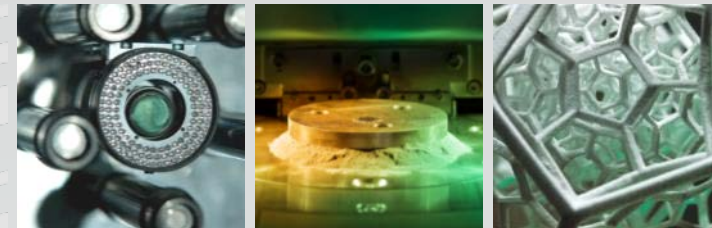


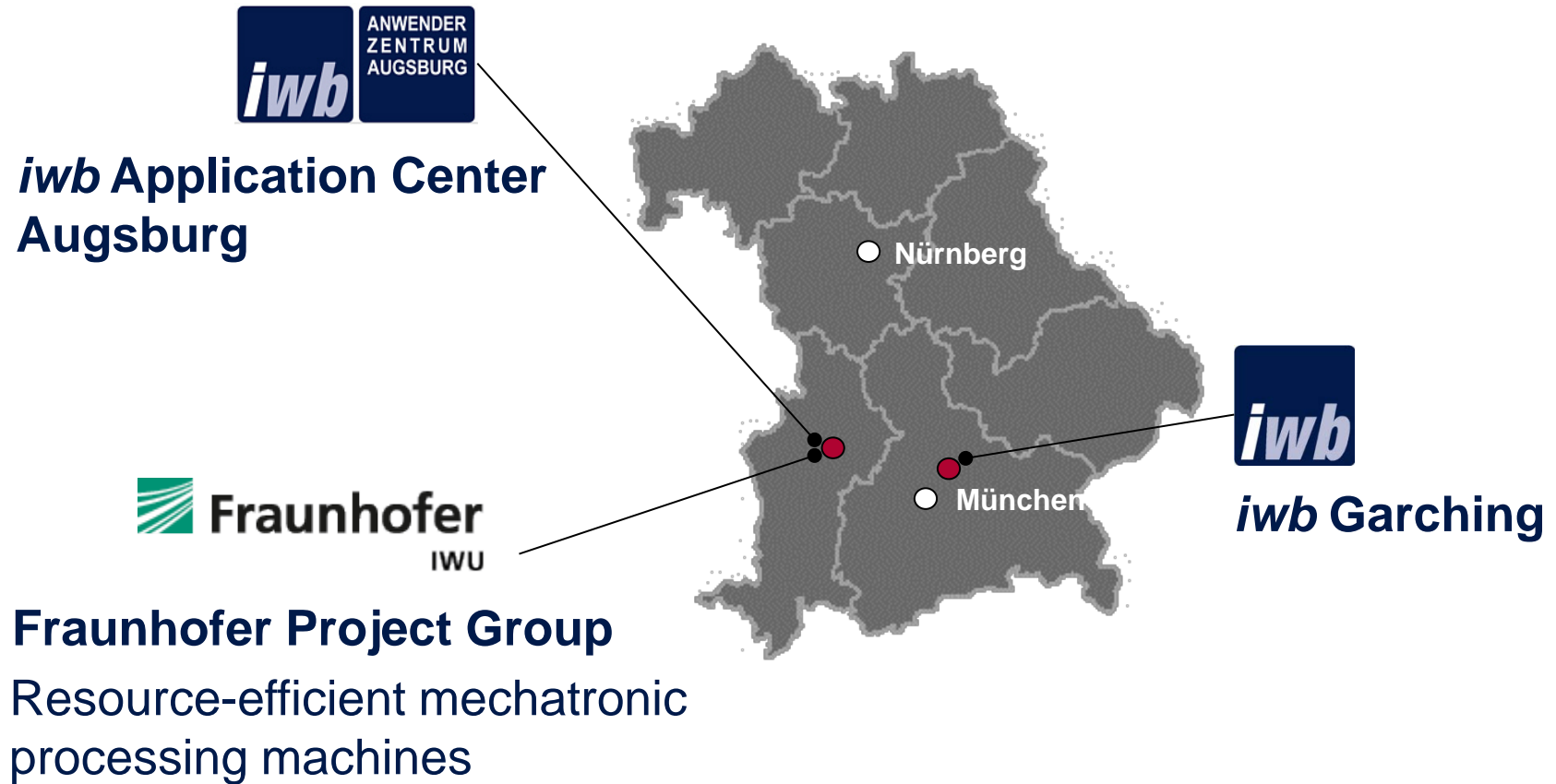
PROJEKTGRUPPE

RESSOURCENEFFIZIENTE MECHATRONISCHE VERARBEITUNGSMASCHINEN



AMLab – Joint laboratory of TU Munich and Fraunhofer IWU

Locations



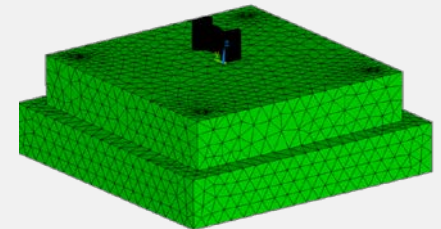
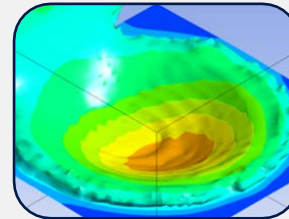
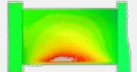
AMLab – Joint laboratory of TU Munich and Fraunhofer IWU

Research Areas

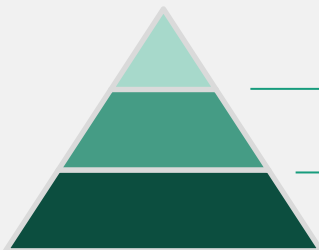
Process Development and Monitoring



Simulation



Industrial Application

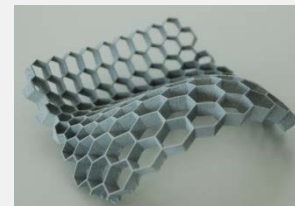


Product

Add value

Organization

Design for Additive



- 20 Additive Manufacturing scientist (AM), 14 with focus on the core processes (LBM, EBM, LS, FDM)
- About 40 student assistants
- More than 20 years of experience in AM
- About 100 guests at the annual workshop on AM

AMLab – Joint laboratory of TU Munich and Fraunhofer IWU Augsburg

Equipment

