

Accelerating innovation:



The digital transformation of electronic design

Electronics is everywhere ... with opportunities across multiple industries

Many different products, but with very similar challenges



Aerospace and Defense

- Avionics
- Engine systems
- Control applications
- Defense electronics
- Cabin lighting
- In-flight entertainment

Medical Devices

- Imaging systems in healthcare facilities
- Therapeutic equipment
- Handheld devices for miniaturization of medical devices

Automotive

- Hybrid and electric vehicles
- Advanced safety features
- Connected vehicles
- Infotainment systems
- Micro mobility

Electronics¹

- Smartphone devices
- Smart appliance technology
- Wearable technology
- Biocompatible products
- Personal mobility
- Smart city connectivity
- Industrial IOT

Mobile

Smart and connected

Augmented and virtual reality

¹ Consumer, industrial

Market Trends driving Innovation



Expansion into new markets



Device and product complexity



Supply chain volatility



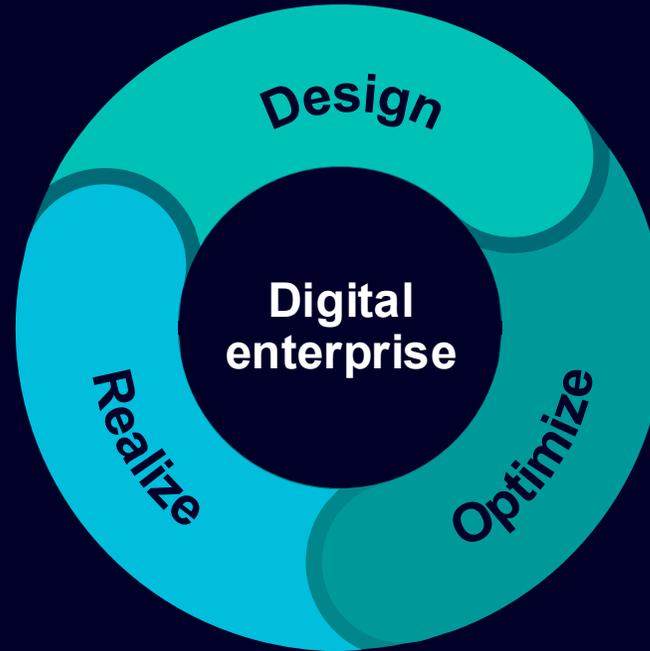
Sustainability and green initiatives

Data is
the new gold
to meet real world challenges



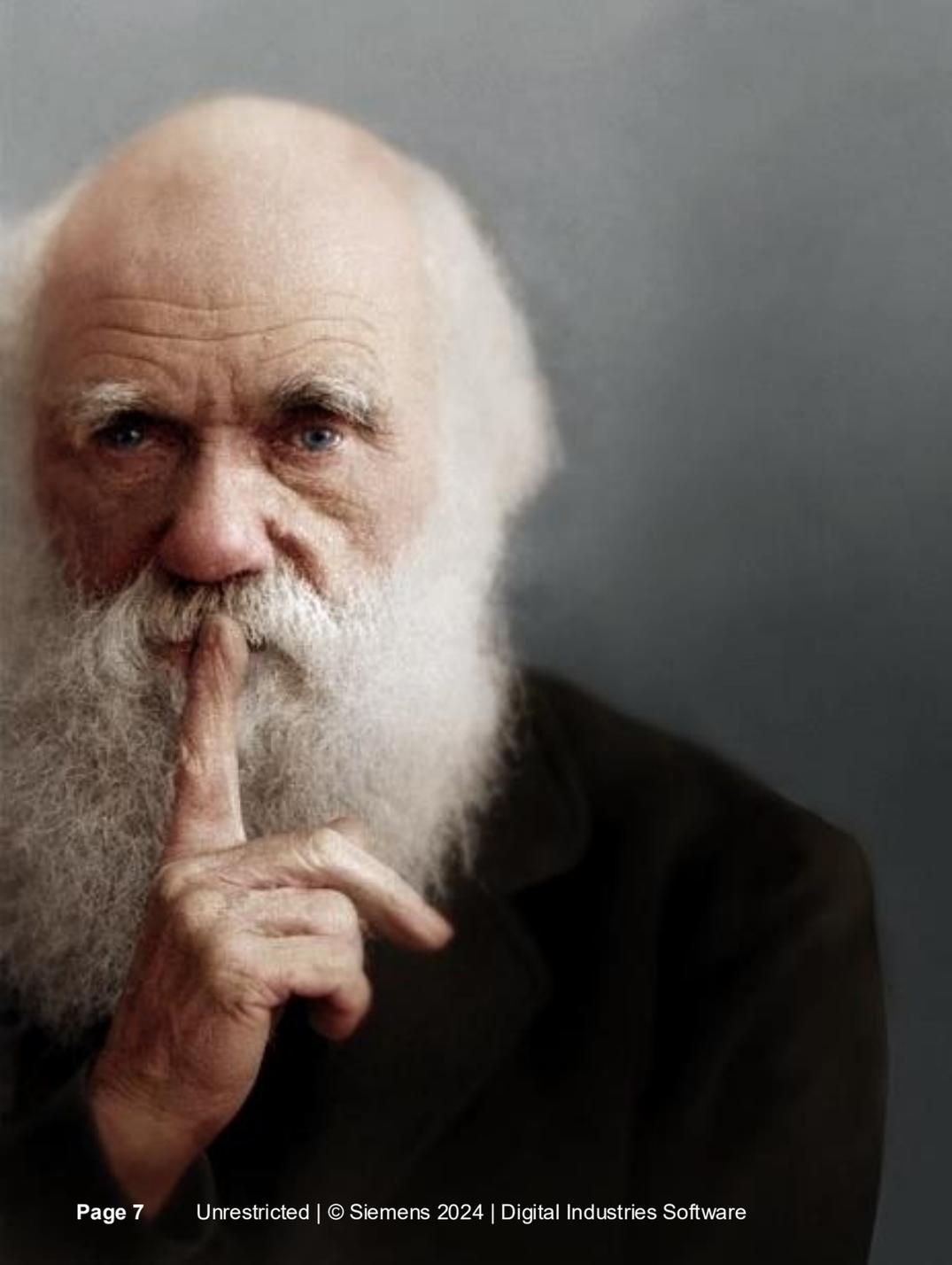
Digital world

The Digital Enterprise combines the real and the digital worlds with a comprehensive digital twin approach.



