

ACCELERATE BATTERY INNOVATION THROUGH VIRTUAL TWINS

Empower battery R&D, engineering and manufacturing by modeling your product, process and business.



OVERVIEW



Leading innovation teams across many industries are leveraging modeling and simulation for their products, processes and resources.

Virtual twin experiences enable battery innovators to leverage real-time data for modeling, simulating, planning and executing efficient and scalable operations.



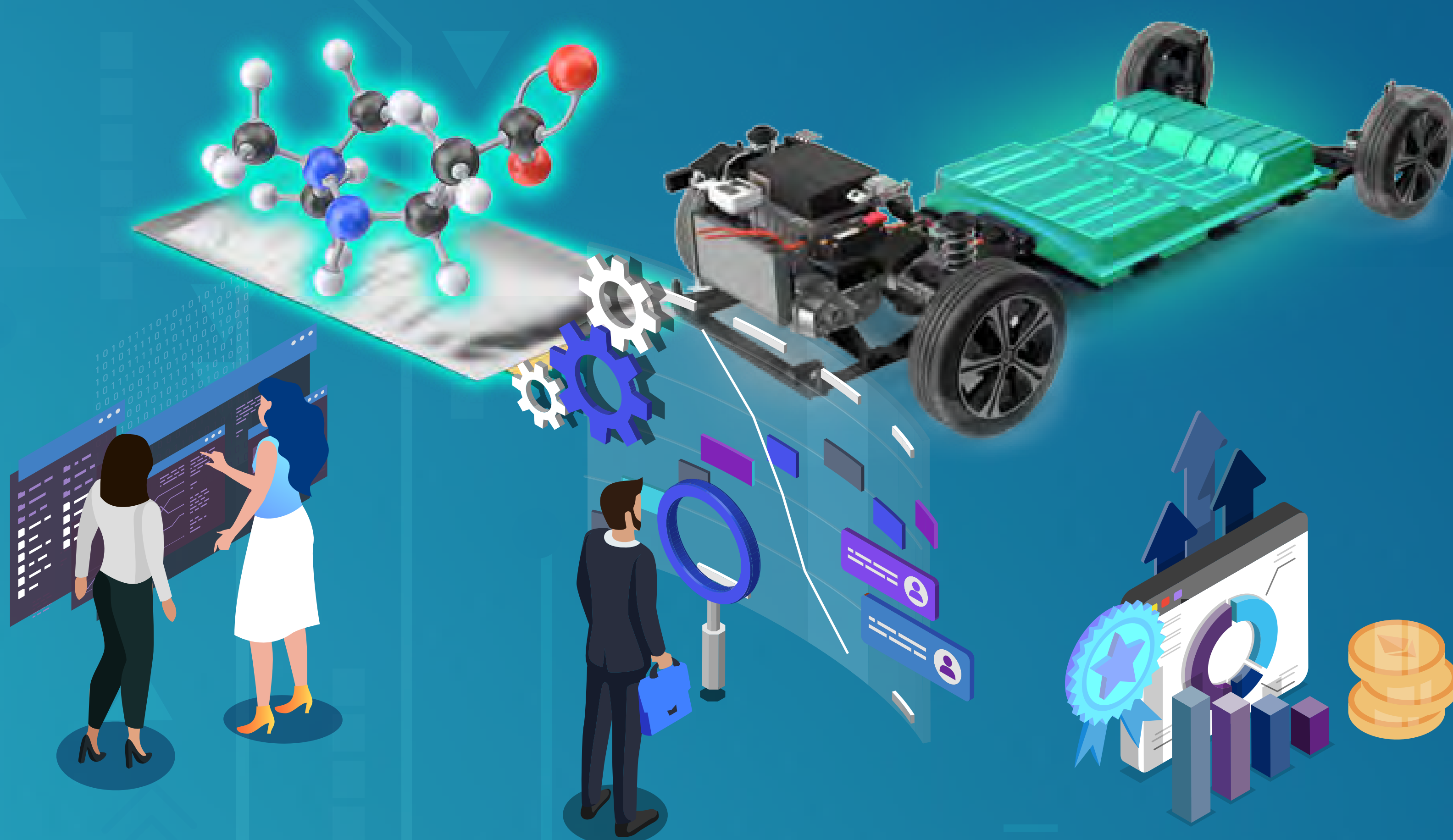
By integrating the entire value network, you will be able to accelerate and de-risk innovation: From molecule design to planning and running giga factories.



