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Smart grids in the new programming period: the role of transnational R&I networks to strengthen smart energy

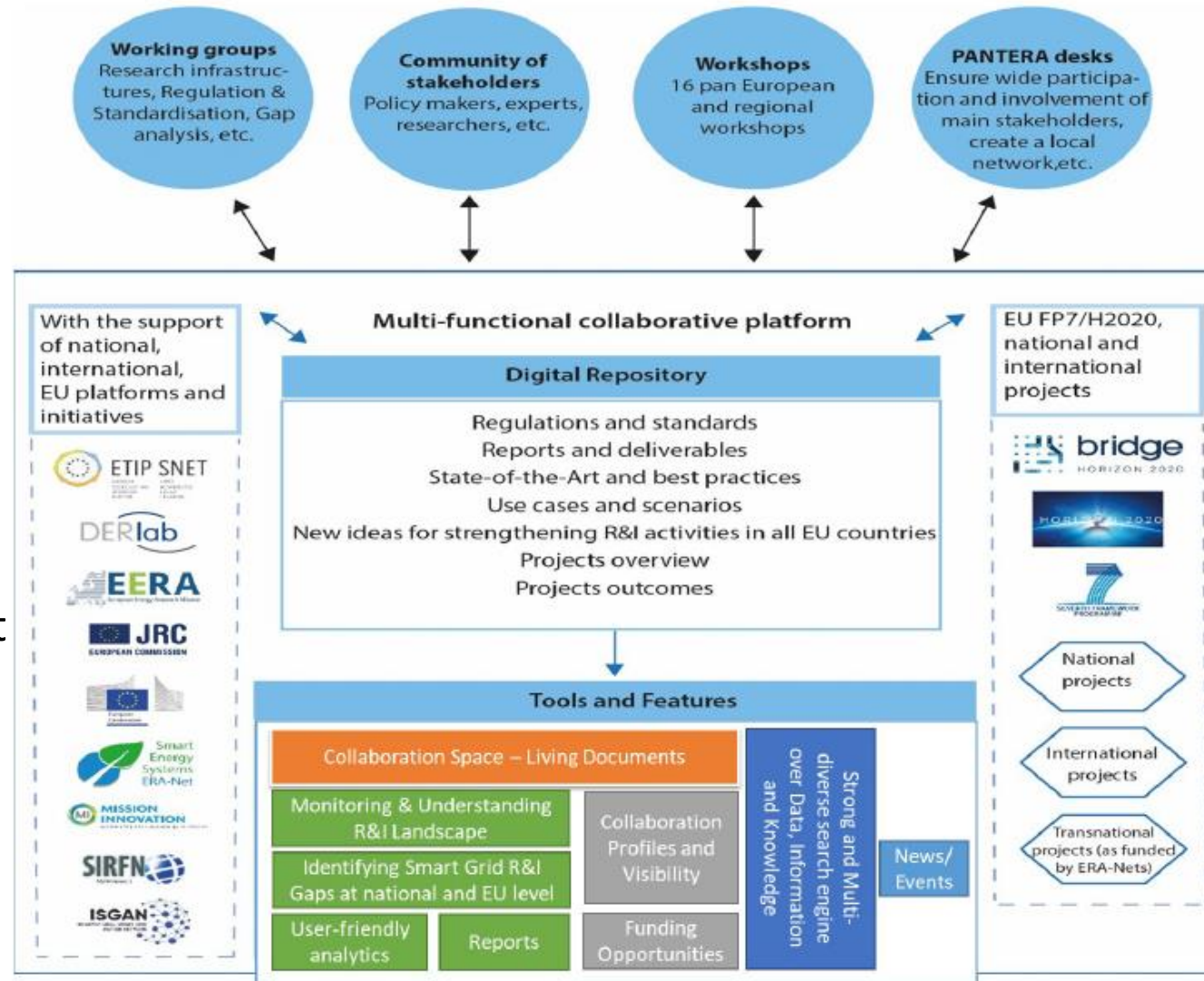
Identification and involvement of actors to design efficient policies in Smart Grids

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PANTERA Platform Conceptual Representation



