



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



VIRTUAL EVENT

International
Brokerage Event on



**Clean
Industrial Deal**

4 JUNE 2026



REPUBLIC OF TÜRKİYE
MINISTRY OF INDUSTRY
AND TECHNOLOGY



NATIONAL
TECHNOLOGY
INITIATIVE



TÜBİTAK

Pitch Order	Time (CET / TRT)	Full Name	Organisation	Country	Email
1	13:00 CET / 14:00 TRT	Elijah Ugaddan	LEITAT	Spain	eugaddan@leitat.org
2	13:05 CET / 14:05 TRT	Ferran Marti	AIMPLAS	Spain	fmarti@aimplas.es
3	13:10 CET / 14:10 TRT	Nisa Oğuz	Baştaş Cement	Türkiye	nnisaoguz@gmail.com
4	13:15 CET / 14:15 TRT	Mosé Rossi	Marche	Italy	mose.rossi@staff.univpm.it
5	13:20 CET / 14:20 TRT	Recep Partal	TÜBİTAK MAM	Türkiye	recep.partal@tubitak.gov.tr
6	13:25 CET / 14:25 TRT	Ana Claudia Pereira da Silva	FUNDECYT-PCTEX	Spain	ana.pereira@fundecyt-pctex.es
7	13:30 CET / 14:30 TRT	Miadreza Shafiekhah	Nowocert	Ireland	miadreza.shafiekhah@nowocert.com
8	13:35 CET / 14:35 TRT	Alper Sarioğlu	İstanbul Technical University (İTÜ)	Türkiye	asarioglan@itu.edu.tr
9	13:40 CET / 14:40 TRT	Hayri Deniz	Abalıoğlu	Türkiye	hayri.deniz@ablfoods.com.tr
10	13:45 CET / 14:45 TRT	Lina Murauskaitė	Lithuanian Energy Institute	Lithuania	lina.murauskaite@lei.lt
11	13:50 CET / 14:50 TRT	Ayda Şentürk – Tolga Sönmez	NavAware	Türkiye	aydasenturk@navaware.com.tr tolgasonmez@navaware.com.tr
12	13:55 CET / 14:55 TRT	Florin Irimescu	Bluana Foods	Romania	florin@bluana.me
13	14:00 CET / 15:00 TRT	Marc Dorchain	ARIS	Germany	marc.dorchain@aris.com
14	14:05 CET / 15:05 TRT	Janusz Poplawski	Lortek	Spain	jpoplawski@lortek.es
15	14:10 CET / 15:10 TRT	Bassim Abbasi	University of Guelph	Canada	babbassi@uoguelph.ca
16	14:15 CET / 15:15 TRT	Begüm Şen	METU MEMS Center	Türkiye	senbegum@gmail.com
17	14:20 CET / 15:20 TRT	Rabia Bozbay & Abdulvahap Selim Cifci	Alfa Kimya A.Ş.	Türkiye	rabia.bozbay@alfakimyaas.com selim.cifci@alfakimyaas.com
18	14:25 CET / 15:25 TRT	Xuan C. Pham	TPG Cleantech	Canada	xuan.pham@thephamsgenius.org
19	14:30 CET / 15:30 TRT	Juliana Gadelha	Fresh Water Farm	Portugal	admin@freshwaterfarmseu.eu
20	14:35 CET / 15:35 TRT	George Suciu	BEIA	Romania	george@beia.ro
21	14:40 CET / 15:40 TRT	Duygu Kuzyaka	ODTÜ GÜNAM	Türkiye	duygu.kuzyaka@odtugunam.org
22	14:45 CET / 15:45 TRT	Fadhel Aloulou	University of Sousse	Tunisia	alouloufadhel@gmail.com



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PRESENTER FULL NAME: Elijah UGADDAN, PhD

ORGANIZATION: LEITAT

WORKSHOP NAME: Pitching Session

E-MAIL: eugaddan@leitat.org





About LEITAT

MANAGING TECHNOLOGIES SINCE 1906 based in Barcelona, SPAIN

48 M€

Annual Revenue • 8.7/10 Customer Satisfaction (2024)

+450 Experts **26** Nationalities

+3,400 R&D Projects **+300** EU Projects

14th Tech Centre worldwide for EU funds



Scale & Reach

+15,500 m² • 2,087 partners • 70 countries

Non-profit, private Research Technological Office (RTO)

5 Areas of Knowledge

Circular Economy • Health • Chemistry • Digital • Tech Services

H₂ Working Group

Production • Use • Storage • Distribution • Sustainability



Our Team's Expertise

TRL 3 → 7

H2 Working Group

Atomic-scale materials to pilot-scale systems



**Materials Science & (Bio)
Electrochemistry**



**Surface Engineering &
Photoelectrochemistry**



LCA, TEA & Safe by Design

Catalysts & Electrodes

MOFs • CNF nanofibers • Perovskites
• Metal electrodes (SS, Ti, Inconel)

Membranes & Electrolytes

AEM/PEM • Polymeric flat-sheet •
Hollow fiber • Nanofiber
composites

Electrolysis & Reactors

AW/PEM/AEM • PEC • MEC • BES •
3D-printed cell design

Storage & Surface Coatings

LOHC • MOFs/carbons •
Anticorrosive & ceramic coatings

Additive Mfg & Robotics

SLM/FFF/SLS • 3D printing • Robotic
cell assembly

Sustainability Assessment

LCA • LCC • S-LCA • TEA • Safe &
Sustainable by Design



Our Expertise

Materials Synthesis & Production

Catalysts • Electrodes
Membranes • Coatings

Storage, Transport & Carriers

Liquid Organic Hydrogen Carriers (LOHC) • MOFs • Composites
Pipeline membranes
Anticorrosive coatings

Sustainability Assessment

LCA • LCC • S-LCA
Techno-economic Analysis
Safe & Sustainable by Design



Green H2 Production

Electrolysis AW/PEM/AEM
PEC • MEC • BES
Dark Fermentation

H2 Use

Fuel Cells: PEM • AEM
H2 to fuels & chemicals
Power to X
Bio to X
Solar to X

LEITAT covers all 5 stages

Unique value:

Materials → System integration

TRL 3–7 in-house infrastructure

15+ active EU H2 projects



On-going Projects

ACTIVE EU H2 PORTFOLIO

15+

live EU + national H2 projects

Funding sources:

- Clean Hydrogen Partnership (Horizon Europe)
- EIC Pathfinder • H2020
- Spanish PERTE-ERHA • PCPP national calls

**RPOACTIVE in Proposal Writing,
Management and Coordination**



GH2 EIC-Pathfinder 2022–26
Gas separation membranes for H2 collection



ANEMEL EIC-Pathfinder 2022–26
Nanofiber mats for reinforced AEMs, LCC



X-SEED JTI-CleanH2 2024–27
Perovskite catalysts for supercritical electrolyzers



ENDURION JTI-CleanH2 2025–27
CNF electrodes for AEM electrolyzers



PROMISERS JTI-CleanH2 2025–27
Non-fluorinated PEM fuel cell components



DISTECH2
National Project . PEC H2 pre-pilot scale



The Call

HORIZON EUROPE • CLEAN INDUSTRIAL DEAL

HORIZON-CID-2026-01-02

R&I in Support of the Clean Industrial Deal:

Clean Technologies for Climate Action

150 M€ Total budget

15–25 M€ per project

TRL 6→8 Innovation Action

 **Deadline: 15 Sep 2026**

ELIGIBLE CLEAN TECH AREAS — choose one main, combine freely:

Area 1 — Integrated Net-Zero Energy Systems

Energy grids, networks & integrated systems

Area 2 — Enhanced Zero-Emission Power Technologies

Renewable electricity, heat & energy technologies

★ Area 3 — Storage, Renewable Fuels & CCU ← LEITAT's focus

Renewable H2 • batteries • advanced biofuels • synthetic fuels



LEITAT's Contribution

LEITAT PARTICIPATES •

Scale-up of CRM-free Electrolyser Electrodes

Building on ENDURION results: advancing HER cathode technology and scalable manufacturing from lab (TRL 5) to industrial-relevant validation (TRL 7–8).

WP LEADER IN

- ▶ **Advanced materials for electrolysers (nanostructures)**
- ▶ **Surface engineering and treatment, coatings**
- ▶ **Electrode design & scale-up**
- ▶ **Durability & performance validation**
- ▶ **Circularity, recyclability & LCA / TEA**

Bridging materials to Systems integration

EXPECTED IMPACT CONTRIBUTIONS TO THE CALL

↓ LCOE

Improved electrode efficiency & durability reduces H2 production cost

↑ EU chain

CRM-free materials strengthen EU value chain resilience

circular

Enhanced circularity & recyclability of electrolyser components

TRL 7–8

Scalable manufacturing drives market readiness



Consortium – Known Partners (LEITAT is seeking to join)

No	Partner Name	Type	Country	Role in the Project
01	LEITAT	RTO	Spain	WP leader: electrode materials, scale-up synthesis, electrochemical validation, LCA/TEA
02	TBD – Electrolyser OEM	Industry	EU	System integration, stack assembly, industrial validation
03	TBD – Energy Company / Industrial End-User	Industry	EU	Demonstration site, industrial application, business plan
04	TBD – System Integrator	Industry	EU	Grid/H2 ecosystem integration, deployment pathway
05	TBD – SME or Academia	SME/Univ	EU	Complementary tech expertise (e.g. MEA, coatings, sensors)



Consortium – Partners LEITAT is Looking For

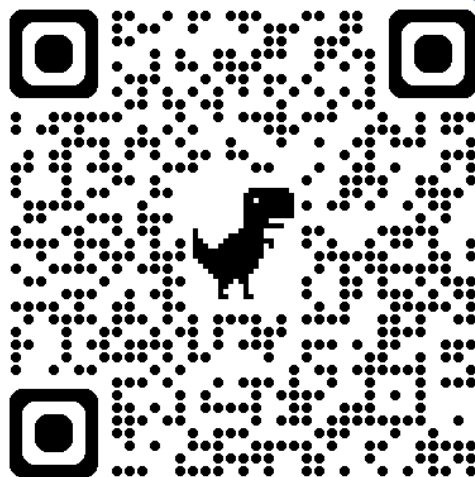
No	Expertise Needed	Type	Country	Role in the Project
01	Electrolyser OEM / Manufacturer	Industry	EU (any)	System integration, stack manufacturing, industrial-scale demonstration (TRL 7-8)
02	Energy Company or Industrial End-User	Industry	EU (any)	Demonstration site operator; provide industrial H2 demand use-case; anchor business plan
03	System Integrator (grid / H2 ecosystem)	Industry	EU (any)	Grid connection, power-to-H2 coupling, BoP component supply (heat exchangers, ejectors)
04	Coordinator / Project Lead	Industry/RT O	EU (any)	Consortium coordination; industry-led preferred; responsible for go/no-go milestone & market strategy

LEITAT
managing technologies



in

V-Card:



eugaddan@leitat.org

Elijah Ugaddan, PhD
Business Development Manager - Hydrogen
International Projects Office





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4 JUNE 2026

PRESENTER FULL NAME: Ferran Martí Ferrer

ORGANIZATION: AIMPLAS

WORKSHOP NAME: CBE calls

E-MAIL: fmarti@aimplas.es





AIMPLAS
PLASTICS TECHNOLOGY
CENTRE



- **AIMPLAS, Plastics Technology Centre, Valencia (Spain), is a private, non-profit Association.**
- + 900 associated companies. +285 highly skilled professionals and +35 years expertise
- AIMPLAS has **state-of-the-art 12,000 m² facilities**, including thermoplastics & thermoset pilot plants, composites, coatings, polymer/nanoparticles synthesis, clean rooms and testing laboratories and training areas.
- AIMPLAS has a broad expertise in the fields of plastic recycling, reactive extrusion, synthesis and processing of biopolymers and renewable source materials, special assisted processing technologies (microwaves, supercritical CO₂), gases capture and conversion, catalyzers, plastronics, Additive Manufacturing, high performance coatings, composites, polymer nanocomposites, functionalization of nanoparticles, multilayer structures and R&D&i in plastic products for a broad range of industrial sectors.
- AIMPLAS has participated in **>175 projects** in FP5, FP6, FP7, LIFE+, CIP-EcoInnov., SUDOE, H2020, HEU, BBI, CBE, CLEANH2, ... **EU Programmes**, coordinating 35% of them.
- Global expertise in the whole value chain:



HORIZON EUROPE

TRL3



TRL4



NOPLASTI-CAPS



TRL5



TRL5



TRL6



BIO4HUMAN



TRL7





We plan to coordinate two proposals:

HORIZON-JU-CBE-2026-IA-04: High-performance, circular-by-design, biobased thermosets.	New biobased Benzoxazine thermosets & flame retardant additives development in the frame of CL4 HEU FOREST project. Applications in several industrial sectors (Electric-Electronics, Transport. Building, aero-space. renewable energy, etc..).
HORIZON-JU-CBE-2026-IA-05: Films and coatings for circular packaging.	Tailor-made PHA co-polymers to maximize properties. High performance multifuntional bio-based coatings. Application for food and non-food packaging applications



Consortium – required partners

No	Expertise	Type	Country	Role in the project
01	End Users	SME/ IND	No defined	Testing/ Validation of thermoset resins
02	R&D performers	RTO/Unv./ SME/IND	Not defined	Innovations related to biobased composites
03	End Users	SME/ IND	No defined	Testing/ Validation of new biobased packages
04	R&D performers	RTO/Unv./ SME/IND	Not defined	Innovations related to packaging

PRESENTER CONTACT
DETAILS: Ferran Marti
R&D Manager
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COUNTRY: Spain





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PRESENTER FULL NAME : NILUFER NISA OGUZ

ORGANIZATION : BASTAS CEMENT

WORKSHOP NAME : CLEAN INDUSTRIAL DEAL

E-MAIL : nisa.oguz@vicat.com.tr



Local Dominance, Industrial Scale



Market Share



#1 in Central Anatolia
(31.6% Regional Share)

6.5% National
Market Share

Workforce



1,438

Employees

Infrastructure



2 Cement Plants
(2.6 Mt/y Capacity)



50 Ready-Mixed
Concrete Batch Plants



8 Aggregate Quarries



2 Waste Processing
Facilities

Ecosystem Integration





Bastas Teams' Expertise

- EU-funded projects
- Low-emission cement and concrete products
- Decarbonised production technologies
- End-to-end technology development and implementation
- Design and operation of pilot and industrial-scale demos
- Advanced know-how in CO₂ capture, utilisation, and storage
- Applied research on hydrogen combustion and utilization
- Waste valorisation and industrial symbiosis
- Digital process optimisation
- Intellectual property generation
- Techno-economic and process integration studies



- Collaboration with **400+ organizations** from 30+ countries
- **Pilot and demo-scale projects** with multi-stakeholder participation
- Joint technology validation and scale-up collaborations
- **Knowledge sharing and dissemination** through publications and workshops



- Lab, pilot and industrial scale **carbonation reactors**
- Pilot **grinding technologies**
- Waste **upcycling**
- **Digital process monitoring**
- **Circular** alternative material integration
- **Advanced** material tests infrastructure
- Deep knowledge and experience on **green products**



Bastas Research Fields

Circular Economy and Industrial Symbiosis

- Developing **recycling and upcycling pathways** for construction and demolition waste.
- Substituting **secondary raw materials** in clinker and cement production.
- Promoting **industrial symbiosis** with regional industries for waste valorisation.
- Advancing **resource efficiency** through by-product utilization and process optimisation.



Hydrogen Technologies

- Completed **feasibility studies** on hydrogen combustion in cement production.
- Engaged in **R&D on hydrogen generation, storage, and application** in clinker production.
- Investigating **low-NOx hydrogen combustion** for cleaner thermal processes.
- Exploring **integration of hydrogen with CCUS** for decarbonised energy systems.



CCUS Technologies

- Developing advanced **carbon capture** technologies for clinker and cement production.
- Integrating **CCUS and carbonation processes** effectively into industrial systems.
- Conducting comprehensive **pilot and feasibility** studies for scale-up.
- Exploring innovative **carbonated materials** applications in construction applications.



Digitalisation and Smart Manufacturing

- Advancing **process digitalisation** to improve efficiency and reduce operational costs.
- Using **hard and soft sensors** for process optimisation and predictive control.
- Conducting **R&D to enhance energy efficiency and lower carbon footprint** through AI-driven models.
- Submitted several **EU-funded project proposals** on digital process optimisation and sustainability.



United Circles



UNITED
CIRCLES



HORIZON EUROPE

HORIZON-CL4-2024-TWIN-TRANSITION-01-38

Project Name: **Networked industrial-urban symbiosis value chain demonstrators for biomaterials, C&DW, circular water loops & WWTPs, driven by Hubs 4 Circularity**

Project Total Budget: 20.559.550,75 €





FLARE

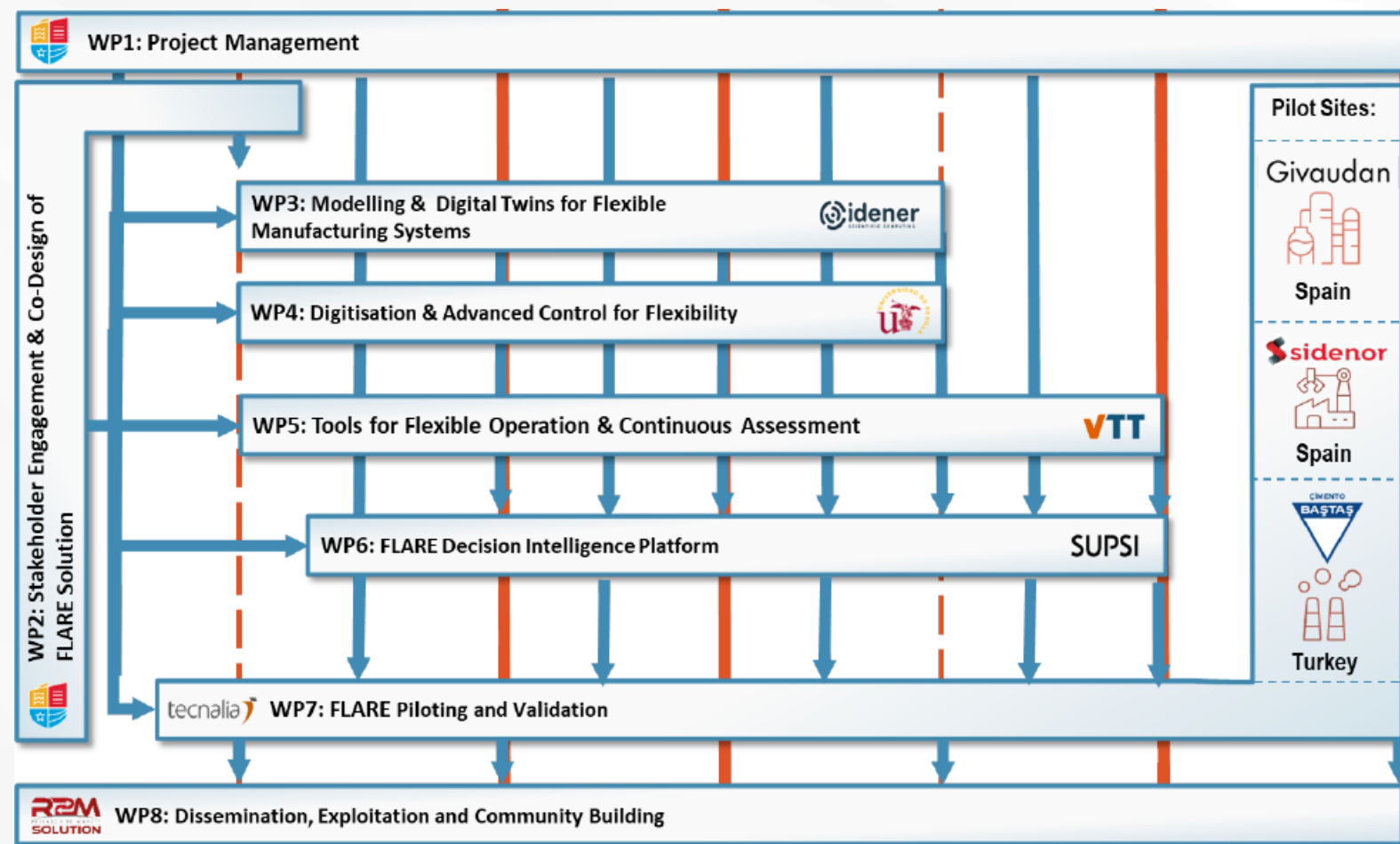


HORIZON EUROPE

HORIZON-CL4-INDUSTRY-2025-01-TWIN-TRANSITION-32

Project Name: **A Decision Intelligence Platform for FLeXible, Agile, Resilient, and Energy-Aware Processes**

