



Support to the coordination of national research and innovation programmes  
in areas of activity of the European Energy Research Alliance



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# R&I in SET-Plan “2.0” and NECPs

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## SUPEERA supports the SET-Plan and the Clean Energy Transition

We...

- Facilitate the coordination of the research community
- Accelerate innovation and uptake by industry
- Provide recommendations on policy
- Promote the SET-Plan and the Clean Energy Transition

We connect the dots.





► **SET-Plan & NECPs  
in changing  
environment**

## ► Context SET-Plan

- Conceived to deliver on **key objective of the Energy Union**, the SET-Plan helps to promote cooperation among EU countries, companies and research institutions
- SET-Plan as a strategy for all energy research and innovation in Europe **supported the changing** of the EU energy system; **but** more ambitious goals (climate neutral society by 2050) and new set of policies call for its “revision”
- The **redefinition of the SET-Plan priorities** in the wider context of the green recovery and the Clean Energy Transition should also seize the opportunity for better integrating the **multidisciplinary aspects** of the transition



## ► Context: National Energy and Climate Plans

- EU countries have recently released their **National Energy & Climate Plans (NECPs)**, with strategy, objectives and activities to meet the EU's energy and climate targets for 2030
- The plans include different **dimensions** (*decarbonisation; energy efficiency; energy security; internal energy market; research, innovation & competitiveness*) and address an array of **technologies**
- The final **NECPs constitute** a strong basis to design climate and energy-related aspects of the national **Recovery and Resilience Plans**
  - For each Member State EC assessments outlines three key areas from respective NECPs to be reflected in the national Recovery and Resilience Plans



## ► SET-Plan vs. NECPs

- **National and regional R&D funding** programs are the main public funding resource for SET-Plan activities
- There final **NECPs fail to pay sufficient attention to R&I needs** for delivering on climate and energy objectives
- There is an overall **decrease in national budgets** devoted to R&I in clean energy technologies and a severe lack of national objectives and funding targets that show concrete and relevant pathways to 2030 and 2050
- Most or **Member States don't specify** how national funds and/or activities are allocated under the Implementation Plans in which they are involved and how the **SET-Plan and their NECPs are linked**





## ► What role for R&I

### → If we know (among others):

.... To meet the EU's commitments under the Paris Agreement and limit global temperature rise to 1.5°C, all EU countries need to phase out coal by 2030;

.... Coal power is only expected to halve this decade (~ 282TWh in 2030, a fall of just 53% vs. 2018);

.... Fossil gas power sees very little progress with projected generation in 2030 broadly unchanged vs. 2018, with large increases in Germany and Italy;

.... the EU is not on track to deliver the EU Commission's recommended 55% reduction by 2030. To achieve this target, progress needs to be made in both policy and research sector



## ► National strategies to boost R&I component:

- Develop a **clear and ambitious national objectives** and funding targets for R&I; both EU and national R&I policies need to be better aligned with energy and climate objectives and be made operational through NECPs
- Provide tools to create, strengthen and develop **collaborative networks**, especially regional **cooperation mechanisms**, with making use of existing regional fora to address common issues affecting energy transition priorities, for example energy efficiency, transport, smart grids and renewables
- Support **reforms and investments** to achieve objectives, targets and contributions
  - to achieve the current EU 2030 climate and energy targets, annual investments related to energy production and use will need to increase in 2021- 2030 by just over 1 percentage points of GDP on average



## ► Alignment SET-Plan and NECPs objectives: best practice examples (Wind)

### Wind power development

- **Portugal** : Repowering old wind power sites with new units
- **Ireland**: National Wind Energy Development Guidelines' rules for early community engagement and community benefit measures
- **France**: Circular economy, recycling equipment and components in decommissioning

### Investments

- **Latvia – Estonia**: Public funding CEF Project: joint offshore wind farm in the Gulf of Riga of 1GW
- **Denmark**: Tendering processes : new offshore capacity cover about 50% of Danish electricity consumption in 2020 (400 MW in the North Sea, 600 MW in the Baltic Sea and 350 MW – Vesterhav Nord and Syd)

### Cooperation

- **North Seas Energy Cooperation (NSEC)** consists of 10 countries with participation from the European Commission: BE, LU, FR, DE, NL, UK, IE, NO, SE and DK
- NSEC supports the offshore grid development and the large renewable energy potential in the region
- **Baltic countries**: Estonia and Latvia are planning a joint auction for offshore wind



