

ESEIA



European Sustainable Energy
Innovation Alliance

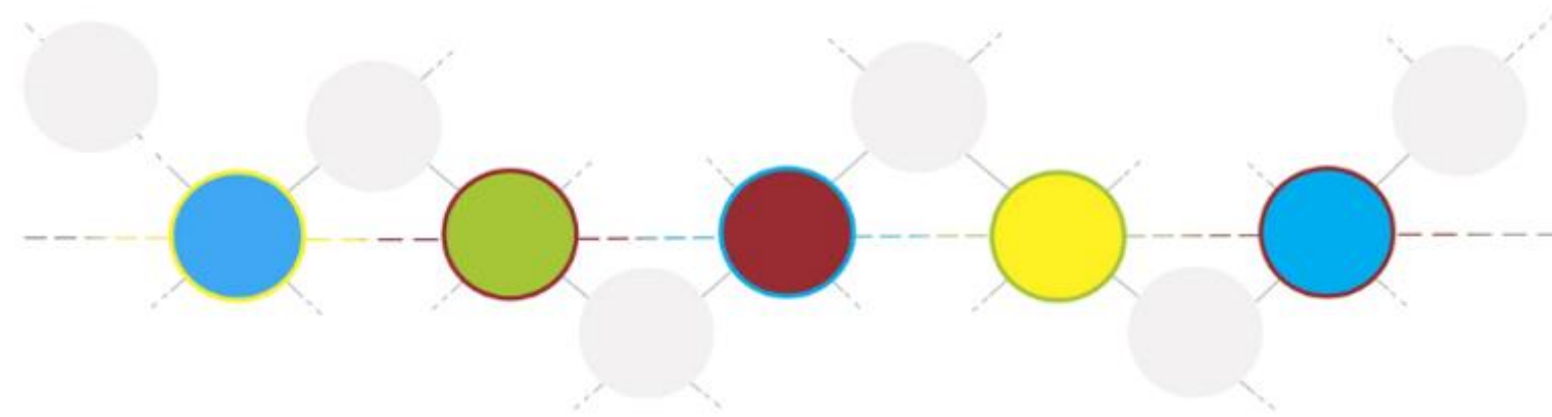
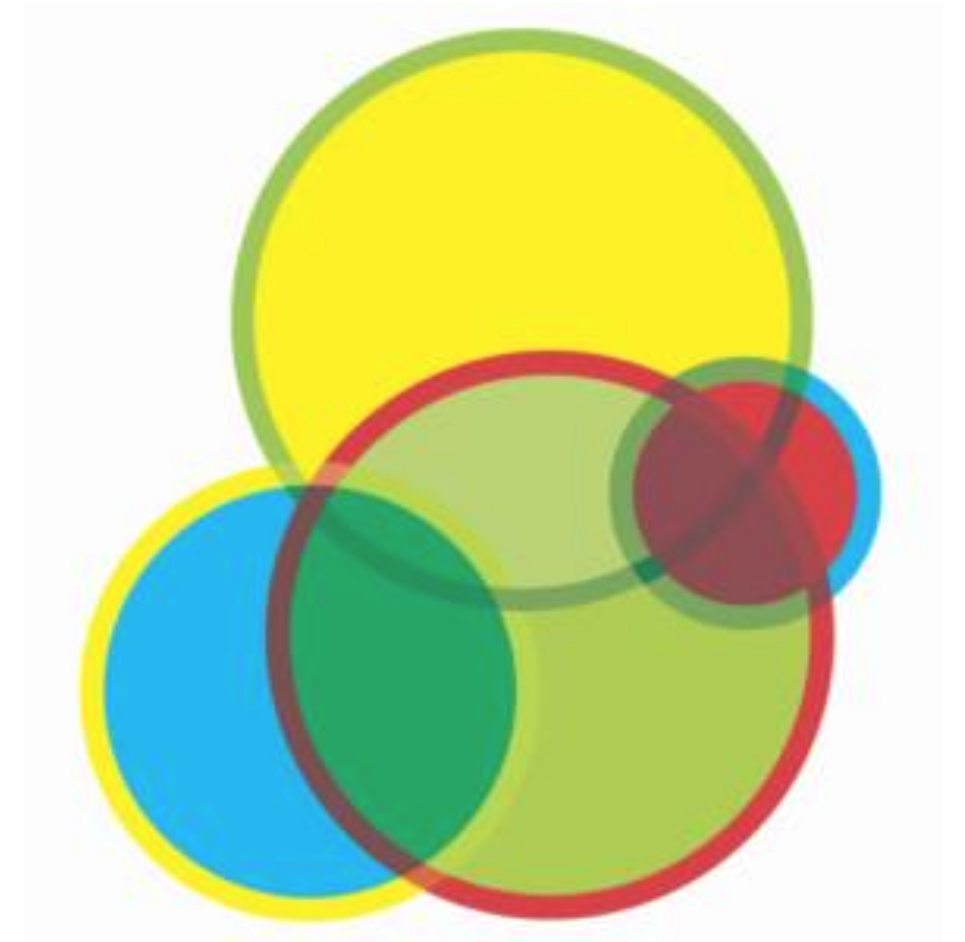


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1. Introduction: ESEIA in a Nutshell

ESEIA is a leading European non-profit association of research and innovation organizations in sustainable energy systems.



