NOVARTIS

Our commitment to ethical and responsible use of Artificial Intelligence (AI)

Along with excitement and opportunity, Artificial Intelligence (AI) systems bring new ethical considerations. At Novartis, we live our values in everything we do, including our work with data and AI. It is important to take a human-centered approach when using AI to reimagine medicine. Data and technology including AI is a foundational pillar of our scientific approach.

At Novartis, we are committed to the responsible development, deployment, and use of AI technologies. Our goal is to ensure that AI serves the greater good in developing medicine, enhancing human capabilities and creating positive societal impact while minimizing risks and unintended consequences.

As AI becomes an integral part of our everyday lives, it holds incredible potential to increase patient access, improve customer experience, drive automation and provide predictive analytics. It also has the potential to improve the speed and accuracy of diagnosis, treatment protocols, drug discovery, drug development, patient monitoring and patient care, among other applications that will improve patients' lives.

This potential comes with great responsibility.

- We believe that ensuring the ethical, transparent, and responsible use of AI is essential for building trust and safeguarding individuals and our company.
- Our commitment to the responsible use of AI systems comes along with a desire to promote safety and sustainability in all AI-driven innovations.
- We will ensure that the use of AI systems has a clear purpose, that is respectful of human rights and is accurate, truthful, not misleading and appropriate for the intended context.

"We're standing at a pivotal moment in the history of medicine. AI is not just about more tools—it's about precision and speed, transforming how we discover drugs and conduct trials. By harnessing vast amounts of data, AI unlocks the potential to personalize treatments, fast-track breakthroughs, and tackle diseases like cancer. At the same time, it is important to ensure transparency and integrity, allowing us to build trust with patients and regulators while accelerating innovation for better outcomes."

Klaus Moosmayer, Chief Ethics, Risk & Compliance Officer of Novartis

With AI playing a role in enabling Novartis innovation, we recognize the need for clear ethical principles around the use of AI which guide us in our commitment to do what's right for our people, patients, society and environment.

"Our ethical principles provide our people with a simple framework for responsible use of AI – enabling them to challenge their own decisions and biases. By aligning them with our Code of Ethics and our new "Data & Technology Policy", we are reinforcing their importance and creating a clear path for us all to follow."

Franziska Janorschke, Global Head Data Privacy, Digital & AI Compliance of Novartis

Our journey to responsible use of AI

Our journey toward responsible use of AI began with the launch of Novartis Code of Ethics in 2019. Created by our people, for our people, our Code of Ethics outlines who we are, what we stand for, and the principles to which we hold ourselves accountable. It describes our commitment to doing what's right and helps us make good choices.

Following in 2021, we introduced our first "Commitment to ethical and responsible use of AI", ensuring alignment with our core principles.

With fast-evolving technology advancements, we updated our Code of Ethics in 2024 to reinforce the responsible use of data, AI, and technology. This was followed by the introduction of the "Ethical Use of Data & Technology Policy", which includes a dedicated AI Handbook providing guiding principles. It is accompanied by our "AI Risk & Compliance Management Framework" which emphasizes our dedication to the responsible and ethical deployment of AI across Novartis. This ensures integrated governance and assurance.

