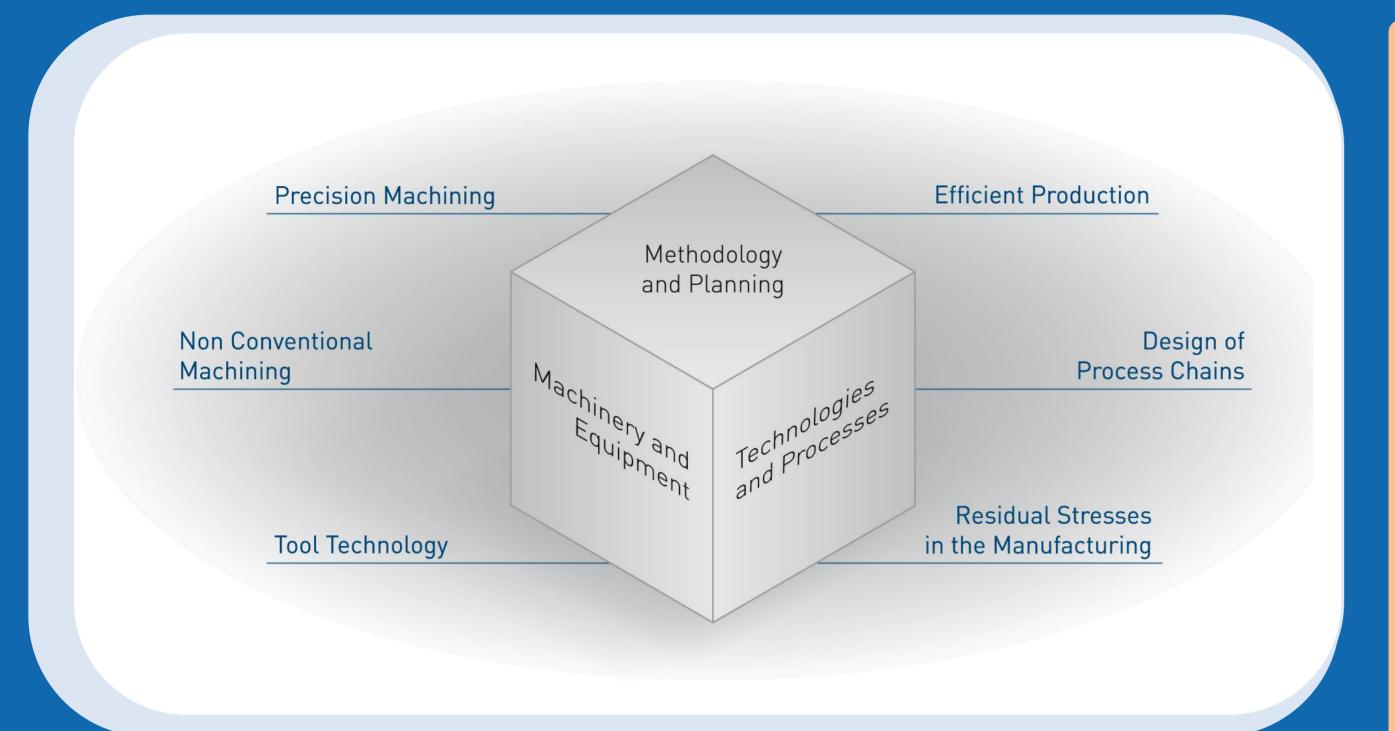


### Institute of Production Engineering

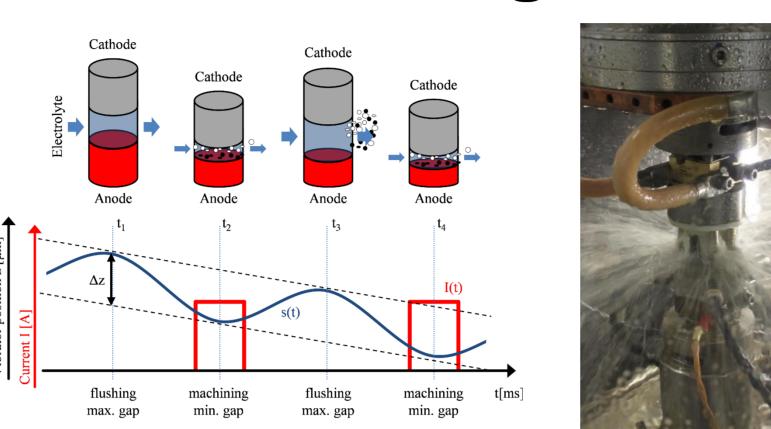




The research activities at the Institute of Production Engineering are divided into the strategic fields of Methodology and Planning, Machinery and Equipment as well as Technologies and Processes. These can be assigned to the technological research foci of Machining Processes, Precision Machining and Tool Technology as well as the planning research foci of Efficient Production, Design of Process Chains and Residual Stresses in the Manufacturing.

