

Embracing Twin Transition

Digital Twins leverage powerful modeling for sustainable progress

The **Twin Transition**, also known as the 'double transition,' signifies the fusion of technological advancement and environmental sustainability. From optimizing energy consumption to enhancing resource management, digital technologies offer opportunities to address pressing environmental challenges while driving innovation and economic growth.

How does Digital Twin enhance processes, resource efficiency, and decision-making to drive technological innovation and environmental goals?

Key Trends

\$3,8BN

The Global Digital Twin Market Size in Energy & Utilities Sector by 2025

\$2TN

The Global Market of Renewable Energies by 2030

62%

of organizations are using AI to improve environmental impact (e.g. energy efficiency)

SOURCE: STATISTA

Digital Twins are built to be used and reused, to repeatedly **simulate** and **optimize** multivariable problems. Through the **synergy of Advanced Analytics, Simulation, and Machine Learning** techniques, we not only **predict** overall business performance but also, more significantly, **identify** corrective actions for unforeseen events.

The Value of Technology's Impact

AI-Driven Value

AI complements Digital Twins by **adding intelligence and autonomy to these virtual replicas**. AI algorithms can analyze vast amounts of data generated by Digital Twins, **identify patterns**, and **make predictions** or recommendations for optimization. By merging these technologies, organizations can unlock synergies that cut costs, speed up deployment, enable organizations to achieve **higher levels of automation, innovation, and agility**, and deliver significantly more value than either could individually.

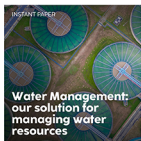
Circular Ecosystem

By crafting **accurate digital representations** of neighborhoods, infrastructure, and services - encompassing transportation, water networks, and buildings - and by gathering and analyzing diverse data sets, solutions can be explored to **enhance energy and water efficiency**, diminish pollution to alleviate traffic congestion, and promote more effective resource utilization. This approach serves as a valuable for sustainable urban planning and mitigating the impacts of natural phenomena and extreme weather events.

Responsible Productivity

Digital Twins play a pivotal role in **modeling and simulating energy systems**, water networks, transportation systems, and various infrastructure components. Organizations can **optimize resource** utilization and minimize waste. By analyzing data generated from Digital Twins, stakeholders can pinpoint inefficiencies and devise strategies for improvement, thus driving towards enhanced efficiency and sustainability in their operations.

Our Toolbox



Our Impact