As AI continues to evolve, we remain committed to refining our approach to ensure responsible innovation.
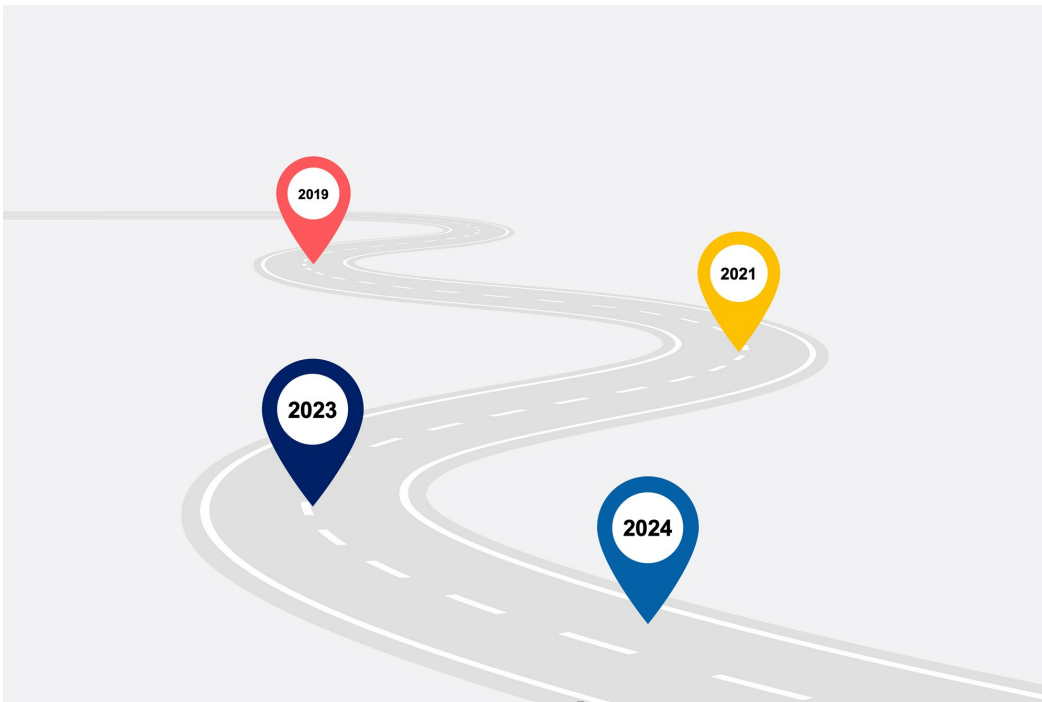
2019
Code of Ethics

2021
Commitment to ethical and responsible use of AI

2023
Assessment period

2024
Update of Code of Ethics;
AI Risk and Compliance Management Framework;
Updated commitment to ethical and responsible use of AI;
Ethical use of Data & Technology Policy

## How do we enable responsible use of AI?

Our Ethical Use of Data & Technology policy structure gives guidance on how to navigate innovation and explains our values and principles.
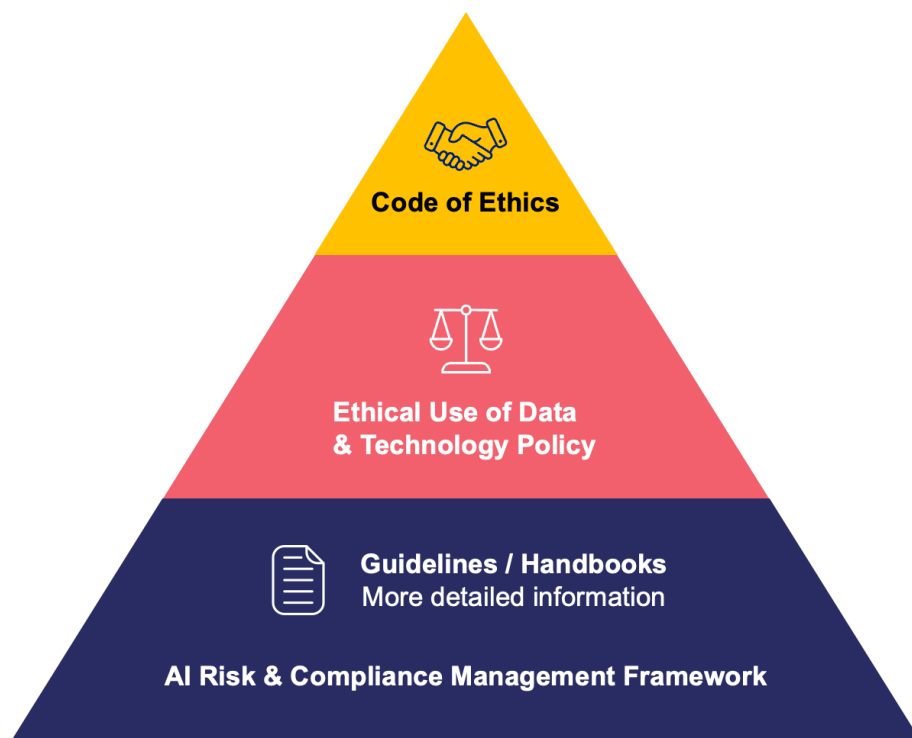
Novartis AI ethical principles

