

Plan Virtual, Build Sustainable: Combining the Real and the Digital World

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SIEMENS



29

of Top 30 Semiconductor
Companies work with Siemens

#1

in industrial
Software & Automation

92%

of Fortune 500 Companies
use our Software



EVERY 3rd

Machine worldwide
runs on a Siemens Controller

>10 K

PLCs shipped
per day by Siemens
Digital Industries

100 TB

of Data per Hour
generated worldwide through
our Control Systems

We need to act NOW

AI Data Centers

1,050TWh

Electricity Consumption projected
in 2026

Source: MIT, TechInsights

Semiconductor Industry

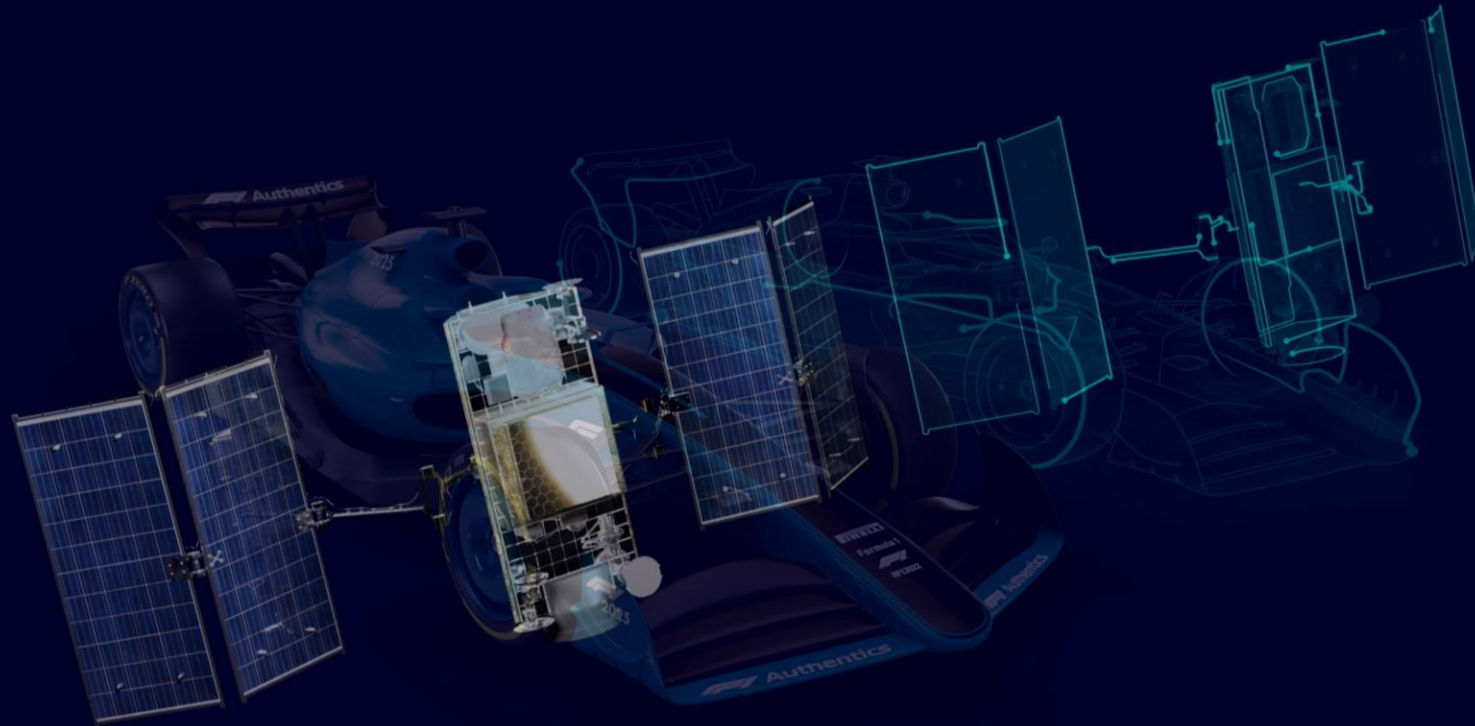
8%

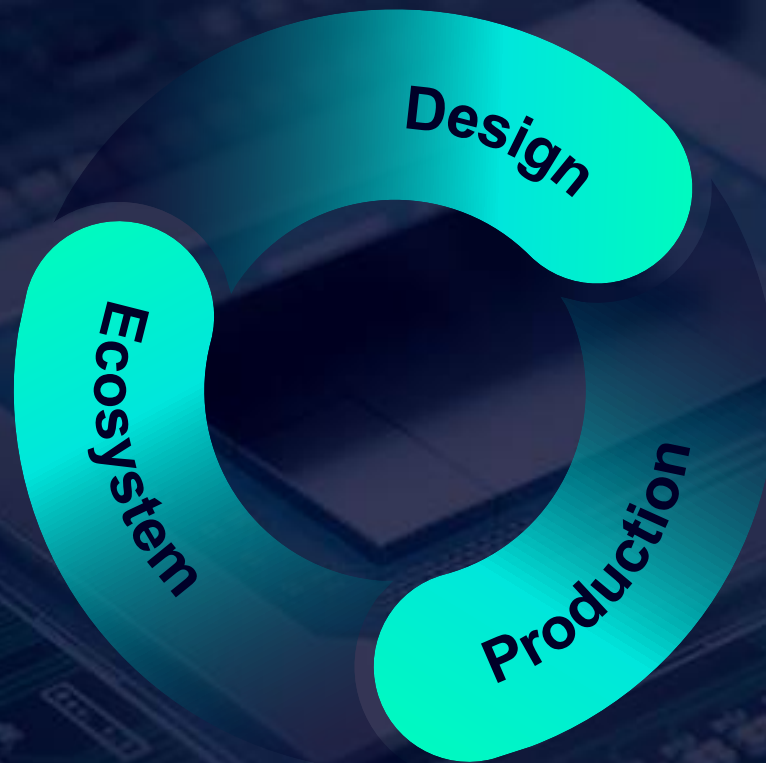
CO₂ equivalent Emission CAGR
from 2024-2030

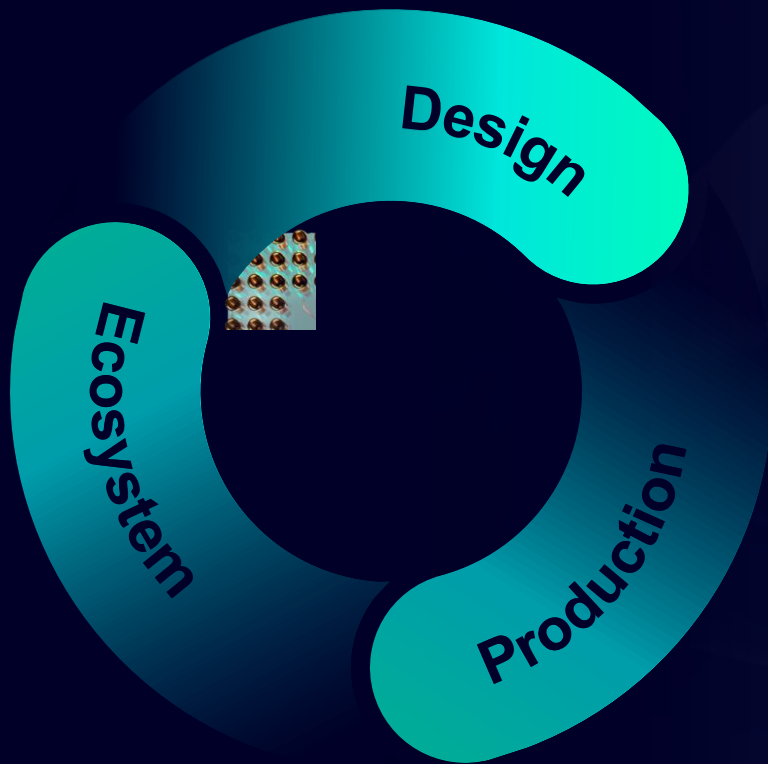
Sustainability requires Transformation on a system-level



