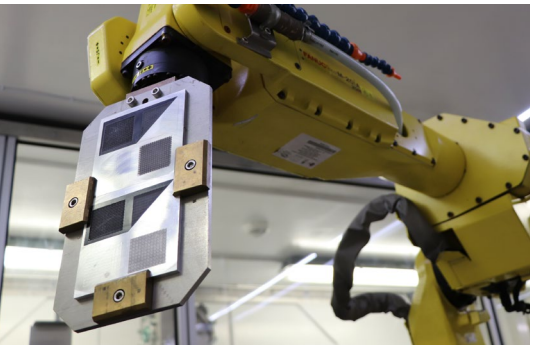

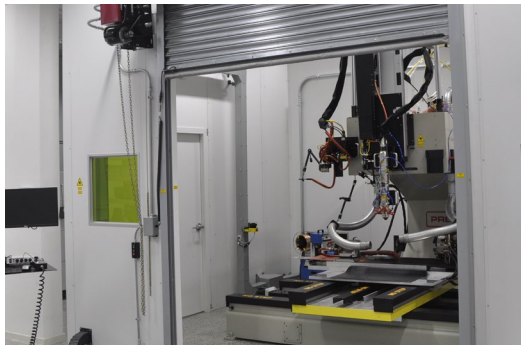

THE DOLASTOOL PROJECT

The DOLASTOOL project (Development and Optimisation of Laser-Based Additive, Subtractive and Transformative Platforms for the Tooling Industry) is the result of a bilateral call between Brazil and the Czech Republic with industries Tupy, Welle Laser and SHM joining forces with R&D institutions HiLASE Centre, Unidade EMBRAPII Manufatura a Laser (Instituto SENAI de Inovação em Processamento a Laser) and IT-CAS to develop and optimize a technological platform focused on advanced laser materials processing.

The main goals of the project are:

- Apply subtractive and transformative technologies such as Laser Surface Texturing (LST), Laser Shock Peening (LSP), Laser Heat Treatment (LHT) and Laser Surface Alloying (LSA) to modify and control the surface properties of high-added value components and parts (molds, dies and cutting tools) of the tooling industry.
- Improve performance and prolong lifetime of target components by tailoring the surface to achieve the desired microstructure, mechanical properties, wettability, friction, and wear resistance.
- Advance the current TRL of these processes from scales 3 to 6, by understanding basic laser-matter interactions capable of providing critical functions to real part components.
- Exchange expertise and networking between companies and R&D institutions from Brazil and Czech Republic, opening new possibilities and accelerating technological development with this synergistic interaction provided by this initiative.

Areas of Application

TOOLING

AEROSPACE

AUTOMOTIVE

BIOMED & PHARMA

MARITIME

MAINTENANCE SERVICES

3D PRINTING

EUROPEAN UNION
European Structural and Investment Funds
Operational Programme Research,
Development and Education

MINISTRY OF EDUCATION, YOUTH AND SPORTS

This project has received funding from the European Union's Horizon 2020 research and innovation programme under grant agreement No 739573 (HiLASE CoE)