

# EOS Additive Minds

## AM as key driver of Digital Manufacturing

Booth: Hall 27, Stand D52



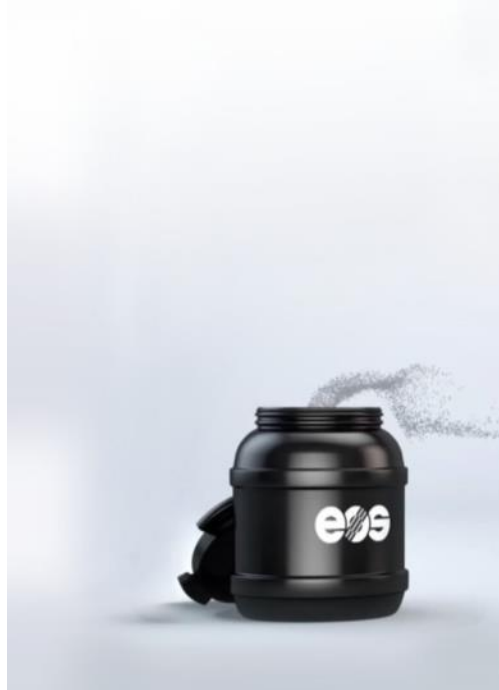
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# EOS: Technology and market leader for design-driven, integrated AM Solutions in the Production of the Future

- Family-owned, founded in 1989 by Dr. Hans Langer
- Focus on end-to-end Solutions for Additive Manufacturing: from part design and data generation to part building and post-processing
- Active in a variety of industries, focus on medical, aerospace, automotive, industrial applications
- EOS is committed to:  
Innovation – Quality – Sustainability