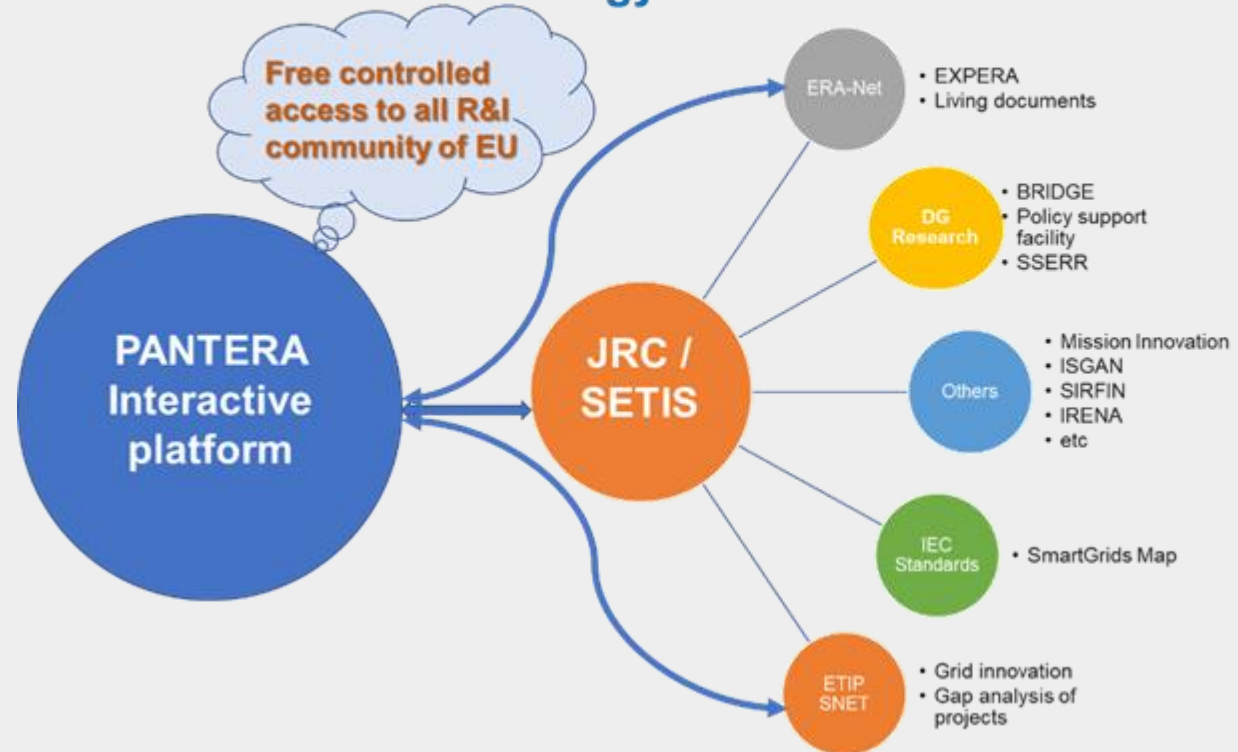
- How to attract the interest of the stakeholders;
- How to ensure local actors engagement thus allowing for a common understanding of policies objectives and empowering them to take an active role in the process of smarting of the system.
- How to use the S3 expertise to foster and maintain the bottom-up component inherent to the development of smart grid initiatives; How to carry out effective consultations throughout the whole process.



Interactive multi-functional platform in collaboration with PANTERA

To connect the R&I community of EU to enhance collaboration, wider interest and use on the project results, avoid duplication and lost euros, strengthen the participation of all Member States in support of the fifth pillar of the Energy Union (RIC) and energy transition. All contributing entities will benefit through the enhanced connectivity and services to all beneficiaries and prospective users

Collaborative platform of ETIP SNET WG5 + PANTERA: In support of R&I for the energy transition



