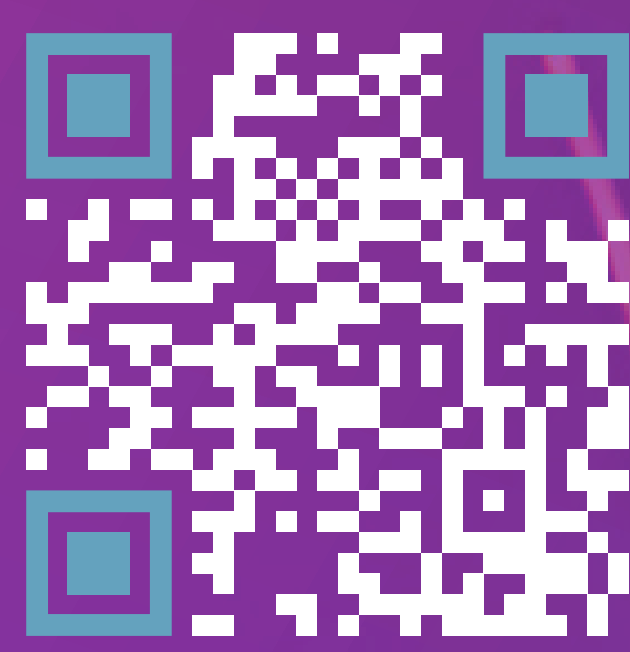


FLASH

Flexible Laser-Based Manufacturing



www.flash-project.eu



Integration of Laser Sources and Beam Delivery Heads:

Develop a single laser module integrating three laser sources and three beam delivery heads, allowing multi-wavelength emission, broad pulse length regime, and dynamic beam shaping.



Dynamic Beam Shaping:

Implement adaptive energy distribution for dynamic beam shaping in a hybrid robotic/CNC platform, enhancing flexibility in manufacturing processes.



In-Process Monitoring and Control:

Incorporate in-process monitoring and control mechanisms, supported by an advanced digital infrastructure based on a cloud data management system, to ensure stable and efficient manufacturing.



Process Design for Laser-Based Manufacturing:

Integrate process design models using machine learning and a cloud data management system, aiming to minimize waste, defects, process costs, and energy consumption.



Co-funded by
the European Union

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or the European Health and Digital Executive Agency. Neither the European Union nor the granting authority can be held responsible for them. **Project Number: 101138380**