# We offer AM Systems, Powder, Software, Services and value-add Consulting services through ADDITIVE MINDS



**Material**



**Systems**



**Software**



**Services**

# What is Innovation?

*„Turning great ideas into hard cash“*

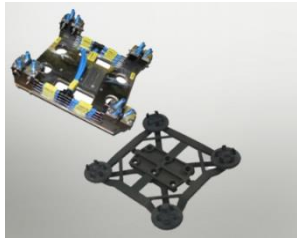


# Innovations with Additive Manufacturing Technology

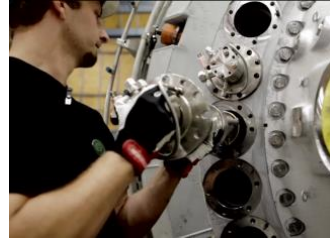
## Innovative Parts



Optimized piping



Robotic Gripper



Gas Turbine Burner Tips



Automotive Spare Parts

### Key Characteristics

Complex Structures, Functional & Part  
Integration, Mass Customization

## Digital Manufacturing Cells

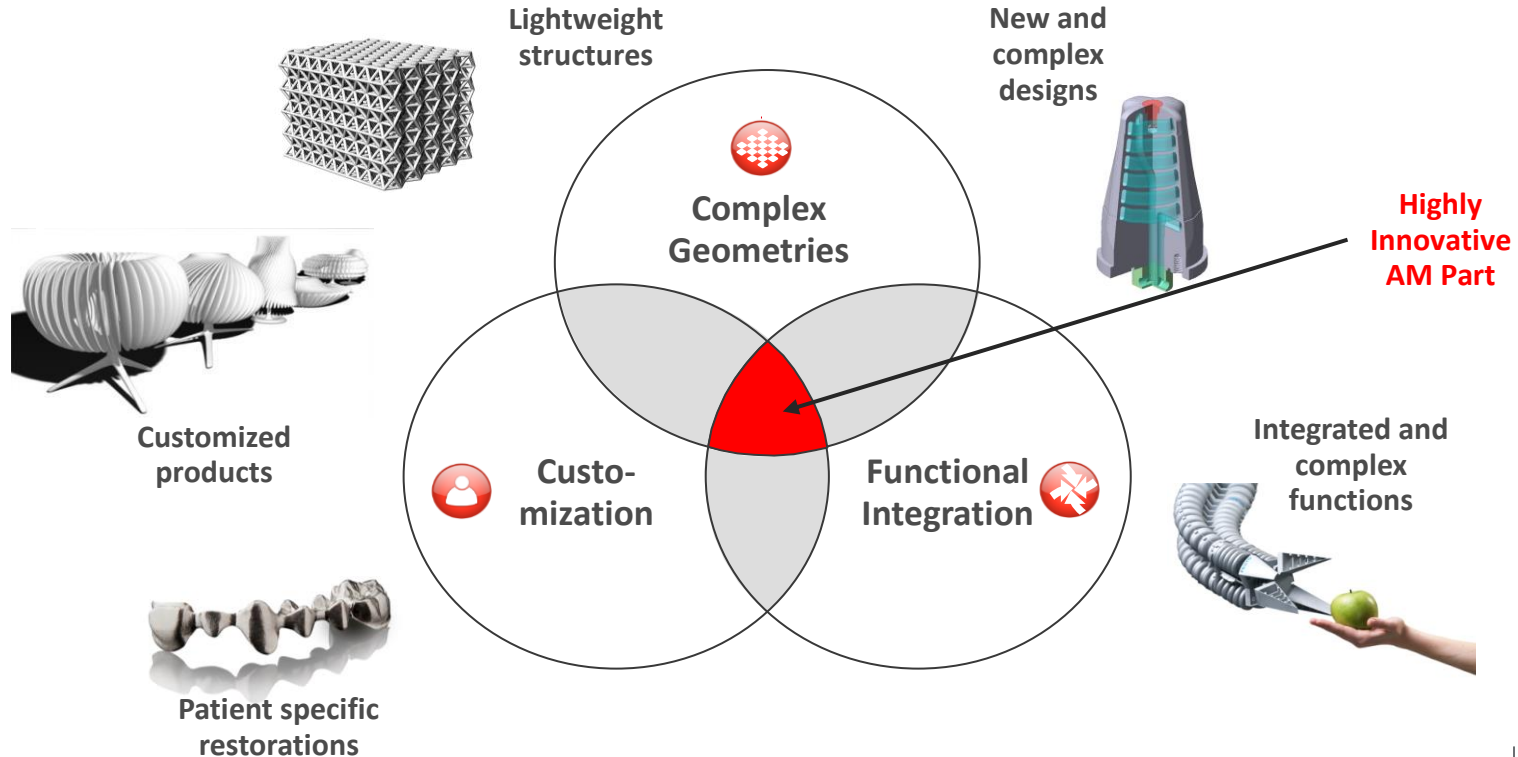


The "NextGen" AM Production Project

### Key Characteristics

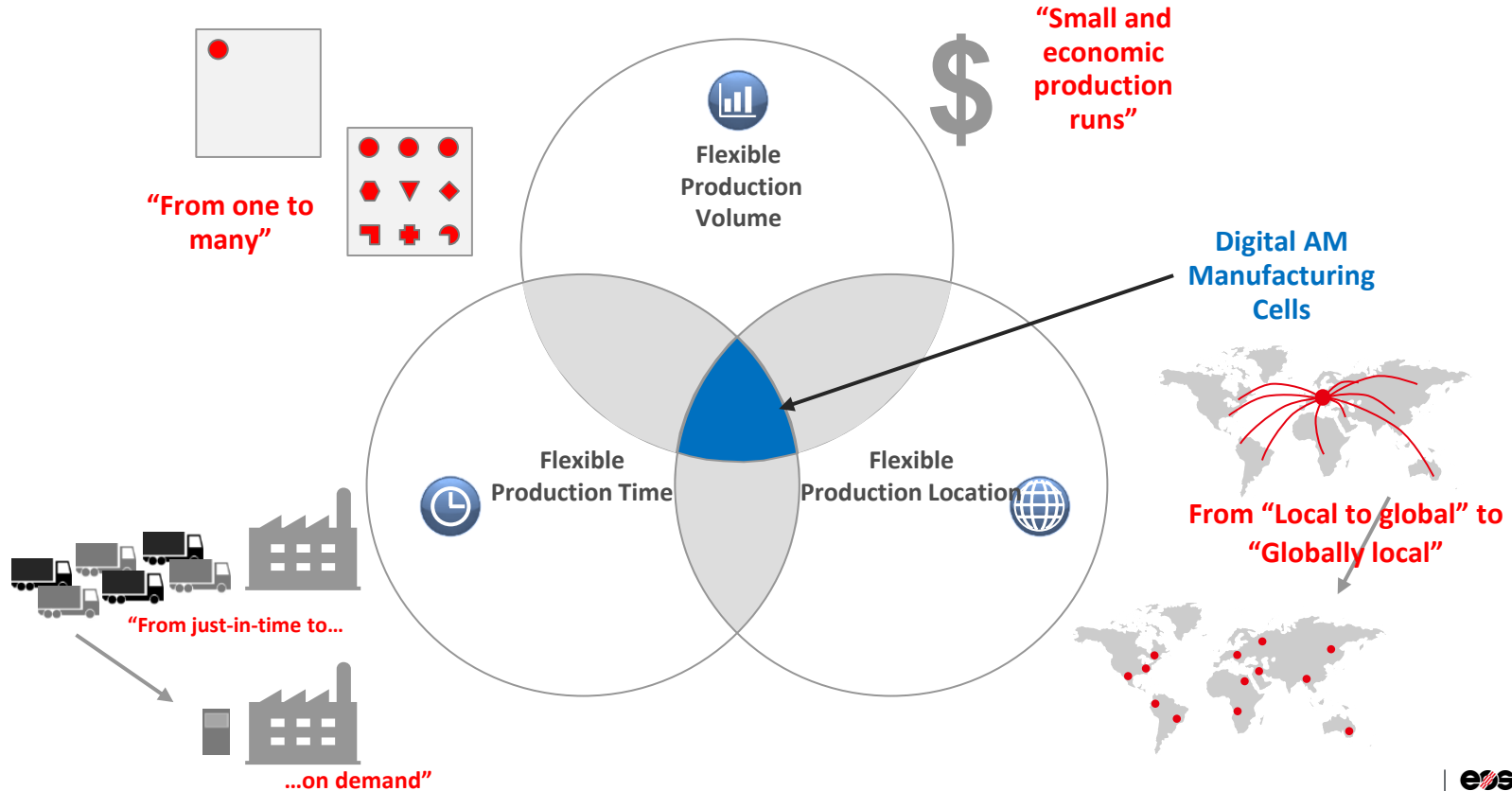
On Demand Production, Small Series,  
Localized Cells

