



# **13<sup>th</sup> ETIP SNET Regional Workshop**

09 November 2021

## **Welcoming**

**Maria Laura Trifiletti**  
ETIP SNET Coordinator





# **13<sup>th</sup> ETIP SNET REGIONAL WORKSHOP**

## **09 November 2021**

**09.30 – 13.00 CET**  
**Online – TEAMS**

**Plenary Session 9.30 – 10.40**

**[LINK TO JOIN](#)**

**Parallel sessions – 10.40 – 12.10**

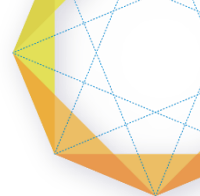
<b>Parallel Session 1</b>	<b>Parallel Session 2</b>	<b>Parallel Session 3</b>	<b>Parallel Session 4</b>
<b>Decarbonising EU Islands</b>	<b>Operation of Integrated Energy Systems with High-RES Penetration</b>	<b>Digitalisation: Monitoring and Control; Semantic Interoperability</b>	<b>Consumer and Data to discuss the relation of products, privacy and policy</b>
<b><u><a href="#">LINK TO JOIN</a></u></b>	<b><u><a href="#">LINK TO JOIN</a></u></b>	<b><u><a href="#">LINK TO JOIN</a></u></b>	<b><u><a href="#">LINK TO JOIN</a></u></b>

**Panel session - *Parallel Sessions outcomes and Conclusions***  
**12.10 – 13.00**

**[LINK TO JOIN](#)**



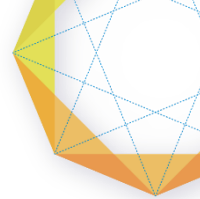
# Agenda – Plenary Session



AGENDA		
PLENARY SESSION - introduction 09:30 – 10:40		
TIME	TOPIC	SPEAKERS
9.30 – 9.45	Welcome and opening	Maria Laura Trifiletti - ZABALA
9.45 – 10.00	ETIP SNET and BRIDGE Presentation	Iñigo Azpiri Irazabal - ETIP SNET Vice Chair
10:00-10:30	Round table: Focus on the regional and national level	<b>Moderators</b> ➤ <b>Ludwig Karg</b> – B.A.U.M. Consult  <b>Panellists:</b>  <b>ETIP SNET Technical CORE TEAM</b> ➤ <b>Rainer Bacher</b> – BACHER Energie ➤ <b>Nikos Hatzirgyriou</b> - ICCS ➤ <b>Aris Dimeas</b> - ICCS  (representatives for regional energy and innovation systems)  ➤ <b>Paddy Phelan</b> , CEO of 3 Counties Energy Agency (3CEA) ➤ <b>Jatta Jussila</b> - CEO at CLIC Innovation Oy, Finland, member of the Support Team for Joint Programming Platform ERA-Net Smart Energy Systems ➤ <b>Michele De Nigris</b> – RSE, National Stakeholder Coordination Group representative Programming Platform ERA-Net Smart Energy Systems
10:30-10:40		
10:30-10:40	Q&A Session	



