolio			2 261	7 812	10 073
Total net sales from continuing operations			**21 146**	**29 171**	**50 317**

[1] Net sales from continuing operations reflect *Xolair* sales for all indications.

Net sales from continuing operations of the top 20 brands in 2023

Brands	Brand classification by therapeutic area or established brands	Key indications	US USD m	Rest of world USD m	Total USD m
Entresto	Cardiovascular, renal and metabolic	Chronic heart failure, hypertension	3 067	2 968	6 035
Cosentyx	Immunology	Psoriasis (PsO), ankylosing spondylitis (AS), psoriatic arthritis (PsA), non-radiographic axial spondyloarthritis (nr-axSPA), hidradenitis suppurativa (HS)	2 636	2 344	4 980
Promacta/Revolade	Oncology	Immune thrombocytopenia (ITP), severe aplastic anemia (SAA)	1 205	1 064	2 269
Kesimpta	Neuroscience	Relapsing-remitting multiple sclerosis (RRMS)	1 528	643	2 171
Kisqali	Oncology	HR+/HER2- metastatic breast cancer	1 032	1 048	2 080
Tafinlar + Mekinist	Oncology	BRAF V600+ metastatic adjuvant melanoma, advanced non-small cell lung cancer (NSCLC), tumor agnostic with BRAF mutation indication	791	1 131	1 922
Tasigna	Oncology	Chronic myeloid leukemia (CML)	884	964	1 848
Jakavi	Oncology	Myelofibrosis (MF), polycytomia vera (PV), graft-versus-host disease (GvHD)		1 720	1 720
Lucentis	Established brands	Age-related macular degeneration (AMD), diabetic macular edema (DME), retinal vein occlusion (RVO)		1 475	1 475
Xolair [1]	Immunology	Severe allergic asthma (SAA), chronic spontaneous urticaria (CSU), nasal polyps		1 463	1 463
Ilaris	Immunology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJIA, AOSD, gout)	686	669	1 355
Sandostatin Group	Established brands	Carcinoid tumors, acromegaly	829	485	1 314
Zolgensma	Neuroscience	Spinal muscular atrophy (SMA)	372	842	1 214
Pluvicto	Oncology	PSMA-positive mCRPC patients post-ARPI, post-Taxane	921	59	980
Gilenya	Established brands	Relapsing multiple sclerosis (RMS)	359	566	925
Exforge Group	Established brands	Hypertension	13	700	713
Galvus Group	Established brands	Type 2 diabetes		692	692
Diovan Group	Established brands	Hypertension	52	561	613
Lutathera	Oncology	GEP-NETs gastroenteropancreatic neuroendocrine tumors	427	178	605
Gleevec/Glivec	Established brands	Chronic myeloid leukemia (CML), gastrointestinal stromal tumors (GIST)	150	411	561
Top 20 products total			**14 952**	**19 983**	**34 935**
Rest of portfolio			3 007	7 498	10 505
Total net sales from continuing operations			**17 959**	**27 481**	**45 440**

[1] Net sales from continuing operations reflect *Xolair* sales for all indications.

Net sales from continuing operations of the top 20 brands in 2022

Brands	Brand classification by therapeutic area or established brands	Key indications	US USD m	Rest of world USD m	Total USD m
Cosentyx	Immunology	Psoriasis (PsO), ankylosing spondylitis (AS), psoriatic arthritis (PsA), non-radiographic axial spondyloarthritis (nr-axSPA)	2 770	2 018	4 788
Entresto	Cardiovascular, renal and metabolic	Chronic heart failure, hypertension	2 354	2 290	4 644
Promacta/Revolade	Oncology	Immune thrombocytopenia (ITP), severe aplastic anemia (SAA)	1 083	1 005	2 088
Gilenya	Established brands	Relapsing multiple sclerosis (RMS)	1 153	860	2 013
Tasigna	Oncology	Chronic myeloid leukemia (CML)	877	1 046	1 923
Lucentis	Established brands	Age-related macular degeneration (AMD), diabetic macular edema (DME), retinal vein occlusion (RVO)		1 874	1 874
Tafinlar + Mekinist	Oncology	BRAF V600+ metastatic adjuvant melanoma, advanced non-small cell lung cancer (NSCLC), tumor agnostic with BRAF mutation indication	678	1 092	1 770
Jakavi	Oncology	Myelofibrosis (MF), polycytomia vera (PV), graft-versus-host disease (GvHD)		1 561	1 561
Zolgensma	Neuroscience	Spinal muscular atrophy (SMA)	434	936	1 370
Xolair [1]	Immunology	Severe allergic asthma (SAA), chronic spontaneous urticaria (CSU), nasal polyps		1 365	1 365
Sandostatin Group	Established brands	Carcinoid tumors, acromegaly	800	438	1 238
Kisqali	Oncology	HR+/HER2- metastatic breast cancer	472	759	1 231
Ilaris	Immunology	Auto-inflammatory (CAPS, TRAPS, HIDS/MKD, FMF, SJIA, AOSD gout)	570	563	1 133
Kesimpta	Neuroscience	Relapsing-remitting multiple sclerosis (RRMS)	921	171	1 092
Galvus Group	Established brands	Type 2 diabetes		859	859
Gleevec/Glivec	Established brands	Chronic myeloid leukemia (CML), gastrointestinal stromal tumors (GIST)	205	540	745
Exforge Group	Established brands	Hypertension	14	729	743
Diovan Group	Established brands	Hypertension	55	597	652
Kymriah	Oncology	r/r pediatric and young adults acute lymphoblastic leukemia (ALL), diffuse large B-cell lymphoma (DLBCL) follicular lymphoma (FL)	196	340	536
Afinitor/Votubia	Established brands	Breast cancer/ tuberous sclerosis complex (TSC)	171	341	512
Top 20 products total			**12 753**	**19 384**	**32 137**
Rest of portfolio [2]			3 182	6 887	10 069
Total net sales from continuing operations [2]			**15 935**	**26 271**	**42 206**

[1] Net sales from continuing operations reflect *Xolair* sales for all indications.

[2] Effective January 1, 2023, the discontinued operations Sandoz business bio-technology manufacturing services to other companies' activities and the *Coartem* brand were transferred to the Novartis continuing operations. The financial information of the Novartis continuing operations and discontinued operations were adapted accordingly in 2022, in compliance with IFRS Accounting Standards. See Note 3 for additional information.

Other revenues

(USD millions)	2024	2023	2022
Profit-sharing income	1 063	941	921
Royalty income	37	87	35
Milestone income	28	45	145
Other [1]	277	147	154
Total other revenues	**1 405**	**1 220**	**1 255**

[1] Other includes revenue from activities such as manufacturing or other services rendered, to the extent such revenue is not recorded under net sales to third parties from continuing operations

5. Interest expense and other financial income and expense

Interest expense

(USD millions)	2024	2023	2022
Interest expense	– 871	– 730	– 642
Interest expense on lease liabilities	– 72	– 62	– 57
Expense arising from discounting long-term liabilities	– 68	– 66	– 103
Capitalized borrowing costs	5	3	2
Total interest expense from continuing operations	**– 1 006**	**– 855**	**– 800**

Other financial income and expense

(USD millions)	2024	2023	2022
Interest income	568	627	377
Other financial income [1]	92	21	19
Monetary loss from hyperinflation accounting	– 231	– 194	– 137
Financial expense	– 31	– 18	– 33
Currency result, net	– 258	– 214	– 184
Total other financial income and expense from continuing operations	**140**	**222**	**42**

[1] 2024 includes USD 78 million realized gain on commodities.

6. Income taxes

Income before taxes

(USD millions)	2024	2023	2022
Switzerland	10 098	9 719	5 751
Foreign [1]	3 542	– 596	1 426
Income before taxes from continuing operations	**13 640**	**9 123**	**7 177**

[1] The 2023 foreign income before taxes from continuing operations was impacted by impairment charges on intangible assets other than goodwill.

Current and deferred income tax expense

The significant components of the provision for income taxes from continuing operations are as follows:

(USD millions)	2024	2023	2022
Switzerland	– 897	– 1 136	– 598
Foreign	– 1 486	– 1 290	– 1 155
Current income tax expense	**– 2 383**	**– 2 426**	**– 1 753**
Switzerland	– 245	355	– 131
Foreign	927	1 520	756
Deferred tax income	**682**	**1 875**	**625**
Income tax expense from continuing operations	**– 1 701**	**– 551**	**– 1 128**

Analysis of tax rate

Novartis has a substantial business presence in many countries and is therefore subject to income taxes in different tax jurisdictions. This leads to differences in income and expense items that are non-taxable or non-deductible (permanent differences) or are taxed at different statutory tax rates in those tax jurisdictions. As a result, there is a difference between our applicable tax rate and effective tax rate.

The applicable tax rate changes from year to year due to changes in the mix of the Company's pre-tax income and changes in statutory tax rates since it is calculated as the weighted average tax rate based on the pre-tax income of each subsidiary.

The main elements contributing to the difference between the Company's overall applicable tax rate and the effective tax rate are shown in the following table:

(As a percentage)	**2024**	2023	2022
Applicable tax rate	12.3	15.0	15.3
Effect of disallowed expenditures	1.6	1.4	2.6
Effect of income taxed at reduced rates	– 0.2	– 0.6	– 0.4
Effect of income not subject to tax	– 0.1	– 2.5	– 0.1
Effect of tax credits and allowances	– 3.2	– 3.9	– 4.1
Effect of release of contingent consideration liability	0.0	– 0.3	– 0.5
Effect of tax rate change on current and deferred tax assets and liabilities	0.3	– 1.6	0.0
Effect of derecognition and reversals of derecognition of deferred tax assets	1.4	0.9	1.3
Effect of write-down of investments in subsidiaries	– 1.2	– 3.0	0.0
Effect of prior-year items	– 0.6	0.0	– 0.3
Effect of changes in uncertain tax positions	– 1.8	0.1	1.7
Effect of other items [1]	4.0	0.5	0.2
Effective tax rate from continuing operations	**12.5**	**6.0**	**15.7**

[1] 2024 includes the effect of tax charges related to the expansion of products in the Swiss Patent Box regime (+1.0%) and the effect of a non-deductible impairment of goodwill (+1.7%)

The effective tax rate of Novartis fluctuates primarily as a result of, among other factors, changes in pre-tax income between countries with varying statutory tax rates and the effects of disallowed expenditures, income not subject to tax, tax credits and allowances, tax rate changes on current and deferred tax assets and liabilities, write-down of investments in subsidiaries, and changes in uncertain tax positions. The table above provides the details of the significant items that impact the comparability of the effective tax rate between years.

In December 2021, the OECD issued model rules for a new global minimum tax framework (Pillar Two). Novartis is within the scope of the OECD Pillar Two model rules. A number of governments in countries in which Novartis operates are in the process of enacting or have enacted tax legislation to comply with Pillar Two.

In December 2023, Switzerland partially implemented Pillar Two, whereby effective from January 1, 2024, a 15% minimum taxation is assessed on Pillar Two qualifying profits earned by companies domiciled in Switzerland (Qualified Domestic Minimum Top-Up Tax). This Qualified Domestic Minimum Top-Up Tax (QDMTT) does not apply to the Pillar Two qualifying profits earned by a company's affiliates domiciled in tax jurisdictions outside of Switzerland. The QDMTT legislation in Switzerland had no material impact to our current income tax expense in 2024.

On September 4, 2024, Switzerland enacted the Income Inclusion Rule (IIR) effective January 1, 2025, which complements the QDMTT. This IIR imposes a 15% minimum top-up tax on the profits of foreign subsidiaries of Swiss-based multinational companies. Novartis estimates that the IIR will have no material impact to our consolidated financial position, income statement and cash flows.

The Pillar Two tax legislation enacted in 2024 and 2023 in Switzerland and other countries in which we operate had no material impact to the Company's results of operations, financial condition and cash flows in 2024 and 2023.

For disclosures on income taxes paid in 2024, 2023 and 2022, see Note 23.2.

7. Earnings per share

	2024	2023	2022
Net income attributable to shareholders of Novartis AG (USD millions)			
- Continuing operations	11 941	8 568	6 049
- Discontinued operations		6 282	906
Net income attributable to shareholders of Novartis AG (USD millions)	**11 941**	**14 850**	**6 955**
Number of shares (in millions)			
Weighted average number of shares outstanding used in basic earnings per share	2 018	2 077	2 181
Adjustment for vesting of restricted shares, restricted share units and dilutive shares from options	17	15	16
Weighted average number of shares in diluted earnings per share	**2 035**	**2 092**	**2 197**
Basic earnings per share (USD)			
- Continuing operations	5.92	4.13	2.77
- Discontinued operations		3.02	0.42
Total basic earnings per share (USD)	**5.92**	**7.15**	**3.19**
Diluted earnings per share (USD)			
- Continuing operations	5.87	4.10	2.76
- Discontinued operations		3.00	0.41
Total diluted earnings per share (USD)	**5.87**	**7.10**	**3.17**

Basic earnings per share (EPS) is calculated by dividing net income attributable to shareholders of Novartis AG by the weighted average number of shares outstanding in a reporting period. This calculation excludes the average number of issued shares purchased by the Company and held as treasury shares.

For diluted EPS, the weighted average number of shares outstanding is adjusted to assume the vesting of dilutive restricted shares (RSs), restricted share units (RSUs) and performance share units (PSUs), and in 2022 also the conversion of potentially dilutive shares arising from options on Novartis shares under employee compensation plans that have been issued. In January 2023, all outstanding options under these plans expired. As a result, there were no options on Novartis shares issued or outstanding at December 31, 2024 and 2023.

No RSs, RSUs or PSUs in 2024, 2023 and 2022, and no options in 2022 were excluded from the calculation of diluted EPS, as all were dilutive.

8. Changes in consolidated statements of comprehensive income

The consolidated statements of comprehensive income include the Company's net income for the year as well as all other valuation adjustments recorded in the Company's consolidated balance sheet, which under IFRS Accounting Standards are not recorded in the consolidated income statement. These include fair value adjustments on financial instruments, actuarial gains or losses on defined benefit pension plans, and currency translation effects, all net of taxes.

(USD millions)	Note	Fair value adjustments on financial instruments	Actuarial gains/(losses) from defined benefit plans	Hedging reserves	Cumulative currency translation effects	Total value adjustments attributable to Novartis AG shareholders	Non-controlling interest	Total value adjustments
Value adjustments at December 31, 2021		**188**	**– 3 968**		**– 407**	**– 4 187**	**– 33**	**– 4 220**
Fair value adjustments on equity securities, net of taxes of USD 81 million [1]		– 382				– 382		– 382
Net investment hedge, net of taxes of USD -30 million					91	91		91
Defined benefit plans, net of taxes of USD -104 million			– 104			– 104	1	– 103
Currency translation effects, net of taxes of USD 18 million	8.1				– 444	– 444	– 6	– 450
Value adjustments recognized through other comprehensive income in 2022		**– 382**	**– 104**		**– 353**	**– 839**	**– 5**	**– 844**
Fair value adjustments on equity securities sold, reclassified to retained earnings net of taxes of nil		– 4				– 4		– 4
Value adjustments related to divestments, net of taxes of USD -4 million			34			34		34
Value adjustments recognized through equity in 2022		**– 4**	**34**			**30**		**30**
Value adjustments at December 31, 2022		**– 198**	**– 4 038**		**– 760**	**– 4 996**	**– 38**	**– 5 034**
Fair value adjustments on equity securities net of taxes of USD -6 million [1]		37				37		37
Net investment hedge, net of taxes of USD 19 million					– 50	– 50		– 50
Defined benefit plans, net of taxes of USD 16 million			– 160			– 160		– 160
Currency translation effects, net of taxes of USD -6 million	8.1				1 373	1 373	2	1 375
Value adjustments recognized through other comprehensive income in 2023		**37**	**– 160**		**1 323**	**1 200**	**2**	**1 202**
Fair value adjustments on equity securities sold, reclassified to retained earnings net of taxes of USD -7 million		1				1		1
Value adjustments related to divestments, net of taxes of USD -4 million		2	27			29		29
Value adjustments recognized through equity in 2023		**3**	**27**			**30**		**30**
Value adjustments at December 31, 2023		**– 158**	**– 4 171**		**563**	**– 3 766**	**– 36**	**– 3 802**
Fair value adjustments on equity securities net of taxes of USD -8 million [1]		64				64		64
Cash flow hedge – losses recognized in other comprehensive income, net of taxes of USD 3 million [2]				– 24		– 24		– 24
Net investment hedge, net of taxes of USD -30 million					91	91		91
Defined benefit plans, net of taxes of USD -343 million			2 024			2 024		2 024
Currency translation effects, net of taxes of USD 6 million	8.1				– 1 563	– 1 563	– 3	– 1 566
Value adjustments recognized through other comprehensive income in 2024		**64**	**2 024**	**– 24**	**– 1 472**	**592**	**– 3**	**589**
Fair value adjustments on equity securities sold, reclassified to retained earnings net of taxes of USD 8 million		– 81				– 81		– 81
Value adjustments recognized through equity in 2024		**– 81**				**– 81**		**– 81**
Value adjustments at December 31, 2024		**– 175**	**– 2 147**	**– 24**	**– 909**	**– 3 255**	**– 39**	**– 3 294**

[1] Includes fair value adjustments on equity securities designated as financial assets valued at fair value through other comprehensive income with no subsequent recycling into the consolidated income statement

[2] Includes USD 1 million that was recycled through the income statement as the hedged item has affected interest expense.

8.1) In 2024, net cumulative currency translation losses of USD 5 million were recycled through the income statement as a result of the divestment of subsidiaries.

In 2023, net cumulative currency translation gains of USD 358 million were recycled through the income statement, consisting of USD 357 million as a result of the spin-off of the Sandoz business through a dividend in kind distribution to Novartis AG shareholders (see Note 2), and of USD 1 million as a result of the divestment of subsidiaries.

In 2022, net cumulative currency translation gains of USD 13 million were recycled through the income statement as a result of the divestment of subsidiaries.

9. Property, plant and equipment

The following table summarizes the movements of property, plant and equipment during 2024:

(USD millions)	Land	Buildings	Construction in progress	Machinery and other equipment	Total
At January 1, 2024					
Cost	403	10 147	1 213	9 630	21 393
Accumulated depreciation and impairment	– 5	– 5 251	– 7	– 6 616	– 11 879
Net book value	**398**	**4 896**	**1 206**	**3 014**	**9 514**
At January 1, 2024	**398**	**4 896**	**1 206**	**3 014**	**9 514**
Impact of acquisitions of businesses		6		14	20
Reclassifications	1	136	– 569	432	
Additions	0	73	1 082	229	1 384
Disposals and derecognitions	– 4	– 35	– 19	– 58	– 116
Depreciation charge		– 327		– 558	– 885
Impairment charge	– 5	– 13	– 3	– 27	– 48
Reversal of impairment charge				1	1
Currency translation effects	– 19	– 194	– 94	– 105	– 412
At December 31, 2024	**371**	**4 542**	**1 603**	**2 942**	**9 458**
At December 31, 2024					
Cost	376	9 526	1 610	9 046	20 558
Accumulated depreciation and impairment	– 5	– 4 984	– 7	– 6 104	– 11 100
Net book value	**371**	**4 542**	**1 603**	**2 942**	**9 458**
Commitments for purchases of property, plant and equipment [1]					**770**
Capitalized borrowing costs					**5**

[1] The estimated timing of the commitments for purchase of property, plant and equipment are as follows: 2025: USD 624 million, 2026: USD 115 million, 2027: USD 29 million, 2028: USD 2 million, 2029 and thereafter nil.

The following table summarizes the movements of property, plant and equipment during 2023:

(USD millions)	Land	Buildings	Construction in progress	Machinery and other equipment	Total
At January 1, 2023					
Cost	451	11 396	1 184	11 842	24 873
Accumulated depreciation and impairment	– 9	– 5 903	– 27	– 8 170	– 14 109
Net book value	**442**	**5 493**	**1 157**	**3 672**	**10 764**
At January 1, 2023	**442**	**5 493**	**1 157**	**3 672**	**10 764**
Costs and accumulated depreciation/impairments on assets related to discontinued operations [1]	– 54	– 422	– 280	– 588	– 1 344
Impact of acquisitions of businesses		12	1	5	18
Reclassifications		197	– 420	223	
Additions	1	85	734	245	1 065
Disposals and derecognitions	– 16	– 261	– 20	– 63	– 360
Depreciation charge		– 343		– 573	– 916
Impairment charge	– 3	– 36	– 10	– 57	– 106
Reversal of impairment charge	3	9		4	16
Currency translation effects	25	162	44	146	377
At December 31, 2023	**398**	**4 896**	**1 206**	**3 014**	**9 514**
At December 31, 2023					
Cost	403	10 147	1 213	9 630	21 393
Accumulated depreciation and impairment	– 5	– 5 251	– 7	– 6 616	– 11 879
Net book value	**398**	**4 896**	**1 206**	**3 014**	**9 514**
Commitments for purchases of property, plant and equipment					**744**
Capitalized borrowing costs					**3**

[1] Represents the cost of assets and accumulated depreciation/impairments at January 1, 2023, related to the Sandoz business reported as discontinued operations, and the net transfers between discontinued and continuing operations from January 1, 2023 to October 3, 2023. Note 29 provides disclosure of discontinued operations additions, depreciation charge, impairment charge and reversals of impairment change.