# Characteristics of the Innovative AM part





# Characteristics of a highly efficient AM Production Chain



# Benefits, Savings + Added Value



Mass Customization



„Complexity comes for free“



Co-Creation with Customer



Waste reduction



No tooling costs



Part Performance Improvement

Lower Cost of inventory



Shorter time-to-market



Supply chain simplification



Lower capital investment  
for more complex products



Weight reduction



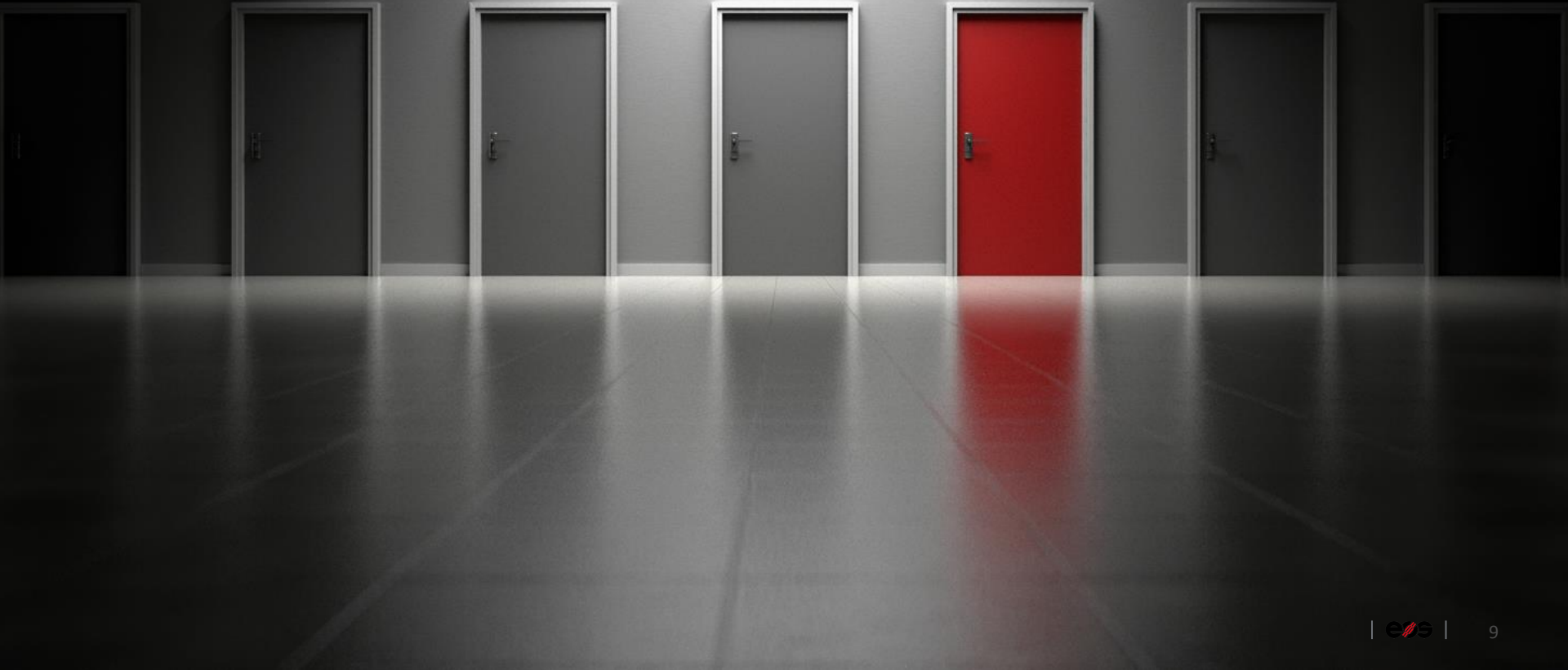
Fast and iterative prototyping





# Industry 4.0 is the door opener for the AM Technology

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# Additive Manufacturing is evolving step-wise from Pre-Production into the Digital Manufacturing