What is our Mission?

By 2050 ESEIA will have enabled Europe to reach its renewable energy targets as outlined in the Green Deal by contributing research for innovative solutions, as well as education and training for a climate-neutral sustainable energy system.



How do We Work?

The ESEIA Working Groups are the key drivers of the association. They are main forum for codesign and collaboration. The ESEIA WGs coordinate expertise from our members in a number of key innovation areas.



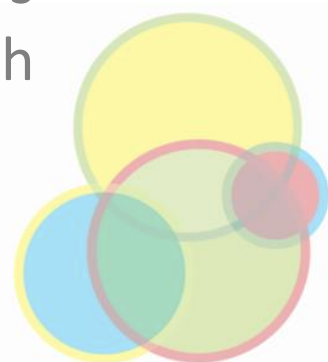
Which Strategic Challenges does ESEIA address?

ESEIA addresses three strategic challenges: ‘Setting the Agenda for renewables on the European market’, ‘Capacity Building both for people and institutions’ and ‘Forging International Partnerships’.



How does ESEIA engage?

ESEIA coordinates sustainable energy innovation projects, organizes expert panels, designs entrepreneurial education and training events, fosters international cooperation, and promotes dialogue with European citizens.



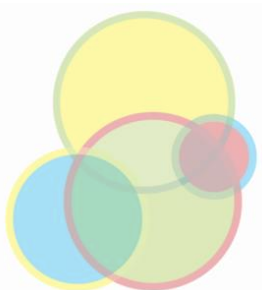
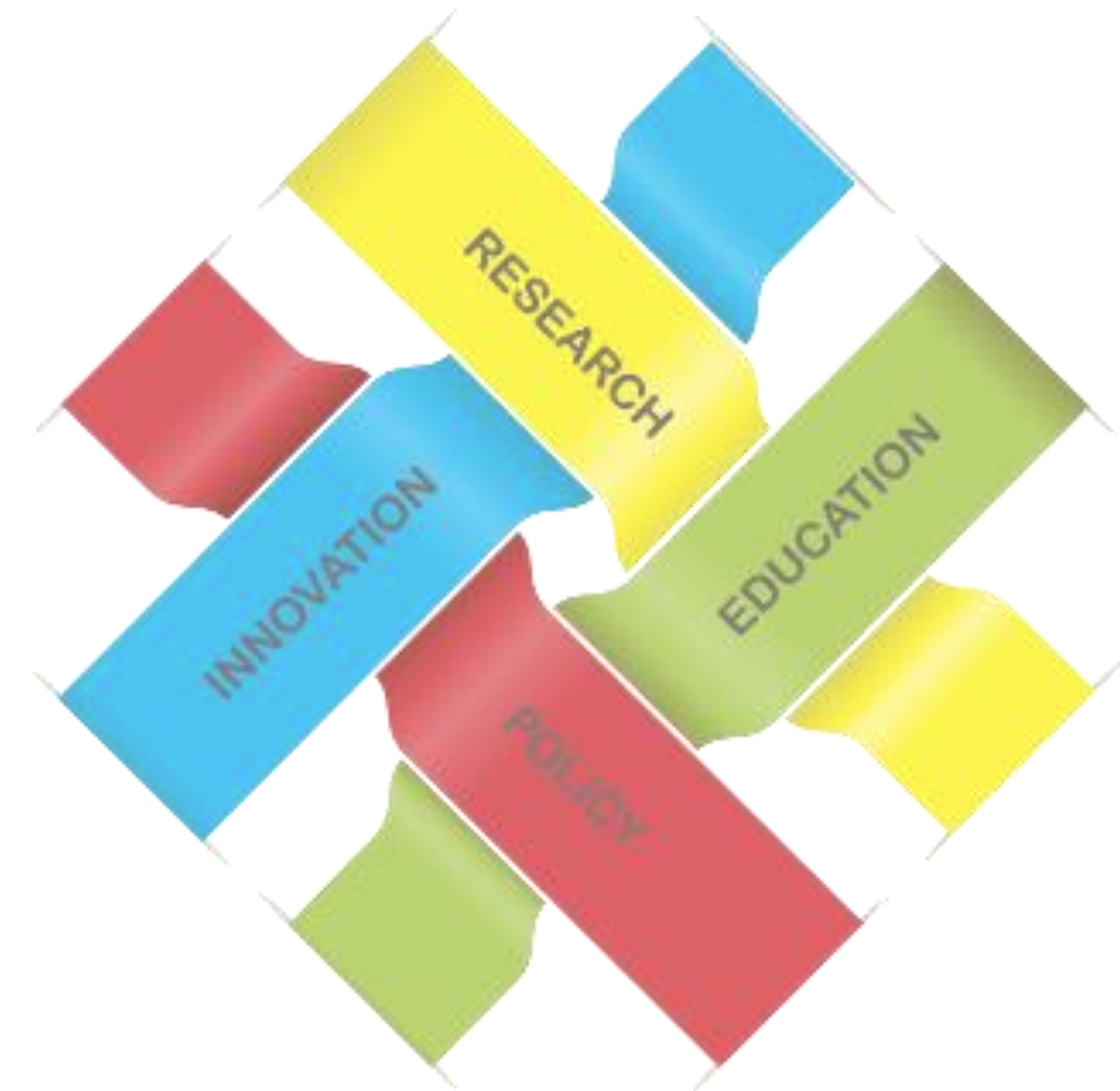
1. Introduction: ESEIA in a Nutshell