Combining the real and digital World with our comprehensive Digital Twin







Sustainability starts with the Design

Energy Efficient Design

AI-embedded tools to deliver optimal designs and towards **energy efficient architectures**

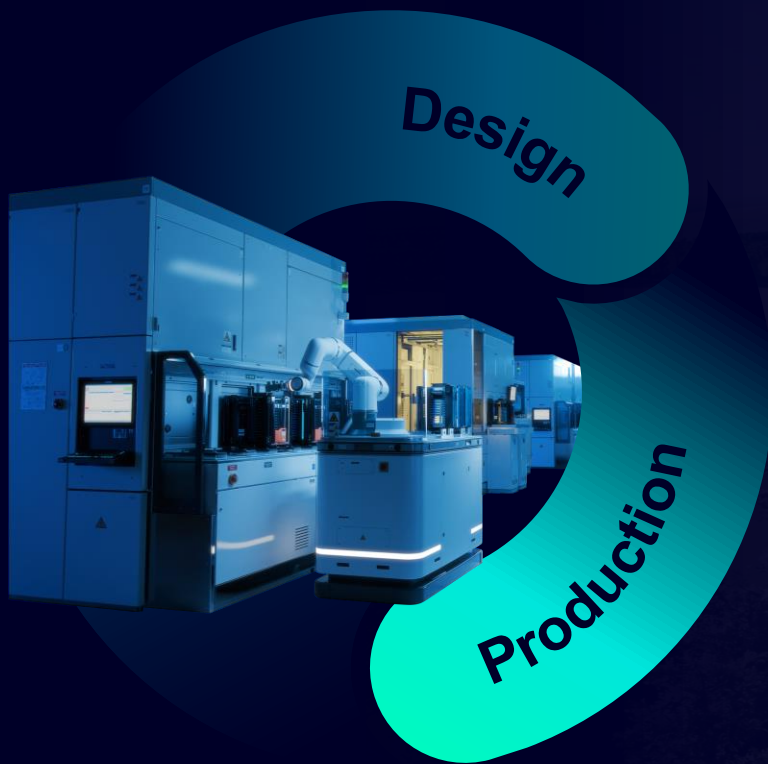


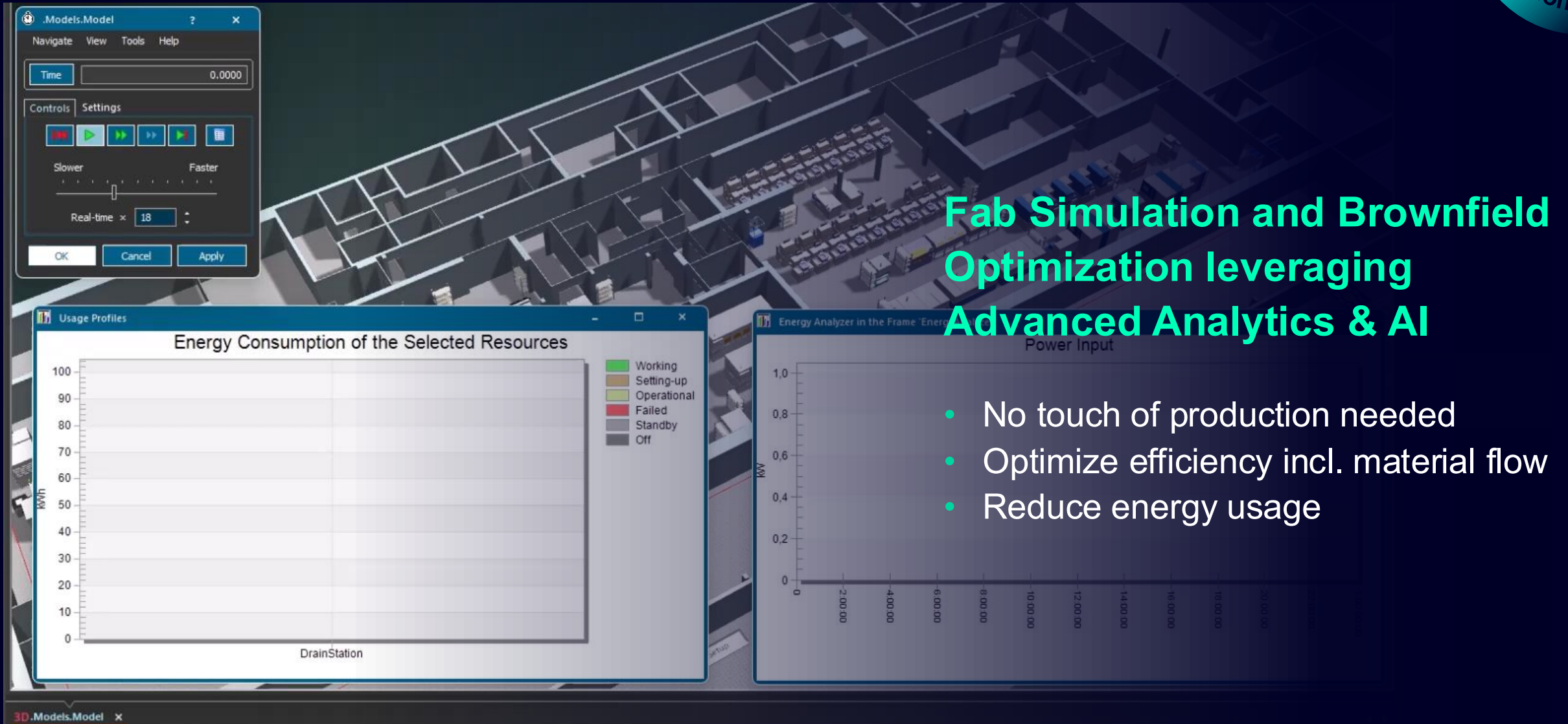
Design for Manufacturing