This enables continuous optimization of design, simulation, engineering, commissioning, automation, service, and recycling.

Real world

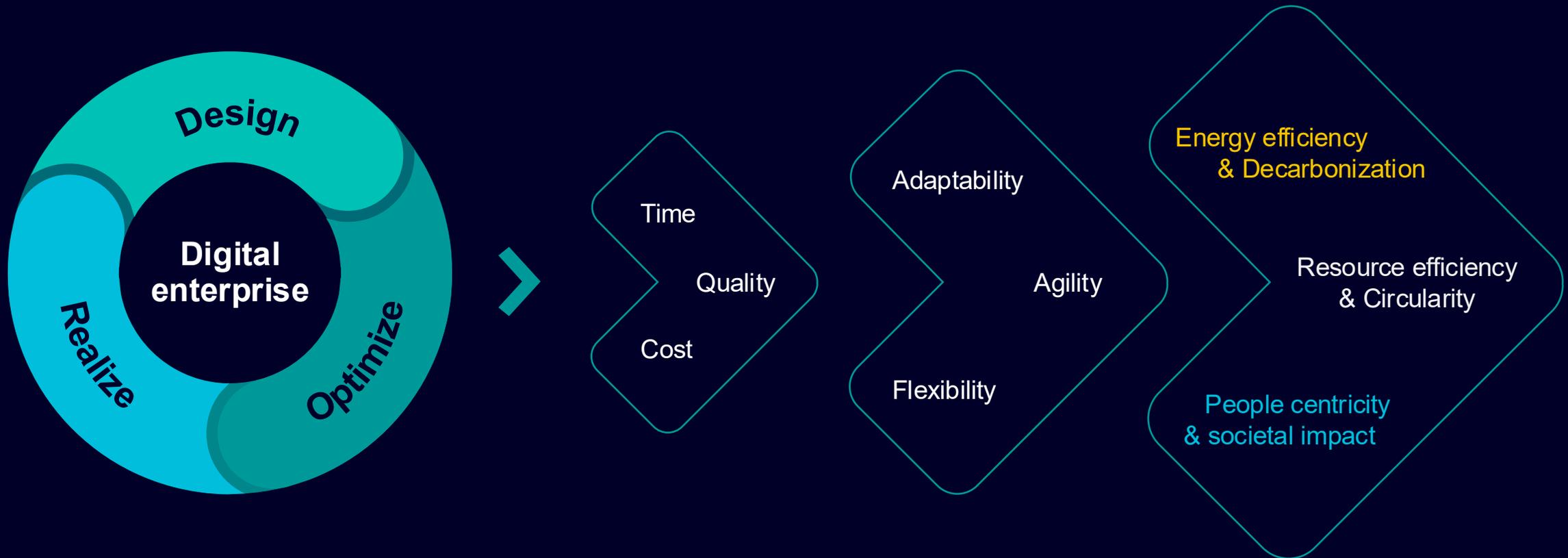


It is not the strongest of the species that survives, nor the most intelligent that survives.

It is the one that is most adaptable to change.

