

An aerial photograph of a modern residential development. The central focus is a large, multi-story building complex with a mix of colors: light green, beige, and white. The building has a flat roof and many windows. In front of the building is a paved courtyard area with a small fountain. To the right, there are rows of smaller, colorful houses (white, red, green) along a street. In the background, there are rolling hills and a church with a tall spire. The sky is blue with some clouds.

FUTURECAST

Powering technological innovation in
Quarrying and Construction

Partners



Who We Are



- Innovation, R&D, Education & Science Centre for Construction, Quarrying & Manufacturing supply chain
 - Industry 4.0 & 5.0 Education Centre for Industry
 - A team of 12: Engineers, Scientists, Lecturers, Building Technicians – 4 new starts coming in 2025
 - Outer Team of 75 PHDs and Masters in Colleges in Ireland, EU and USA
 - Specialise in: Funding and innovation and R&D Project
- **Locations : Leitrim, Sligo, Roscommon and soon Dublin and Cork in 2025 - 2026**

Modular Housing – Manufacturing Offsite

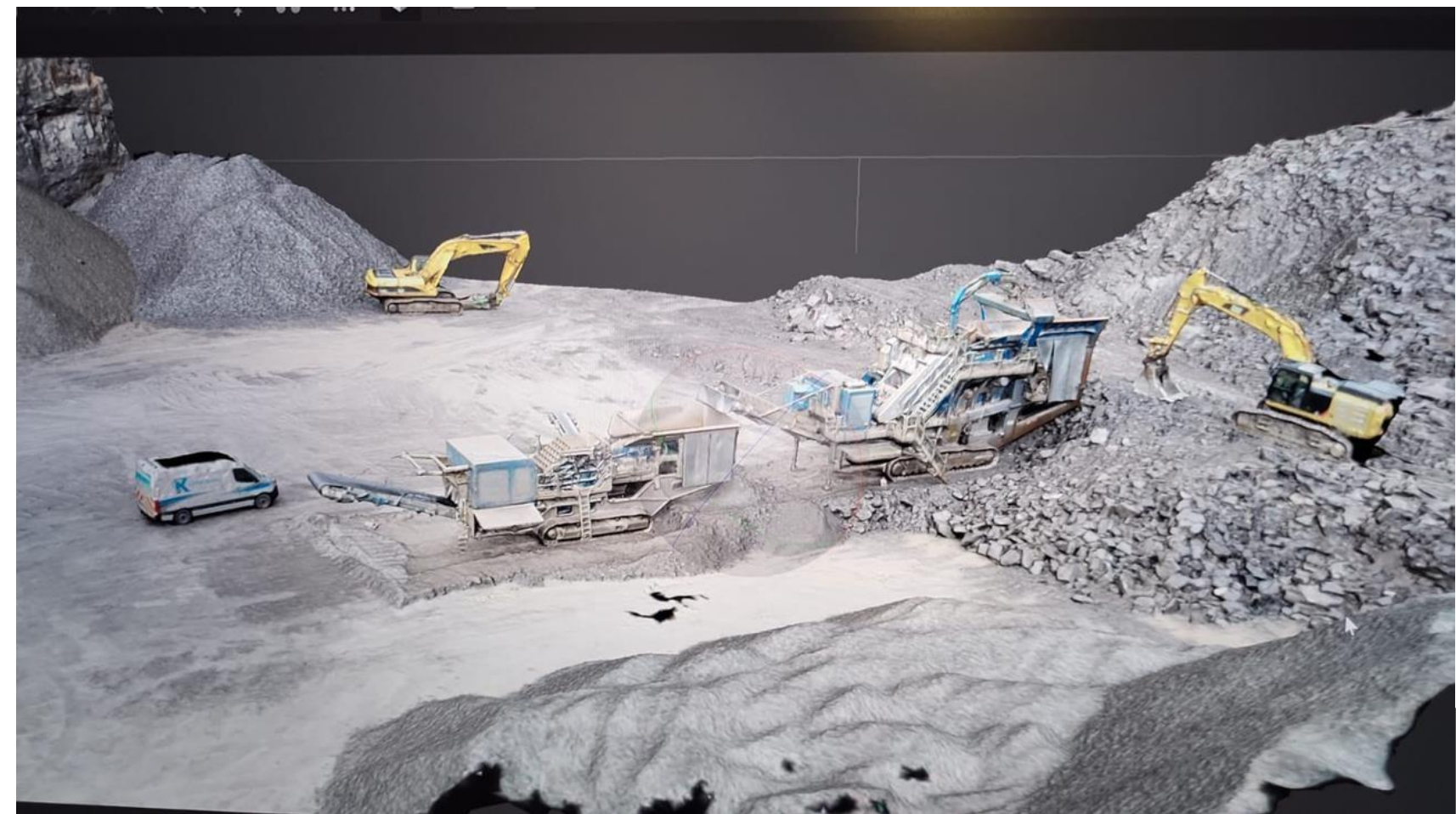


Everything starts with creating a factory layout

Research & Development



- Geological & Material Science Laboratory
- Circularity needs Science within the industry – Wind blade - limestone flour – Hemp - Sheepwool – 3D wood pulp - C&D waste in non-structural products
- Digital Twin Technology - BIM Integration – Robotic systems
- Architectural Designs – two stage family home



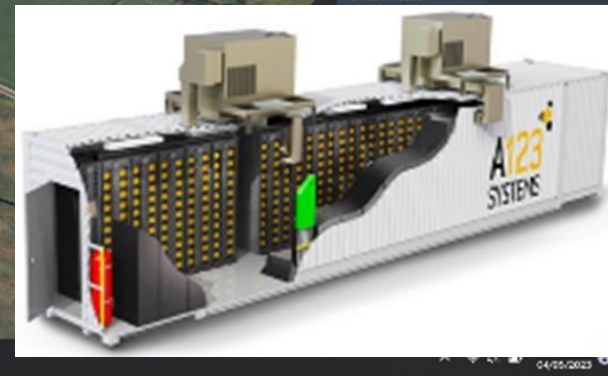
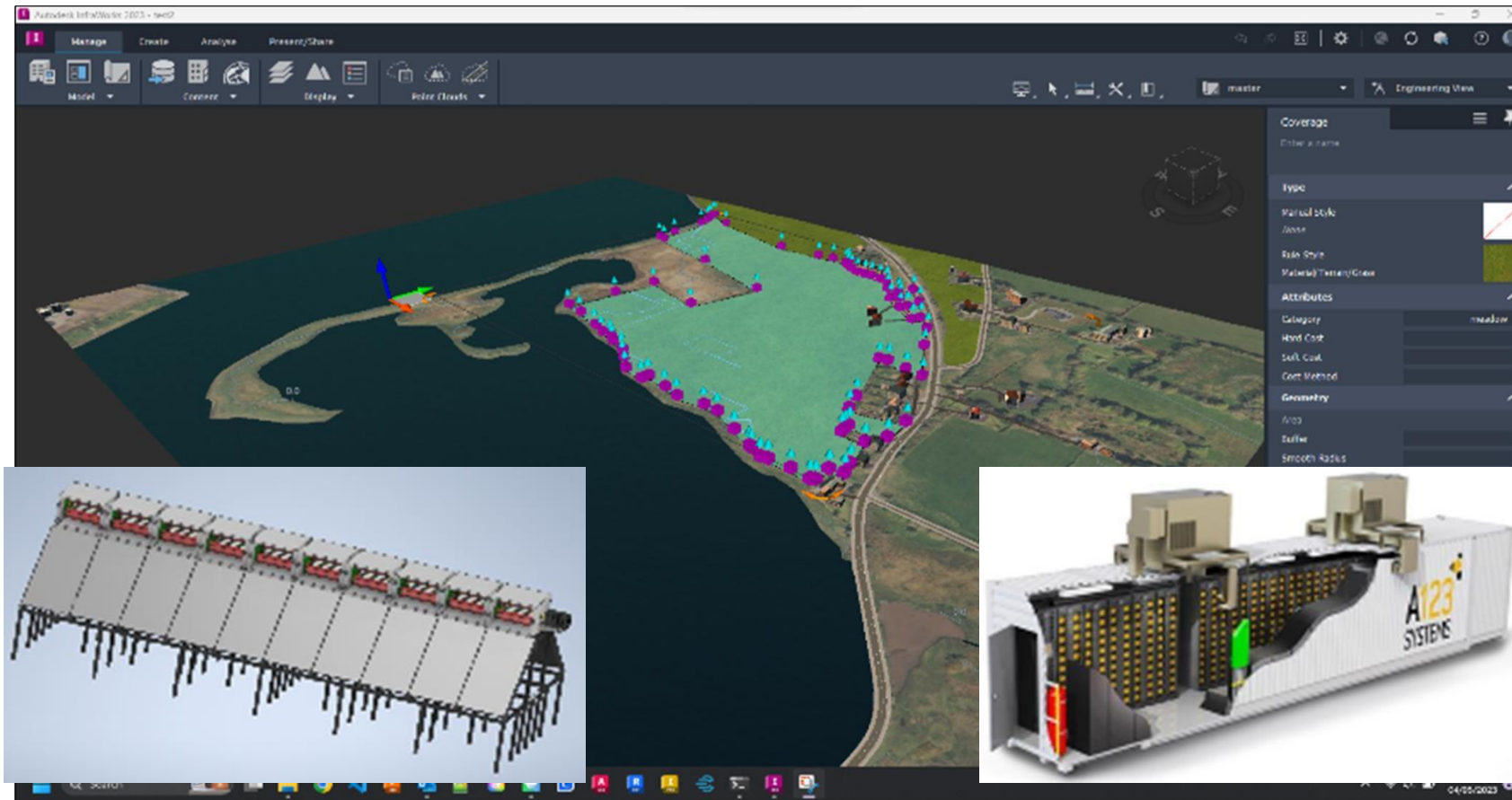
Future Cast New Building -Autonomous of the Future

