

ETIP SNET

European Technology and Innovation Platform Smart Networks for Energy Transition

Annual Activity Report 2024

Table of Contents

ETIP SNET highlights	
Main achievements of 2024	5
Communication and Dissemination in 2024	
Meetings and events throughout 2024	14
Renewal of the ETIP SNET chairmanship	
Revamping of the ETIP SNET membership	21



ETIP SNET highlights

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ETIP SNET highlights

Established with the vision of revolutionizing Europe's energy systems, the European Technology and Innovation Platform on Smart Networks for Energy Transition (ETIP SNET) was created to **foster collaboration between key stakeholders to guide research, innovation and development in smart energy networks**, ensuring that they **are efficient**, **resilient and capable of meeting modern demands, as requested within the SET Plan priorities**. The ETIP SNET pursues its mission through six different Working Groups representing the main areas of interest.

HIGHLIGHTS OF ETIP SNET IN 2024

- ★ #2 ETIP SNET publications
- ★ #4 Publications within working groups
- ★ #13 active partnerships with external initiatives
- ★ Organisation of #55 Working Group monthly meetings
- * Organisation of recurrent Executive Committee and Governing Board meetings
- ★ Organisation of #2 regional workshops and #1 webinar
- * Active participation in external events
- ★ Renewal of ETIP SNET chairmanship and revamping of the ETIP SNET Governing Board and Working Groups membership.

Main Achievements of 2024

ETIP SNET

ETIP SNET publications in 2024

ETIP SNET published **2 documents**: the brochure to help disseminating the vision and mission of the Community, as well as a technical report outlining barriers and possible strategies to bridge the gap between innovation and the market.



Bridging the gap from innovation to market

This technical report addresses barriers to the commercialisation of innovative energy solutions in the EU by improving funding access, simplifying regulations, fostering stakeholder collaboration, and accelerating market adoption.

Ongoing work for the update of the ETIP SNET R&I Roadmap

The Secretariat, in liaison with the ETIP SNET community, has started the preparatory work for the updating of the ETIP SNET R&I Roadmap, including a review of the structure and contents of the previous Roadmap, followed by an in-depth examination of the current High-Level Use Cases.



ETIP SNET

ETIP SNET WG Publications in 2024

In 2024, the ETIP SNET Working Groups, published the following documents:

Energy communities' impact on gridsThis report, published by WG1 in May 2024, gives a

This report, published by WG1 in **May 2024**, gives a brief overview of Energy Communities developments, followed by an analysis of the impact of large-scale implementation of energy communities on the power grids.

Coordinated Energy Infrastructure (CEI) Planning for a decarbonised system

This report, published by WG1 in **September 2024** with the cooperation of WG3, explores the need for Coordinated Energy Infrastructure Planning, to propose a strategic vision for integrating electricity, gas, and hydrogen sectors, improving R&D pathways, enhancing modelling tools, and ensuring regulatory alignment to accelerate the transition to a decarbonised energy system by 2050.



WG3

Ramp-up and role of hydrogen-based power generation

This paper, published by WG3 in **May 2024**, provides guidelines and recommendations about provision of hydrogen for electric power generation to ensure a stable electricity supply in systems dominated by variable renewable energy sources.

Energy Data Space policy paper

This policy paper, published by WG4 in **January 2024**, provides a technical overview of energy data spaces, and outlines opportunities, challenges, and necessary actions for the rapid deployment of a common European energy data space, focusing on practical implementation steps.

WG4



ETIP SNET WG's results achieved

New task force on AI and GenAI has been launched in 2024 to assess the potential of AI and GenAI in smart grids within the context of Europe's energy transition



Reliable, economic and efficient energy system

- Production and dissemination of 3 papers:
- Hydrogen's impact on grids (ETIP SNET
- Webinar, P2X Workshop) only dissemination
- Energy Communities' impact on grids
- (ENLIT, CIGRE, EPRI, EU News)
- Coordinated Energy Infrastructure Planning
- (ENLIT Summit Session)
- Partnerships ongoing with 2ZERO, CIGRE,
- CIRED, ISGAN, BRIDGE, SET Plan, Club of Rome
- Ongoing contributions to all focus areas and to 3 out of 5 SET Plan TEs

Storage technologies and system flexibility

- Contribution to the paper <u>Grid integration of</u> <u>sustainable transport</u>
- Definition of objectives and ToC of the paper
 <u>District storage</u>
- Restructuring and enhancement of the WG supporting the paper

2

5

Focus paper <u>Ramp-up of H2 based power</u>

Flexible generation

- generation
 1st draft of focus paper <u>Ramp up of renew</u> generation, focus on demand side mnamt
- Face to face meeting in Sofia (19/11 and 20/11)

3



With specific reference to the **NSCG**, the Chair outlined his intention to dissolve the group in January 2024, explaining that the essential role of representing Member States within ETIP SNET would be continued through IWG4

The activities carried out within IWG4 align perfectly with the goals and structure of ETIP SNET, although they primarily reflect the perspectives of the Member States

This proposal was discussed with both the Governing Board and DG ENER / CINEA in March 2024. Following these discussions, the responsibilities previously managed by the NSCG have now been transferred to IWG4, effectively leading to the dissolution of the NSCG.

