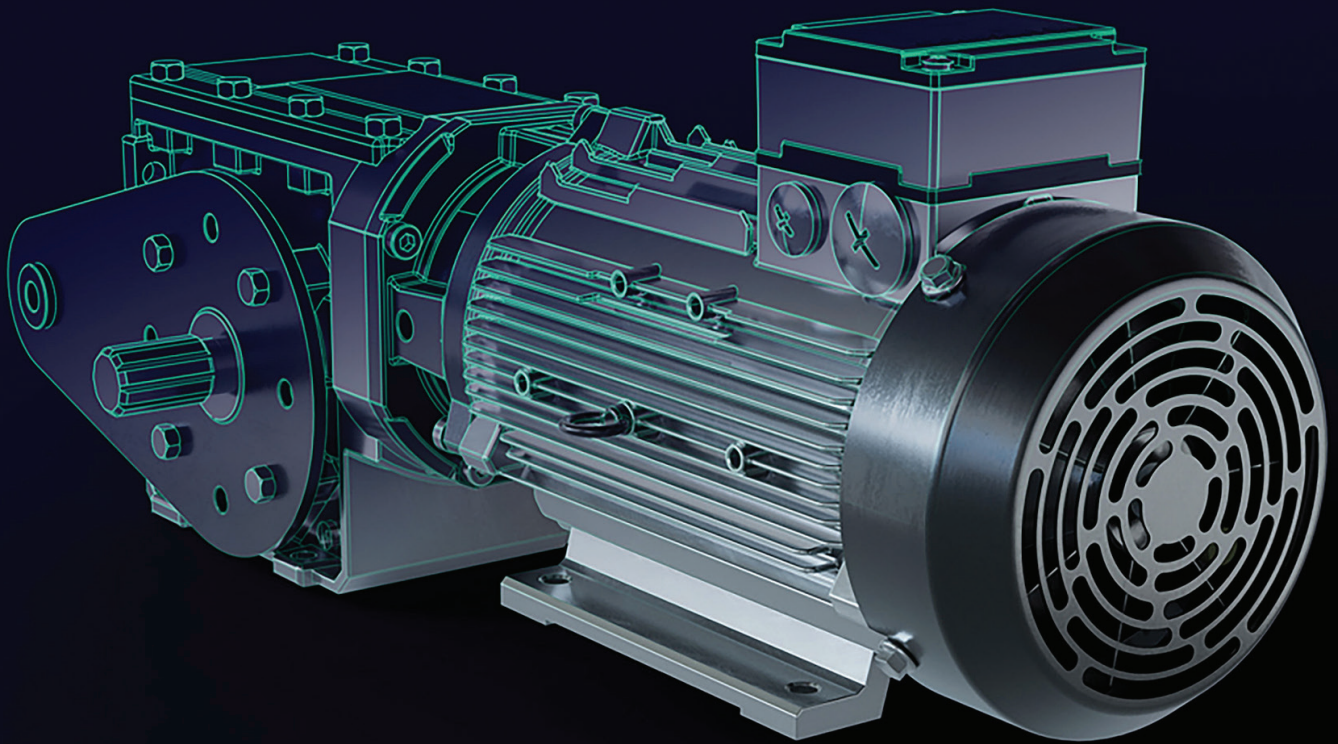


**DIGITAL INDUSTRIES SOFTWARE**

# Deliver the right products to market while balancing cost, sustainability, quality and speed

Learn how with Accelerated Product Introduction: NPI

[siemens.com/im/api](https://www.siemens.com/im/api)



### Trend #1

**Disruptive influences:** Increases in energy costs make it essential for manufacturers to operate with optimum efficiency, for example by reducing scrap and rework in manufacturing. They also need to deliver the most efficient and reliable products to their customers.

### Trend #2

**Smarter factories:** Industry 4.0 is driving efficiency and uptime improvements across industry with components as small as solenoids reporting electrical current and temperature to support remote diagnostics.

### Trend #3

**Business model changes:** Many nations are using carbon pricing as a method to address climate change. This places additional responsibilities and demands on every level of the supply chain to report their carbon footprint.

To stay in the forefront of Industry 4.0, equipment manufacturers must introduce increasingly innovative, high-quality, energy-efficient and sustainable products that outshine their competitors' offerings. This is especially true as more low-cost players enter the component and equipment manufacturing market unencumbered by legacy technology or outdated manufacturing methods.

Disruptive business influences such as smarter factories are further complicating matters where increasingly connected manufacturing systems generate a plethora of data, leaving untapped potential for businesses that fail to undertake a digital transformation. Digital practices make it possible to reimagine business models where companies use solutions to sustainably solve everyday challenges rather than rely on the limitations of specific products or manufacturers.

