



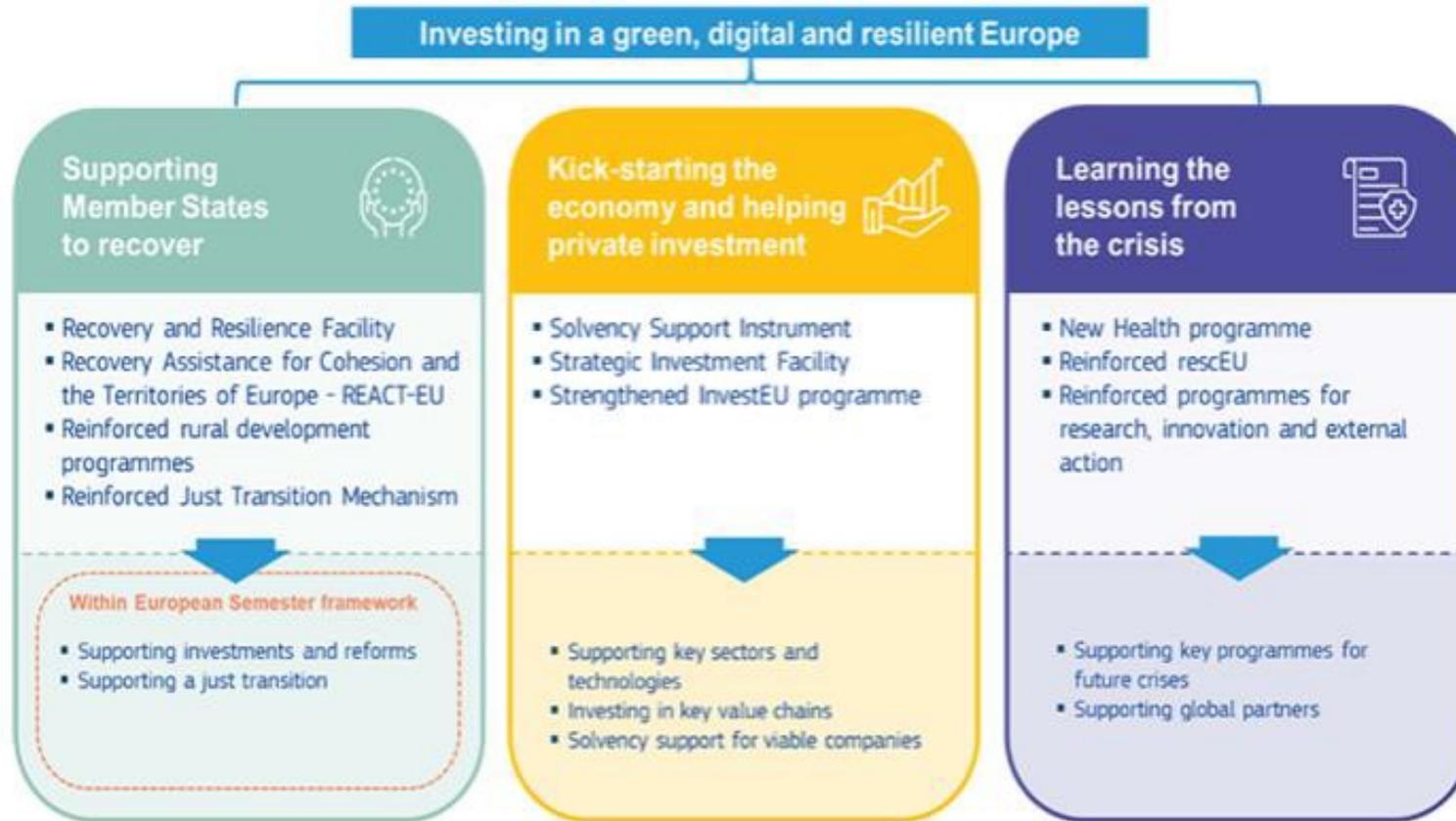
▶ EERA Policy WG meeting

11 June 2020



Next Generation EU structure

► Next Generation EU structure (1/2)



Source: European Commission

► Next Generation EU structure (2/2)

1st pillar

- New Recovery and Resilience Facility €560 billion: 310 grants and 250 loans
- Cohesion Policy: + €55 billion
- JST : + €40 billion
- Agricultural Fund for rural development : +€15 billion

2nd pillar

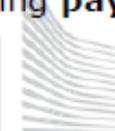
- Solvency Support Instrument €31 billion unlocking €300 billion in solvency support for companies
- Strategic Investment Facility, built into InvestEU, €15 billion generating investments of €150 billion for green and digital transition, and key value chains in the internal market