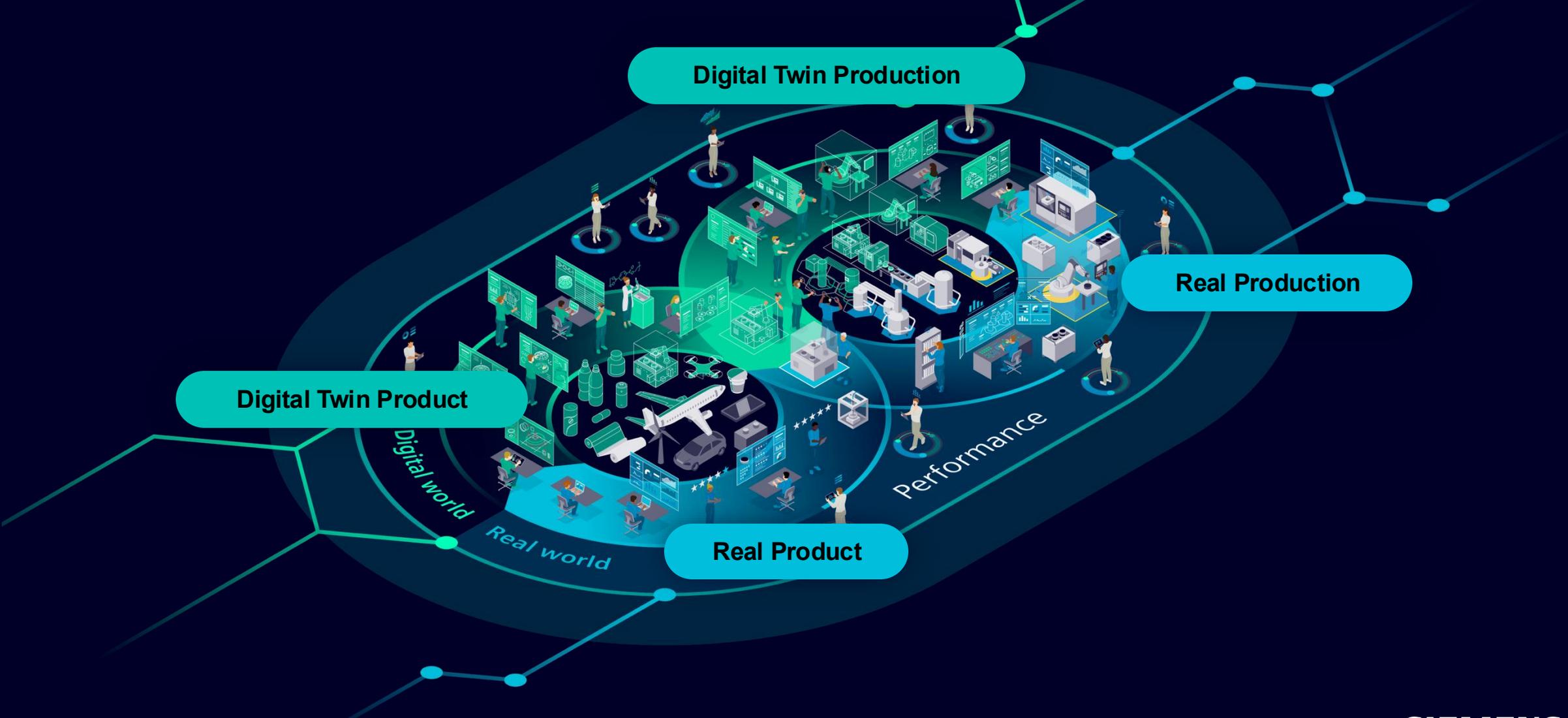
Charles Darwin

A digital enterprise holds the key to a sustainable business strategy



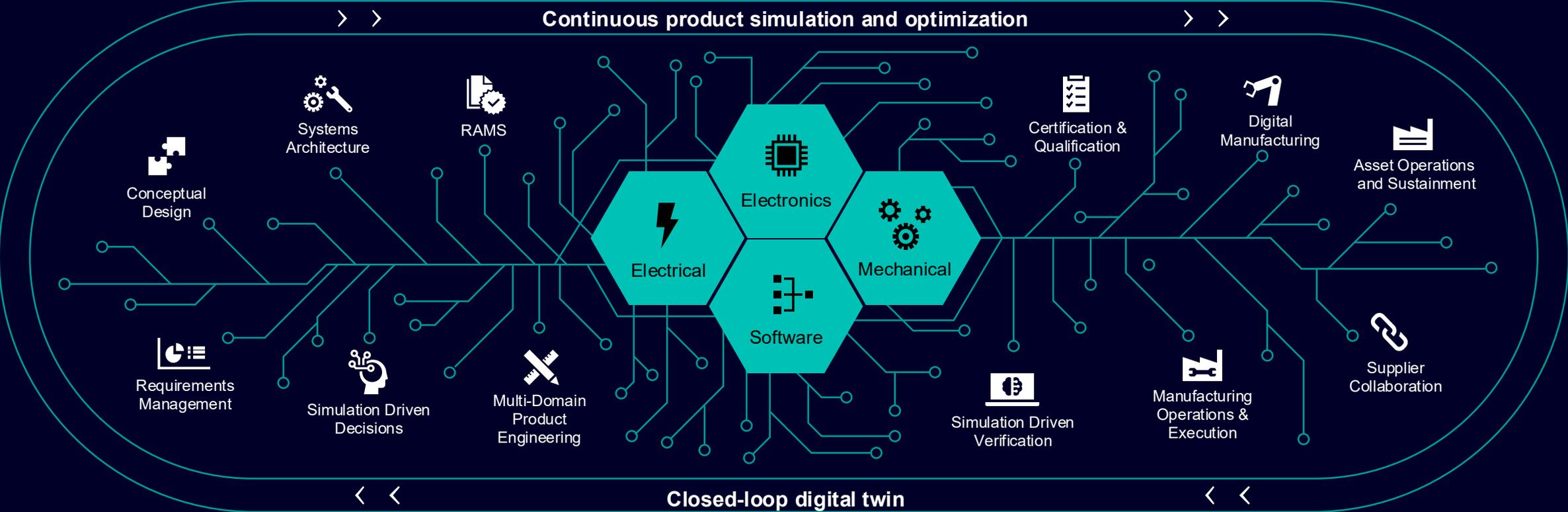
➤ Better, faster, more profitable and **more sustainable**

Closed-loop connections between the digital and real worlds across the value chain enable actionable insights and informed decisions