Government grants obtained for construction activities, including any related equipment, are deducted from the gross acquisition cost to arrive at the balance sheet carrying value of the related assets.

Property, plant and equipment is depreciated on a straight-line basis in the consolidated income statement over the estimated useful life of the individual asset. The related depreciation expense is included in the costs of the functions using the asset.

The following table shows the estimated useful life by major categories for property, plant and equipment:

	Useful life
Buildings	20 to 40 years
Machinery and other equipment	
Machinery and equipment	7 to 20 years
Furniture and vehicles	5 to 10 years
Computer hardware	3 to 7 years

Property, plant and equipment is assessed for impairment whenever there is an indication that the balance sheet carrying amount may not be recoverable using cash flow projections over the useful life.

The following table shows the property, plant and equipment depreciation charge, impairment charge and reversals of impairment charge for continuing operations for the years ended December 31, 2024, 2023 and 2022[1]:

(USD millions)	**2024**	2023	2022
Depreciation charge	– 885	– 916	– 967
Impairment charge	– 48	– 106	– 411
Impairment reversals	1	16	4

[1] Note 29 provides disclosure of discontinued operations depreciation charge, impairment charge and reversals of impairment charge.

10. Right-of-use assets and lease liabilities

The Company recognizes a right-of-use asset and a corresponding lease liability for all arrangements in which it is a lessee, except for leases with a term of 12 months or less (short-term leases) and low-value leases. For these short-term and low-value leases, the Company recognizes the lease payments as an operating expense on a straight-line basis over the term of the lease. The Company allocates the consideration in the lease contract to the lease and non-lease components on the basis of the relative standalone price of each component.

The portion of the lease payments attributable to the repayment of lease liabilities is recognized in cash flows used in financing activities, and the portion attributable to the payment of interest is included in cash flows from operating activities.

Right-of-use assets are depreciated on a straight-line basis from the commencement date of the lease over the shorter of the useful life of the right-of-use asset or the end of the lease term.

Right-of-use assets are assessed for impairment whenever there is an indication that the balance sheet carrying amount may not be recoverable using cash flow projections for the useful life.

The following table summarizes the movements of the right-of-use assets:

(USD millions)	**2024**	2023
Right-of-use assets at January 1	**1 410**	**1 431**
Costs and accumulated depreciation/impairments on assets related to discontinued operations [1]		– 117
Impact of acquisitions and divestments of businesses, net	42	16
Additions	304	421
Depreciation charge	– 257	– 259
Impairment reversal/(charge)	1	– 4
Lease contract terminations [2]	– 36	– 93
Currency translation effects	– 49	15
Total right-of-use assets at December 31	**1 415**	**1 410**

[1] Represents the cost of assets and accumulated depreciation/impairments at January 1, 2023, related to the Sandoz business reported as discontinued operations, and the net transfers between discontinued and continuing operations from January 1, 2023 to October 3, 2023. Note 29 provides disclosure of discontinued operations additions, depreciation charge, impairment charge and reversals of impairment change.

[2] Lease contract terminations also includes modifications to existing leases that result in reductions to the right-of-use assets, and reductions due to sub-leasing.

The following table shows the right-of-use assets carrying value at December 31, 2024 and 2023, and the continuing operations depreciation charge for years 2024, 2023 and 2022, by underlying class of asset[1]:

(USD millions)	December 31, 2024 carrying value	December 31, 2023 carrying value	Depreciation charge 2024	Depreciation charge 2023	Depreciation charge 2022
Land	472	483	11	12	16
Buildings	752	749	153	156	162
Vehicles	133	112	80	80	82
Machinery and equipment, and other assets	58	66	13	11	7
Total right-of-use assets	**1 415**	**1 410**	**257**	**259**	**267**

[1] Note 29 provides disclosure of discontinued operations depreciation charge.

The following table shows the lease liabilities by maturity at December 31, 2024 and 2023:

(USD millions)	Lease liabilities 2024	Lease liabilities undiscounted 2024	Interests for discounting lease liabilities 2024	Lease liabilities 2023	Lease liabilities undiscounted 2023	Interests for discounting lease liabilities 2023
Less than one year	235	291	56	230	284	54
Between one and two years	203	252	49	203	248	45
Between two and three years	168	209	41	170	211	41
Between three and four years	117	153	36	149	184	35
Between four and five years	86	116	30	113	142	29
After five years	994	2 178	1 184	963	2 173	1 210
Total lease liabilities	**1 803**	**3 199**	**1 396**	**1 828**	**3 242**	**1 414**
Less current portion of lease liabilities	– 235	– 291	– 56	– 230	– 284	– 54
Non-current portion of lease liabilities	**1 568**	**2 908**		**1 598**	**2 958**	
Commitments for leases not yet commenced [1]		**123**			**89**	

[1] The 2024 estimated timing of the commitments for leases not yet commenced are as follows: 2025 USD 57 million, 2026 USD 15 million, 2027 USD 4 million, 2028 USD 4 million, 2029 USD 4 million and thereafter USD 39 million.

At December 31, 2024, and December 31, 2023, there were no material future cash outflows, including extension options, excluded from the measurement of lease liabilities. The Company's most material lease with a lease term extension, representing a lease liability value of USD 0.7 billion (2023: USD 0.7 billion), has a determined lease term end date of 2071 (2023: 2071). Non-enforceable extension options of up to 10 years have not been included within the measurement of this lease liability, and do not have a material impact to the carrying value of the lease for either 2024 or 2023. Should the landlord agree to a lease extension, rent will be referenced to the market rates as at the commencement of the extension period.

In 2024, the Company completed two (2023: two, 2022: three) sale and leaseback transactions for certain property, plant and equipment as part of the Company's facilities strategy. The transactions resulted in net cash inflows of USD 9 million (2023: USD 273 million, 2022: USD 49 million) and the recognition of USD 14 million of lease liabilities (2023: USD 146 million, 2022: USD 23 million), and USD 2 million of right-of-use assets (2023: USD 109 million, 2022: USD 13 million). The right-of-use assets value reflects the proportion of the property, plant and equipment retained. Extension options have been included where management believe that such options will be exercised. The liabilities reflect the net present value of future lease payments. The net loss on the sale and leaseback transactions amounted to USD 10 million (2023: net gain USD 18 million, 2022: net gain USD 17 million).

The following table provides additional disclosures related to continuing operations right-of-use assets and lease liabilities for 2024, 2023 and 2022:

(USD millions)	2024	2023	2022
Interest expense on lease liabilities [1]	72	62	57
Expense on short-term leases	7	5	3
Expense on low-value leases	5	6	6
Total cash outflows for leases	336	321	319
Thereof:			
Cash outflows for short-term leases and low-value leases [2]	*12*	*11*	*9*
Payments of interest [3]	*62*	*52*	*48*
Payments of lease liabilities [4]	*262*	*258*	*262*

[1] The weighted average interest rate is 4.0% (2023: 3.5%, 2022: 3.3%). Interest on lease liabilities as at December 31, 2024, is estimated to be USD 56 million for 2025 and USD 1.3 billion thereafter.
[2] Cash flows from short-term and low-value leases are included within total net cash flows from operating activities. The portfolio of short-term leases to which the Company is committed to at December 31, 2024, 2023 and 2022, is similar to the portfolio of short-term leases the Company entered into during 2024, 2023 and 2022.
[3] Included within total net cash flows from operating activities
[4] Reported as cash outflows in financing activities net of lease incentives received, if any.

The net investment held and income from subleasing right-of-use assets, as well as income from leasing Novartis property, plant and equipment to third parties were not significant for 2024, 2023, or 2022.

11. Goodwill and intangible assets other than goodwill

Novartis has the following classes of available for use intangible assets other than goodwill: Currently marketed products and Other intangible assets.

Currently marketed products represent the composite value of acquired intellectual property (IP), patents, distribution rights and product trade names.

Other intangible assets include acquired scientific infrastructure, customer out-licensing contracts, and technologies and capitalized internally developed and acquired computer software.

The following table summarizes the movements of goodwill and intangible assets other than goodwill in 2024:

	Goodwill	Intangible assets other than goodwill			
(USD millions)	Total	In-process research and development	Currently marketed products	Other intangible assets	Total
At January 1, 2024					
Cost	23 391	7 822	46 909	3 588	58 319
Accumulated amortization and impairment	– 50	– 2 493	– 26 892	– 2 055	– 31 440
Net book value	**23 341**	**5 329**	**20 017**	**1 533**	**26 879**
At January 1, 2024	**23 341**	**5 329**	**20 017**	**1 533**	**26 879**
Impact of acquisitions of businesses	2 701	1 424		1 156	2 580
Additions [1]		1 116	263	764	2 143
Disposals and derecognitions [2]			– 91	– 4	– 95
Amortization charge			– 2 964	– 493	– 3 457
Impairment charge	– 910	– 471		– 52	– 523
Reversal of impairment charge			9		9
Currency translation effects	– 376	– 176	– 322	– 123	– 621
At December 31, 2024	**24 756**	**7 222**	**16 912**	**2 781**	**26 915**
At December 31, 2024					
Cost	25 665	9 621	45 462	5 123	60 206
Accumulated amortization and impairment	– 909	– 2 399	– 28 550	– 2 342	– 33 291
Net book value	**24 756**	**7 222**	**16 912**	**2 781**	**26 915**

[1] Additions to currently marketed products include USD 0.1 billion of capitalized development costs.

[2] Derecognition of assets that are no longer being used or developed and are not considered to have a significant disposal value or other alternative use.

The following table summarizes the movements of goodwill and intangible assets other than goodwill in 2023:

	Goodwill	Intangible assets other than goodwill			
(USD millions)	Total	In-process research and development	Currently marketed products	Other intangible assets	Total
At January 1, 2023					
Cost	29 596	7 092	58 249	4 343	69 684
Accumulated amortization and impairment	– 295	– 2 671	– 32 736	– 2 633	– 38 040
Net book value	**29 301**	**4 421**	**25 513**	**1 710**	**31 644**
At January 1, 2023	**29 301**	**4 421**	**25 513**	**1 710**	**31 644**
Costs and accumulated amortization/impairments on assets related to discontinued operations [1]	– 7 445	– 235	– 1 026	– 199	– 1 460
Impact of acquisitions of businesses	1 094	2 931		15	2 946
Reclassifications		– 235	23	212	
Additions [2]		770	290	516	1 576
Disposals and derecognitions [3]			– 1 842	– 3	– 1 845
Amortization charge			– 3 319	– 641	– 3 960
Impairment charge		– 2 544	– 310	– 194	– 3 048
Currency translation effects	391	221	688	117	1 026
At December 31, 2023	**23 341**	**5 329**	**20 017**	**1 533**	**26 879**
At December 31, 2023					
Cost	23 391	7 822	46 909	3 588	58 319
Accumulated amortization and impairment	– 50	– 2 493	– 26 892	– 2 055	– 31 440
Net book value	**23 341**	**5 329**	**20 017**	**1 533**	**26 879**

[1] Represents the cost of assets and accumulated depreciation/impairments at January 1, 2023, related to the Sandoz business reported as discontinued operations, and the net transfers between discontinued and continuing operations from January 1, 2023 to October 3, 2023. Note 29 provides disclosure of discontinued operations additions, depreciation charge, impairment charge and reversals of impairment change.

[2] Additions to currently marketed products include USD 0.1 billion of capitalized development costs.

[3] Derecognition of assets that are no longer being used or developed and are not considered to have a significant disposal value or other alternative use. Disposals include the divested currently marketed product *Xiidra*.

As at December 31, 2024, the most significant intangible assets within the Currently marketed products category are *Leqvio* (acquisition of The Medicines Company) and *Zolgensma* (acquisition of Avexis Inc.). As at December 31, 2024, the carrying value and remaining amortization period for *Leqvio* is USD 6.3 billion and 11 years, respectively (2023: USD 6.8 billion and 12 years, respectively), and for *Zolgensma* USD 4.5 billion and 6 years, respectively (2023: USD 5.2 billion and 7 years, respectively).

The estimated useful life of Currently marketed products ranges from 5 to 20 years and amortization charges, impairments and impairment reversals are recognized in the consolidated income statement on the line "Cost of goods sold."

The estimated useful lives of Other intangible assets ranges from 3 to 15 years and amortization charges, impairments and impairment reversals are recognized in the consolidated income statement on the lines "Cost of goods sold," "Selling, general and administration," "Research and development" or "Other expense," or for impairment reversals "Other income," depending on the nature and use of the other intangible asset.

Impairment charges for IPR&D are recorded in the consolidated income statement line "Research and development."

The Company has no indefinite useful life intangible asset other than goodwill.

The Company's cash-generating unit to which goodwill is allocated, as at December 31, 2024 and 2023, is at the level of the single global operating segment, which is comprised of a group of smaller cash-generating units. The valuation method of the recoverable amount of the operating segment to which goodwill is allocated is based on the fair value less costs of disposal. Any impairment charges are recorded under "Other expense" in the consolidated income statement.

The following assumptions were used in the goodwill impairment testing calculation:

(As a percentage)	
Terminal growth rate	1.3
Discount rate (post-tax)	7.0

The discount rates consider the Company's weighted average cost of capital, adjusted to approximate the weighted average cost of capital of a comparable market participant.

The fair value less costs of disposal for the cash-generating unit containing goodwill, is reviewed for the impact of reasonably possible changes in key assumptions. In particular, we considered an increase in the discount rate, a decrease in the terminal growth rate, and certain negative impacts on the forecasted cash flows. These reasonably possible changes in key assumptions did not indicate an impairment.

"Note 1. Accounting policies—Goodwill and intangible assets other than goodwill" provides additional disclosures on how the Company performs goodwill and intangible asset impairment testing.

The following table shows the intangible asset amortization charge, impairment charge and reversal of impairment charge for continuing operations for the years ended December 31, 2024, 2023 and 2022[1]:

(USD millions)	**2024**	2023	2022
Amortization charge	– 3 457	– 3 960	– 3 760
Impairment charge [2]	– 1 433	– 3 048	– 1 301
Reversal of impairment charge	9		

[1] Note 29 provides disclosure of discontinued operations amortization charge and impairment charge.

[2] 2024 impairment charge included the write-down of IPR&D on the cessation of clinical research and clinical development programs and a USD 0.9 billion impairment of goodwill attributable to the MorphoSys business acquired. See Note 2 – Acquisition of MorphoSys AG for additional information.
2023 impairment charge included the write-down of IPR&D on the cessation of clinical development programs, including PPY988 (USD 1.0 billion), which was acquired with the 2022 acquisition of Gyroscope Therapeutics Holdings plc (see Note 2), VDT482 (USD 0.4 billion), and MBG453 (USD 0.3 billion), and the clinical research program NIZ985 (USD 0.3 billion); as well as the write-down of a currently marketed product by USD 0.3 billion to reflect the reduction in its recoverable amount.
2022 intangible asset impairment charge included the write-down of IPR&D on the cessation of clinical development programs, including UNR844 (USD 0.6 billion).

12. Deferred tax assets and liabilities

(USD millions)	Property, plant and equipment	Intangible assets	Pensions and other benefit obligations of employees	Inventories	Tax loss carry-forwards	Other assets, provisions and accruals	Total
Gross deferred tax assets at January 1, 2024	**117**	**2 188**	**764**	**2 200**	**713**	**2 206**	**8 188**
Gross deferred tax liabilities at January 1, 2024	**– 310**	**– 4 228**	**– 420**	**– 77**		**– 1 092**	**– 6 127**
Net deferred tax balance at January 1, 2024	**– 193**	**– 2 040**	**344**	**2 123**	**713**	**1 114**	**2 061**
At January 1, 2024	**– 193**	**– 2 040**	**344**	**2 123**	**713**	**1 114**	**2 061**
Credited/(charged) to income	– 23	615	9	272	– 189	– 2	682
Charged to equity					– 105	20	– 85
Credited/(charged) to other comprehensive income			– 343			– 9	– 352
Impact of acquisitions of businesses	– 2	– 479			263	– 116	– 334
Other movements	14	– 11	– 2	– 2	– 23	– 8	– 32
Net deferred tax balance at December 31, 2024	**– 204**	**– 1 915**	**8**	**2 393**	**659**	**999**	**1 940**
Gross deferred tax assets at December 31, 2024	130	2 591	688	2 464	659	2 344	8 876
Gross deferred tax liabilities at December 31, 2024	– 334	– 4 506	– 680	– 71		– 1 345	– 6 936
Net deferred tax balance at December 31, 2024	**– 204**	**– 1 915**	**8**	**2 393**	**659**	**999**	**1 940**
After offsetting the following amount of deferred tax assets and liabilities within the same tax jurisdiction, the balance amounts to:							4 517
Deferred tax assets at December 31, 2024							4 359
Deferred tax liabilities at December 31, 2024							– 2 419
Net deferred tax balance at December 31, 2024							**1 940**
Gross deferred tax assets at January 1, 2023	**158**	**1 726**	**739**	**2 214**	**425**	**2 789**	**8 051**
Gross deferred tax liabilities at January 1, 2023	**– 343**	**– 4 785**	**– 420**	**– 138**		**– 1 312**	**– 6 998**
Net deferred tax balance at January 1, 2023	**– 185**	**– 3 059**	**319**	**2 076**	**425**	**1 477**	**1 053**
At January 1, 2023	**– 185**	**– 3 059**	**319**	**2 076**	**425**	**1 477**	**1 053**
Net deferred tax balance related to discontinued operations [1]	60	120	– 36	– 311	– 13	– 233	– 413
Credited/(charged) to income	– 13	1 344	32	386	173	– 47	1 875
Credited/(charged) to other comprehensive income	– 3		16			– 34	– 21
Impact of acquisitions of businesses	– 2	– 530			111	– 19	– 440
Other movements	– 50	85	13	– 28	17	– 30	7
Net deferred tax balance at December 31, 2023	**– 193**	**– 2 040**	**344**	**2 123**	**713**	**1 114**	**2 061**
Gross deferred tax assets at December 31, 2023	117	2 188	764	2 200	713	2 206	8 188
Gross deferred tax liabilities at December 31, 2023	– 310	– 4 228	– 420	– 77		– 1 092	– 6 127
Net deferred tax balance at December 31, 2023	**– 193**	**– 2 040**	**344**	**2 123**	**713**	**1 114**	**2 061**
After offsetting the following amount of deferred tax assets and liabilities within the same tax jurisdiction, the balance amounts to:							3 879
Deferred tax assets at December 31, 2023							4 309
Deferred tax liabilities at December 31, 2023							– 2 248
Net deferred tax balance at December 31, 2023							**2 061**

[1] Represents the net deferred tax balance at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.

Deferred tax liabilities have not been recognized for withholding tax and other taxes that would be payable on the remittance of earnings of foreign subsidiaries, insofar as the Company has the ability to control any future reversal and the unremitted earnings are retained in the foreign subsidiaries for reinvestment. The total unremitted earnings retained for reinvestment in the Company's foreign subsidiaries that would be subject to withholding tax or other taxes if remitted to the Company were estimated to be approximately USD 39 billion in 2024 (2023: USD 34 billion).

The gross value of tax-loss carry-forwards that have or have not been recognized as deferred tax assets, with their expiry dates, is as follows:

(USD millions)	Unrecognized	Recognized	**2024 total**
One year	19	3	22
Two years	59	88	147
Three years	24	26	50
Four years [1]	2 337	399	2 736
Five years	97	1 136	1 233
More than five years [1]	4 205	2 456	6 661
Not subject to expiry	783	1 103	1 886
Total	**7 524**	**5 211**	**12 735**

[1] Unrecognized losses expiring in four years include USD 2.3 billion attributable to US state capital loss carry-forwards, and those expiring in more than five years include USD 4.0 billion attributable to US state tax loss carry-forwards.

(USD millions)	Unrecognized	Recognized	**2023 total**
One year	23	44	67
Two years	12	15	27
Three years	67	79	146
Four years	22	569	591
Five years [1]	1 569	580	2 149
More than five years [1]	2 891	2 975	5 866
Not subject to expiry	687	2 258	2 945
Total	**5 271**	**6 520**	**11 791**

[1] Unrecognized losses expiring in five years include USD 1.5 billion attributable to US state capital loss carry-forwards, and those expiring in more than five years include USD 2.8 billion attributable to US state tax loss carry-forwards.

(USD millions)	**2024**	2023	2022
Tax losses carried forward that expired	24	8	6

Deferred tax assets related to carry-forwards of tax losses and tax credits of relevant Company entities are recognized to the extent that it is considered probable that future taxable profits will be available in the respective tax jurisdictions against which such losses and credits can be utilized.

13. Financial and other non-current assets

Financial assets

(USD millions)	**2024**	2023
Equity securities	746	1 403
Debt securities	53	29
Fund investments	210	190
Total financial investments	**1 009**	**1 622**
Long-term receivables from finance subleases	54	104
Other long-term receivables	179	214
Contingent consideration receivables [1]	671	553
Long-term loans, advances and security deposits	102	114
Total financial assets	**2 015**	**2 607**

[1] Note 28 provides additional disclosures related to contingent consideration.

Other non-current assets

(USD millions)	**2024**	2023
Deferred compensation plans	479	439
Prepaid post-employment benefit plans [1]	2 604	545
Other non-current assets	422	215
Total other non-current assets	**3 505**	**1 199**

[1] Note 24 provides additional disclosures related to post-employment benefits.

