



**INTERDISCIPLINARY  
ENERGY RESEARCH &  
INNOVATION INITIATIVE**

**NOVA  
Interdisciplinary  
Research  
Communities**

**Sustainable  
Energy  
Systems**

# WELCOME TO OUR GUIDE

This document aims to provide a clear overview of what the NOVA Interdisciplinary Research Community (NIRC) on Sustainable Energy Systems **Interdisciplinary Energy Research & Innovation Initiative** is and how you can apply for it, whether you are part of the community already, as a team of researchers or an individual looking for partners, or not yet part of this community.

In the following sections, you will find detailed information on the NIRC's **Interdisciplinary Energy Research & Innovation Initiative** and a step-by-step guide on how to apply.

We hope this document serves as a helpful resource for anyone interested in accessing the support and opportunities provided by the NIRC.

This guide does not replace the Regulation for this Initiative.

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# INTERDISCIPLINARY ENERGY RESEARCH & INNOVATION INITIATIVE

The Initiative aims to provide funding to help start transforming the best ideas from the Sustainable Energy Systems community into impactful solutions with industrial application.

**The Initiative is composed of two independent funding tracks:**

## **SYNERGY GRANT**

- to support the development of innovative and disruptive ideas in merging at least two distinct, yet interconnected, areas (*Greenfield*)

## **IGNITION GRANT**

- to support for the implementation of already-developed high-quality interdisciplinary projects, with a Technology Readiness Level (TRL) between 3 and 5, within the theme of the interdisciplinary research community (*Brownfield*)

# INTERDISCIPLINARY ENERGY RESEARCH & INNOVATION INITIATIVE

**Total budget allocation of up to €120.000! (1st call)**

The **Synergy Grants**: up to **€40,000 per project** for **one year**, based on the proposed budget and its adequacy to planned activities.

The **Ignition Grants**: **€20,000 to €30,000 per project** for **one year**. The funding value for each selected project will depend on the proposed activities.

# INTERDISCIPLINARY ENERGY RESEARCH & INNOVATION INITIATIVE

Both funding tracks were designed for **teams of at least 2 researchers from the NOVA community**, experts in different scientific fields, focused on a specific thematic research line of this NIRC

All science-based projects or initiatives, within the thematic research lines promoted at the NIRC in Sustainable Energy Systems could be admitted.

## Additional Requirements:

- Both funding frameworks will be open to the whole NOVA's community, but belonging to the community will be an eligibility requirement to participate in the funding calls proposed by the NIRC.
- The commitment to the community must be demonstrated, and in the case of being funded, an effective return to the community must be shown, according to the explicit requirements of the call.



**HOW TO APPLY?**

**NOVA**  
**Interdisciplinary**  
**Research**  
**Communities**

**Sustainable**  
**Energy**  
**Systems**

# STEP BY STEP

1

Identify yourself with the community vision and goals

2

Pick the challenge that best fit your idea/project

3

Choose the funding framework

4

Find your Interdisciplinary Team

5

Work on your application with your Team

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Submit the [Application Form](#) to [nova.research@unl.pt](mailto:nova.research@unl.pt)

# STEP BY STEP

1

Identify yourself with the community vision and goals

Visit our webpage: [nova-interdisciplinary-research-community](https://nova-interdisciplinary-research-community)

Previous workshops: [workshop 1](#) | [workshop 2](#)

Applicants must be active members of the NIRC.

If not already registered, applicants must complete their registration via the provided [registration form](#) before the submission deadline.





# STEP BY STEP

2

Pick the challenge that best fit your idea/project

Check the challenges and the How Might We (HMWs) produced by GALP can help you develop your idea/project

- Biomethane production and deployment
- Energy Communities
- Renewables Value Chain
- Leveraging Corporate Sustainability Reporting Directive (CSRD) for Sustainable Leadership
- Energy Sustainable Systems

# BIOMETHANE PRODUCTION AND DEPLOYMENT

## How might we (HMW)...

Did you know that biomethane, a sustainable alternative to natural gas, holds immense potential in reducing greenhouse gas emissions and transitioning to a greener future? However, to harness its power, we must address key challenges, ranging from unlocking its market potential to optimizing the entire value chain.

