



dilapro

DIGITAL LASER PRODUCTION

Project n° 101138859

DIGITAL TWINS OF LASER PROCESSING FOR MULTI-CAPABILITY MANUFACTURING OF COMPLEX COMPONENTS AND DIGITAL CERTIFICATION

DILAPRO aims to enhance additive manufacturing and laser production of complex products by **developing Digital Twin software** to assess materials properties, **creating tools for digital certification**, and **demonstrating effectiveness** in various sectors, particularly energy.

MAIN GOALS

 **DILAFACT** and **DILACERT** software

DILAFACT

Introduces a sustainable "**Digital Laser Factory**" platform for meticulous laser process planning, enabling manufacturers to refine production processes based on technology, materials, and environmental factors.

DILACERT

Streamlines certification processes, paving the way for on-site digital certification, marking a significant shift in complex part production paradigms.



STUDY CASES

Oil&Gas, Automotive, Space,
Mining, Pharmaceutical, Nuclear



MATERIALS

316L, IN625, IN718



LASER TECHNOLOGY

PBF, laser texturing, DED



IMPACT



ECONOMIC

Increased laser manufacturing to help EU reaching sustainability goals. A target of **25% increase in production** with laser technologies from 2020.



ECONOMIC/TECHNOLOGICAL

DILAPRO will contribute to **increased operability** and **reduced manufacturing operations**. **Improved certification processes** of parts of high demand, bringing lead time of certification potentially from months to days.



ENVIRONMENTAL

Lower climate impact by reducing waste and energy consumption during manufacturing, and from the use of **DILAPRO**-produced parts in operation.



SCIENTIFIC

New breakthroughs in materials development by **reductions in testing time**, via digital bases in **DILAFACT**.



SOCIETAL

Move manufacturing workers to **more skilled employment** in laser, sensors, and digital productions

PARTNERS