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Digitalisation of the electricity system

- Launched a new initiative on *Upskilling demands for the Grids to support the Energy Transition* with the aim of analysing the skill gap with a focus on the industry perspective
- Launched a new initiative of *System Supervision and control* analyse the security aspects related to the impact of digitalization on the Energy System



Innovation implementation

- Research infrastructure repository analysis
- Standard and Grid codes related to technologies
- Creation of channels to develop synergies with
 BRIDGE
- Analyse existing go-to-market processes
- Analyse energy communities as catalysts of the transition
- Creation and organisation of the *Innovation Implementation to the Grid* focus area

ETIP SNET Annual Activity Report 2024



ETIP SNET achievements with external partnerships

1

6

Large Scale Partnership on Digital skills

Creation of a dedicated task force to contribute with technical contents

CEPT

 Co-creation of TRI 1 (Integrated Net-Zero-emissions Energy system) Call Module 2024 on energy data spaces and interoperability

RES Partnership

Contribution by ETIP SNET on the "Skills in the renewable energy sector
 (vision from the European technology and innovation platforms)" report

SET PLAN

 Selected ETIP SNET representatives are taking part in the new SET PLAN Cross-cutting Task Forces

BRIDGE

- Establishment of a connection with the Data Management Working Group on the topic of AI
- + Organisation of shared panel sessions at ENLIT 2024

2Zero Partnership

- Joint work with WG1 and WG2 for the paper "Grid Integration of sustainable transport"
- Participation in the Partnerships Board meetings

CIGRE

 Participation in CIGRE 2024 conference with dedicated stand and organisation of side-event on the paper "Energy communities' impact on the grids"

ETIP PV

8

10

12

• Participation in the ETIP PV Conference 2024 "Digitalised and Responsive PV: The Driver of Grid and Market Evolution" with a dedicated panel session on ETIP SNET

IWG4 – IWG6

 Initiated cooperation amongst ETIP SNET, IWG4 Energy systems and IWG6 Industry

CIRED

Participation in the CIRED 2024 conference with dedicated panel session

ETIP Forum

Active participation in coordination meetings

Club of Rome

Organisation of the Workshop on "Challenges of Energy Transition"





Communication and Dissemination in 2024

ETIP SNET

ETIP SNET video and promotional materials



Integrating renewable energy capacity while ensuring grid flexibility - ETIP SNET (Oct. 2024)

Fine della playlist ETIP Smart Networks for Energy Tra... - 13/13

Regional workshop in Milan, in November 2024 29.453 visualisations – the Commission has invested in promoting it!



ETIP SNET Learn more from these publications: **ETIP SNET** uropean Technology and Innovation Platform Smart Networks for Energy Transition Energy communities' impact on grids Coordinated Energy Infrastructure (CEI) Planning for a decarbonised system Ramp-up and role of hydrogeneconomic and efficient based power generation importance o Energy data space policy paper ions to these challenges thr licy frameworks, legislation, and targe research and development 国際調画 Scan the QR code and read our latest European Commission publication

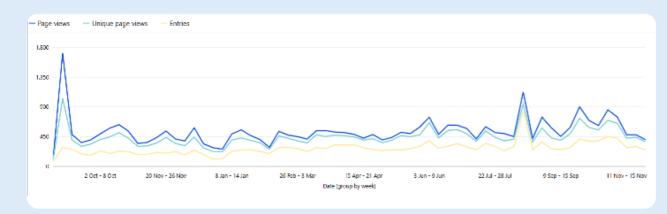
ETIP SNET publication leaflet

European Commission 11

#ETIPSNET online

In 2024 **ETIP SNET** has experienced continued growth on social media, and strong thematic association with #EnergyTransition topics and #BridgeEU.

This also reflects on the growing number of visitors on the website: between October 2023 and November 2024, the number of views increased by 82% compared to the previous year.