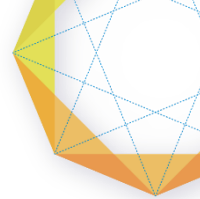




# Agenda – Parallel sessions 1 & 2

Parallel Sessions 10.40 – 12.10	
Decarbonising EU Islands	Operation of Integrated Energy Systems with High-RES Penetration
<b>MODERATORS</b>	<b>MODERATORS</b>
<b>Aris Dimeas</b> - ICCS <b>Franco Di Persio</b> – Fundación CIRCE (ETIP SNET WG2)	<b>Nikos Hatziargyriou</b> - ICCS <b>Santiago Gallego</b> – i-DE (ETIP SNET WG1)
<b>PANELLISTS</b>	<b>PANELLISTS</b>
<ul style="list-style-type: none"><li>• Josep Mitats Carmona – Veolia (REACT project)</li><li>• Kostas Komninos – Dafni (Kythnos Smart Island project)</li><li>• Diego Pisera – algoWatt S.p.A (VPP4ISLANDS project)</li><li>• Alessandra Montanelli – Sinloc (NESOI project)</li></ul>	<ul style="list-style-type: none"><li>• Alexander Wiedermann – MAN Energy Solutions (ETIP SNET WG3)</li><li>• John Lowry – EirGrid (EU-SysFlex project)</li><li>• Katerina Valalaki – Hypertech SA (MERLON Project)</li><li>• Gabriele Comodi, – Università Politecnica delle Marche (MUSE GRIDS Project)</li><li>• Georges Kariniotakis– MINES ParisTech (SMART4RES Project)</li></ul>
<b>STRUCTURE</b>	<b>STRUCTURE</b>
99 seconds pitch Panel discussion Q&A	99 seconds pitch Panel discussion Q&A



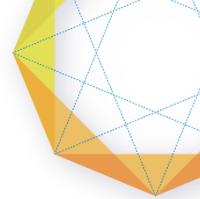


# Agenda – Parallel sessions 3 & 4

Digitalisation: Monitoring and Control; Semantic Interoperability	Consumer and Data to discuss the relation of products, privacy and policy
<b>MODERATORS</b>	<b>MODERATORS</b>
<b>Rainer Bacher</b> – BACHER Energie <b>Elena Boskov-Kovacs</b> – Blueprint Energy Solutions (ETIP SNET WG4)	<b>Ludwig Karg</b> – B.A.U.M. Consult <b>Esther Hardi</b> – Energiecooperatie 2030
<b>PANELLISTS</b>	<b>PANELLISTS</b>
<ul style="list-style-type: none"><li>• Nathalie Grisey – RTE France (OSMOSE Project)</li><li>• Hans Bludszweit – Fundación CIRCE (INTERPRETER Project)</li><li>• Mònica Aragüés Peñalba – CITCEA-UPC (BD4OPEM Project)</li><li>• Lazar Miletic – Blueprint Energy Solutions (X-FLEX Project)</li></ul>	<ul style="list-style-type: none"><li>• Heidi Tuiskula – Smart Innovation Norway (E-Land project)</li><li>• Kalle Kukk – Elering (EU-SysFlex project)</li><li>• Ivelina Stoyanova – E.ON Energy Research Center (OneNet project)</li><li>• Pedro Crespo del Granado – Norwegian University of Science and Technology (NTNU) (BEYOND project)</li></ul>
<b>STRUCTURE</b>	<b>STRUCTURE</b>
99 seconds pitch Panel discussion Q&A	99 seconds pitch Panel discussion Q&A



# Agenda – Conclusion Plenary session



## PLENARY SESSION – conclusions 12:10 – 13:00

<b>TIME</b>	<b>TOPIC</b>	<b>SPEAKERS</b>
12:10-12:15	Session introduction	<b>Moderator: Maria Laura Trifiletti</b> - ZABALA
12:15-12:35	Presentation by WG representative on results of questionnaire	<b>Venizelos Efthymiou</b> – University of Cyprus <b>Mahboubah Hortamani</b> – BAAM Consulting (Both ETIP SNET WG5)
12:35-12:40	Key conclusions session 1	<b>Franco Di Persio</b> – Fundación CIRCE (ETIP SNET WG2)
12:40-12:45	Key conclusions session 2	<b>Santiago Gallego</b> – i-DE (ETIP SNET WG1)
12:45-12:50	Key conclusions session 3	<b>Elena Boskov-Kovacs</b> – Blueprint Energy Solutions (ETIP SNET WG4)
12:50-12:55	Key conclusions session 4	<b>Ludwig Karg</b> – B.A.U.M Consult <b>Esther Hardi</b> – Energiecoöperatie 2030
12:55-13:00	Conclusions	<b>Moderator: Maria Laura Trifiletti</b> - ZABALA



# Join the conversation on Slido

[www.slido.com](https://www.slido.com)



**#742417**

**Select Plenary  
sessions and  
Parallel sessions at  
the top left**

Link <https://app.sli.do/event/jtrxcjcy>





# General organisation rules

- Switch off your microphone and Camera
- Only Panellists and Moderators will have Camera and Microsoft on

## ➤ Questions & Answer session

- Please write your questions in the chat on TEAMS



The entire workshop (including the parallel sessions)  
will be recorded !