3rd pillar

- EU4Health, €9.4 billion for health security and future health crises
- EU Civil Protection Mechanism, rescEU, + € 2 billion
- HE + €13,5 billion to fund health, resilience and green and digital transitions (**Climate Energy and Mobility and Digital Industry and Space clusters**), +€16.5 billion to external action, including humanitarian aid

Next Generation EU channeled through EU programmes in the revamped long-term EU budget

- **Green Deal:** Buildings renovation and infrastructure, a more circular economy, bringing local jobs, renewable energy projects, cleaner transport and logistics etc.
- **Digitalization:** more and better connectivity, artificial intelligence, cybersecurity, cloud and supercomputing
- **Social:** Short-term European Unemployment Reinsurance Scheme (**SURE**) €100 billion to workers and businesses, A **Skills Agenda** for Europe and a **Digital Education Action Plan** for digital skills for all EU citizens, Fair **minimum wages** and binding **pay transparency** measures for vulnerable workers, particularly women



European
Commission



The European Green Deal

Update 11 June 2020

▶ European Green Deal – DG ENER upcoming measures

Excerpts from Mark van Stiphout's presentation on 10.06.20 at the ETIP SNET governing board

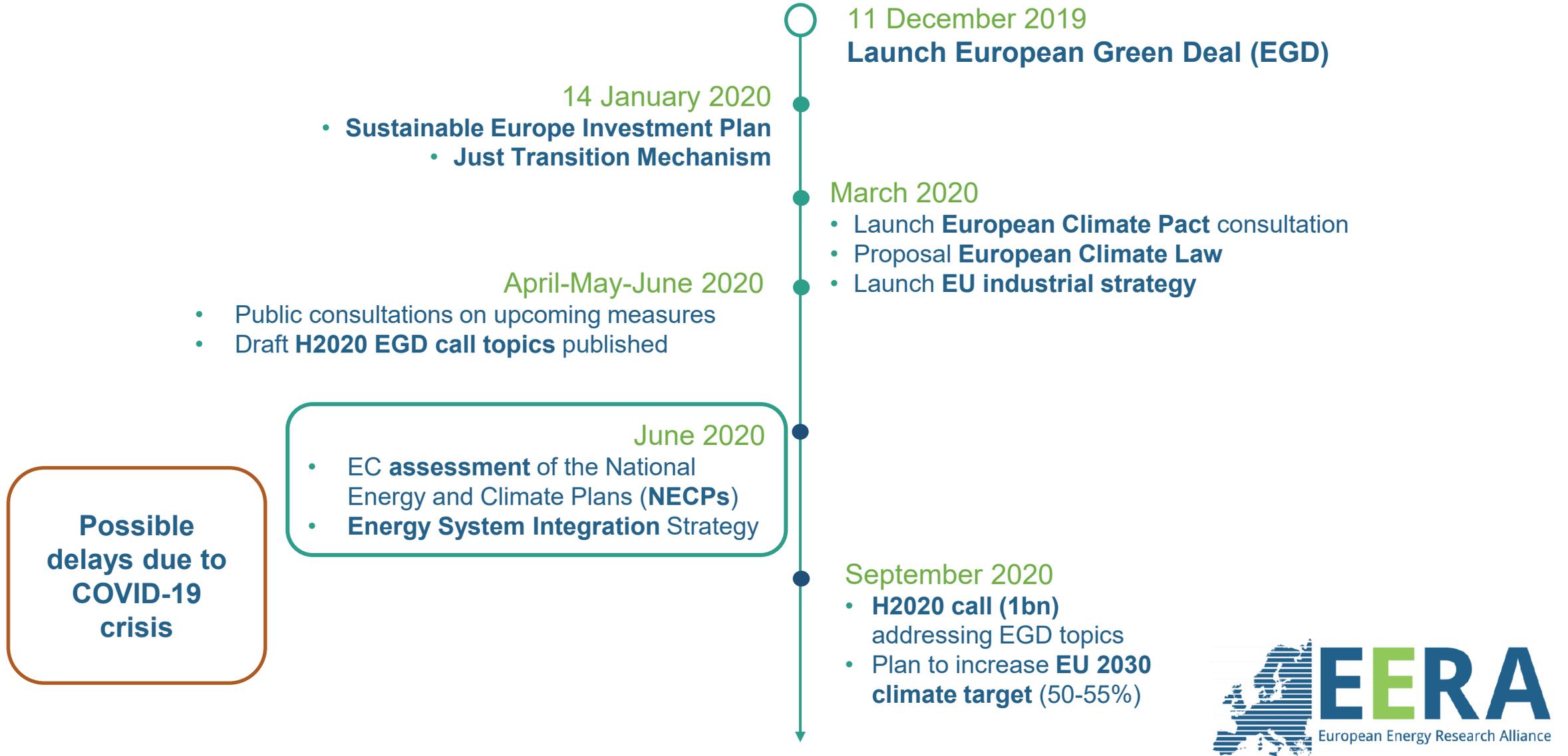
▶ DG ENER ongoing measures in the framework of the EGD under preparation:

- ▶ **Energy System Integration Strategy ([link](#))**: political/strategic document with a wide scope, including challenges for the entire energy system (not only related to electricity as it used to be, but including strategies e.g. for hydrogen infrastructure, digitalization, data handling in the energy sector)
- ▶ **EU Hydrogen strategy ([link](#))**: communication answering to the need of establishing a value chain for hydrogen and address the lack of investment in the sector. It will therefore include:
 - 1) ways to improve the market for hydrogen
 - 2) EU funding to support advancement in the sector (e.g. Joint undertaking, Clean hydrogen partnership) and in related value chains (e.g. partnership on aviation, to explore further use of hydrogen)
- ▶ **Offshore renewable energy strategy**: it includes both integrated grid planning and technology infrastructures. The target is to make offshore renewables (not only wind) and grid a reality. Important to understand how to use the various instruments available (HEU, TEN-E, CEF).

▶ DG ENER “Clean Energy Research & Innovation Outlook”:

- ▶ Study collecting existing research and data on clean energy. The aim is to have a set of structured data to make more visible and transparent the knowledge at the basis of EU energy policies. The draft is currently being developed but DG ENER will be looking for feedback and concrete figures to integrate in the study/report.

► The European Green Deal: timeline



▶ Ongoing public consultations

Policy	Deadlines	How
European Green Deal H2020 Call	3 June 2020	Online surveys (Link)
Energy System Integration strategy	08 June 2020	Feedback to roadmap (Link)
Energy efficiency in buildings – ‘renovation wave’	08 June 2020	Feedback to roadmap (Link)
2030 Climate Target Plan	23 June 2020	Online survey (Link)
EU Strategy on Adaptation to Climate Change	30 June 2020	Feedback to roadmap (Link)

▶ European Green Deal Call under H2020

- ▶ Survey results by call area are now available on EC website [at this link](#)
- ▶ Participants were asked to **rate** each call area and topic on its **relevance** and **design**.
 - ▶ Most relevant draft call text (with over 75% of answers giving a relevance rating of 9/10 or 10/10)
 - area 7: restoring biodiversity and ecosystem services
 - area 4: energy and resource-efficient buildings
 - area 8 topic 1: persistent and mobile chemicals
 - ▶ Lower relevance ratings (with over 25% of respondents giving a neutral or critical relevance score (1/10-6/10))
 - area 2 topic 2: develop and demonstrate a 100 MW electrolyser
 - area 1 topic 1: preventing and fighting extreme wildfires
 - area 5: green airports and ports as hubs for sustainable and smart mobility
 - area 9 topic 3: a transparent and accessible ocean, towards a digital twin of the ocean
 - ▶ The gap between relevance and design was largest (7-20 percentage points difference) for
 - area 7: restoring biodiversity and ecosystem services
 - area 11: accelerating the clean energy transition and access in partnership with Africa
 - area 3 topic 1: closing the industrial carbon cycle to combat climate change