ETIP SNET website views, with peak 2024 reached in August in occasion of the CIGRE event



European

12

ETIP SNET 2024 editorial production







Meetings and events throughout 2024

ETIP SNET

ETIP SNET meetings in 2024

#4 ETIP SNET Governing Board meetings



26rd ETIP SNET Governing Board Meeting

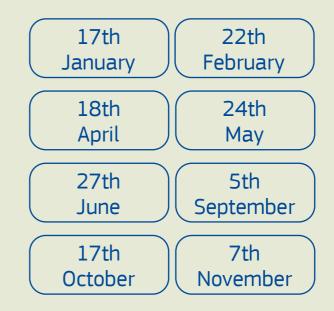
From left to right: B.Profeta (PwC), A. Wiedermann (MAN Energy Solutions SE), T.P. DO (CEA), E. Gaspari (PwC), C. Mihai (AIT), L.Martini (RSE), S. Gallego (i-De), Nuno Souza e Silva (nester), N. Samovich (Enercotium), O. Bernstrauch (Siemens Energy), N. Constantinescu (ENTSO-E), , G. Paunescu (CINEA), L. Cunha (E-REDES), Antonio Illiceto (ENTSO-E), O.Černý (E.DSO), L. Beaumel (EGVIA), S. Laporta (ENTSO-E), F. D'Aversa (PwC)

26rd ETIP SNET Governing Board Meeting 27th ETIP SNET Governing Board Meeting 28th ETIP SNET Governing Board Meeting 29th ETIP SNET Governing Board Meeting

- 12th March 2024 (Physical in Brussels)
- 14th June 2024 (Online)
- 04th October 2024 (Online)
- 26th November 2024 (Physical in Brussels)

#8 ETIP SNET ExCO meetings held online

Throughout 2024, the Executive Committee meetings were mainly conducted online, on a monthly basis, with the exemption of the summer in which the meetings did not take place:





ETIP SNET Regional Workshops and Webinars

#2 ETIP SNET Regional Workshops



ETIP SNET 18th Regional Workshop: National actions for decarbonisation of the energy sector to deliver the EU Green Deal

16th May 2024 from 10:00 - 13:00 (CET) Location: Online (Teams)

- <u>Slide deck presented</u>
- Workshop proceedings



ETIP SNET 19th Regional Workshop: Integrating Renewable Energy Capacity While Ensuring Grid Flexibility.

21st of October 024 from 14:30 – 18:00 (CET) Location: PwC's premises (Piazza Tre Torri 2, Milan)

- <u>Agenda of the workshop</u>
- Slide deck presented

#1 Webinar

ETIP SNET WG1 and WG4 Webinar: Smart networks, brighter future - key takeaways from ETIP SNET latest research

23rd of April 2024 from 10:00 - 12:00 (CET) Location: Online (Webex)

• Agenda and minutes of the webinar



ETIP SNET active involvement in various external events



ETIP SNET at the SET Conference (13 –15 November 2024)

The SET Conference, facilitates discussions on the SET plan since 2008, aiming to accelerate low-carbon technology development through collaboration among MSs, industry, research, and stakeholders. ETIP SNET Chair joined the **"Energy Systems, Including Grids and Digitalisation**" session. The Secretariat, alongside other ETIPs and the IWGs, took part in a **dedicated Workshop**. The initiative was also represented with a **stand** in the Fair section of the event.

ETIP SNET at ENLIT (Milan, 22-24 October 2024)

Enlit is a major EU event focused on catalyzing industry connections and shaping the future of a decarbonized and digitalized energy system. Several ETIP SNET members took on roles as moderators and speakers the sessions. ETIP SNET organized **two EU Project Zone sessions** on the topic of **sustainable transport integration** and **energy communities**. The initiative also held a session in the Summit, titled **"Coordinated energy infrastructure planning"**. ETIP SNET was represented in a **joint booth**, together with BRIDGE.



Other external events 2024:

- ETIP PV Conference (May 2024): ETIP SNET is co-organiser, members took active role in the conference for instance they organised a session "Enhancing PV industry efficiency through focused digitised control and data sharing architectures and models".
- **EUSEW (June 2024)**: ETIP SNET was represented at the "Collaborative energy transition for Europe's future" stand, in the Energy Fair.
- **CIGRE (August 2024, Paris)**: ETIP SNET held a booth in the CIGRE Fair and organized a sidesession to present the paper titled "Energy Communities' Impact on Grids".
- More events, i.e., EM-POWER, SyNERGY MED 2024, Club of Rome, also saw the participation of ETIP SNET members and promotion support from Seceretariat.