## Past: Prototyping



- Technological capabilities



## Today: Pre-production



- Part quality
- Process robustness
- Cost per part



## Next 3 years: AM within Digital Manufacturing



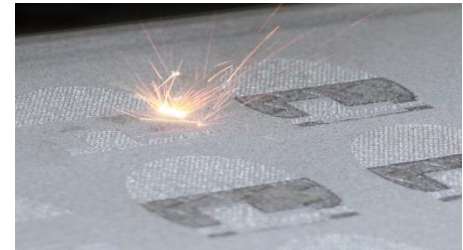
- Quality control
- Differentiation
- Total cost (TCO)
- Automation
- Technology integration

# Digital Manufacturing is...

*...all about Technology and Transformation*



# EOS has a holistic approach which includes services and technology to drive industrialization of AM production



# The “Digital AM Factory of the Future” has already started in Germany!

## Envisioning an automated AM production process



1. **Material:** Adding high quality metal powder



2. **System:** Efficient processes due to four-laser technology of EOS M400-4



3. **Process:** Automated removal of material



4. **Production:** Robotic assistance for further processing



5. **Result:** Automated removal of finished part

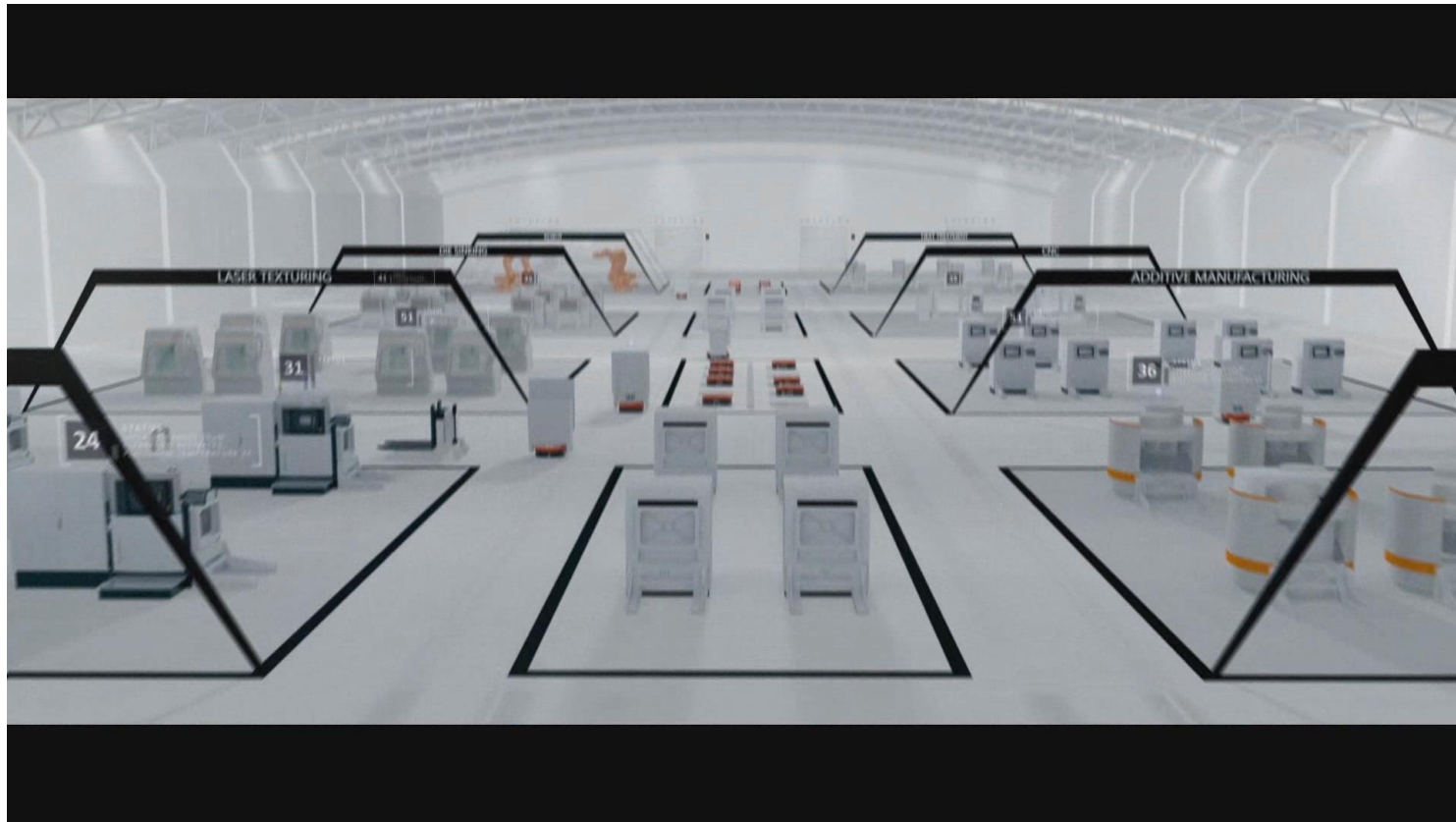
6. **Data:** Integrated data management and analysis