Project Total Budget: 7.990.734,50 €





ERASMUS+

ERASMUS-EDU-2024-PI-ALL-INNO

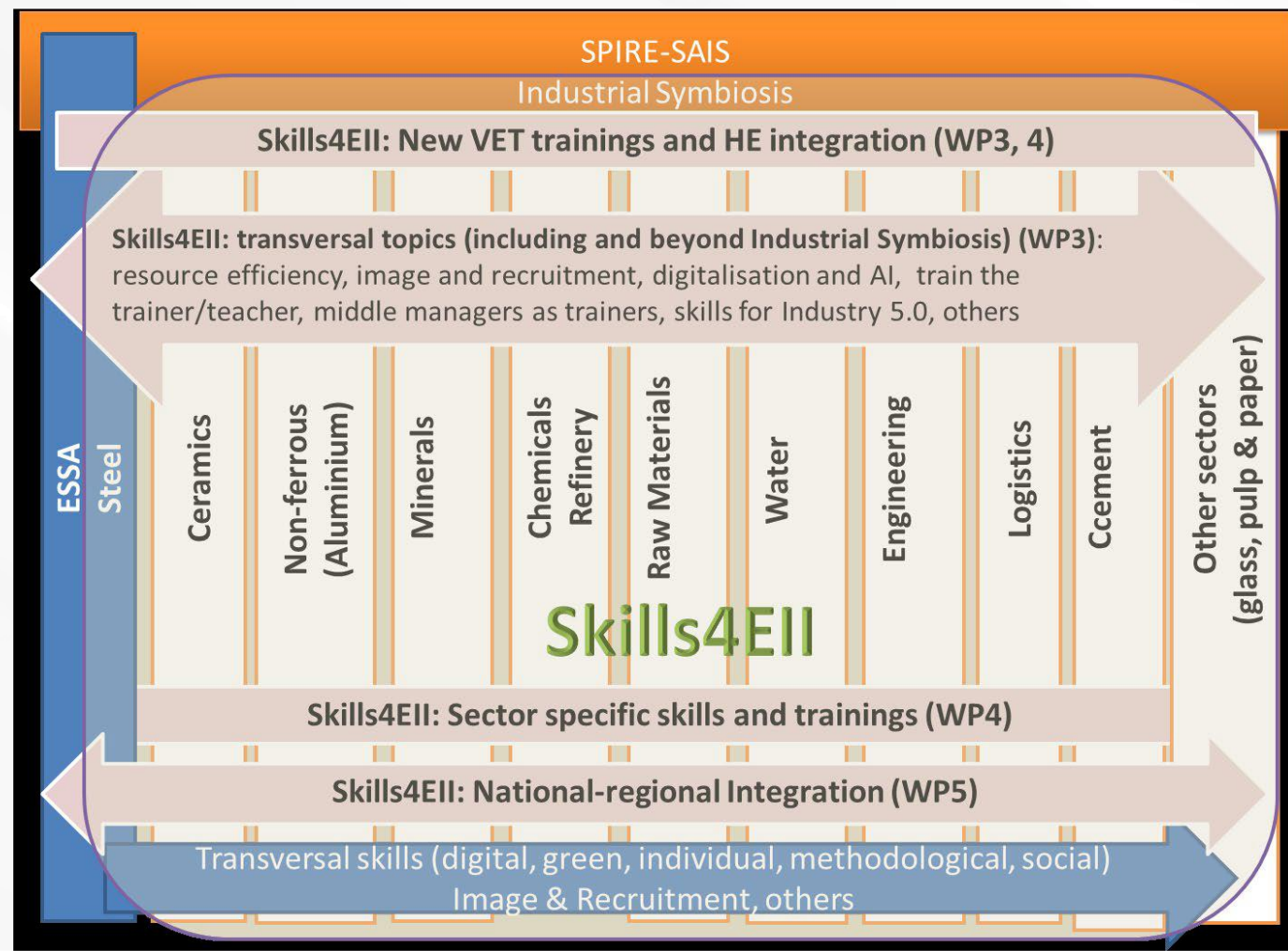
Project Name: **Skills Alliance for the Green,
Digital and Social Transformation of the
Energy-intensive industries**

Project Total Budget : 3.999.747,79 €



SKILLS4EII

Skills Alliance for the Green,
Digital and Social Transformation
of the Energy Intensive Industries





Interested Calls

No	Call	Call Name
01	HORIZON-CID-2026-01-01	R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA) (Processes4Planet and Clean Steel partnerships)
02	HORIZON-CID-2026-01-02	R&I in Support of the Clean Industrial Deal: Clean Technologies for Climate Action
03	HORIZON-CL4-2027-02-MAT-PROD-32-two-stage	Efficient energy input from renewable sources and energy management in the process industries
04	HORIZON-CL4-2027-01-MAT-PROD-02	Advanced manufacturing for key products (Made in Europe partnership)
05	HORIZON-CL4-2027-01-MAT-PROD-22	Innovative advanced materials and new production processes – reducing dependencies on Critical and Strategic Raw Materials
06	HORIZON-CL4-2027-01-MAT-PROD-06	Circular innovative advanced materials: facilitating the transition from design to markets (RIA)
07	HORIZON-CL4-2027-01-MAT-PROD-16	Technologies for innovative processing of raw materials



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PRESENTER FULL NAME: Dr. Mosè Rossi, Ph.D.

ORGANIZATION: Marche Polytechnic University of Ancona (UNIVPM), DIISM

WORKSHOP NAME: Energy System Group Research Activity

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Description of the Organisation

Marche Polytechnic University
of Ancona (UNIVPM), DIISM

Faculty of Engineering, with
14,000 to 16,000 students

Focus on multidisciplinary
research, with significant
involvement in energy
systems, industrial
engineering, and
mathematical sciences



Your Teams' Expertise



Our team thrives on a collaborative approach, combining the diverse expertise of faculty members, postdoctoral researchers, and Ph.D. students



The team specializes in energy systems, optimization techniques, sustainable energy solutions, data analytics, and renewable technologies such as biogas, photovoltaics, and energy transition models



Your Research Fields

Focus on cutting-edge research in multi-energy systems, energy transition, and renewable technologies



Deep expertise in optimizing energy systems, ensuring reliable and efficient solutions for sustainability



Emphasis on interdisciplinary collaboration and teamwork to drive impactful energy research



Research is aimed at creating measurable outcomes, improving efficiency, and contributing to environmental and economic growth



Your On-going Projects

POWERINGCITIZENS

- **Description:** Empowering energy citizenship among energy-poor populations through collective energy actions. The project focuses on fostering community-driven energy actions that enhance energy efficiency and increase social participation in the energy transition
- **Call Type:** CERV 2023 (EU funding for energy projects aimed at vulnerable communities and energy poverty alleviation)

AIMPRESS

- **Description:** This project explores the concept of cold ironing in Adriatic Sea ports, allowing ships at berth to connect to shore-side electricity instead of using diesel generators. The initiative aims to reduce emissions and support decarbonization efforts in the maritime sector
- **Call Type:** IPA-ADRION PROGRAMME (Funding for environmental and climate-related projects focusing on green technologies)

GRETHA

- **Description:** This project focuses on Green Energy Technology based on hydrogen and fuel cells. It investigates the potential of hydrogen as a clean energy carrier and its use in industrial and transport applications
- **Call Type:** PNRR HYDROGEN (funding for hydrogen technologies study)

UNIVPM participation as a project partner, with WPs and Tasks Leaders, but not as a coordinator



Project Idea #1:

This project aims to design, develop, and implement an integrated hybrid renewable energy system (HRES) that combines solar PV, wind, and biogas-powered combined heat and power (CHP) systems for rural communities in Turkey. The goal is to enable these communities to become energy self-sufficient, reduce their carbon footprint, and improve energy access for underserved populations

Project Idea

Relevant calls:

- **HORIZON-CID-2026-01-02:** R&I in Support of the Clean Industrial Deal: Clean Technologies for Climate Action
- **HORIZON-CL5-2026-09-D4-08:** Full-scale demonstration of heat upgrade solutions in industrial processes
- **HORIZON-CL4-2027-02-MAT-PROD-32-two-stage:** Efficient energy input from renewable sources and energy management in the process industries
- **HORIZON-JU-CBE-2026-IA-01:** Biotech routes for valorisation of residual biomass



Objectives:

- **Hybrid Energy Integration:** Design and develop a hybrid renewable energy system that combines solar PV, wind, and biogas technologies for rural communities
- **Optimization and Storage:** Create optimization models and energy storage solutions to balance energy generation, demand, and ensure reliability
- **Energy Access and Sustainability:** Provide affordable and sustainable energy solutions to rural areas, reducing dependence on fossil fuels
- **Environmental and Economic Impact:** Assess the environmental benefits (e.g., CO₂ reduction) and economic impact (e.g., cost savings, job creation).
- **Smart Grid Solutions:** Develop local smart grid systems for energy management, monitoring, and optimization

Expected Results:

- **Scalable Hybrid Energy Systems:** A replicable model for hybrid energy systems that can be applied to rural communities across Turkey and other regions
- **Energy Access Improvement:** Significant improvement in energy access for rural communities, with clean, reliable energy solutions
- **Cost Savings and Efficiency:** Reduced energy costs through optimized energy generation and storage, leading to more efficient energy use
- **Environmental Impact:** Measurable reduction in CO₂ emissions, contributing to Turkey's renewable energy targets and sustainability goals
- **Energy Independence:** Empowerment of rural communities to manage their energy needs independently, reducing reliance on the central grid and fossil fuels



Project Idea #2:

This project aims to integrate reversible Molten Carbonate Cells into the Steam Methane Reforming (SMR) process used in oil refineries. The objective is to improve the overall efficiency and reduce CO₂ emissions in the hydrogen production process. rMCCs, which operate at high temperatures and have the capability to use CO₂ in their reactions, can be employed in combination with the SMR process to produce hydrogen while simultaneously capturing CO₂, thus improving the efficiency and sustainability of refinery operations

Relevant calls:

- **HORIZON-CID-2026-01-01:** R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries
- **HORIZON-CID-2026-01-02:** R&I in Support of the Clean Industrial Deal: Clean Technologies for Climate Action
- **HORIZON-CL5-2026-09-D4-08:** Full-scale demonstration of heat upgrade solutions in industrial processes
- **HORIZON-CL4-2027-02-MAT-PROD-32-two-stage:** Efficient energy input from renewable sources and energy management in the process industries



Objectives:

- **rMCCs Integration with SMR:** To design and integrate rMCCs into the SMR process to enhance hydrogen production efficiency and reduce the carbon footprint of oil refineries
- **Optimization of Energy Efficiency:** To optimize the energy conversion and storage efficiency of the rMCCs when used in conjunction with SMR, focusing on heat recovery and reducing energy losses in the overall process
- **CO₂ Capture and Utilization:** To utilize the high-temperature CO₂ generated by the SMR process in the rMCCs, thereby reducing net emissions and potentially creating a closed-loop carbon system
- **Refinery Application:** To tailor the rMCCs-SMR integration specifically for the energy demands and operational requirements of oil refineries, with a focus on scaling for industrial applications

Expected Results:

- **Improved SMR Efficiency:** Increased hydrogen production efficiency by coupling rMCCs with SMR, leading to reduced energy consumption in oil refineries
- **CO₂ Emissions Reduction:** Significant reduction in CO₂ emissions from the hydrogen production process due to the utilization of CO₂ in the rMCCs.
- **Energy Recovery:** Enhanced energy recovery from waste heat, improving the overall energy efficiency of refinery operations
- **Scalability:** A prototype system that can be scaled and integrated into existing refinery infrastructures, providing a pathway for more sustainable hydrogen production
- **Economic and Environmental Impact:** Assessment of the cost savings and environmental benefits, with potential for widespread application in refineries and other industries relying on hydrogen production

PRESENTER FULL NAME: Dr. Mosè Rossi, Ph.D.

ORGANIZATION: Marche Polytechnic University of Ancona (UNIVPM), DIISM

WORKSHOP NAME: Energy System Group Research Activity

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PRESENTER FULL NAME: RECEP PARTAL, PhD.

ORGANIZATION: TUBITAK MAM

WORKSHOP NAME: CLEAN INDUSTRIAL DEAL

E-MAIL: recep.partal@tubitak.gov.tr





Description of the Organisation

TÜBİTAK MARMARA RESEARCH CENTER



TÜBİTAK

MAM

Türkiye's

Center for Research, Development and Innovation

Research, Innovation and Localization

Developing new ideas and local solutions

Technical and Scientific Support to Policy Makers

Providing expertise and data for policymaking

International Collaboration

Developing global partnerships and collaborations

Industry - Academia Collaboration

Building partnerships between industry and academic institutions





Resource Efficiency and Clean Energy Research Group

We develop state-of-the-art and circular economy-oriented industrial applications, as well as sustainable alternative fuels and decarbonization solutions for dual-use applications. .



VICE PRESIDENCY CLIMATE AND LIFE SCIENCES



Biotechnology
Research Group



Marine Research and
Technologies
Research Group



Food Technologies
Research Group



Climate Research and
Water Management
Research Group



**Resource Efficiency
and Clean Energy
Research Group**



Earth Sciences
Research Group



To conduct research on innovative thermochemical conversion technologies for efficient heat, power, and synthetic fuel production, including upgrading/refining, gas purification, catalyst development, and CCUS-supported process optimization, control, mining, simulation and semi-industrial scale engineering studies.



To identify, prioritize, and conduct studies on green and digital transition, resource efficiency, process improvement, cleaner production and circular economy opportunities **in the manufacturing industry.**



Research Fields

THERMOCHEMICAL TRANSFORMATIONS

- Gasification, Pyrolysis, Combustion and Reforming Technology
- Raw Material Pretreatment (Torefaction, Cavitation, etc.)
- Catalyst Development
- Process Development and Design
- Industrial Plant Installation



CARBON CAPTURE AND UTILIZATION

- Gas Separation and Purification
- Carbon Capture and Chemical Conversion
- Catalyst Development
- Process Development and Design
- Industrial Plant Installation



FUEL TECHNOLOGIES

- Sustainable Aviation Fuels
- Marine Fuels
- Rocket Fuels
- Process Development and Design
- Industrial Plant Installation



SUSTAINABILITY AND DIGITALIZATION

- Resource (Raw Material, alternative feedstocks Water and Energy) Efficiency Studies in industries
- Environmental Impact Analysis (LCA)
- Recovery of Valuable Elements from Waste/Wastewater
- Development of AI Supported Digital Solutions (predictive, prescriptive and twin analytics, decision-support systems) for Resource Efficiency





Main On-going Projects



Hydrogen Production Projects via Gasification from Coal

Development of advanced gasification technologies to produce hydrogen from coal with high efficiency and low emissions.



EU (HEU) – Sustainable, Secure And Competitive Energy Through Scaling Up Advanced Biofuel Generation (SUSTEPS)

Scaling up advanced biofuel technologies to strengthen sustainable, secure and competitive energy systems in Europe.



Development of Hydrogen Refueling Subsystems

Design and development of safe, efficient and scalable hydrogen refueling subsystems for mobility and industrial applications.



AI-Supported Automation for Wastewater Recovery in Textile Dyeing Plants to Reduce Water and Chemical Consumption

Application of automation and artificial intelligence to recover process wastewater in textile dyeing plants and reduce water and chemical consumption.



Project Idea

Related Call: HORIZON-CID-2026-01-01: R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA) (Processes4Planet and Clean Steel partnerships)

Deadline Dates: 15 September 2026 17:00:00 Brussels time

- ☐ **Objectives:** Aims to secure the EU as an attractive location for manufacturing, including for energy-intensive industries, and to promote clean tech and new circular business models in order to meet Europe's ambitious decarbonisation and climate neutrality targets
- ☐ **Expected Results:** Demonstrate an adequate integration of relevant technologies in support of the Clean Industrial Deal, show industrial leadership in the deployment after the project

Project Idea/WP or Task Name

IoT and AI Supported Wastewater Recovery in Textile Finishing Industry: Demo Case

We are currently interested in joining international consortia and collaborative projects to further develop and demonstrate these outputs at pilot and demo scale within industrial environments.



Call: HORIZON-CID-2026-01-01:

R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA)

(Processes4Planet and Clean Steel partnerships)



Related Technology Area in This Call:

Circularity and resource efficiency (material, energy, water) of production processes: improvement by 30% until 2035 compared to current industrial value, with technological solutions which are commercially viable; and significant reduction of the overall raw material consumption, energy input, freshwater intake, impact on ecosystems and emissions, through circular value networks that convert industrial side-streams and/or end-of-use waste to new feedstock for which no low-CO₂-technologies currently exist. Solutions must have an overall positive LCA and remain commercially viable under the expected regulatory and framework conditions at the end of the project.



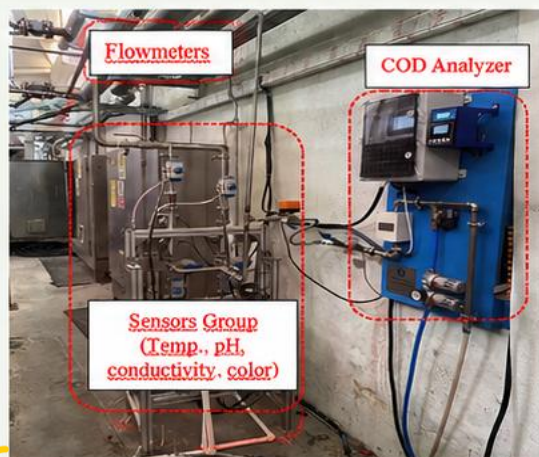
Motivation: The textile finishing industry is among the most energy- and water-intensive sectors. This case is expected to result in **10–25% wastewater recovery** and a reduction in freshwater intake.



Starting Point: Activities will start at **TRL 6** because the wastewater recovery model was developed in the previous national project.