## ➤ Accessing links

- They will be posted in the chat before each session change!



# Introductory poll

**SLIDO** [www.slido.com](https://www.slido.com)

**Code:** #742417

## Questions:

1. *Do you know ETIP SNET?*
2. *What does ETIP SNET stand for?*
3. *Have you already participated in previous Regional Workshops?*
4. *Are you or have you been in the past involved in any of ETIP SNET activities?*
5. *In which country is your company located?* [no abbreviations, full country Name in English]
6. *Which sector are you from? [only 1 answer]*





**Thank for your  
participation enjoy  
the Workshop!**







European Technology and Innovation Platform  
Smart Networks for Energy Transition

# ETIP SNET and BRIDGE Presentation

## 13<sup>th</sup> ETIP SNET Regional Workshop

Inigo Azpiri  
ETIP SNET Vice-Chair  
09 November 2021





# ETIP SNET: Goals and Mission

2016



The European Technology and Innovation Platform **Smart Network for Energy Transition** has been created under the SET PLAN with other 9 sectorial ETIPs

- *Integrating and optimising all sources and vectors of the the entire energy system*
- *Guiding Research & Innovation (R&I) in support to Europe's energy transition*
- *Addressing the innovation challenges for the energy system and market evolution, toward climate resilience and renewables integration, while ensuring affordability and security of supply*

*... beyond smart electricity grids*



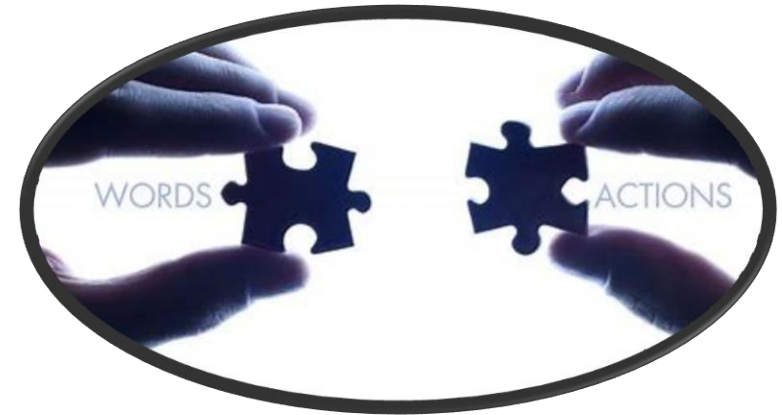
European  
Commission



# From ideas to facts

## CONCRETE ACTIONS

- Bringing together a **multitude of stakeholders and experts** from the energy sector
- Preparing and updating **Visions, Roadmaps and Implementation Plans** bringing a consolidated stakeholder views on R&I to European Energy Policy initiatives
- coordinating with other Initiatives at National (Members States), European and International level **to reinforce the alignment of Strategic Agendas and R&I priorities and needs**
- identification of **innovation barriers**, related to **regulation and financing** and developing further enhanced knowledge-sharing mechanisms that help bringing R&I results to deployment



European  
Commission



# ETIP SNET: our Stakeholders



40 members



**WG1**

Reliable, economic and efficient smart grid system

52 members



**WG2**

Storage technologies and sector interfaces

36 members



**WG3**

Flexible Generation



**WG4**

Digitisation of the electricity system and customer participation

71 members



**WG5**

Innovation implementation in the business environment

40 members



**NSCG**

National Stakeholders Coordination Group

**... a community of more than 350 experts from the Energy sector!!**



European Commission



# The Energy System towards 2050: relevance of Energy System Integration for Decarbonization.

- *Electricity distribution and transmission grids as the “backbone” of the future low-carbon energy systems with a high level of integration among all energy carrier networks*, by coupling electricity networks with gas, heating and cooling networks, supported by energy storage and power conversion processes.
- *Energy systems will be fully digitalised*, with a high level of automation.