1. **HMW leverage Biomethane's Market Potential?** How might we identify and tap into new and diverse market segments for biomethane, creating innovative business models and strategies to maximize its market reach and profitability?
2. **How might we navigate and contribute to the regulatory framework?** How might we streamline and simplify the regulatory framework surrounding biomethane production and distribution to encourage investment, while ensuring safety and sustainability?
3. **HMW optimize the Feedstock Value Chain?** How might we optimize the entire feedstock value chain for biomethane production, from sourcing and transportation to processing and utilization, to make it more efficient, cost-effective, and environmentally sustainable?
4. **HMW optimize the Digestate Value Chain?** How might we develop innovative solutions to repurpose and enhance the value of digestate generated from biomethane production, turning it into a valuable resource rather than a waste product (e.g. as a biofertilizer)?

# ENERGY COMMUNITIES

## How might we (HMW)...

Did you know that energy communities represent a transformative approach to producing, consuming, and thinking about energy? By localizing energy generation and management, these communities enhance sustainability and empower local involvement.

Here are some critical "How Might We" questions that could guide future developments in this area:

1. **HMW leverage digital tools and IoT technologies to optimize energy distribution and consumption in real-time within energy communities?**
2. **HMW create inclusive platforms that allow all community members to actively participate in energy decisions, regardless of their technical expertise or economic status?**
3. **HMW provide communities with the necessary skills and knowledge to manage their energy systems, ensuring sustainability and self-sufficiency in energy production and consumption?**
4. **HMW design financial models that support the initial investment and ongoing operations of energy communities in diverse economic environments?**

# RENEWABLES VALUE CHAIN

## How might we (HMW)...

Did you know that Iberia can lead Europe as a renewable energy manufacturing hub, but the path is filled with questions? From adapting regulations to achieving competitive advantage, Iberia faces a complex journey in shaping the future of renewable value chains.

1. **HMW Become a Hub for Renewables (value chain) Manufacturing?:** How might we leverage Iberia's strengths and resources to position it as a strategic hub for renewables manufacturing in Europe, fostering innovation and economic growth in the region?
2. **HMW Take advantage of the Regulation and Incentives Framework?:** How might we take best advantage of possible regulatory and incentives frameworks in Iberia to actively support the development of renewable value chains, identifying the missing elements and adapting existing policies for maximum impact?
3. **HMW Achieve a Competitive Advantage?:** How might Iberia differentiate itself from competitors in the renewable value chain for manufacturing, identifying unique value propositions and strategies to achieve and sustain a competitive advantage?
4. **HMW assess Technological Pathways?** How might we decide on the technology pathways to pursue in Iberia, weighing the options between focusing on established technologies with high demand (e.g., solar and wind) and pioneering emerging technologies, to maximize long-term sustainability and growth?

# LEVERAGING CORPORATE SUSTAINABILITY REPORTING DIRECTIVE (CSRD) FOR SUSTAINABLE LEADERSHIP

## How might we (HMW)...

"Did you know that with the introduction of the Corporate Sustainability Reporting Directive (CSRD), we are entering a new era of sustainability accountability and transparency? As Galp adapts to these evolving standards, we recognize the opportunity to not only comply with the directive but also to leverage it as a catalyst for innovation and strategic advancement.