Towards the Horizon Europe Strategic Plan

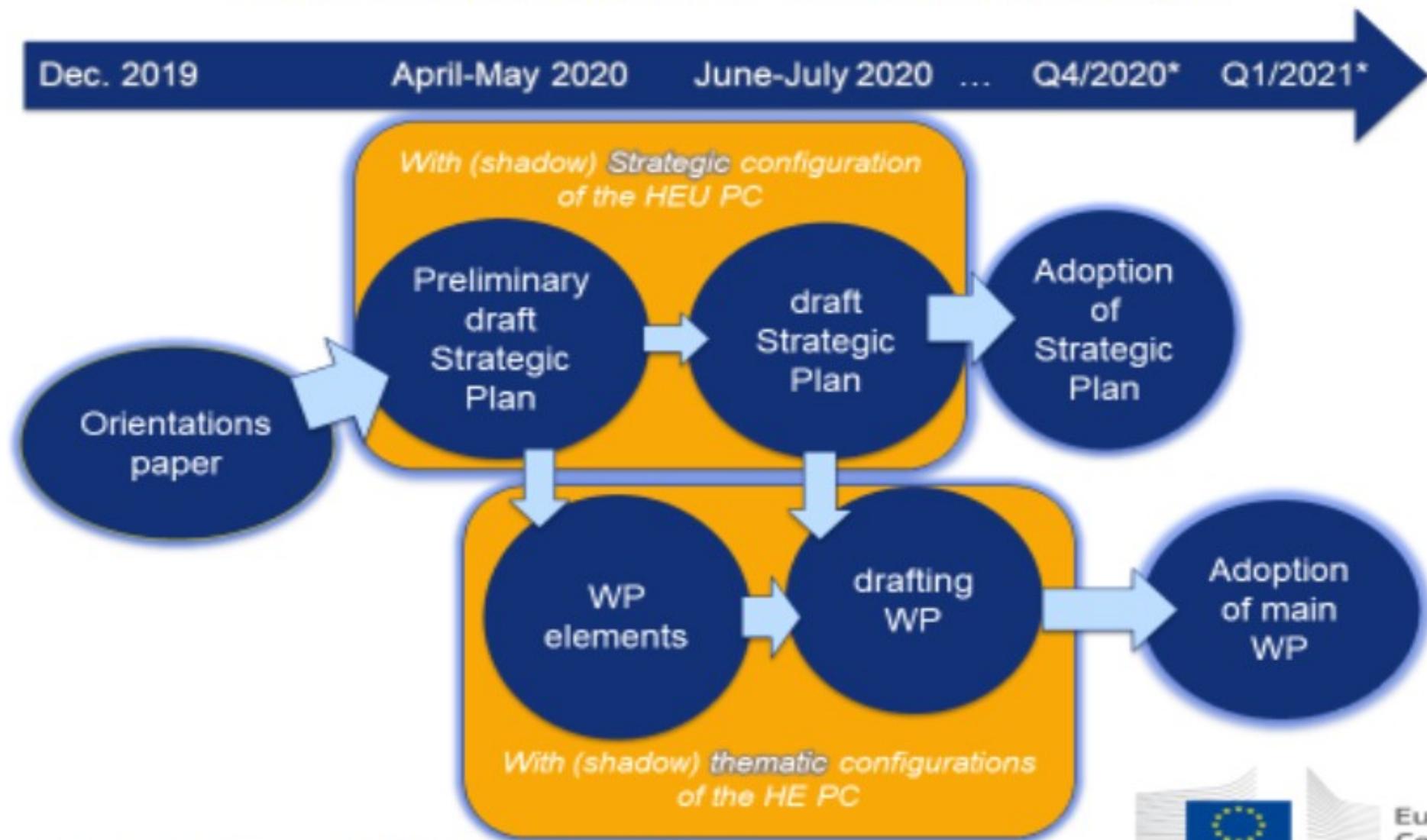
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► Horizon Europe Shadow Programme Committee meetings

Meetings held	
23/04	9th meeting of the Shadow Strategic Configuration of the Horizon Europe Programme Committee – Link to Presentation
15/05	First meeting of the sub-group 15. Climate, Energy and Mobility
28/05	10th meeting of the Shadow Strategic Configuration of the Horizon Europe Programme Committee – Link to Presentation
Next dates	
25/06	11th meeting of the SPC (confirmed)
17/09	(Tentative)
22/10	(Tentative)

Timeline

Overall timeline for Horizon Europe



* Subject to the overall MFF and HEU negotiations

► Revised Orientations/Expected impacts for Cluster 5

CLUSTER 5 Climate, Energy, Mobility

25. Transition to a climate-neutral society and economy enabled through advanced climate science, pathways and responses to climate change (mitigation and adaptation) and behavioural transformations.
26. Clean and sustainable transition of the energy and transport sectors towards climate neutrality facilitated by innovative cross-cutting solutions.
27. More efficient, clean, sustainable, secure and competitive energy supply through new solutions for smart grids and energy systems based on more performant renewable energy solutions.
28. Efficient and sustainable use of energy, accessible for all is ensured through a clean energy system and a just transition.
29. Towards climate-neutral and environmental friendly mobility through clean solutions across all transport modes while increasing global competitiveness of the EU transport sector.
30. Safe, seamless, smart, inclusive, resilient and sustainable mobility systems for people and goods thanks to user-centric technologies and services including digital technologies and advanced satellite navigation services.

► HEU Strategic Plan: what we know

[Updated information on state of play available at this link](#)

