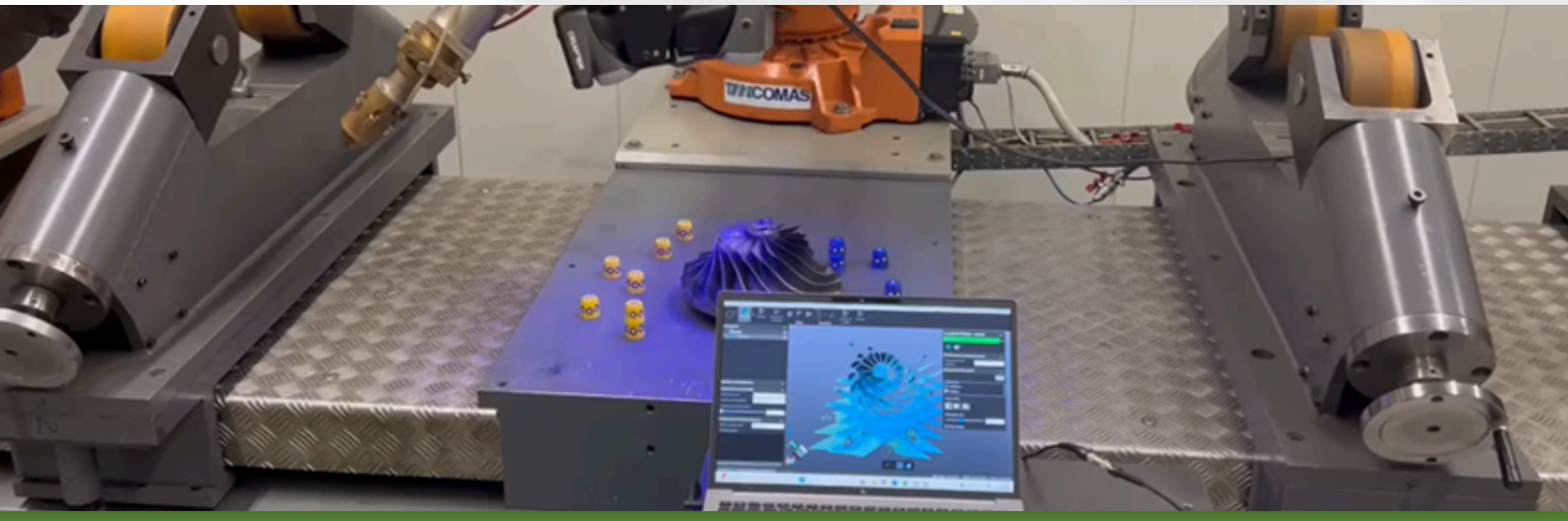
R3-MYDAS ADVANCES AUTOMATED REMANUFACTURING AND SKILLS FOR EUROPE'S CIRCULAR FUTURE

Automated Remanufacturing

As part of the ongoing R3-Mydas initiative, TMCOMAS has successfully integrated Creaform 3D scanning technology with ABB robotic systems, marking a significant leap toward fully automated inspection and repair.

This technical foundation enables synchronised movement and preliminary automated geometry capture—essential components for the high-precision remanufacturing of large-scale components like crankshafts. By streamlining the digitalisation cycle, this milestone paves the way for optimised path planning and the validation of laser-cladding protocols in the Oil & Gas sector.



Shaping the Future Value Chain: Stakeholder Input

The **R3-Mydas project** aims to facilitate sustainable, circular value chains not only for Oil & Gas, but also for e-vehicle batteries and wind turbine gearboxes.

To ensure the long-term sustainability and commercial viability of these innovations, the consortium is calling on industry experts to participate in a comprehensive Stakeholder Survey.

The feedback collected will directly influence the project's market approach, business models, and technology scaling strategies.

We invite SMEs, Large Enterprises, OEMs, and Research Organizations to provide their insights on:

- **Industry Relevance**: How R3-Mydas technologies and case studies impact your specific sector.
- **Adoption Barriers**: The technical, economic, or regulatory challenges to implementing remanufacturing solutions.
- **Valuable Outputs**: Which project results—such as digital platforms, AI models, training materials, or standardization guidelines—offer the highest value to your operations.

All data is collected with full confidentiality in compliance with GDPR.

Take Part in the Consultation

Industry professionals are encouraged to shape the future of European remanufacturing by completing the **survey here**

Comprehensive Training Framework for **the Future of European Remanufacturing**

As the R3-Mydas project advances its technical goals, it is simultaneously preparing the European workforce for the future of sustainable industry.

R3-Mydas outlines the preliminary training materials and curricula developed to address critical skills gaps identified across the project's remanufacturing use cases.

The comprehensive training program is designed to equip industrial professionals with the technical, operational, regulatory, and sustainability competencies required to implement cutting-edge circular economy solutions.

Key Training Pillars by **Industry Sector**

- **Heavy Industry & Energy (Oil & Gas Crankshafts / Wind Turbine Gearboxes)**: Training will focus on advanced technical skills required for laser-based repair processes and 3D scanning. Courses will cover critical areas such as automation, Quality Assurance (QA) in Directed Energy Deposition (DED), materials selection, and process optimisation.

- **E-Vehicle Battery Circularity**: To support the remanufacturing of EV batteries, the curriculum will address safe disassembly processes, battery State-of-Health (SoH) diagnostics, and predictive maintenance. It may also include specialised modules on safe human-robot interaction and compliance with the EU New Machinery Directive.

- **Strategic & Cross-Cutting Competencies**: The framework extends beyond the factory floor to cover essential strategic knowledge, including Life Cycle Assessment (LCA) and the integration of Digital Product Passports (DPP). Furthermore, dedicated modules will train the workforce on the ethical and regulatory aspects of AI deployment, ensuring alignment with the EU AI Act and GDPR.

Driving the "Made in Europe" Vision

The **R3-Mydas** training curricula directly support the specific objectives of the "*Made in Europe*" strategy by fostering a highly skilled, adaptable workforce.

By combining existing resources from the ***EIT Manufacturing Academy*** with newly designed, project-specific courses, the consortium is ensuring that innovations in AI, mechatronics, and circular supply chains are matched by the human expertise needed to operate them.

Partners

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