It is becoming clear to many that realizing holistic digitalization is pivotal to initiating change and success for equipment manufacturers. With cloud-based tools, you can navigate the increasingly complex landscape of industrial machinery, driving greater efficiency, velocity and revenue outcomes for your business.

### Key drivers

- An integrated new product introduction (NPI) process should ensure the product portfolio is in line with market demands, supporting modular, configurable design approaches
- Economically integrating sustainability into product development raises carbon-footprint visibility, helping drive the market toward carbon-neutral products
- Digitalizing the NPI process ensures the system is easy to understand and follow, enforcing the appropriate level of rigor



# Deliver products on time with digitalized NPI

Equipment manufacturers of all shapes and sizes face a common challenge: Introducing profitable product ranges to the market in a timely fashion. The NPI process can be time-consuming and complex as businesses discern how to design and manufacture their products swiftly and cost-effectively, all while ensuring parts are accurate, reliable and serviceable. With Accelerated Product Introduction, a digital thread solution by Siemens Digital Industries Software, businesses can manage NPI with ease by using digital tools that harness today's complex environment into a key competitive advantage.

Accelerated Product Introduction is part of the Siemens Xcelerator business platform of software, hardware and services.

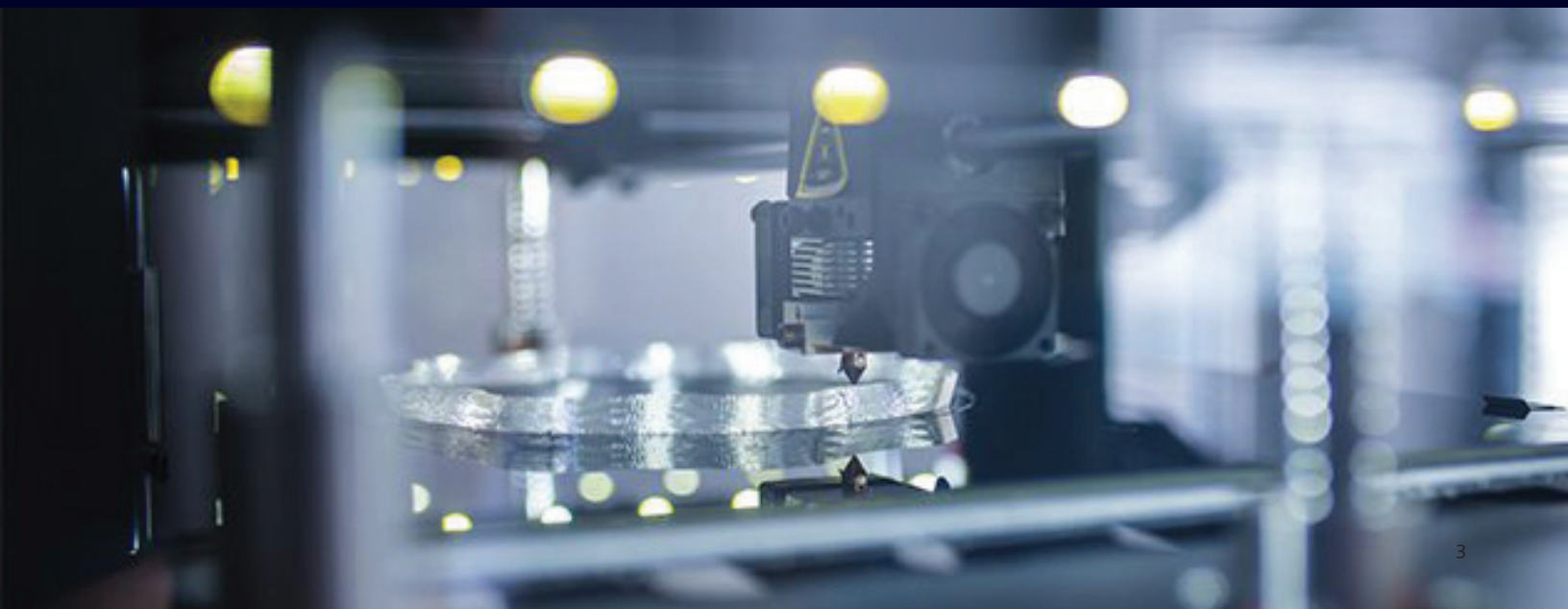
## **Align domains with a consolidated view of product data**

With Accelerated Product Introduction, equipment manufacturers use the cloud to connect team members, helping disciplines collaborate and provide transparency. This link means the design, product planning, catalog creation, manufacturing and adjacent domains can more readily collaborate

and align on product delivery needs, reducing bottlenecks common in traditional NPI processes. Furthermore, alignment means the teams can create a single, consolidated view of product data. This delivers greater transparency into the development and delivery process while standardizing procedures for greater consistency, leading to higher quality products.

