



ETIP SNET

EUROPEAN  
TECHNOLOGY AND  
INNOVATION  
PLATFORM

SMART  
NETWORKS FOR  
ENERGY  
TRANSITION

PLAN.  
INNOVATE.  
ENGAGE.

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## ETIP SNET (European Technology and Innovation Platform for Smart Networks for Energy Transition): for an innovative and successful European energy transition

Fourth ETIP SNET regional workshop, Madrid, 22,23 November 2018

Miguel SANCHEZ-FORNIE, ETIP SNET WG4 Co-Chair  
UNIVERSITY COMILLAS ICAI-IIT, MADRID



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# ETIP-SNET video

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[Video link](#)



- ▶ **Presentation of the ETIP SNET**
- ▶ **Presentation of the ETIP SNET Vision 2050**
- ▶ **Purpose of the workshop**
- ▶ **Presentation of the Agenda of the workshop**



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# From a fragmented EU advisory to an integrated framework



A new focus on  
innovation /  
implementation and  
on sector coupling

2016



Main objective is to address the innovation challenges in **energy system** and **market evolution** necessary for achieving climate protection and **renewables integration** with affordability and security of supply ... beyond smart electricity grids (whole energy system)



# ETIP SNET's Missions

- ▶ **Set-out a vision for RD&I for Smart Networks for Energy Transition** and engage stakeholders in this vision.
- ▶ **Prepare and update the Strategic Research and Innovation Roadmap.**
- ▶ Report on the **implementation of RD&I activities at European, national/regional and industrial levels.**
- ▶ Provide **input to the SET Plan action 4** which addresses the technical challenges raised by the transformation of the energy system.
- ▶ **Identify innovation barriers**, notably related to regulation and financing.
- ▶ Develop enhanced knowledge-sharing mechanisms that **help bring RD&I results to deployment.**
- ▶ Prepare **consolidated stakeholder views** on Research and Innovation to European Energy Policy initiatives.



# ETIP SNET's Stakeholders



Transmission System  
Operators (TSOs)



Distribution System  
Operators (DSOs)



National  
Representatives



Research  
& Academia



Storage  
(technology and services  
providers)



Consumers  
(aggregated and  
not aggregated)



Thermal Generation  
(flexible)



Renewable Energy  
Sources Generation



ICT, Network and Software  
providers



Equipment  
manufacturers  
and suppliers (non-ICT)



Interface to Other  
Energy Carriers  
(Heat, Transport, Gas, ...)