Seamlessly integrate manufacturability to ensure products can be produced reliably at scale with **minimal waste** and **ramp-up time**

Product Lifecycle Management

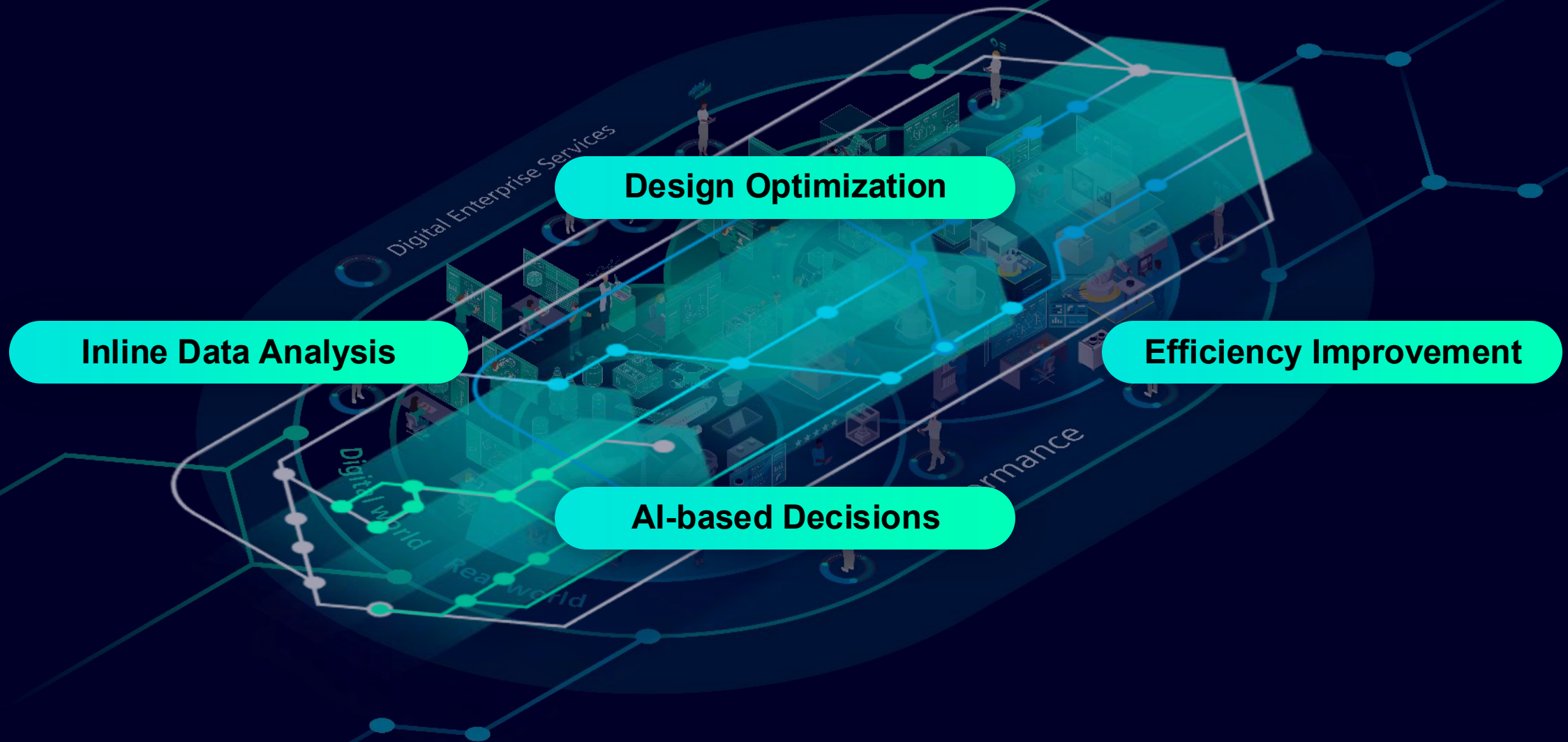
Unify data and processes for **sustainable material choices**, **efficient manufacturing**, and **responsible end-of-life cycle**