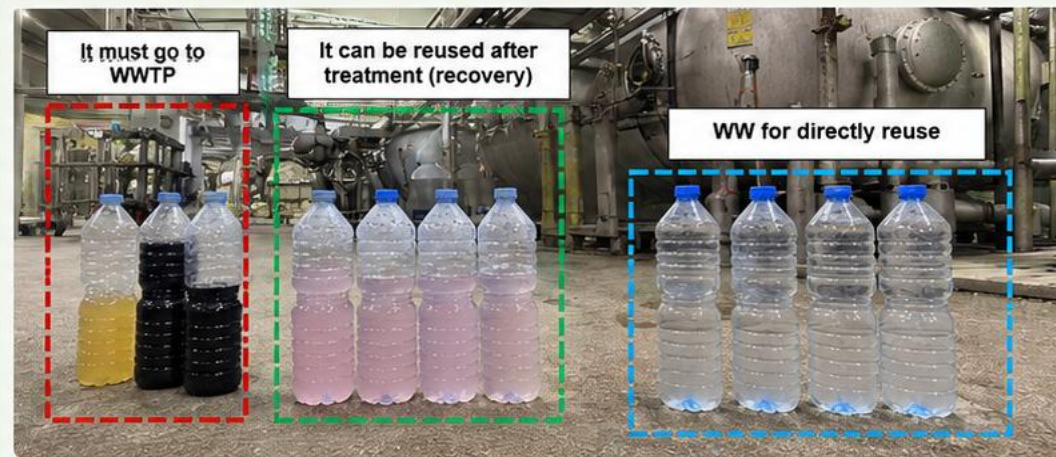
1

The system developed in the previous project (sensor group for data collection)



2

Separation of wastewater streams according to the collected and analyzed data



Circularity & Resource Efficiency



Water Efficiency



Decarbonisation & Sustainability



Industrial Impact & Competitiveness



Partnerships for Clean Industry

Project Idea



Consortium - profile of known partners (if any)

No	Partner Name	Type	Country	Role in the Project
01	TUBITAK MAM	R&D	TURKIYE	Partner
02	POYRAZ Textile Company	SME	TURKIYE	Partner or End User
03	Technology Provider-1	Private Sector	TURKIYE	Partner
04	Other Partners..			
05				

PRESENTER CONTACT

DETAILS: recep.partal@tubitak.gov.tr

COUNTRY: TURKIYE





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



VIRTUAL EVENT

International
Brokerage Event on



**Clean
Industrial Deal**

4 JUNE 2026

PRESENTER FULL NAME: ANA CLAUDIA PEREIRA DA SILVA

ORGANIZATION: FUNDECYT-PCTEX

E-MAIL: ANA.PEREIRA@FUNDECYT-PCTEX.ES





Description of the Organisation



A space to innovate

EXTREMADURA SCIENCE AND TECHNOLOGY PARK

Choose FUNDECYT-PCTEX

[Find out more](#)



FUNDECYT-PCTEX

FUNDECYT-PCTEX
un espacio para innovar

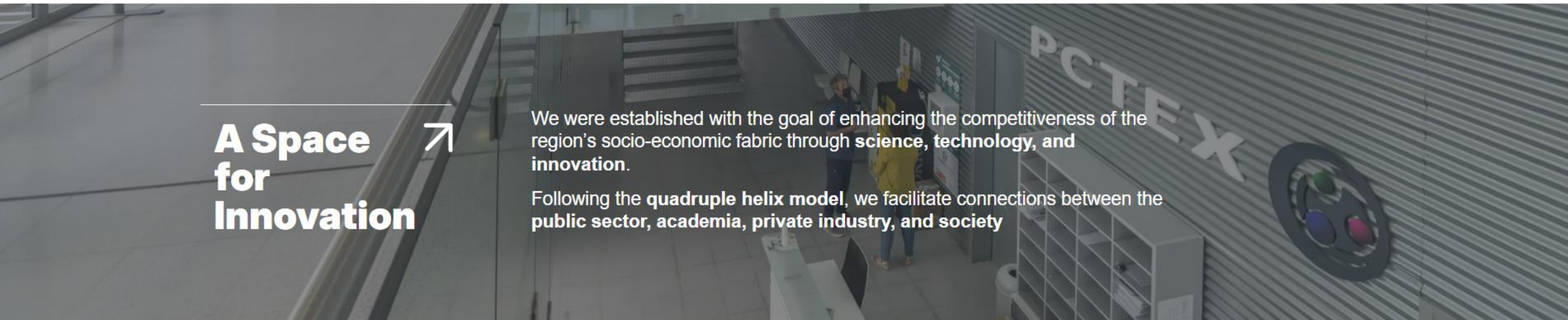
We are **FUNDECYT-PCTEX**, a non-profit foundation within the Public Sector of Extremadura, promoted by the **Regional Government of Extremadura** and the **University of Extremadura**.

A Space for Innovation



We were established with the goal of enhancing the competitiveness of the region's socio-economic fabric through **science, technology, and innovation**.

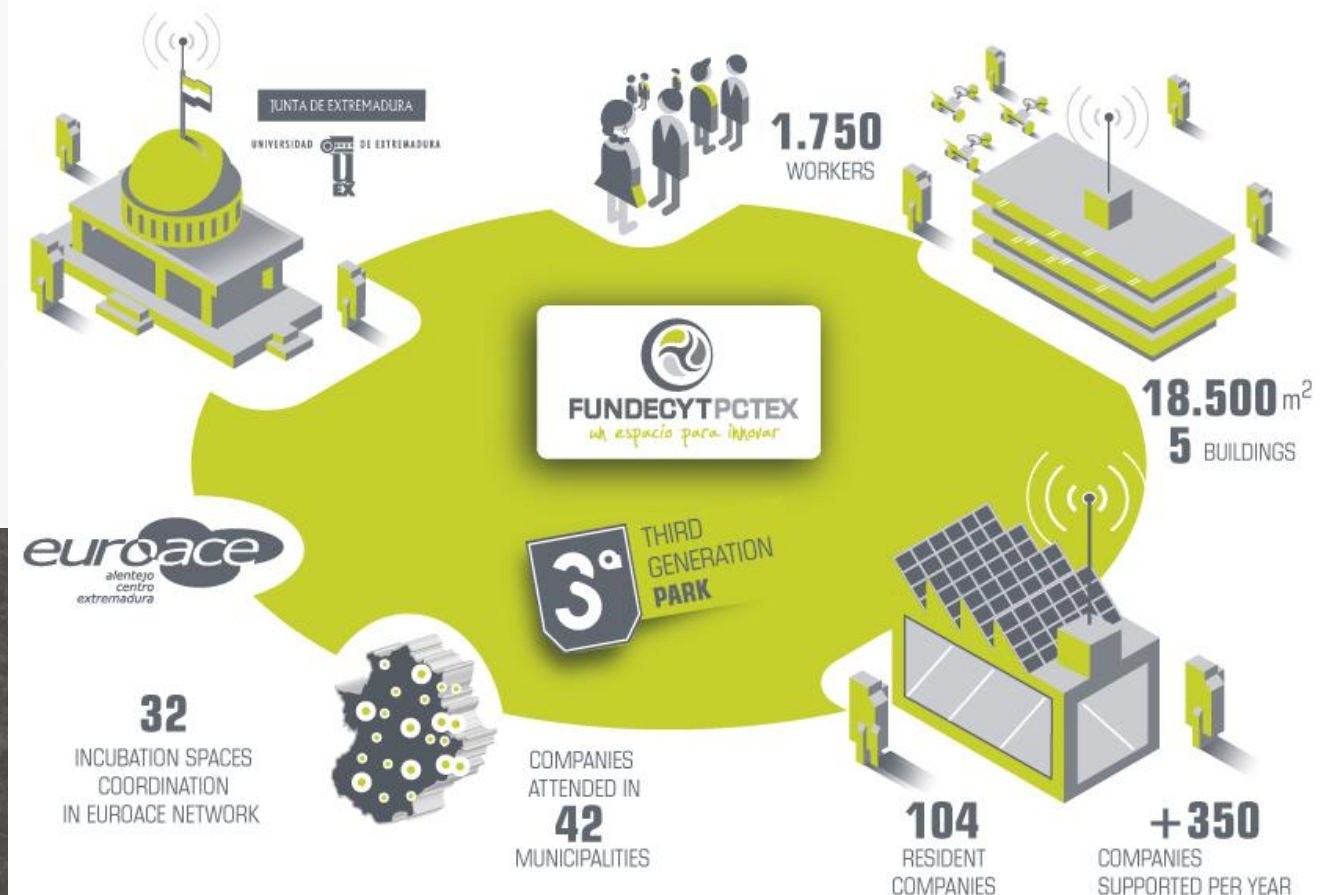
Following the **quadruple helix model**, we facilitate connections between the **public sector, academia, private industry, and society**



Description of the Organisation

Our infrastructure

Cutting-edge technology infrastructures located on the university campuses of Cáceres and Badajoz, ensuring regional coverage with 5 buildings and over 20,000m² dedicated to business.



Our beneficiaries

-  Businesses, SMEs, and entrepreneur
-  Academic, social, and political stakeholders
-  Research and technology centres
-  National ministries, the European Union, and international organisations



Your Teams' Expertise

Our experience_

+50 Highly qualified professionals

+25 **Years** managing **European projects** (INTERREG, European Framework Programmes, CIP ICT-PSP, Lifelong Learning Programme, etc.)

Member of International Networks
(EEN, ERRIN, CORAL, EURADA, EURAXESS, IASP, etc.)

+100 Technology-based companies conducting **R&D&I** in our facilities



CBE projects & proposals_

ROBOC∞P-EU



SustainNext



CV4FUTURE-BIO



Other projects & initiatives_



FUNDECYT-PCTEX as an End User & Product Validation Partner

Your Research Fields

“FUNDECYT-PCTEX acts as a **public end user and real-life validation environment**, providing access to innovation infrastructures, technology-based SMEs and real operational contexts.

FUNDECYT-PCTEX brings together bio-based industries, feedstock providers, non-bio-based and partially bio-based industries, investors, policy makers, demand-side actors

Added Value as End User

- It represents not a single user, but an **entire regional innovation ecosystem**.
- It connects companies, public administrations, universities and society, **facilitating the dialogue among the stakeholders** and identify possible pathways for cooperation.



- Provide access to real operational environments for **pilots and demonstrations**.
- **Access to SMEs**, startups, entrepreneurs and public services.
- **Validation of solutions** in real innovation and policy contexts.
- **Structured user feedback**, KPIs and acceptance assessment.
- Accelerates the **switch to bio-based** of traditional primary sector industries.
- **Strong replicability** across European regions.





Deploying effective regional and circular bio-based Business Models for the valorization of waste streams from 3 agricultural sectors

ROBOC∞P-EU

CIRCULAR BIOECONOMY BUSINESS MODELS OWNED BY AGROCOOPERATIVES

Funded by the European Union. Views and opinions expressed are however those of the author(s) only and do not necessarily reflect those of the European Union or CBE JU. Neither the European Union nor the CBE JU can be held responsible for them.

The project is supported by the Circular Bio-based Europe Joint Undertaking and its members.

Circular Bio-based Europe Joint Undertaking

Bio-based Industries Consortium

Co-funded by the European Union

SustainNext

Putting in place a sustainable and efficient bioeconomy business model based on zero-waste and zero-pollution processes integrated with renewable energy.

Revolutionising the botanical extracts industry through a unique model that can be replicated by the European bio-based sector.

Showing Europe how the circular bio-based industries can create jobs, attract talent and spur business opportunities in rural regions.

Empowering regions and sectors to embrace the circular bio-based industries.

The first European next-generation, zero-waste, dynamic and multi-valorisation biorefinery for sustainable botanical ingredients.

HORIZON-JU-CBE-2026-CSA-01: Supporting industry in the switch to sustainable and circular bio-based products and processes



Our interest

Deadline Date: 22/09/2026

Objectives: Support the industry in the **switch to sustainable and circular bio-based products** and processes by identifying and removing technical, economic, and regulatory barriers. It includes establishing dialogue forums and supporting the development of large-scale deployment strategies.

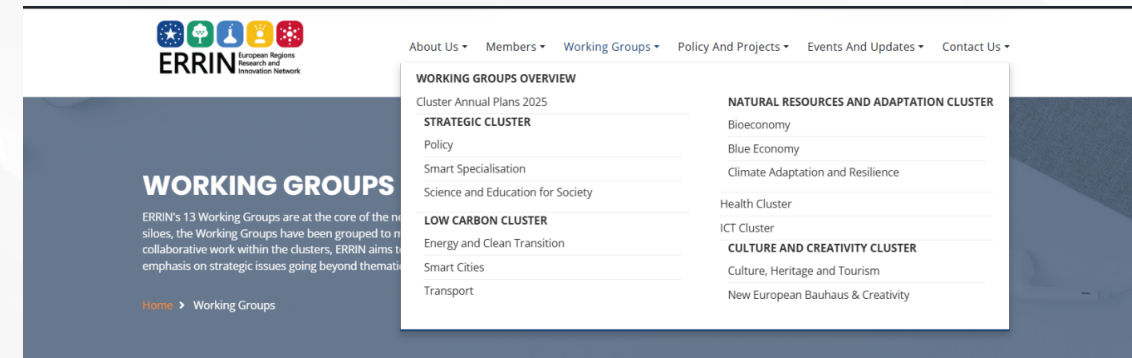
HORIZON-JU-CBE-2026-CSA-01: Supporting industry in the switch to sustainable and circular bio-based products and processes



Our interest

Expected outcomes

- Identification of technical, market and regulatory barriers and possible solutions for industry to ‘switch to bio-based’.
- Contribution to filling the gap between bio-based sectors and the broader industrial landscape.



HORIZON-JU-CBE-2026-CSA-01: Supporting industry in the switch to sustainable and circular bio-based products and processes



Our interest

Expected outcomes

- Identification of technical, market and regulatory barriers and possible solutions for industry to ‘switch to bio-based’.
- Contribution to filling the gap between bio-based sectors and the broader industrial landscape.





PRESENTER CONTACT

DETAILS:

Ana Claudia Pereira da
Silva
Project Advisor for R&D&I
Internationalization
FUNDECYT-PCTEX

COUNTRY: SPAIN



NOWOCERT Pitch

**Digital Intelligence for
Industrial Energy Management and Decarbonization**
(AI-enabled solutions for renewable-powered process industries)



VIRTUAL EVENT



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



International
Brokerage Event on



**Clean
Industrial Deal**

4 JUNE 2026

- ❑ Miadreza Shafiekhah
- ❑ NOWOCERT LIMITED
- ❑ Horizon Europe Clean Industrial Deal Brokerage Event
- ❑ info@nowocert.com





NOWOCERT LIMITED is a Dublin-based research, innovation and digital-solutions company supporting clean energy, mobility and industrial innovation.

The company develops AI-enabled applications, software tools, optimization, forecasting and decision-support solutions for energy, infrastructure and industrial systems.

NOWOCERT also supports EU proposal preparation, consortium positioning, exploitation planning and pilot-oriented digital concepts for Horizon Europe projects.



**Nowocert
Technical Expertise**

Core Role:

**Digital Intelligence Partner
for
Industrial Energy Management &
Decarbonization Consortia**

**AI-enabled forecasting,
optimization, monitoring and
decision-support for clean industrial
systems**



Digital

**Forecasting
&
Decision Support**



AI-driven

**Industrial
Energy
Optimization**

Data Architecture & Monitoring



NOWOCERT Research Fields

Interoperable Data Architecture & Digital Twin
SCADA Integration & Decision-Support System



Renewable Integration,
Storage Scheduling & Flexibility Optimization



Industrial Energy Management
&
Decarbonization



AI/ML Forecasting, Anomaly Detection
&
Predictive Maintenance



Project Idea 1

AI-enabled Energy Management & Decarbonization for Renewable-Powered Process Industries Industrial AI-EMD Platform

Relevant Topics:

*HORIZON-CL4-2027-02-MAT-PROD-32

*HORIZON-CID-2026-01-01

*HORIZON-CID-2026-01-02

Objectives:

- Optimize renewable energy input, storage operation and industrial process demand.
- Forecast renewable availability, industrial load, waste-heat potential and flexibility margin.
- Support techno-economic and CO₂-aware decision-making for industrial decarbonization.

Expected Results:

- A modular digital decision-support architecture for industrial energy management.
- Forecasting, optimization and monitoring modules for energy, flexibility and CO₂ performance
- Industrial use-case definition, KPI framework and partner-integration roadmap.



Project Idea 2

AI-enabled Decision Support for Industrial Heat Upgrade and Waste-Heat Recovery

Relevant Topics:

- *HORIZON-CL5-2026-09-D4-08 – Full-scale demonstration of heat upgrade solutions in industrial processes
- * To be competitive, this concept should be developed with industrial sites and heat-upgrade technology providers.

Objectives:

- Map industrial waste-heat sources, heat sinks and process heat-demand profiles
- Optimize heat-upgrade, thermal-storage and flexibility options under operational constraints
- Quantify energy savings, CO₂ reduction and techno-economic feasibility for industrial deployment

Expected Results:

- A heat source/sink matching and prioritization methodology
- AI-enabled monitoring and optimization logic for heat-upgrade and thermal-flexibility options
- A techno-economic and CO₂-impact assessment framework for industrial demonstration planning
- A partner-ready concept for full-scale industrial demonstration consortia.



Initial Consortium Positioning

No	Partner Name	Type	Country	Role in the Project
01	NOWOCERT LIMITED	SME / R&I company	Ireland	Digital partner for energy management, forecasting, optimization and decision-support
02	To be defined	Process-industry / energy-intensive company	EU/AC	Industrial use case, operational data and validation site
03	To be defined	Technology provider	EU/AC	Renewable, storage, heat-upgrade or clean-technology integration
04	To be defined	University / RTO	EU/AC	Process modelling, control, validation and impact assessment
05	To be defined	Coordinator	EU/AC	Consortium leadership, proposal coordination and stakeholder alignment



Partners Sought for Consortium Building

No	Expertise	Type	Country	Role in the project
01	Energy-intensive process-industry site	Industry	EU/AC	Industrial use case, operational data and validation environment
02	Renewable-energy, storage, electrification or heat-upgrade technology provider	Industry / Tech	EU/AC	Technology integration, pilot implementation and performance validation
03	Industrial energy systems, process engineering and control	University / RTO	EU/AC	Modelling, simulation, control strategy and technical validation
04	LCA, techno-economic and CO ₂ impact assessment	RTO / Consultancy	EU/AC	Impact assessment, KPI definition, exploitation and business-case analysis

www.nowocert.com



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Head of Research and Innovation

Dublin, Ireland

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Industrial Deal**

4 JUNE 2026



Prof. Dr. Alper SARIOĞLAN

Istanbul Technical University, Synthetic Fuels and Chemical Technology Center

Horizon Europe Clean Industrial Deal Brokerage Event

asarioglan@itu.edu.tr





Istanbul Technical University

- Founded in 1773. Turkey's first.
- One of the World's oldest technical university
- 37 235 students - 2241 academicians
- 104 undergraduate programs - 191 graduate programs

Faculty of Chemical and Metallurgical Engineering

- Chemical Eng. Department
- Metallurgical and Materials Eng. Department
- Food Eng. Department
- Bioengineering Program
- Undergraduate Programs are accredited by ABET (EAC)

ITU Synthetic Fuels and Chemicals Technology Center

- Founded on the ITU Ayazaga Campus on an area of 800 m² with 7 separate laboratories
- Funded by Turkish Republic Strategy and Budget Presidency
- A research and innovation hub integrating high-level training with technology development for sustainable fuels and chemicals from biomass, waste and CO₂.



Your Teams' Expertise

Emerging pyrolysis approaches

(Pyrolysis integrated with other systems)



Advanced pyrolysis approaches

(Catalytic, hydro-, Autothermal pyrolysis etc.)