Siemens Xcelerator

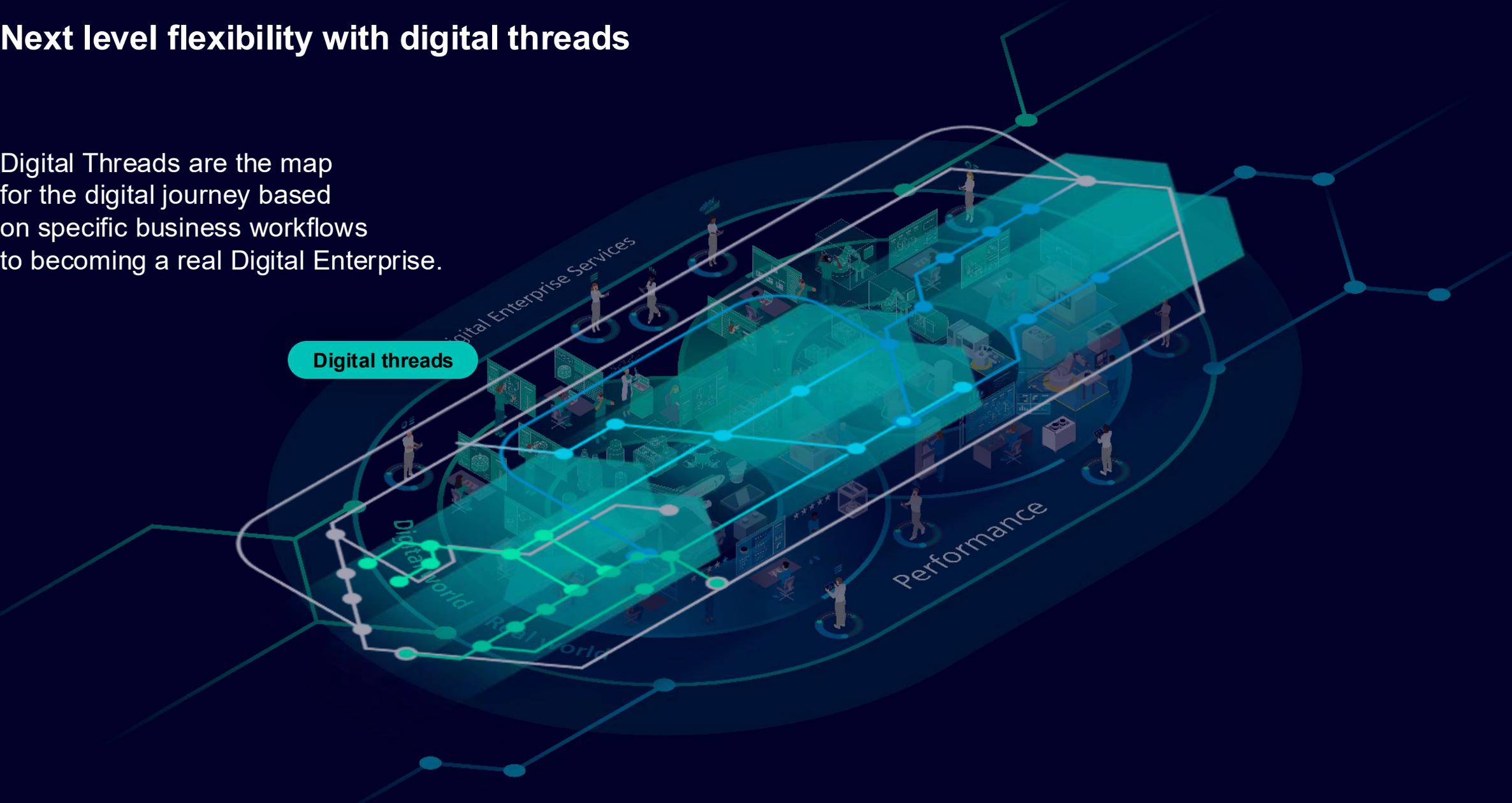
Solving the complexity of the world's most sophisticated products



Next level flexibility with digital threads

Digital Threads are the map for the digital journey based on specific business workflows to becoming a real Digital Enterprise.

Digital threads



Electronics Industry solutions



Integrated Lifecycle Management



Electronic Systems Design



NPI and Supplier Collaboration

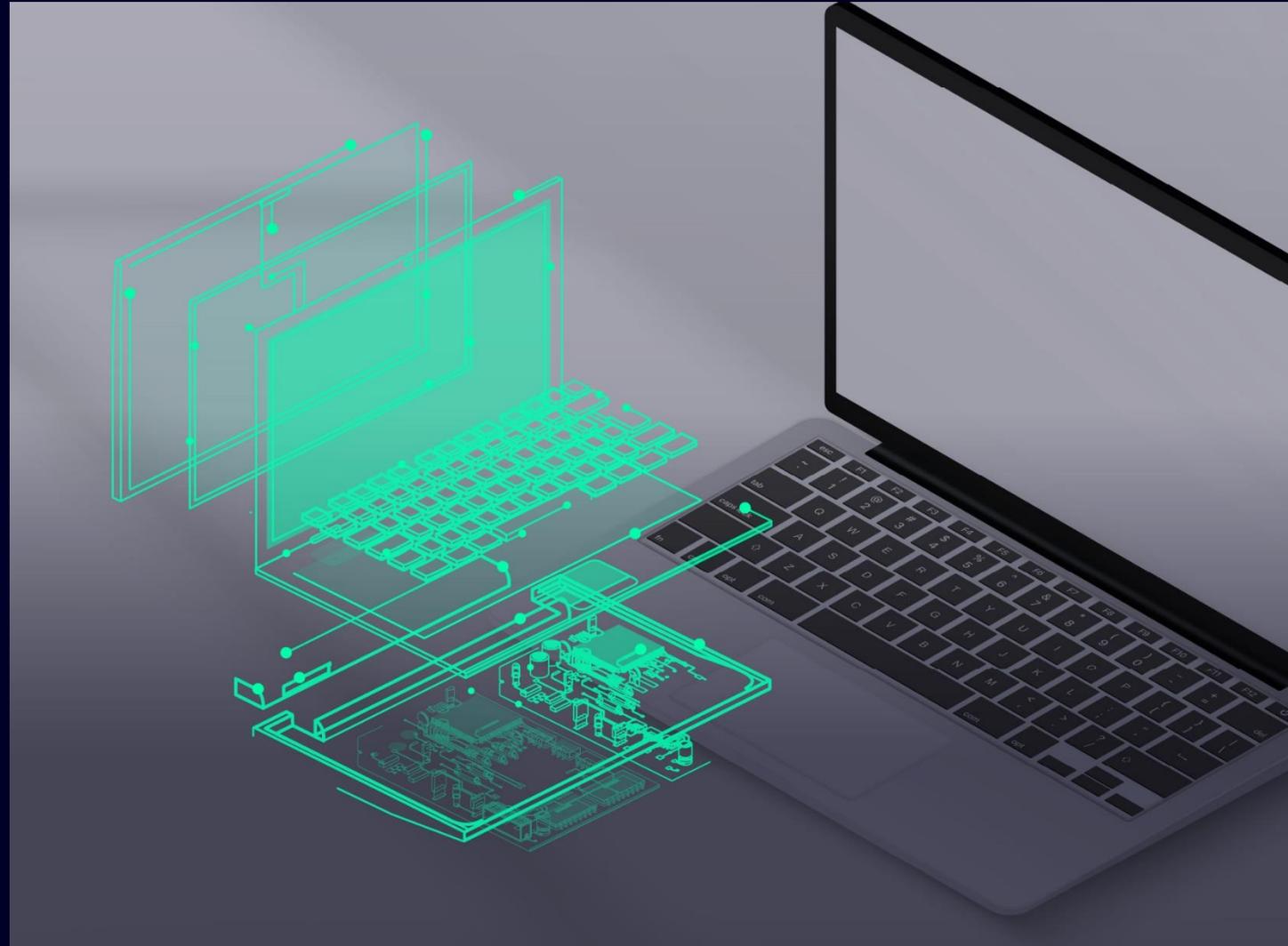


Smart Manufacturing



How can you ...