- Innovation Engineering - Autonomous vehicles, Electric crushers and Autonomous mapping
- Digitisation – Automation, Robotics, Drones and AI systems with IOTs

[Why autonomous operation is the future of quarrying - Quarry \(quarrymagazine.com\)](http://quarrymagazine.com)



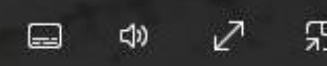
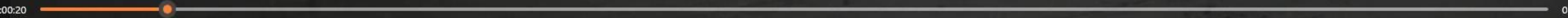
Energy - Solar – Tidal – Battery Storage





Geological &
Material
Laboratory

Concrete,
Aggregate & Soil
Testing



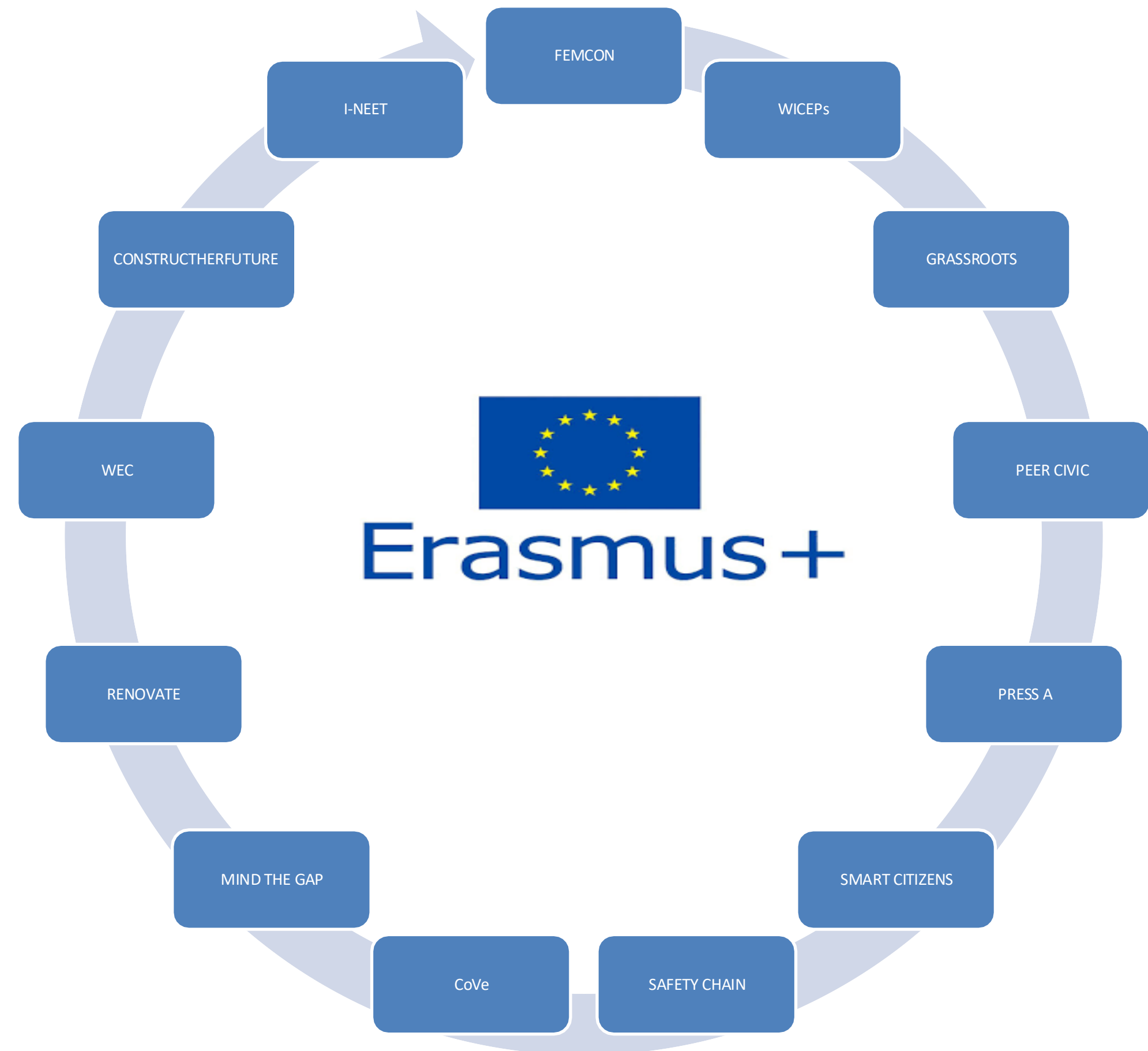
Emerging Careers

New Construction Jobs for 'Future House Building'

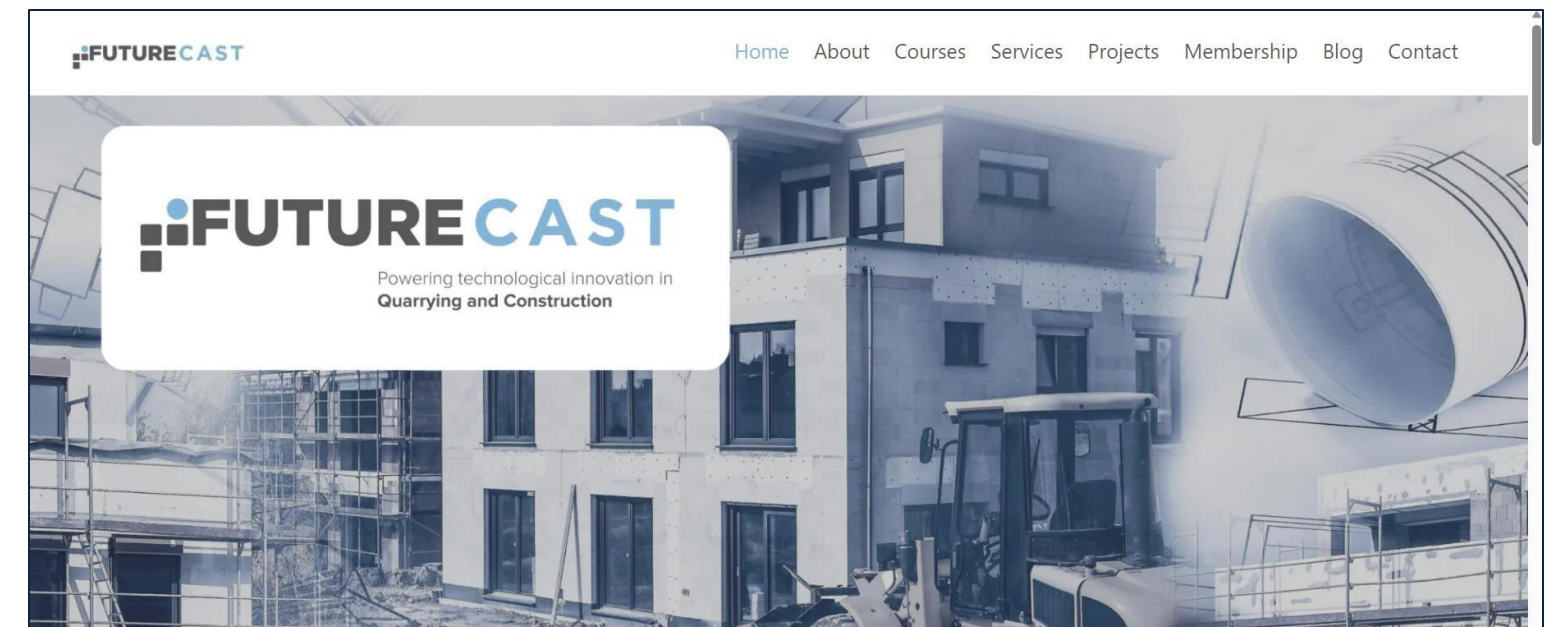
- **Construction & Quarry Robotics Specialists:** Operation & Maintenance
- **Additive Manufacturing Operators:** 3D Construction Printing, 3D design & modelling
- **Digital Technologists:** Digital Twin, BIM, Build stage tracking, O&M platform
- **Modular Specialists:** Offsite construction assembly, precast concrete, ICF, supply chain
- **Augmented & Virtual Reality Specialists:** Survey measurements, visualisation modifications & safety information
- **Drone Operators:** Topographic surveys, security surveillance
- **Construction Supply Chain Specialists:** As modular & additive technologies increase in market
- **Blockchain Specialists:** Adapting to a more secure & transparent process throughout the build lifecycle, blockchain in construction finance
- **Artificial Intelligence:** Artificial Intelligence Architect, AI Quarry, Cyber Security quarry
- **Science:** Geological and material, Certification in waste Circularity