For more information: http://www.lft.uni-saarland.de

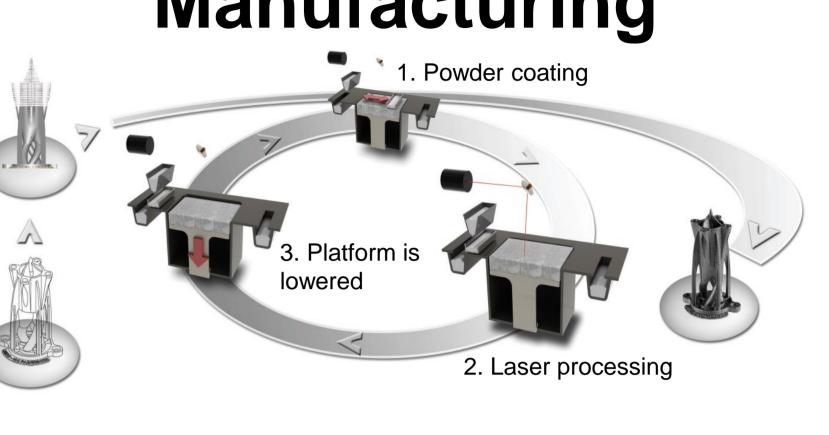
## Pulse Electrochemical Machining



# Precise Machining by Honing and Grinding

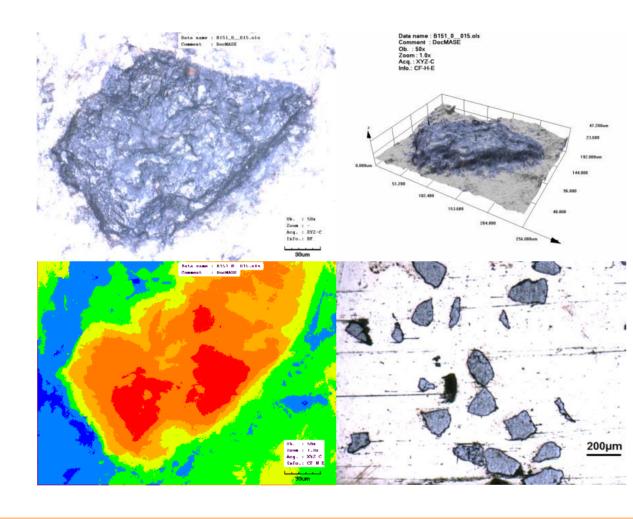


## Additive Manufacturing

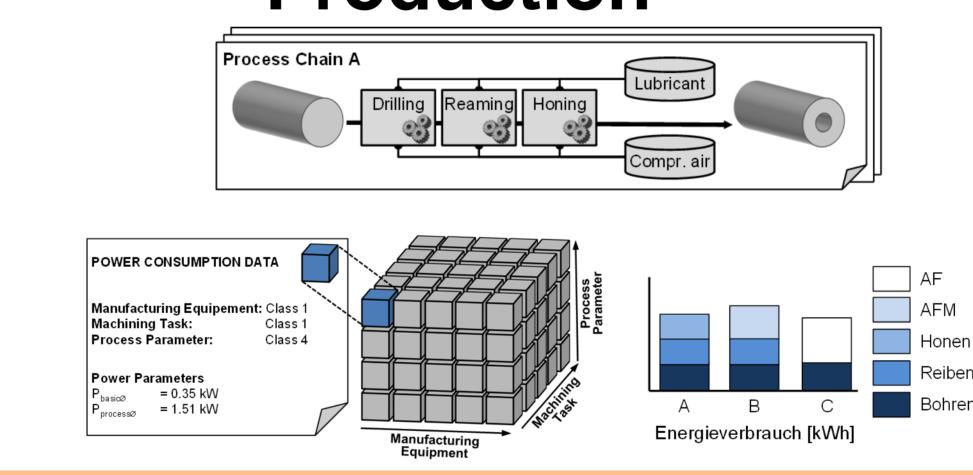


Source: "Additive Fertigung", Stellungnahme der Deutschen Akademie der Technikwissenschaften (acatech), December 2016

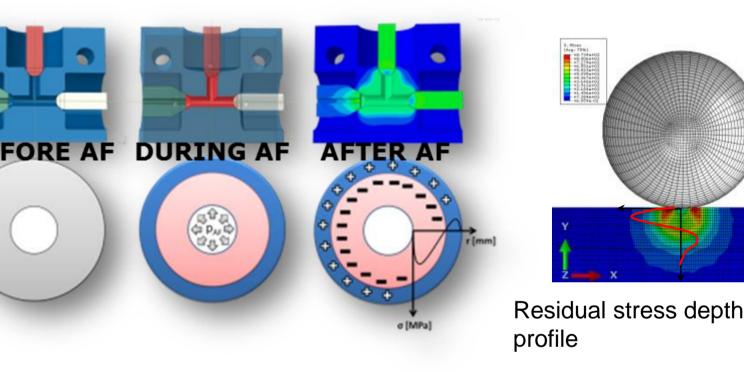
### Abrasive Tool Characterization



# Sustainability, Material Efficiency & Energy Efficiency in Production



# Residual Stresses in Manufacturing Processes



### EEIGM Teacher/Researcher involved

#### Dirk Bähre



#### **Expertise:**

- Cutting and abrasive manufacturing processes
- Additive manufacturing technologies of metallic materials
- Analysis of rim zone characteristics of technical components
- Resource efficiency and sustainability of manufacturing processes

#### Teaching:

- Mechanical engineering technologies
- Precision machining technologies
- Cutting and erosive manufacturing processes
- Technical production planning
- Forming and shaping processes
- Empirical and statistical modelling