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## Advancements and challenges of digital twins in industry

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#### **Abstract**

Digital twins, which are considered an effective approach to realize the fusion between virtual and physical spaces, have attracted a substantial amount of attention in the past decade. With their rapid development in recent years, digital twins have been applied in various fields, particularly in industry. However, there are still some gaps to be filled and some limitations to be addressed. Here we provide a brief overview of digital twin advancements in industry and highlight the main pitfalls to avoid and challenges to overcome, to improve the maturity of digital twins and facilitate large-scale industrial applications in the future.

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## **Ethics declarations**

Competing interests

The authors declare no competing interests.

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