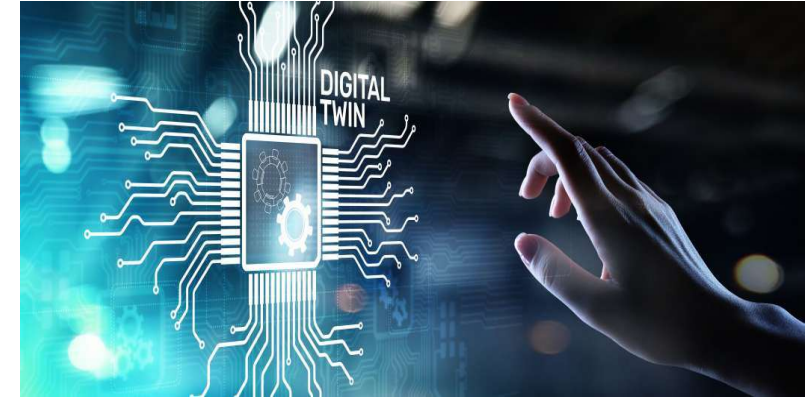


# Sustainable twins: Connecting the concept of Digital Twins with the Sustainable Production of tomorrow

- Sustainable production will play a central role in the future global economy.
- Digital twins, as a relatively new concept and an important component of digitalisation, offer a new perspective on sustainable production
- With the help of digital twins, a virtual space can be created that encompasses data across machines, factories and companies. In this way, (new) processes can be visualised and examined which so far could not be displayed in the real world.
- In particular with regard to the customer, a transparent and sustainable production and value network will become increasingly important in the future. Here, digital twins can create important competitive advantages (Sustainable Twin).
- However, the question arises as to which data should be collected at machine and factory level as well as across companies



<https://logistik-heute.de/news/industrie-4-0-industrial-digital-twin-association-gegruendet-31797.html>

## Forschungsfrage

What kind of machine, factory and cross-company data basis is required to build a digital twin in the sustainable production of the future? \*

\* beispielhafte Forschungsfrage (kann im individuellen Austausch spezifiziert werden)

## Vorgehen / Literatur

- Interviews, Literaturrecherche, Übertragung aus bestehenden Lösungen
- Vorhandene Literatur: Miehe R, Waltersmann L, Sauer A, Bauernhansl T. (2021) Sustainable production and the role of digital twins-Basic reflections and perspectives. Journal of Advanced Manufacturing and Processing. Bundesministerium für Wirtschaft und Energie (2020) Nachhaltige Produktion: Mit Industrie 4.0 die Ökologische Transformation aktiv gestalten

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