... keep pace with innovation to
accelerate the delivery of your
next-generation products?



Integrated Lifecycle Management

A single source of information and streamlined processes for managing all aspects of the product from concept to end-of-life

Accelerate next-gen products

Integrated collaborative environment

Start compliant and stay compliant

Integrated requirements & verification

Empower quality excellence

Closing the loop with quality

Launch your next-generation products faster

Leverage PLM as a strategic enabler for innovation, efficiency, and competitive advantage



Ensure a single source of information along with streamlined processes.



Manage all aspects of a system from concept to end-of-life.



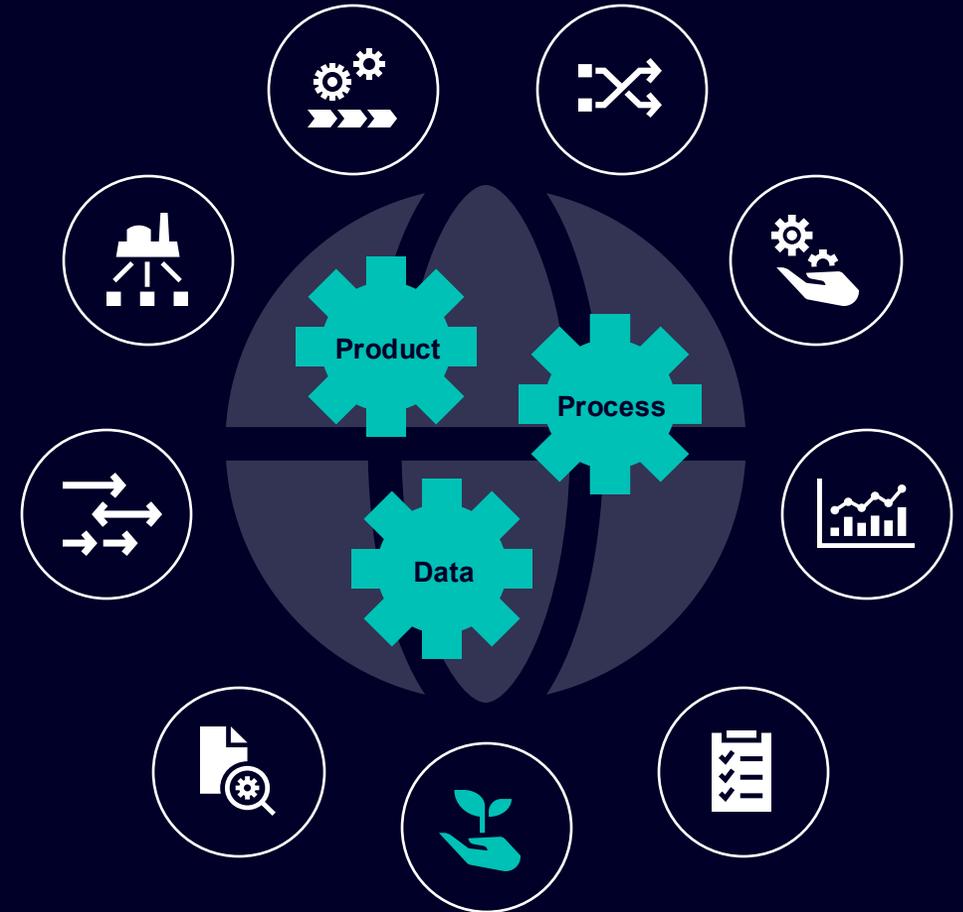
Build trust with customers with traceability throughout the product lifecycle.



Empower quality excellence by making unified, data-driven decisions.



Support compliance with environmental regulations, helping your business meet sustainability goals.



Teradyne

Automated test equipment for electronics

Customer Challenge

Reduce the costs of engineering and manufacturing by improving collaboration, project management and lengthy change management processes.

Solution

- Teamcenter
- Phased deployment of PLM, improving the management of requirements, documents, change and bill of materials

60%

Cost reduction for implementing change orders

\$2 m

Improved productivity savings annually

84% ↘

Time savings for engineering change order



How can you ...

... streamline complex product development processes while fostering innovation and reducing costs?



”

New product development requires a continuous collaboration of mechanical, electronics, simulation, and verification.

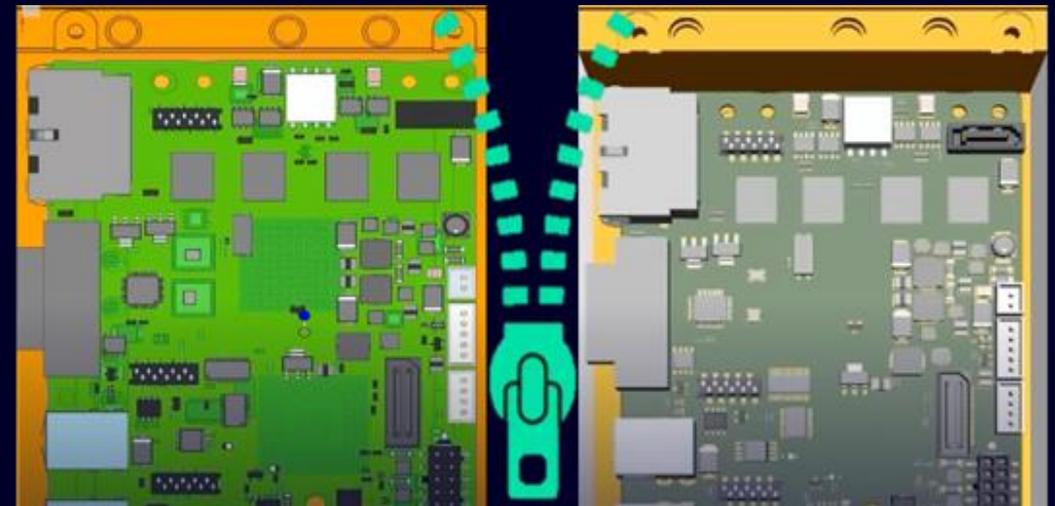
Source
Aberdeen Group

35%

of companies will have multiple ECOs

53%

of companies will need more resources



The impact of electronic systems design failure

Electronic Systems Design

Digital twins of design **reduce re-spins** and **get products to market faster**

Innovative design acceleration
Integrated tools and processes

Simulate early and often
Improve design performance

Validate with confidence
Improve efficiency & quality

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I am tasked with continuously improving our ECU thermal performance and reducing size, weight and costs.