The 3DEXPERIENCE® platform delivers a collaborative, secure and scalable environment with world-class applications available on premise and on the cloud.

BUSINESS IMPACT

By working on a common platform for modeling and simulation, you can successfully:



Increase visibility and traceability

Reduce project complexities and risks

Improve efficiencies to deliver on time, cost and quality targets

Dassault Systèmes' customers have realized these significant KPI improvements in product engineering, manufacturing planning and operations:

R&D and Engineering

Battery materials modeling and simulation **+40%** Productivity of experiments

Simulation-driven cell engineering **+10%** Speed of New Product Introduction (NPI)

Integrated project governance **-10%** R&D costs

Quality and Compliance

End-to-end traceability

Integrated requirements verification



-5% Compliance and reliability defects

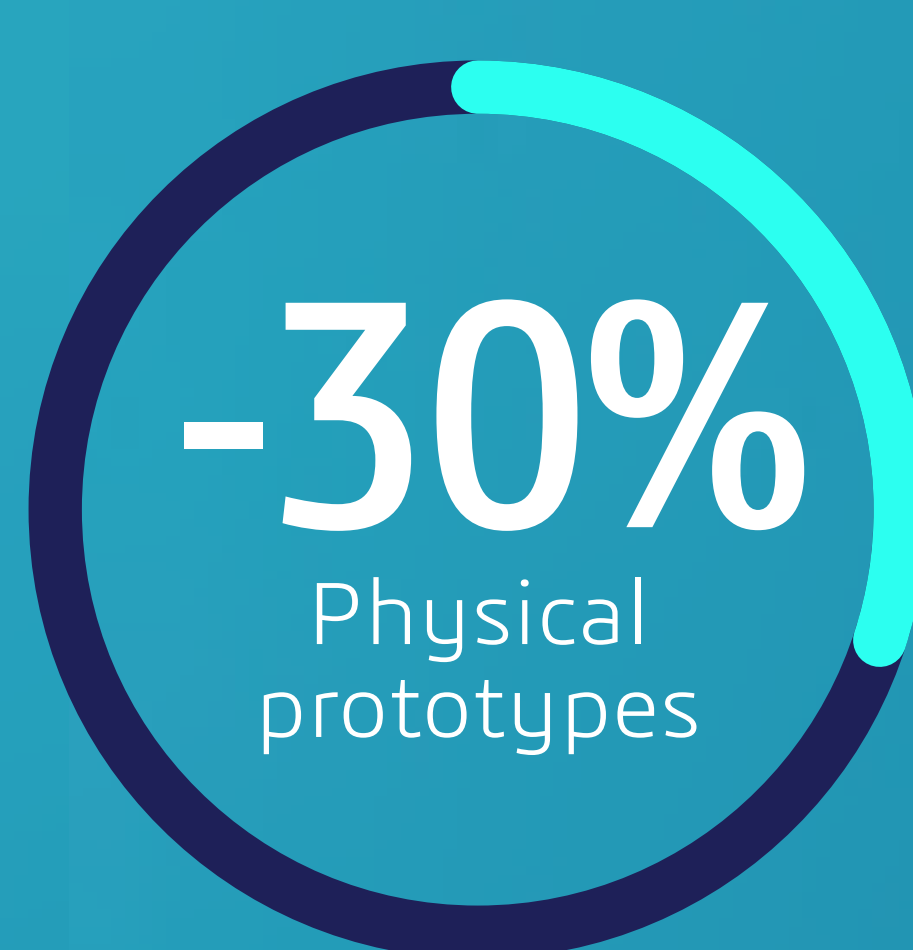
+20% Issue resolution efficiency

Engineering-to-Manufacturing Collaboration

Model-based collaboration

Early manufacturing involvement

Virtual twin modeling for shop-floor planning



Asset and Workforce Productivity

Predictive maintenance

Real-time analytics



Giga Factory



Virtual factory and workforce planning



Supplier modeling and one collaboration platform



Modularization strategies

-2 Months
Ramp up time

+20%
Decision-making speed in operations

+5%
Overall equipment effectiveness

Discover how virtual twin experiences can empower your battery innovation [here](#).