Training on Multi-Physics and Multi-Scale Simulations for Additive Manufacturing

TU WIEN IFT Institute of Production Engineering and Photonic Technologies

UNIVERSITY OF TARTU

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CHALLENGE AND SOLUTIONS

Additive Manufacturing (AM) has developed rapidly during the last decade. Various technologies such as SLM or DED have demonstrated new opportunities in flexible product design and resource-efficient process development. While many companies are entering the AM market, manufacturers still struggle to produce high-quality, certifiable parts with these new technologies.

Project TR-AM aims to educate todays and future professionals using state-of-the-art modelling and simulation software, to optimize part designs and additive build-up processes, already in the development stage.

TIMING AND MILESTONES

- Project Kick-Off – April, 2021
- Nugget and training concept done – July, 2021
- Live training preparations at TU Wien Pilotfabrik 4.0 finalized – September, 2021
- Nuggets and learning paths integrated on skills.move platform – February, 2022
- Pilot training online / live at Vienna (depending on COVID19 restrictions) – April, 2022

"Thanks to EIT, we are part of the development and industrialization of one of the most exciting new technologies in many years!"

ALVO AABLOO
Professor of Polymer Materials Technology, IMS Lab, University of Tartu

Courtesy: Volum-e

MAIN PROJECT RESULTS

- Self-evaluation tool for industry to identify needs for competences in additive manufacturing (AM) design and process development
- Set of EIT-M labelled learning nuggets focusing on finite element modelling and simulation for AM available on the EIT learning platform skills.move
- Live-Training opportunities at TU Wien Pilotfabrik 4.0 Vienna, including machinery equipment to actually produce simulated parts!

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