Takuya Shinoda, R&D
DENSO Corp.

78%

Cost reduction in designing ECUs

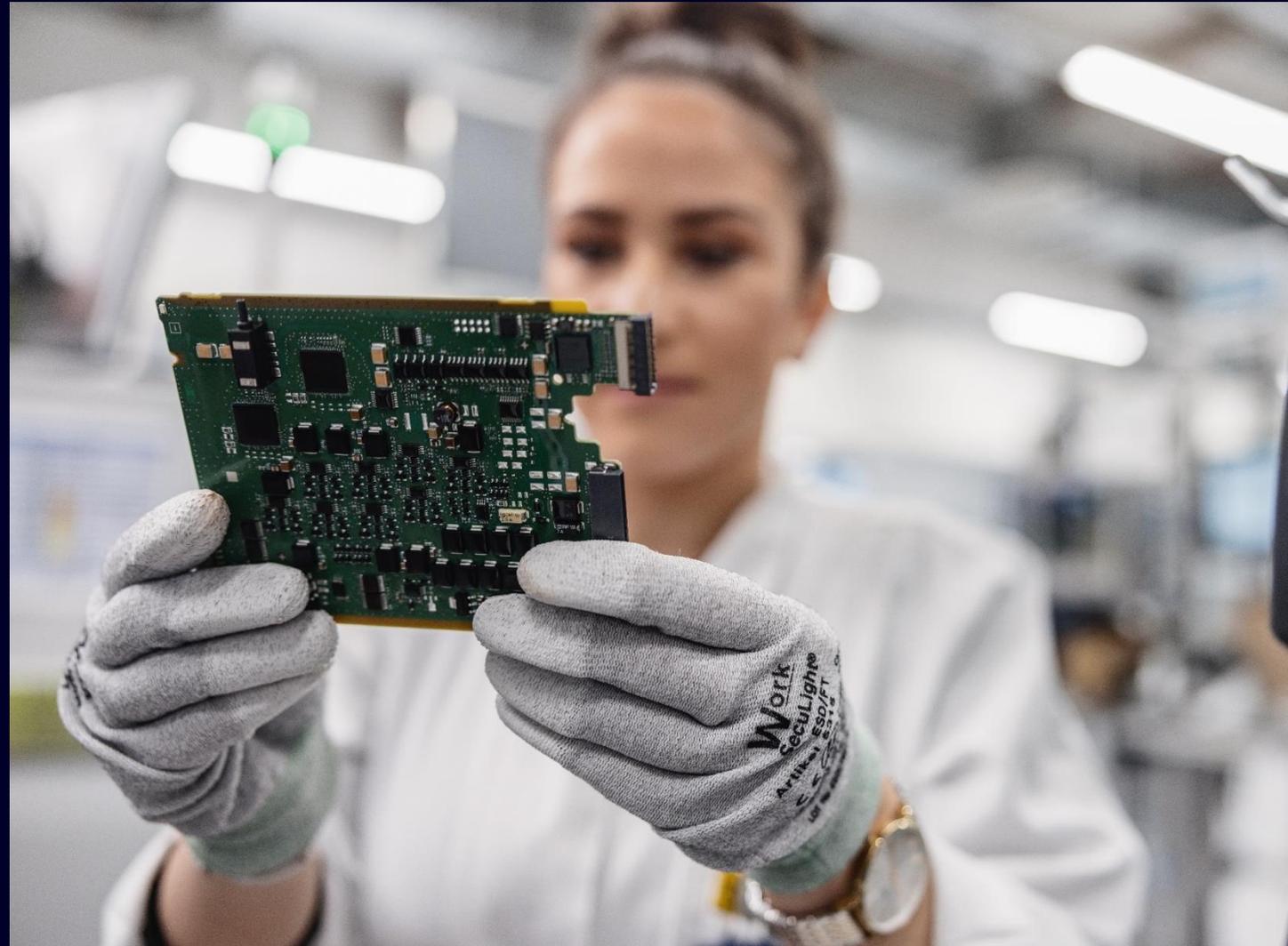
62%

Compressed thermal verification cycles



How can you ...

... get your products to market
faster and plan for the inevitable
supply chain issues?



NPI and Supplier Collaboration

Create a **seamless integration** with supply chain partners to improve productivity.

Faster time to market
Involve suppliers earlier

Reduce costs
Sourcing intelligence

Reduce risk
OEM  Supplier

Launch your new products faster

Align your new product development goals to accelerate time to market



Efficiently plan product configurations across global markets



Connect all design domains into a single, complete product BOM



Ensure supply chain resilience from the point-of-design through transfer to manufacturing



Manage cost and ensure compliance and sustainability



Collaborate with internal and external partners throughout the product development process



Make safer sourcing decisions based on real-time and predictive data!