Member Organisations

Who do we represent?

The ESEIA umbrella represents the entire innovation ecosystem of actors from research, academia, industry, and government.

In 2025, ESEIA has 21 member organizations from 11 EU countries.



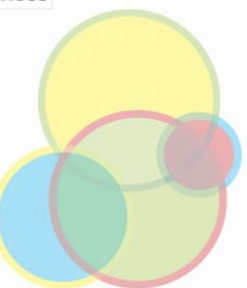
1. Introduction: ESEIA in a Nutshell

Member Organisations

ESEIA
European Sustainable Energy
Innovation Alliance

21 Member Organisations:

- 11 EU countries
- 12 Higher Education Institutions (HEIs)
- 4 Research Organizations (Ros)
- 5 Businesses



1. Introduction: ESEIA in a Nutshell

ESEIA Governing Council: An Equal Partnership



Andrea Höglinger
Vice-President
TU Graz, AT



Markku Huhtinen
Vice-President
Savonia UAS, FI



Spomenka Kobe,
Vice-President
JSI, SI



Josef Furlinger
2nd Vice-President,
Treasurer, AT



Brian Norton
ESEIA President
TU Dublin, IE



Teresa Ponce de Leão,
1st Vice-President,
Record-Keeper, LNEG, PT



Costas Papanicolas,
Vice-President
CYI, CY



Monika Lichtinghagen-
Wirths, **Vice-President,**
BAV, DE



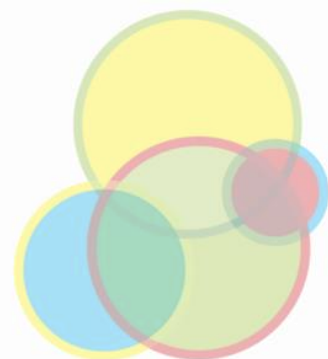
Goran Krajačić,
Vice-President,
UZagreb-FSB, HR



Brigitte Hasewend,
Director
ESEIA



According to the ESEIA Statutes Art. 12 the **Governing Council** prepares the decisions of the **General Assembly**, the supreme decision-making body. The GC exercises the main responsibility for the strategic management of ESEIA. The ESEIA GC is equally composed of **5 female and 5 male administrators**. The GC is presided by the ESEIA President and includes the ESEIA Record Keeper, the ESEIA Treasurer, Vice-Presidents, and the ESEIA Director.



2. Three Strategic Challenges

Which Strategic Challenges does ESEIA address?



