

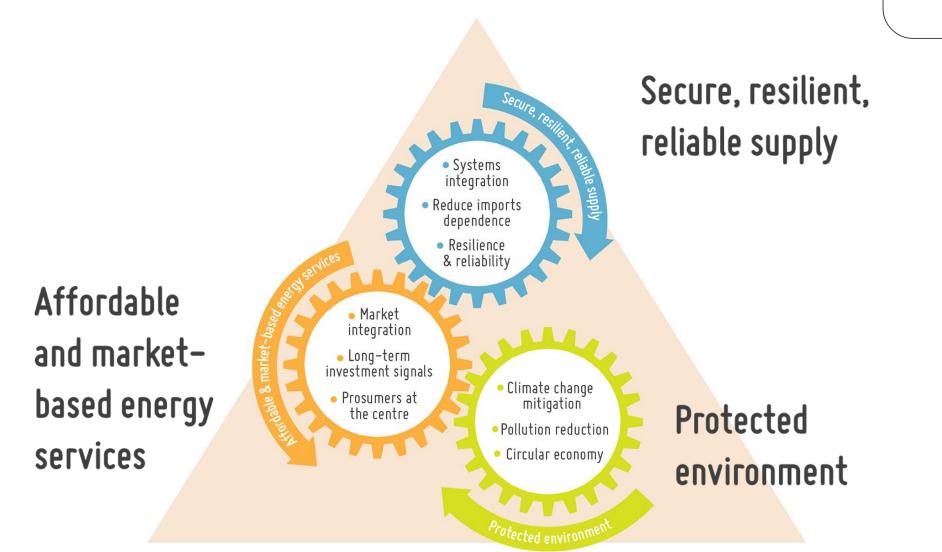
PLAN. INNOVATE. ENGAGE.

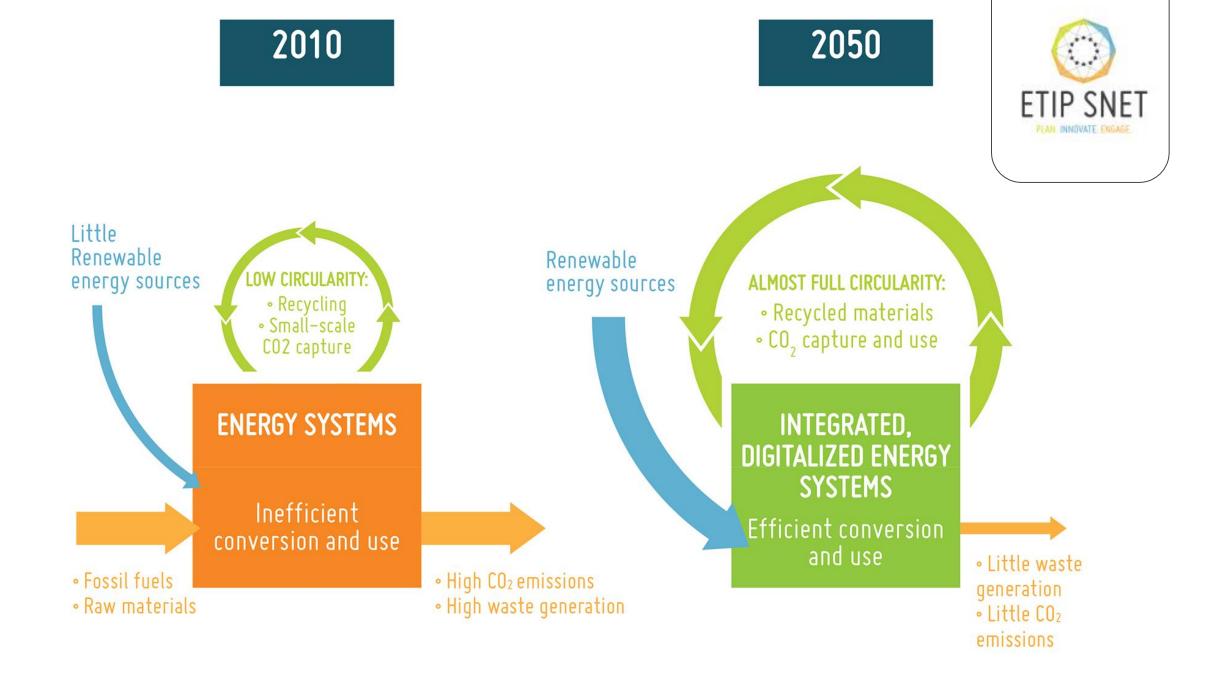
#### INTERACTIVE ETIP SNET WORKSHOP FOR DEFINING THE UPCOMING ETIP SNET ROADMAP 2020-2030