14. Inventories

(USD millions)	2024	2023
Raw material, consumables	843	963
Work in progress	3 448	3 502
Finished products	1 432	1 448
Total inventories	**5 723**	**5 913**

The following table shows the amount of inventory recognized as an expense in "Cost of goods sold" in the consolidated income statements from continuing operations:

(USD billions)	2024	2023	2022
Cost of goods sold	– 6.3	– 5.8	– 5.2

The following table shows the recognized amount of inventory provision and reversals of inventory provision recorded in the consolidated income statements from continuing operations:

(USD millions)	2024	2023	2022
Inventory provisions	– 526	– 467	– 373
Reversals of inventory provisions	156	111	121

The reversals mainly result from the release of products initially requiring additional quality control inspections and from the reassessment of inventory values manufactured prior to regulatory approval but for which approval was subsequently received.

15. Trade receivables

(USD millions)	2024	2023
Total gross trade receivables	7 481	7 158
Provisions for doubtful trade receivables	– 58	– 51
Total trade receivables	**7 423**	**7 107**

The following table shows the trade receivables that are not overdue as specified in the payment terms and conditions established with Novartis customers, as well as an analysis of overdue amounts and related provisions for doubtful trade receivables:

(USD millions)	2024	2023
Not overdue	7 138	6 791
Past due for not more than one month	134	146
Past due for more than one month but less than three months	95	66
Past due for more than three months but less than six months	37	64
Past due for more than six months but less than one year	24	38
Past due for more than one year	53	53
Provisions for doubtful trade receivables	– 58	– 51
Total trade receivables	**7 423**	**7 107**

Trade receivable balances represent amounts due from our customers, which are mainly drug wholesalers, retailers, private health systems, government agencies, managed care providers, pharmacy benefit managers and government-supported healthcare systems. In particular, we monitor the level of trade receivables in countries deemed to have an elevated credit risk. We consider macroeconomic environment, historical experience, country and political risk, in addition to other relevant information when assessing risk. These risk factors are monitored regularly to determine any adjustments in risk classification. The majority of the past due trade receivables from elevated credit risk countries are due from local governments or from government-funded entities. Deteriorating credit and economic conditions as well as other factors in these elevated credit risk countries have resulted in, and may continue to result in, an increase in the average length of time that it takes to collect these trade receivables, and may require the Company to re-evaluate the expected credit loss amount of these trade receivables in future periods. At December 31, 2024, amounts past due for more than one year are not significant in elevated credit risk countries.

Total trade receivables are denominated in the following major currencies:

(USD millions)	2024	2023
US dollar (USD)	3 698	3 520
Euro (EUR)	1 144	1 138
Japanese yen (JPY)	470	288
Russian ruble (RUB)	212	240
British pound (GBP)	191	146
Chinese yuan (CNY)	172	231
Brazilian real (BRL)	130	130
Australian dollar (AUD)	96	96
Swiss franc (CHF)	54	84
Canadian dollar (CAD)	50	75
Other currencies	1 206	1 159
Total trade receivables	**7 423**	**7 107**

16. Marketable securities, commodities, time deposits, derivative financial instruments, and cash and cash equivalents

Marketable securities, commodities, time deposits and derivative financial instruments

(USD millions)	**2024**	2023
Commodities		111
Time deposits and short-term investments with original maturity more than 90 days	1 892	569
Derivative financial instruments	106	355
Total marketable securities, commodities, time deposits and derivative financial instruments	**1 998**	**1 035**

The vast majority of time deposits and short-term investments with an original maturity of more than 90 days was denominated in USD as at December 31, 2024, and 2023.

Cash and cash equivalents

(USD millions)	**2024**	2023
Current accounts	2 585	3 207
Time deposits and short-term investments with original maturity less than 90 days	8 874	10 186
Total cash and cash equivalents	**11 459**	**13 393**

17. Other current assets

(USD millions)	**2024**	2023
VAT receivable	478	462
Withholding tax recoverable	57	64
Prepaid expenses	985	764
Contingent consideration receivable [1]	120	65
Other receivables and current assets	1 328	1 252
Total other current assets	**2 968**	**2 607**

[1] Note 28 provides additional disclosures related to contingent consideration.

18. Equity

The following table shows the movement in the share capital:

(USD millions)	Jan 1, 2022	Movement in year	Dec 31, 2022	Movement in year	Dec 31, 2023	Movement in year	**Dec 31, 2024**
Share capital [1]	901	– 11	890	– 65	825	– 32	793
Treasury shares	– 48	– 44	– 92	51	– 41	– 12	– 53
Outstanding share capital	**853**	**– 55**	**798**	**– 14**	**784**	**– 44**	**740**

[1] At December 31, 2024 and 2023, the Novartis AG share capital consists of registered shares with a nominal value of CHF 0.49 each. Prior to the 2023 capital decrease (see Note 18.6), Novartis AG share capital at December 31, 2022 consisted of registered shares with a nominal value of CHF 0.50 each. No authorized and conditional capital exists.

The following table shows the movement in shares:

		2024			2023			2022		
Number of outstanding shares (in millions)	Note	Total Novartis shares	Total treasury shares [1]	Total outstanding shares	Total Novartis shares	Total treasury shares [1]	Total outstanding shares	Total Novartis shares	Total treasury shares [1]	Total outstanding shares
Balance at beginning of year		**2 277.5**	**– 233.5**	**2 044.0**	**2 403.7**	**– 284.1**	**2 119.6**	**2 434.4**	**– 199.5**	**2 234.9**
Shares canceled for capital reduction [2]		– 87.5	87.5		– 126.2	126.2		– 30.7	30.7	
Shares acquired to be canceled [3]			– 77.5	– 77.5		– 87.5	– 87.5		– 126.2	– 126.2
Other share purchases [4]			– 1.2	– 1.2		– 1.6	– 1.6		– 1.4	– 1.4
Exercise of options and employee transactions [5]	18.8					2.8	2.8		1.9	1.9
Equity-based compensation plans [5]			9.7	9.7		10.4	10.4		10.4	10.4
Shares delivered to Alcon employees									0.0	0.0
Shares delivered to Sandoz employees			0.1	0.1		0.3	0.3			
Total movements		**– 87.5**	**18.6**	**– 68.9**	**– 126.2**	**50.6**	**– 75.6**	**– 30.7**	**– 84.6**	**– 115.3**
Balance at end of year		**2 190.0**	**– 214.9**	**1 975.1**	**2 277.5**	**– 233.5**	**2 044.0**	**2 403.7**	**– 284.1**	**2 119.6**

[1] Approximately 86.0 million treasury shares (2023: 93.8 million; 2022: 99.0 million) are held in Novartis entities that restrict their availability for use.
[2] Novartis reduced its share capital by canceling shares that were repurchased on the SIX Swiss Exchange second trading line during previous years.
[3] Shares repurchased on the SIX Swiss Exchange second trading line under the CHF 10 billion share buyback authority approved at the 2021 Annual General Meeting (AGM), the additional CHF 10 billion authority approved at the 2022 AGM and the additional CHF 10 billion authority approved at the 2023 AGM. Since March 20, 2024, the share repurchases are executed under the authority approved at the 2023 AGM as all earlier authorizations are fully exhausted.
[4] Shares acquired from employees, which were previously granted to them under the respective equity-based compensation plans
[5] Shares delivered as a result of options being exercised and physical share deliveries related to equity-based compensation plans

18.1) The amount available for distribution as a dividend to shareholders is based on the available distributable retained earnings of Novartis AG determined in accordance with the legal provisions of the Swiss Code of Obligations.

	2024	2023	2022
Dividend per share (in CHF)	3.30	3.20	3.10
Total dividend payment (in USD billion)	7.6	7.3	7.5

18.2) Treasury shares are initially recorded at fair value on their trade date, which is different from the settlement date, when the transaction is ultimately effected. Treasury shares are deducted from consolidated equity at their nominal per share value. Differences between the nominal amount and the transaction price on purchases or sales of treasury shares with third parties, or the value of services received for the shares allocated to employees as part of share-based compensation arrangements, are recorded in “Retained earnings” in the consolidated statement of changes in equity.

The following table summarizes the treasury shares movements:

	Note	2024 Number of outstanding shares (in millions)	2024 Equity impact USD m	2023 Number of outstanding shares (in millions)	2023 Equity impact USD m	2022 Number of outstanding shares (in millions)	2022 Equity impact USD m
Shares acquired to be canceled [1]		– 77.5	– 8 316	– 87.5	– 8 369	– 126.2	– 10 787
Other share purchases [2]		– 1.2	– 134	– 1.6	– 148	– 1.4	– 123
Purchase of treasury shares		– 78.7	– 8 450	– 89.1	– 8 517	– 127.6	– 10 910
Exercise of options and employee transactions [3]	18.8			2.8	146	1.9	88
Equity-based compensation plans [4]		9.7	1 060	10.4	904	10.4	854
Shares delivered to Alcon employees						0.0	5
Shares delivered to Sandoz employees		0.1	12	0.3	30		
Total		**– 68.9**	**– 7 378**	**– 75.6**	**– 7 437**	**– 115.3**	**– 9 963**

[1] Shares repurchased on the SIX Swiss Exchange second trading line under the CHF 10 billion share buyback authority approved at the 2021 Annual General Meeting (AGM), the additional CHF 10 billion authority approved at the 2022 AGM and the additional CHF 10 billion authority approved at the 2023 AGM. Since March 20, 2024, the share repurchases are executed under the authority approved at the 2023 AGM as all earlier authorizations are fully exhausted.

[2] Shares acquired from employees, which were previously granted to them under the respective equity-based compensation plans

[3] Shares delivered as a result of options being exercised related to equity-based compensation plans and the delivery of treasury shares. The average share price of the shares delivered was significantly below market price, reflecting the strike price of the options exercised.

[4] Equity-settled share-based compensation is expensed in the consolidated income statement in accordance with the vesting period of the equity-based compensation plans. The value for the shares and options granted is credited to consolidated equity over the respective vesting period. In addition, tax benefits arising from tax-deductible amounts exceeding the expense recognized in the income statement are credited to equity.

18.3) Changes in non-controlling interests represent the impact on the non-controlling interest of transactions with minority shareholders, such as change in ownership percentage, dividend payments and other equity transactions.

18.4) Other movements include, for subsidiaries in hyperinflationary economies, the impact of the application of IAS Standards 29 "Financial reporting in Hyperinflationary Economies." See Note 28 for additional disclosures.

18.5) Transaction costs in 2023 of USD 214 million, net of tax of USD 29 million, that were directly attributable to the Distribution (spin-off) of the Sandoz business to Novartis AG shareholders and that would otherwise have been avoided, were recorded as a deduction from equity (retained earnings). See Note 1.

18.6) In 2023, in connection with the Distribution (spin-off) of the Sandoz business, Novartis AG shareholders approved at the EGM held on September 15, 2023, a decrease in Novartis AG share capital in the amount of CHF 22.8 million (USD 17.1 million). The capital decrease resulted in a reduction of the nominal value of the Novartis AG shares by CHF 0.01 from CHF 0.50 per share to CHF 0.49 per share.

18.7) In December 2021, Novartis entered into an irrevocable, non-discretionary arrangement with a bank to repurchase Novartis shares on the second trading line under its up-to USD 15.0 billion share buyback. The arrangement was updated in July 2022, December 2022, and May 2023, and concluded in June 2023. Novartis was able to cancel this arrangement at any time but could have been subject to a 90-day waiting period. As of December 31, 2022, these waiting period conditions were not applicable and as a result, there was no requirement to record a liability under this arrangement as of December 31, 2022.

In June 2023, Novartis entered into an irrevocable, non-discretionary arrangement with a bank to repurchase 11.7 million Novartis shares on the second trading line, which concluded in July 2023.

In July 2023, Novartis entered into a new irrevocable, non-discretionary arrangement with a bank to repurchase Novartis shares on the second trading line under its new up-to USD 15.0 billion share buyback. In June 2024, Novartis amended the arrangement to include the repurchase of an additional 8.7 million Novartis shares on the second trading line to mitigate the impact of share deliveries under the equity-based compensation plans for employees. These additional repurchases concluded in October 2024. Novartis was able to cancel this arrangement at any time but could have been subject to a 90-day waiting period. As of December 31, 2024 and 2023, these waiting period conditions were not applicable and as a result, there was no requirement to record a liability under this arrangement as of December 31, 2024 and 2023.

18.8) At December 31, 2022, the market maker held 3 million written call options, originally issued as part of the share-based compensation for employees, that have not yet been exercised. The weighted average exercise price of these options at December 31, 2022, was USD 66.07 and they had contractual lives of 10 years, with remaining lives less than one year. In the first quarter of 2023, the market maker exercised 3 million written call options and as a result there were no written call options outstanding at December 31, 2023, and December 31, 2024.

19. Non-current financial debt

(USD millions)	2024	2023
Straight bonds	24 112	20 585
Other bonds [1]	523	
Total bonds	**24 635**	**20 585**
Other financial debt	87	42
Total, including current portion of non-current financial debt	**24 722**	**20 627**
Less current portion of non-current financial debt	– 3 356	– 2 191
Total non-current financial debt	**21 366**	**18 436**

[1] Average interest rate during the year 2024: 5.3%

All bonds are initially recorded at the amount of proceeds received, net of transaction costs. They are subsequently carried at amortized cost, with the difference between the proceeds, net of transaction costs, and the amount due on redemption being recognized as a charge to the consolidated income statement over the period of the relevant bond. Financial debts, including current financial debts, contain only general default covenants. The Company is in compliance with these covenants.

The percentage of fixed-rate financial debt to total financial debt was 84% as at December 31, 2024, and 2023.

The average interest rate on total financial debt in 2024 was 3.2% (2023: 2.9%).

Note 28 contains a maturity table of the Company's future contractual interest payments commitments.

The following table provides a breakdown of straight bonds:

Coupon	Currency	Notional amount (millions)	Issuance year	Maturity year	Issuer	Issue price	**2024 (USD millions)**	2023 (USD millions)
3.700%	USD	500	2012	2042	Novartis Capital Corporation, New York, United States	98.325%	491	491
3.400%	USD	2 150	2014	2024	Novartis Capital Corporation, New York, United States	99.287%		2 150
4.400%	USD	1 850	2014	2044	Novartis Capital Corporation, New York, United States	99.196%	1 828	1 828
1.625%	EUR	600	2014	2026	Novartis Finance S.A., Luxembourg, Luxembourg	99.697%	624	663
0.250%	CHF	500	2015	2025	Novartis AG, Basel, Switzerland	100.640%	553	595
0.625%	CHF	550	2015	2029	Novartis AG, Basel, Switzerland	100.502%	609	654
1.050%	CHF	325	2015	2035	Novartis AG, Basel, Switzerland	100.479%	360	387
3.000%	USD	1 750	2015	2025	Novartis Capital Corporation, New York, United States	99.010%	1 748	1 745
4.000%	USD	1 250	2015	2045	Novartis Capital Corporation, New York, United States	98.029%	1 223	1 222
0.625%	EUR	500	2016	2028	Novartis Finance S.A., Luxembourg, Luxembourg	98.480%	518	549
3.100%	USD	1 000	2017	2027	Novartis Capital Corporation, New York, United States	99.109%	997	995
1.125%	EUR	600	2017	2027	Novartis Finance S.A., Luxembourg, Luxembourg	99.874%	624	662
1.375%	EUR	750	2018	2030	Novartis Finance S.A., Luxembourg, Luxembourg	99.957%	779	828
1.700%	EUR	750	2018	2038	Novartis Finance S.A., Luxembourg, Luxembourg	99.217%	774	823
1.750%	USD	1 000	2020	2025	Novartis Capital Corporation, New York, United States	99.852%	1 000	999
2.000%	USD	1 250	2020	2027	Novartis Capital Corporation, New York, United States	99.909%	1 248	1 247
2.200%	USD	1 500	2020	2030	Novartis Capital Corporation, New York, United States	99.869%	1 496	1 495
2.750%	USD	1 250	2020	2050	Novartis Capital Corporation, New York, United States	97.712%	1 217	1 216
0.000% [1]	EUR	1 850	2020	2028	Novartis Finance S.A., Luxembourg, Luxembourg	99.354%	1 918	2 036
1.600%	CHF	650	2024	2027	Novartis AG, Basel, Switzerland	100.138%	719	
1.650%	CHF	435	2024	2031	Novartis AG, Basel, Switzerland	100.148%	481	
1.750%	CHF	645	2024	2034	Novartis AG, Basel, Switzerland	100.229%	714	
1.850%	CHF	280	2024	2040	Novartis AG, Basel, Switzerland	100.268%	310	
1.850%	CHF	190	2024	2049	Novartis AG, Basel, Switzerland	100.149%	210	
3.800%	USD	1 000	2024	2029	Novartis Capital Corporation, New York, United States	99.757%	995	
4.000%	USD	850	2024	2031	Novartis Capital Corporation, New York, United States	99.565%	844	
4.200%	USD	1 100	2024	2034	Novartis Capital Corporation, New York, United States	99.282%	1 088	
4.700%	USD	750	2024	2054	Novartis Capital Corporation, New York, United States	99.936%	744	
Total straight bonds							**24 112**	**20 585**

[1] The EUR 1 850 million bond issued in 2020 features a coupon step-up of 0.25% commencing with the first interest payment date after December 31, 2025, if one or both of the 2025 Patient Access Targets are not met. These 2025 Patient Access Targets are the 2025 Flagship Programs Patient Reach Target and the 2025 Strategic Innovative Therapies Patient Reach Target, as defined in the bond prospectus. As of December 31, 2024, there is no indication that these 2025 Patient Access Targets will not be met.

The following tables provide a breakdown of total non-current financial debt, including current portion by maturity and currency:

Breakdown by maturity:

(USD millions)	**2024**	2023
2024		2 191
2025	3 356	3 338
2026	678	663
2027	3 645	2 906
2028	2 495	2 585
2029	1 666	654
After 2029	12 882	8 290
Total	**24 722**	**20 627**

Breakdown by currency:

(USD millions)	**2024**	2023
US dollar (USD)	15 495	13 388
Euro (EUR)	5 238	5 563
Swiss franc (CHF)	3 956	1 635
Others	33	41
Total	**24 722**	**20 627**

The following table shows the comparison of balance sheet carrying value and fair value of total non-current financial debt, including current portion:

(USD millions)	**2024 Balance sheet**	**2024 Fair values**	2023 Balance sheet	2023 Fair values
Straight bonds	24 112	22 504	20 585	19 194
Others	610	610	42	42
Total	**24 722**	**23 114**	**20 627**	**19 236**

The fair values of straight bonds are determined by quoted market prices. Other financial debts are recorded at notional amounts, which are a reasonable approximation of the fair values.

20. Provisions and other non-current liabilities

(USD millions)	**2024**	2023
Accrued liability for employee benefits:		
Defined benefit pension plans [1]	1 571	1 815
Other long-term employee benefits and deferred compensation	591	546
Other post-employment benefits [1]	311	369
Environmental remediation provisions	486	518
Provisions for product liabilities, governmental investigations and other legal matters	75	82
Contingent consideration [2]	527	389
Other non-current liabilities	514	804
Total provisions and other non-current liabilities	**4 075**	**4 523**

[1] Note 24 provides additional disclosures related to post-employment benefits.
[2] Note 28 provides additional disclosures related to contingent consideration.

Novartis believes that its total provisions are adequate based upon currently available information. However, given the inherent difficulties in estimating liabilities in this area, Novartis may incur additional costs beyond the amounts provided. Management believes that such additional amounts, if any, would not be material to the Company's financial condition but could be material to the results of operations or cash flows in a given period.

Environmental remediation provisions

The following table shows the movements in the environmental liability provisions:

(USD millions)	2024	2023	2022
January 1	**538**	**588**	**616**
Provisions related to discontinued operations [1]		– 53	
Cash payments [2]	– 4	– 4	– 6
Releases of provisions [3]	– 32	– 54	– 18
Additions to provisions [4]	30	14	6
Currency translation effects	– 34	47	– 10
December 31	**498**	**538**	**588**
Less current provision	– 12	– 20	– 53
Non-current environmental remediation provisions at December 31	**486**	**518**	**535**

[1] Represents the environmental remediation provision at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.
[2] Cash payments from continuing operations were USD 5 million in 2022.
[3] Releases of provisions credited to the consolidated income statement from continuing operations were USD 18 million in 2022.
[4] Additions to provisions charged to the consolidated income statement from continuing operations were USD 6 million in 2022.

The significant components of the environmental remediation provisions consist of costs to sufficiently clean and refurbish contaminated sites to the extent necessary, and to continue surveillance at sites where the environmental remediation exposure is less significant.

A substantial portion of the environmental remediation provisions relate to the remediation of Basel regional landfills in the adjacent border areas in Switzerland and France. The provisions are reassessed on an annual basis and adjusted as necessary.

In the United States, Novartis has been named under federal legislation (the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended) as a potentially responsible party (PRP) in respect of certain sites. Novartis actively participates in, or monitors, the cleanup activities at the sites in which it is a PRP. The provision takes into consideration the number of other PRPs at each site as well as the identity and financial position of such parties in light of the joint and several nature of the liability.