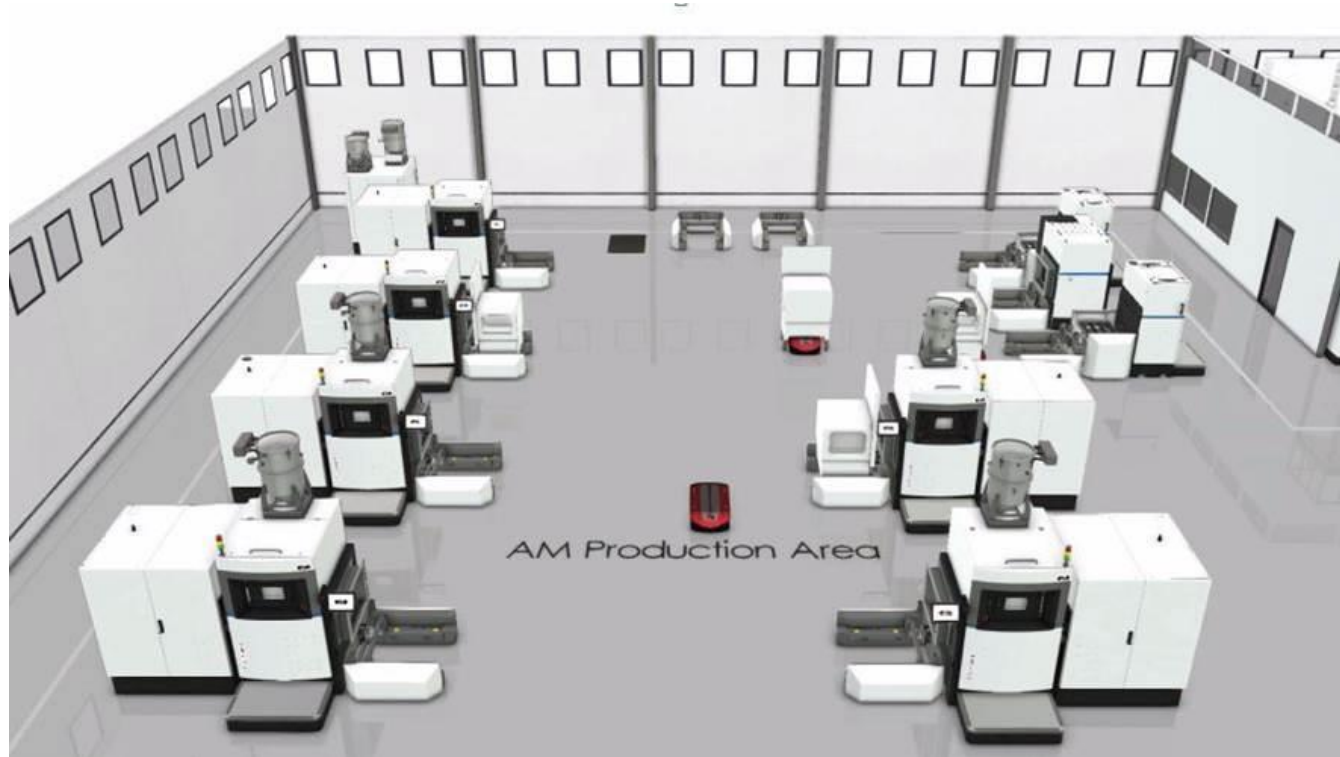


# Outlook to a „Digital connected AM Production Cell“

link: <https://youtu.be/QC6w4s-kqQQ>

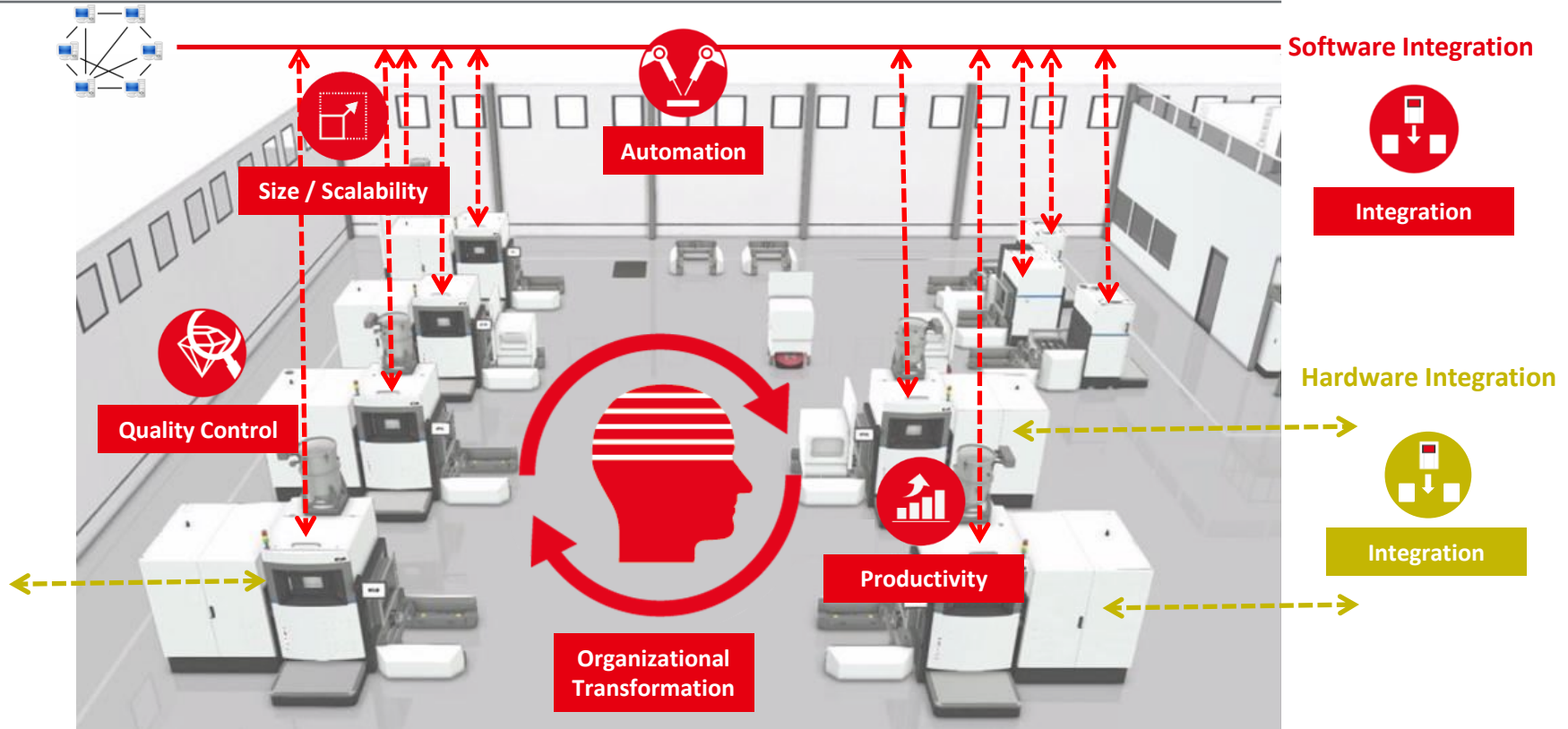


# Visualization of an Digital AM Production Cell





# Deep-dive into the Digital AM Production Cell

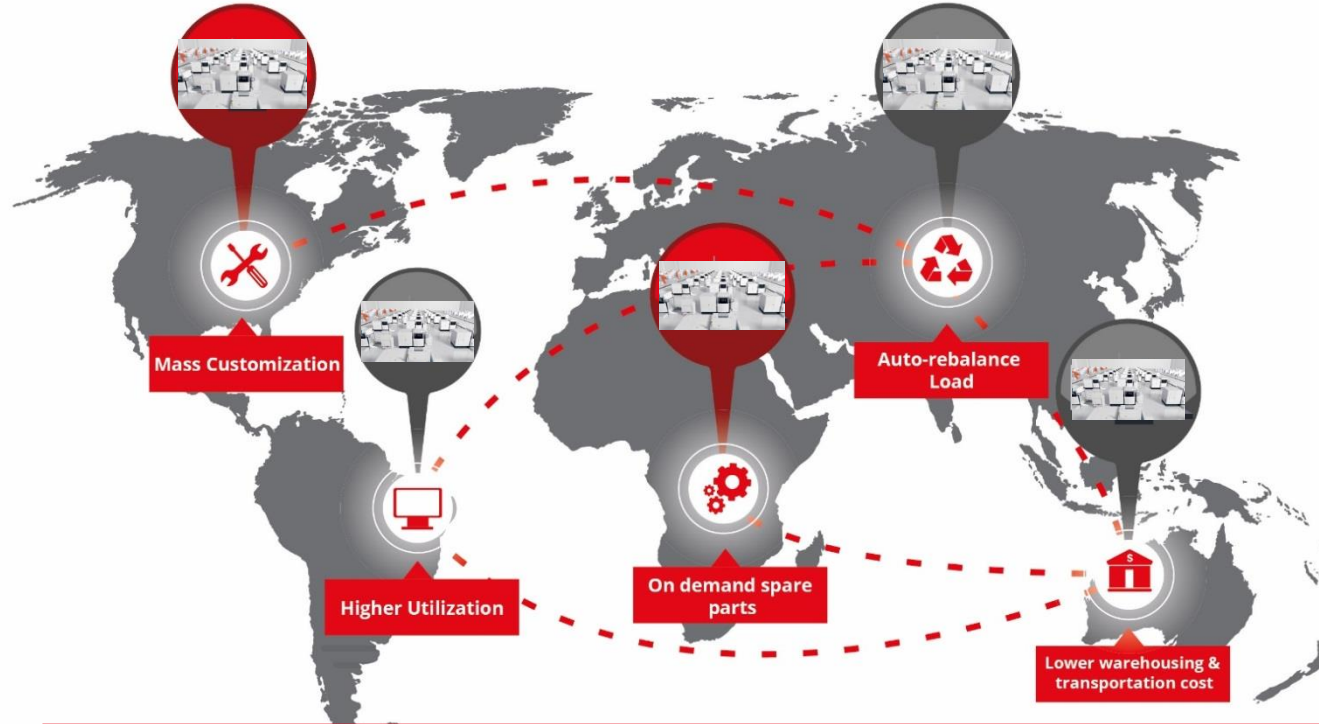


# Strategic Outlook on disruptive waves – Digital AM in the next decade



# Adding Digital AM Production cells with Digital AM Networks