## **Save resources with a comprehensive digital twin**

This merged view of product data is realized using a comprehensive digital twin. The digital twin is a holistic 3D mockup of a part made possible with design and simulation technology. Within a virtual environment, the digital twin enables the user to see how a part will function in various real-world conditions. By understanding the pros and cons of part materials, physics and their performance in the broader manufacturing environment, equipment manufacturers can tailor their part for superior performance and make strategic decisions about energy use, resources, sourcing and related supply chain decisions, helping control and even drive down costs.







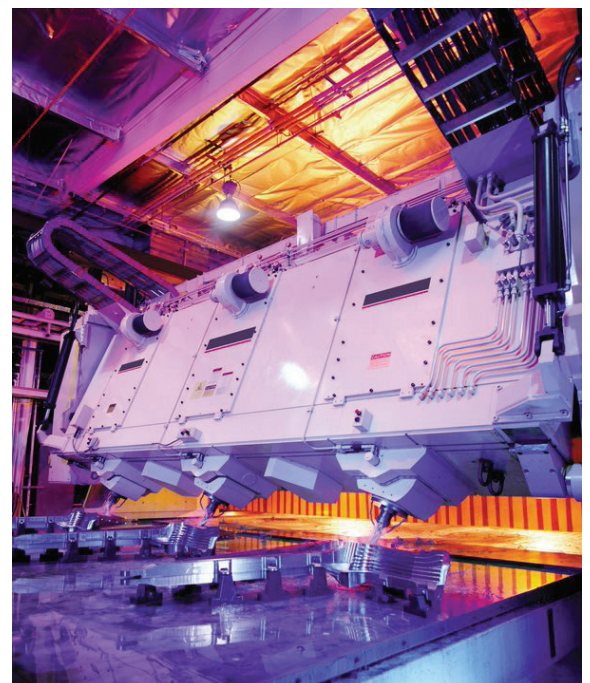
### **Verify requirements and adapt to market changes**

A common hurdle equipment manufacturers face is changing customer requirements. Traditionally, altering project deliverables to meet new demands can be time-consuming and costly, particularly in late-stage development. But with Accelerated Product Introduction, businesses can manage change requests with ease. Cloud deployments help balance internal needs against fluctuating demands by supporting collaboration no matter where a user is situated or what role they play – office or home, internal or partner. They can automatically and dynamically populate any model-based changes, leaving their joint view of product data intact. In turn, they will achieve more responsive planning, scheduling, execution and delivery.

### **Expedite product development with model-based engineering**

Armed with Accelerated Product Introduction, companies can integrate their systems, computer-aided design (CAD), computer-aided manufacturing (CAM), simulation, quality and manufacturing, to develop a holistic model of the entire NPI process. This includes requirements, product architecture, interface definitions, design alternatives, manufacturing and quality processes, all while

aligning on cost, safety, reliability and material decisions. This method helps equipment manufacturers perpetuate their consolidated view of product and process data, in turn accelerating the creation and delivery of products. Additionally, businesses can store and leverage model-based digital work instructions through the cloud, optimizing development and production processes.



# Accelerated Product Introduction provides a new path

As global competition grows, it becomes vital to maximize productivity and avoid costly, time-consuming mistakes. Using Accelerated Product Introduction helps you manage the NPI process with ease with a singular view of product and process data, a comprehensive digital twin that reduces resource reliance, a means for meeting customer changes in the moment and a holistic, model-based approach for delivering products sooner.

Now you can:

- Link component engineering, quality management and manufacturing systems, driving greater collaboration and alignment on new product development
- Generate greater consistency in the NPI process with procedural standardization

- Create a comprehensive digital twin that includes data around product and process performance, helping improve decision making in areas like materials, sourcing, and manufacturing
- Balance internal needs against changing customer demands with cloud-based connectivity
- Integrate CAD, CAM, simulation, quality and manufacturing systems, creating a holistic model of the product introduction process for greater alignment and generating greater velocity in the NPI process
- Use synchronized systems and a combined product/process view to streamline workflows, automate redundant tasks and validate product-making plans



**Siemens Digital Industries Software** helps organizations of all sizes digitally transform using software, hardware and services from the Siemens Xcelerator business platform. Siemens' software and the comprehensive digital twin enable companies to optimize their design, engineering and manufacturing processes to turn today's ideas into the sustainable products of the future. From chips to entire systems, from product to process, across all industries, [Siemens Digital Industries Software](#) – Accelerating transformation.

Americas: 1 800 498 5351

EMEA: 00 800 70002222

Asia-Pacific: 001 800 03061910

For additional numbers, click [here](#).

### **About Siemens and Amazon Web Services**

Siemens' solutions run on AWS, the world's most comprehensive and broadly adopted cloud platform. Together, Siemens and AWS enable industrial companies of all sizes to advance their digital transformation, from design and production, to edge and cloud. With the #1 company in industrial software and the #1 company in cloud behind you, there are no limits on what you can create.