#### WG5: INNOVATION IMPLEMENTATION IN THE BUSINESS ENVIRONMENT

# THREE GOALS OF EU ENERGY POLICY

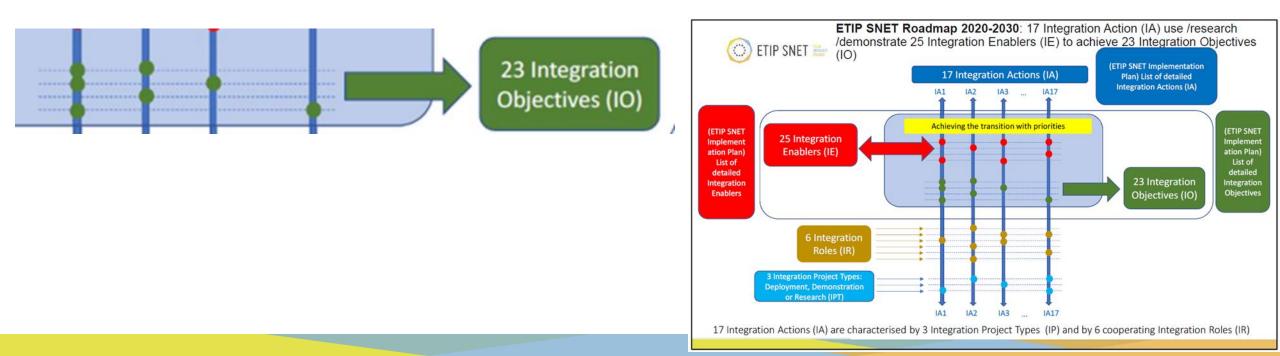






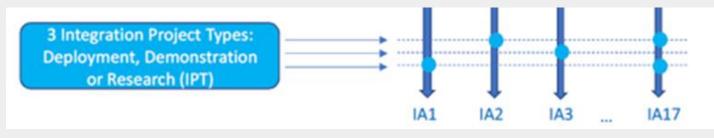
#### **Integration Objectives**

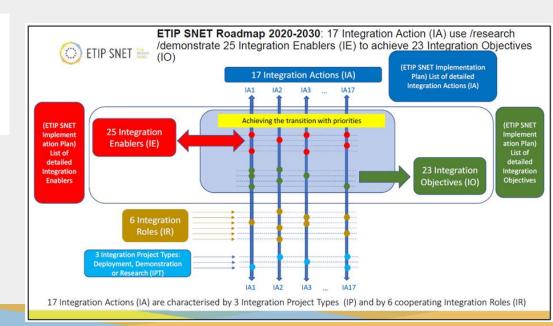
- > Yes, the concepts explained are clear and understandable.
- > We agree with the basic concept of the ETIP SNET roadmap.
- > However,
- The Integration Objectives should in hierarchy terms, be right at the top and in a separate area from enablers since the objectives are the source for the actions and the source for identifying KPIs for judging actions, identifying gaps and building future editions of the Roadmap.



#### ETIP SNET ME Integration Project Types

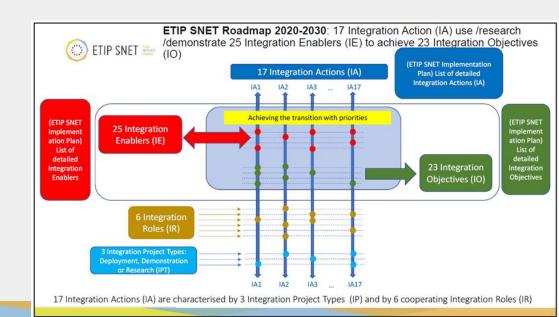
 Project types are not exhaustive since there are more types than the ones specified. WG5 considers that more details could be provided considering the value associated to Technology Readiness Levels (TRLs). There is a question mark: whether all indicators used by the European Commission in characterising projects (RI, RIA, CSA etc) need to be included in the roadmap? From R.I.&D. there is no such category as Deployment. It can go up to the level of first of its kind but never deployment. An enhanced consistency is required.