- *Efficient markets supported by digital platforms*, from wholesale to retail, will *allow all stakeholders of the energy system to trade energy*, including prosumers selling their excess energy to the neighborhood in peer-to-peer transactions.
- *All system flexibility solutions*, including those for prosumers and consumers, will be adopted to *optimise the grid capacity uses from different generation and consumption centres* that are very distant and/or very near to each other.





# Main Achievements of ETIP SNET: Roadmap



## 6 Research Areas identified



- **Consolidated and balanced stakeholders' views for the future R&I needs of the Integrated Energy System** with electricity as its backbone.
- It relies on a **detailed analysis of monitored and reviewed national, European and international R&I projects**



# Main Achievements of ETIP SNET: Implementation Plan



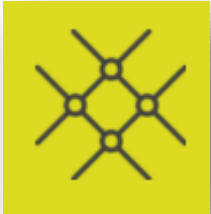
***2 New Implementation plans are scheduled:***

- 1. December 2021 covering period 2022-2025***
- 2. August 2023***

➤ ***Based on the 6 Research Areas, 25 topics have been proposed to highlight concretely the R&I needs from stakeholders' point of view***



# ETIP SNET Working Groups scope and next activities



## WORKING GROUP 1 RELIABLE, ECONOMIC AND EFFICIENT ENERGY SYSTEM

**WG1** addresses the mid and long-term business and technology trends contributing to the overall energy system optimization at affordable investment and operation costs, with particular reference to ***system development scenarios, network planning, operation, observability and control, asset management, flexibility as seen from the system aspects and resilience.***

### Planned White Papers by 20218 Q4 and 2022 Q1 on:

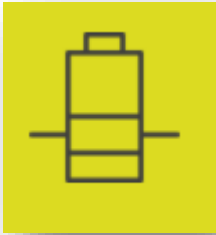
1. Hydrogen and Grids
2. Flexibility for Resilience
3. E-mobility



European  
Commission



# ETIP SNET Working Groups scope and next activities



## WORKING GROUP 2

### STORAGE TECHNOLOGIES AND SYSTEM FLEXIBILITIES

**WG2** addresses the technological and market developments related to *energy storage solutions* intended as one of the outstanding tools to ensure the required level of *flexibility for the transmission and distribution of electricity*.

#### Planned activity and White Papers between 2021 and 2022:

- Defining approach for circular economy in the energy storage field



European  
Commission



# ETIP SNET Working Groups scope and next activities



## WORKING GROUP 3

### FLEXIBLE GENERATION

**WG3** addresses the business and technology trends of generation considering the contribution of *flexibility from thermal power plants* (bulk and distributed), and of innovative technologies and *solutions in thermal-based generation systems* (e.g. micro-CHP, industrial co-generation), **heat distribution** (e.g. district heating), *storage and optimization of the RES generation technologies* to contribute to reach a secure, clean and reliable energy system to address the needs for flexibility in the framework of an integrated energy system.

Strong Collaboration with the ETIP RHC



ETIP-RHC/SNET Joint White Paper  
by 2022 Q1:

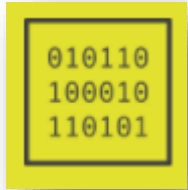
- Chapter on Energy Sources
- Chapter on Technologies
- Chapter on Challenges



European  
Commission



# ETIP SNET Working Groups scope and next activities



## WORKING GROUP 4

### DIGITALISATION OF THE ELECTRICITY SYSTEM AND CUSTOMER PARTICIPATION

**WG4** addresses the use and impact of the *Information and Communication technologies* as a pervasive tool *along the entire value chain of the power generation, transportation and use*.

