



ETIP SNET

EUROPEAN
TECHNOLOGY AND
INNOVATION
PLATFORM

SMART
NETWORKS FOR
ENERGY
TRANSITION

**PLAN.
INNOVATE.
ENGAGE.**

Working Group 1 Update

Central - North Regional Workshop

Petten Sept 19th 2019

ANTONIO ILICETO WG1 CHAIR



Reliable, economic and efficient smart grid system

- **WG1 focuses on the business and technology trends contributing to the overall energy system optimization at affordable costs**
- **It deals with system aspects, addressing the main functionalities, quality and efficiency of the electricity system as such and consider the benefits of its integration with the other energy vectors**

Current activities

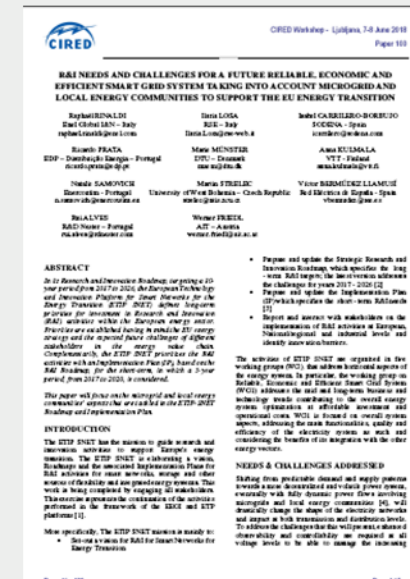
- Contributions to the **Monitoring Report** (published)
- Active contributions to all sections of **Roadmap 2020-2030**, in particular to the structure and storyline, to ensure proper representation also of system operators
- Contributions to **Implementation Plan**, to follow strictly the Roadmap, in terms of detailed contents: topic list, priorities, proposed projects

- **CIREN paper** June 2019, Madrid

- ❑ Vision 2050 and implications for system & grids

- **CIGRE collaboration**

- ❑ At general sessions in Paris (2018, 2020, etc.)
 - ❑ A high visibility standpoint for ETIP SNET
 - ❑ Exchanges and networking with experts also outside Europe

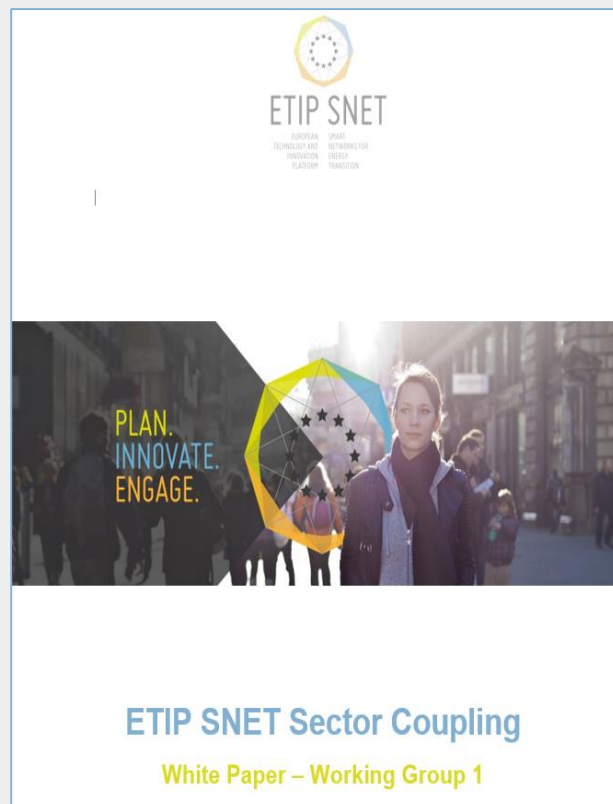


- **Holistic architectures for future power system → published March 2019**
- **Sector Coupling → expected by end 2019**
- **TSO-DSO coordination in grid planning → expected early 2020**
- **Measurement infrastructure for optimal operation → stand-by**



White Paper on Sector Coupling

- Work in progress after initial stand-by
- Very “hot” topic, and different perspectives/interests involved
- External collaboration can be triggered based on White Paper



INDEX

1. INTRO - WHY SECTOR COUPLING?	2
1.1 HEADLINE2	2
2. STORAGE OVERVIEW	2
2.1 THERMAL	2
2.2 ELECTRICAL	2
2.3 GAS/FUEL	2
2.3.1 HEADLINE 3	2
3. POWER TO HEATING AND COOLING (PTH/C)	2
3.1 INTRODUCTION	2
3.2 PTH IN INDIVIDUAL RESIDENTIAL BUILDINGS	2
3.3 PTH IN INDUSTRY	2
3.4 PTH FOR DISTRICT HEATING	2
3.5 PTC	2
4. POWER TO ELECTRIC VEHICLES	2
4.1 INTRODUCTION	2
5. POWER TO GAS/FUELS	2
5.1 INTRODUCTION	ERRORE. IL SEGNALIBRO NON È DEFINITO.
6. CONCLUSIONS AND RECOMMENDATIONS	2
6.1 INTRODUCTION	2
6.1.1 HEADLINE 3	2
6.2 HEADLINE2	2

Collaboration with JRC

- **JRC, Directorate C – Energy, Transport and Climate**
- **After high level contacts, WG are encouraged to develop mutually beneficial collaborations**
- **WG1 has identified topic on multi energy system integration, starting with sector coupling**
- **Future topics can span to large interconnections with neighbouring areas (global grids)**

- 2Zero initiative by ERTRAC on no-emission mobility
 - feedback on foundation documents provided
 - Liasing with EGVA / ERTRAC to describe the targets for the new partnership

- Possible collaboration with Eon initiative on Citizen Energy Communities

- CEF and TEN-E revision process
 - Contribution to develop a position on TEN-E Regulation
 - CEF as funding instrument also of Demo Projects, not only for realization full scale
 - Facilitation of H2020 Projects implementation by CEF : why is not possible today?

- Other PPP (private-public partnerships) will be proposed by Etip Snet, WG1 ready to contribute



Key topics suggested for round table discussion

- **From Horizon2020 to Horizon Europe: expectations and concerns from R&D actors perspective**
- **National vs international R&D projects: are we succeeding in rationale and synergic allocation of efforts?**
- **Incentives for innovation: what is missing for mobilising more resources (especially for regulated actors)?**
- **Sector Coupling:**
 - § **who should take the responsibility of an integrated perspective?**
 - § **what kind of regulation has to be developed to facilitate this integration?**
 - § **what incentive/ motivation can be put in place to trigger pilot projects?**



PLAN.
INNOVATE.
ENGAGE.

Thank you