Setting the Agenda for renewables in the European market



Capacity Building both for People and Institutions



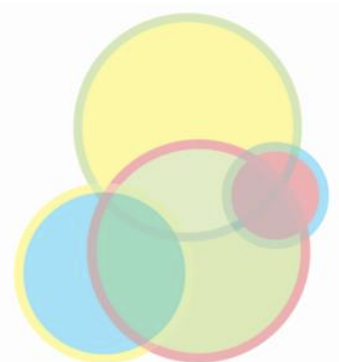
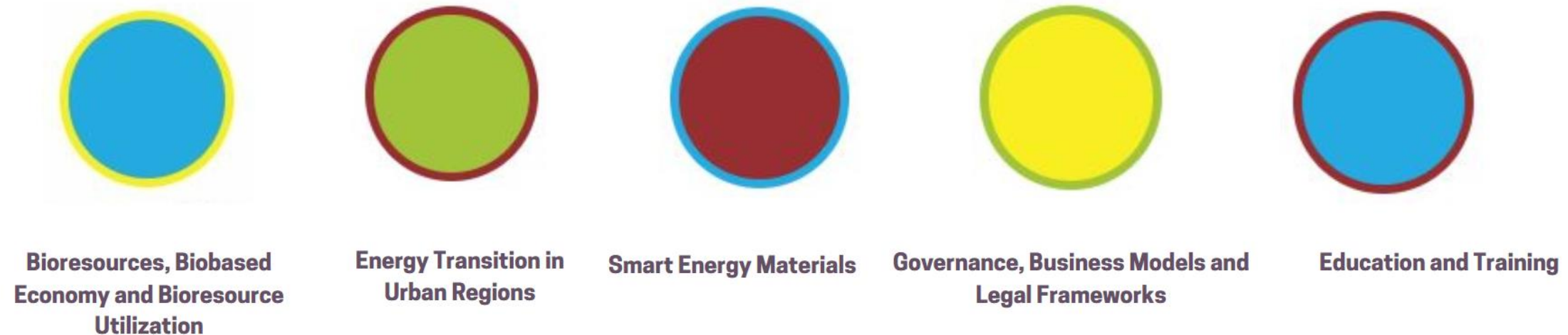
Forging International Partnerships

2.1. Setting Agenda for RES on the European Market

Agenda Setting: Five ESEIA Working Groups

The five ESEIA Working Groups include approximately **350 active experts from all sectors of renewable energy systems**. The ESEIA Working Groups are particularly equipped to **advise EC decision-makers on the key issues, existing knowledge gaps, and necessary implementation instruments**.

ESEIA WORKING GROUPS (WGs)



2.1. Setting Agenda for RES on the European Market

Three Thematic Working Groups



WG 1 Bioresources Utilization

The aim is to provide a framework for using bioresources efficiently, focusing on bioenergy systems innovation and the bioeconomy in the energy transition. This includes identifying bioenergy sources and improving technologies for efficient logistics and utilization.



WG Coordinator:
Michael Bongards, TH Cologne (DE)

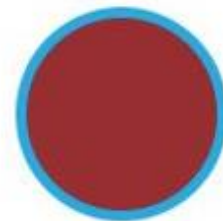


WG 2 Energy Transition in Urban Regions

ESEIA focuses on energy transition in cities and surrounding areas, emphasizing not only innovative renewable technologies but also new integration methods. The WG includes four focus groups: Smart Mobility, Smart Grids, Energy Efficient Buildings, and ICT for Energy Transition.



WG Coordinator:
Goran Krajačić, UNIZAG (HR)



WG 3 Smart Energy Materials

As resources become increasingly scarce, the design and use of new energy materials must align with global sustainability goals. This Working Group focuses on the synthesis, processing, and application of smart energy materials to improve the energy efficiency of renewable energy systems.



WG Coordinator:
Tina Zuzek, JSI (SI)



WG 4 Governance, Business Models and Legal Frameworks

This WG focuses on the challenges that energy transition brings about in terms of radical shifts in governance, social and business models and related regulatory and legal regimes. To foster the transition, the functioning of multi-actor networks, multi-level relations and energy ecosystems needs to be improved.



WG Coordinator:
Michiel Heldeweg, Utwente (NL)



WG 5 Education and Training

The WG conceives and implements cooperative training courses under the ESEIA Education and Training Programme (ETP). These cooperative training formats benefit students, young scientists and professionals already active in the field by linking practice and educations.



WG Coordinator:
Fabio Montagnino, CYI (CY)

Two Horizontal Working Groups

2.1. Setting Agenda for RES on the European Market



**WG1 - Bioresources, Biobased Economy,
Bioresource Utilization**

Biorefineries and Biobased Industrial Products



Luis Duarte
LNEG



Wolfgang Bauer
TU Graz

Bioeconomy and Circular Economy



Michael Bongards
TH Cologne

**Bioenergy Use of Biobased
Fuels and Wastes**



Markku Huhtinen
Savonia UAS



**WG2 - Working Group Energy Transition
in Urban Regions
3 Active Focus Groups**

Smart Mobility



Mario Hirz
TU Graz

**Smart Energy
Efficient Buildings**

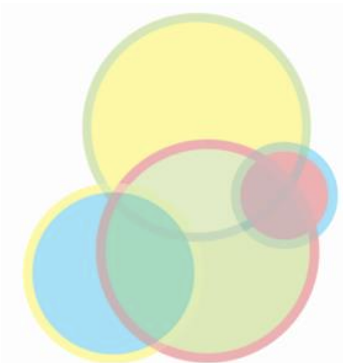


Gintaras Stauskis
VGTU

**Advanced Computing
for Energy Transition**



Gregor Papa
JSI



2.1 Impact: Setting Agenda for RES on the European Market

Agenda Setting: ESEIA FP10 Position published Oct 24 in European Energy Innovation Magazine