The expected timing of the related cash outflows as of December 31, 2024, is currently projected as follows:

(USD millions)	Expected cash outflows
Due within two years	42
Due later than two years, but within five years	203
Due later than five years, but within 10 years	184
Due after 10 years	69
Total environmental remediation provisions	**498**

Provisions for product liabilities, governmental investigations and other legal matters

Novartis has established provisions for certain product liabilities, governmental investigations and other legal matters where a potential cash outflow is probable, and Novartis can make a reliable estimate of the amount of the outflow. These provisions represent the Company's current best estimate of the total financial effect for the matters described below and for other less significant matters. Potential cash outflows reflected in a provision might be fully or partially offset by insurance in certain circumstances.

Novartis has not established provisions for potential damage awards for certain additional legal claims against its subsidiaries if Novartis currently believes that a payment is either not probable or cannot be reliably estimated. These not-provisioned-for matters include individual product liability cases and certain other legal matters. Plaintiffs have alleged claims in these matters and the Company does not believe that information about the amount sought by plaintiffs, if that is known, would be meaningful with respect to those legal proceedings. This is due to a number of factors, including, but not limited to, the stage of proceedings, the entitlement of parties to appeal a decision and clarity as to theories of liability, damages and governing law. It is therefore, not practicable to provide information about the potential financial impact of these matters. In addition, in some of these matters there are claims for punitive or multiple (treble) damages, civil penalties and disgorgement of profits that in the view of Novartis are either wholly or partially unspecified, or wholly or partially unquantifiable at present. The Company believes that information about these amounts claimed by plaintiffs generally is not meaningful for purposes of determining a reliable estimate of a loss that is probable or more than remote.

A number of other legal matters are in such early stages, or the issues presented are such that the Company has not made any provisions, since it cannot currently estimate either a potential outcome or the amount of any potential losses. For these reasons, among others, the Company generally is unable to make a reliable estimate of possible loss with respect to such cases. It is therefore not practicable to provide information about the potential financial impact of those cases.

There might also be cases for which the Company was able to make a reliable estimate of the possible loss or the range of possible loss, but the Company believes that publication of such information on a case-by-case basis would seriously prejudice the Company's position in ongoing legal proceedings or in any related settlement discussions. Accordingly, in such cases, information has been disclosed with respect to the nature of the contingency, but no disclosure is provided as to an estimate of the possible loss or range of possible loss.

Note 27 contains additional information on contingent liabilities.

Summary of significant legal proceedings

The following is a summary of significant legal proceedings to which Novartis or its subsidiaries are currently a party, or were a party and that concluded in 2024.

Investigations and related litigations

Southern District of New York (S.D.N.Y.) Gilenya marketing practices investigation and litigation

In 2013, Novartis Pharmaceuticals Corporation (NPC) received a civil investigative demand from the United States Attorney's Office for the S.D.N.Y. requesting the production of documents and information relating to marketing practices for *Gilenya*, including the remuneration of healthcare providers in connection therewith. In 2017, the S.D.N.Y. and New York State declined to intervene in claims raised by an individual relator in a qui tam complaint. In 2022, NPC's motion to dismiss this complaint was granted. In December 2024, the appeals court affirmed in part but remanded in part, sending the case back to the district court for further proceedings. The claims are being vigorously contested.

Lucentis/Avastin® matters

In 2019, the French Competition Authority (FCA) issued a Statement of Objections against Novartis entities, alleging anti-competitive practices on the French market for anti-vascular endothelial growth factor treatments for wet age-related macular degeneration from 2008 to 2013. In 2020, the FCA issued a decision finding that the Novartis entities had infringed competition law by abusing a dominant position and imposing a fine equivalent to approximately USD 452 million. Novartis paid the fine, again subject to recoupment, and appealed the FCA's decision. In February 2023, the Paris Court of Appeal (Court) overturned the FCA's decision which triggered the reimbursement of the originally paid fine (recorded as "Other income" in the Company's consolidated income statement), and, in March 2023, the FCA appealed the Court's decision.

Novartis is the subject of similar investigations and proceedings involving the competition authority in Greece and is currently in an appeal process in Turkey. Novartis continues to vigorously contest all claims in both countries. Novartis is also challenging policies and regulations allowing off-label/unlicensed use and reimbursement for economic reasons in Turkey.

Greece investigation

The Greek authorities are investigating legacy allegations of potentially inappropriate economic benefits to healthcare providers (HCPs), government officials and others in Greece. These authorities include the Greek Coordinating Body for Inspection and Control, and the Greek Body of Prosecution of Financial Crime (SDOE), from which the Company received a summons in 2018 and 2020. Novartis has cooperated in these investigations. In 2021, SDOE imposed on Novartis Hellas a fine equivalent to approximately USD 1.2 million; Novartis Hellas appealed the fine and, in September 2023, the Court overturned the decision and fine. The Greek State filed an appeal. In 2022, the Greek State served a civil lawsuit on Novartis Hellas, seeking approximately USD 225 million for moral damages allegedly arising from the conduct that was the subject of the Company's 2020 settlement with the US Department of Justice regarding allegations of inappropriate economic benefits in Greece that was disclosed in the 2020 Annual Report and the 2020 Form 20-F. The claims are being vigorously contested.

340B Drug Pricing Program litigation

NPC has brought litigation challenging a number of state statutes purporting to add further obligations on manufacturers under the federal 340B program as to the use of contract pharmacies in those states. NPC has also brought litigation challenging the federal government's refusal to allow NPC to apply a rebate payment model for the 340B program.

In addition, in 2021 and 2023, two medical centers filed Administrative Dispute Resolution proceedings against NPC, seeking the return of alleged overcharges resulting from NPC's contract pharmacy policy. NPC has moved to dismiss these proceedings. Also in 2021, NPC received a civil investigative subpoena from the Office of the Attorney General of the State of Vermont (Vermont AG) requesting the production of documents and information concerning NPC's participation in the 340B Drug Pricing Program in Vermont. NPC responded by providing documents and information to the Vermont AG in 2021 and there have been no further actions since that time.

Inflation Reduction Act (IRA) litigation

In 2023, following the U.S. government's selection of *Entresto* for the first round of the IRA's "Medicare Drug Price Negotiation Program," NPC filed a complaint in the U.S. District Court (USDC) for the District of New Jersey on the grounds that those drug price-setting provisions are unconstitutional under the First, Fifth and Eighth Amendments to the U.S. Constitution. In October 2024, the court granted the government's motion for summary judgment. NPC has appealed to the Third Circuit.

Product liability litigation

Tasigna

NPC is a defendant in more than 400 US product liability actions involving *Tasigna*, alleging that the product caused various cardiovascular effects and that NPC failed to provide adequate warnings about those alleged side effects. State court actions are pending in a multicounty litigation in Bergen County, New Jersey, and federal cases are pending in a multidistrict litigation in the Middle District of Florida. The claims are being vigorously contested.

Other matters

Shareholder derivative lawsuit

In 2021, NPC, Sandoz Inc., Novartis Capital Corporation and certain present and former directors and officers of Novartis were named as defendants, and Novartis was named as a nominal defendant, in a purported shareholder derivative lawsuit filed in New York State Court. The plaintiffs, derivatively as purported Novartis shareholders on behalf of Novartis, seek damages and other remedies based on alleged conduct by the corporate and individual defendants. In 2022, the court granted

Novartis motion to dismiss the lawsuit, which the plaintiffs have appealed.

Concluded legal matters

340B Drug Pricing Program litigation

In 2021, NPC received a notification from the US Health Resources and Services Administration (HRSA) which stated that HRSA believes NPC's contract pharmacy policy violates the 340B statute, and threatened potential enforcement action. NPC subsequently sued HRSA in the USDC for the District of Columbia to challenge HRSA's determination and to enjoin HRSA from taking action with respect to NPC's contract pharmacy policy. HRSA then referred the matter regarding NPC's contract pharmacy policy to the Office of Inspector General of the US Department of Health and Human Services, which could result in the imposition of civil monetary penalties on NPC. The court issued a decision rejecting HRSA's interpretation of the 340B statute, vacating the violation notification and remanding the matter to HRSA. HRSA appealed, and the US Court of Appeals for the DC Circuit heard argument on the case in 2022. In May 2024, the US Court of Appeals for the DC Circuit issued a decision rejecting HRSA's interpretation of the 340B statute and upholding NPC's contract pharmacy policy. HRSA did not seek review from the US Supreme Court, and the decision is now final.

Swiss and EU investigation

In September 2022, the Swiss Competition Commission (COMCO) initiated an investigation of the acquisition of certain patents by Novartis from Genentech in April 2020 and their subsequent enforcement against Eli Lilly and other parties, allegedly in an attempt to protect *Cosentyx* from competing products. COMCO investigated whether enforcement of the patents violated the Swiss Cartel Act. The European Commission also requested information from Novartis regarding this matter. COMCO and the EC have both formally closed their investigations with no findings and both stated that they did not find any indication of anticompetitive conduct.

Summary of product liability, governmental investigations and other legal matters provision movements

(USD millions)	2024	2023	2022
January 1	**124**	**702**	**397**
Provisions related to discontinued operations [1]		– 97	
Impact of acquisitions of businesses			4
Cash payments [2]	– 102	– 448	– 105
Releases of provisions [3]	– 12	– 219	– 52
Additions to provisions [4]	160	170	466
Currency translation effects	– 6	16	– 8
December 31	**164**	**124**	**702**
Less current portion	– 89	– 42	– 548
Non-current product liabilities, governmental investigations and other legal matters provisions at December 31	**75**	**82**	**154**

[1] Represents the provisions for product liability, governmental investigations and other legal matters at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.
[2] Cash payments from continuing operations were USD 67 million in 2022.
[3] Releases of provisions credited to the consolidated income statement from continuing operations were USD 38 million in 2022.
[4] Additions to provisions charged to the consolidated income statement from continuing operations were USD 435 million in 2022.

Novartis believes that its total provisions for investigations, product liability, arbitration and other legal matters are adequate based upon currently available information. However, given the inherent difficulties in estimating liabilities, there can be no assurance that additional liabilities and costs will not be incurred beyond the amounts provided.

Discontinued operations

On October 4, 2023, the separation and spin-off of the Sandoz business was completed (Note 2). Pursuant to the Separation and Distribution Agreement that Novartis and Sandoz entered into in connection with that separation and spin-off, Sandoz and Novartis agreed, subject to certain limitations, exclusions and conditions, that Sandoz would retain or assume (as applicable) liabilities, including pending and future claims that relate to the spun-off Sandoz business (whether arising prior to, at or after the date of execution of the Separation and Distribution Agreement). Additionally, pursuant to the Separation and Distribution Agreement, Sandoz agreed to indemnify Novartis and each of its directors, officers, managers, members, agents and employees against liabilities incurred in connection with the spun-off Sandoz business.

21. Current financial debt and derivative financial instruments

(USD millions)	2024	2023
Bank and other financial debt [1]	642	624
Commercial paper	4 091	3 269
Current portion of non-current financial debt	3 356	2 191
Derivative financial instruments	143	91
Total current financial debt and derivative financial instruments	**8 232**	**6 175**

[1] Weighted average interest rate during the year 2024: 20.8% (2023: 13.2%)

The carrying amounts of current financial debt, other than the current portion of non-current financial debt, approximate the estimated fair value due to the short-term nature of these instruments.

Details on commercial papers and short-term borrowings are provided under “Liquidity risk” in Note 28.

22. Provisions and other current liabilities

(USD millions)	2024	2023
Provisions for deductions from revenue	7 004	6 315
Accruals for compensation and benefits, including social security	2 181	2 330
Accruals for royalties	1 099	844
Accrued expenses for goods and services received but not invoiced	901	1 026
Accruals for taxes other than income taxes	626	516
Restructuring provisions	424	703
Contingent consideration [1]	281	14
Accrued share-based payments	262	322
Accrued interests on financial debt	169	116
Deferred income	127	98
Provisions for product liabilities, governmental investigations and other legal matters [2]	89	42
Environmental remediation provisions	12	20
Other payables	879	820
Total provisions and other current liabilities	**14 054**	**13 166**

[1] Note 28 provides additional disclosures related to contingent consideration.
[2] Note 20 provides additional disclosures related to legal provisions.

Provisions are based upon management’s best estimate and adjusted for actual experience. Such adjustments to historic estimates have not been material.

Provisions for deductions from revenue

The following table shows the movement of the provisions for deductions from revenue:

(USD millions)	2024	2023	2022
January 1	**6 315**	**6 732**	**6 481**
Provisions related to discontinued operations [1]		– 1 415	
Effect of currency translation and business acquisitions and divestments	– 197	68	– 210
Payments/utilizations [2]	– 19 829	– 16 703	– 22 261
Adjustments of prior years charged to income statement [3]	– 315	– 206	– 322
Current year income statement charge [4]	21 157	17 798	23 072
Change in provisions offset against gross trade receivables [5]	– 127	41	– 28
December 31	**7 004**	**6 315**	**6 732**

[1] Represents the provision for deductions from revenue at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.
[2] Payments/utilizations from continuing operations were USD 14 691 million in 2022.
[3] Adjustments of prior years charged to income statement from continuing operations were USD 218 million in 2022.
[4] Current year income statement charge from continuing operations were USD 15 231 million in 2022.
[5] Change in provisions offset against gross trade receivables from continuing operations were USD 2 million in 2022.

The provisions for deductions from revenue include specific healthcare plans and program rebates as well as non-healthcare plans and program-related rebates, returns and other deductions. The provisions for deductions from revenue are adjusted to reflect experience and to reflect actual amounts as rebates, refunds, discounts and returns are processed. The provision represents estimates of the related obligations, requiring the use of judgment when estimating the effect of these deductions from revenue.

Restructuring provisions movements

(USD millions)	2024	2023	2022
January 1	**703**	**1 131**	**345**
Provisions related to discontinued operations [1]		– 51	
Additions to provisions [2]	362	658	1 368
Cash payments [3]	– 514	– 816	– 468
Releases of provisions [4]	– 100	– 193	– 42
Transfers [5]		– 57	– 53
Currency translation effects	– 27	31	– 19
December 31	**424**	**703**	**1 131**

[1] Represents the restructuring provisions at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.
[2] Additions to provisions charged to the consolidated income statement from continuing operations were USD 1.3 billion in 2022.
[3] Cash-payments from continuing operations were USD 421 million in 2022.
[4] Releases of provisions credited to the consolidated income statement from continuing operations were USD 33 million in 2022.
[5] Transfers from continuing operations were USD 53 million in 2022.

Restructuring provisions are recognized for the direct expenditure arising from the restructuring, where the plans are sufficiently detailed and where appropriate communication to those affected has been made.

Charges to increase restructuring provisions are included in “Other expense” in the consolidated income statements and release of provisions are included in “Other income” in the consolidated income statements.

In 2024, additions to provisions of USD 362 million were mainly related to the continuation of the initiative announced in April 2022 to implement a new streamlined organizational model designed to support innovation, growth and productivity.

In 2023, additions to provisions of USD 658 million were mainly related to the continuation of the initiative announced in April 2022 to implement a new streamlined organizational model designed to support innovation, growth and productivity.

In 2022, additions to provisions of USD 1.4 billion were mainly related to the following reorganizations:

- Initiative announced in April 2022 to implement a new streamlined organizational model designed to support innovation, growth and productivity.
- The continuation of the 2021 restructuring initiatives.

23. Details to the consolidated statements of cash flows

23.1) Non-cash items and other adjustments from continuing operations

The following table shows the reversal of non-cash items and other adjustments in the consolidated statements of cash flows.

(USD millions)	**2024**	2023	2022
Depreciation, amortization and impairments on:			
Property, plant and equipment	932	1 006	1 374
Right-of-use assets	256	263	270
Intangible assets	4 881	7 008	5 061
Financial assets [1]	45	106	260
Change in provisions and other non-current liabilities	696	61	1 318
Gains on disposal on property, plant and equipment; intangible assets; other non-current assets; and other adjustments on financial assets and other non-current assets, net	– 74	– 180	– 308
Equity-settled compensation expense	1 044	865	791
Loss from associated companies	38	13	11
Income taxes	1 701	551	1 128
Net financial expense	866	633	758
Other	– 153	43	– 32
Total	**10 232**	**10 369**	**10 631**

[1] Includes fair value changes

In 2024 and 2023, other than through business combinations, there were no additions to intangible assets with deferred payments (2022: USD 635 million).

In 2024, there were USD 304 million (2023: USD 421 million; 2022: USD 216 million) additions to right-of-use assets recognized.

23.2) Total amount of income taxes paid

In 2024, income taxes paid by continuing operations and the total Company were USD 2 258 million (discontinued operations were nil).

In 2023, income taxes paid by continuing operations were USD 2 787 million and by discontinued operations were USD 162 million, which were included within "Net cash flows from operating activities from discontinued operations." In 2023, income taxes paid by the total Company were USD 2 949 million.

In 2022, income taxes paid by continuing operations were USD 1 702 million and by discontinued operations were USD 273 million, which were included within "Net cash flows from operating activities from discontinued operations." In 2022, income taxes paid by the total Company were USD 1 975 million.

23.3) Cash flows from changes in working capital and other operating items included in the net cash flows from operating activities from continuing operations

(USD millions)	**2024**	2023	2022
Increase in inventories	– 225	– 546	– 560
Increase in trade receivables	– 931	– 1 504	– 397
(Decrease)/increase in trade payables	– 105	479	– 181
Change in other current and non-current assets	– 502	– 125	– 84
Change in other current liabilities	1 057	1 327	426
Total	**– 706**	**– 369**	**– 796**

23.4) Cash flows arising from acquisitions and divestments of businesses, net from continuing operations

The following table is a summary of the cash flow impact of acquisitions and divestments of businesses.

(USD millions)	Note	**2024**	2023	2022
Total purchase consideration for acquisitions of businesses	2	**– 4 629**	**– 3 925**	**– 1 166**
Acquired cash and cash equivalents		242	226	89
Fair value of previously held equity interests			26	21
Contingent consideration payables, net		377	146	224
Payments, deferred consideration and other adjustments, net		– 8	– 34	0
Cash flows used for acquisitions of businesses [1]		**– 4 018**	**– 3 561**	**– 832**
Cash flows from/(used for) divestments of businesses, net [2]		**107**	**3**	**– 8**
Cash flows used for acquisitions and divestments of businesses, net		**– 3 911**	**– 3 558**	**– 840**

[1] 2024 includes the payments for purchases of MorphoSys shares by Novartis during the Offer period totaling EUR 0.3 billion (USD 0.3 billion), see Note 2 for further information. Also included in 2024, is a payment of EUR 53 million (USD 58 million) in relation to the MorphoSys acquisition.

[2] In 2024, USD 107 million represented net cash inflows from divestments made during that year and in previous years.
In 2024, the net identifiable assets of divested businesses amounted to USD 142 million, comprised of non-current assets of USD 159 million, current assets of USD 48 million, including USD 8 million cash and cash equivalents and of non-current and current liabilities of USD 65 million.
In 2023, USD 3 million represented net cash inflows from divestments in previous years.
In 2022, USD 8 million net cash outflows from divestments of businesses included USD 20 million reduction to cash and cash equivalents due to the derecognized cash and cash equivalents following a loss of control of a company upon expiry of an option to purchase the company, partly offset by USD 12 million net cash inflows from business divestments in 2022 and in prior years.
In 2022, the net identifiable assets of divested businesses amounted to USD 139 million, comprised of non-current assets of USD 127 million, current assets of USD 70 million, including USD 62 million cash and cash equivalents and of non-current and current liabilities of USD 58 million. The deferred sale price receivable and other adjustments amounted to USD 19 million.

Note 2 provides further information regarding significant acquisitions and divestments of businesses. All acquisitions were for cash.

23.5) Reconciliation of liabilities arising from financing activities

(USD millions)	2024 Financial debts	2024 Derivative financial instruments	2024 Lease liabilities	2023 Financial debts	2023 Derivative financial instruments	2023 Lease liabilities	2022 Financial debts	2022 Derivative financial instruments	2022 Lease liabilities
January 1	**24 520**	**91**	**1 828**	**26 120**	**55**	**1 789**	**29 129**	**68**	**1 896**
Financial debts, derivative financial instruments and lease liabilities related to discontinued operations [1]				– 214	– 1	– 98			
Proceeds from non-current financial debts [2]	6 143						16		
Repayments of the current portion of non-current financial debts [3]	– 2 160			– 2 223			– 2 575		
Change in current financial debts [4]	958			546			295		
Repayments of other current financial debts	– 289								
Payments of lease liabilities [5]			– 262			– 258			– 295
Interest payments for amounts included in lease liabilities classified as cash flows from operating activities [6]			– 62			– 52			– 51
New, modified and terminated leases, net			241			349			222
Impact of acquisitions and divestments of businesses, net	852		42			51			12
Changes in fair values, lease interest and other changes, net	– 8	52	72	– 2	37	28		– 13	60
Amortization of bonds discount	33			17			22		
Currency translation effects	– 594		– 56	276		19	– 767		– 55
December 31	**29 455**	**143**	**1 803**	**24 520**	**91**	**1 828**	**26 120**	**55**	**1 789**
Non-current [7]	21 366		1 568	18 436		1 598	20 244		1 538
Current [7]	8 089	143	235	6 084	91	230	5 876	55	251

[1] Represents the financial debts, derivative financial instruments and lease liabilities at January 1, 2023 related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.

[2] Proceeds from non-current financial debts included in the consolidated statements of cash flows from continuing operations were nil in 2022.

[3] Repayments of the current portion of non-current financial debts were only recorded in the consolidated statements of cash flows from continuing operations.