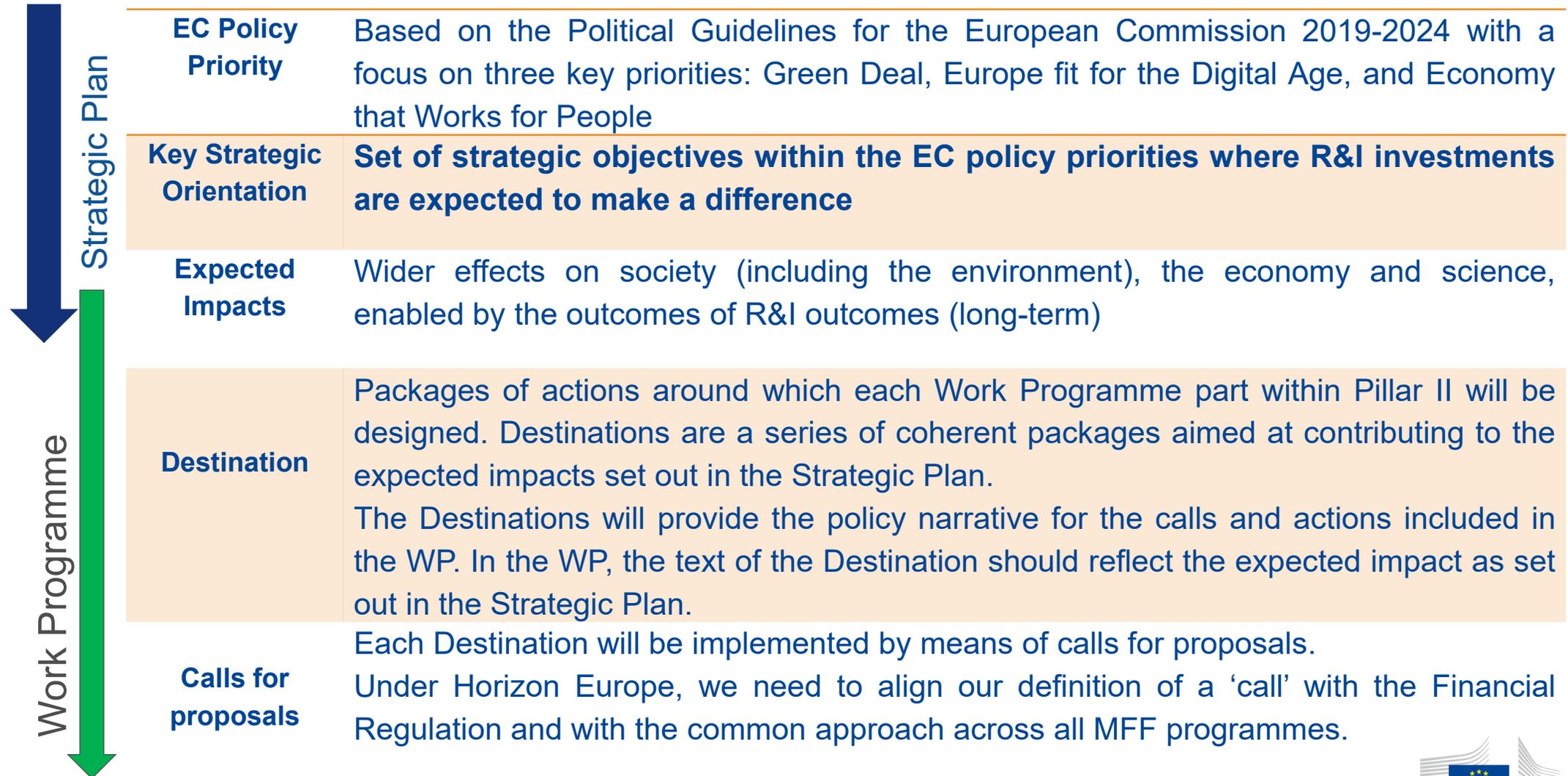
- Information will remain on a rather generic level (e.g. 2-4 pages for Partnerships, 5 pages description per cluster)
- **Suggested timeline:**
 - **By 19 June 2020:** circulation of a comprehensive draft
 - **25 June 2020 (SPC meeting):** discussion on the draft
 - **By early July 2020:** SPC delegates are invited to submit their feedback
 - **July 2020 (additional SPC meeting):** discussion on a revised version; circulation of a draft for the Analysis to support preparation of WP21/22
 - **September 2020:** web-based consultation