Communication

Shaping the Future of EU R&I for climate neutrality: key questions for the design of FP10

By **Hana Lee**, Senior Project Manager and **Brigitte Hasewend**, Director, European Sustainable Energy Innovation Alliance (ESEIA)

About the Authors

Hana Lee is Senior Project Manager at ESEIA, a role she has held since November 2020. With over 13 years of international experience across academia and industry – covering construction, environment, and innovation projects – she brings a wealth of expertise to her role. She earned her Doctorate in Applied Geoscience from TU Graz, AT and a Master's in Engineering Geology from Kyungpook National University in South Korea. Before joining ESEIA, she worked as senior engineer and consultant with major international firms like WSP, Capgemini, and Hyundai Engineering & Construction. At ESEIA, she plays a key role in project acquisition and coordinating the ESEIA Working Groups.

Brigitte Hasewend is founding and acting Director and Member of the Governing Council of ESEIA. In this executive capacity, she has been responsible for devising the New ESEIA Strategy 2034 in the context of the European Green Deal. In 2023 Brigitte Hasewend was appointed Member of the Board of EIT Climate KIC Association. Since 2013, Brigitte Hasewend has worked for the European Commission as expert evaluator mainly for Horizon capacity-building projects. During 2024-17 she was Vice-President of the Supervisory Board of Joanneum Research GesmbH. Since 2007 she has headed the International Strategic Research Partnerships at TU Graz, AT. Previously, Brigitte Hasewend had spent 10 years living and working in Brussels where she held several positions at the European Commission.

This article is a contribution to the ongoing European debate¹ on the future design of the 10th EU Research and Innovation (R&I) Framework Programme with the working title FP10 covering the period 2028-2034.

What are the key challenges to enhancing European competitiveness while transforming to a green and circular economy for climate neutrality? How can these challenges be addressed by FP10? Which questions remain open for future debate? This article presents findings from a Europe-wide survey underlying the ESEIA FP10 Position Paper².


Challenges for Research and Innovation in relation to the European Green Deal
If we take survival on earth seriously and if we want the European Green Deal to become a success by 2050, Europe needs to undertake fundamental measures to steadily transform into a climate-neutral continent. The Green Deal challenge cannot be viewed in isolation as it is entwined with the UN Sustainable Development Goals, as well as resonating with the twin challenge of digital transition.

In this existentialist quest, Europe will also need to face megatrends, namely scarce resources, aging populations, conflict, and migrations. Europe, like no other continent, is committed to building a more resilient, competitive, inclusive, and democratic society as part of the EC Strategic Plan 2025-27³.

Come 2030, the Green Deal will already have reached a key milestone in green and circular economy, climate adaptation, carbon markets and pricing, sustainable finance, biodiversity,



European Energy Innovation | Autumn 2024 | 27

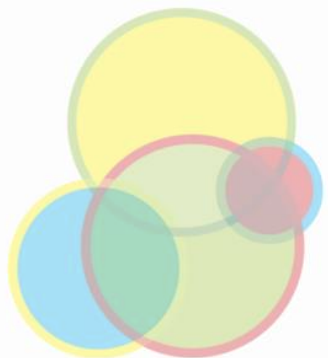


Five Key ESEIA Recommendations for FP10

1. Enhance Role of European Thematic Alliances	2. Foster Global Innovation Eco-system Partnerships	3. Prioritise Horizontal Topics in Research and Innovation	4. Ensure Actionability of the Framework Programme	5. Provide Room for Self-Organisation and Entrepreneurship
<ul style="list-style-type: none"> • AT POLICY LEVEL: Involve European Alliances from design to implementation. • AT PORTFOLIO LEVEL: Jointly create exploitation pathways. • AT PROJECT LEVEL: Use European Alliances as sounding boards for new R&I topics. 	<ul style="list-style-type: none"> • Increase International Relevance by creating international innovation ecosystem partnerships for co-creation. • Enhance international access to R&I Infrastructure. • Implement strategies to effectively facilitate capacity building. 	<ul style="list-style-type: none"> • Prioritizing cross-cutting horizontal topics. • Provide support for deep tech projects fostering sustainability. • Boost Excellence and Innovation by providing support mechanisms tailored to Widening countries. 	<ul style="list-style-type: none"> • By dedicating actions to multi-actor innovation ecosystem approach. • Improving coordination across the innovation cycle and different TRLs. • Simplification, to make participation more accessible and efficient. 	<ul style="list-style-type: none"> • Continuously take on board novel thematic challenges. • Support maturation and validation of novel ideas from lab to business. • Start-Ups and SME scale-up to new markets.

‘The FP should not be a straitjacket; it should provide flexibility to adjust to new R&I needs and trends.’

