

POSITION PAPER

2030 Vision for Industrie 4.0 – Shaping digital ecosystems globally

How can economic strength and societal values find their place in the digital era? Plattform Industrie 4.0's 2030 Vision formulates a holistic approach to the shaping of digital ecosystems and reorientates the development of Industrie 4.0. At the heart of the design of digital ecosystems are the following strategic fields of action: Autonomy, Interoperability and Sustainability.

German industry is strong. Outstanding science and research, a powerful SME sector, a high level of education and many other qualities ensure that Germany is very well positioned vis-à-vis its international competition. This strength is tied to a set of societal values: the free and social market economy safeguards employment, decent working conditions and prosperity.

Industrie 4.0 stands for a fundamental process of innovation and transformation, giving rise to new forms of doing business and working in global digital ecosystems. Data are now driving industrial value creation. How can our industrial strength be translated and developed in the digital era? How can the values we associate with our economic system be made compatible with digital business models?

Plattform Industrie 4.0 advocates for the design of open digital ecosystems which emphasise diversity and plurality and support fair competition between all stakeholders in the market.

German industry thrives on a diverse and specialized business community which consistently delivers innovation. Combined with commercial freedom, data and information security, and the protection of individual rights, these are the central pillars of a future industrial society. Our strategy of open and flexible ecosystems is built on these pillars and offers the best preconditions for shaping the digital economy in alignment with the values of the social market economy.

The strategic fields of action in detail

- 1. Autonomy:** Autonomy is the freedom to take independent decisions and to interact in conditions of fair competition – from a chosen business model to an individual's decision to make a purchase. Autonomy requires an open digital infrastructure for everyone, data protection, IT and information security and technology-neutral research, development and innovation.
- 2. Interoperability:** The interoperability of all stakeholders is necessary for the shaping of complex, decentral-

ized ecosystems. A high level of interoperability – to which all the partners commit and contribute equally – is required to ensure networking across companies and sectors. Standards and integration are needed for this, as are a uniform regulatory framework, decentralised systems and artificial intelligence.

3. Sustainability: Economic, environmental and social sustainability is a fundamental pillar in our societal values. Firstly, these considerations feed into Industrie 4.0, and secondly, Industrie 4.0 promotes substantial progress on sustainability. Key aspects of sustainability in the ecosystems of the future are decent work and education, mitigating climate change, the circular economy and social inclusion.

In dialogue with business, science, government and society, Plattform Industrie 4.0 aims to create the framework for action which ensures that the digital transformation will be designed in a sustainable fashion. Further, the Plattform is working towards the successful establishment of Industrie 4.0 throughout the German SME sector. For the Plattform Industrie 4.0, Vision 2030 contributes to the debate on the process of digital transformation. The Plattform's stakeholders are thus entering into an open dialogue with society – not least in order to integrate fresh expertise into their work. Its working groups will be supporting the implementation of the Vision and drafting recommendations for action in order to realise this.

2030 Vision for Industrie 4.0 – Shaping Digital Ecosystems Globally

Autonomy

Self-determination and free scope for action guarantee competitiveness in digital business models.

- Technology development
- Security
- Digital infrastructure

Interoperability

Cooperation and open ecosystems permit plurality and flexibility.

- Regulatory framework
- Standards and integration
- Decentralised systems and artificial intelligence

Sustainability

Modern industrial value creation ensures high standard of living.

- Decent work and education
- Climate change mitigation and the circular economy
- Social participation



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