

# EERA e3s and Energy Consumers

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EERA is an official part of the EU SET-Plan.

http://setis.ec.europa.eu/

# What is EERA? European Energy Research Alliance

- Public research alliance
- Cornerstone of the StrategicEnergy Technology Plan (SET-Plan) and Integrated Roadmap
- Brings together 250 research organisations
- Works together in 15 Joint Programmes
- Collaborates with European Industry
- Aligns national research
- Global Outreach







# What is e3s? Economic, Environmental and Social Impacts of Energy Policies and Technologies

**EERA e3s Joint Programme (JP)** 

#### **Motivation:**

- Europe has adopted ambitious energy policy objectives to achieve a low carbon world by 2050
- Re-orientation away from specific technological solutions and towards 'system' transformation.
- Enhanced policy advice is necessary to understand the complex interaction of a variety of socio-technical elements, such as consumer behaviour and acceptance, markets and technologies









- Initiated by TECNALIA in 2013
- Goal: Promote cooperation in social, economic and environmental aspects, thereby contributing to the market success of emerging energy technologies
- e3s now has 48 members, mainly universities
- e3s has extended its geographical coverage with the incorporation of institutes from Cyprus and Turkey





- e3s organized a series of workshops in several European locations to discuss "hot topics" such as comparative impact assessments of the 2050 roadmap or the criticality of raw materials for the energy sector
- e3s is now entering a new phase, with a more formal structure and processes, e.g., joint proposal preparation





# e3s Subprogramme Organization





SP 1 Public perception and engagement



Norwegian University of Science and Technology

SP 5 Sustainable low carbon platform





SP 2 Analysis of innovation support for low carbon technologies

# Low Carbon Roadmap 2050



SP4 Energy models for a system assessment of European low-carbon energy futures: markets, environmental and economic impacts

SP 3 A life cycle approach for evaluating the sustainability performance of energy technologies





## SP 1 Public engagement and innovation Objective:

- Provide a comprehensive and nuanced understanding of public involvement with environmentally friendly energy, including new renewable energy and carbon sequestration.
- Suggest effective strategies and tools of dialogue, brokering and collaboration between policy makers, industrial stakeholder and the public.



### SP 1 Public engagement and innovation

Work Package Structure:



#### <u>WP1</u>

**Aim:** Assess attitudes, perceptions, practices related to sustainable energy tech and initiatives.

Key Methods: Survey Data

1.3 - Innovation processes and commercialization of research based technology

1.2 - Governance and policy instruments enabling better public engagement

#### WP2

**Aim:** Assess economic schemes, social framework, and environmental regulation

**Key Methods:** Stakeholder

engagement

#### <u>WP3</u>

**Aim:** Understand factors that influence commercialization, innovation, and tech transfer

**Key Methods:** Social innovation and entrepreneurship, experimental knowledge transfer processes



### SP 1 Public engagement and innovation Sample tasks:

- Create workshops to organize research ideas and draft research proposals
- Draft position papers (current research summaries)
  - Relevance to EU
  - Define the state of the art
  - Use this as the starting point for a proposal
- Contribute to SET plan





### **SET-Plan (European Commission)**

Declaration on Strategic Targets in the context of an Initiative for Smart solutions for energy consumers

#### Move beyond just smart appliances

- self-learning smart devices
- ICT-based plug-and-play consumer energy management solutions, allowing for RES home integration
- interface standards
- electricity price forecasting tools
- measure consumer benefits
- market penetration of sensors (cost reduction)











Thank you!