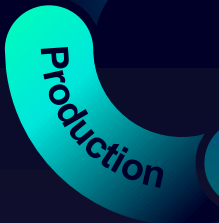


Next level Manufacturing Efficiency with CALIBRE FAB Insights

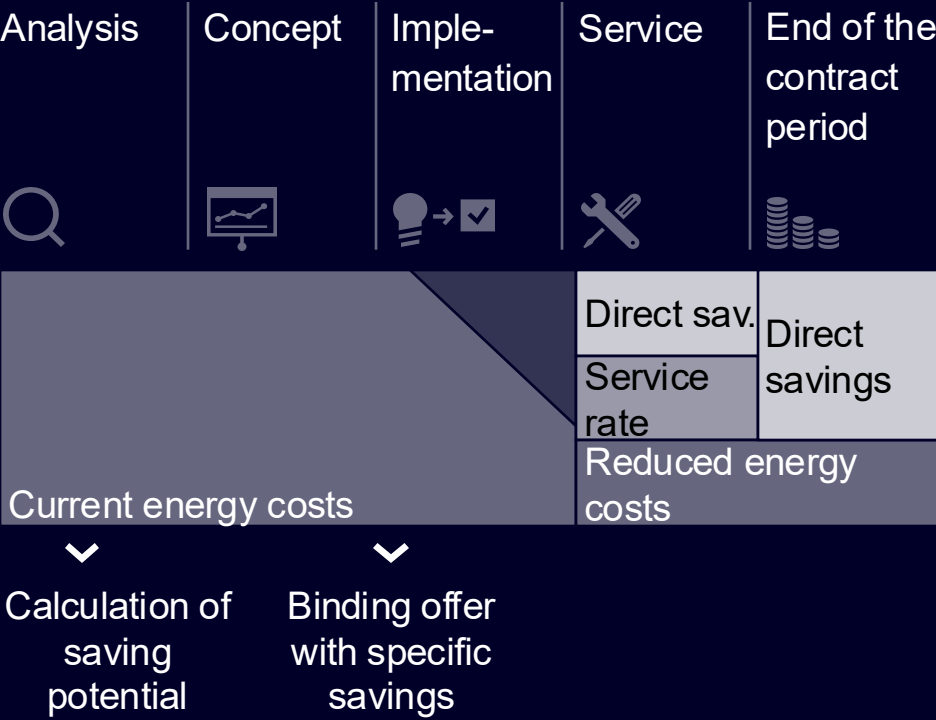
Production



Improve Energy Efficiency and benefit from Energy Performance Contracting



How does it work?



