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ICTürkiye2025
10 April, İstanbul

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WORKSHOP NAME: Twin Green and Digital Transition of Industry

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Description of the Organisation



IRCEM
Institute for Research
in Circular Economy and
Environment "Ernest Lupan"

Independent research institute based in, Romania, specializing in circular economy and environmental sustainability, with strong European collaborations.

Focuses on research, innovation, and stakeholder engagement to promote sustainable industrial practices.

Bridges research and industry by providing data-driven insights for green and digital transitions.

- Digital Transformation
- Industrial Sustainability
- Resource Efficiency
- Behavioral Insights in Sustainability
- Big Data Analytics
- Industrial Symbiosis



Collaborates with industry and policymakers to develop evidence-based sustainability solutions.



Specialized in circular economy research, lifecycle assessment, and eco-innovation strategies



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Your Research Fields

Eco-friendly Hydropower:
Developing innovative methods for efficient and environmentally friendly hydropower refurbishment.



Social Entrepreneurship:
Supporting social entrepreneurship and social enterprises in Transylvania to drive sustainable development.



Circular Water Management:
Advancing the circular economy in the water sector by promoting innovation and sustainable resource use.



Regenerative Agriculture:
Exploring the interplay between regenerative agriculture and circular economy practices in Romania and Moldova.



Your On-going Projects

RevHydro: Pioneering refurbishment techniques to enhance the efficiency and environmental compatibility of hydropower installations.

Circular DigiBuild: Promoting the adoption of emerging technologies in the construction industry to support circular economy practices.

CEI BOOST: Enhancing circular economy innovation by applying emerging technologies across various sectors.

Future Foods: Investigating sustainable food production practices and exploring innovative approaches to enhance food security and environmental sustainability.

SIRACE-ROMD: Fostering collaboration between research institutions and industry to develop sustainable and innovative solutions in the agriculture sector, focusing on circular economy principles.

Project Idea: Data-Driven Decision-Making for Circular Economy

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-01: Integrated approaches for remanufacturing (Made in Europe Partnership) (IA)

- ☐ **Objectives:**
 - Data Analytics Framework
 - AI and ML to Analyze Data Patterns
 - Enhance Resource Efficiency
 - Create a Digital Platform
 - Integrate Circular Economy Principles
- ☐ **Expected Results:**
 - Data-Driven Best Practices
 - Sustainability Metrics and Reporting
 - Improved Economic Viability
 - Alignment with European Goals

**Project Idea: Smart Resource Recovery,
AI & Data for Circular Industrial Systems**

Call Topic: HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-35: Embedding upcycling technologies into viable business (Processes4Planet partnership) (IA)

❑ Objectives:

- Investigate AI Algorithms for Resource Recovery**
- Analyze Data-Driven Decision-Making Frameworks**
- Examine Stakeholder Collaboration Dynamics**
- Develop Training Methodologies for Workforce Skills**

❑ Expected Results:

- AI-Driven Resource Recovery Solutions**
- Published AI Models for Resource Optimization**
- Framework for Data-Driven Decision-Making**

