SIEMENS
Ingenuity for life

Industrialize Additive Manufacturing

How to integrate Additive Manufacturing into my business?

What are the major challenges?

Additive Manufacturing (AM) is on the edge to become a standard process in the manufacturing industry. Although introducing a new process technology is always a challenge for manufacturers, industrialize Additive Manufacturing requires to handle incomparably bigger challenges, such as:

- New materials with new properties
- New design chances and challenges
- New manufacturing process and quality requirements
- New business opportunities

During introduction of Additive Manufacturing, companies are forced to make extensive adjustments often without having the required expertise; hence, missing to leverage the full advantage of this new manufacturing technology or only using it for prototyping purposes.

Furthermore, industrializing Additive Manufacturing requires a comprehensive view on business processes (from engineering to production and service) and a proper integration of dedicated processes along the entire supply chain.

What are the advantages?

The main advantages coming from the industrialization of Additive Manufacturing are related to cost and time for supply chain purposes. Cost wise, it has been proved that AM can reduce the process resources up to 65%, the effort for handling and storing materials and tools up to 50%, the greenhouse gas emissions by 30%. Time wise, AM has shown a reduction of development lead time up to 75%, production lead time up to 50% and repair lead time by 60%. Moreover, additional benefits are coming from the extended flexibility in the design and the production of parts. AM also overcomes the limited manufacturability of complex parts (e.g. number of assembly operations) produced by traditional subtractive manufacturing.

How do we master the challenges?

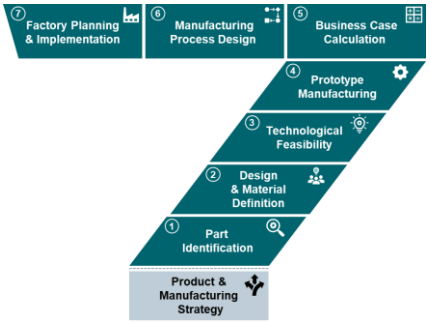
Based on our experience, gained in various AM industrialization projects in different industries, we developed a structured approach to guide our clients through the transformation process.

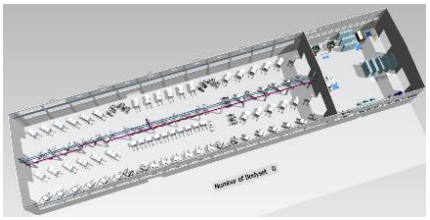
In accordance with the client's product and manufacturing strategy, the proven approach covers the industrialization from the identification of potential parts until the implementation of the manufacturing technology in the production environment.

Our approach is based on SEVEN steps:

1. Part identification
2. Design and material definition
3. Technological feasibility
4. Prototype manufacturing
5. Business case calculation
6. Manufacturing process design
7. Factory planning and implementation

In cooperation with our team, you will be guided to become a champion in the Additive Manufacturing business in a structured way. Finally, you will get quick access to our network of experts, forming our Additive Manufacturing ecosystem e.g. product design, advanced materials, automation, digital technologies and supply chain management.





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