

# INEGI'S KEY COLLABORATION AREAS IN PROJECTS FOR A GREEN AND RESILIENT EUROPE

## Sustainable & Circular Materials for Energy Storage

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# Presentation Overview

1. Personal and INEGI's presentation
2. Key areas for collaboration
3. Objectives & Expected Impact
4. Consortium Needs
5. Funding Opportunities
6. Next Steps & Collaboration Invitation

# Personal Presentation

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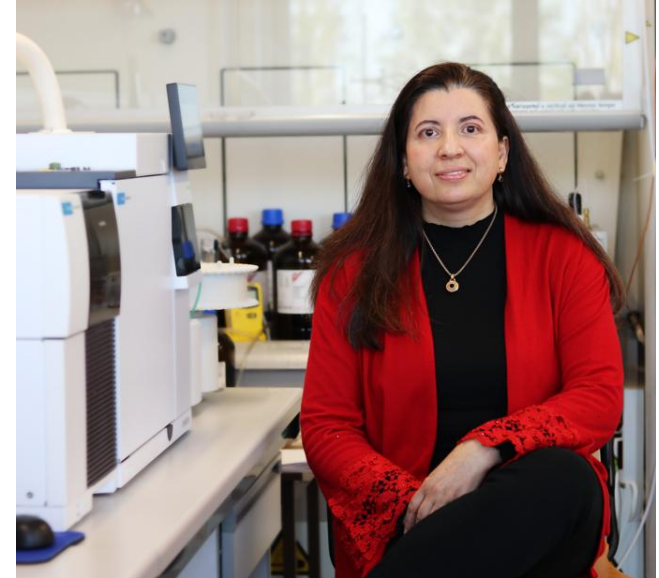
## Teresa Mata

### Principal Investigator at INEGI

- Specialist in Life Cycle Assessment and sustainability since 1998
- Focus on bio-based materials, circular economy, industry partnerships
- Strong alignment with the Green Deal and RePowerEU

### Academic Background:

- PhD in **Chemical Engineering** (FEUP, 2004)
- MBA - Master in Business and Administration (PBS, 2007)
- MSc in **Environmental Engineering** (FEUP, 1999)
- BSc in **Chemical Engineering** (FEUP, 1995)



# INEGI Presentation

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- Established in 1986, Porto, Portugal.
- Non-profit R&D organization.
- **Mission:** Industrial growth through innovation.
- **Multidisciplinary teams:** Engineering, environmental sciences, economics, data modeling.



# Key Areas for Collaboration

## What we do

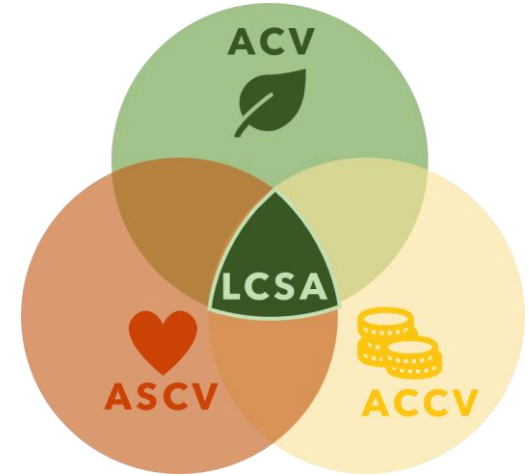
- Through **Life Cycle Sustainability Assessment (LCSA)** methodologies, assess environmental, social, and economic impacts across the full life cycle - from design to end-of-life.
- Ensure that materials developed, especially for energy storage, are high-performing, sustainable, and aligned with circular economy principles.

## Where we apply it

- Broad experience across sectors: energy storage, manufacturing, product design, and resource management
- Provide tailored sustainability solutions for diverse project needs

## Experience & collaboration

- Extensive publication record in collaboration with both academia and industry
- Bridge scientific rigor with real-world applications.



