

The fourth industrial revolution and „Industry 5.0“ – a critical perspective

Joint statement by the Research Council Industrie 4.0 and the Plattform Industrie 4.0 on the use of the term "Industry 5.0"

It is now more than ten years since the term Industrie 4.0 was coined by Henning Kagermann, the former CEO of SAP, Wolfgang Wahlster, the former CEO of the German Research Center for Artificial Intelligence, and Wolf-Dieter Lukas, Head of Department and later State Secretary at the Federal Ministry of Education and Research. In the years since, the initiative that started in Germany has spread around the globe.

Today, Industrie 4.0 is a term that represents a change potentially affecting all areas of society. It refers to the fourth industrial revolution. Like the previous three industrial revolutions, it can be assumed that the current one will bring about far-reaching changes and that it will take a similarly long period of time to fully play out. The typical software shorthand "4.0" refers both to the fourth industrial revolution but also emphasises the special role that software plays in this process. It is a comprehensive concept that included, from the outset, technological aspects, new value creation models, the ability to create new types of products, sustainability, resilience and, in particular, approaches for optimally integrating and supporting humans involved in Industrie 4.0 solutions.

As with every industrial revolution, the fourth industrial revolution also requires measures that build on one other. This means that a technical foundation and international standards must first be created, which then form the basis for the necessary skills and optimal support for workers in production. Active participation by employees is essential here. It would be completely wrong to view Industrie 4.0 through a purely technological lens. And it would be equally misguided to treat the abbreviation "4.0" simply as a version number and replace it with "5.0" on while still the same long but important and correct path.

In fact, this mistake has been more common for some time now: The term "Industry 5.0" has been put forth in the recent past. In addition to some AI-related content, the core of this term is often defined as "human-centricity", i.e. the goal to design labour processes in an optimal manner for workers alongside the best possible support for new production processes. While the content itself is valid, the new term "Industry 5.0" is not needed to describe it because "human-centricity" and societal benefits have been the most important goals of Industrie 4.0 from the outset.

The term "Industry 5.0" is neither necessary nor helpful. It does not contain any new content, and falsely suggests that the fourth industrial revolution is complete and that our attention can be turned to new topics. This unnecessary terminology could lead to uncertainty among companies and well-established international collaborations that are currently working on the implementation of the fourth industrial revolution.

Plattform Industrie 4.0 and the Research Council Industrie 4.0 therefore strongly criticise the frivolous positioning of the unnecessary term "Industry 5.0".

Information on the Research Council Industrie 4.0

As a barometer of the direction of trends, the Research Council observes and assesses developments in the performance profile of Industrie 4.0 in the medium to long term. In addition, it sees itself as a source of inspiration for future research topics. In its publications the Research Council formulates new research and development needs that can be addressed at the pre-competitive stage as well as options for action for the successful realisation of Industrie 4.0. As a strategic and independent committee, the Research Council Industrie 4.0 supports the Plattform Industrie 4.0, its working groups and the federal ministries concerned, in particular the Federal Ministry of Education and Research (BMBF).

Information on the Plattform Industrie 4.0

The overarching goal of the Plattform Industrie 4.0 is to secure and expand Germany's leading international position in the manufacturing industry. To this end, the participants in the platform discuss suitable and reliable framework conditions. As a driving force, moderator of different interests and ambassador, the Plattform Industrie 4.0 ensures the pre-competitive exchange of all relevant players from politics, business, science, trade unions and associations. The platform is one of the world's leading networks in the field of Industrie 4.0.

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