ESEIA President Brian Norton



2.2. Capacity Building for People

ESEIA Education and Training Programme (ETP)

In 15 years, ESEIA has welcomed a total of **1,750 participants** in **44 Events building capacity of people and institutions** using 7 formats: 16 International Summer Schools, 7 Lectures, 6 Bi-Annual Conferences, 4 Decarbonisation Workshops for Industry, 2 Brokerage Events, 2 Student Camps, 2 Pilot Plant Courses.

The different professional education formats within the [ESEIA Education and Training Programme \(ETP\)](#) include:

Postgraduate students

Interdisciplinary Student Camps (ISC)

Postgraduate students and professionals

ESEIA International Summer Schools (ISS) Pilot Plant Courses (PPC)

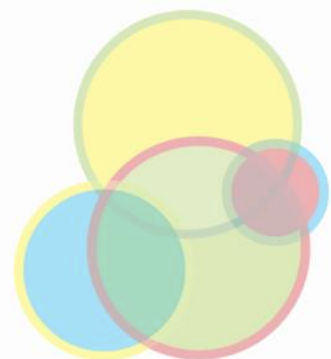
Policymakers, experts, and professional

Professional Training Course (PTC);

Additionally, ESEIA regularly offers other knowledge transfer activities such as the ESEIA biannual International Conference, and two [European Master's programmes](#).



ESEIA 5th international conference on "Towards Climate Neutral Energy Communities" on 2-3 Nov. 2022 at Nicosia, Cyprus



2.2. Capacity Building for People

ESEIA Lecture Series

The ESEIA Lecture Series *Sustainable Energy Innovation Systems for Climate Neutrality* aims to provide a platform for perspectives exchange between different societal actors on what must be done to achieve climate neutrality by 2050.

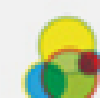
The invited speakers for the lectures are experts in their fields, which makes this series organised in cooperation with the Graz University of Technology an excellent educational and networking platform for everyone interested in creating a climate-neutral future.



ESEIA Lecture Series at a Glance (2022 – 2024)

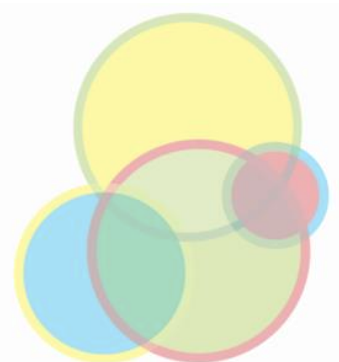
In recent years the ESEIA Lecture series has turned into one of the most attractive training events:

 **12 Lectures for 12 Topics and**

 **86 Organizations:**
45 Business
25 High Education Institutions
16 Research Organizations

 **60 Speakers, 600 Participants:**
1/3 on site, 2/3 online

 **58 Countries:**
29 Countries worldwide
17 European countries
9 African countries
1 Middle Eastern country
2 South Asian countries



2.2. Capacity Building for Industry



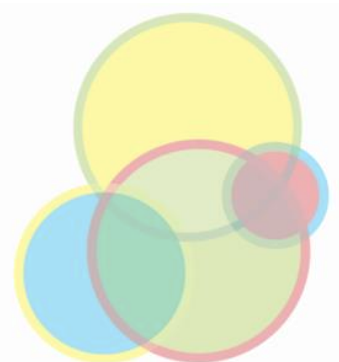
Austria | 21 October 2022

The first [RE4Industry](#) Knowledge Transfer Seminar took place on 21 October 2022 at the Graz University of Technology in Graz, Austria.

100 participants gathered onsite and online to review climate targets, explore solution packages, and discuss the push and pull factors of the energy transition.

The seminar was organized in cooperation with the Federation of Austrian Industries of Styria and Carinthia.

[Find out the key takeaways!](#)



2.2. Capacity-Building for Higher Education Institutions

 **INITIATE**



**Funded by
the European Union**

AIM

**Supporting European R&I Through
Stakeholder Collaboration and
Institutional Reform**

FUNDING

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme, under Grant Agreement n° 101136775

DURATION

42 months (starting from February 2024)

BUDGET

€4.5M

COORDINATOR

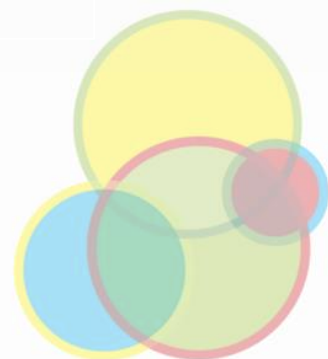
UNIZAG FSB, HR

PARTNERS

ESEIA (AT), CYI (CY), JSI (SI), NURE(UA), BrainIT (HR), B1 (HR), UMP (MA), VINCA (RS), UKIM (MK), EPBiH (BA), ISCTE (PT), LPNU (UA), UTBV (RO)

ESEIA'S ROLE

ESEIA network of Universities will be key resource for knowledge sharing, networking and synergy with other Alliances