Ways to influence through MS representatives

EERA participation encouraged



Horizon Europe – Impact logic





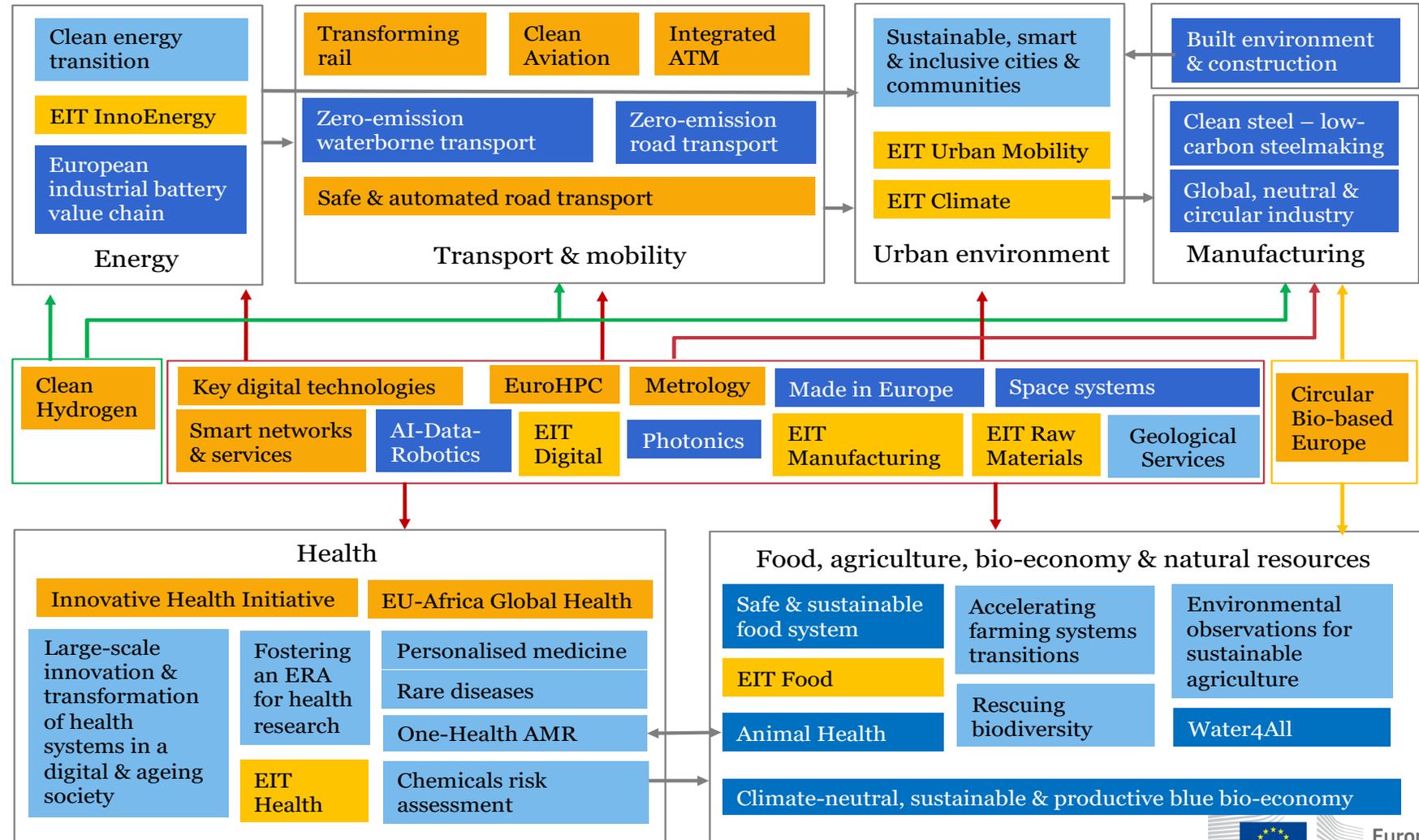
European Partnerships

Update 11 June 2020

Portfolio of candidate European Partnerships

Industry-orientated
'vertical' partnerships

'Horizontal'
partnerships



Candidate partnerships for Cluster 5

Institutional Partnerships

- Transforming Europe's rail system
- Integrated Air Traffic Management
- Clean Aviation
- Clean Hydrogen

