

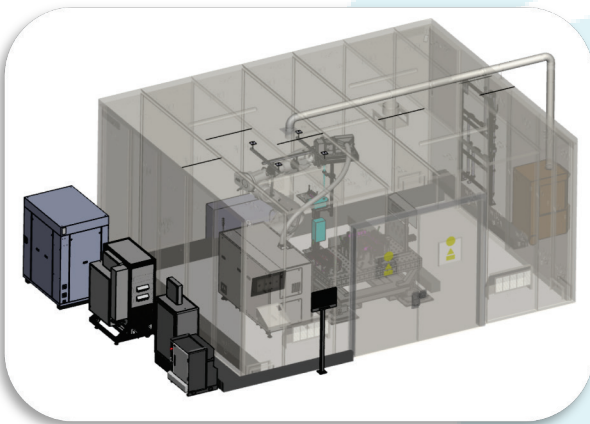
Lasers4MaaS' Technology Update – FFT

Lasers4MaaS is a Horizon Europe initiative focused on developing next-generation Laser-as-a-Service (LaaS) solutions for flexible, digital and sustainable manufacturing. The project brings together industrial companies, research organizations and technology providers across Europe to advance dynamic beam shaping, digital manufacturing platforms and reconfigurable laser processing systems. Through a combination of advanced laser technologies, IIoT integration and data-driven manufacturing approaches, Lasers4MaaS aims to improve flexibility, efficiency and sustainability across industrial sectors such as automotive, aerospace and advanced manufacturing.



Within the project, FFT contributes its expertise in plant development, engineering and commissioning of laser welding setups, together with strong capabilities in plant control and industrial data acquisition. FFT is responsible for the development of the overall laser cell setup, including the integration of flexible and innovative cell-control solutions and structured data-collection frameworks. The company is also actively involved in laser process development for aluminum battery cooling plate applications.

FFT's work strongly supports the Laser-as-a-Service concept through the implementation of modular welding fixtures, reconfigurable production schemes and Industrial Internet of Things (IIoT) solutions



at shopfloor level. These developments contribute to the RECONFIGURE methodology while enabling the provision of structured system and process data to the Lasers4MaaS digital platform. One of the most innovative aspects of FFT's contribution is the development of software solutions that allow laser cell setups to be rapidly reconfigured according to customer and product requirements, increasing production flexibility and resilience against unstable supply chains.

The company collaborates closely with several project partners, including Civan Lasers for the integration of dynamic beam shaping technologies, ECOR and Cornaglia as industrial use-case providers, Futurice for shopfloor-level digital applications,

WMG for parameter studies on various materials, and UL for energy consumption, carbon emissions and Life Cycle Assessment activities. FFT's developments target industrial markets such as automotive, aerospace and other sectors relying on advanced laser welding applications. By enabling faster commissioning, rapid production changeovers and high-quality manufacturing, the company's work contributes to more efficient, flexible and sustainable industrial production environments.