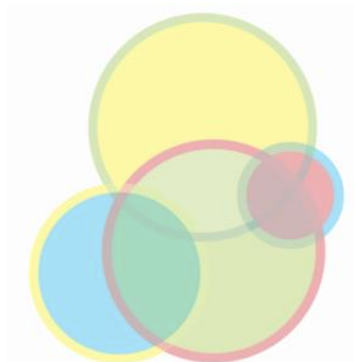
2.3. Forging International Partnerships



International cooperation is a driver of world-class research and innovation. The European Union's Strategy for international cooperation is set out in the [Global Approach to Research and Innovation](#) Communication. [Horizon Europe](#), the EU's framework program for research and innovation, is one of the main tools to implement this strategy.

ESEIA supports the EU approach to international partnerships. In general, the ESEIA Education and training events are open to participants from all over the world.

In 2024 ESEIA focuses on the African Union with the Horizon-funded [EMERGE](#) for Energy System Modelling.



2.3. Forging International Partnerships

AIM

Energy System Modelling for Green Development of Africa

FUNDING

This project has received funding from the European Union's Horizon Europe Research and Innovation Programme, under Grant Agreement n° 101118278

DURATION

36 months (1 December 2023 – 30 November 2026)

BUDGET

€2.5M

COORDINATOR

UNIZAG FSB, HR

PARTNERS

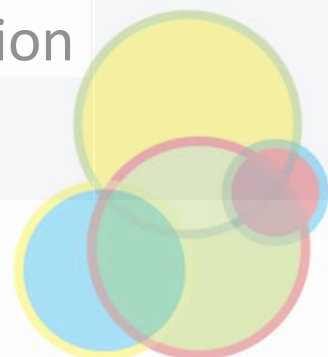
ESEIA (AT), EnGreen (IT), CARTIF foundation (ES), CIRCE foundation (ES), Artelys (FR), ECREE-ECOWAS (CP), Universite Mohammed Premier 1 (MA), Universidade Eduardo Mondlane (MZ), AfriLabs (NI), BrainIT (HR)

ESEIA'S ROLE

In addition to reaching out to its network of Universities to further enhance AU-EU collaboration, ESEIA will lead the project's communication and dissemination activities



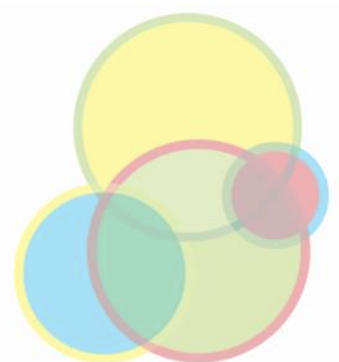
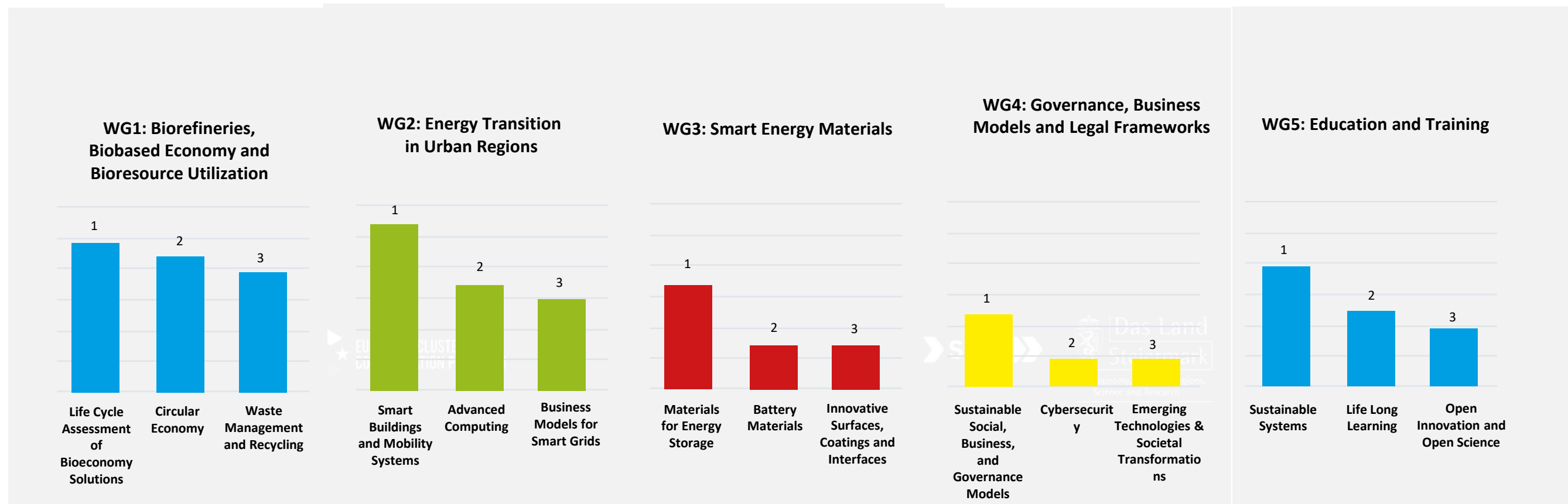
Funded by
the European Union



3. Expertise

FIELDS OF EXPERTISE

ESEIA Members can connect with experts on four thematic platforms of research and innovation: Energy Provision, Energy Policy and Integration, Energy Efficiency and Usage, and Energy Intelligence.