# Objectives & Expected Impact

## Our goal

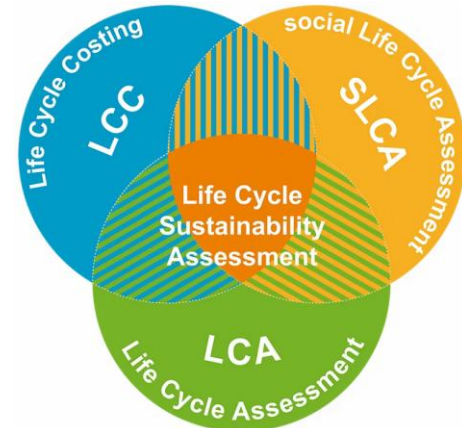
### Driving Europe's Green Transition through LCSA and Innovation

- ✓ **LCSA:** Guide the development of **sustainable energy storage materials** by evaluating environmental, social, and economic impacts across the life cycle.
- ✓ **AI-Driven Design:** Use **AI, simulation, and modeling tools** to support sustainable design early in development, when real data from pilot or industrial scale is not yet available.
- ✓ **Circular Economy:** Promote **safe, sustainable, and circular solutions** across the **entire energy storage value chain**.

## Expected Impact

### Supporting the Transition to a Sustainable, Circular Future


- ✓ **Informed Decisions:** Provide **science-based tools** to help companies and policymakers make more **informed and sustainable decisions**..
- ✓ **Practical Tools:** Deliver **methods and tools** that support the transition to circular, sustainable practices in energy storage.



# Consortium & Collaboration Needs

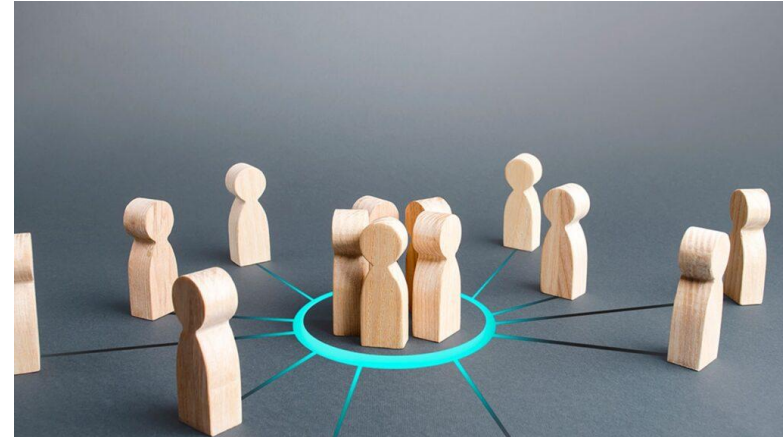
Looking for partners in:

 **Battery Technologies:** Focus on innovative materials and system integration.

 **Artificial Intelligence & Simulation:** Tools to support early-stage LCA and sustainability decision-making.

 **Circular Economy:** Business models for reuse, recycling, and value chain redesign.

 **Industrial Partners:** For real-world validation and scaling of sustainable solutions.





# Horizon Europe - Funding Opportunities

Call ID	Title	Type	Budget (€M)	Per Project (€M)	Expected Projects	Deadline
HORIZON-CL5-2026-01-D2-01	Development of sustainable and design-to-cost batteries with (energy-)efficient manufacturing processes and based on advanced and safer materials	Innovation Action (IA)	24.00	~8.00	3	20 Jan 2026
HORIZON-CL5-2025-01-Two-Stage-D2-02	Cost-effective next-generation batteries for long-duration stationary storage	Research & Innovation Action (RIA)	21.00	~7.00	3	2 Sep 2025 (Stage 1), 31 Mar 2026 (Stage 2)
HORIZON-CL5-2025-02-D2-03	Sustainable processing and refining of raw materials to produce battery grade Li-ion battery materials	Innovation Action (IA)	20.00	~10.00	2	02 Sep 2025
HORIZON-CL5-2026-01-D2-04	Integrating advanced materials, cell design and manufacturing development for high-performance batteries aimed at mobility	Research & Innovation Action (RIA)	30.00	~10.00	3	20 Jan 2026
HORIZON-CL5-2026-01-D2-05	Accelerated multi-physical and virtual testing for battery aging, reliability, and safety evaluation	Innovation Action (IA)	15.00	~7.50	2	20 Jan 2026
HORIZON-CL5-2025-02-D2-06	Fostering the European battery ecosystem by providing accurate and up-to-date information and stimulating excellence in the European battery R&I community	Coordination and Support Action (CSA)	5.00	~2.50	2	02 Sep 2025



# Next Steps & Collaboration Invitation

1. Identify the most relevant Horizon Europe calls
2. Align partner roles and technical contributions
3. Co-develop the concept and proposal
4. Invite for online meetings to shape the consortium



# Thank you for your Attention!

Teresa Mata

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