Interactive multi-functional platform in collaboration with PANTERA

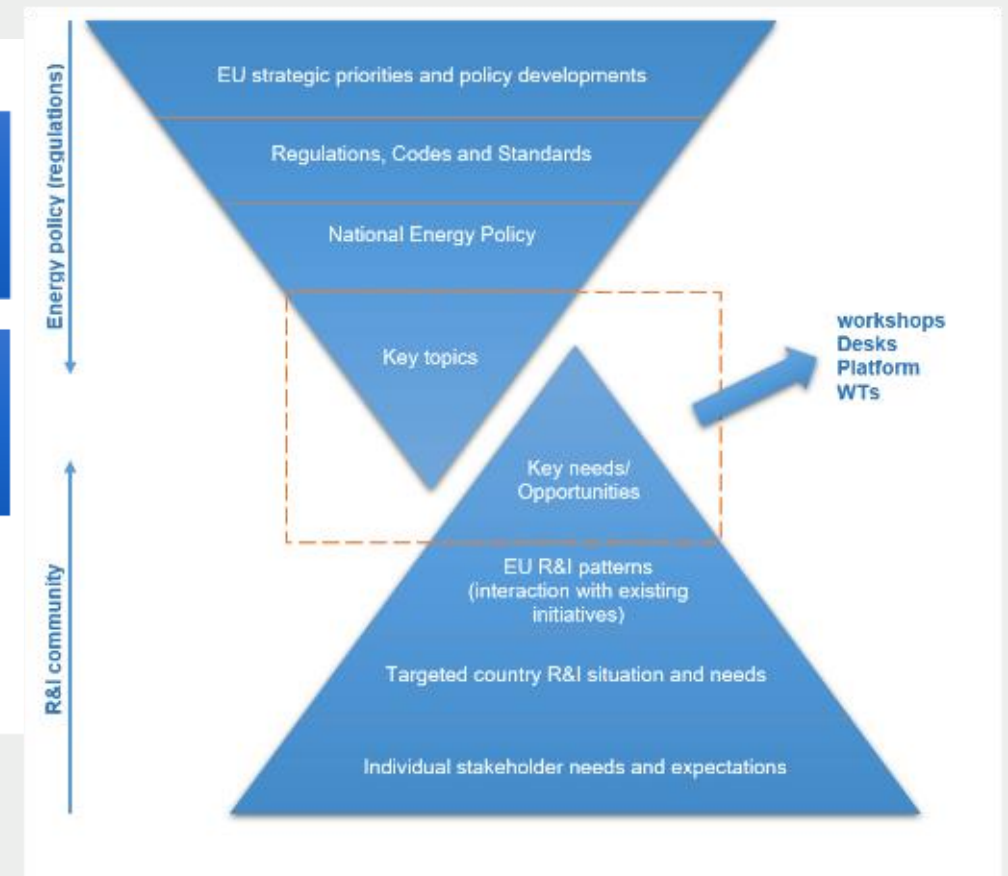
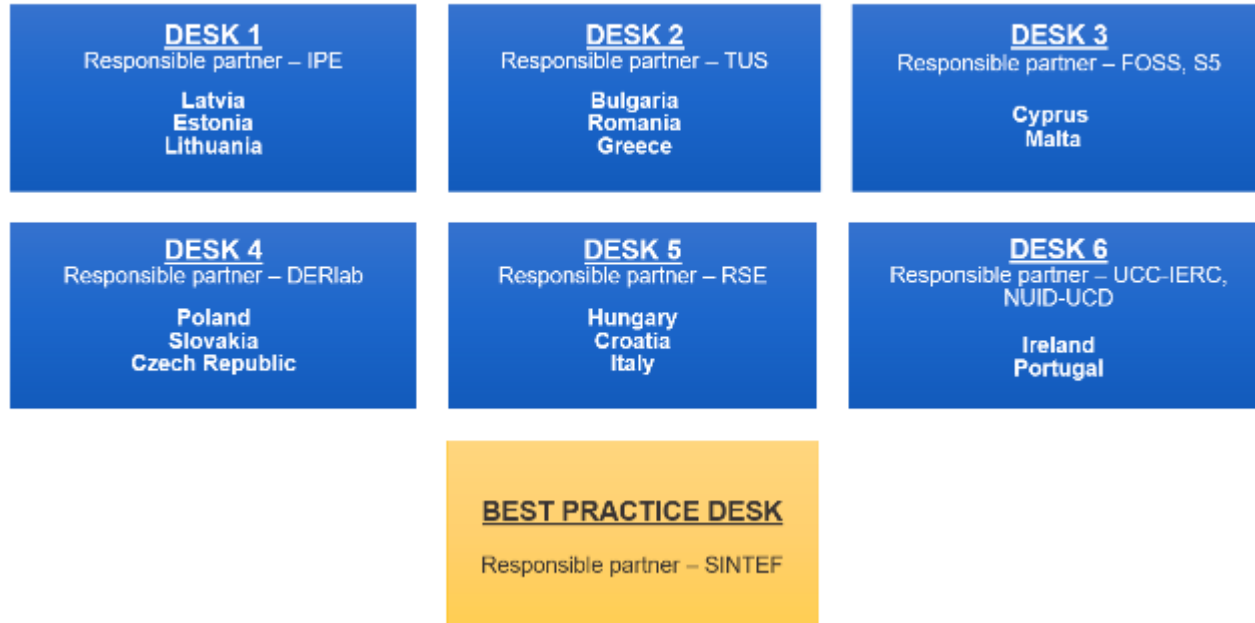
The work involved to achieve the above needs and respond to the immediate needs for supporting the collaborative platform, through cooperation of WG5 with CSA PANTERA, can best be met through an initial group of Teams that are operating to generate what is required for the day to day functioning of the interactive platform.