Conventional pyrolysis approaches

(Slow, intermediate fast, flash pyrolysis)



Sustainable production of biofuels and bioproducts

(H₂, CH₄, Biochar, Bio-oil etc.)

BIOMASS



Low Carbon Hydrogen Production

High-Temperature Pyrolysis
Bubbling Fluidized Bed
Gasification

CO₂ Capture Technologies

Aqueous MEA Based Units
Design

PTSA Based Units Design

Gas Separation and Purification

Hollow Fiber/Flat Sheet
Membranes

Integrated Pilot Plant Test Infrastructure



Sustainable Fuels & Chemicals

Olefins, Fischer-Tropsch
Liquids, Sustainable
Aviation Fuels

Heterogeneous Catalysis

High Performance Catalytic
Test Units

Semi-Pilot Scale
Hydrogenation Unit

Advanced Materials

Spinel, Layered Double
Hydroxides, Mxenes, Carbon
Dots, Activated Carbon



Your Research Fields

Research Groups @ İTÜ-SENTEK

- A. Thermal Processes
- B. Membrane Gas Separation
- C. Catalysis & Adsorbents
- D. Electrochemical catalytic processes
- E. Carbonization Tech.s – in-progress
- F. Process Development & Modelling
- G. Sustainability & Life Cycle Assessment



Hollow Fiber

Preparation Unit



Gas permeability
measurement unit



National Roadmap Working Group Leadership: Green Technologies Chemical Sector



>30 Projects
in last 5 years:
2 Internationally
Funded (EU,
Scotland),
>20 National,
>10 Industrial

12 Academic
staff with
12 PhD, 13
MSc, and 1
technician



High-Throughput Catalyst

High-Pressure



Your Research Fields

Pilot Thermochemical Research Infrastructure

Gasification, Pyrolysis, Gas Clean-up Capture and CO₂ Utilization Technologies Laboratories of ITU-SENTEK have semi-pilot and pilot scale test units to perform technology demonstration and validation studies at technology readiness level 4-6 (TRL 4-6)



MEA Based CO₂ Capture



Pilot Scale Bubbling Bed Gasifier



Pilot Scale Pyrolysis and Gas Clean-up Units



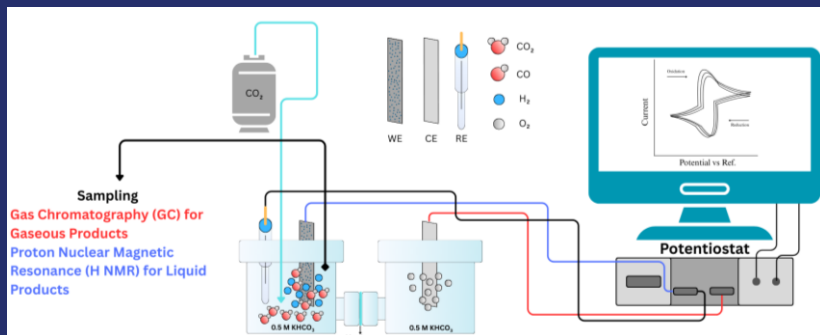
Semi-Pilot Scale FT



Semi-Pilot Scale PSA



Your Teams' Expertise

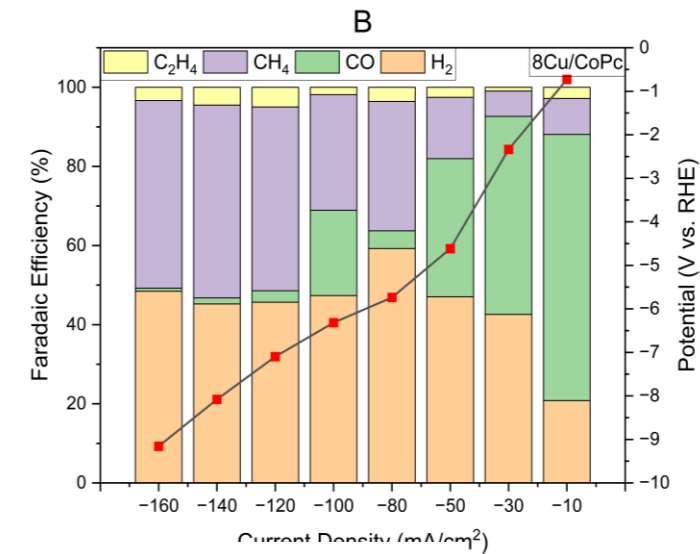
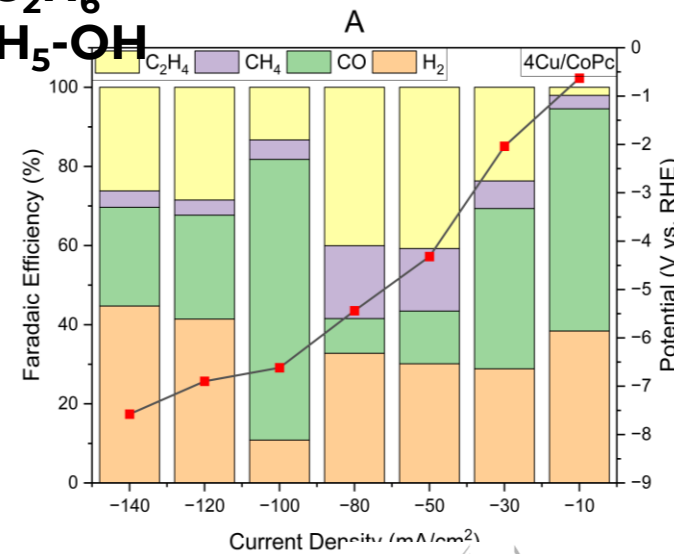
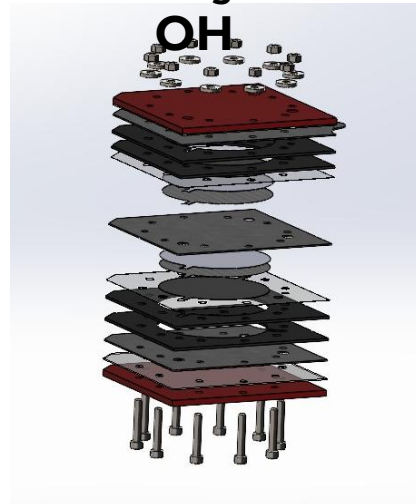
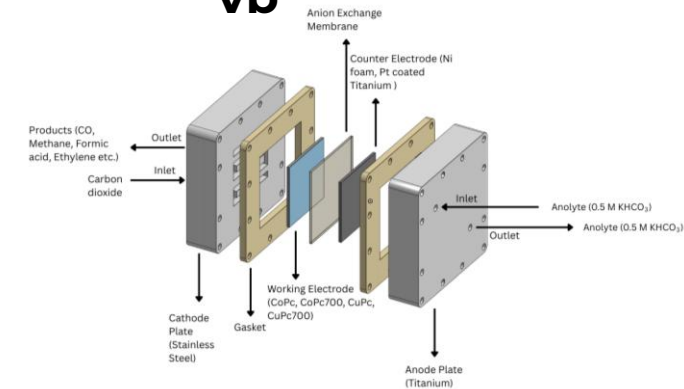
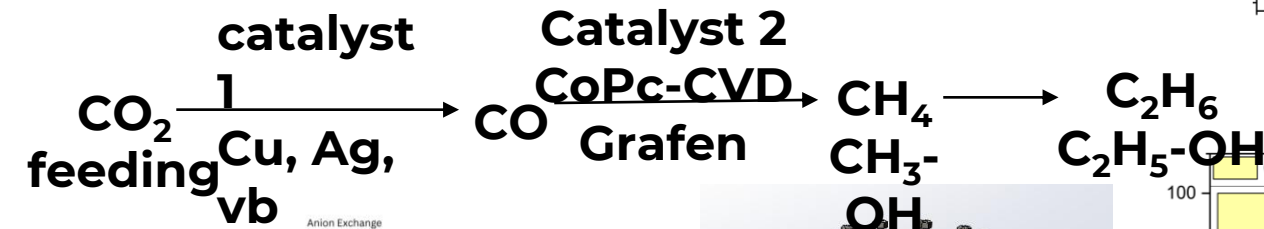
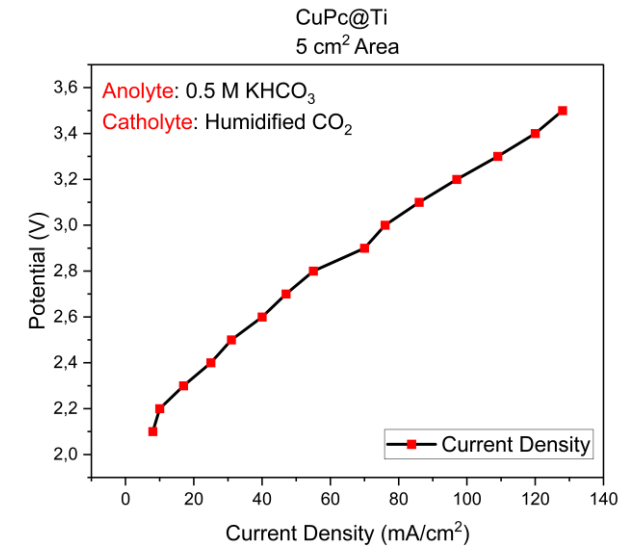
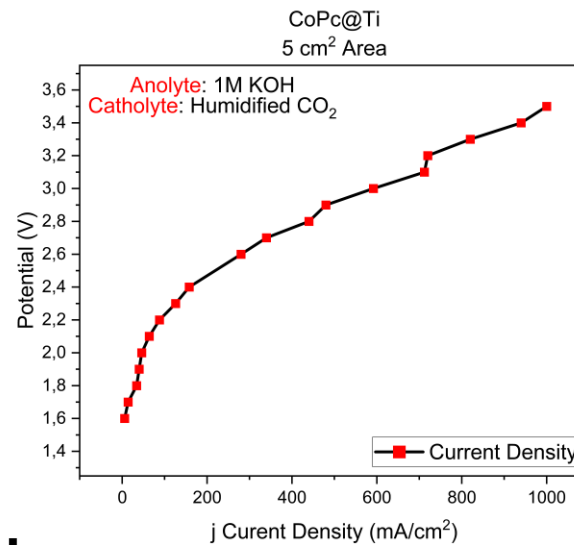


Electrochemical energy technologies for converting small molecules (H₂, O₂, H₂O, CO₂, N₂, NH₃, CH₄, etc.) into fuels/chemicals/energy

- ☐ Electrochemical CO₂ Conversion
- ☐ PEM, AEM & Alkaline Electrolysis Technologies (Seawater Electrolysis; H₂S Electrolysis)
- ☐ Photoelectrochemical Hydrogen Production
- ☐ Porous Transfer Layers
- ☐ Expanded Graphite & CVD Graphene
- ☐ MOF-Mxene electrocatalysts
- ☐ TRL 3-6 Electrode Stack Development and Testing



Cu/CuPc Tandem Cells





Your On-going Projects

❑ Environmentally Compatible Sustainable Advanced Vehicle Technologies (ILATERA) Platform Project Turkish Scientific and Technological Research Council (TUBITAK)

- Development of Hydrogen-Based Fuel Properties Suitable for PEM Fuel Cells and Internal Combustion Engines
 - Hydrogen Production from Sugar Beet Pulp via Catalytic Gasification

❑ TUBITAK Bulgaria Bilateral Project (123N020) “Flow Through Electrolysis of H₂S for Hydrogen Production

❑ LEAP-SE funded BioHyPEM project: ITU joins a multinational EU–Africa consortium to develop bio-based membranes for PEM fuel cells and green hydrogen electrolyzers (TRL 5)

❑ Utilization of Carbon Dioxide Captured from Air via Methanation-TUBITAK in cooperation with Morocco

❑ Development of an Integrated CO₂ Capture and Slag Mineralization Process for Steel Production- Turkish Energy, Nuclear and Mineral Research Agency (TENMAK)

❑ Development of a High-Performance Polymer-Based Hollow Fiber Membrane Containing a Selective MXene Nanosheet Layer for Clean Hydrogen and Methane Production from Syngas – (TUBITAK)

❑ Thermochemical Synthesis of Biomass-Derived Carbon- and Metal-Based Nanoparticles for Bioenergy Production and Antimicrobial Applications – TUBITAK-BIDEB-2232-B

❑ Valorization of Aluminum-Containing Composite Waste through Pyrolysis for the Production of High-Value Products-GAPPGreen



Project Idea

Call: HORIZON-CID-2026-01-01 R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA)

Project Idea: Integrated CO₂ Capture and Circular Carbon Utilisation Platform for Energy Intensive Industries

Deadline Dates: 15 September 2026

- ☐ **Objectives:** Integration of MEA/PTSA-based CO₂ capture systems, Slag mineralisation and circular carbon pathways; Waste heat integration for low-carbon industrial processes; Pilot-scale validation for steel and cement sectors
- ☐ **Expected Results:** Reduced industrial CO₂ emissions; TRL 4–6 validated capture-utilisation platform; Circular carbon integration roadmap; Scalable industrial decarbonisation concept



Call:HORIZON-JU-CBE-2026-RIA-01 Addressing separation and purification challenges in biorefineries

Project Idea:Advanced Membrane and Hybrid Separation Systems for Sustainable Biorefineries

Deadline Dates: 22 September 2026

- ☐ **Objectives:**Development of hollow fiber membrane systems; Advanced syngas cleaning and CO₂ separation; Hybrid adsorption–membrane integration; Process modelling and pilot-scale validation
- ☐ **Expected Results:**Improved biorefinery process efficiency; Reduced separation energy demand; Scalable gas purification platform; Sustainable biomass valorisation routes



**Consortium - profile of
known partners (if any)**

No	Partner Name	Type	Country	Role in the Project
01	ITU SENTEK	University	Turkiye	Advanced thermochemical conversion, CO2 capture and utilization technologies
02	IET engineering	SME	Turkiye	Scaling up and engineering of emerging sustainable technologies
03	UCL/Edinburgh Univ	University	UK	Advanced CO ₂ capture materials and processes
04	GappGreen	SME	Turkiye	Demonstration of emerging sustainable technologies, waste valorization



No	Expertise	Type	Country	Role in the project
01	Heterogeneous Catalysis	University/Reserach Center/SME/Industry		Pilot scale catalyst and adsorbent manufacturing and shaping
02	Char Valorization	University/Reserach Center/SME/Industry		Advanced char valorisation
03	Heat integration	Reserach Center/SME/Industry		Waste heat recovery technologies

PRESENTER CONTACT
DETAILS:

Prof. Dr. Alper Sariođlan

istanbul Technical University
Synthetic Fuels an Chemicals Technology Center

asarioglan@itu.edu.tr
+90 537 599 63 43

COUNTRY: Turkiye





This project is co-funded by the European Union
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4 JUNE 2026

PRESENTER FULL NAME: Hayri DENİZ (Ph. D.)

ORGANIZATION: ABALIOĞLU Fish and Food Products Company &
Muğla Fish Farmers Association

WORKSHOP NAME: Circular Bioeconomy & Industrial Biotechnology

E-MAIL: hayrideniz@hotmail.com & hayri.deniz@ablfoods.com.tr



Description of the Organisation



- ❑ ABALIOGLU Fish and Food Products Company (ABL Foods) is one of Türkiye's leading aquaculture companies with activities covering aquaculture feed production, fish farming, seafood processing, and salmon farming investments.
- ❑ The company provides access to industrial-scale aquaculture operations, fish processing facilities, feed manufacturing infrastructure and continuous biomass streams suitable for validation of circular bioeconomy innovations.
- ❑ Beyond aquaculture, ABL Foods also operates large-scale egg production facilities, creating opportunities for cross-sectoral circular bioeconomy and sustainable food system projects.
- ❑ Through the Muğla Fish Farmers Association, additional access can be provided to commercial aquaculture farms, producer organisations and stakeholder engagement platforms supporting industrial demonstration and replication activities.

Your Teams' Expertise



Your Teams' Expertise



- ✓ Industrial aquaculture operations
- ✓ Fish feed production
- ✓ Industrial demonstration and scale-up
- ✓ Circular bioeconomy applications



- ✓ Biomass valorisation
- ✓ Commercial-scale validation
- ✓ Stakeholder engagement
- ✓ EU project participation

Your Research Fields



Your Research Fields

Circular Bioeconomy
Industrial Biotechnology
Aquaculture Side Stream
Valorisation



Industrial Demonstration
Commercial-Scale Validation
Technology Deployment



Producer Networks
Stakeholder Engagement
Multi-Actor Cooperation



Industrial Scale-Up
Circular Value Chains
Market Uptake & Replication



Your On-going Projects



Your On-going Projects



Industrial Aquaculture Investments

- ✓ Salmon farming and processing investments in the Black Sea Region
- ✓ Development of commercial-scale processing infrastructure
- ✓ Expansion of the aquaculture value-chain integration

Circular Bioeconomy Activities

- ✓ Circular aquaculture and sustainability initiatives
- ✓ Valorisation opportunities for aquaculture side streams
- ✓ Industrial demonstration activities for bio-based solutions

Project Idea



Project Idea

Call: HORIZON-JU-CBE-2026-IA-01

Project Idea: ***BLUECIRC – Industrial Demonstration of Circular Blue Biorefineries for Sustainable Aquaculture and Food Systems***

Deadline Dates: Expected 2026 CBE JU Call Deadlines

☐ **Objectives:**

- ✓ Develop biotech routes for aquaculture side-stream valorization
- ✓ Demonstrate industrial-scale circular biorefinery approaches
- ✓ Reduce waste generation and environmental footprint

☐ **Expected Results:**

- ✓ Protein hydrolysates
- ✓ Biofertilizers
- ✓ Bio stimulants
- ✓ Circular value chains

Consortium – Required Partners



Consortium – Required Partners

No	Expertise	Type	Country	Role in the project
01	Industrial Biotechnology	Research / SME	EU	Biotech Conversion
02	Biorefinery Technologies	Industry	EU	Process Integration
03	Sustainability Assessment	Research / Consulting	EU	Impact Assessment
04	Biomaterials & Fermentation	SME / Industry	EU	Product Development

Seeking strategic partners for industrial-scale circular bioeconomy deployment.

PRESENTER CONTACT DETAILS:

Hayri DENİZ (Ph. D.)

-  **Senior Consultant** – Abaloğlu Fish & Food Products Inc.
-  **Secretary General** – Muğla Fish Farmers Association
-  **Member** – CBE JU Primary Producers Working Group

 hayrideniz@hotmail.com

 hayri.deniz@ablfoods.com.tr

 **Türkiye**



Seeking Partners

for industrial demonstration of
circular bioeconomy innovations
in aquaculture.