leads to Digital AM Production Cell Network

Connecting two disruptive forces into one exponential mega force



**Globally connected Digital AM Production Cell Network**

# The digital AM factories of tomorrow: Evolution from Connected to Digital Marketplace



Distributed  
Manufacturing



Distributed AM

Digital AM



Digital  
Manufacturing  
Platform

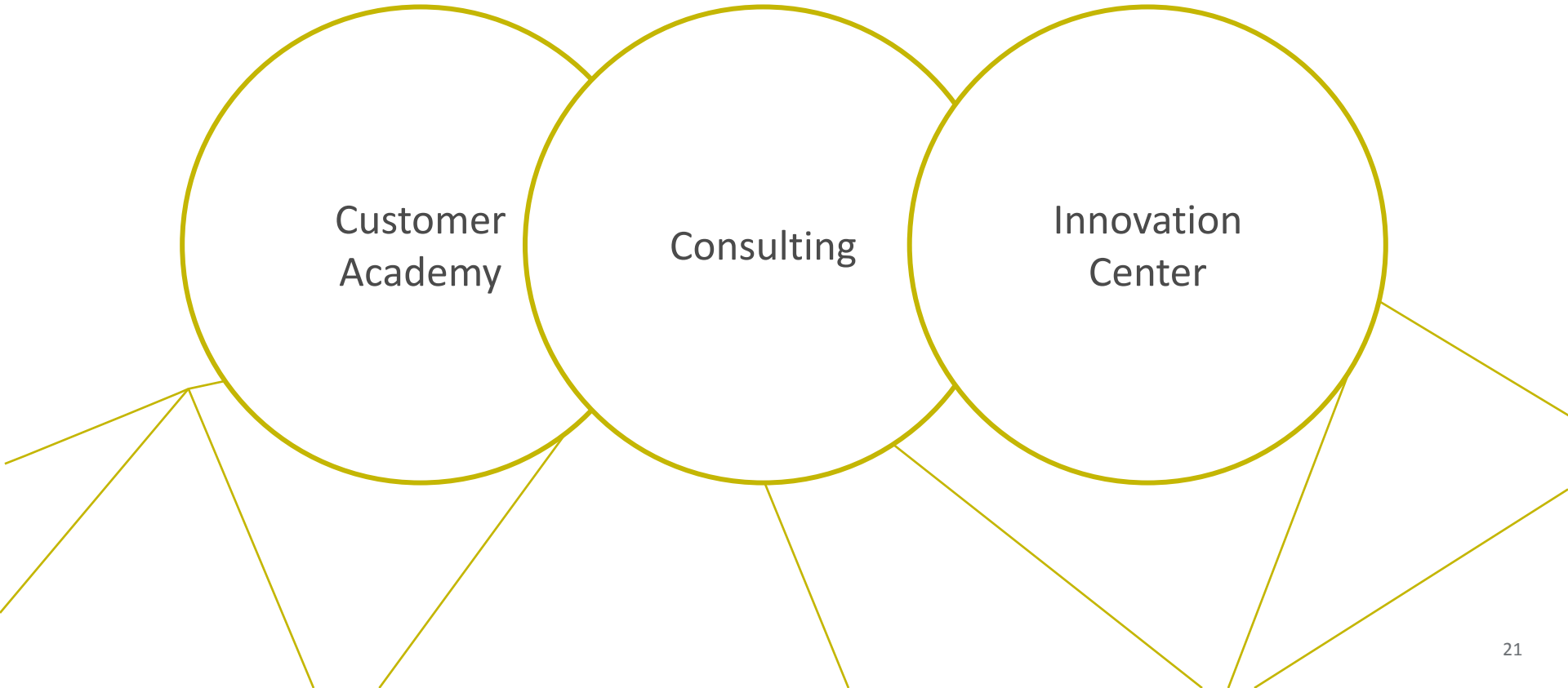


For interested companies ...

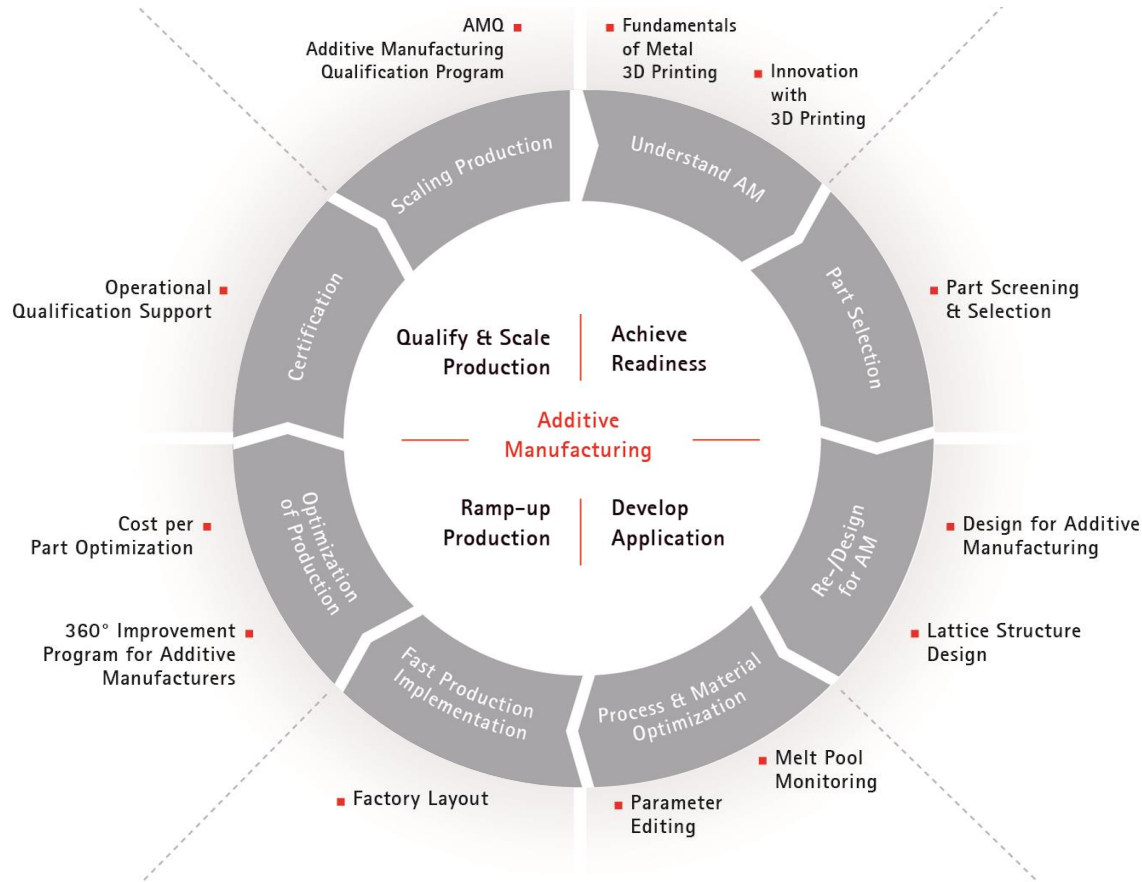
*...Additive Minds is supporting the  
development of innovative parts and the  
Transformation of your organization*



# ADDITIVE MINDS is offering various specific services to fasten up your transformation



# Additive Minds is the bridge for the industrial customer, so they can enter the “Early Majority” stage





# ADDITIVE Minds

## Best-in-class Consulting for Industrial 3D-Printing



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