



This project is co-financed by the European Union
and the Republic of Türkiye



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ORGANIZATION: **LEITAT Technological Center**


WORKSHOP NAME: *Twin Green and Digital Transition of Industry*

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Description of the Organisation

Founded in **1906**, **LEITAT** is a non-profit organisation, known as an **international leader** and the **oldest technological centre** in Europe



 Terrassa (headquarters)

LEITAT

managing technologies

<i>Income in 2024</i>	<i>European projects</i>	<i>National projects</i>	<i>Industrial R&D projects</i>
€47M	+300	+700	+3400

Third-largest Spanish technological center in terms of revenue and private turnover, as well as in securing **European projects**

Multidisciplinary team of 400+ professionals with **know-how** and experience in various areas of knowledge, specialising in **technology transfer**

5 Areas of Knowledge



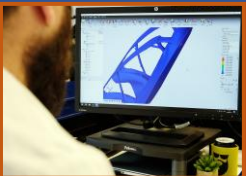
**CIRCULAR ECONOMY &
DECARBONISATION**



HEALTH & BIOMEDICINE



**APPLIED CHEMISTRY &
MATERIALS**



DIGITAL INDUSTRY



**ADVANCED TECHNOLOGICAL
SERVICES**

■ **LEITAT** collaborates with companies and institutions to address their challenges or projects in a highly competitive, globalized and constantly evolving environment



**R&D PROJECTS
UNIQUE INITIATIVES**



**LABORATORY TESTING
AND CERTIFICATION**

■ Offering **suitable and sustainable** solutions for each sector



Our research fields – Digital Industry Area

- **Digital manufacturing:**



- Design and engineering of advanced additive manufacturing applications
- Development of innovative materials and processes
- Post-processing strategies and 3D component functionalization
- Development of new robotic technologies and processes

- **Connectivity and Information:**



- Development and application of new IoT device connectivity protocols
- Security and embedded intelligence in devices
- System interoperability and heterogeneous data integration
- Applied AI and software engineering

- **Advanced Data and Sensors:**



- Development, testing, and validation of industrial, health, and environmental monitoring sensors
- Development of microfluidic devices and diagnostics
- Development of photonic systems and advanced vision technologies

- **Intelligent Product Development:**



- Product design and engineering
- System testing, experimentation and validation of target applications
- Support and guidance to industrialization

Our on-going European Projects



Recycling technologies for circular Aluminium



Battery Material Characterisation and Digital Twins for Cell to Pack Performance in Agile Manufacturing Pilot Lines and Automotive Field



Recycling of end of life battery packs for domestic raw material supply chains and enhanced circular economy



Gen. 4b Solid State Li-ion battery by additive manufacturing



Alternative processes and equipment for advanced manufacturing of PV technologies to boost the european energy independence

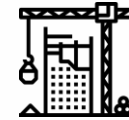


Electronic Components and Systems for flexible, coordinated and resilient Distributed Renewable Energy Systems

Project Cooperation

Draft version

Call Topic: *HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-11:*
Enhanced logistics and operations of construction sites (IA)



Deadline Dates: 23 Sep 2025

☐ **Expected Outcomes:**

- *Reduce the time needed to carry out site operations in construction or demolition*
- *Increase on-site circular approaches like re-use and recycling, reducing waste and improving waste management*
- *Improve health and safety of construction workers*

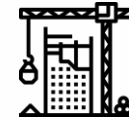
☐ **Scope:**

- *Develop technologies to enhance efficiency, speed, and safety, ensuring interoperability with Digital Twins and BIM*
- *Improve traceability and apply circular economy strategies for waste reduction and management*
- *Reduce errors, boost resilience, and address SSH and human-centric aspects for market adoption*

Project Cooperation

Draft version

Call Topic: *HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-11:*
Enhanced logistics and operations of construction sites (IA)



Early-stage idea

➤ **LEITAT's contributions (*as partner*):**

- Development of AI-driven algorithms for transport synchronization, optimizing Estimated Time of Arrival (ETA) calculations to ensure proper timing for material deliveries.
- Creation of interoperable data-sharing environments enabling seamless information exchange between suppliers, logistics providers and on-site operators.
- Use of AI-powered computer vision for personal protective equipment (PPE) compliance and adaptive PPE design on construction sites



THANK YOU!

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LEITAT Technological Center

SPAIN

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