Decreased new product introduction costs

Avg. 20%

Cut product sourcing cycle times



Achieved product leadership
in global markets

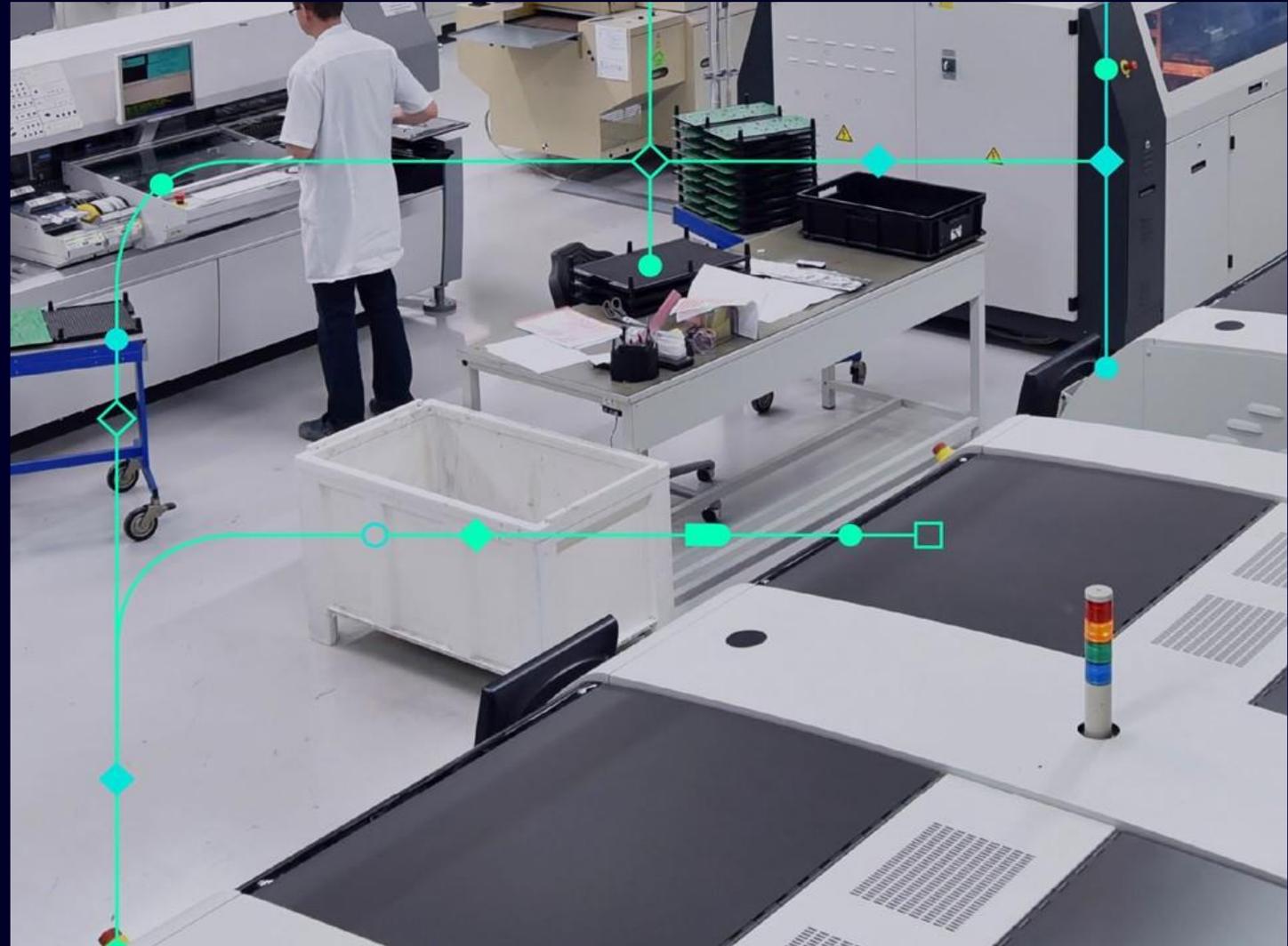
”
By eliminating custom quoting tools, email-based RFQs and integrating sourcing process within the Mercury Teamcenter system, we were able to unify data sources across multiple functional groups and increase the throughput of early supplier involvement events.

Praveen Sreedhar, Solutions Architect
Mercury Digital Services | Mercury Marine



How can you ...

... increase efficiency and eliminate pain points in your production system to meet the needs of today and address the challenges of tomorrow?