- Actors / Roles is again an issue of definition and WG5 considers that more consistency with the legislation is required to avoid ambiguity. The Clean Package has many definitions and such specific definitions can be used, otherwise confusion in the meanings could occur. As examples, the terms: active customer, *citizens* energy community etc are new, and they are not well defined in the Actors / Roles list.
  - 1. Grid Operators
  - 2. Telecom operator
  - 3. Market participant
  - 4. User (in masses)
  - 5. Regulator
  - Owner (of any physical (generation, transmissic equipment)



### ETIP SNET ME Decarbonised Europe by 2050

As we understand it there is a problem with the high-level objectives of the road map. High-level objectives and activities are not clearly linked with the energy system that is to respond with the lowest cost solutions to achieve the vision of a decarbonized Europe by 2050. The approach finds us in agreement, but objectives and actions are not totally system related and in line with the strategic objectives of Europe:



#### ETIP SNET ME The architecture of the roadmap

We are happy with the architecture used for the road map, but we would like to see Objectives to be in line with EU strategy and system needs and not activity orientated. As indicated earlier, some objectives meet the philosophy approach, but others do not (i.e. sustainability is reflecting protection of environment and security, quality, reliability and resilience reflect secure, resilient and reliable supply). For this reason, we would recommend approaching the set up using the recommendations of the EPRI study on Smart Grids which is referred to below. Within that study objectives are referred to as benefits (may be a better term to use) and activities are referred as functions. Nevertheless, terms are not critical since these are defined and carry with them the meaning given. However, from project perspective and the R&I agenda the approach that is related to benefits, functions and assets to our understanding are quantifiable and measurable that make them more comprehensible and appealing.

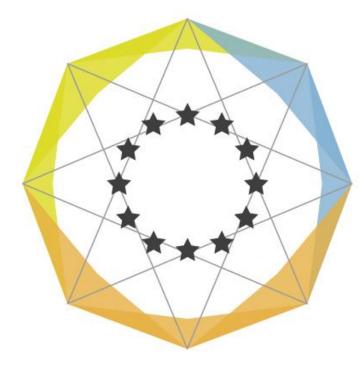






#### Methodological Approach for Estimating the Benefits and Costs of Smart Grid Demonstration Projects

Benefits				Functions														Energy Resources		
			Fault Current Limiting	Vide Area Monitoring. Visualization, and Control	Dynamic Capability Rating	Flow Control	Adaptive Protection	Automated Feeder Switching	Automated Islanding and Reconnection	Automated Voltage and VAR Control	Diagnosis & Notification of Equipment Condition	Enhanced Fault Protection	Real-Time Load Measurement & Management	Real-time Load Transfer	Customer Electricity Use Optimization	Distributed Generation	Stationary Electricity Storage	Plug-in Electric Vehicles		
Economic	Improved Asset	Optimized Generator Operation Deferred Generation Capacity Investments Reduced Ancillary Service Cost Reduced Congestion Cost		•						•			•		•	•	•	•		
	Savings	Deferred Transmission Capacity Investments Deferred Distribution Capacity Investments Reduced Equipment Failures	•	•	•	•					•	•	•	•	••	•	•	•		
	T&D O&M Savings	Reduced Distribution Equipment Maintenance Cost Reduced Distribution Operations Cost Reduced Meter Reading Cost						•		•	•		•							
		Reduced Electricity Theft Reduced Electricity Losses	<u> </u>	<u> </u>						•			•	•	•	•	•			
	Electricity Cost	Reduced Electricity Cost								-				-	•	•	•	•		
Reliability	Power Interruptions	Reduced Sustained Outages Reduced Major Outages Reduced Restoration Cost		•			•	•	•		•	•	•	•		•	•	•		
	Power Quality	Reduced Momentary Outages Reduced Sags and Swells										:					•			
Environmental	Air Emissions	Reduced CO <sub>2</sub> Emissions Reduced SO <sub>x</sub> , NO <sub>x</sub> , and PM-10 Emissions				:		•		•			•		•	•	•	•		
Security	Energy Security	Reduced Oil Usage (not monetized) Reduced Widescale Blackouts		•	•			•			•	•	•					•		



# ETIP SNET Plan. Innovate. Engage.

## Time for Questions

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