Laserstrahlschmelzen

Concept Laser



Laserstrahlschmelzen

EOS



SLM Solutions



Lasersintern

EOS



Rauheitsmessung

Mitutoyo



Elektronenstrahlschmelzen

Eigenentwicklung



Mechanische Prüfung
Zug, Härte (Zwick Roell)



3-D-Druck
Voxeljet



Fused Deposition Modelling
Stratasys



Digitalisierung
Steinbichler



Laserscan-Mikroskopie
Keyence



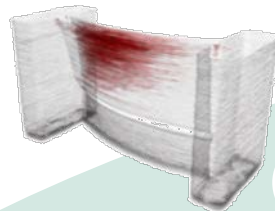
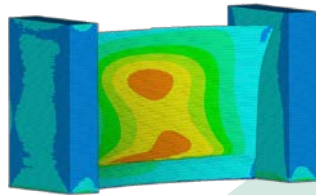
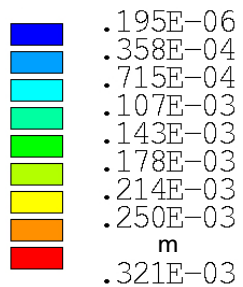
Metallographielabor
ATM

Case Study – Turbine blade

Digital Engineering for First-time-right-production

Calculated distortions

„AMLab-Process monitoring“

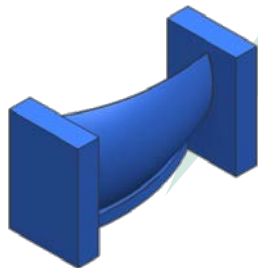


Build-up

Prescaling

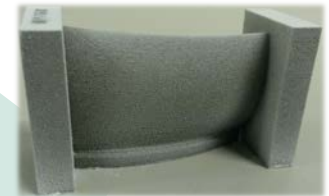
„AMLab-simulation“

CAD



Prescaled stl

Final part



Q&A



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Project-Group RMV, Fraunhofer IWU

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