4. Upcoming Events

Education and Training Programme

ESEIA 13th Lecture: 3 April 2025, 19.00 – 21.00 CET

Topic: The Uptake of Renewables in European Local Communities

Location: Aula, TU Graz (in-person) and Online, **Registration**

Deadline: 1 April 2025, using this [Link](#).

Program Highlights:

Invited Lecture by: Frans Coenen, Utwente, NL

Response 1: Christian Sakulin, Energy Agency Styria, AT (TBC)

Response 2: Manuel Casquiço, Adene, PT

Chair: Günter Getzinger, TU Graz, AT

Host: Rector TU Graz



13TH ESEIA LECTURE SERIES
SUSTAINABLE ENERGY INNOVATION
SYSTEMS FOR CLIMATE NEUTRALITY

13TH ESEIA LECTURE:
**The Uptake of Renewables in European
Local Communities**

Invited Lecture by: Frans Coenen, Utwente, NL

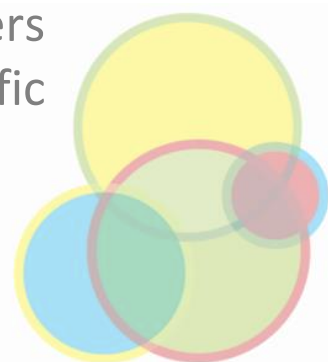
3 April 2025 | 19:00-21:00 CET | Aula, TU Graz, Hybrid event

www.eseia.eu

Abstract:

Why does my community house still not have a solar-thermal heating system or an electric loading station for e-vehicles? The reason may be a lack of policy support, financial incentives, lack of knowledge, technological support, and energy infrastructure planning by stakeholders and local governments.

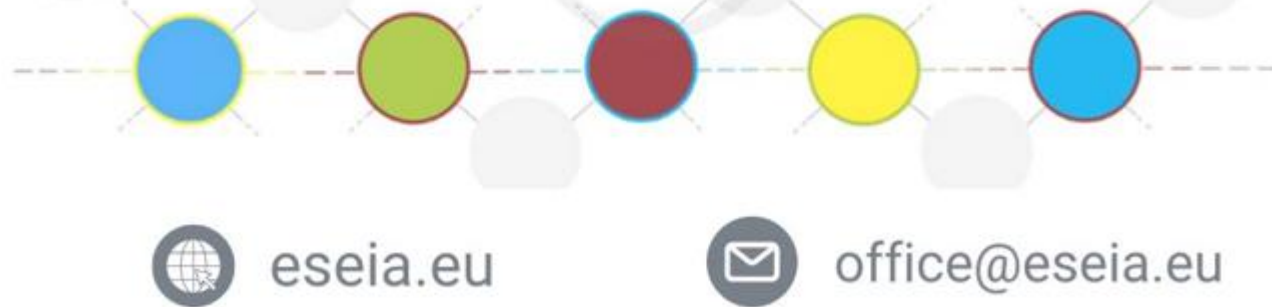
This lecture evening will reveal how barriers to a wider market uptake of renewables can be overcome and how upscaling can work. The lecturers will present demo cases from a number of EU countries. They will demonstrate how to overcome barriers and how market upscaling of specific energy systems can be effectively facilitated by providing guidelines and tools for communities, policymakers, and stakeholders alike.








5. How to get involved?

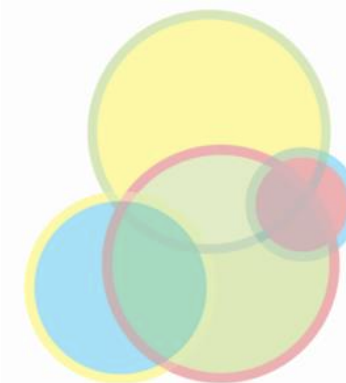
Join our activities and become an ESEIA Member!

BECOME A MEMBER



BENEFITS

-  Joint ESEIA Work Programme
-  European Cross-Sector Partnership
-  Share and gain knowledge
-  Involvement in EC Policy-Making
-  Access to EC Funding Opportunities





CONTACT US

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1050 Brussels