Renewal of the ETIP SNET chairmanship

ETIP SNET

Renewal of the ETIP SNET chairmanship (1/2)

Role	Profile	Status	
ETIP SNET chairmanship	L. Cunha (ETIP SNET Chair from DSO association)	Entered in force in March 2024 (second mandate) – Should be renewed in September 2025 Request to prolong the mandate until the publication of the R&I Roadmap approved by DG ENER (December 2025)	
	Antonio Iliceto (ETIP SNET Vice-Chair from TSO association)	Entered in force in June 2024 (first mandate) – Should be renewed in December 2025	
	Emin Selahattin Umdu (ETIP SNET Vice-Chair Storage ass.)	Entered in force in September 2024 (first mandate) – Should be renewed in January 2026	
	2 vacant positions (ETIP SNET rotating vice-chairs)	On hold	
WG1 chairmanship	S. Gallego (WG chair)	End of second term as chair in January 2025 after 2 terms as co-chair. Santiago Gallego will apply for the position of Honorary co-chair	
	A. Ilo (WG co-chair)	Position renewed for the second term as co-chair (2025)	
	N. de Souza e Silva (WG co-chair)	End of second term in 2025 - Nuno will apply for the position of WG chair	
	N. Samovich (honorary co-chair)	Position renewed for 2025	
	A. Iliceto (honorary co-chair)	Position renewed for 2025	
WG2 chairmanship	P. Rodriguez (WG chair)	Entered in force in July 2024 (first mandate as chair, after 2 terms as co-chair) – Position should be renewed in July 2025	
	F. Di Persio (WG co-chair)	Entered in force in Feb 2023 (second mandate as co-chair) – position to be renewed with the possibility to become chair in July 2025	
	B. Murray (WG co-chair)	Entered in force in July 2024 (first mandate as co-chair)	

Renewal of the ETIP SNET chairmanship (2/2)

Role	Profile	Status	
WG3 chairmanship	P. Jansohn (WG chair)	Position renewed for the second term (2025)	
	T. P. DO (WG co-chair)	End of second term in 2025 – Renewal process to be implemented in 2025	
	O. Bernstrauch (WG co-chair)	Position renewed for the second term (2025)	
	A. Wiedermann (honorary co-chair)	Position renewed for 2025	
WG4 chairmanship	N. Hatziargyriou (WG chair)	Position renewed for the second term (2025)	
	L. Grana (WG co-chair)	Resigned from the role - Renewal process to be implemented in 2025	
	L. Schmitt (WG co-chair)	Entered in force in January 2023 (second mandate) – position to be renewed	
	E. Boskov Kovac (honorary co-chair)	Position renewed for 2025	
	M. Sanchez (honorary co-chair)	Position renewed for 2025	
WG5 chairmanship	S. Olivero (WG chair)	Entered into force in January 2023 (second mandate) – position to be renewed	
	R. Stanev (WG co-chair)	Entered in force in January 2023 (second mandate) – position to be renewed in 2025	
	T. Papazoglou (WG co-chair)	Entered into force in March 2024 (first mandate) – position to be renewed in 2025	
	V. Efthymiou (WG honorary co-chair)	Position renewed for 2025	





Revamping of the ETIP SNET membership

ETIP SNET

Revamping of the ETIP SNET Governing Board membership

A revamping process for GB members was implemented during 2024, including the identification of new organisations to recruit members from.

The table on the side presents the results:

Stakeholders group	Target	Current members	of which newcomers
TSO	4	3	2
DSO	4	5	2
Members States	3	-	-
Research & Academia	4	4	2
Storage	3	3	2
Final Consumers	2	2	1
Market Operators	2	1	1
Thermal Generation	5	4	0
ICT technology & network providers	3	1	0
Non ICT equipment suppliers	4	4	2
Renewable Energy Sources	6	7	3
Interface to other energy carriers	4	4	3
Regulators	Ad hoc		
Total	44	38	+18 new members



Revamping of ETIP SNET Working Group membership

In 2024, new members joined ETIP SNET, enhancing the efforts of the community. At the same time, from February to July, a comprehensive mapping process of ETIP SNET members was initiated to assess the **level of engagement in the community**.

- ★ ETIP SNET revamped its WG membership through scouting and targeted outreach to key organisations, with more than 120 organizations contacted.
- ★ +30 new experts have joined the initiative
- **★** Future actions to revamp the membership will consist in:
 - Follow up with stakeholders from the organizations contacted which did not reply a reminder will be sent as
 - a follow-up
 - We will leverage with TSO and DSO associations to identify new organizations or specific experts within them and encourage their participation in working groups to contribute their expertise.





ETIP SNET

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Learn more on our <u>website</u>