- 1. Research infrastructures**
- 2. Regulation & Standardization**
- 3. Gap Analysis**
- 4. Innovation support to the market uptake,**
- 5. Global & European Research and innovation community,**



PANTERA Regional Approach

PANTERA 6+1





Research Areas of ETIP SNET in 10 Year Plan

RA- No.α	Research Area (RA)α	RA-Explanationα
1α	CONSUMER, PROSUMER and CITIZEN ENERGY COMMUNITYα	Citizen and prosumer empowerment and engagementα
2α	SYSTEM ECONOMICSα	Business models, market design and market-governanceα
3α	DIGITALIZATIONα	Digitalisation, communication and data handlingα
4α	PLANNING--HOLISTIC ARCHITECTURES and ASSETSα	Energy system architectures, design and <u>planning</u> , <u>new</u> materials, technological solutions, asset-management, maintenance; System Stabilityα
5α	FLEXIBILITY ENABLERS and SYSTEM FLEXIBILITYα	Adapting all energy components to provide flexibility to the system (Flexibility in Demand, Generation, Storage & Energy Conversion, Network, Transport)α
6α	SYSTEM OPERATIONα	Reliability, forecasting, monitoring, control and automation (State estimation and supervision, short-term, medium and long-term control)α



FUNCTIONALITIES for the integrated Energy System 2030

FUNCTIONALITY (Full name)	Short FUNCTIONALITY ¹
<ul style="list-style-type: none">F1 Cooperation between system operators	F1 Cooperation
<ul style="list-style-type: none">F2 Cross-sector integration	F2 Cross-Sector
<ul style="list-style-type: none">F3 Integrating the subsidiarity principle - The customer at the center, at the heart of the integrated energy system	F3 Subsidiarity
<ul style="list-style-type: none">F4 Pan-European wholesale markets	F4 Wholesale
<ul style="list-style-type: none">F5 Integrating local markets (enabling citizen involvement)	F5 Retail
<ul style="list-style-type: none">F6 Integrating digitalisation services (including data privacy, cybersecurity)	F6 Digitalisation
<ul style="list-style-type: none">F7 Upgraded electricity networks, integrated components and systems	F7 Smart Grids
<ul style="list-style-type: none">F8 Energy System Business (incl. models, regulatory)	F8 Business
<ul style="list-style-type: none">F9 Simulation tools for electricity and energy systems (SW)	F9 Simulation
<ul style="list-style-type: none">F10 Integrating flexibility in generation, demand, conversion and storage technologies	F10 Flexibility
<ul style="list-style-type: none">F11 Efficient heating and cooling for buildings and industries in view of system integration of flexibilities	F11 Heating & Cooling
<ul style="list-style-type: none">F12 Efficient carbon-neutral liquid fuels & electricity for transport in view of system integration of flexibilities	F12 Transport

Thank you for your attention



Event with JRC, DG REGIO & DG ENER

Smart grids in the new programming period: the role of transnational R&I networks
to strengthen smart energy

6 February 2020 - THON EU Hotel, Brussels

This workshop is jointly organised as part of the [Stairway to Excellence \(S2E\)](#) project and the [Smart Specialisation Platform on Energy \(S3PEnergy\)](#) initiative, managed by the [Joint Research Centre \(JRC\)](#) of the European Commission (EC), in close cooperation with DG REGIO and DG ENER.

This workshop aims to test approaches to **improve transnational networking** in the area of smart grids and draw lessons to build a more **diversified approach to cooperation** across territories and European actors in a RIS3 context in the smart grids sector.