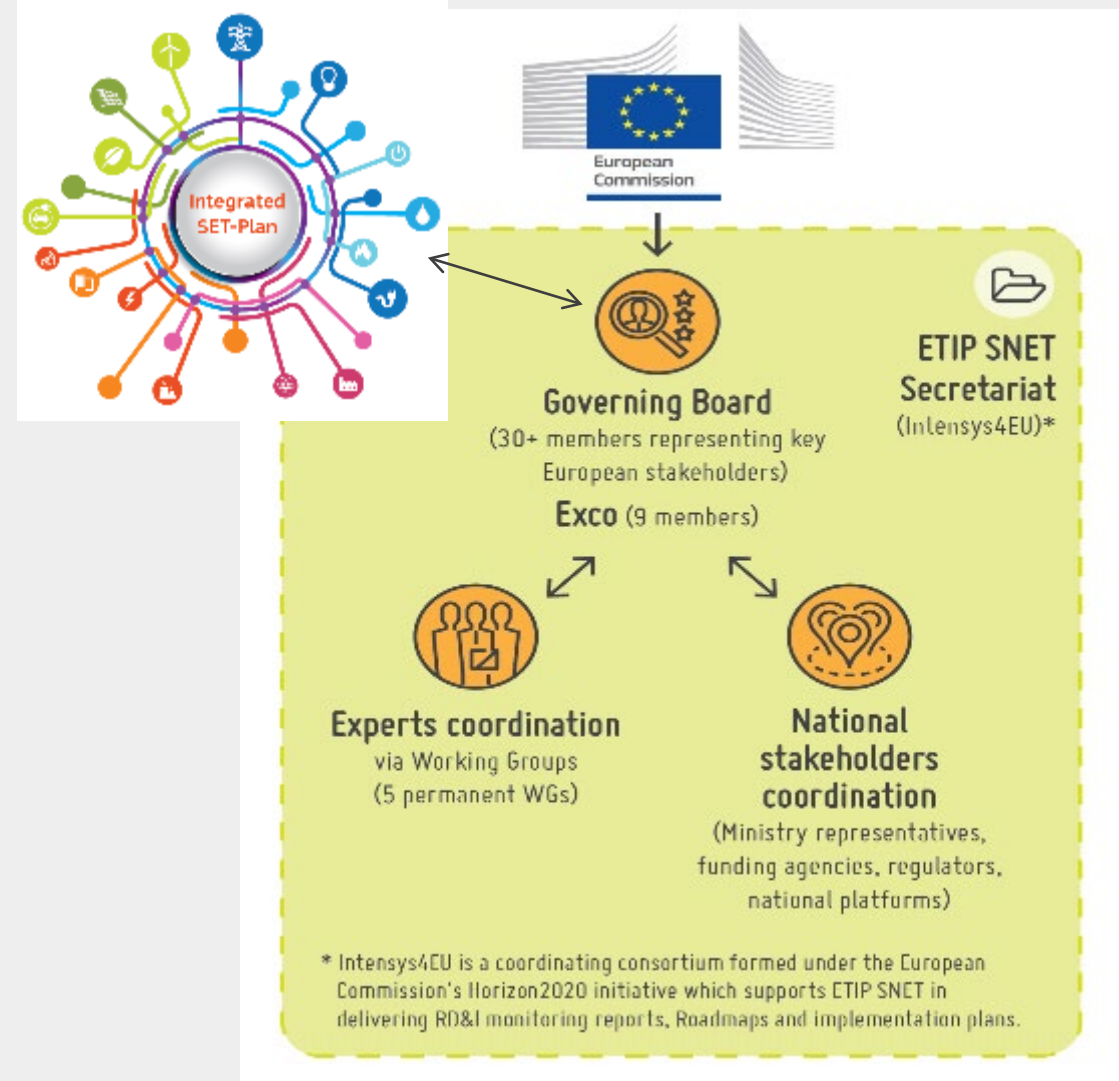


Regulators



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# ETIP SNET's Organisation



**WG1**  
Reliable, economic and efficient smart grid system



**WG2**  
Storage technologies and sector interfaces



**WG3**  
Flexible Generation



**WG4**  
Digitisation of the electricity system and customer participation



**WG5**  
Innovation implementation in the business environment

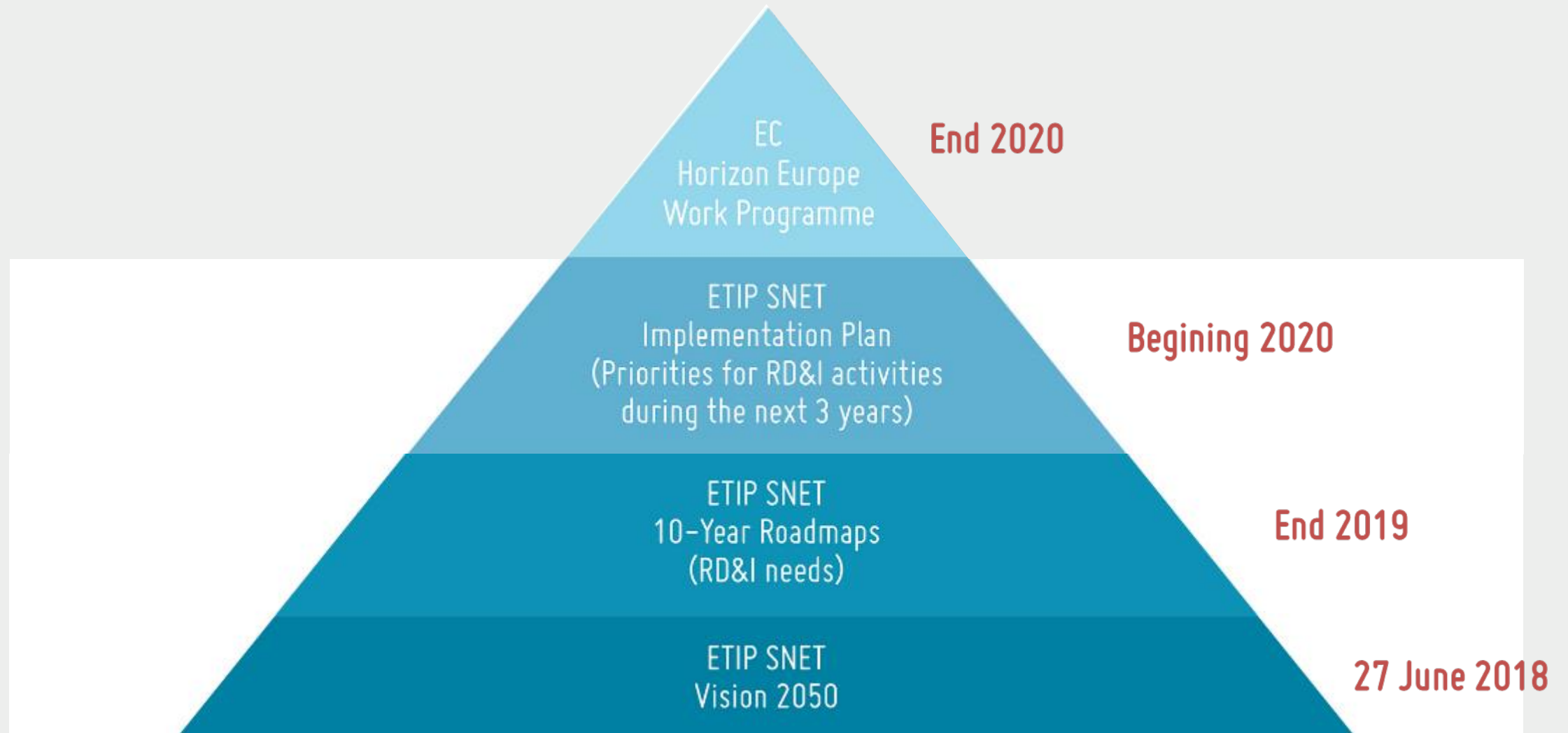


**NSCG**  
National Stakeholders Coordination Group





# ETIP SNET Process





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# 2050 Vision Goal

A low-carbon, secure, reliable, resilient, accessible, cost-efficient, and market-based **pan-European integrated energy system**

supplying the whole economy and paving the way for a **fully CO<sub>2</sub>-neutral and circular economy by the year 2050,**

while **maintaining and extending global European industrial leadership** in energy systems during the energy transition.

# VISION 2050

A SYSTEM OF SYSTEMS



## NETWORKS

Electricity

Heating & Cooling

Gas

Data



# The ETIP SNET Vision 2050

## Goal 2050



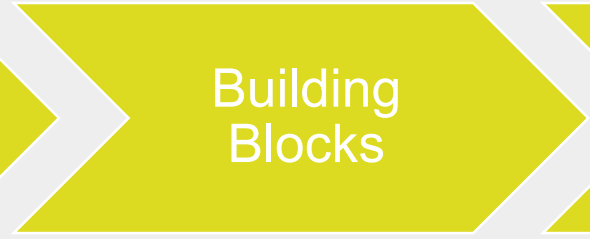
- Three pillars: environment, markets, security of supply
- The Vision statement

## The transition



- Today ... Tomorrow
- Challenges and opportunities
- Storage and conversion transition