Co-funded Partnerships

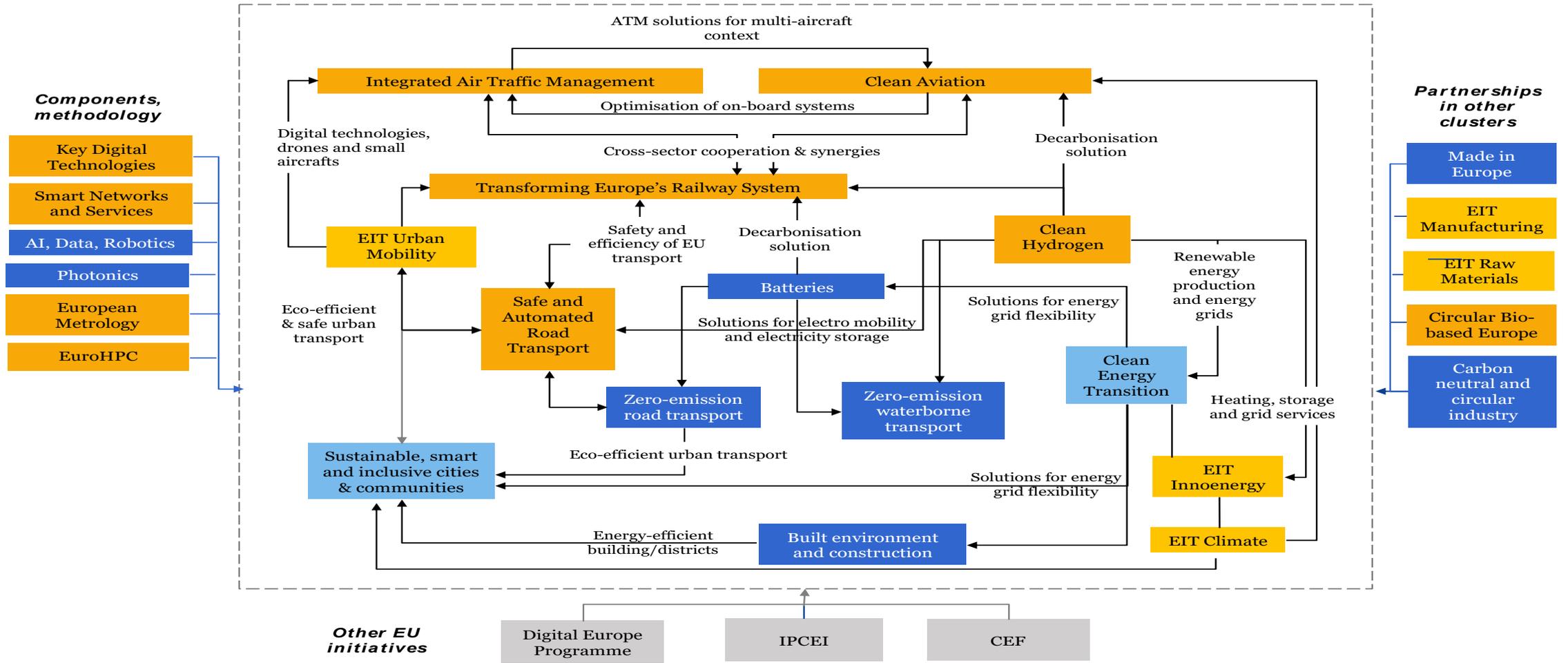
- Driving urban transitions to a sustainable future (DUT)
- Clean Energy Transition

Co-programmed Partnerships

- Built4People | People-centric sustainable built environment
- Towards zero-emission road transport (2ZERO)
- Batteries: Towards a competitive European industrial battery value chain for stationary applications and e-mobility
- Zero-emission waterborne transport
- Connected, Cooperative and Automated Mobility (CCAM)

Links among Cluster 5 candidate partnerships

European Partnerships in the Climate, Energy and Mobility cluster



Technopolis Group

Candidate Institutionalised Partnerships EIT KIC Co-Programmed Co-Funded



Clean Hydrogen Europe

- Institutional Partnership
- Successor to Fuel Cells and Hydrogen (FCH) Joint Undertaking

OBJECTIVES

- Improve through R&I the cost-effectiveness, reliability and quality of clean hydrogen applications developed in the EU: The objective is to deliver **hydrogen based solutions at a price equivalent to the alternatives by 2030**.
- Reinforce the EU scientific and industrial ecosystem for innovative clean hydrogen applications;
- Demonstrate and scale-up clean hydrogen applications to stimulate large-scale generation capacity: The objective is to **produce clean hydrogen at a cost of ~€1.5-3/kg by 2030**, allowing penetration into mass markets;
- Accelerate through demonstration the co-deployment of EU storage, transport and distribution infrastructures for innovative clean hydrogen solutions: The objective is to **reduce the distribution costs to less than €1/kg of hydrogen at scale by 2030**.

