The INFRASTRUCTORS

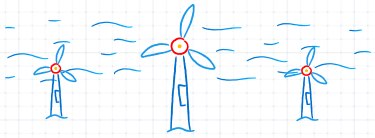
Delivering sustainable power for a Growing World

the executive summary

By 2050, demand for electricity could be **150% higher than it was in 2022.** But innovation needs to go beyond clean energy sources to confront the issues that make renewable energy difficult to implement.

A full transition will entail the delivery of **new generating capacity, from renewable to nuclear.** A corresponding expansion of transmission, distribution, and storage infrastructure will also be needed to support the demands of these new power sources.

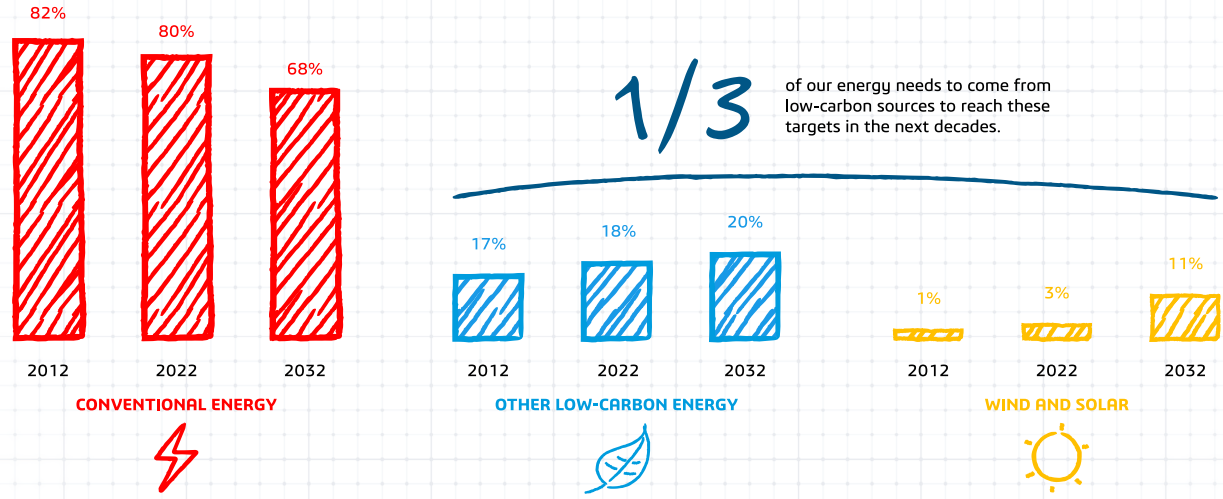
All these projects are costly and time-consuming to develop and deploy, which has historically deterred the necessary investment. However, **virtual twins provide a powerful way of de-risking** these pipelines.



By providing an end-to-end, multi-scalar view of assets in context, **virtual twins can also help with managing and maintaining a transformed energy ecosystem,** helping network operators support availability, reliability, and cost of energy.

The speed of scaling new energy technologies needs to grow x4 to meet global net-zero commitments

Low-carbon energy generation (wind, solar, and other) as share of the energy mix



Source: IEA; McKinsey Energy Solutions' Global Energy Perspective 2023

Dassault Systèmes supports the next generation of sustainability innovators through sponsorships of student competitions like AAKRUTI Global 2024. These competitions provide a playground for students to develop and showcase sustainable technologies that will drive a greener energy future.

Want to find out more?

Meet the Infrastructors