**Developing and finalizing a BIG IDEA as One stop shop for users energy access**



#### WHAT NEXT:

- Digitalisation Action Plan Consultation Reply
- BIG IDEA Follow up
- FOCUS on Customers and citizens involvement via collaboration with other WGs



European  
Commission



# ETIP SNET Working Groups scope and next activities



## WORKING GROUP 5

### INNOVATION IMPLEMENTATION IN THE BUSINESS ENVIRONMENT

**WG5** Mobilise experts in **support of R&I work in EU to reach the market** and to this effect work closely with all WGs of ETIP SNET to utilise project results in support of R&I needs for the years to come. To this effect, **work for the establishment of a multifunctional platform** through which work with experts will be enhanced and reporting of project results much more targeted and fruitful.

#### 5 Working Teams

Research and Infrastructure	Regulation and standardisation	GAP analysis	Innovation support to the market uptake	Global & European Research and Innovation community
Extend the research infrastructure inventory and accessibility offered by the DERlab to <b>enhance accessibility and usability</b> .	<b>Active standards, codes and regulations</b> to be effectively referenced to support the work of R&I community in the field of Smart Grids and Systems	To <b>build a methodology for effective exploitation</b> of the results of smart grids and other related EU supported R&I research projects	To <b>support RD&amp;I projects for market uptake</b> by building a methodology to identify market needs, to link the results of EU & regional funded projects.	To <b>build a repository</b> with information and actions of EU with international actors to contribute to the energy transition building a <b>best practice library of useful use cases</b>

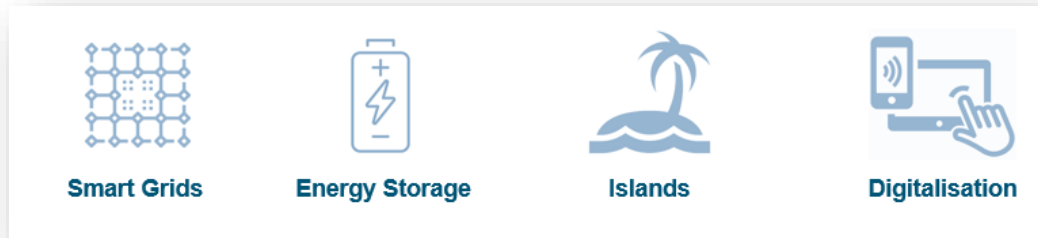


# BRIDGE INITIATIVE



- In strong collaboration with ETIP SNET, BRIDGE is a European Commission initiative aim at putting together EU Projects to create a **structured view of cross-cutting issues** which are encountered in the demonstration projects and may constitute an obstacle to innovation, fostering continuous knowledge sharing amongst projects.