The principles empower us and our partners to navigate this new environment safely and effectively. Our approach to AI is grounded in a set of core principles designed to ensure that the use of our technology is transparent, responsible and aligned with the well-being of our people, patients, and society. These principles guide the different stages of AI development and deployment, driving our innovations to be both cutting-edge and ethically sound.

Our approach to the responsible and ethical use of AI at Novartis is underpinned by four key principles, which are set out in the Policy and AI Handbook.[1]
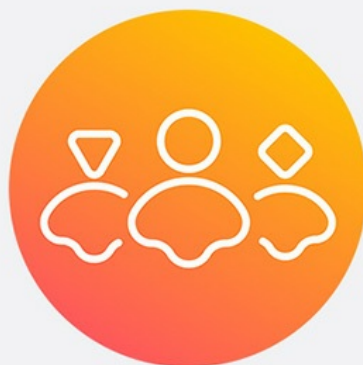
Respect humanity

Respect humanity and maintain trust with society through deploying and using data and technology in ways that promote diversity and inclusion, respect human rights, and benefit patients and society.

Be transparent and collect fairly

Describe in clear and simple language why and how Novartis collects data and what Novartis does with data and technology.

Use responsibly

Use data and technology responsibly and take accountability for the appropriate management and protection of data and technology in line with your scope of responsibility.

Protect data and technology

Apply risk-based security to protect and ensure the confidentiality, integrity and availability of data and technology throughout its lifecycle. Prevent data loss.

How do we ensure ethical governance of AI?

To mitigate potential risks associated with AI, Novartis has established a comprehensive AI Risk & Compliance Management Framework. This framework provides an integrated, cross-functional and structured approach, outlining the protocols and safeguards we have in place to manage AI-related risks effectively. The risk classification of the EU AI Act is captured under our Framework and the assessment based on a low-, mid-, high-risk and forbidden classification of AI use cases ensures responsible use of AI across various functions globally. With this approach we ensure that our AI systems are designed, developed and operated within ethical boundaries, minimizing the risk of bias, ensuring transparency, respecting data privacy and maintaining the integrity of our decision-making processes.

The framework applies to all AI, including those internally developed, co-developed and purchased AI systems. It drives robust governance, risk management and controls and addresses key risk areas such as transparency, explainability and human oversight.

Key pillars of Novartis Risk & Compliance Management Framework

With our Risk & Compliance Management Framework we support our employees and business functions to drive innovation and at the same time mitigate risks which come along with new AI use cases. We have identified key pillars to ensure a company-wide global approach.

- **Global collaborative effort**

- **Risk based approach**

- **Cross functional risk assessment**

- **Continuity of assessment platforms evolving framework and processes**

Keeping up with fast-evolving AI technology development

The rapid evolution of AI requires continual learning and adaptation, which is not fully explored. Novartis is implementing a proactive review system that regularly reassess AI ethics based on new research, societal shifts, upcoming new legal requirements and user feedback. This ensures that our approach remains agile in meeting its ethical commitments and that our principles evolve alongside technological advancements to address emerging challenges like bias or misinformation.

We will continue to strengthen the commitment to patient well-being while building further trust in AI solutions.

More information can be found here:

- Code of Ethics
- Novartis Human Rights

Ethical Use of Data and Technology Policy (295 KB)

Legend:

1. The four principles incorporate and consolidate the eight principles established in the Commitment

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