[4] Changes in current financial debts included in the consolidated statements of cash flows from continuing operations were USD 252 million in 2022 which included net cash outflows from interest-bearing accounts of employees payable on demand amounting to USD 1.7 billion.

[5] Payments of lease liabilities included in the consolidated statements of cash flows from continuing operations were USD 262 million in 2022.

[6] Interest payments for amounts included in lease liabilities classified as cash flows from operating activities within the consolidated statements of cash flows from continuing operations were USD 48 million in 2022.

[7] Note 10 provides additional disclosures related to lease liabilities, Note 19 provides additional disclosures related to non-current financial debt, and Note 21 provides additional disclosures related to current financial debt and derivative financial instruments.

24. Post-employment benefits for employees

Defined benefit plans

In addition to the legally required social security schemes, the Company has numerous independent pension and other post-employment benefit plans. In most cases, these plans are externally funded in entities that are legally separate from the Company. For certain Company entities, however, no independent plan assets exist for the pension and other post-employment benefit obligations of employees. In these cases, the related unfunded liability is included in the balance sheet. The defined benefit obligations (DBOs) of all major pension and other post-employment benefit plans are reappraised annually by independent actuaries using the projected unit credit method. Plan assets are recognized at fair value.

The major plans are based in Switzerland, the United States, the United Kingdom and Germany (2023: Switzerland, the United States, the United Kingdom, Germany and Japan), which represent 96% (2023: 96%) of the Company's total DBO for pension plans. Details of the plans in the two most significant countries, Switzerland and the United States, which represent 85% (2023: 84%) of the Company's total DBO for post-employment benefit plans, are provided below.

Swiss-based pension plans represent the most significant portion of the Company's total DBO and plan assets. For active insured members the benefits are linked to contributions paid into the plan, interest credits granted and conversion rates applied.

All benefits granted under Swiss-based pension plans are vested, and Swiss legislation prescribes that the employer has to contribute a fixed percentage of an employee's pay to an external pension fund. Additional employer contributions may be required whenever the plan's statutory funding ratio falls below a certain level. The employee also contributes to the plan. The pension plans are run by separate legal entities, each governed by a board of trustees that – for the principal plans – consists of representatives nominated by Novartis and the active insured employees. The boards of trustees are responsible for the plan design and asset investment strategy.

The United States pension plans represent the second-largest component of the Company's total DBO and plan assets. The principal plans (Qualified Plans) are funded, whereas plans providing additional benefits for executives (Restoration Plans) are unfunded. Employer contributions are required for Qualified Plans whenever the statutory funding ratio falls below a certain level.

Furthermore, in certain countries, employees are covered under other post-employment benefit plans and post-retirement medical plans.

In the US, other post-employment benefit plans consist primarily of post-employment healthcare benefits, which have been closed to new members since 2015. Part of the costs of these plans is reimbursable under the Medicare Prescription Drug, Improvement, and Modernization Act of 2003. There is no statutory funding requirement for these plans. The Company is funding these plans to the extent that it is tax efficient.

The following tables are a summary of the funded and unfunded defined benefit obligation for pension and other post-employment benefit plans of employees at December 31, 2024 and 2023:

	Pension plans		Other post-employment benefit plans	
(USD millions)	**2024**	2023	**2024**	2023
Benefit obligation at January 1	**19 037**	**17 533**	**440**	**422**
Benefit obligations related to discontinued operations [1]		– 529		– 26
Current service cost	259	260	9	9
Interest cost	398	504	23	22
Past service costs and settlements	– 85	28	12	
Administrative expenses	24	25		
Remeasurement (gains)/losses arising from changes in the financial assumptions [2]	431	1 350	– 10	13
Remeasurement (gains)/losses arising from changes in demographic assumptions	– 98	– 303		– 14
Experience-related remeasurement losses/(gains)	76	23	– 43	44
Currency translation effects	– 1 065	1 304	– 13	4
Benefit payments	– 1 373	– 1 384	– 26	– 34
Contributions of employees	176	174		
Effect of acquisitions, divestments or transfers	– 5	52		
Benefit obligation at December 31	**17 775**	**19 037**	**392**	**440**
Fair value of plan assets at January 1	**19 934**	**18 945**	**71**	**60**
Plan assets related to discontinued operations [1]		– 386		
Interest income	369	514	3	2
Return on plan assets excluding interest income	682	175	7	10
Currency translation effects	– 1 187	1 524		
Novartis contributions	381	408	26	33
Contributions of employees	176	174		
Settlements	– 110	– 35		
Benefit payments	– 1 373	– 1 384	– 26	– 34
Effect of acquisitions, divestments or transfers	– 4	– 1		
Fair value of plan assets at December 31	**18 868**	**19 934**	**81**	**71**
Funded status	**1 093**	**897**	**– 311**	**– 369**
Limitation on recognition of fund surplus at January 1	**– 2 167**	**– 2 644**		
Limitation on recognition of fund surplus at January 1, related to discontinued operations		**6**		
Change in limitation on recognition of fund surplus [3]	2 034	740		
Currency translation effects	100	– 209		
Interest income on limitation of fund surplus	– 27	– 60		
Limitation on recognition of fund surplus at December 31 [4]	**– 60**	**– 2 167**		
Net asset/(liability) in the balance sheet at December 31	**1 033**	**– 1 270**	**– 311**	**– 369**

[1] Represents the benefit obligation, respectively the plan assets at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.

[2] The remeasurement (gains)/losses arising from changes in the financial assumptions is driven mainly by changes in the actuarial discount rates used to determine the benefit obligation.

[3] As at December 2024, the limitation on recognition of fund surplus (the asset ceiling) on pension plans in Switzerland that was recognized in 2023 was no longer required to be applied and therefore was reversed in 2024.

[4] In 2023, the most significant pension plans where the asset ceiling was required to be applied were in Switzerland and amounted to USD 2 112 million.

The reconciliation of the net liability from January 1 to December 31 is as follows:

	Pension plans		Other post-employment benefit plans	
(USD millions)	**2024**	2023	**2024**	2023
Net liability at January 1	**– 1 270**	**– 1 232**	**– 369**	**– 362**
Less: net liability related to discontinued operations [1]		149		26
Current service cost	– 259	– 260	– 9	– 9
Net interest expense	– 56	– 50	– 20	– 20
Administrative expenses	– 24	– 25		
Past service costs and settlements	– 25	– 63	– 12	
Remeasurements	273	– 895	60	– 33
Currency translation effects	– 22	11	13	– 4
Novartis contributions	381	408	26	33
Effect of acquisitions, divestments or transfers	1	– 53		
Change in limitation on recognition of fund surplus [2]	2 034	740		
Net asset/(liability) at December 31	**1 033**	**– 1 270**	**– 311**	**– 369**
Amounts recognized in the consolidated balance sheet				
Prepaid benefit cost	2 604	545		
Accrued benefit liability	– 1 571	– 1 815	– 311	– 369

[1] Represents the net liability at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.

[2] As at December 2024, the limitation on recognition of fund surplus (the asset ceiling) on pension plans in Switzerland that was recognized in 2023 was no longer required to be applied and therefore was reversed in 2024.

The following table shows a breakdown of the DBO for pension plans by geography and type of member, and the breakdown of plan assets into the geographical locations in which they are held:

	2024				2023			
(USD millions)	Switzerland	United States	Rest of the world	Total	Switzerland	United States	Rest of the world	Total
Benefit obligation at December 31	**12 843**	**2 374**	**2 558**	**17 775**	**13 453**	**2 574**	**3 010**	**19 037**
Thereof unfunded		*501*	*378*	*879*		*538*	*390*	*928*
By type of member								
Active	5 447	259	652	6 358	5 557	389	847	6 793
Deferred pensioners		743	824	1 567		770	912	1 682
Pensioners	7 396	1 372	1 082	9 850	7 896	1 415	1 251	10 562
Fair value of plan assets at December 31	**15 225**	**1 746**	**1 897**	**18 868**	**15 892**	**1 835**	**2 207**	**19 934**
Funded status	**2 382**	**– 628**	**– 661**	**1 093**	**2 439**	**– 739**	**– 803**	**897**

The following table shows a breakdown of the DBO for other post-employment benefit plans by geography and type of member, and the breakdown of plan assets into the geographical locations in which they are held:

	2024			2023		
(USD millions)	United States	Rest of the world	Total	United States	Rest of the world	Total
Benefit obligation at December 31	**314**	**78**	**392**	**356**	**84**	**440**
Thereof unfunded	*233*	*78*	*311*	*285*	*84*	*369*
By type of member						
Active	28	10	38	30	10	40
Deferred pensioners				1		1
Pensioners	286	68	354	325	74	399
Fair value of plan assets at December 31	**81**		**81**	**71**		**71**
Funded status	**– 233**	**– 78**	**– 311**	**– 285**	**– 84**	**– 369**

The following table shows the principal weighted average actuarial assumptions, for the major plans, used for calculating defined benefit plans and other post-employment benefits of employees:

	Pension plans			Other post-employment benefit plans		
	2024	2023	2022	**2024**	2023	2022
Weighted average assumptions used to determine benefit obligations at December 31						
Discount rate	1.9%	2.2%	3.0%	5.5%	5.5%	6.3%
Expected rate of pension increase	0.3%	0.3%	0.4%			
Expected rate of salary increase	2.6%	3.0%	2.9%			
Interest on savings account	2.0%	1.3%	2.2%			
Current average life expectancy for a 65-year-old male in years	22	22	22	21	21	21
Current average life expectancy for a 65-year-old female in years	24	24	24	23	23	23

Changes in the aforementioned actuarial assumptions can result in volatility in the accounting for the Company's pension plans in the consolidated financial statements. This can result in substantial changes in the Company's other comprehensive income, long-term liabilities and prepaid pension assets.

The DBO is significantly impacted by assumptions regarding the rate that is used to discount the actuarially determined post-employment benefit liability. This rate is based on yields of high-quality corporate bonds in the country of the plan. Decreasing corporate bond yields decrease the discount rate, so that the DBO increases and the funded status decreases.

The impact of decreasing interest rates on a plan's assets is more difficult to predict. A significant part of the plan assets is invested in bonds. Bond values usually rise when interest rates decrease and may therefore partially compensate for the decrease in the funded status. Furthermore, pension assets also include significant holdings of equity instruments. Share prices usually tend to rise when interest rates decrease and therefore often counteract the negative impact of the rising defined benefit obligation on the funded status (although the correlation of interest rates with equities is not as strong as with bonds, especially in the short term).

The expected rate for pension increases significantly affects the DBO of most plans in Switzerland, Germany and the United Kingdom. Such pension increases also decrease the funded status, although there is no strong correlation between the value of the plan assets and pension/inflation increases.

Assumptions regarding life expectancy significantly impact the DBO. An increase in longevity increases the DBO. There is no offsetting impact from the plan assets, as no longevity bonds or swaps are held by the pension funds. The Company's actuaries use mortality tables that take into account historic patterns and expected changes, such as further increases in longevity.

The mortality assumptions used for the pension plans in Switzerland were based on BVG 2020 tables with future improvements based on the Continuous Mortality Investigation ('CMI') model. For the pension and postretirement medical benefit plans in the US, the Society of Actuaries Pri-2012 mortality tables with generational improvements based on Scale MP-2021 are used.

The following table shows the sensitivity of the defined benefit pension obligation to the principal actuarial assumptions for the major plans in Switzerland, the United States, the United Kingdom and Germany on an aggregated basis (2023 additionally includes Japan):

(USD millions)	Change in 2024 year-end defined benefit pension obligation	Change in 2023 year-end defined benefit pension obligation
25 basis point increase in discount rate	– 484	– 528
25 basis point decrease in discount rate	511	557
One-year increase in life expectancy	611	644
25 basis point increase in rate of pension increase	329	366
25 basis point decrease in rate of pension increase	– 52	– 61
25 basis point increase of interest on savings account	43	43
25 basis point decrease of interest on savings account	– 41	– 42
25 basis point increase in rate of salary increase	41	41
25 basis point decrease in rate of salary increase	– 41	– 42

The healthcare cost trend rate assumptions used for other post-employment benefits are as follows:

	2024	2023	2022
Healthcare cost trend rate assumed for next year	6.5%	6.3%	6.5%
Rate to which the cost trend rate is assumed to decline	4.5%	4.5%	4.5%
Year that the rate reaches the ultimate trend rate	2033	2031	2031

The following table shows the fair value of plan asset allocation of funded defined benefit pension plans at December 31, 2024 and 2023 on an aggregated basis:

(USD millions)	**2024**	2023
Equity securities	5 052	4 931
Debt securities	6 309	6 730
Real estate	3 775	3 821
Alternative investments	3 167	3 360
Cash and other investments	565	1 092
Total	**18 868**	**19 934**

Cash and most of the equity and debt securities have a quoted market price in an active market. Real estate and alternative investments, which include hedge fund, private equity, infrastructure and commodity investments, usually have a quoted market price or a regularly updated net asset value.

The strategic allocation of assets of the different pension plans is determined, based upon the local requirements and the market and economic environment, with the objective of achieving an investment return that, together with the contributions paid by the Company and its employees, is sufficient to maintain reasonable control over the various funding risks of the respective pension plans. The asset allocation currently includes investments in shares of Novartis AG as per the below table:

	December 31, 2024	December 31, 2023
Investment in shares of Novartis AG		
Number of shares (in millions)	2.3	2.3
Market value (in USD billions)	0.2	0.2

The weighted average duration of the major plans defined benefit pension obligation is 12.0 years (2023: 12.3 years).

The Company's ordinary contribution to the various pension plans is based on the rules of each plan. Additional contributions are made whenever this is required by statute or law (i.e., usually when statutory funding levels fall below predetermined thresholds). The only significant plan that requires additional funding is in Germany.

The expected future cash flows over the upcoming 10 years in respect of pension and other post-employment benefit plans at December 31, 2024, were as follows:

(USD millions)	Pension plans	Other post-employment benefit plans
Company contributions		
2025 (estimated)	353	36
Expected future benefit payments		
2025	1 400	36
2026	1 316	36
2027	1 152	36
2028	1 122	35
2029	1 096	34
2030–2034	5 079	160

Defined contribution plans

In many subsidiaries, employees are covered by defined contribution plans. Contributions charged to the consolidated income statement for continuing operations for the defined contribution plans were:

(USD millions)	**2024**	2023	2022
Contributions for defined contribution plans continuing operations	556	477	483

The Company's total personnel costs for continuing operations amounted to USD 12.7 billion in 2024 (2023: USD 12.7 billion; 2022: USD 13.1 billion).

25. Equity-based participation plans for employees

The equity-based compensation expense from continuing operations related to all equity-based participation plans, and the liabilities arising from equity-based payment transactions were as follows:

(USD millions)	2024	2023	2022
Expense related to equity-based participation plans	1 307	1 142	982
Liabilities arising from equity-based payment transactions	262	322	235

Equity-based participation plans can be separated into the following plans:

Annual Incentive

In 2024, 30% of the Annual Incentive for the Novartis Company CEO and other Executive Committee members (ECN) was required to be deferred in Novartis shares, after the CEO and Executive Committee members (ECN) have met their mandatory shareholding requirements, and the remainder was paid in cash. If the mandatory shareholding requirements were not met, 50% was required to be deferred in Novartis shares and the remainder was paid in cash. In 2023 and 2022 the Annual Incentive for the Novartis Company CEO and other Executive Committee members (ECN) was paid 50% in cash and 50% in Novartis restricted shares (RSs) or restricted share units (RSUs). In 2024 the Annual Incentive for a select portion of the Novartis management leadership team is paid 100% in cash. In 2023 and 2022, for a select portion of the Novartis management leadership team, the Annual Incentive was paid 70% in cash and 30% in RSs or RSUs.

Both the ECN and a select portion of Novartis management leadership team can opt to invest up to the maximum cash portion of their Annual Incentive to receive further shares. From 2024 only a select portion of the Novartis management leadership team in Switzerland may invest its Annual Incentive in shares through the Employee Share Ownership Plan (ESOP). The cash portion of the Annual Incentive is paid out during March in the year following the end of the performance period, and the shares are granted during January in the year following the end of the performance period.

Employee share savings plan

Novartis operates employee share savings and purchase plans in certain countries. The most significant is described below.

The ESOP in Switzerland offers participants to choose to receive their Annual Incentive (i) 100% in shares, (ii) 50% in shares and 50% in cash, or (iii) 100% in cash. After the expiration of a three-year holding period for Novartis shares invested under the ESOP, participants receive one matching share for every two invested shares. Employees eligible for the equity plan "Select" and a select portion of the Novartis management leadership team are not eligible to receive ESOP matching shares. A select portion of Novartis management leadership team is eligible to invest the Annual Incentive in Novartis shares from 2024 onwards. The Novartis Company CEO and the other Executive Committee members are not eligible to participate in this plan.

Novartis Employee share purchase plan

In 2022 Novartis started to grant shares under the Employee Share Purchase Plan (ESPP). The ESPP enables employees to voluntarily purchase Novartis AG shares through payroll deductions at a 15% discounted price, up to a defined maximum amount. While the ESPP is global in scope, the first phase covered employees in North America (the US, Puerto Rico and Canada). Other countries' employees became eligible to participate in the ESPP commencing in 2024, according to a multi-year phased implementation plan. The shares are not subject to a vesting period.

Novartis equity plan "Select"

The equity plan "Select" is a global equity incentive plan under which eligible employees may annually be awarded an equity grant. In 2024, the equity grants awarded under the "Select" plan are subject to a three-year staggered vesting period. In 2023 and 2022, equity grants awarded under the Select plan were subject to a three-year cliff vesting period, and for eligible employees of selected Company units a four-year staggered vesting period. Executive Committee members and a select portion of Novartis management leadership team are not eligible to participate in the equity plan "Select."

The equity plan "Select" currently allows participants employed and living in Switzerland to choose the form of their equity compensation in RSs or RSUs. In all other jurisdictions, RSs or RSUs are granted unilaterally.

Until 2013, participants could also choose to receive part or the entire grant in the form of tradable share options. All tradable share options expired on their 10th anniversary from the grant date, which was in January 2023. As a result, at December 31, 2023, there were no outstanding options under the Novartis equity plan "Select."

Long-Term Performance Plan

The Long-Term Performance Plan (LTPP) is a global equity plan for the ECN, a select portion of Novartis management leadership team and up to 2023 employees of Company units with specific targets.

Participants are granted a target number of performance share units (PSUs) at the beginning of every performance period, which are converted into unrestricted Novartis shares after the performance period. The actual payout depends on the achievement of the performance

measures and ranges between 0% and 200% of the granted amount. PSUs granted under the LTPP do not carry voting rights, but do carry dividend equivalents that are paid in unrestricted Novartis shares at the end of the performance period.

The LTPP awards are subject to a three-year performance and vesting period. The performance criteria for the ECN are based on both Novartis internal performance metrics and variable that can be observed in the market, which is the ranking of the Novartis total shareholder return (TSR) relative to a global healthcare peer group of 14 other companies, over rolling three-year performance periods. Only ECN members, as from performance cycle 2023, are subject to the TSR performance metric under the LTPP.

TSR for Novartis and the peer companies is calculated as the change in the company share price, which is translated to USD at the relevant exchange rate, including the reinvestment return of dividends, over the three-year performance period. The calculation is based on Bloomberg standard published TSR data, which is publicly available. The position of Novartis in the peer group determines the payout range based on a payout matrix.

Other share awards

Selected employees may exceptionally receive Special Share Awards of RSs or RSUs. These Special Share Awards provide an opportunity to reward outstanding achievements or exceptional performance, and aim to retain key contributors. They are based on a formal internal selection process, through which the individual performance of each selected employee is assessed at several management levels. Special Share Awards had a minimum three-year vesting period before 2021 and mainly three years thereafter. In exceptional circumstances, Special Share Awards may be awarded to attract special expertise and new talents to the organization (not applicable to ECN). Externally recruited ECN members are eligible only for special awards that are "buyouts" in the case that it is to replace equity forfeited with their former employer. The equity is provided on a like-for-like basis as the forfeited equity, at a similar value with a similar vesting period, and with or without a performance condition.

Worldwide, employees at different levels in the organization were awarded RSs and RSUs in 2024, 2023 and 2022.

In addition, in 2024, 2023 and 2022, Board members received unrestricted shares as part of their regular compensation.

Summary of share grants

The table below provides a summary of share grants (shares, RSs, RSUs and PSUs) for all plans. At the Sandoz Distribution date, all RSU and PSU holders, who were not entitled to the dividend in kind in the form of Sandoz Group AG shares received "keep whole awards" in Novartis AG shares to compensate for the loss of the Sandoz value from their Novartis AG shares. These keep whole awards were accounted for as a modification, which did not significantly change the fair value of the original grant. The change in fair value was measured by comparing the fair value of the grant before the spin-off against the fair value of the grant plus keep whole award right after spin-off.