## Projects Topics



## Current Structure







**Thank for your  
participation and...**

**ENJOY THE WORKSHOP!**



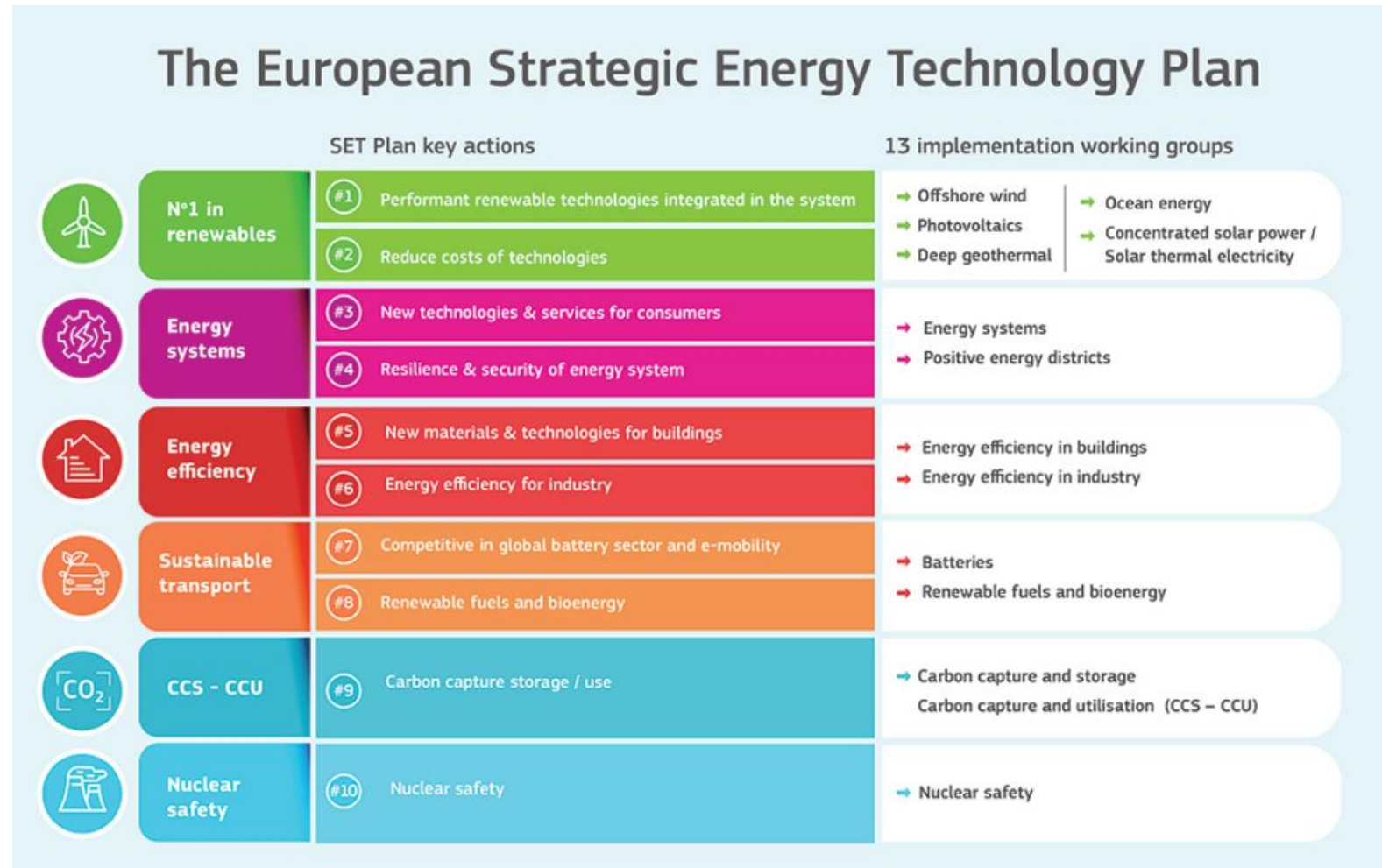


# ETIPs under the SET PLAN Umbrella



- The European Strategic Energy Technology Plan (SET Plan) is a key stepping-stone to **boost the transition towards a climate neutral energy system** through the development of low-carbon technologies in a fast and cost-competitive way.

The SET Plan consists of 10 Keys Action and related IWGs (implementation Working Group).