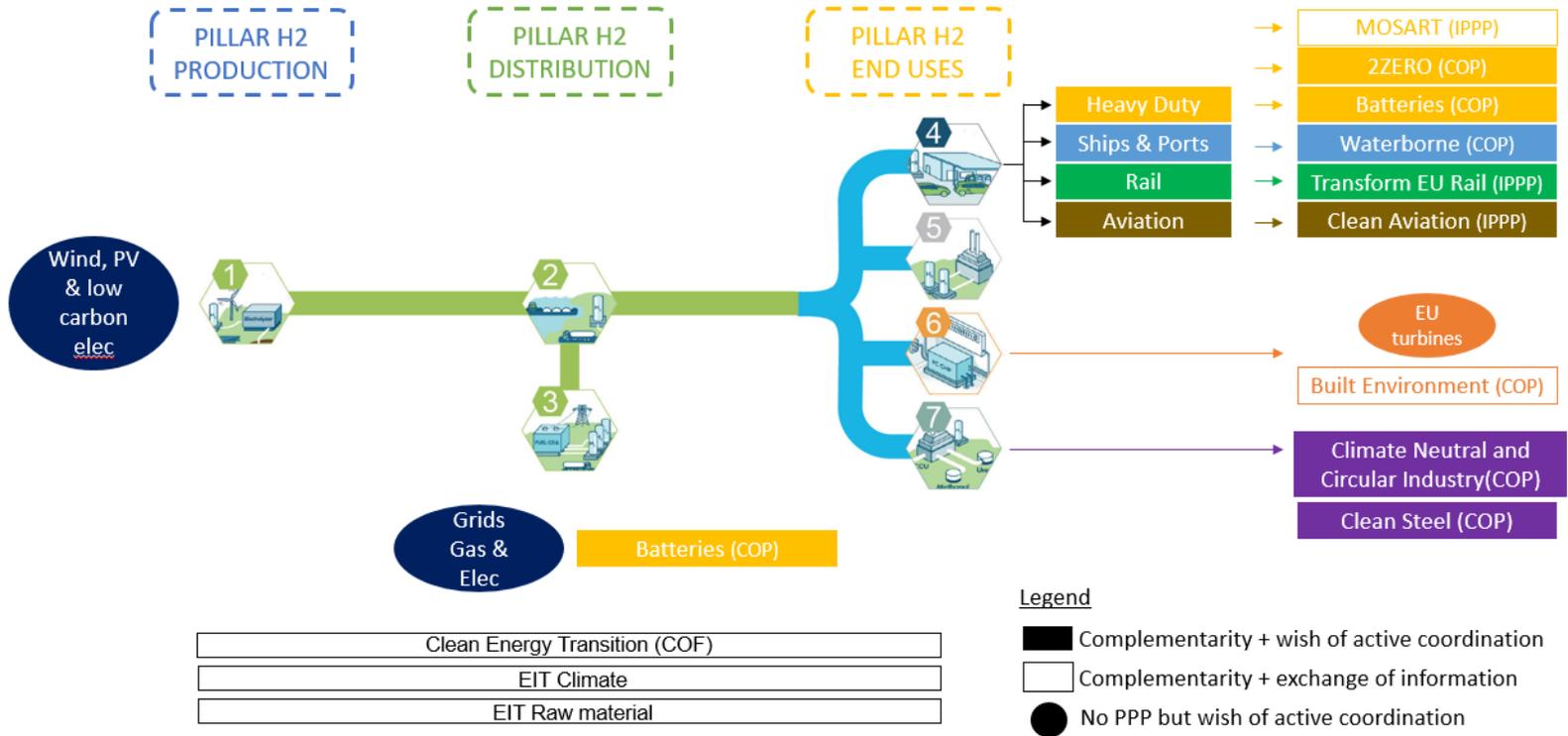
EXPECTED IMPACTS

- Ambition R&I contribution to European Green Deal goals:
 - Decarbonisation of hard to abate sectors
 - Climate neutrality by 2050
- Measures
 - By 2030 – Demonstration of production, distribution and storage of hydrogen at scale
 - By 2050 – Hydrogen contributing to 16-24% of total energy demand

Clean Hydrogen Europe

Consultation on SRIA open for stakeholders, more detailed info at <https://www.cleanhydrogenforeurope.eu/>

LINKS TO OTHER PARTNERSHIPS



CURRENT STATE-OF-PLAY

- Positive opinion from Regulatory Scrutiny Board on Impact Assessment on Clean Hydrogen Partnership – 27 March 2020 (green light to proceed)
- Process of finalisation of SRIA, by June 2020.

Batteries

➤ Co-programmed Partnership, new Partnership

OBJECTIVES

- Short- to medium-term: support the development of a world-class European R&I ecosystem on batteries, with a view towards industrial leadership by Europe in the design and production of batteries for both stationary and mobile applications.
- Longer term: develop futuristic battery technology beyond 2030.
- **Scope:**
 - Development of short to long term technologies and processes for safe and cost-efficient, application of batteries in energy storage and mobility.
 - Value chain approach, from raw materials to recycling.

EXPECTED IMPACTS

- Increase performance of battery technology, while ensuring safety and usability
- Ensure sustainability, recyclability and circularity of batteries
- Accelerated R&D and faster time-to market to maintain EU industry leadership in the field through strengthened industry – academia – policy collaboration

Batteries

LINKS TO OTHER PARTNERSHIPS

- Concrete boundaries discussed with 2ZERO, Waterborne, Clean Aviation, (Rail, Clean Energy Transition) – Cluster 5
- Key Digital Technologies, Made in Europe - Cluster 4
- InvestEU, EIC: Close links with the higher TRL activities for commercialisation
- European Battery Alliance, “Batteries Europe” Technology Platform

CURRENT STATE-OF-PLAY

November 2019-March 2020: Stakeholders’ workshops

20th April 2020 Proposal (final draft) submitted to R&I

June: Information workshop to stakeholders (virtual)

SRIA will be strongly based on/linked to ETIP “Batteries Europe” SRA

By September 2020: Final draft SRIA/roadmap

Launch of partnership: WP 2021/22 (in 2021)

▶ European Partnerships Cluster 5 Climate, Energy and Mobility

Additional information available:

- On the updated EU commission [webpage](#)