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



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4 JUNE 2026

LINA MURAUSKAITE, PhD
LITHUANIAN ENERGY INSTITUTE
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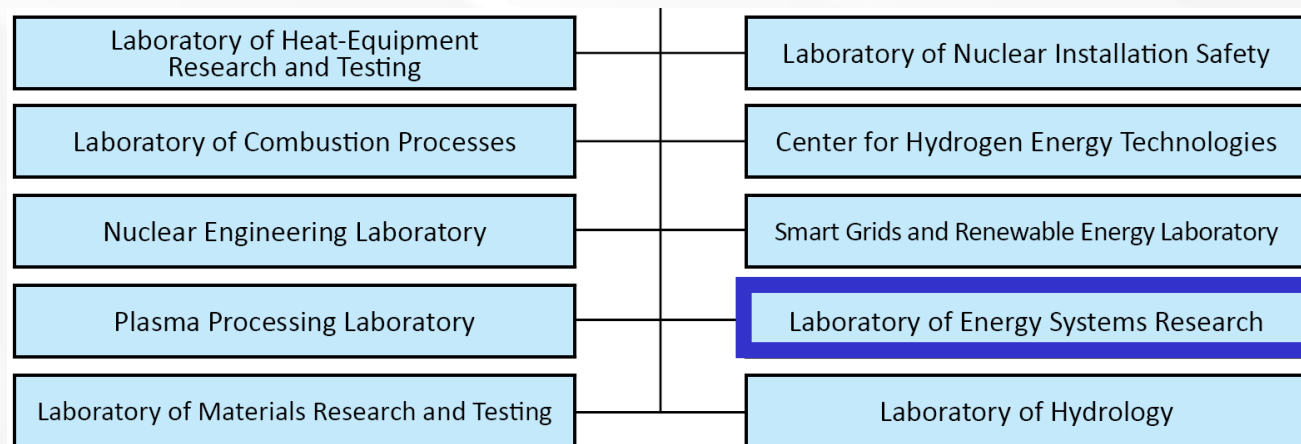
Lithuanian Energy Institute



LITHUANIAN
ENERGY
INSTITUTE



Description of the Organisation



~ 70 years of experience
250+ employees
10 Labs



Laboratory of Energy Systems Research



**Teams'
Expertise**



**Medium and long-term
energy development
scenarios**



**Climate change
mitigation**



**Socio-economic and
distributional
impacts**



**Integration of
technical, natural
and social
systems**



**Renewable energy
sources, their
integration**



**Transport &
industry
decarbonization**



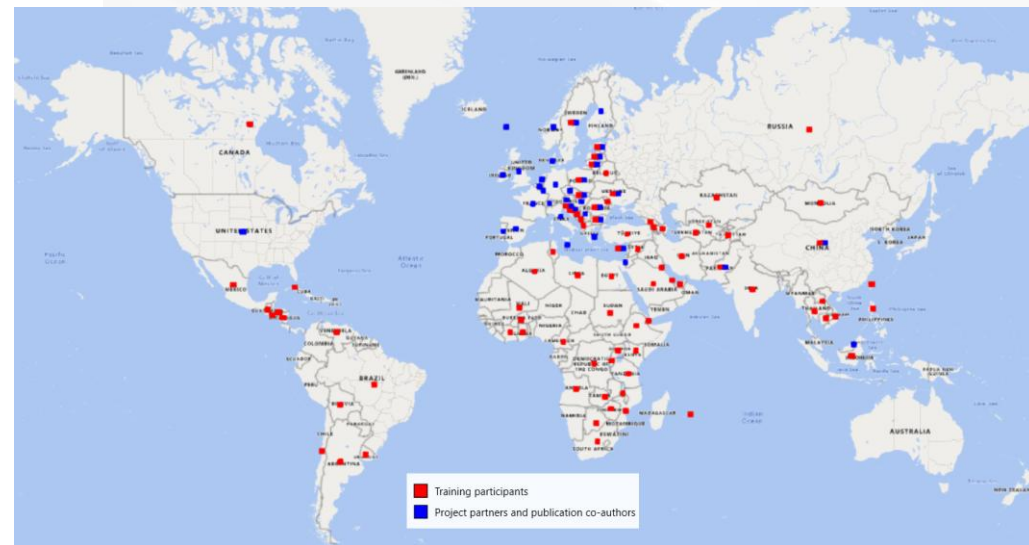
**Environmental
impact**



**Optimal allocation
of capacities**



**Consumer
behaviour**



Projects



LITHUANIAN
ENERGY
INSTITUTE



REEFLEX - REplicable, interoperable, cross-sector solutions and Energy services for demand side FLEXibility markets



FLEXCHX - Flexible combined production of power, heat and transport fuels from renewable energy sources



AMBER - Impacts of ambitious energy policy pathways

Socio-economic cost-benefit analysis of the expansion of the production capacity of Kruonis Hydro Pumped Storage Power Plan (900 MW)

Households in the context of energy transition

Integrated energy and transport decarbonisation analysis

LIFE IP EnerLIT - Improving energy efficiency in Lithuania

Project & Contributions



LITHUANIAN
ENERGY
INSTITUTE



Project Idea

Call: Clean Industrial Deal Horizontal Calls

- HORIZON-CID-2026-01-01: R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA) (Processes4Planet and Clean Steel partnerships)
- HORIZON-CID-2026-01-02: R&I in Support of the Clean Industrial Deal: Clean Technologies for Climate Action

Project: potential LEI contributions (SSH expertise)

- Techno-economic modelling and scenario analysis
- Mandatory business plan and market-readiness strategy in every proposal
- Environmental impact quantification
- Power & heating system integration expertise

Deadline Dates: 15/09/2026

Partners



LITHUANIAN
ENERGY
INSTITUTE



We are looking for: Consortium with technology to start at TRL 6.

Potential industrial partner(s) from Lithuania

- **VMG Energy** offers a live industrial decarbonization environment, with renewable energy, CHP, biomass, and energy optimization competences.
- In Akmene Free Economic Zone, we can act as a multi-site testbed for CO₂ capture and utilization solutions across real manufacturing operations.
- We are looking for technology and R&D partners to demonstrate scalable CCU/CCUS and circular industrial solutions in an infrastructure-ready deployment setting.



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LITHUANIA



LITHUANIAN
ENERGY
INSTITUTE
www.lei.lt





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



MSCA SE 2026 Call



VIRTUAL EVENT

International
Brokerage Event on



**Clean
Industrial Deal**

4 JUNE 2026

PRESENTER FULL NAME: Dr. Tolga Sönmez

ORGANIZATION: NavAware

WORKSHOP NAME: Pitching Session

E-MAIL: tolgasonmez@navaware.com.tr





NavAware

NavAware Technology and R&D Ltd. Co.

Located in Bilkent Cyberpark, Ankara

- Deep-tech SME specialized in **resilient navigation systems**.
- Focus on **GNSS-denied and contested environments**.
- Core capabilities in **sensor fusion, AI-driven positioning, and modelling**.



Your Teams' Expertise



- Advanced Signal Processing & Estimation Theory.
- Multi-Sensor Fusion Architectures (INS/GNSS/EO/Radar)



- AI/ML for Navigation & Anomaly Detection
- GNSS-denied Navigation Solutions
- High-fidelity Simulation & Algorithm Development



Your Research Fields

Artificial Intelligence & Data-driven Systems



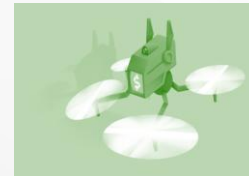
Space & Satellite-based Systems
(LEO/MEO)



Navigation & Positioning
Technologies (PNT)



Defence & Dual-use Technologies





Your On-going Projects

Proposal Coordination Activities



TruthAware

Topic: HORIZON-CL3-2025-01-FCT-02

AI-driven cognitive security platform for disinformation detection

Awarded under the Horizon Europe programme, TruthAware supports digital information integrity by detecting, verifying, and analysing harmful disinformation campaigns in real time.

CrowdAware

Topic: HORIZON-CL3-2026-01-DRS-01

Multi-sensor intelligence for safer public spaces

CrowdAware enhances public safety at large-scale events and urban gatherings through real-time sensor fusion, AI-based behaviour analysis, and early risk detection.

TerraCrimeAware

Topic: HORIZON-CL3-2026-01-FCT-01

Space-to-evidence platform against environmental organised crime

TerraCrimeAware combines Copernicus satellite imagery, drone-based inspection, and AI analytics to detect, monitor, and document illegal dumping, illegal mining, and related environmental crimes.



Interested Call: Horizontal Activities | R&I in Support of the Clean Industrial Deal

HORIZON-CID-2026-01-02 Clean Technologies for Climate Action

❑ Possible Contributions:

- Localization,
- Sensor Based Inspection,
- Optimization, Sensor Fusion,
- Sensor Data Processing,
- Analytical + AI Hybrid Data Analysis



Project Idea

Interested Call: Digital, Industry and Space | Destination 1: Leadership in materials and production for Europe

HORIZON-CL4-2027-02-MAT-PROD-32-two-stage Efficient energy input from renewable sources and energy management in the process industries (Processes4Planet and Innovative Advanced Materials for the EU partnerships)

❑ Possible Contributions:

- Localization,
- Sensor Data Processing,
- Optimization,
- Analytical + AI Hybrid Data Analysis,
- Optimal Battery Management System Algorithms,
- Optimal Energy Resource Management

PRESENTER CONTACT
DETAILS:

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COUNTRY: TURKIYE





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



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**Clean
Industrial Deal**

4 JUNE 2026

Florin Irimescu, CEO
Bluana Foods S.R.L.
Horizon Europe Clean Industrial Deal
Brokerage Event
florin@bluana.me





Description of the Organisation

Bluana Foods S.R.L. is a European foodtech company pioneering plant-based seafood alternatives using patented HMHNI (High Moisture High Nutrient Injection) technology. Headquartered in Romania with EU operations based in Spain (Bluana Bizkaia S.L.), we produce ambient-stable sashimi that eliminates the cold chain entirely — 12-month shelf life without refrigeration or We are building a consortium under Horizon Europe CBE JU 2026 (HORIZON-JU-CBE-2026-IAFlag-01) to scale from TRL 6 to TRL 8. Key metrics: 8/10 consumer preference over conventional fish in 10,000+ blind sensory tests; 50% gross margins at €27/kg; patented IP (US 2025/0009003 A1); ConditionOS AI-powered quality engine for batch-level assurance; targeting €62.8B EU seafood market with €3.5B SAM.

Foodtech
Plant-based Seafood

€0.85M Raised
€550K equity + €300K grants

13 LOIs Signed
JAL, Lidl, Coop



Your Teams' Expertise

Patented High Moisture High Nutrient Injection (HMHNI) technology creates anisotropic hydrogel composites with 55-90% moisture content, replicating the delicate structure of premium raw fish.

Key innovation: Thermal sterilization step achieves 12-month ambient shelf life — akin to UHT milk processing — without chemical preservatives.

TRL 6 → TRL 8 transition via 40 kg/h industrial pilot line.

Circular Biorefinery

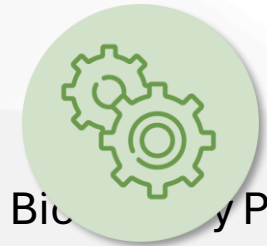


Food Science & Engineering

Our core team combines expertise in hydrocolloid chemistry, thermal processing, and food engineering.

Proven capability to replicate the 'clean break' bite and 'melt-in-mouth' marbling of premium sashimi-grade salmon and tuna.

HMHNI Technology



Circular Biorefinery Platform

Transforming European agricultural side-streams into high-value functional ingredients.

Feedstock valorization: sunflower meal, potato residues, rice protein, and marine biomass (sea moss/carrageenan).

-53,734 t CO₂eq per 100t product vs. traditional



Your Research Fields

EFSA Novel Food
& HACCP

Plant-Based
Protein



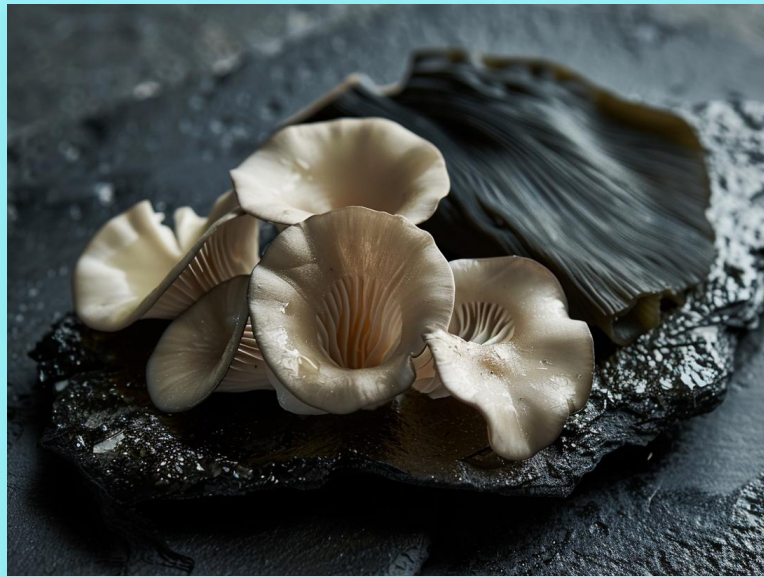
Food Processing
& Engineering

Sustainable
Seafood Alt.

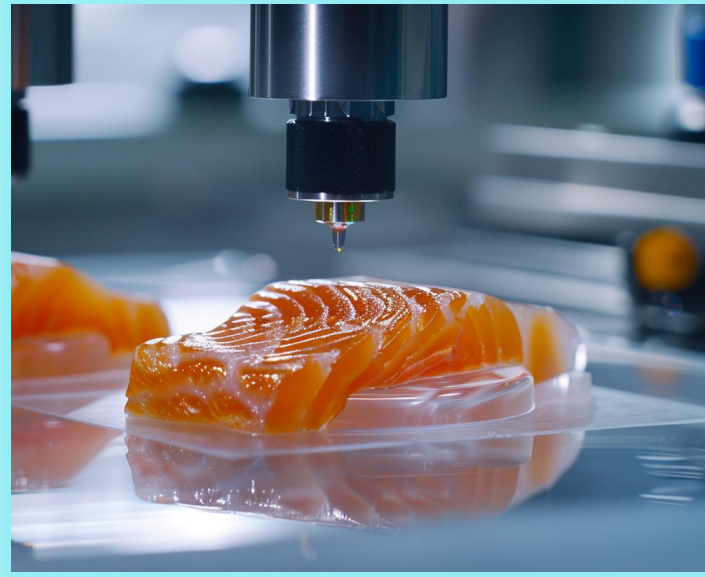




1. INPUTS



2. THE TECH



3. OUTPUT



"Methods and systems for producing shelf stable plant-based hydrogels (US 2025/0009003 A1)"



Project Idea

Horizon Europe — HORIZON-JU-CBE-2026-IAFlag-01 (Clean Industrial Deal Brokerage Event, 4 Jun 2026)

Project Idea:

Bluana Foods will scale its patented HMHNI technology to produce plant-based sashimi (salmon & tuna) with 12-month ambient shelf life, targeting the €62.8B European seafood market (EUMOFA 2025) through B2B HORECA, airline catering, and D2C channels.

Deadline Dates:

- ❑ Q3 2026 (September 2026) — Complete EU consortium & site selection; Q2 2027 — Production launch (TRL 8)

Objectives:

- ❑ 1) Establish first EU manufacturing facility 2) Scale HMHNI production from TRL 6 to TRL 8 (40 kg/h pilot); 3) Secure EFSA Novel Food approval (EU 2015/2283); 4) Build EU-wide distribution network

Expected Results:

61 jobs created over 3 years; €2.56M Year 1 capital investment; EBITDA positive by Q4 2027; €3.5M revenue Year 1; €10M revenue by Year 3; 98.4% freight emission reduction vs. traditional seafood



Project Idea

Horizon Europe — HORIZON-JU-CBE-2026 (Primary: IAFlag-01; Secondary: IA-04, IAFlag-02, RIA-01, RIA-02)

Project Idea:

BLUETIDE is an integrated circular biorefinery platform aligned with the CBE JU strategic autonomy and circularity goals. We transform European agricultural side-streams into high-fidelity plant-based sashimi, replacing €3-5/kg cold chain costs with ambient logistics at €0.08/kg.

Deadline Dates:

Q3 2026 — Submit CBE JU proposal; Q4 2026 — EFSA Novel Food dossier submission; Q1 2027 — Facility buildout in Bizkaia, Spain; Q2 2027 — First-of-a-kind industrial production

❑ Objectives:

1) Address EU's 62% seafood import dependency (strategic vulnerability under Green Deal); 2) Reduce cold chain waste by ~€10B/year (EU pro-rata); 3) Achieve 'Logistics Sovereignty' via ambient-stable product; 4) Deploy ConditionOS AI quality engine for batch assurance

❑ Expected Results:

Up to €10M CBE JU funding; 5 consortium partner types (processors, RTOs, end-users, packaging, NGOs); - 53,734 t CO₂eq per 100t product; European Commission DG RTD partnership



No	Partner Name	Type	Country	Role in the Project
01	Japan Airlines (JAL)	End-User	Japan	Airline catering pilot & distribution
02	Lidl	End-User	Germany	Retail pilot & EU-wide distribution
03	Coop	End-User	Switzerland	Retail pilot & D2C channels
04	Bluana Bizkaia S.L.	Processor	Spain	EU manufacturing base (Basque Country)
05	Florin Irimescu / Bluana Foods S.R.L.	Coordinator	Romania	IP holder, HMHNI technology, ConditionOS



Consortium – required partners

No	Expertise	Type	Country	Role in the project
01	Large Agri-Food Processor	Industry	EU (TBD)	Biorefinery pathway for functional proteins & lipids from side-streams
02	Food Science RTO	Research	EU (TBD)	EFSA Novel Food safety dossier & advanced bio-activity validation
03	Circular Packaging Expert	SME	EU (TBD)	Bio-based films with high O2 barriers under 12-month ambient storage
04	NGO / Consumer Advocacy	NGO	EU (TBD)	Multi-Actor Approach (MAA) leadership & consumer acceptance

PRESENTER CONTACT
DETAILS:

Florin Irimescu

+40 786 528 060 (RO) / +1 240
525 7746 (US)

florin@bluana.me | bluana.me

COUNTRY:

Romania (HQ); Spain (Bluana
Bizkaia S.L.)