	2024		2023	
	Number of shares in millions	Weighted average fair value at grant date in USD	Number of shares in millions	Weighted average fair value at grant date in USD
Annual Incentive				
– RSU	0.2	96.7	0.3	74.2
– Restricted shares	0.1	107.8	0.1	92.3
Share savings plans				
– RSU	0.5	96.8	0.4	71.3
– Shares	1.3	107.8	1.0	92.3
Novartis Employee Share Purchase Plan [1]	1.0	104.9	0.9	96.2
Select North America (RSU)	3.4	100.1	4.5	73.9
Select outside North America				
– RSU	1.4	100.2	1.9	73.3
– Restricted shares	0.6	107.8	0.6	92.3
Long-Term Performance Plan (PSU)	1.1	98.6	1.8	80.6
Other share awards				
– RSU	0.4	96.8	0.6	75.9

[1] The Novartis Employee Share Purchase Plan (ESPP) enables employees to voluntarily purchase Novartis AG shares through payroll deductions at a 15% discount to the fair value of the Novartis AG share price at the respective ESPP grant dates. The weighted average fair value at grand date in USD in the table shows the weighted average Novartis AG share price at the respective ESPP grant dates during the year.

26. Transactions with related parties

Novartis Pension Fund

In 2018, a Company subsidiary provided an uncommitted overnight credit facility to the Novartis Pension Fund, Switzerland, for up to USD 500 million with interest at the US Federal Funds Rate. This credit facility was not utilized during the current and past years.

Executive Officers and Non-Executive Directors compensation

As at December 31, 2024, there were 11 Executive Committee members ("Executive Officers"). During 2024, no Executive Officer stepped down.

As at December 31, 2023, there were 11 Executive Officers. During 2023, 1 Executive Officer stepped down.

As at December 31, 2022, there were 11 Executive Officers. During 2022, 5 Executive Officers stepped down.

The total compensation for Executive Committee members and the 13 Non-Executive Directors (14 in 2023 and 15 in 2022) using the Company's accounting policies for equity-based compensation and pension benefits was as follows:

	Executive Officers			Non-Executive Directors			Total		
(USD millions)	**2024**	2023	2022	**2024**	2023	2022	**2024**	2023	2022
Cash and other compensation	19.0	18.0	25.0	4.9	4.9	4.6	23.9	22.9	29.6
Post-employment benefits	2.4	2.1	2.8				2.4	2.1	2.8
Equity-based compensation	61.9	62.2	42.6	5.4	5.0	4.8	67.3	67.2	47.4
Total	**83.3**	**82.3**	**70.4**	**10.3**	**9.9**	**9.4**	**93.6**	**92.2**	**79.8**

During 2024, there was a slight increase in the compensation expense for Executive Officers compared to 2023, mainly as a result of higher cash and other compensation paid for current Executive Officers.

During 2023, there was an increase in the IFRS Accounting Standards compensation expense for Executive Officers compared with 2022, primarily driven by higher equity-based compensation, mainly due to higher realized and expected payouts on the achievement of the defined performance criteria, partly offset by lower cash and other compensation, due to lower accelerated expenses from stepped down Executive Officers compared with 2022.

The Annual Incentive award, which is fully included in equity-based compensation even when paid out in cash, is granted in January in the year following the reporting period.

The disclosures on Board and executive compensation required by the Swiss Code of Obligations are shown in the Compensation Report of the Company.

27. Commitments and contingent liabilities

Research and development commitments

The Company has entered into long-term research and development agreements with various institutions related to intangible assets. These agreements provide for potential milestone payments by Novartis, which are dependent on successful clinical development, or meeting specified sales targets, or other conditions that are specified in the agreements.

As of December 31, 2024, the amount and estimated timing of the Company's commitments to make payments under those agreements, which are shown without risk adjustment and on an undiscounted basis, were as follows:

(USD millions)	2024
2025	135
2026	402
2027	739
2028	746
2029	653
Thereafter	8 123
Total	**10 798**

Commitments for capital calls

The Company holds investments in funds in which it has committed to invest further upon future capital calls. As at December 31, 2024, the total uncalled capital commitments for the Company's investments in funds amount to USD 63 million. Note 28 contains further information on the Company's investments in funds.

Other commitments

The Company has entered into various purchase commitments for services and materials as well as for equipment in the ordinary course of business. These commitments are generally entered into at current market prices and reflect normal business operations. For the disclosure of property, plant and equipment purchase commitments, see Note 9. The Company routinely acquires interests in intellectual property focused on key disease areas and indications that the Company expects to be growth drivers in the future. The Company has a commitment related to a long-term research and development agreement that was entered into in the fourth quarter in 2024 that closed on January 11, 2025 totaling USD 1.9 billion, of which USD 1.0 billion was paid on January 17, 2025.

Guarantees issued

The Company has issued guarantees to third parties in the ordinary course of business, including for tax, customs or other governmental agencies.

Contingent liabilities

Novartis companies have to observe the laws, government orders and regulations of the country in which they operate.

A number of Novartis companies are, and will likely continue to be, subject to various legal proceedings and investigations that arise from time to time, including proceedings pertaining to: pricing; bribery and corruption; trade regulation and embargo legislation; product liability; commercial disputes; employment and wrongful discharge; antitrust and competition; securities; government benefit programs; reimbursement; rebates; healthcare fraud; sales and marketing practices; insider trading; occupational health and safety; environmental regulations; tax; cyber and data security; use of technologies, including AI; data privacy; regulatory interactions; disclosure compliance; and intellectual property. As a result, the Company may become subject to substantial liabilities that may not be covered by insurance and that could affect our business, financial position and reputation. While Novartis does not believe that any of these legal proceedings will have a material adverse effect on its financial position, litigation is inherently unpredictable and large judgments sometimes occur. Consequently, we may in the future incur judgments that could involve large payments, including the potential repayment of amounts allegedly obtained improperly, and other penalties, including treble damages, any of which could have a material adverse effect on our results of operations or cash flow.

Governments and regulatory authorities around the world have been stepping up their compliance and law enforcement activities in recent years in key areas, including marketing practices, pricing, corruption, trade restrictions, embargo legislation, insider trading, antitrust, cyber security and data privacy. Furthermore, when a government or regulatory authority undertakes an investigation, it is not uncommon for other governments or regulators to undertake investigations regarding the same or similar matters. Responding to such investigations is costly and requires an increasing amount of management's time and attention. In addition, such investigations may affect our reputation, create a risk of potential exclusion from government reimbursement programs in the United States and other countries, and lead to (or arise from) litigation. These factors have contributed to decisions by Novartis and other companies in the healthcare industry, when deemed in their interest, to enter into settlement agreements with governmental authorities around the world prior to any formal decision by the authorities or a court. These government settlements have involved and may in the future involve large cash payments, sometimes in the hundreds of millions of dollars or more, including the potential repayment of amounts allegedly obtained improperly and other penalties, including treble damages. In addition, settlements of government healthcare fraud cases and antitrust cases often require companies to enter into corporate integrity agreements (or other similar types of agreements), which are intended to regulate company behavior for a period of years. Our affiliate Novartis Corporation is party to such an agreement, which will expire in 2025. In addition, matters underlying governmental investigations and settlements may be the subject of separate private litigation.

While provisions have been made for probable outflows of economic resources, which management deems to be reasonable or appropriate, there are uncertainties connected with these estimates.

Note 20 contains additional information on these matters.

A number of Novartis companies are involved in legal proceedings concerning intellectual property rights. The

inherent unpredictability of such proceedings means that there can be no assurances as to their ultimate outcome. A negative result in any such proceeding could potentially adversely affect the ability of certain Novartis companies to sell their products, or require the payment of substantial damages or royalties. The timing and the outcome of legal proceedings and their potential financial effect are not predictable.

In the opinion of management, however, the outcome of these actions will not materially affect the Company's financial position but could be material to the results of operations or cash flow in a given period.

The Company's potential environmental remediation liability is assessed based on a risk assessment and investigation of the various sites identified by the Company as at risk for environmental remediation exposure. The Company's future remediation expenses are affected by a number of uncertainties. These uncertainties include, but are not limited to, the method and extent of remediation, the percentage of material attributable to the Company at the remediation sites relative to that attributable to other parties, and the financial capabilities of the other potentially responsible parties.

Note 20 contains additional information on environmental liabilities.

28. Financial instruments – additional disclosures

The following tables show the carrying values of financial instruments by measurement category as at December 31, 2024 and 2023. Except for straight bonds (see Note 19), the carrying values are equal to, or a reasonable approximation of, the fair values.

		2024			
(USD millions)	Note	Financial instruments at amortized costs	Financial instruments at fair value through other comprehensive income	Financial instruments at fair value through the consolidated income statement	Other financial liabilities at amortized costs
Cash and cash equivalents	16	11 409	50		
Time deposits and short-term investments with original maturity more than 90 days	16	1 892			
Trade receivables	15	7 423			
Other receivables and current assets	17	1 286	42		
Long-term financial investments – equity securities	13		464	282	
Long-term financial investments – debt securities	13		27	26	
Long-term financial investments – fund investments	13			210	
Long-term loans, advances, security deposits and other long-term receivables	13	335			
Associated companies at fair value through profit and loss				109	
Derivative financial instruments	16			106	
Contingent consideration receivables	13/17			791	
Total financial assets		**22 345**	**583**	**1 524**	
Bank and other short-term financial debt	21	642			
Commercial paper	21	4 091			
Straight bonds	19	24 112			
Other bonds	19	523			
Other financial debt	19	87			
Trade payables		4 572			
Contingent consideration liabilities	20/22			808	
Derivative financial instruments	21			143	
Lease liabilities	10				1 803
Total financial liabilities		**34 027**		**951**	**1 803**

		2023			
(USD millions)	Note	Financial instruments at amortized costs	Financial instruments at fair value through other comprehensive income	Financial instruments at fair value through the consolidated income statement	Other financial liabilities at amortized costs
Cash and cash equivalents	16	13 343	50		
Time deposits and short-term investments with original maturity more than 90 days	16	569			
Trade receivables	15	7 107			
Other receivables and current assets	17	1 127	124	1	
Long-term financial investments – equity securities	13		1 086	317	
Long-term financial investments – debt securities	13		29		
Long-term financial investments – fund investments	13			190	
Long-term loans, advances, security deposits and other long-term receivables	13	432			
Associated companies at fair value through profit and loss				101	
Derivative financial instruments	16			355	
Contingent consideration receivables	13/17			618	
Total financial assets		**22 578**	**1 289**	**1 582**	
Bank and other short-term financial debt	21	624			
Commercial paper	21	3 269			
Straight bonds	19	20 585			
Other financial debt	19	42			
Trade payables		4 926			
Contingent consideration liabilities (see Note 20/22) and other financial liabilities				491	
Derivative financial instruments	21			91	
Lease liabilities	10				1 828
Total financial liabilities		**29 446**		**582**	**1 828**

Derivative financial instruments

The following tables show the contract or underlying principal amounts and fair values of derivative financial instruments analyzed by type of contract as at December 31, 2024 and 2023. Contract or underlying principal amounts indicate the gross volume of business outstanding at the consolidated balance sheet date and do not represent amounts at risk. The fair values are determined by reference to market prices or standard pricing models that use observable market inputs as at December 31, 2024 and 2023.

	Contract or underlying principal amounts		Positive fair values		Negative fair values	
(USD millions)	**2024**	2023	**2024**	2023	**2024**	2023
Forward foreign exchange rate contracts	10 194	11 944	81	335	– 143	– 91
Commodity purchase contracts	159	76	25	20		
Total derivative financial instruments included in marketable securities and in current financial debts	**10 353**	**12 020**	**106**	**355**	**– 143**	**– 91**

The following table shows a breakdown by currency of the contract or underlying principal amounts of derivative financial instruments as at December 31, 2024 and 2023:

	2024			
(USD millions)	EUR	USD	Other	Total
Forward foreign exchange rate contracts	1 024	1 717	7 453	10 194
Commodity purchase contracts	149	10		159
Total derivative financial instruments	**1 173**	**1 727**	**7 453**	**10 353**

	2023			
(USD millions)	EUR	USD	Other	Total
Forward foreign exchange rate contracts	1 629	8 980	1 335	11 944
Commodity purchase contracts	61	15		76
Total derivative financial instruments	**1 690**	**8 995**	**1 335**	**12 020**

Derivative financial instruments effective for hedge accounting purposes

At the end of 2024 and 2023, there were no open hedging instruments for anticipated transactions.

Fair value by hierarchy

As required by the IFRS Accounting Standards, financial assets and liabilities recorded at fair value in the consolidated financial statements are categorized based upon the level of judgment associated with the inputs used to measure their fair value. There are three hierarchical levels, based on increasing subjectivity associated with the inputs to derive fair valuation for these assets and liabilities, which are as follows:

The assets carried at Level 1 fair value are equity and debt securities as well as fund investments listed in active markets.

The assets generally included in the Level 2 fair value hierarchy are derivatives, and certain debt securities. The liabilities generally included in this fair value hierarchy consist of derivatives. These are valued using corroborated market data.

Level 3 inputs are unobservable for the asset or liability. The assets generally included in Level 3 fair value hierarchy are various investments in funds and unquoted equity security investments. Contingent consideration and other financial liabilities carried at fair value are included in this category.

	2024			
(USD millions)	Level 1	Level 2	Level 3	Total
Financial assets				
Cash and cash equivalents				
Debt securities [1]	50			50
Total cash and cash equivalents at fair value	**50**			**50**
Marketable securities				
Derivative financial instruments		106		106
Total marketable securities and derivative financial instruments at fair value		**106**		**106**
Equity securities current	**24**		**18**	**42**
Current contingent consideration receivables			**120**	**120**
Long-term financial investments				
Debt and equity securities	193	7	599	799
Fund investments	15		195	210
Non-current contingent consideration receivables			671	671
Total long-term financial investments at fair value	**208**	**7**	**1 465**	**1 680**
Associated companies at fair value through profit and loss			**109**	**109**
Financial liabilities				
Current contingent consideration liabilities			– 281	– 281
Derivative financial instruments		– 143		– 143
Total current financial liabilities at fair values		**– 143**	**– 281**	**– 424**
Non-current contingent consideration liabilities			– 527	– 527
Total non-current financial liabilities at fair value			**– 527**	**– 527**

[1] Includes short-term highly rated government-backed debt securities, with an original maturity of three months or less

	2023			
(USD millions)	Level 1	Level 2	Level 3	Total
Financial assets				
Cash and cash equivalents				
Debt securities [1]	50			50
Total cash and cash equivalents at fair value	**50**			**50**
Marketable securities				
Derivative financial instruments		355		355
Total marketable securities and derivative financial instruments at fair value		**355**		**355**
Fund investments and equity securities current	**94**		**31**	**125**
Current contingent consideration receivables			**65**	**65**
Long-term financial investments				
Debt and equity securities	796	20	616	1 432
Fund investments	7		183	190
Non-current contingent consideration receivables			553	553
Total long-term financial investments at fair value	**803**	**20**	**1 352**	**2 175**
Associated companies at fair value through profit and loss			**101**	**101**
Financial liabilities				
Contingent consideration liabilities			– 14	– 14
Other financial liabilities current			– 88	– 88
Derivative financial instruments		– 91		– 91
Total current financial liabilities at fair value		**– 91**	**– 102**	**– 193**
Non-current contingent consideration liabilities			– 389	– 389
Total non-current financial liabilities at fair value			**– 389**	**– 389**

[1] Includes short-term highly rated government-backed debt securities, with an original maturity of three months or less

The change in carrying values associated with Level 3 financial instruments, using significant unobservable inputs during the year ended December 31, is set forth below:

	2024					
(USD millions)	Associated companies at fair value through profit and loss	Fund investments	Debt and equity securities	Contingent consideration receivables	Contingent consideration liabilities	Other financial liabilities
January 1	**101**	**184**	**647**	**618**	**– 403**	**– 88**
Fair value gains and other adjustments, including from divestments recognized in the consolidated income statement	24	38	22	236	41	
Fair value losses (including impairments and amortizations) and other adjustments recognized in the consolidated income statement	– 12	– 14	– 110		– 100	
Fair value adjustments recognized in the consolidated statement of comprehensive income, including currency translation effects	– 2	– 2	– 9	– 39	7	
Purchases	16	12	130	53	– 376	
Cash receipts and payments				– 77	23	88
Disposals	– 18	– 21	– 44			
Reclassification		– 2	– 19			
December 31	**109**	**195**	**617**	**791**	**– 808**	
Total of fair value gains and losses recognized in the consolidated income statement for assets and liabilities held at December 31, 2024	12	24	– 88	236	– 59	

	2023					
(USD millions)	Associated companies at fair value through profit and loss	Fund investments	Debt and equity securities	Contingent consideration receivables	Contingent consideration liabilities	Other financial liabilities
January 1	**129**	**261**	**699**	**650**	**– 835**	**– 232**
Impact from discontinued operations [1]					101	
Fair value gains and other adjustments, including from divestments recognized in the consolidated income statement	4	1	11	48	552	
Fair value losses (including impairments and amortizations) and other adjustments recognized in the consolidated income statement	– 28	– 48	– 63	– 31	– 65	– 9
Fair value adjustments recognized in the consolidated statement of comprehensive income, including currency translation effects	2	3	71		– 32	
Purchases	9	14	82		– 180	
Cash receipts and payments				– 49	20	153
Disposals	– 6	– 47	– 80		36	
Reclassification	– 9		– 73			
December 31	**101**	**184**	**647**	**618**	**– 403**	**– 88**
Total of fair value gains and losses recognized in the consolidated income statement for assets and liabilities held at December 31, 2023	– 24	– 47	– 52	17	487	– 9

[1] Represents the carrying values associated with Level 3 financial instruments at January 1, 2023, related to the Sandoz business reported as discontinued operations. Notes 1, 2 and 29 provide disclosures related to discontinued operations.

During 2024, there were two transfers of equity securities from Level 3 to Level 1 for USD 19 million (2023: USD 63 million), due to the Initial Public Offering of the invested company or lift of certain restrictions.

Realized gains and losses associated with Level 3 long-term financial investments measured at fair value through the consolidated income statement are recorded in the consolidated income statement under "Other income" or "Other expense," respectively. Realized gains and losses associated with Level 3 long-term financial investments measured at fair value through other comprehensive income are not recycled through the consolidated income statement but are instead reclassified to retained earnings.

During the year, the net gain and net loss recorded on associated companies, fund investments and long-term financial investments at fair value through profit and loss were USD 91 million and USD 136 million, respectively.

To determine the fair value of a contingent consideration, various unobservable inputs are used. A change in these inputs might result in a significantly higher or lower fair value measurement. The inputs used are, among others, the probability of success, sales forecast, assumptions regarding the discount rate and timing, and different scenarios of triggering events. The inputs are interrelated. The significance and usage of these inputs to each contingent consideration may vary due to differences in the timing and triggering events for payments or in the nature of the asset related to the contingent consideration.

If the most significant parameters for the Level 3 input were to change by 10% positively or negatively, or where the probability of success (POS) is the most significant input parameter, 10% were added or deducted from the applied probability of success, for contingent consideration payables and contingent consideration receivables, this would change the amounts recorded in the 2024 consolidated income statement by USD 141 million and USD 135 million, respectively.

Equity securities measured at fair value through other comprehensive income

Equity securities held as strategic investments, typically held outside the Novartis Venture Fund, are generally designated at date of acquisition as financial assets valued at fair value through other comprehensive income with no subsequent recycling through profit and loss. Except for the investment in Sandoz Group AG with a fair value of USD 595 million as at December 31, 2023, these are made up of individually non-significant investments. In 2024, the consolidated foundations' investments in Sandoz Group AG shares were fully sold, and the USD 169 million gain on disposal was transferred from other comprehensive income to retained earnings. As at December 31, 2024, the Company holds 52 non-listed equity securities (December 31, 2023: 61) and 16 listed equity securities (December 31, 2023: 28) in this category with the following fair values:

(USD millions)	**2024**	2023
Listed equity securities	185	861
Non-listed equity securities	321	349
Total equity securities	**506**	**1 210**

During 2024 and 2023, dividends received from these equity securities were insignificant. In 2024, equity securities that were no longer considered strategic, with a fair value of USD 95 million (2023: USD 279 million), were sold, and the USD 70 million loss on disposal net of taxes (2023: USD 1 million gain) was transferred from other

comprehensive income to retained earnings. In total, including the disposal of the Sandoz Group AG shares, a USD 81 million gain, net of taxes, was transferred from other comprehensive income to retained earnings (see Note 8).

Nature and extent of risks arising from financial instruments

Market risk

Market risk in general comprises currency risk, interest rate risk and price risk, such as commodity and equity prices. Novartis is exposed to market risk, primarily related to foreign currency exchange rates, interest rates and the market value of investments. The Company actively monitors and seeks to reduce, where it deems it appropriate to do so, fluctuations in these exposures. It is the Company's policy and practice to enter into a variety of derivative financial instruments to manage the volatility of these exposures. It does not enter into any financial transactions containing a risk that cannot be quantified at the time the transaction is concluded. In addition, it does not sell short assets it does not have, or does not know it will have, in the future. The Company only sells existing assets or enters into transactions and future transactions (in the case of anticipatory hedges) that it confidently expects it will have in the future, based on past experience.

Foreign currency exchange rate risk

The Company uses the US dollar as its reporting currency. As a result, the Company is exposed to foreign currency exchange movements, primarily in European, Japanese and emerging market currencies. Fluctuations in the exchange rates between the US dollar and other currencies can have a significant effect on both the Company's results of operations, including reported sales and earnings, as well as on the reported value of our assets, liabilities and cash flows. This, in turn, may significantly affect the comparability of period-to-period results of operations.

Because our expenditures in Swiss francs are significantly higher than our revenues in Swiss francs, volatility in the value of the Swiss franc can have a significant impact on the reported value of our earnings, assets and liabilities, and the timing and extent of such volatility can be difficult to predict.