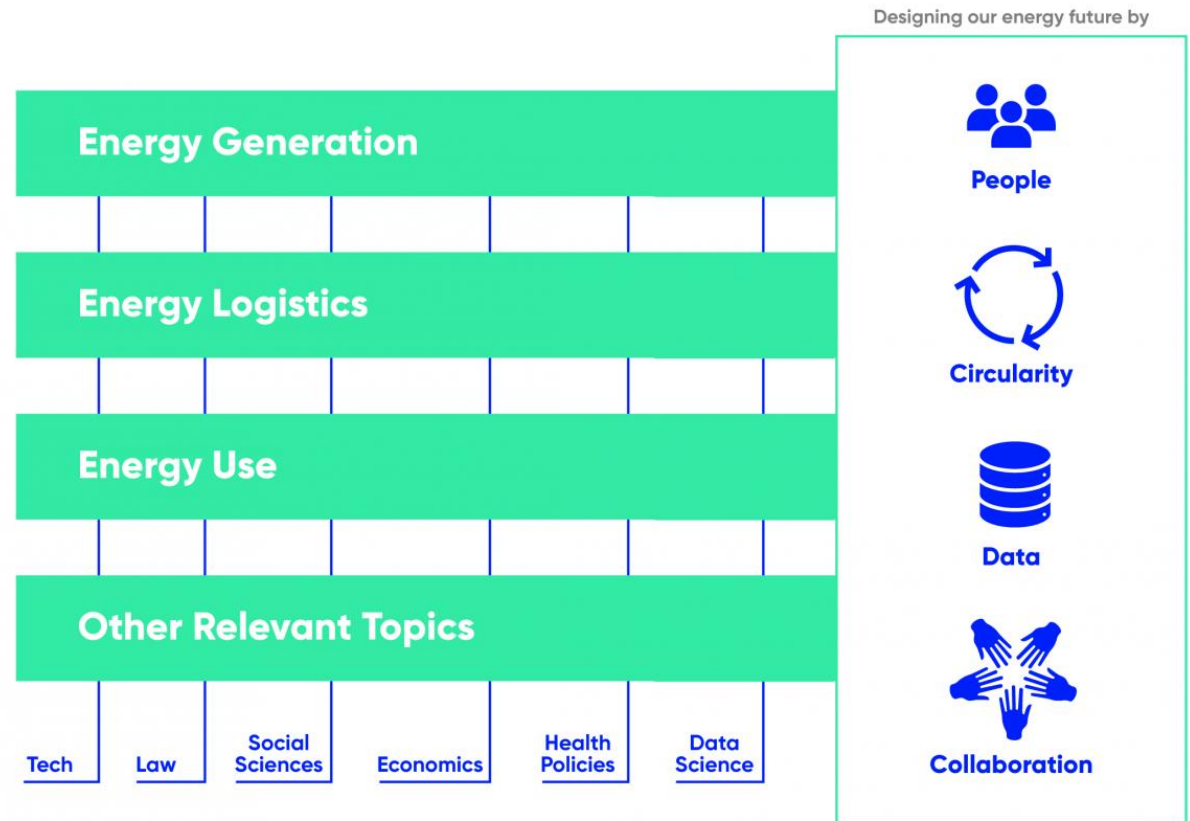
To effectively navigate the complexities of the CSRD, and especially to refine our approach under its framework, we have embarked on a series of exploratory 'How Might We' (HMW) questions. These questions aim to harness the diverse expertise of multidisciplinary teams to address the challenges and opportunities presented by the CSRD. Let's delve into these HMWs to uncover how we can transform these regulatory requirements into opportunities for sustainable growth and leadership in environmental stewardship."

- 1. HMW effectively align our reporting processes with CSRD requirements to not only comply but also set new standards in sustainability transparency and accountability?**
  - This question focuses on the broader goal of fully integrating and going beyond the compliance aspects of the CSRD, aiming for leadership in sustainability reporting.
- 2. HMW leverage the CSRD framework to innovate and enhance our business model, ensuring that sustainability and nature-related dependencies, impacts, risks and opportunities are considered in every aspect of our operations and through our value chain?**
  - This explores how the CSRD can be a driving force for holistic business transformation, integrating sustainability and nature-related risks into the core of business practices and decision-making, considering the complexity of natural systems and the lack of availability and quality of data.

# SUSTAINABLE ENERGY SYSTEMS

If you have other ideas related to the general topic of Sustainable Energy Systems that may fit in the concept and main objectives of the NOVA Interdisciplinary Research Community on Sustainable Energy Systems you can apply under this thematic line.

- Although there are specific challenges as detailed before, NOVA and Galp are open to evaluate any creative ideas under the topic of Sustainable Energy Systems, that may fit in one of the general research topics presented in this figure:



# STEP BY STEP

3

## Choose the funding framework

### SYNERGY GRANT

- to support the development of innovative, collaborative and disruptive ideas (*Greenfield*)

### IGNITION GRANT

- to support for the implementation of already-developed high-quality interdisciplinary projects, with a TRL between 3 and 5, within the theme of the interdisciplinary research community (*Brownfield*)

The **Synergy Grants**: up to **€40,000 per project** for **one year**, based on the proposed budget and its adequacy to planned activities.

The **Ignition Grants**: **€20,000 to €30,000 per project** for **one year**. The funding value for each selected project will depend on the proposed activities.

# STEP BY STEP

4

## Find your Interdisciplinary Team

Check the [NOVA Research Portal](#) for partners or ask us for help by sending an email to [nova.research@unl.pt](mailto:nova.research@unl.pt)

We can put you in contact with other members of the community.

**Researchers from all Academic and Research Units within the NOVA R&I ecosystem can participate.**





# STEP BY STEP

5


Work on your application with your Team

If it helps structure your team's idea, fill out the canvas we have prepared before filling out the application form.

Do not forget the added value your team and the project might bring to the community.

### Some examples:

- Seminars and Workshops
- State-of-the-art systematic review of the project's topic to be shared among all NIRC members and Galp.
- Bring to the community relevant key players from NOVA who could participate in the different activities.
- Organize activities for the whole community.

