

Simulation as a lever for sustainability

**How production and logistics can
become more efficient and
measurably more sustainable**

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Why is this topic relevant now?

Sustainability becomes mandatory:

- rising energy costs
- CSRD Directive and CO₂ reporting obligation
- Increasing pressure on planning and operations

→ **Simulation enables proactive decisions instead of subsequent corrections.**

Sustainability without risk

Test sustainability risk-free

- What-if scenarios for layouts and processes shorten time-to-market
- Comparison of CO₂, energy and throughput
- no interference with ongoing operations

➔ **Simulation becomes a laboratory for sustainable decisions.**



Energy planning

Targeted optimization of energy consumption

- Avoid peak loads through intelligent scheduling
- Design systems to meet demand
- Realistically assess energy consumption

➔ **Result: lower costs and lower CO₂ intensity.**

Material flow optimization

Plan material flow realistically

- Optimize routes
- Reduce empty runs
- Design AGVs and forklifts according to requirements

➔ **Result: less energy consumption for the same performance.**

Resource conservation

Better control of resource use

- Reduce downtime
- Avoid material spoilage
- Plan processes more robustly

→ **Result: greater resource efficiency and less waste.**

Simulation as a basis for sound decisions

Simulation does not end with planning.

As a digital twin, it accompanies operations and makes efficiency losses visible before they cause costs or emissions.

- Energy-intensive conditions are detected early
- Maintenance is performed proactively rather than reactively.
- Measures can be substantiated with figures.

This generates reliable data for internal decisions and for external verification such as CO₂ reporting according to CSRD. Sustainability thus becomes manageable, not estimated.

Planning for sustainability based on data

**Simulation makes efficiency, energy
consumption and CO₂ impact
measurable even before processes are
implemented.**

**Discuss with us how simulation can
support your sustainability goals:**

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