## The European Technology and Innovation Platforms (ETIPs) were created:

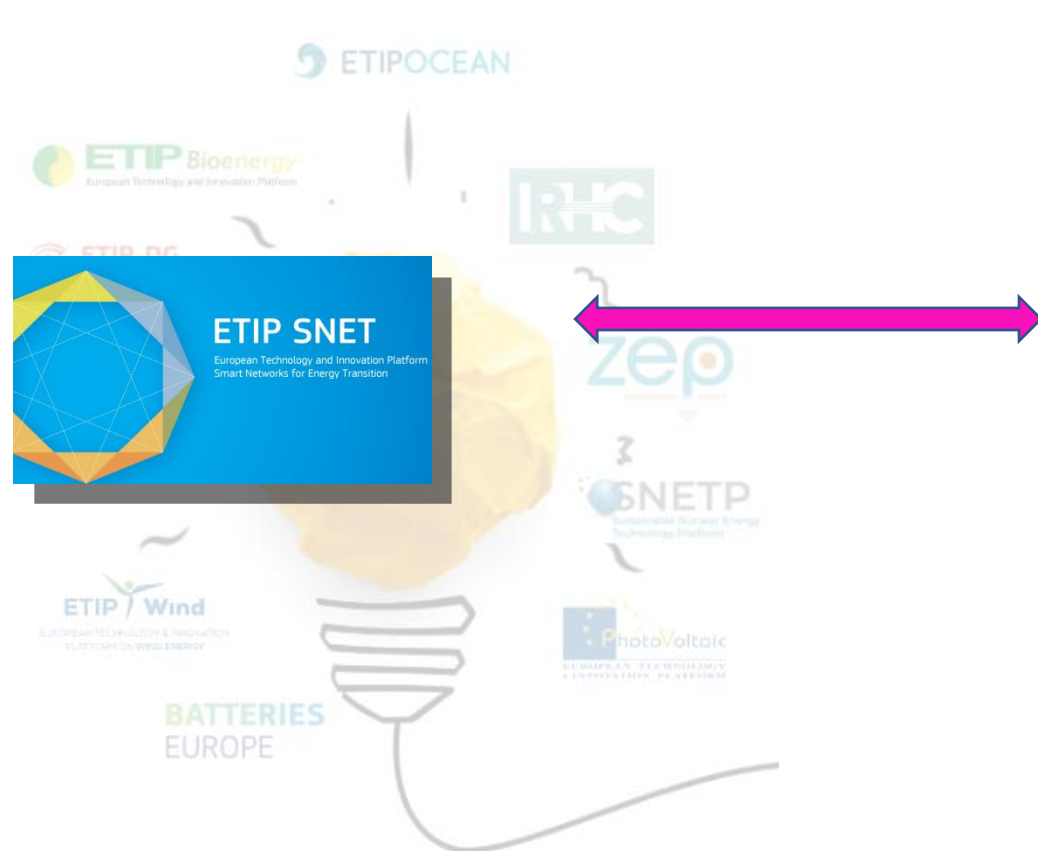
- to support the implementation of the SET Plan by bringing together EU countries, industry, and researchers in key areas.
- to promote the market uptake of key energy technologies by pooling funding, skills, and research facilities.



SET Plan key actions		13 implementation working groups	
#1	Performant renewable technologies integrated in the system	→ Offshore wind → Photovoltaics → Deep geothermal	→ Ocean energy → Concentrated solar power / Solar thermal electricity
#2	Reduce costs of technologies		
#3	New technologies & services for consumers	→ Energy systems	
#4	Resilience & security of energy system	→ Positive energy districts	
#5	New materials & technologies for buildings	→ Energy efficiency in buildings	
#6	Energy efficiency for industry	→ Energy efficiency in industry	
#7	Competitive in global battery sector and e-mobility	→ Batteries	
#8	Renewable fuels and bioenergy	→ Renewable fuels and bioenergy	
#9	Carbon capture storage / use	→ Carbon capture and storage Carbon capture and utilisation (CCS – CCU)	
#10	Nuclear safety	→ Nuclear safety	



In Specific, the ETIP Smart Networks for Energy Transition (SNET) contribute to the SET PLAN Action 4 and to the IWG4 on Energy system.