## RD&I Needs

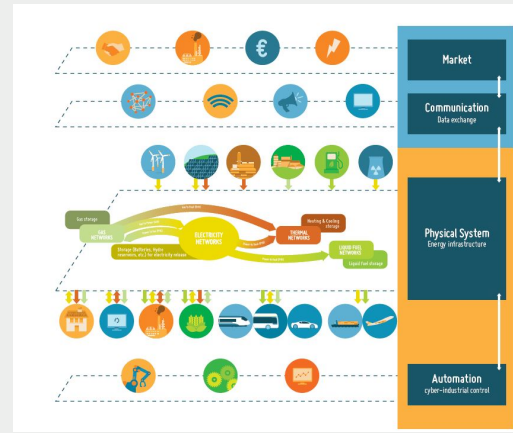
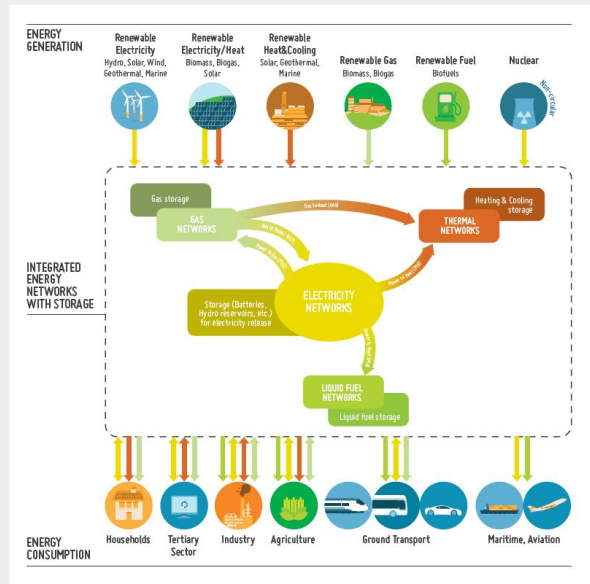
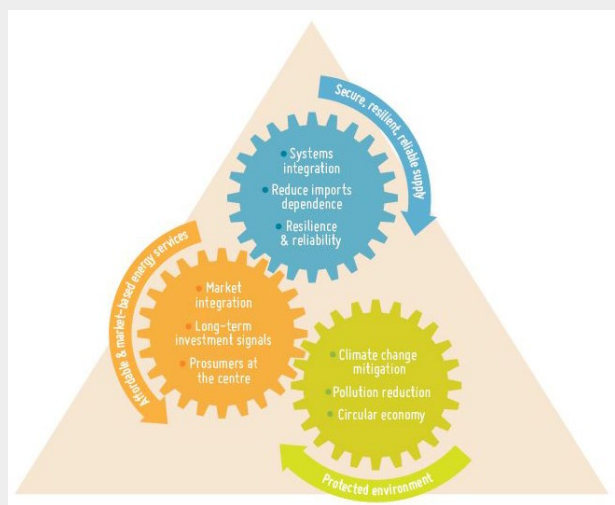


- Efficient organization
- Enabling energy markets
- Digitalization
- Infrastructure for integration

## RD&I Environment



- European Industry
- Managing Economic Disruption
- Strategic Approach to RD&I





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# Outline

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# The regional workshops

Identity R&I topics needed for the future, lessons learned and deployment perspectives (focus on findings of significant EU added value and addressing energy system integration issues) to support the updating process of the ETIP SNET roadmap

- ▶ **South eastern region:** Croatia 19-20 September (Zagreb university)
- ▶ Northern region: Finland 3-4 October (VTT)
- ▶ **Central region:** Belgium 11-12 October (Flux 50, service publique de Wallonie, cluster tweed)
- ▶ **Western region:** Spain 22-23 November (IMDEA energy, FUTURED)

<http://www.etip-snet.eu/regional-workshops/>



# Contribution expected from the workshop participants

- ▶ To foster networking and exchange of positive and negative experiences between projects at EU and national/regional levels.
- ▶ To help the ETIP SNET detect national projects with strong EU added value and feed the **monitoring process** to appraise the **coverage** of the existing knowledge.
- ▶ To help the ETIP SNET identify the **need for further specific R&I activities** to be specified in the updated roadmap and next IPs.
- ▶ To help the ETIP SNET identify **barriers to innovation deployment**.
- ▶ To inform the ETIP SNET about good practices gained in pilots and demonstration activities (**monitoring process**).
- ▶ To inform the ETIP SNET about the **implementation plans for the innovations** so as to support knowledge transfer to all stakeholders.





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**Thank you for your  
attention**

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