There is also a risk that certain countries could experience a devaluation of their currency. If this occurs, it could impact the effective prices we would be able to charge for our products and also have an adverse impact on both our consolidated income statement and balance sheet.

Subsidiaries whose functional currencies have experienced a cumulative inflation rate of more than 100% over the past three years apply the principles of IAS Standards 29 "Financial reporting in Hyperinflationary Economies." The hyperinflationary economies in which Novartis operates are Argentina, Venezuela and Turkey. Venezuela and Argentina were hyperinflationary for all periods presented, and Turkey became hyperinflationary effective May 1, 2022, requiring retroactive implementation of hyperinflation accounting as of January 1, 2022. The impacts of applying IAS Standards 29 are recorded in "Other financial income and expense" and are presented separately in Note 5 – Other financial income and expense.

The Company manages its global currency exposure by engaging in hedging transactions where management deems appropriate. Novartis may enter into various contracts that reflect the changes in the value of foreign currency exchange rates to preserve the value of assets, commitments and anticipated transactions. Novartis also uses forward contracts and may enter into foreign currency option contracts to hedge.

Net investments in subsidiaries in foreign countries are long-term investments. Their fair value changes through movements of foreign currency exchange rates. The Company has designated a certain portion of its long-term euro-denominated straight bonds, maturing in 2028, as hedges of the translation risk arising on certain of these net investments in foreign operations with euro functional currency. As of December 31, 2024, long-term financial debt with a carrying amount of EUR 1.8 billion (USD 1.9 billion; December 31, 2023: USD 2.0 billion), has been designated as a hedge instrument. During 2024, USD 91 million of net of taxes unrealized gains (2023: USD 50 million losses) was recognized in other comprehensive income and accumulated in currency translation effects in relation with this net investment hedge. The hedge remained effective since inception, and no amount was recognized in the consolidated income statement in 2024 and 2022. In 2023, USD 8 million of accumulated net investment hedge reserve was recognized in the consolidated income statement at the time of the Sandoz spin-off.

Commodity price risk

The Company has only a very limited exposure to price risk related to anticipated purchases of certain commodities used as raw materials by the Company's businesses. A change in those prices may alter the gross margin of a specific business, but generally by not more than 10% of the margin and thus below the Company's risk management tolerance levels. Accordingly, the Company does not enter into significant commodity futures, forward or option contracts to manage fluctuations in prices of anticipated purchases.

Interest rate risk

The Company addresses its net exposure to interest rate risk mainly through the ratio of its fixed-rate financial debt to variable-rate financial debt contained in its total financial debt portfolio. To manage this mix, Novartis may enter into interest rate swap agreements, in which it exchanges periodic payments based on a notional amount and agreed-upon fixed and variable interest rates.

Equity risk

The Company may purchase equities as investments of its liquid funds. As a policy, it limits its holdings in an unrelated company to less than 5% of its liquid funds. Potential investments are thoroughly analyzed. Call options are written on equities that the Company owns, and put options are written on equities that the Company wants to buy and for which cash is available.

Credit risk

Credit risks arise from the possibility that customers may not be able to settle their obligations as agreed. To manage this risk, the Company periodically assesses country and customer credit risk, assigns individual credit limits, and takes actions to mitigate credit risk where appropriate (for example payment guarantees, credit insurance and factoring).

The provisions for expected credit losses for customers are based on a forward-looking expected credit loss, which includes possible default events on the trade receivables over the entire holding period of the trade receivables.

In measuring the expected credit losses, trade receivables are grouped based on shared credit risk characteristics (such as private versus public receivables) and days past due. In determining the expected credit loss rates, the Company considers current and forward-looking macroeconomic factors that may affect the ability of customers to settle the receivables, and historical loss rates for each category of customers.

The Company's largest customer accounted for approximately 17% of net sales to third parties from continuing operations, and the second largest and third largest customers accounted for 13% and 7% of net sales to third parties from continuing operations, respectively (2023: 15%, 13% and 8%, respectively; 2022: 16%, 12% and 8%, respectively).

The highest amounts of trade receivables outstanding were for these same three customers and amounted to 19%, 12% and 7%, respectively, of the Company's trade receivables as at December 31, 2024 (2023: 17%, 13% and 8%, respectively). There is no other significant concentration of customer credit risk.

Counterparty risk

Counterparty risk encompasses issuer risk on marketable securities and money market instruments; credit risk on cash, time deposits and derivatives; as well as settlement risk for different instruments. Issuer risk is reduced by only buying securities that are at least A- rated. Counterparty credit risk and settlement risk are reduced by a policy of entering into transactions with counterparties (banks or financial institutions) that feature a strong credit rating. Exposure to these risks is closely monitored and kept within predetermined parameters. The limits are regularly assessed and determined based upon credit analysis, including financial statement and capital adequacy ratio reviews. In addition, reverse repurchasing agreements are contracted, and Novartis has entered into credit support agreements with various banks for derivative transactions. To further reduce the settlement risk, the Company has implemented a multi-currency payment system, Continuous Linked Settlement (CLS), which provides multilateral netting (payment-versus-payment settlement) of cash flows from foreign exchange transactions.

The Company's cash and cash equivalents are held with major regulated financial institutions, the three largest of which hold approximately 9.6%, 7.9% and 7.7%, respectively (2023: 8.3%, 7.5% and 7.4%, respectively).

The Company does not expect any losses from non-performance by these counterparties and does not have any significant grouping of exposures to financial sector or country risk.

Liquidity risk

Liquidity risk is defined as the risk that the Company could not be able to settle or meet its obligations associated with financial liabilities that are settled by delivering cash or another financial asset. Novartis Treasury is responsible for liquidity, funding and settlement management. In addition, liquidity and funding risks, and related processes and policies, are overseen by management. Novartis manages its liquidity risk on a consolidated basis according to business needs and tax, capital or regulatory considerations, if applicable, through numerous sources of financing in order to maintain flexibility.

Certain countries have legal or economic restrictions on the ability of subsidiaries to transfer funds to the Company in the form of cash dividends, loans or advances, but these restrictions do not have an impact on the ability of the Company to meet its cash obligations.

Management monitors the Company's net debt or liquidity position through rolling forecasts on the basis of expected cash flows.

Novartis has a US commercial paper program under which it can issue up to USD 9.0 billion in the aggregate of unsecured commercial paper notes. Under this program, commercial paper notes totaling USD 3.5 billion were outstanding as per December 31, 2024, (2023: USD 3.0 billion) with a weighted average interest rate of 4.5% (2023: 5.4%). Novartis also has a Japanese commercial paper program under which it can issue up to JPY 150 billion (approximately USD 1.0 billion) of unsecured commercial paper notes. Under this program, commercial paper notes totaling USD 0.6 billion were outstanding as per December 31, 2024 (2023: USD 0.3 billion) with a weighted average interest rate of 0.5% (2023: 0.1%). Novartis further has a committed credit facility of USD 6.0 billion. In May 2024, Novartis replaced its existing USD 6.0 billion credit facility with a syndicate of banks (which was undrawn at its replacement date and December 31, 2023, and had a maturity date of September 2025) with a new USD 6.0 billion credit facility with a syndicate of banks. This credit facility is intended to be used as a backstop for the US commercial paper program. This facility matures in May 2029, and was undrawn as at December 31, 2024.

The following table sets forth how management monitors net debt or liquidity based on details of the remaining contractual maturities of selected financial assets and liabilities as at December 31, 2024, and December 31, 2023:

	2024					
(USD millions)	Due within one month	Due later than one month but less than three months	Due later than three months but less than one year	Due later than one year but less than five years	Due after five years	Total
Current assets						
Marketable securities, time deposits and short-term investments with original maturity more than 90 days and accrued interest		1 858	34			1 892
Derivative financial instruments	37	38	7		24	106
Cash and cash equivalents	7 918	3 541				11 459
Total current financial assets	**7 955**	**5 437**	**41**		**24**	**13 457**
Non-current liabilities						
Financial debt				– 8 484	– 12 882	– 21 366
Financial debt – undiscounted				*– 8 505*	*– 13 010*	*– 21 515*
Total non-current financial debt				**– 8 484**	**– 12 882**	**– 21 366**
Current liabilities						
Financial debt	– 3 963	– 1 620	– 2 506			– 8 089
Financial debt – undiscounted	*– 3 963*	*– 1 620*	*– 2 508*			*– 8 091*
Derivative financial instruments	– 14	– 129				– 143
Total current financial debt	**– 3 977**	**– 1 749**	**– 2 506**			**– 8 232**
Net debt	**3 978**	**3 688**	**– 2 465**	**– 8 484**	**– 12 858**	**– 16 141**

	2023					
(USD millions)	Due within one month	Due later than one month but less than three months	Due later than three months but less than one year	Due later than one year but less than five years	Due after five years	Total
Current assets						
Marketable securities, time deposits and short-term investments with original maturity more than 90 days and accrued interest	12	516	41			569
Commodities					111	111
Derivative financial instruments	24	310	1		20	355
Cash and cash equivalents	7 641	5 752				13 393
Total current financial assets	**7 677**	**6 578**	**42**		**131**	**14 428**
Non-current liabilities						
Financial debt				– 9 492	– 8 944	– 18 436
Financial debt – undiscounted				*– 9 522*	*– 9 050*	*– 18 572*
Total non-current financial debt				**– 9 492**	**– 8 944**	**– 18 436**
Current liabilities						
Financial debt	– 3 328	– 372	– 2 384			– 6 084
Financial debt – undiscounted	*– 3 328*	*– 372*	*– 2 384*			*– 6 084*
Derivative financial instruments	– 43	– 39	– 9			– 91
Total current financial debt	**– 3 371**	**– 411**	**– 2 393**			**– 6 175**
Net debt	**4 306**	**6 167**	**– 2 351**	**– 9 492**	**– 8 813**	**– 10 183**

The carrying amounts of financial liabilities included in the above analysis are not materially different to the contractual amounts due on maturity. The positive and negative fair values on derivative financial instruments represent the net contractual amounts to be exchanged at maturity.

The Company's contractual undiscounted potential cash flows from derivative financial instruments to be settled on a gross basis are as follows:

	2024			
(USD millions)	Due within one month	Due later than one month but less than three months	Due later than three months but less than one year	Total
Derivative financial instruments and accrued interest on derivative financial instruments				
Potential outflows in various currencies – from financial derivative liabilities	– 3 421	– 6 075	– 475	– 9 971
Potential inflows in various currencies – from financial derivative assets	3 443	5 948	640	10 031

	2023			
(USD millions)	Due within one month	Due later than one month but less than three months	Due later than three months but less than one year	Total
Derivative financial instruments and accrued interest on derivative financial instruments				
Potential outflows in various currencies – from financial derivative liabilities	– 4 329	– 6 604	– 556	– 11 489
Potential inflows in various currencies – from financial derivative assets	4 311	6 841	623	11 775

Other contractual liabilities that are not part of management's monitoring of the net debt or liquidity consist of the following items:

	2024				
(USD millions)	Due within three months	Due later than three months but less than one year	Due later than one year but less than five years	Due after five years	Total
Contractual interest on non-current financial debt, including current portion	– 141	– 442	– 1 884	– 4 603	– 7 070
Lease liabilities [1]	– 65	– 170	– 574	– 994	– 1 803
Trade payables	– 4 432	– 140			– 4 572
Contingent consideration liabilities	– 17	– 264	– 395	– 132	– 808

[1] Note 10 provides additional disclosures related to lease liabilities.

	2023				
(USD millions)	Due within three months	Due later than three months but less than one year	Due later than one year but less than five years	Due after five years	Total
Contractual interest on non-current financial debt, including current portion	– 64	– 372	– 1 258	– 3 376	– 5 070
Lease liabilities [1]	– 65	– 165	– 635	– 963	– 1 828
Trade payables	– 4 793	– 133			– 4 926
Contingent consideration liabilities		– 14	– 205	– 184	– 403

[1] Note 10 provides additional disclosures related to lease liabilities.

Capital risk management

Novartis strives to maintain a strong credit rating. In managing its capital, Novartis focuses on maintaining a strong balance sheet. As at December 31, 2024, Moody's Ratings rated the Company Aa3 for long-term maturities and P-1 for short-term maturities, and S&P Global Ratings rated the Company AA- for long-term maturities and A-1+ for short-term maturities.

Sensitivity analysis

The Company uses sensitivity analysis disclosures to provide quantitative information about market risks to which it is exposed.

The sensitivity analysis disclosures are in line with the Company's financial risk management policy, and are based on a one-parameter risk model that considers a one-factor linear relationship between risk factors and exposures. They consider aggregated risk exposures arising from the most significant risk factors (currency risk, interest rate risk and equity price risk) and include

all financial assets and financial liabilities as set forth in the table on page F-61.

The disclosures below illustrate the potential impact on the Company's consolidated financial statements as a result of hypothetical market movements in foreign currency exchange rates, interest rates and equity prices. The range of variables chosen reflects management's view of changes that are reasonably possible over a one-year period.

Foreign currency exchange rate sensitivity

The Company uses the US dollar as its reporting currency. As a result, the Company is exposed to foreign currency exchange movements, primarily in European, Japanese and emerging market currencies, as well as in the Swiss franc. A strengthening (weakening) of the US dollar against these currencies as at December 31, 2024 and 2023 would have affected the measurement of financial instruments denominated in these foreign currencies. This analysis assumes that all other variables, in particular interest rates, remain constant. A hypothetical 5% increase or decrease in the foreign currency exchange rates against the US dollar would have impacted the Company's consolidated income statement as presented below:

(USD millions)	**2024**	2023
5% increase in foreign currency exchange rates against USD	– 8	3
5% decrease in foreign currency exchange rates against USD	9	– 3

As of December 31, 2024, the Company designated EUR 1.8 billion (December 31, 2023: EUR 1.8 billion) of its long-term euro-denominated straight bonds as hedges of the translation risk arising on certain net investments in foreign operations with euro functional currency. This analysis assumes that all other variables, in particular interest rates, remain constant. A hypothetical 5% increase, or decrease, in the foreign currency exchange rates against the US dollar, without considering the translation effect of these net investments, would have impacted the Company's consolidated equity as presented below:

(USD millions)	**2024**	2023
5% increase in foreign currency exchange rates against USD	91	97
5% decrease in foreign currency exchange rates against USD	– 96	– 102

Interest rate sensitivity

Our portfolio of fixed-income instruments as at December 31, 2024, was mainly composed of time deposits and debt securities.

Novartis uses duration models to approximate the possible change in the value of fixed-income instruments. Based on these models, management believes that a 100-basis point change in interest is deemed a reasonable possible change over a one-year period.

Based on exposures in 2024 and 2023, a hypothetical 100-basis point increase (decrease) in interest rates would not have resulted in a significant increase (decrease) in the fair values of the fixed-income instruments nor in a significant increase (decrease) of cash flows attributable to such instruments.

The vast majority of our outstanding financial debts are straight bonds with fixed interest rates and are therefore not affected by movements in interest rates.

Equity price sensitivity

Fund investments and equity securities held by the Novartis Venture Fund are valued at fair value through profit and loss. Equity securities held as strategic investments, typically held outside the Novartis Venture Fund, are generally designated at date of acquisition as financial assets valued at fair value through other comprehensive income with no subsequent recycling through profit and loss.

The fair value of these fund investments and equity securities was USD 1.1 billion as at December 31, 2024 (December 31, 2023: USD 1.8 billion). The fair values of these investments are impacted by the volatility of the stock market, valuation parameters applied (for non-listed equities classified in Level 3 of the fair value hierarchy) and changes in general economic factors. This analysis assumes that all other variables, in particular interest rates, remain constant. A hypothetical increase or decrease of 15% in the risk factors would have impacted the Company's consolidated income statement as presented below:

(USD millions)	**2024**	2023
15% increase in equity prices	90	91
15% decrease in equity prices	– 90	– 91

A hypothetical increase or decrease of 15% in the risk factors would have impacted the Company's consolidated equity as presented below:

(USD millions)	**2024**	2023
15% increase in equity prices	70	182
15% decrease in equity prices	– 70	– 182

29. Discontinued operations

Discontinued operations include the operational results from the Sandoz generic pharmaceuticals and biosimilars division and certain corporate activities attributable to the Sandoz business, as well as certain other expenses related to the spin-off. Also included in 2023 is the IFRS Accounting Standards non-cash, non-taxable net gain on the distribution of Sandoz Group AG to Novartis AG shareholders (refer to Notes 1 and 2 for further details).

The Sandoz business operated in the off-patent medicines segment and specialized in the development, manufacturing, and marketing of generic pharmaceuticals and biosimilars. The Sandoz business was organized globally into two franchises: Generics and Biosimilars.

Net income from discontinued operations

(USD millions)	2023[1]	2022
Net sales to third parties from discontinued operations	**7 128**	**9 160**
Sales to continuing segments	300	212
Net sales from discontinued operations	**7 428**	**9 372**
Other revenues	19	28
Cost of goods sold	– 4 044	– 4 937
Gross profit from discontinued operations	**3 403**	**4 463**
Selling, general and administration	– 1 728	– 2 060
Research and development	– 671	– 824
Other income	56	109
Other expense	– 795	– 437
Operating income from discontinued operations	**265**	**1 251**
Income from associated companies	2	2
Interest expense	– 33	– 37
Other financial income and expense	– 20	– 22
Income before taxes from discontinued operations	**214**	**1 194**
Income taxes[2]	208	– 288
Net income from discontinued operations before gain on distribution of Sandoz Group AG to Novartis AG shareholders	**422**	**906**
Gain on distribution of Sandoz Group AG to Novartis AG shareholders[3]	5 860	
Net income from discontinued operations	**6 282**	**906**

[1] The net income from discontinued operations for 2023 is for the period from January 1, 2023, to the October 3, 2023, Distribution date.

[2] The tax rate in 2023 was impacted by non-recurring items such as tax benefits arising from intercompany transactions to effect the spin-off of the Sandoz business, net decreases in uncertain tax positions of the Sandoz business and the favorable settlement of a tax matter related to the Alcon business, which was spun-off in 2019. Excluding these impacts, the tax rate would have been 31.2% in 2023, compared with 24.1% % in 2022. The tax rate in 2023 is higher than 2022 primarily due to a change in profit mix between years.

[3] See Note 2 for further details on the non-taxable, non-cash gain on distribution of Sandoz Group AG to Novartis AG shareholders.

Net assets derecognized

The following table presents the Sandoz business net assets derecognized as at October 3, 2023 Distribution (spin-off) date:

(USD millions)	Oct 3, 2023
Property, plant and equipment	1 447
Right-of-use assets	133
Goodwill	7 424
Intangible assets other than goodwill	1 481
Deferred tax assets	624
Financial assets, investments in associated companies and other non-current assets	142
Inventories	2 565
Trade receivables and other current assets	2 935
Cash and cash equivalents	686
Deferred tax liabilities	– 270
Current and non-current lease liabilities	– 139
Current and non-current financial debts	– 3 691
Trade payables, provisions, current income tax liabilities and other liabilities	– 4 690
Net assets derecognized	**8 647**

Supplemental disclosures related to discontinued operations

Revenue

In addition to the elements of variable consideration listed in the revenue accounting policy described in Note 1, the Sandoz business granted shelf stock adjustments to customers to cover the inventory held by them at the time a price decline becomes effective. Revenue deduction provisions for shelf stock adjustments were recorded when the price decline was anticipated, based on the impact of the price decline on the customer's estimated inventory levels.

Net income from discontinued operations

Included in net income from discontinued operations are:

(USD millions)	2023[1]	2022
Interest income	2	2
Depreciation of property, plant and equipment	– 144	– 196
Depreciation of right-of-use assets	– 32	– 33
Amortization of intangible assets	– 171	– 222
Impairment charges on property, plant and equipment	– 5	– 3
Impairment charges on right-of-use assets	– 8	
Impairment charges on intangible assets	– 44	– 25
Impairment reversals of property, plant and equipment	1	3
Additions to restructuring provisions	– 27	– 40
Equity-based compensation expense related to Novartis equity-based participation plans	– 60	– 66

[1] 2023 amounts are for the period from January 1, 2023, to the October 3, 2023, Distribution date.

In 2023 and 2022 there were no reversals of impairment charges on right-of-use assets or on intangible assets of discontinued operations.

Balance sheet

The following table shows for discontinued operations the additions to property, plant and equipment, right-of-use assets and to goodwill and intangible assets:

(USD millions)	2023[1]
Additions to property, plant and equipment	245
Additions to right-of-use assets	66
Additions to goodwill and intangible assets	221

[1] The additions for 2023 are for the period from January 1, 2023, to the October 3, 2023, Distribution date.

Financial debt

The Sandoz business entered into financing agreements with a group of banks under which it borrowed on September 28, 2023 a total amount of USD 3.3 billion. See Note 2 for further disclosures.

Net cash flows used in investing activities from discontinued operations

Net cash flows used in investing activities from discontinued operations include the investing activities of the Sandoz business. In 2023, other cash flows used in investing activities, net includes cash outflows of USD 22 million (2022: USD 39 million) for the acquisitions and divestments of business, net.