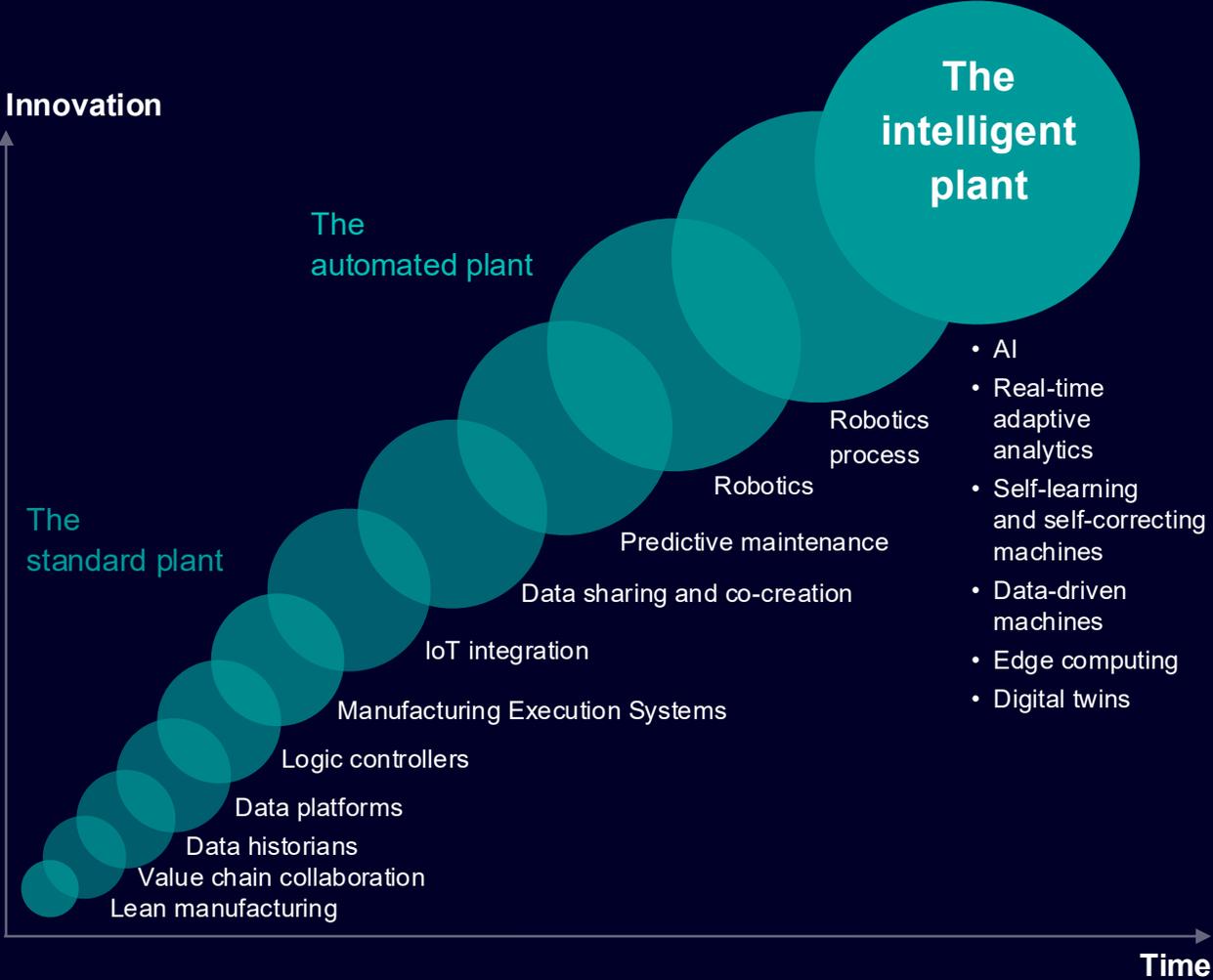
What are your strategies for the future?

Ramping up to the intelligent plant

70% of companies are already benefiting from Smart Manufacturing solutions.

Source: McKinsey

Source: IBM Institute for Business Value



Smart Manufacturing

Modern software and digital solutions approach to improve performance and flexibility

Increase efficiency

Optimize throughput

Reduce costs

Shorten NPI times

Improve quality

Real-time visibility & control



We have to make many decisions regarding the establishment of new production facilities or improving existing ones. Plant Simulation helps us make these decisions after simulating what-if production scenarios.

ASML

1,200

Printed circuit boards

4,800

Cable harnesses



Start accelerating your digital journey today

Through solutions designed for your business!



**Integrated Lifecycle
Management**



**Electronic Systems
Design**

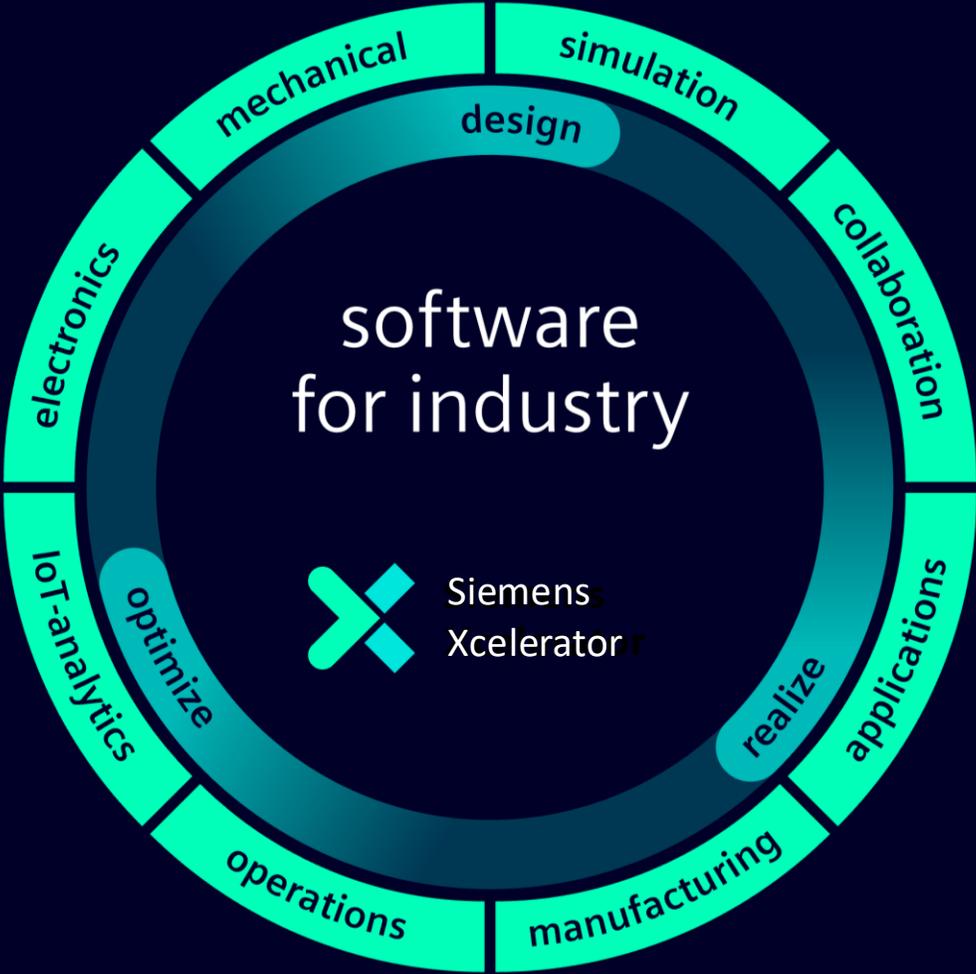


**NPI and Supplier
Collaboration**



**Smart
Manufacturing**

Siemens Xcelerator brings the comprehensive digital twin to life



Software is an integral part of

Siemens Xcelerator

to make digital transformation easy, fast and at scale

