



SIEMENS

Digital Part Production

Master the precision of the perfect part
with **Additive Manufacturing**

[siemens.com/plm/dpp](https://www.siemens.com/plm/dpp)

Trend #1

Consumer-driven demand for highly customized, high precision parts increases product complexity.



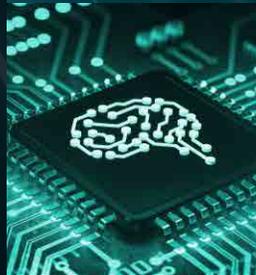
Trend #2

Smart manufacturing, explosive growth in the number of industrial machines connected via the Internet of Things (IoT).



Trend #3

Hyperautomation, greater automation of processes and the ability to take advantage of machine learning and reuse key data.



Trend #4

Global competition from flexible, agile start-ups who successfully leverage new technology, increases pressure on OEMs.



To **thrive** in today's highly competitive market, industrial machine manufacturers need to **design and manufacture** cutting edge parts and evolve with new tools that enable them to remain competitive.

Rising **complexity** generated by the need for **highly customized products with more challenging geometries and tighter tolerances** means that traditional manufacturing techniques are becoming **obsolete**. It is vital for OEMs to adopt new **technologies and tools** that enable them to develop the **next generation of parts**.

The revolution brought on by the **IoT and smart manufacturing** has increased customer need for **flexible, connected machines** that can be adapted rapidly to changing market demands. Understanding the **software** that powers these **smart machines** will be a key element driving success in the future. The smart revolution has also massively increased the amount **data** available. However, many companies are still limited by being unable to store or reuse this data effectively, losing out on the **insights and improvements** it can offer.

Agile start-ups have entered the market to stay, disrupting the status quo by **leveraging advanced technology** and delivering **low-cost components**, and increasing **global competition**.

Do you have the technology you need to master the precision of the perfect part?

To produce the high precision parts that your customers demand, you need to implement a digital solution to **improve product quality, design and flexibility**.

Key Drivers



Customization and smaller lot sizes drive costs up.



Need for high precision parts to ensure throughput, reliability and quality.



Smart, connected machines that make use of advanced technologies.



Low-cost providers are increasing competition, squeezing profit margins and lead times.

Are you ready for the future of digital part production?

Discover what the future holds in store for you.

Additive manufacturing is changing the way products are made. The stronger, lighter parts that can now be built require advanced digital solutions to design and support the programming of 3D printing.

Additive Manufacturing's integrated software applications allow you to reimagine products, retool manufacturing and rethink business models.

Connect via the digital thread

Digital threads form a single source of truth across the entire production operation. From engineering, through manufacturing, planning and execution, connect processes and people to the same data. Evolve away from the disjointed systems of the past and enjoy the benefits of connected collaborative systems that guarantee the seamless flow of information and eliminate the need for manual data transfers that can result in errors or duplication. The Digital Part Production solution provides a digital thread throughout your part production process that enables you to increase collaboration and improve control and traceability to reduce costs.

Drive production with the digital twin

A digital twin is the virtual representation of your physical component. It guarantees improved quality, design and flexibility, reduced costs and time to market.

Closed-loop validation

Leverage IoT capabilities to monitor production in the field and analyze real-time data to gain insights, streamline processes, optimize the throughput of parts through your facility and improve next generation of parts.

Open ecosystem

Thanks to our open technology ecosystem you can connect to the widest range of 3D printing hardware to ensure all your tools work harmoniously together. Our softwares support the latest 3D printing and multi-axis hybrid additive technologies.

Siemens Digital Part Production's Additive Manufacturing technology offers the technology and tools you need to be at the forefront of manufacturing the next generation of parts and machines.