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



VIRTUAL EVENT

International
Brokerage Event on



**Clean
Industrial Deal**

4 JUNE 2026

PRESENTER FULL NAME: Marc Dorchain

ORGANIZATION: ARIS

WORKSHOP NAME: Clean Industrial Deal

E-MAIL: marc.dorchain@aris.com





Description of the Organisation

ARIS*
former unit of Software AG
Headquarter in Germany

process intelligence/AI govern

The central platform
enterprises rely on
to **understand, deploy and**
govern Agentic AI

AI Governance / Execution /
Perception :

Dataspaces & Agents
Process Intelligence AI „brain“



Your Teams' Expertise

ARIS Named a Leader in The Forrester Wave™: Process Intelligence Software, Q3 2025

~~~~~  
ARIS has been positioned as a Leader in the Gartner® Magic Quadrant™ for Process Mining Platforms 2025



**Governed  
Digital  
Twin**



**Process  
Intelligence &  
Optimisation  
Layer for  
Industrial  
Decarbonisation**



## Your Research Fields

Analysis of real production processes



Conformance checking against sustainable target processes



Real-time monitoring of decarbonisation measures



Identification of inefficient process paths with high energy consumption



## Your On-going Projects

HYSouthMarmara: Turkiye's first Hydrogen Valley Project  
(funded under HORIZON-JTI-CLEANH2-2022-2 - Hydrogen and H2NG leak detection for continuous monitoring and safe operation of HRS and future hydrogen/H2NG networks(IA))

ZDZW project: Non-Destructive Inspection Services for Digitally Enhanced Zero Waste Manufacturing (funded under HORIZON-CL4-2021-TWIN-TRANSITION-01-02 - Zero-defect manufacturing towards zero-waste (Made in Europe Partnership) (IA))

ZDMP project: Zero Defects Manufacturing Platform (as part of Software AG)  
(funded under H2020-DT-2018-2020 - INDUSTRIAL LEADERSHIP - Leadership in enabling and industrial technologies - Information and Communication Technologies (ICT)) (IA))





## Project Idea

**Project Idea: HORIZON-CID-2026-01-01: R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA) (Processes4Planet and Clean Steel partnerships)**

**ARIS Role in Consortium**

**Process Intelligence & Optimisation Layer for Industrial Decarbonisation**

- ☐ **Objectives: Decarbonisation fails without visibility into real processes — ARIS makes actual execution measurable and optimisable.**
- ☐ **Expected Results:**
  - Process mining–based resource efficiency models**
  - BPMN models for optimised industrial processes / AI Governance**
  - Monitoring dashboards for resource consumption and optimisation impact**
  - Continuous improvement workflows for industrial transformation**



## Consortium – required partners

| No | Expertise | Type | Country | Role in the project                  |
|----|-----------|------|---------|--------------------------------------|
| 01 |           |      |         | Industry Partner                     |
| 02 |           |      |         | Mainly looking for industry partners |
| 03 |           |      |         |                                      |
| 04 |           |      |         |                                      |

## PRESENTER CONTACT

Marc Dorchain

Director R&D

E [marc.dorchain@aris.com](mailto:marc.dorchain@aris.com)

COUNTRY: GERMANY





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



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**Clean  
Industrial Deal**

4 JUNE 2026

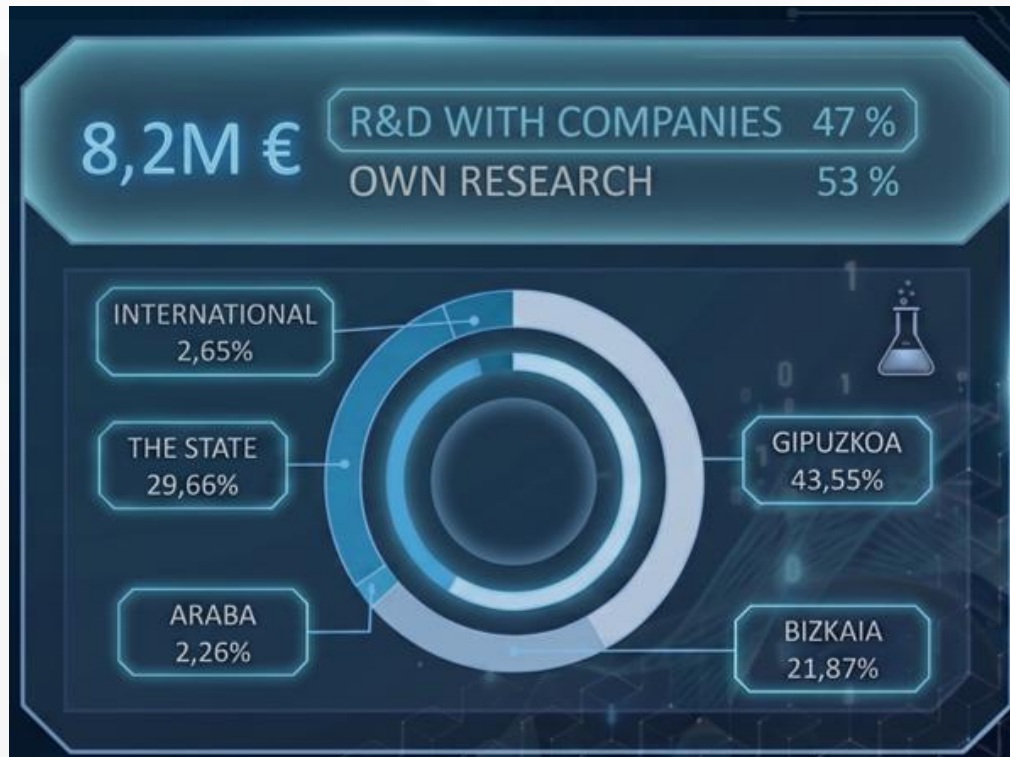
**PRESENTER FULL NAME:** Janusz Poplawski

**ORGANIZATION:** Lortek

**WORKSHOP NAME:** HE Clean Industrial Deal Brokerage Event

**E-MAIL:** [jpoplawski@lortek.es](mailto:jpoplawski@lortek.es)





**LORTEK** is a private technology center, a member of the BRTA (Basque Research & Technology Alliance), and a cooperative integrated into the MONDRAGON Corporation. We specialize in **digitalization and the development of advanced and smart manufacturing solutions**, designed to address the challenges of the digital and energy transition.

**LORTEK** focuses its activity on transferring scientific knowledge into applicable solutions through R&D projects developed in collaboration with companies and institutions, closely aligned with local industrial ecosystem needs.





Your Teams' Expertise

A photograph of a large, silver industrial robotic arm in a factory or exhibition hall. A person is visible in the background, looking at a device. The scene is brightly lit with industrial equipment and structures.

### 4 DRIVING INDUSTRY in Strategic Sectors

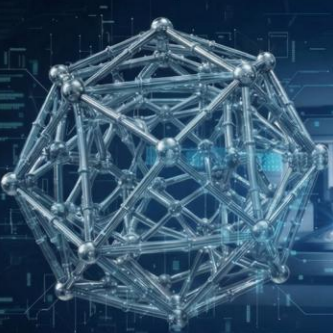
- Aerospace
- Sustainable Mobility
- Metallurgy
- Energy
- Industrialized Construction
- Dual-use Applications

**Connected to the ecosystem of clusters and associations**

ADDIMAT, AEND, AFM, BAIC, BASQUENERGY CLUSTER, BDV, CESOL, CLEAN AVIATION, EFFRA, Manufacturing, ENNE, eu ROBOTICS, FEX, Goierri, hegan, STECH, robotekin



## Your Research Fields



### SUSTAINABLE MATERIALS AND MANUFACTURING PROCESSES

MATERIALS    PBF-LB    PROCESS MONITORING



### LARGE-FORMAT ADDITIVE MANUFACTURING AND REPAIR PROCESSES

DED-LB    DED-Arc    FSAM



### DIGITAL MANUFACTURING SYSTEMS

ROBOTICS AND CONTROL    AI    SIMULATION



### SMART JOINTING TECHNOLOGIES

LASER    ARC    FRICTION



### DIGITAL INSPECTION

ARTIFICIAL VISION    THERMOGRAPHY    PROFILOMETRY



### TECHNOLOGY SERVICES AND LABORATORY

QUALITY CONTROL    CHARACTERIZATION    ADVANCED SERVICES





Twenty on-going strategic R&D projects:

- 9 regional (Gobierno Vasco)
- 3 national (CDTI/Spain)
- 8 European (HorizonEurope & EDF)

From Horizon Europe FLASH-COMP and COROB are coordinated by Lortek.

|                    |  |                                                                                                                                                                                       |
|--------------------|--|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| <b>SENDIA</b>      |  | Diseño y desarrollo seguro de sistemas robóticos basados en IA.                                                                                                                       |
| <b>HANDIA</b>      |  | El humano en el centro de las tecnologías de inspección no destructivas mediante IA.                                                                                                  |
| <b>HIPERION II</b> |  | Generation of knowledge and capabilities for new space technologies and future planetary missions.                                                                                    |
| <b>REVIR</b>       |  | Revalorización de la viruta generada durante el proceso de mecanizado.                                                                                                                |
| <b>KUBITBI</b>     |  | Kuantikaren berrikuntzarako ibilbide teknologikoak.                                                                                                                                   |
| <b>ECOFAST 2</b>   |  | Tecnologías de Fabricación Aditiva Sostenibles y productivas para la mejora de la competitividad.                                                                                     |
| <b>WINDLIFE</b>    |  | Investigación en nuevas herramientas para la toma de decisión y tecnologías de remanufactura para la extensión vida útil de componentes eólicos.                                      |
| <b>GESMIND</b>     |  | Investigación en un nuevo modelo de fábrica cognitiva human centric para el sector automoción.                                                                                        |
| <b>HYBRID</b>      |  | Tecnologías de fabricación híbridas para la industria inteligente.                                                                                                                    |
| <b>IRATI</b>       |  | Innovación en materiales para aplicaciones avanzadas a alta temperatura y funcionalidad dual.                                                                                         |
| <b>TACTIX</b>      |  | Red Cervera para la investigación en tecnologías avanzadas para la cognición, simulación táctica y entrenamiento adaptativo en escenarios críticos a través de interfaces extendidas. |
| <b>QUIXOTE</b>     |  | Red de excelencia Cervera para la investigación en tecnologías cuánticas para infraestructura experimental orientada a la soberanía tecnológica en entornos estratégico.              |
| <b>FLASH-COMP</b>  |  | Flawless and sustainable production of composite parts through a human centred digital approach.                                                                                      |
| <b>COROB</b>       |  | Cooperative robotics powered by AI and data for flexible production cells.                                                                                                            |
| <b>AMANECO</b>     |  | Assessment of Additive Manufacturing limits for eco-design optimization in heat exchangers.                                                                                           |
| <b>WAVETAILOR</b>  |  | Modular laser sources for sustainable production of short personalized production series.                                                                                             |
| <b>DISCMAN</b>     |  | Digital Supply Chain for on-site Maintenance in defence by AM.                                                                                                                        |
| <b>ROLIAC</b>      |  | Robust and Light AM Components for Military Systems.                                                                                                                                  |
| <b>AIRISE</b>      |  | Artificial Intelligence in Manufacturing for Sustainability at SMEs.                                                                                                                  |
| <b>AMALTEA</b>     |  | Advancing Green Deal Principles in SMart FacAde TechnoLogies for the construcTION SECTOR based on AI, Data & Robotics.                                                                |



## Project Ideas

### Our principal interest:

HORIZON-CID-2026-01-01

HORIZON-CL4-2027-01-MAT-PROD-02

HORIZON-CL4-2027-01-MAT-PROD-03

HORIZON-CL4-2027-01-MAT-PROD-06

HORIZON-CL4-2027-01-MAT-PROD-61

HORIZON-CL4-2027-01-MAT-PROD-49

**Within Material Production topics we plan to coordinate at least one proposal** – detailed idea and scope will be defined within next 2 months.

We are open to collaboration on proposals for other initiatives, such as HE Cluster 5, EDF, SMART EUREKA or regional and national calls.

PRESENTER CONTACT DETAILS:

Janusz Poplawski

[jpoplawski@lortek.es](mailto:jpoplawski@lortek.es)

+34 747 455 804

COUNTRY: Spain







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



VIRTUAL EVENT

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**Clean  
Industrial Deal**

4 JUNE 2026

**PRESENTER FULL NAME:** Bassim Abbassi

**ORGANIZATION:** University of Guelph

**WORKSHOP NAME:**

**E-MAIL:** [babbassi@uoguelph.ca](mailto:babbassi@uoguelph.ca)





## Description of the Organisation

**University of Guelph:** A top-tier, research-intensive university known for community focus and life-improving innovation.

**College of Engineering:** A hands-on hub transforming students into creative, future-ready professional engineers.

**Environmental Engineering:** A specialized program focused on innovative solutions for water, wastewater, and waste management.



## Your Teams' Expertise



### **Waste Valorization:**

Our team transforms agrifood waste, with a core focus on dairy waste, into valuable resource streams and bioproducts.



### **Wastewater Treatment:**

We develop innovative wastewater solutions by leveraging advanced, sustainable technologies like electrokinetics.



Advanced Wastewater  
Treatment

Decentralized and onsite waste  
sanitation



Valorization of Waste streams



Life Cycle Assessment for  
Sustainable Design



## On-going Projects

From Waste to Worth: Transforming Dairy Byproducts into Valuable Resources

Utilizing excess dairy co-products in a fermented cattle feed

Thermal inactivation of HPAI viruses

Electro-catalytic ozonation for wastewater Treatment

Electrocoagulation in an SBR reactor, a viable solution for small wastewater systems

Electroflotation application for microbrewery wastewater treatment

LCA for site remediation technologies





## Project Idea

### Project Idea: On-Site Circular Biorefinery for Agrifood Waste Upcycling and Wastewater Reuse: An LCA-Verified Solution

**Deadline Dates: TBA**

- ❑ **Objectives:** The objective of this project is to develop a compact, on-site biorefinery that recycles agrifood wastewater for immediate reuse and upcycles waste streams into high-value bio-resources for human and agricultural applications. The entire modular system will be validated using Life Cycle Assessment (LCA) to verify its localized environmental and carbon-reduction benefits.



#### Topics of interest with CID:

- Circular economy
- Sustainable manufacturing
- Waste valorization and industrial symbiosis

- ❑ **Expected Results:** The expected result is a validated, modular on-site biorefinery system that successfully eliminates decentralized agrifood waste by delivering recycled industrial water and high-value bio-resources, with its absolute carbon-reduction metrics fully verified by Life Cycle Assessment (LCA).



## Calls of interest

- **HORIZON-CID-2026-01-01: R&I in Support of the Clean Industrial Deal: Decarbonisation of energy intensive industries (IA) (Processes4Planet and Clean Steel partnerships)**
- **HORIZON-CL4-2027-01-MAT-PROD-22: Innovative advanced materials and new production processes – reducing dependencies on Critical and Strategic Raw Materials**
- **HORIZON-JU-CBE-2026-IA-01: Biotech routes for valorisation of residual biomass**

## Research team contribution

- Our research team can contribute to the development, optimization, and validation of innovative technologies for the valorization of industrial and agri-food residual streams, drawing on extensive experience in cheese whey processing, resource recovery, and circular economy solutions. We are well positioned to conduct laboratory- and pilot-scale research, engage industrial partners to support technology scale-up and implementation, prepare technical and scientific reports, organize stakeholder workshops and knowledge-transfer activities, and disseminate project outcomes through peer-reviewed publications and international conferences.



### Consortium - profile of known partners (if any)

| No | Partner Name                     | Type           | Country | Role in the Project |
|----|----------------------------------|----------------|---------|---------------------|
| 01 | University of Rostock            | Academic       | Germany | Partner             |
| 02 | University of Bremen             | Academic       | Germany | Partner             |
| 03 | Aeris Tecnologías Ambientales SL | Consulting     | Spain   | Partner             |
| 04 | Lactalis Canada                  | Industry       | Canada  | Partner             |
| 05 | Model Engineering nv/sa          | SME Technology | Belgium | Partner             |



| No | Expertise | Type | Country | Role in the project |
|----|-----------|------|---------|---------------------|
| 01 | Open      | Open | Open    | Leader              |
| 02 |           |      |         |                     |
| 03 |           |      |         |                     |
| 04 |           |      |         |                     |

## PRESENTER CONTACT DETAILS:

Bassim E. Abbassi, PhD., P.Eng.  
Professor, Director of the Ontario Rural Wastewater  
Centre  
Department of Civil, Environmental, and Water  
Resources Engineering  
College of Engineering  
University of Guelph  
Guelph, Ontario  
N1G 2W1

[babbassi@uoguelph.ca](mailto:babbassi@uoguelph.ca)

[www.uoguelph.ca](http://www.uoguelph.ca)

COUNTRY: **CANADA**







This project is co-funded by the European Union  
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**Clean  
Industrial Deal**

4 JUNE 2026

BEGÜM ŞEN DOĞAN, PHD, PMP

PRINCIPAL INVESTIGATOR

METU MEMS CENTER (ODTÜ MEMS MERKEZİ)

HORIZON EUROPE CLEAN INDUSTRIAL DEAL BROKERAGE EVENT





First silicon chip factory in Türkiye, leading **national research infrastructure** in MEMS

Micro/nanofabrication infrastructure for MEMS devices, sensors, microfluidics, readout systems and integrated microsystems

Class 100/1000 1300 m<sup>2</sup> clean room with **infrastructure >100M EUR**

>35M EUR funding over the past 20 years  
~100 researchers and employees



## Our Expertise

### Device & sensor platforms

MEMS sensors,  
microfluidics,  
biosensors, actuators,  
readout electronics  
and application-  
specific microsystems.



### Process & fabrication

Thin films, lithography,  
etching, bonding and  
process development  
for silicon and polymer  
devices.



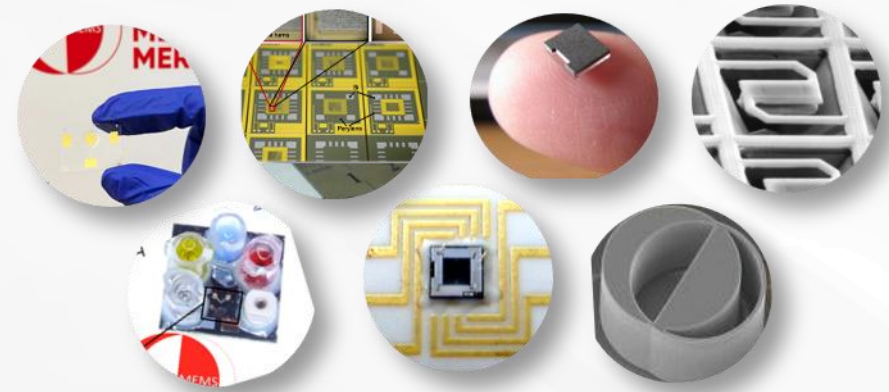
### Packaging & validation

Device/sensor  
packaging, system  
integration, electrical  
and functional testing,  
prototype validation.





## Our Research Fields



BioMEMS & microfluidics,  
Lab-on-chip systems,  
Biosensors,  
Biomedical devices



Micro/nanofabricated devices,  
MEMS sensors,  