(USD millions)	2023	2022
Payments out of provision for transaction cost attributable to the spin-off of the Sandoz business	– 52	
Derecognized cash and cash equivalents attributable to the spin-off of the Sandoz business	– 686	
Other cash flows used in investing activities, net	– 385	– 436
Net cash flows used in investing activities from discontinued operations	**– 1 123**	**– 436**

Net cash flows from financing activities from discontinued operations

In 2023, the net cash inflows from financing activities from discontinued operations of USD 3.3 billion (2022: USD 119 million) were mainly driven by USD 3.6 billion cash inflows from bank borrowings (including the USD 3.3 billion Sandoz business borrowings from a group of banks on September 28, 2023) in connection with the Distribution (spin-off) of the Sandoz business to Novartis AG shareholders, partly offset by transaction cost payments of USD 0.2 billion (2022: nil) directly attributable to the Distribution (spin-off) of the Sandoz business (see Notes 1 and 2).

For additional information related to the October 3, 2023 Distribution (spin-off) of the Sandoz business to Novartis AG shareholders, effected through a dividend in kind distribution of Sandoz Group AG shares to Novartis AG shareholders and ADR holders, refer to Note 1 and Note 2.

30. Events subsequent to the December 31, 2024, consolidated balance sheet date

Dividend proposal for 2024 and approval of Novartis 2024 consolidated financial statements
On January 30, 2025, the Novartis AG Board of Directors proposed the acceptance of the 2024 consolidated financial statements of Novartis for approval by the Annual General Meeting on March 7, 2025. Furthermore, also on January 30, 2025, the Board proposed a dividend of CHF 3.50 per share to be approved at the Annual General Meeting on March 7, 2025. If approved, the total dividend payments would amount to approximately USD 7.6 billion (2023: USD 7.6 billion), using the CHF/USD December 31, 2024, exchange rate.

Significant transaction closed in January 2025
In the fourth quarter of 2024, Novartis entered into a long-term research and development agreement which closed on January 11, 2025. For additional information see Note 27.

31. Novartis principal subsidiaries and associated companies

The following table lists the principal subsidiaries controlled by Novartis, associated companies in which Novartis is deemed to have significant influence, and foundations required to be consolidated under IFRS Accounting Standards. It includes Novartis AG direct subsidiaries and its indirect subsidiaries, associated companies and consolidated foundations with total assets or net sales to third parties from continuing operations in excess of USD 25 million. The equity interest percentage shown in the table also represents the share in voting rights in those entities.

As at December 31, 2024		Share capital[1]	Equity interest
Argentina			
Novartis Argentina S.A., Ciudad de Buenos Aires	ARS	906.1 m	100%
Australia			
Novartis Australia Pty Ltd, Macquarie Park, NSW	AUD	2	100%
Novartis Pharmaceuticals Australia Pty Ltd, Macquarie Park, NSW	AUD	3.8 m	100%
Austria			
Novartis Holding GmbH, Vienna[5]	EUR	35 000	100%
Novartis Pharmaceutical Manufacturing GmbH, Langkampfen	EUR	763 070	100%
Novartis Pharma GmbH, Vienna	EUR	1.1 m	100%
Bangladesh			
Novartis (Bangladesh) Limited, Gazipur[5]	BDT	162.5 m	60%
Belgium			
Novartis Pharma NV, Vilvoorde	EUR	7.1 m	100%
Novartis Manufacturing NV, Puurs-Sint-Amands[5]	EUR	110.6 m	100%
Bermuda			
Novartis Investment Ltd., Hamilton[2]	USD	12 000	100%
Triangle International Reinsurance Limited, Hamilton	CHF	1.0 m	100%
Trinity River Insurance Co Ltd., Hamilton[5]	USD	370 000	100%
Brazil			
Novartis Biociências S.A., São Paulo	BRL	507.1 m	100%
Canada			
Novartis Pharmaceuticals Canada Inc., Montreal, Quebec	CAD	420 717	100%
Chile			
Novartis Chile S.A., Santiago de Chile[5]	CLP	2.0 bn	100%
China			
Beijing Novartis Pharma Co., Ltd., Beijing[5]	USD	30.0 m	100%
Novartis Pharmaceutical Technology Zhejiang Co., Ltd., Haiyan	USD	30.0 m	100%
Novartis Pharmaceuticals (HK) Limited, Hong Kong	HKD	200	100%
China Novartis Institutes for BioMedical Research Co., Ltd., Shanghai	USD	320.0 m	100%
Suzhou Novartis Technical Development Co., Ltd., Changshu	USD	12.0 m	100%
Shanghai Novartis Trading Ltd., Shanghai	USD	3.2 m	100%
Colombia			
Novartis de Colombia S.A., Santafé de Bogotá	COP	7.9 bn	100%
Czech Republic			
Novartis s.r.o., Prague[5]	CZK	51.5 m	100%
Denmark			
Novartis Healthcare A/S, Copenhagen	DKK	14.0 m	100%
Dominican Republic			
Novartis Caribe, S.A., Santo Domingo[5]	DOP	20.0 m	100%
Ecuador			
Novartis Ecuador S.A., Quito	USD	4.0 m	100%
Egypt			
Novartis Pharma S.A.E., Cairo	EGP	2.1 bn	99.98%
Finland			
Novartis Finland Oy, Espoo	EUR	459 000	100%
France			
Novartis Groupe France S.A.S., Rueil-Malmaison[5]	EUR	903.0 m	100%
Novartis Pharma S.A.S., Rueil-Malmaison	EUR	43.4 m	100%
Advanced Accelerator Applications S.A., Rueil-Malmaison	EUR	9.6 m	99.23%
Germany			
Novartis Business Services GmbH, Nuremberg	EUR	25 000	100%
Novartis Pharma GmbH, Nuremberg	EUR	25.6 m	100%
Novartis Pharma Produktions GmbH, Wehr	EUR	2.0 m	100%
MorphoSys GmbH, Planegg	EUR	50 000	100%
Greece			
Novartis (Hellas) S.A.C.I., Metamorphosis / Athens	EUR	141.7 m	100%
Hungary			
Novartis Hungary Healthcare Limited Liability Company, Budapest	HUF	545.6 m	100%
India			
Novartis India Limited, Mumbai[5]	INR	123.5 m	70.68%
Novartis Healthcare Private Limited, Mumbai	INR	60.0 m	100%
Indonesia			
PT. Novartis Indonesia, Jakarta	IDR	10.6 bn	100%
Ireland			
Novartis Ireland Limited, Dublin	EUR	25 000	100%
Novartis Integrated Services Limited, Cork City	EUR	100	100%
Israel			
Novartis Israel Ltd., Tel Aviv	ILS	1 000	100%
Italy			
Novartis Farma S.p.A., Milan	EUR	18.2 m	100%
Advanced Accelerator Applications (Italy) S.r.l., Colleretto Giacosa	EUR	119 000	99.23%
Japan			
Novartis Pharma K.K., Tokyo	JPY	100.0 m	100%
Ciba-Geigy Japan Limited, Tokyo	JPY	100.0 m	100%
Latvia			
Novartis Baltics SIA, Riga	EUR	3.0 m	100%
Luxembourg			
Novartis Investments S.à r.l., Luxembourg City	USD	100.0 m	100%
Novartis Finance S.A., Luxembourg City	USD	100 000	100%
Malaysia			
Novartis Corporation (Malaysia) Sdn. Bhd., Petaling Jaya[5]	MYR	3.3 m	100%
Mexico			
Novartis Farmacéutica, S.A. de C.V., Mexico City	MXN	206.7 m	100%
Morocco			
Novartis Pharma Maroc SA, Casablanca	MAD	80.0 m	100%
Netherlands			
Novartis Netherlands B.V., Amsterdam	EUR	1.4 m	100%
Novartis Pharma B.V., Amsterdam	EUR	4.5 m	100%
Aduro Netherlands Coöperatief U.A., Rosmalen[4]	--	--	--
Aduro Biotech Holdings, Europe B.V., Rosmalen	EUR	46 216	100%
Calypso Biotech B.V., Amsterdam	EUR	7 252	96.8%
IDB Holland BV, Baarle-Nassau	EUR	18 000	99.23%
New Zealand			
Novartis New Zealand Ltd, Auckland[5]	NZD	820 000	100%
Norway			
Novartis Norge AS, Oslo	NOK	1.5 m	100%
Pakistan			
Novartis Pharma (Pakistan) Limited, Karachi	PKR	6.7 bn	99.99%
Panama			
Novartis Pharma (Logistics), Inc., Panama City	USD	10 000	100%
Peru			
Novartis Biosciences Perú S.A., Lima[5]	PEN	1.4 m	100%
Philippines			
Novartis Healthcare Philippines, Inc., Makati City[5]	PHP	298.8 m	100%
Poland			
Novartis Poland Sp. z o.o., Warsaw	PLN	44.2 m	100%
Portugal			
Novartis Portugal, S.G.P.S., Lda., Porto Salvo[5]	EUR	500 000	100%
Novartis Farma – Produtos Farmacêuticos, S.A., Porto Salvo	EUR	2.4 m	100%
Romania			
Novartis Pharma Services Romania S.R.L., Bucharest	RON	3.0 m	100%
Sandoz S.R.L., Targu-Mures	RON	119.5 m	100%
Russian Federation			
Novartis Pharma LLC, Moscow	RUB	20.0 m	100%
Novartis Neva LLC, St. Petersburg	RUB	500 m	100%
Saudi Arabia			
Novartis Saudi Company, Riyadh	SAR	30.0 m	100%

As at December 31, 2024		Share capital[1]	Equity interest
Singapore			
Novartis (Singapore) Pte Ltd., Singapore[5]	SGD	100 000	100%
Novartis Singapore Pharmaceutical Manufacturing Pte Ltd, Singapore	SGD	80.0 m	100%
Novartis Asia Pacific Pharmaceuticals Pte Ltd, Singapore	SGD	39.0 m	100%
Slovakia			
Novartis Slovakia s.r.o., Bratislava	EUR	2.0 m	100%
Slovenia			
Novartis farmacevtska proizvodnja d.o.o., Ljubljana	EUR	50.0 m	100%
South Africa			
Novartis South Africa (Pty) Ltd, Midrand	ZAR	86.3 m	100%
South Korea			
Novartis Korea Ltd., Seoul	KRW	24.5 bn	100%
Spain			
Novartis Farmacéutica, S.A., Barcelona	EUR	63.0 m	100%
Advanced Accelerator Applications Iberica, S. L. U., Esplugues de Llobregat	EUR	22.6 m	99.23%
Abadia Retuerta S.A., Sardón de Duero / Valladolid	EUR	6.0 m	100%
Sweden			
Novartis Sverige AB, Stockholm[5]	SEK	5.0 m	100%
Switzerland			
Novartis International AG, Basel[5]	CHF	10.0 m	100%
Novartis Holding AG, Basel[2]	CHF	100.2 m	100%
Novartis International Pharmaceutical Investment AG, Basel	CHF	100 000	100%
Novartis Kapital AG, Basel	CHF	100 000	100%
Novartis Bioventures AG, Basel	CHF	100 000	100%
Novartis Forschungsstiftung, Basel[3]	--	--	--
Novartis Stiftung für Kaderausbildung, Basel[3]	--	--	--
Novartis-Mitarbeiterbeteiligungsstiftung, Basel[3]	--	--	--
Novartis Stiftung für Mensch und Umwelt, Basel[3]	--	--	--
Stiftung der Novartis AG für Erziehung, Ausbildung und Bildung, Basel[3]	--	--	--
Novartis Overseas Investments AG, Basel	CHF	1.0 m	100%
Japat AG, Basel	CHF	100 000	100%
Novartis Pharma AG, Basel[2/5]	CHF	350.0 m	100%
Novartis Pharma Services AG, Basel	CHF	20.0 m	100%
Novartis Pharma Schweizerhalle AG, Muttenz[5]	CHF	18.9 m	100%
Novartis Pharma Stein AG, Stein[5]	CHF	251 000	100%
Novartis Pharma Schweiz AG, Risch	CHF	5.0 m	100%
Novartis BidCo AG, Basel	CHF	100 000	100%
Pharmanalytica SA, Locarno[5]	CHF	240 000	100%
Renor AG, Basel[5]	CHF	50 000	100%
Calypso Biotech SA, Plan-les-Ouates	CHF	100 000	100%
Cellerys AG, Schlieren	CHF	129 630	20%
Novartis Innovative Therapies AG, Risch[5]	CHF	100 000	100%
Advanced Accelerator Applications International SA, Geneva	CHF	9.3 m	99.23%
Taiwan			
Novartis (Taiwan) Co., Ltd., Taipei[5]	TWD	170.0 m	100%
Thailand			
Novartis (Thailand) Limited, Bangkok[5]	THB	302.0 m	100%
Turkey			
Novartis Saglik, Gida ve Tarim Ürünleri Sanayi ve Ticaret A.S., Istanbul	TRY	448.0 m	100%
United Arab Emirates			
Novartis Middle East FZE, Dubai	AED	7.0 m	100%
United Kingdom			
Novartis UK Limited, London[5]	GBP	25.5 m	100%
Novartis Pharmaceuticals UK Limited, London	GBP	5.4 m	100%
Novartis Grimsby Limited, London	GBP	250.0 m	100%
Gyroscope Therapeutics Limited, London	GBP	1 492	100%
United States of America			
Novartis Corporation, East Hanover, NJ	USD	72.2 m	100%
Novartis Finance Corporation, East Hanover, NJ[2]	USD	1 000	100%
Novartis Capital Corporation, East Hanover, NJ[2]	USD	1	100%
Novartis Services, Inc., East Hanover, NJ	USD	1	100%
Novartis US Foundation, East Hanover, NJ[3]	--	--	--
Novartis Pharmaceuticals Corporation, East Hanover, NJ[2]	USD	650	100%
Advanced Accelerator Applications USA, Inc., Millburn, NJ	USD	1	99.23%
Novartis Gene Therapies, Inc., Bannockburn, IL	USD	1	100%
Novartis Technology LLC, East Hanover, NJ[4]	--	--	--
Novartis Manufacturing LLC, East Hanover, NJ[4]	--	--	--
Novartis Institutes for BioMedical Research, Inc., Cambridge, MA	USD	1	100%
Kate Therapeutics Inc., San Diego, CA	USD	100	100%
Cadent Therapeutics, Inc., Cambridge, MA	USD	0.1	100%
Constellation Pharmaceuticals, Inc., Boston, MA	USD	50	100%
Endocyte, Inc., East Hanover, NJ	USD	1	100%
Mariana Oncology Inc., Watertown, MA	USD	1	100%
MorphoSys US Inc., Boston, MA	USD	50	100%
Navigate BioPharma Services, Inc., Carlsbad, CA	USD	1	100%
The Medicines Company, East Hanover, NJ	USD	1	100%
Chinook Therapeutics, Inc., Seattle, WA	USD	1	100%
Chinook Therapeutics U.S., Inc., Seattle, WA	USD	1	100%
Uruguay			
Novartis Uruguay S.A., Montevideo[5]	UYU	7.3 m	100%
Venezuela			
Novartis de Venezuela, S.A., Caracas[5]	VES	0	100%
Vietnam			
Novartis Vietnam Company Limited, Ho Chi Minh City	VND	70 bn	100%

In addition, the Company is represented by subsidiaries and associated companies with total assets or net sales to third parties from continuing operations below USD 25 million in the following countries: Bosnia and Herzegovina, Bulgaria, Cameroon, Cayman Island, Croatia, Ghana, Guatemala, Ivory Coast, Kazakhstan, Kenya, Kuwait, Nigeria, Senegal and Ukraine.

[1] Share capital may not reflect the taxable share capital and does not include any paid-in surplus.

[2] Significant subsidiary under SEC Regulation S-X Rule 1-02(w)

[3] Fully consolidated foundation

[4] Fully consolidated entity

[5] Directly held by Novartis AG

m = million; bn = billion

Report of Independent Registered Public Accounting Firm

To the shareholders and the Board of Directors of Novartis AG

Opinions on the Consolidated Financial Statements and Internal Control Over Financial Reporting
We have audited the accompanying consolidated balance sheets of Novartis AG and its consolidated subsidiaries (the Company) as of December 31, 2024 and 2023, the related consolidated income statements, consolidated statements of comprehensive income, consolidated statements of changes in equity, and consolidated statements of cash flows for each of the years in the three-year period ended December 31, 2024, and the related notes (collectively, the consolidated financial statements). We also have audited the Company's internal control over financial reporting as of December 31, 2024, based on criteria established in internal Control – Integrated Framework (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission (COSO).

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of the Company as of December 31, 2024 and 2023, and the results of its operations and its cash flows for each of the years in the three-year period ended December 31, 2024, in conformity with International Financial Reporting Standards (IFRS) Accounting Standards as issued by the International Accounting Standards Board. Also in our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of December 31, 2024 based on criteria established in Internal Control – Integrated Framework (2013) issued by the COSO.

Basis for Opinions
The Company's management is responsible for these consolidated financial statements, for maintaining effective internal control over financial reporting, and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Report of Novartis Management on Internal Control Over Financial Reporting. Our responsibility is to express an opinion on the Company's consolidated financial statements and an opinion on the Company's internal control over financial reporting based on our audits. We are a public accounting firm registered with the Public Company Accounting Oversight Board (United States) (PCAOB) and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audits in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audits to obtain reasonable assurance about whether the consolidated financial statements are free of material misstatement, whether due to error or fraud, and whether effective internal control over financial reporting was maintained in all material respects.

Our audits of the consolidated financial statements included performing procedures to assess the risks of material misstatement of the consolidated financial statements, whether due to error or fraud, and performing procedures that respond to those risks. Such procedures included examining, on a test basis, evidence regarding the amounts and disclosures in the consolidated financial statements. Our audits also included evaluating the accounting principles used and significant estimates made by management, as well as evaluating the overall presentation of the consolidated financial statements. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audits also included performing such other procedures as we considered necessary in the circumstances. We believe that our audits provide a reasonable basis for our opinions.

Definition and Limitations of Internal Control Over Financial Reporting
A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting standards. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements.

Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become

inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

Critical Audit Matters

The critical audit matters communicated below are matters arising from the current period audit of the consolidated financial statements that were communicated or required to be communicated to the audit committee and that: (1) relate to accounts or disclosures that are material to the consolidated financial statements and (2) involved our especially challenging, subjective, or complex judgments. The communication of critical audit matters does not alter in any way our opinion on the consolidated financial statements, taken as a whole, and we are not, by communicating the critical audit matters below, providing separate opinions on the critical audit matters or on the accounts or disclosures to which they relate.

Assessment of the recoverable amount for the Leqvio intangible asset

As discussed in Note 1 to the consolidated financial statements, the Company determined the recoverable amount of the intangible assets other than goodwill based on the fair value less costs of disposal method for which no directly observable market inputs were available. As discussed in Note 11, the Company has intangible assets other than goodwill totaling USD 26 915 million as of December 31, 2024, of which USD 6.3 billion related to the currently marketed product *Leqvio*.

We identified the assessment of the recoverable amount, specifically the sales forecasts, of the *Leqvio* intangible asset, as a critical audit matter. Significant auditor judgment and subjectivity was required to assess the sales forecasts assumptions due to the high degree of subjectivity and estimation uncertainty involved. These sales forecasts assumptions were a significant input in the determination of the recoverable amount of the *Leqvio* intangible asset.

The following are the primary procedures we performed to address this critical audit matter:

- We evaluated the design and tested the operating effectiveness of a certain internal control related to the Company's intangible asset impairment process for *Leqvio*, including the development of the sales forecasts;
- We evaluated the reasonableness of management's sales forecasts for *Leqvio* by (1) comparing the sales forecasts assumptions to company-specific operational information and management's communications to the Board of Directors, (2) comparing the most recent sales performance to previous drug launches, and (3) comparing the sales forecasts assumptions to available external market and industry data; and
- We assessed management's ability to accurately forecast sales by comparing historical sales forecasts for *Leqvio* to actual results.

Provisions for deductions from revenue related to US Managed Care, Medicare Part D and Medicaid rebate programs

As discussed in Note 1 to the consolidated financial statements, the Company records provisions for estimated rebates as a deduction from revenue when the related revenue is recognized. Rebates involve the use of assumptions and judgments in the determination of the provision rates at the time revenues are recorded. Provision rates are influenced by the terms and conditions in the individual agreements, historical experience, product sales and growth rate, population growth, product pricing, the mix of contracts and products, the level of inventory in the distribution channel, regulations, channels and payers. As discussed in Note 22, provisions for deductions from revenue totaled USD 7 004 million as of December 31, 2024, a portion of which related to US Managed Care, Medicare Part D and Medicaid rebate programs (hereafter US rebates).

We identified the evaluation of the US rebates provisions as a critical audit matter. The evaluation of the rebate provision rates required a high degree of subjective auditor judgment as it involved estimating the portion of the Company's consolidated revenue which will ultimately be subject to a related rebate.

The following are the primary procedures we performed to address this critical audit matter:

- We evaluated the design and tested the operating effectiveness of certain internal controls over the Company's US rebates process related to the development of the rebate provision rates;
- We developed our own independent expectation of the US rebates provisions, by using internal and external information, including historical experience and trend analysis of actual rebate claims paid, and comparing it to management's actual recorded balances; and
- We assessed management's ability to accurately estimate the US rebates provisions by comparing historically recorded provisions to the actual amount that was ultimately paid by the Company.

/s/ KPMG AG

We have served as the Company's auditor since 2022.

Basel, Switzerland
January 30, 2025


NOVARTIS