Leading Semiconductor Company

Savings
\$700,000 per annum

ROI
< 3 years

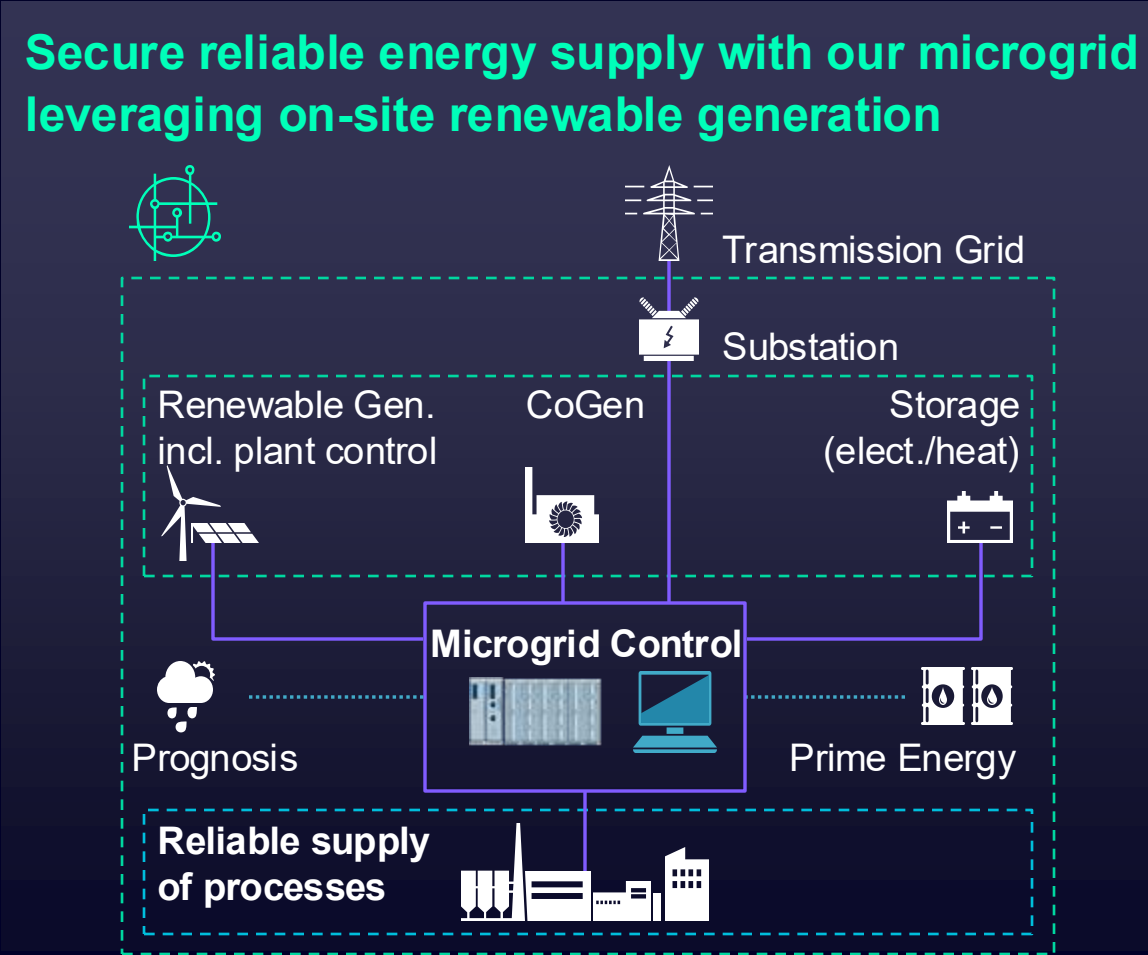
- Improving the energy efficiency of their fabs e.g., chillers
- Energy savings based on data analytics
- Lowering energy costs and avoiding high investments