Actuators,  
Readout electronics,  
Application-specific platforms

Environmental &  
industrial sensing,  
Process monitoring,  
Infrared Detectors  
Inertial Sensors



System integration  
Thin films,  
Advanced materials,  
Device/sensor packaging

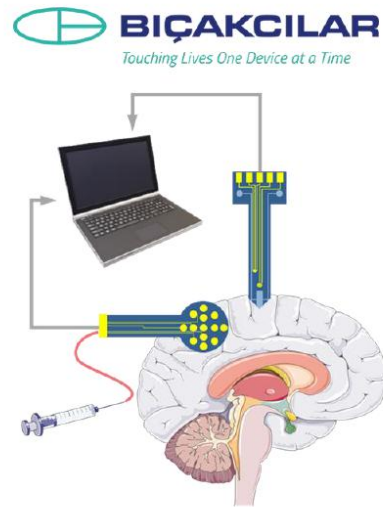
## Chosen Projects

❑ **EU-Twinning:** Organ-on-a-Chip Focused Strategic Partnership (OrChESTRA)

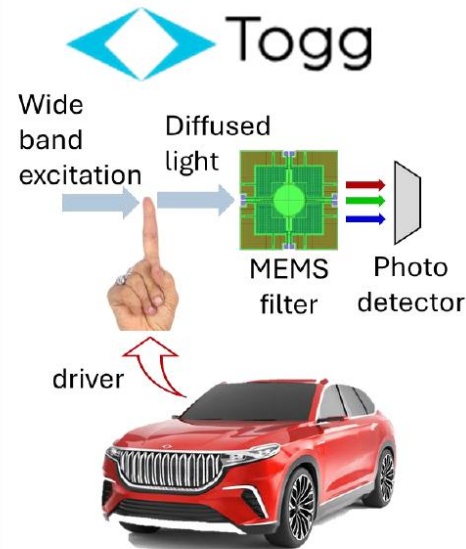
❑ **TÜBİTAK 1004:** Micro Medical Technologies Platform (MAESTRO)

❑ **EIC PATHFINDER:** **PLASNANO:** Nano-scale Development of Plasmonic Amplifiers Based on 2D Materials

### Life Sciences and Health



### Automotive



### Agriculture and Environment







## Sample Project Idea

**Idea:** Hybrid silicon-polymer microsystems for clean technology, biotechnology and circular processes

**Call:** e.g. HORIZON-CL4-2027-01-MAT-PROD-06: Circular innovative advanced materials: facilitating the transition from design to markets (RIA)

**Deadline Dates:** 02.02.2027

### Objectives:

- Combine silicon MEMS, polymer microfluidics and functional materials in integrated devices
- Support monitoring, screening or separation workflows for bio-based and circular industrial processes
- Enable rapid prototyping and validation with research and industrial partners

### Expected Results:

- Integrated microfabricated device prototypes for clean-tech and biotechnology workflows
- Fabrication and packaging for scalable device development
- Validated use cases with end-user requirements



| No | Partner Name     | Type                 | Country      | Role in the Project                                                                           |
|----|------------------|----------------------|--------------|-----------------------------------------------------------------------------------------------|
| 01 | METU MEMS Center | RTO                  | Türkiye      | MEMS technology development, microfabrication, packaging, integration, testing and validation |
| 02 | To be defined    | Industry / SME / RTO | EU / Türkiye | Complementary partners to be identified through brokerage meetings                            |



## Consortium – required partners

| No | Expertise                                | Type                              | Country      | Role in the project                                                           |
|----|------------------------------------------|-----------------------------------|--------------|-------------------------------------------------------------------------------|
| 01 | Industrial end-user / process owner      | SME / Industry                    | EU / Türkiye | Define use case, requirements and validation environment                      |
| 02 | Clean-tech / process technology provider | University / RTO / SME / Industry | EU / Türkiye | System integration, pilot context and deployment pathway                      |
| 03 | Materials, coatings or sensor chemistry  | University / RTO / SME / Industry | EU / Türkiye | Functional material selection, sensor interfaces and performance optimization |
| 04 | Data, electronics and IoT integration    | SME                               | EU / Türkiye | Readout electronics, data acquisition and digital monitoring layer            |

Begüm ŐEN DOĖAN, PhD, PMP  
Principal Investigator

METU MEMS Center  
bsendogan@mems.metu.edu.tr

TÜRKİYE





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



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**Clean  
Industrial Deal**

4 JUNE 2026

**PRESENTER FULL NAME:** Rabia BOZBAY, PhD

**ORGANIZATION:** ALFA KİMYA A.Ş.

**WORKSHOP NAME:** CID 2026 & CBE 2026 Brokerage Event

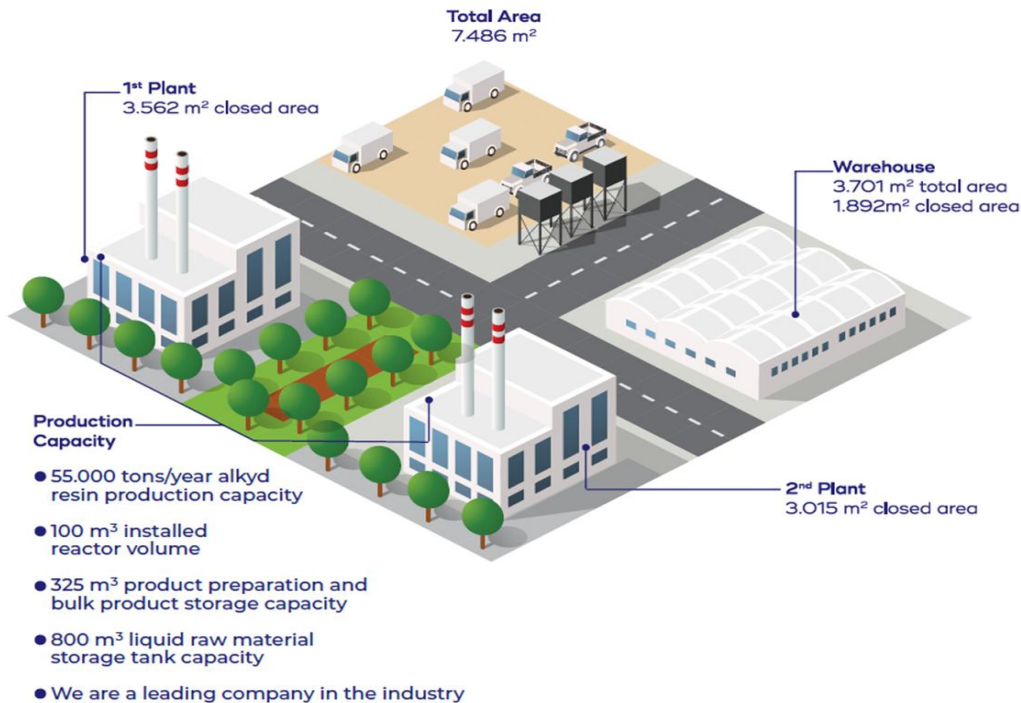
**E-MAIL:** [rabia.bozbay@alfakimyaas.com](mailto:rabia.bozbay@alfakimyaas.com)







## Description of the Organisation



Alfa Kimya A.Ş. is a Türkiye-based manufacturer specialized in alkyd and acrylic resin technologies for industrial, decorative, architectural, and protective coatings. **Established in 1981**, the company has more than 40 years of experience in resin production and exports its products worldwide.

Alfa Kimya operates two production plants in İstanbul with an annual production capacity of **approximately 55,000 tons and a portfolio of more than 120 products**, including alkyd, modified alkyd, VOC-compliant high-solid, water-dilutable, and acrylic resin systems.

The company focuses on **sustainable** and **environmentally responsible** coating technologies, particularly low-VOC and high-performance resin systems aligned with the objectives of the **European Green Deal and circular bio-based industry transition**. Alfa Kimya is interested in collaborative R&D and industrial-scale innovation projects related to sustainable resins, bio-based raw materials, and advanced coating technologies.



## Your Teams' Expertise

**Alfa Kimya has over 40 years of industrial experience in alkyd and acrylic resin technologies for coatings.**

**The company combines strong manufacturing capabilities with applied R&D in resin formulation, polymerization processes, and high-performance coating systems development.**



## Industrial Scale-Up & Production

- Pilot and industrial reactor infrastructure
- Seamless lab-to-production scale-up
- Proven manufacturing of coating raw materials



## R&D & Sustainable Resin Development

- VOC-compliant and low-emission systems
- High-solid and water-dilutable resins
- Modified polymer systems for advanced coatings
- Collaboration with global coating industry players

**Experienced industrial partner for Horizon Europe and CBE JU projects in sustainable coating technologies.**



## Sustainable Resin Design

- Bio-based alkyd resins
- VOC-compliant high solid systems
- Water-dilutable alkyd technologies
- Functional polymer modification



## Open for Horizon Europe Partnerships

- Consortium building
- Pilot validation activities
- Industrial demonstration partner
- Scale-up collaboration



## Industrial & Pilot Scale Manufacturing

- 55,000 tons/year resin production
- 7 reactor production infrastructure
- Pilot reactor capability
- Coating applications for industrial paints, wood and furniture varnishes, primers, and decorative resin systems.



## Circular & Low-Carbon Coating Technologies

- Low-VOC coating binders
- Circular raw material integration
- Sustainable industrial coatings
- Bioeconomy-oriented materials





## Your On-going Projects



### Additional R&D Focus Areas

Alfa Kimya continuously conducts internal R&D activities on **sustainable alkyd and acrylic resin** technologies, including low-VOC systems, water-dilutable resins, high-solid formulations, and environmentally responsible coating materials aligned with green transition and circular industry objectives.



### Long-term R&D Vision

In addition to ongoing projects, Alfa Kimya has long-standing experience in the development of sustainable alkyd and acrylic resin systems focused on low-emission technologies, renewable raw material integration, and **environmentally friendly industrial coating solutions**.



ECOLAB

### Bio-based Material Development from Industrial Hemp (TÜBİTAK 1833 SAYEM Project)

- Development of value-added materials from hemp-derived resources,
- Sustainable and circular bio-based material approaches,
- Industrial applicability studies.



## Partnership Interests for Horizon Europe & CBE 2026

**Alfa Kimya is interested in participating in collaborative R&D and industrial innovation projects related to:**

- Sustainable and low-VOC coating technologies
- Bio-based and circular resin systems
- Advanced alkyd and polymer materials
- Industrial decarbonisation solutions
- High-performance industrial coatings
- Scale-up and industrial demonstration activities

### Relevant Calls

- HORIZON-CID-2026-01-02
- HORIZON-JU-CBE-2026-IA-04
- HORIZON-JU-CBE-2026-RIA-02
- HORIZON-JU-CBE-2026-CSA-01

### Looking For

- Universities & RTOs
- Bio-based raw material suppliers
- Coating technology developers
- Sustainability & LCA experts
- Industrial end-users
- Consortium partners for Horizon Europe projects



PRESENTER CONTACT  
DETAILS:

NAME: **Rabia BOZBAY, PhD**

POSITION: **R&D Project Specialist**

ORGANISATION: **Alfa Kimya A.Ş.**

E-MAIL: **[rabia.bozbay@alfakimyaas.com](mailto:rabia.bozbay@alfakimyaas.com)**

WEBSITE: **[www.alfakimya.com.tr](http://www.alfakimya.com.tr)**

LINKEDIN: **<https://www.linkedin.com/in/rabia-b-680064128/>**

COUNTRY: **Türkiye**





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Industrial Deal**

4 JUNE 2026

**PRESENTER FULL NAME:** Xuan Phamm

**ORGANIZATION:** TPG Cleantech

**WORKSHOP NAME:** CID 2026 & CBE 2026 Brokerage Event

**E-MAIL:** [xuan.pham@thephamsgenius.org](mailto:xuan.pham@thephamsgenius.org)





**The opportunity: clean water first, then future fuel**

A coastal energy platform for governments, ports, islands and clean-industry supply chains.

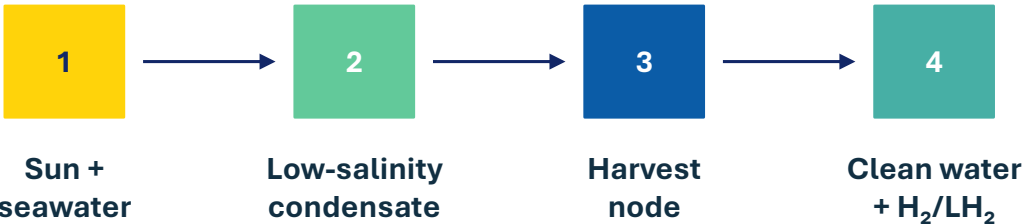
**CURRENT BOTTLENECK**

**Conventional routes are heavy before the first useful megajoule is delivered.**

- Fossil chains require extraction, refining heat, freight, storage and carbon exposure.
- Direct seawater electrolysis risks chlorine, corrosion and membrane fouling.
- Centralized desalination + hydrogen infrastructure can be capital-heavy for coastal regions.

**OEE-S2S/P2C POSITIONING**

**A lighter asset-yield pathway**

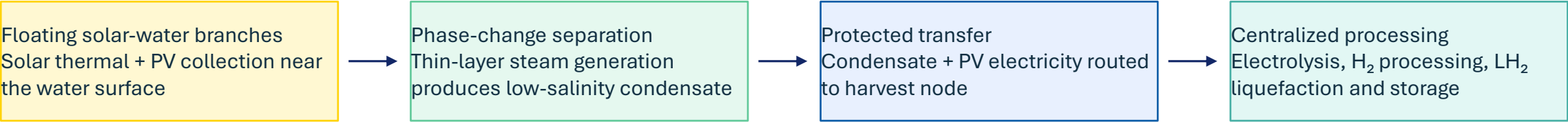


Strategic thesis  
Move from extraction-dependent fuel logistics to modular nearshore infrastructure that starts with clean water and scales toward LH<sub>2</sub>.



How the architecture works

Separate salt removal from electrolysis; centralize hydrogen processing at safer harvest nodes.



TWO PRODUCT PATHWAYS

1 Coastal water-security pathway

Near-term: clean-water pilots for coastal and island regions, with a lower-risk validation route before full hydrogen scale-up.

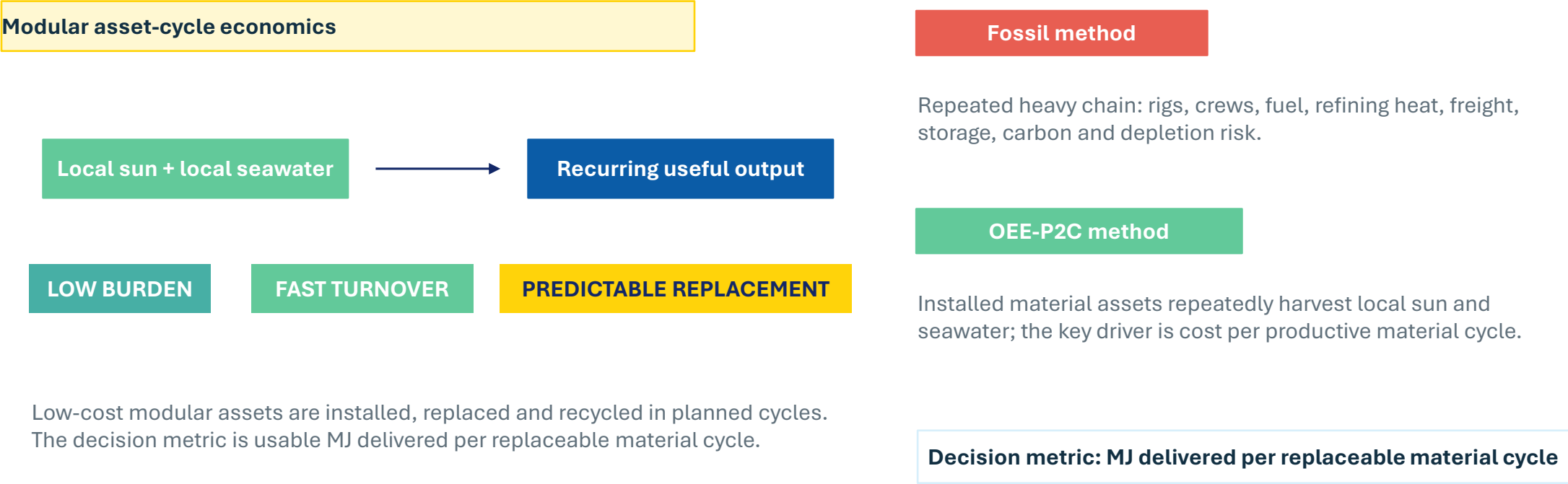
2 Future LH<sub>2</sub> nearshore hub pathway

Long-term: green H<sub>2</sub>/LH<sub>2</sub> supply for ports, marine bunkering, industrial demand and energy-import resilience.



Economic logic: repeatable local harvest

Assess OEE-P2C as material-amortized solar-fuel infrastructure, not only as an electricity-buying hydrogen plant.







**HORIZON-CID-2026 consortium pathway**

A focused path from validation evidence to a TRL8 coastal demonstration.

**HORIZON-CID-2026-01-02 | Clean Technologies for Climate Action | Main area: Renewable Hydrogen**

Innovation Action

€150M topic budget

€15–25M expected EU contribution / project

Deadline: 15 Sep 2026

Target pathway



Single go/no-go package: engineering plan + TEA + permits pathway + business plan + industrial deployment leader



Collaboration opportunity

Seeking partners for validation, prototyping, integration and Clean Industrial Deal consortium building.

TPG Cleantech brings the architecture, IP and coordination platform.

Ask: virtual test → prototype roadmap → EU clean-industrial consortium

Partners sought today

- Offshore-platform engineering and marine manufacturing
- Solar-thermal / PV-T integration and prototype validation
- Electrolysis, water-quality and hydrogen-processing OEMs
- Coastal or port demonstration host and future offtaker
- Digital twin, controls and monitoring partners
- Circular-materials and modular manufacturing partners

Near-term entry point  
Clean water pilots



Scale-up pathway  
Renewable H<sub>2</sub> + future LH<sub>2</sub> hubs

Xuan C. Pham | Founder & CEO |  
xuan.pham@thephamsgenius.org



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4 JUNE 2026

**PRESENTER FULL NAME:** Juliana Rodrigues Gadelha

**ORGANIZATION:** Fresh Water Farms Europe

**WORKSHOP NAME:** Circular Aquaponics & Controlled  
Environment Agriculture for Europe's Clean Industrial Transition

**E-MAIL:** [admin@freshwaterfarmseu.eu](mailto:admin@freshwaterfarmseu.eu)





Fresh Water Farms Europe (Portugal), Is a European company specialised in the design and implementation of sustainable food production systems based on: →

#### 1 MODERN GREENHOUSE – SUSTAINABLE FOOD PRODUCTION



- Aquaponics• Controlled Environment Agriculture (CEA)• Recirculating Aquaculture Systems (RAS)• Hydroponics• Circular water management.

#### Services

- ✓ System design✓ Turnkey project development✓ Equipment supply✓ Technical consultancy✓ Food safety and certification support✓ Staff training

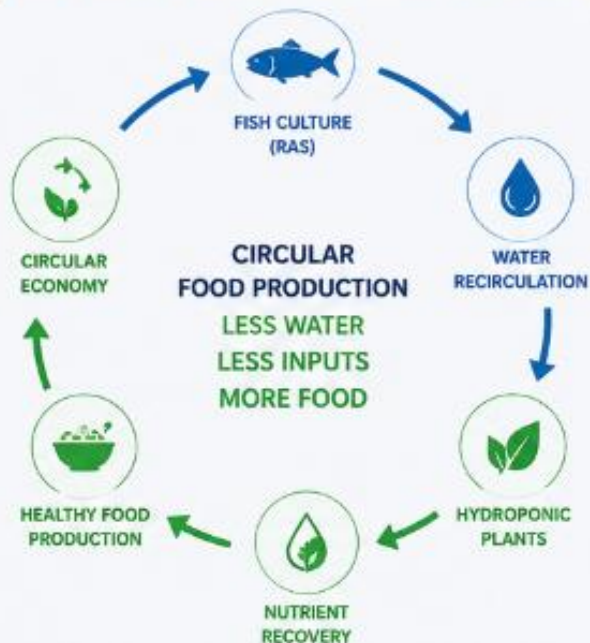
Our mission is to help organisations produce more food using less water, fewer inputs and lower environmental impact.





## Your Teams' Expertise

### 2 OUR EXPERTISE – CIRCULAR SOLUTIONS



-  Aquaponics & CEA system design
-  Water reuse & nutrient recovery
-  Sustainable food production
-  Food safety & certification
-  Technical consultancy & training
-  Innovation & project development



- Aquaponics design and implementation
- Controlled Environment Agriculture
- Water recirculation systems
- RAS engineering concepts



- Sustainable food production
- Food safety and certification
- Circular economy strategies
- Horizon Europe innovation projects
- Technology transfer





Literacy- Education and Training



Advocate in favour of Aquaponics products

Promote a real technological transference through the quintuple hélix approach.



Promote a commercial viability of aquaponics CEA farms





## Your On-going Projects

### 3 OUR DEMONSTRATION SITES – EUROPEAN FOCUS



#### NETHERLANDS

Future pilot & demonstration site



#### SWITZERLAND

Future pilot & demonstration site



#### PORTUGAL

Headquarters & innovation hub



## Current Activities

### Smart RAS

Development of digital tools and optimisation concepts for recirculating aquaculture systems in collaboration with research organisations including CIIMAR.

### AQUALLIANCE

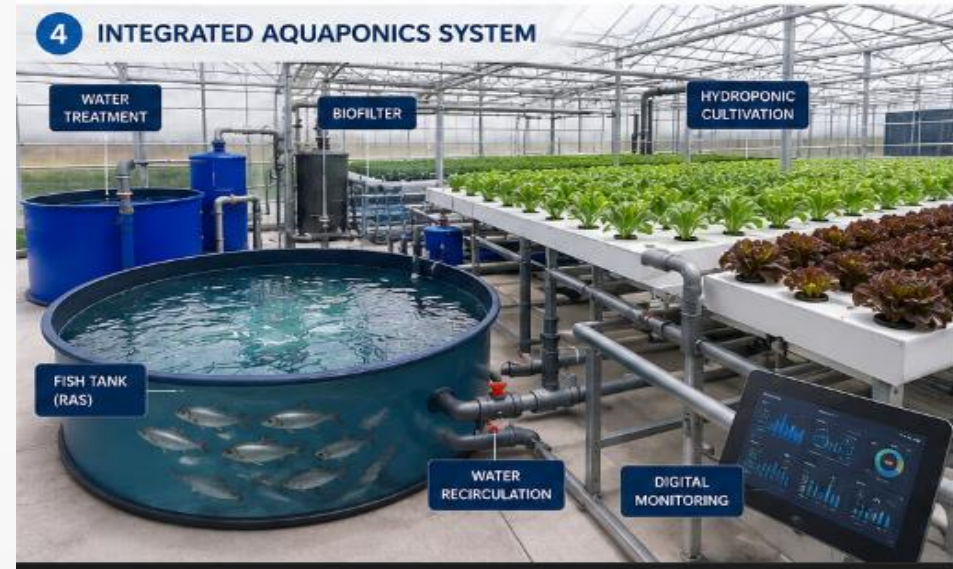
Promotion of sustainable aquaponics adoption and stakeholder engagement across Europe.

### Future Implementations

Exploration of demonstration sites and pilot deployments in:

- Netherlands
- Switzerland
- Portugal





**Call: HORIZON-JU-CBE-2026-IAFlag-02SSbD bio-based alternatives for fertilising and/or crop protection products**

**Project Idea:** Fresh Water Farms Europe seeks organisations interested in deploying circular aquaponics and Controlled Environment Agriculture (CEA) systems as demonstration environments for bio-based fertilising solutions, nutrient recovery and sustainable crop production. The concept combines:

- Aquaponics and CEA systems
- Circular water management
- Nutrient recovery from aquaculture and organic side-streams
- Biofertiliser-oriented production models
- Sustainable crop production under controlled environments
- Food safety, certification and operational.

**Deadline Dates: 22 September 2026, 17:00 Brussels time**

**Objectives:** To demonstrate how circular aquaponics and CEA systems can support the development, testing and deployment of safe and sustainable bio-based fertilising solutions, reducing dependence on synthetic/mineral inputs and improving resource efficiency.





Call:

Project Idea:

Deadline Dates:

Objectives:

**Expected Results:**

- **Demonstration of circular nutrient recovery models**
- **Validation of sustainable fertilising approaches in CEA/aquaponics environments**
- **Reduced use of synthetic/mineral fertilisers**
- **Improved water and nutrient efficiency**
- **Scalable pilot and commercial deployment opportunities**
- **Contribution to sustainable and circular bio-based value chains.**



|    |              |      |         |                     |
|----|--------------|------|---------|---------------------|
|    |              |      |         |                     |
| No | Partner Name | Type | Country | Role in the Project |
| 01 |              |      |         |                     |
| 02 |              |      |         |                     |
| 03 |              |      |         |                     |
| 04 |              |      |         |                     |
| 05 |              |      |         |                     |





## Consortium – required partners

| No | Expertise                       | Type     | Country  | Role in the project            |
|----|---------------------------------|----------|----------|--------------------------------|
| 01 | FWFEU                           | SME      | Portugal | System design & implementation |
| 02 | Hydroponic technology suppliers | Industry | EU       | Equipment and Infrastructure   |
| 03 | Research Organization           | RTO      | EU       | Technical Validation           |
| 04 |                                 |          |          |                                |

## PRESENTER CONTACT

### DETAILS:

Juliana Rodrigues Gadelha, PhD

CEO & Founder

Fresh Water Farms Europe

[admin@freshwaterfarmseu.eu](mailto:admin@freshwaterfarmseu.eu)

COUNTRY: Portugal- Netherlands



# THANK YOU SO MUCH





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4 JUNE 2026

**PRESENTER FULL NAME:** George SUCIU Jr.

**ORGANIZATION:** BEIA

**E-MAIL:** [george@beia.eu](mailto:george@beia.eu)





## Description of the Organisation



SME with over 30 years of experience in telecommunications, Industrial IoT, AI-enabled monitoring systems, cloud and edge computing, and digital innovation. The company develops and integrates advanced ICT solutions for smart industries, environmental monitoring, energy efficiency, intelligent infrastructure, and secure data communication.