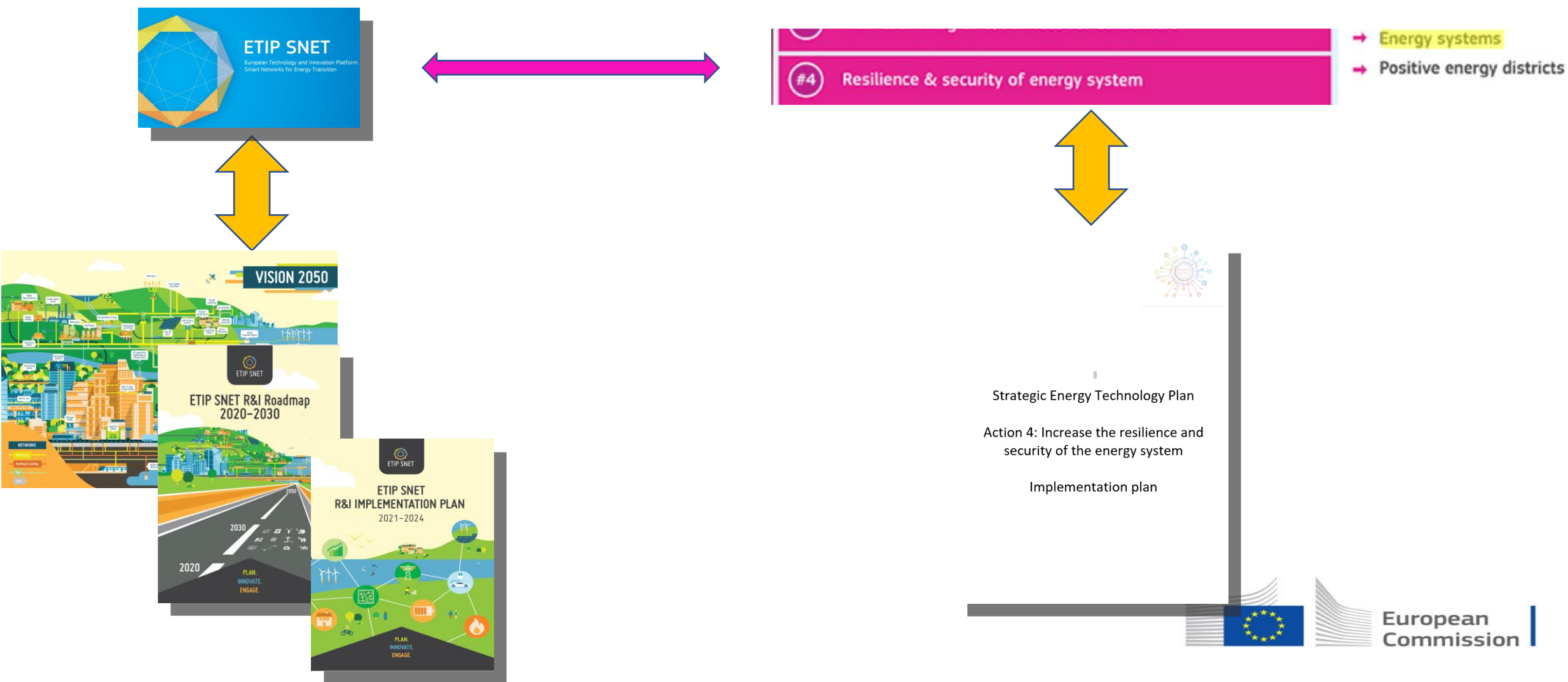
SET Plan key actions		13 implementation working groups	
#1	Performant renewable technologies integrated in the system	→ Offshore wind → Photovoltaics → Deep geothermal	→ Ocean energy → Concentrated solar power / Solar thermal electricity
#2	Reduce costs of technologies		
#3	Manufacturing & maintenance		
#4	Resilience & security of energy system		→ Energy systems → Positive energy districts
#5	New materials & technologies for buildings	→ Energy efficiency in buildings	
#6	Energy efficiency for industry	→ Energy efficiency in industry	
#7	Competitive in global battery sector and e-mobility	→ Batteries	
#8	Renewable fuels and bioenergy	→ Renewable fuels and bioenergy	
#9	Carbon capture storage / use	→ Carbon capture and storage Carbon capture and utilisation (CCS – CCU)	
#10	Nuclear safety	→ Nuclear safety	



European  
Commission



An important work is done to try to align the R&I priorities identified respectively in the IWG4 Implementation Plans and in the ETIP SNET Implementations Plans, Vision and Roadmaps



European  
Commission



- In strong collaboration with ETIP SNET, BRIDGE is a European Commission initiative aim at putting together EU Projects to create a **structured view of cross-cutting issues** which are encountered in the demonstration projects and may constitute an obstacle to innovation, fostering continuous knowledge sharing amongst projects.



### Projects Topics



Smart Grids



Energy Storage



Islands



Digitalisation

### Current Structure





# CLIC Innovation – open innovation cluster