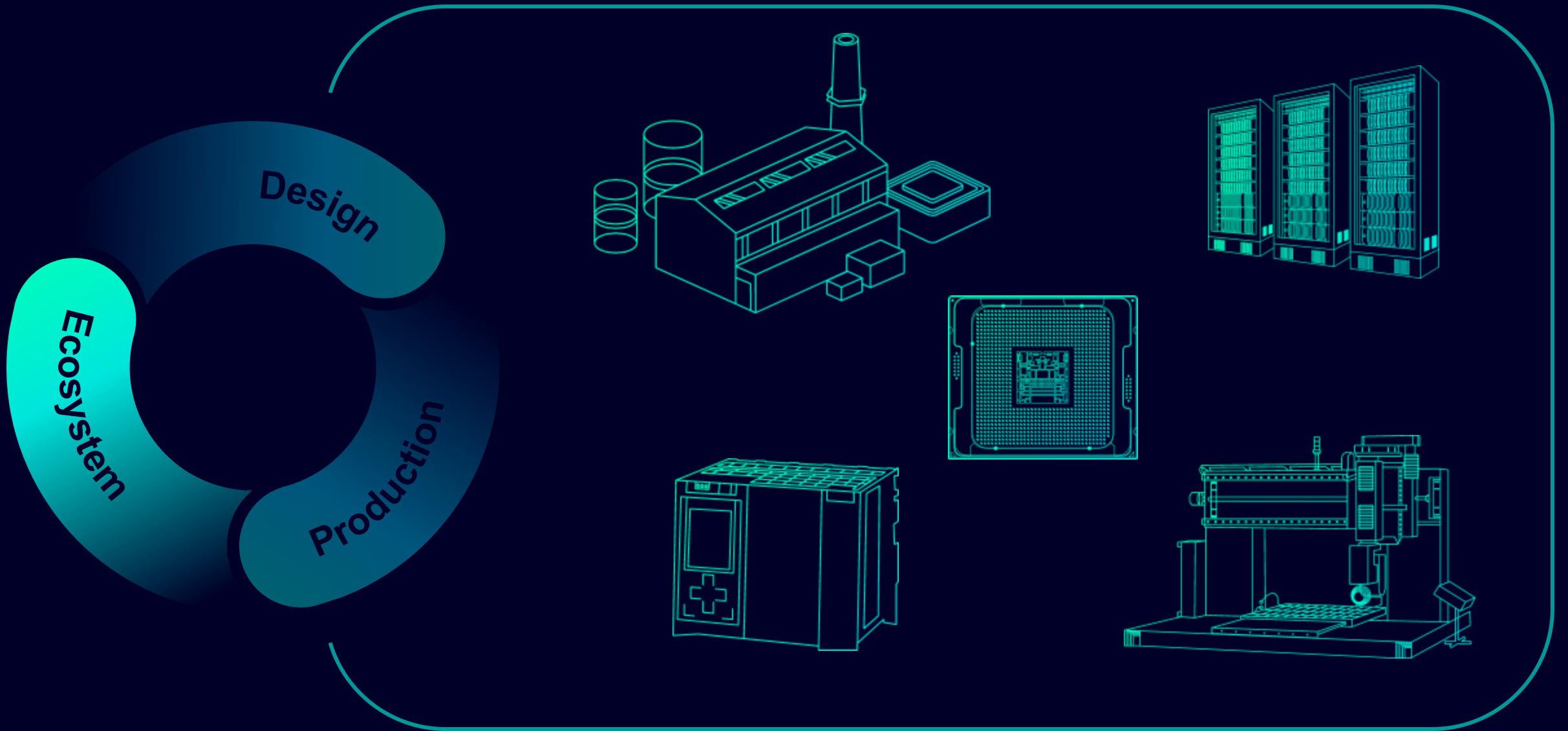
Create Transparency, reduce Emissions and ensure Energy Resiliency

Visualize and evaluate all your Power KPIs with our Power Manager



- Transparent reporting:** Energy savings by evaluating load peaks & load profiles
- Reliable condition monitoring:** Higher plant availability
- Flexible commissioning:** Adaptable user interface



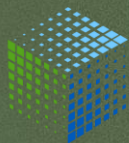


Let's collaborate

for the next generation of sustainable
semiconductors together.

siemens.com/sustainability

Member of



Semiconductor
Climate Consortium





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