BEIA has extensive experience in European R&D and innovation programmes, including Horizon Europe, H2020, Eureka/Eurostars, and Digital Europe. The company contributes to the development of interoperable digital platforms, real-time data acquisition systems, AI-supported analytics, predictive maintenance solutions, and distributed edge-to-cloud architectures.

BEIA combines strong technical expertise with operational deployment capabilities, supporting the digital and green transition through scalable, deployment-oriented innovation.





## Your Teams' Expertise



**Service innovation**  
**Hardware (sensors, actuators, IoT)**  
**Information technologies**  
**Communication/Dissemination**



**Integration (software/hardware)**  
**Communication technologies (speech processing, ASR/TTS, NLP/NLU, sentiment analysis)**





- Industrial digitalization and Industry 5.0
- Artificial Intelligence and machine learning applications
- Industrial decarbonization and energy efficiency



- Smart sensing and intelligent monitoring systems
- Circular economy and sustainable industrial ecosystems
- IoT and embedded systems



- Environmental monitoring and climate-related technologies
  - Trusted data sharing and interoperable data platforms



- Edge computing and cloud infrastructures
- Digital twins and data-driven industrial optimization





## Your On-going Projects

- ROMEO – Digital multisensory monitoring solutions for aquatic ecosystems and environmental intelligence
- PASITHEA – Hybrid autonomous aerial and underwater systems for surveillance, monitoring, and resilient communications
- AIAS – AI-assisted cybersecurity and resilient digital infrastructures for SMEsNetZeroCities-related activities supporting climate-neutral and sustainable urban ecosystems

## Recently Completed

- FLEX4RES – AI-driven flexible and resilient manufacturing systems for industrial production optimization
- MULTI-AI – Multi-source AI-based industrial monitoring and predictive maintenance platform
- FOR-FREIGHT – Intelligent and sustainable multimodal freight transport optimisation



## **Project Contribution**

**Call: Call: Horizon Europe – Clean Industrial Deal related calls / Cluster 4 & Cluster 5**

**Project Idea: BEIA is looking to join a consortium focused on industrial digitalization, AI-enabled optimization, industrial decarbonization, resilient infrastructures, Industry 5.0, and sustainable manufacturing ecosystems under the Clean Industrial Deal framework.**

**Deadline Dates: 2026 Horizon Europe Work Programme deadlines**

**☐ Expected Results:**

**Deployment-ready industrial AI and IoT solutions**

**Improved industrial efficiency, resilience, and sustainability**

**Real-world validation of scalable digital industrial technologies**



## Project Contribution

**BEIA is interested in collaborative R&D and innovation projects addressing:**

- **industrial AI and predictive maintenance;**
- **Industrial IoT and smart sensing systems;**
- **energy-efficient industrial infrastructures;**
- **edge-to-cloud integration and interoperable data platforms;**
- **industrial monitoring and real-time analytics;**
- **resilient and sustainable industrial ecosystems;**
- **trusted industrial data sharing and cybersecurity.**



| No | Expertise                                                       | Type                      | Country | Role in the project                         |
|----|-----------------------------------------------------------------|---------------------------|---------|---------------------------------------------|
| 01 | Industrial manufacturing / energy-intensive industries          | Industry / End-user       | EU      | Pilot deployment and industrial validation  |
| 02 | Artificial Intelligence and data analytics                      | University / RTO          | EU      | AI models and optimisation technologies     |
| 03 | Energy transition and sustainability solutions                  | SME / Industry            | EU      | Decarbonisation and green technologies      |
| 04 | Industrial platforms, cloud-edge infrastructures, cybersecurity | SME / Technology Provider | EU      | Digital infrastructure and interoperability |



PRESENTER CONTACT  
DETAILS: George Suciu Jr.,  
[george@beia.eu](mailto:george@beia.eu)

COUNTRY: ROMANIA





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Industrial Deal**

4 JUNE 2026

**PRESENTER FULL NAME:** Duygu Kuzyaka, PhD

**ORGANIZATION:** Center for Solar Energy Research and Applications (ODTÜ-GÜNAM)

**WORKSHOP NAME:** Horizon Europe Clean Industrial Deal International Brokerage  
Event

**E-MAIL:** [Duygu.kuzyaka@odtugunam.org](mailto:Duygu.kuzyaka@odtugunam.org)





## Description of the Organisation

### ***Key Numbers / Highlights***

- Advanced outdoor PV test stations
- 5 operational AgriPV pilot systems
- IEC-compliant indoor/outdoor PV testing infrastructure
- Horizon Europe project partner & WP leader

ODTÜ-GÜNAM is Türkiye's leading solar energy R&D center specializing in photovoltaic technologies, agrivoltaics (AgriPV), floating photovoltaics (FPV), PV system design, techno-economic assessment, digital monitoring platforms, and sustainability-driven renewable energy solutions.

The center combines advanced simulation (PVSyst, Rhino/Ladybug), field-scale pilot installations, IEC-compliant testing laboratories, and interdisciplinary expertise in agriculture-energy-water nexus projects.

ODTÜ-GÜNAM actively contributes to Horizon Europe, national, and international collaborations focused on climate resilience, food-energy-water sustainability, and industrial decarbonization.



## Your Teams' Expertise



- **Agrivoltaic System Design & Optimization**
- **Floating PV (FPV) Design**
- **Crop-specific PPFD / Light Distribution Analysis**
- **PVSyst Energy Yield & Shading Analysis**



- **Rhino / Ladybug Environmental Simulations**
- **Techno-economic Feasibility Studies**
- **Digital Twin / IoT Monitoring Platforms**
- **PV Glare & Safety Assessment**



Agrivoltaics (AgriPV)  
Floating Solar (FPV)

Food-Energy-Water Nexus  
Climate Resilient Agriculture



Smart PV Monitoring Systems  
PV Materials & System  
Innovation



Renewable Energy Policy &  
Sustainability





## Your On-going Projects

- SolarHub (Horizon Europe) Greek-Turkish Solar Energy Excellence Hub for Green Deal.
- PV4Plants (Horizon Europe) Spectral management & GCC-integrated PV for agriculture.
- PowerAV (CETP) AI-driven predictive maintenance & smart AgriPV systems.
- Ayaş AgriPV Living Lab (National Project) Long-term field validation for crop-PV integration in Ankara.
- S-ATP AgriPV (National Project) Two different living labs (Bursa and Kayseri) for fruit and vegetable growth.
- KOZ AgriPV (National Project) Agrivoltaic system in Konya for sugar beet and buckwheat growth.



## **Project Idea: Climate-resilient Agrivoltaic Systems for Industrial Agriculture**

**Deadline Dates: Expected Horizon Europe Cluster 5 / CID calls 2026**

### **❑ Objectives:**

- **Develop scalable AgriPV designs for high-value crops**
- **Optimize crop productivity + renewable generation**
- **Integrate digital irrigation & environmental monitoring**
- **Improve resilience to drought and heat stress**

### **❑ Expected Results:**

- **Pre-commercial AgriPV design models**
- **Pilot-ready engineering packages**
- **Crop-energy optimization database**
- **Industrial stakeholder integration**



## **Project Idea: Floating PV for Water-Energy Nexus Applications**

**Deadline Dates: 2026–2027 relevant energy-water nexus calls**

### **❑ Objectives:**

- **Reservoir-integrated FPV systems**
- **Water evaporation reduction**
- **Grid-integrated clean power**
- **Environmental impact framework**

### **❑ Expected Results:**

- **FPV engineering design toolkit**
- **Sustainability metrics**
- **Pilot demonstration roadmap**



### Consortium - profile of known partners (if any)

| No | Partner Name   | Type            | Country | Role in the Project         |
|----|----------------|-----------------|---------|-----------------------------|
| 01 | CRES           | Research Center | Greece  | Co-development              |
| 02 | BRITE Solar    | Industry        | Greece  | PV Technology               |
| 03 | TAGEM          | Government      | Türkiye | Agricultural Implementation |
| 04 | Ege University | Academia        | Türkiye | Agronomic Research          |
| 05 | TAT Gıda       | Industry        | Türkiye | Industrial agriculture      |



| No | Expertise                     | Type     | Country    | Role in the project       |
|----|-------------------------------|----------|------------|---------------------------|
| 01 | Advanced Materials / Coatings | Industry | EU         | PV Innovation             |
| 02 | AI / Digital Monitoring       | SME      | EU         | Smart Systems             |
| 03 | Large-scale Agriculture       | Industry | EU/Türkiye | Pilot Deployment          |
| 04 | Policy / LCA / Circularity    | Research | EU         | Sustainability Compliance |



PRESENTER CONTACT  
DETAILS: Duygu Kuzyaka  
ODTÜ-GÜNAM  
duygu.kuzyaka@odtugunam.org

COUNTRY: Türkiye





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Industrial Deal**

4 JUNE 2026

**PRESENTER FULL NAME:** Fadhel ALOULOU

**ORGANIZATION:** Laboratory of Energy and Materials LabEM:LR11-ES34,

University of Sousse (ESSTHS) Tunisia

**WORKSHOP NAME:** Eco-Smart Building and Green Energy

**E-MAIL:** alouloufadhel@gmail.com





## Description of the Organisation

**Leadership:** Prof. Fadhel ALOULOU is associated with the management of the laboratory. Director of the Energy and Materials Laboratory LabEM: LR11-ES34, University of Sousse, Tunisia

The LabEM Energy and Materials (LR11-ES34) is a laboratory of the Higher School of Sciences and Technologies of Hammam Sousse (ESSTHS) University of Sousse, created by decree n° 2006-1587 of 2011 to enrich the university fabric of Sousse in accordance with the mission of the Technopole of Sousse specializing in the fields of microelectronics, energy, nanosciences, mechanics and computer science.

Discipline: Energy, Physics, Nanoscience, Chemistry, and Materials Science, with a particular focus on materials development and characterization.

Research Areas: Sustainable Materials, Green Energy, Materials Science and Engineering, and Environmental Applications.

Main Activities: Research in ecological materials engineering, thermal comfort, smart buildings, in-situ growth of materials, adsorption processes for environmental applications, and interdisciplinary studies involving biopolymers and lasers.



## Your Teams' Expertise



**International Cooperation:** The laboratory actively participates in international research partnerships, including collaborations with the University of the Basque Country (Universidad del País Vasco/Euskal Herriko Unibertsitatea UPV/EHU), focusing on the mobility of doctoral students and faculty members.

**Events:** The laboratory organizes scientific seminars on topics such as polymer engineering, sustainable eco-materials, adsorption processes for environmental applications and green energy, with the regular participation of international speakers.



**Research Areas:** Sustainable Materials, Green Energy, Materials Science and Engineering, and Environmental Applications.

**Main Activities:** Research in ecological materials engineering, thermal comfort, smart buildings, in-situ growth of materials, adsorption processes for environmental applications, and interdisciplinary studies involving biopolymers and lasers.



## Your Research Fields

Algae as an ecological material for thermal comfort and acoustic insulation in buildings.

Eco-friendly material production with agricultural waste in sustainable construction materials.



Fadhel ALOULOU is a [Tunisian](#) professor of material chemistry at the University of Sousse (ESSTHS), renowned for his expertise in [nanocelluloses](#), [cellulose](#) [nanomaterials](#), [nanocomposites](#), [polymers](#), and [biopolymers](#).

His research primarily focuses on [materials science](#), encompassing subfields such as [biomaterials](#), polymers and plastics, materials chemistry, and [biomedical engineering](#), contributing significantly to [biobased materials](#) for advanced applications. ALOULOU's scholarly output includes over 50 research works, with notable publications on topics like Eco-Materials-cellulose nanofibrils and nanocrystals from [waste](#), highlighting his impact in sustainable and high-performance nanomaterial development in thermal and smart comfort for eco-buildings



Professional interests are renewable cellulose, agricultural waste, properties of surfaces and macromolecular interfaces, phase change composite Eco-materials reinforced with cellulose nanofibers grafted with fatty acids (PCM) stabilized with surfactants (emulsion) for Eco-smart Building .

\* University of the Basque Country (Universidad del País Vasco/Euskal Herriko Unibertsitatea UPV/EHU), focusing on the mobility of doctoral students and faculty members.

\* "Materials and Technologies" Group, E.U.P. University of the Basque Country, Plaza Europa, 1, 20018 San Sebastian, Spain

\* "LGP2, National School of Paper and Graphics Industries (INPG), BP 65, 38402 Saint-Martin-d'Hères, France"





## Your On-going Projects



## Project Idea

**Project Idea:** Eco-friendly material production with agricultural waste in sustainable construction materials

**Deadline Dates:** December 2028

- ☐ **Objectives:** The use of innovative composite materials is advantageous not only in terms of cost and energy but also in terms of lowering the frequency of natural fibre production and resource usage. Natural fibres provide superior mechanical and thermal qualities and are renewable. Additionally, these fibres can take the role of carbon and glass fibres in a variety of applications.
- ☐ **Expected Results:** The following trends are expected regarding energy consumption in the building sector:
  - ☐ • To reduce energy consumption in the construction sector, it is essential to:
  - ☐ • Compile a list of the energy consumption of building materials, address the root causes, and penalize energy-intensive products.
  - ☐ • Use advanced methods and materials to reduce energy consumption throughout the building's life cycle.



**Consortium - profile of  
known partners (if any)**

| No | Partner Name                                                                                                            | Type                 | Country | Role in the Project |
|----|-------------------------------------------------------------------------------------------------------------------------|----------------------|---------|---------------------|
| 01 | Materials and Technologies" Group, E.U.P. University of the Basque Country, Plaza Europa, 1, 20018 San Sebastian, Spain | Technology partners  | Spain   | Member              |
| 02 | Laboratory LabEM LR11-ES34 University of Sousse(ESSTHS)                                                                 | Strategy Development | Tunisia | Project coordinator |
| 03 |                                                                                                                         |                      |         |                     |
| 04 |                                                                                                                         |                      |         |                     |
| 05 |                                                                                                                         |                      |         |                     |



| No | Expertise                                                                                                                         | Type                                                | Country | Role in the project |
|----|-----------------------------------------------------------------------------------------------------------------------------------|-----------------------------------------------------|---------|---------------------|
| 01 | <u>Nanocelluloses, cellulose nanomaterials, nanocomposites, polymers, and biopolymers,</u><br>Eco-Smart Building and Green Energy | Elaboration, Developement , Strategy and Technology | Tunisia | Coordinator         |
| 02 |                                                                                                                                   |                                                     |         |                     |
| 03 |                                                                                                                                   |                                                     |         |                     |
| 04 |                                                                                                                                   |                                                     |         |                     |

# THANK YOU