Cycle time



Lead time for tooling



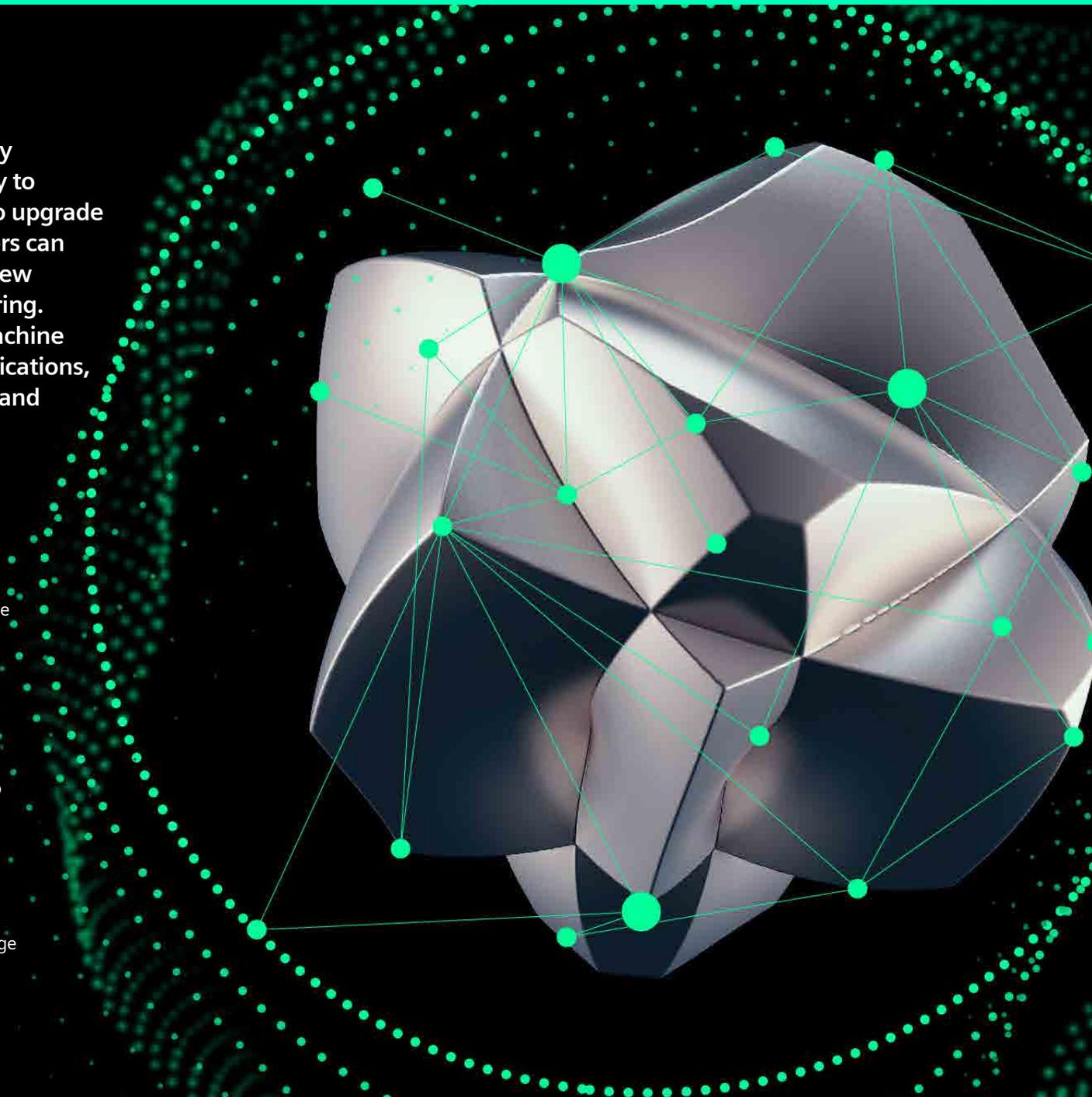
Opportunities for mass customization

It's time to master the precision of the perfect part!

As the market transforms, leading machinery companies are discovering that the only way to thrive is to adopt new digital technologies to upgrade their manufacturing processes. Early adopters can differentiate themselves by implementing new technologies, including additive manufacturing. By creating a comprehensive digital twin machine manufacturers can connect people and applications, design and build more complex geometries and significantly increase time to market.

Be an early adopter and stand out from the competition:

- Connect processes and teams via the digital thread, a single source of truth to generate efficiencies through enhanced communication and improved control and traceability.
- Increase innovation, generate highly complex designs and features. Improve product quality with optimal designs, weight savings and more material options.
- Design, simulate, validate and build in one environment to reduce time to market.
- Improve design flexibility and respond to changing market demands. Drive production with the digital twin to build a wider range of parts.
- Reduce production costs and streamline processes. Leverage the IoT to gain knowledge and improve performance.
- Shorten lead times. Print complete parts in single work pieces and simplify assembly.



About Siemens Digital Part Production:

Siemens DPP solutions help industrial machine manufacturers drive end-to-end manufacturing processes and deliver high precision parts. DPP offers automated programming, to optimize machine processes and boost productivity. Its digital thread connects teams throughout the entire production operation to generate greater operational efficiencies. Digital twin technology makes it possible to understand and re-use data to improve future designs, enabling companies to develop more complex geometries to successfully differentiate themselves from their competitors.

For more information on Siemens's Digital Part Production solution, visit [siemens.com/plm/dpp](https://www.siemens.com/plm/dpp) or follow us on [LinkedIn](#) and [Twitter](#).

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