NIRC Pre-project Template		
Project name:		Team member 0:
<b>Multidisciplinarity</b> <small>Who are the key players and what are the disciplines involved? How is multidisciplinarity adding value? What would we loose without a multidisciplinary team?</small>	 <b>The big idea:</b> <small>Describe the project's main idea in two or three sentences</small>	<b>Funding Track</b> <small>(e.g. Ignition Grant vs Interdisciplinary Research Award)</small>
<b>Research Questions &amp; Expected Outcomes</b> <small>What is/are) your research question(s)? What do you expect to accomplish with this project?</small>		<b>Major budget Items</b> <small>What would your major budget items be? (e.g. HR, consumables, database accesses, etc)</small>
<b>Team and Outcomes</b>	<b>Added value to the community</b> <small>How could the project add value to the Sustainable Energy Systems Community and its members? (e.g. dissemination activities, fireside talks)</small>	<b>Complementary Funding /EU calls to support your idea</b> <small>What complementary funding calls could support your idea now and/or in the future? (e.g. Horizon Europe, la Caixa, private funding)</small>
	<b>Purpose</b>	<b>Funding</b>

# NIRC Pre-project Template

*Project name:*

*Team member 0:*

## Multidisciplinarity

Who are the key players and what are the disciplines involved?  
How is multidisciplinarity adding-value?  
What would we lose without a multidisciplinary team?



## The big idea:

Describe the project's main idea in two or three sentences

## Funding Track

(e.g. Ignition Grant vs Interdisciplinary Research Award)

## Major budget Items

What would your major budget items be?  
(e.g. HR, consumables, database accesses, etc)

## Research Questions & Expected Outcomes

What is(are) your research question(s)?  
What do you expect to accomplish with this project?

## Added value to the community

How could the project add value to the Sustainable Energy Systems  
Community and its members?  
(e.g. dissemination activities, fireside talks)

## Complementary Funding /EU calls to support your idea

What complementary funding calls could support your idea now  
and/or in the future?  
(e.g. Horizon Europe, la Caixa, private funding)

**Team and Outcomes**

**Purpose**

**Funding**

# STEP BY STEP

5

Work on your application with your Team

Talk with the GALP experts!

**Biomethane  
production and  
deployment**



[Inês Marques](#)

**Energy  
Communities**



[Alexandre Chaves](#)

**Renewables  
Value Chain**



[Ioana Ratiu](#)

**Leveraging CSRD  
for Sustainable Leadership**



[Eva Leite](#)

# STEP BY STEP

Submission of applications until 31/05/24

6

Submit the [Application Form](#) to [nova.research@unl.pt](mailto:nova.research@unl.pt)

The **Application Form** will have to be completed with the following information:

- Identification details: proponents' names, NOVA affiliation (Academic and Research Units).
- Project information:
  - Title
  - Objectives
  - Description of innovative & interdisciplinary nature
  - Research plan with associated budget
  - Description of specific deliverables for evaluation.
- CVs of the proponents
- Added value of the idea/project to the NIRC on Sustainable Energy Systems.

# ASSESSMENT CONDITIONS

## Assessment – SYNERGY GRANT

- **Applicants' profile**, including **team's complementarity** from an interdisciplinary perspective (15%)
- Quality and relevance of the innovative and **interdisciplinary nature of the project** (30%)
- Quality and feasibility of the **research plan** (30%)
- Adequacy of the associated **budget** (10%)
- Adequacy of the specific **deliverables** for evaluation at M6 and M12 (5%)
- Quality and relevance of the proposed activities of **added value for the interdisciplinary research community** (10%)

# ASSESSMENT CONDITIONS

## Assessment – IGNITION GRANT

- **Applicants' profile**, including **team's complementarity** from an interdisciplinary perspective (15%)
- Quality and relevance of the **PoC implementation idea**, including adequacy of the project objectives (30%)
- Feasibility of the PoC plan with concrete examples of **TRL enhancement** (30%)
- Adequacy of the associated **budget** (10%)
- Adequacy of the specific **deliverables** for evaluation at M6 and M12 (5%)
- Quality and relevance of the proposed activities of **added value for the interdisciplinary research community** (10%)

## DEADLINES

- **Submission** of applications until **31/05/24**
- Communication of the **results** to the candidates **05/07/24**
- Awarded projects are intended to **start** on **01/09/2024**

# NOVA Interdisciplinary Research Communities

**Sustainable  
Energy  
Systems**



# INTERDISCIPLINARY ENERGY RESEARCH & INNOVATION INITIATIVE

Any questions that may arise, please contact  
[nova.research@unl.pt](mailto:nova.research@unl.pt)

# NOVA Interdisciplinary Research Communities

# Sustainable Energy Systems