Future Cast European and African Programmes

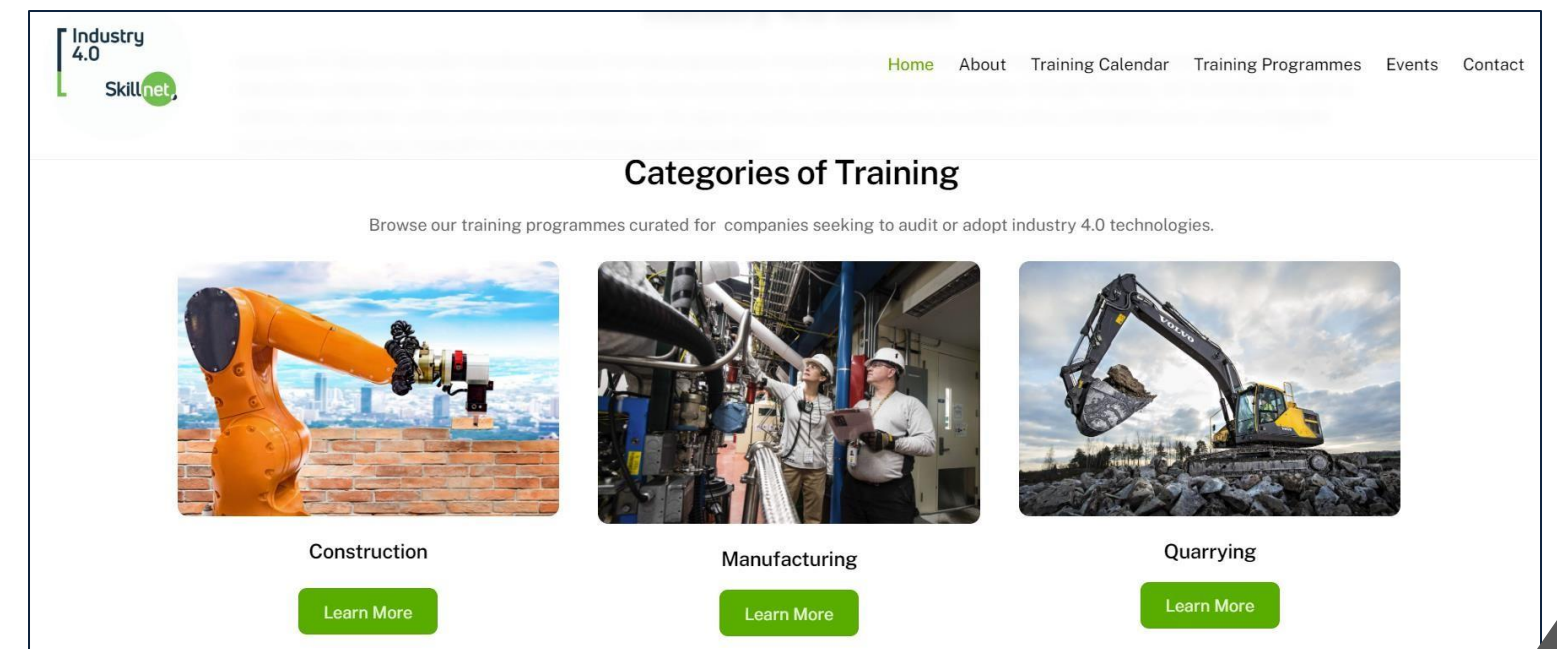
25 European Partners
6 African Partners



Thank You



[Future Cast Home Page - Powering Technology in Construction](#)



[Industry 4.0 Skillnet: Training for Workforce Development \(industry4skillnet.com\)](http://industry4skillnet.com)