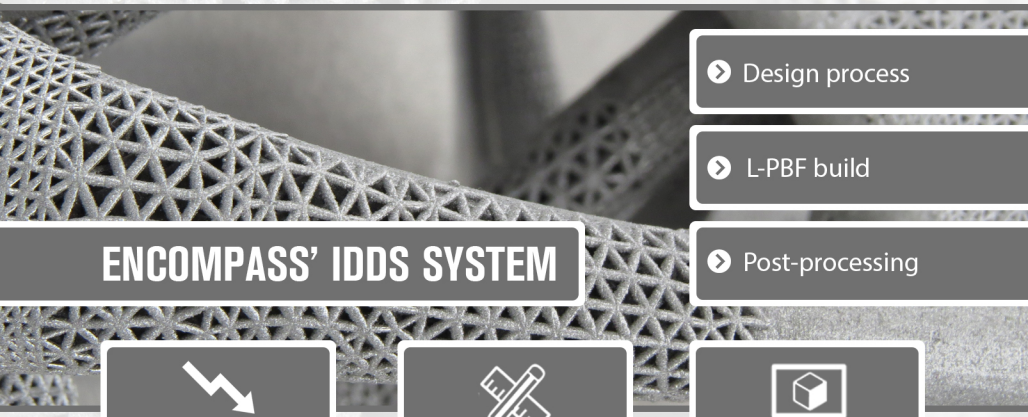
WWW.ENCOMPASS-AM.EU

ENCOMPASS

INTEGRATED DESIGN DECISION SUPPORT SYSTEM

OBJECTIVES

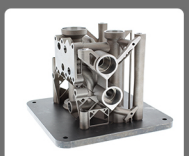
- ☑ Create an Integrated Design Decision Support (IDDS) system for the whole manufacturing chain for a laser powder bed fusion (L-PBF) process
- ☑ Optimise the design, build and post-build processes to improve the capability and efficiency of the overall additive manufacturing (AM) chain



ENCOMPASS' IDDS SYSTEM

- Design process
- L-PBF build
- Post-processing

Reduction in post-processing time



Reduction in quality control time

Reduction in design time

ENCOMPASS

INTEGRATED DESIGN DECISION SUPPORT SYSTEM

TARGET SECTORS

- Aerospace
- Automotive
- Medical

ENERGY AND ENVIRONMENT

- Savings up to 886 000 ton CO2
- Up to 7 % reduction in weight of CO_2, NO_x and particles emissions

EMPLOYMENT

- Increase economic growth and create new jobs in Europe
- Enhance the uptake of additive manufacturing by making it faster and cheaper

QUALITY OF LIFE

- Lower emissions, lower pollution
- Use of additive manufacturing for medical implants

The successful implementation will enable a significant reduction in time from "design to piece", increase the process chain productivity, and reduce cost of production

PROJECT PARTNERS

Altair, CRF, DePuy Synthes, esi get it right®, CWI, Fraunhofer ILT, ITP the power of talent, mtc Manufacturing Technology Centre, RENISHAW apply innovation™, Rolls-Royce, University of Liverpool, PHOTONICS21, FoF

This project received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 723833, and is an initiative of the Photonics and Factories of the Future Public Private Partnership.