Session 4

Towards a more secure and cleaner energy sector: Ways to accelerate clean energy technology innovation

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New energy technologies and Innovation

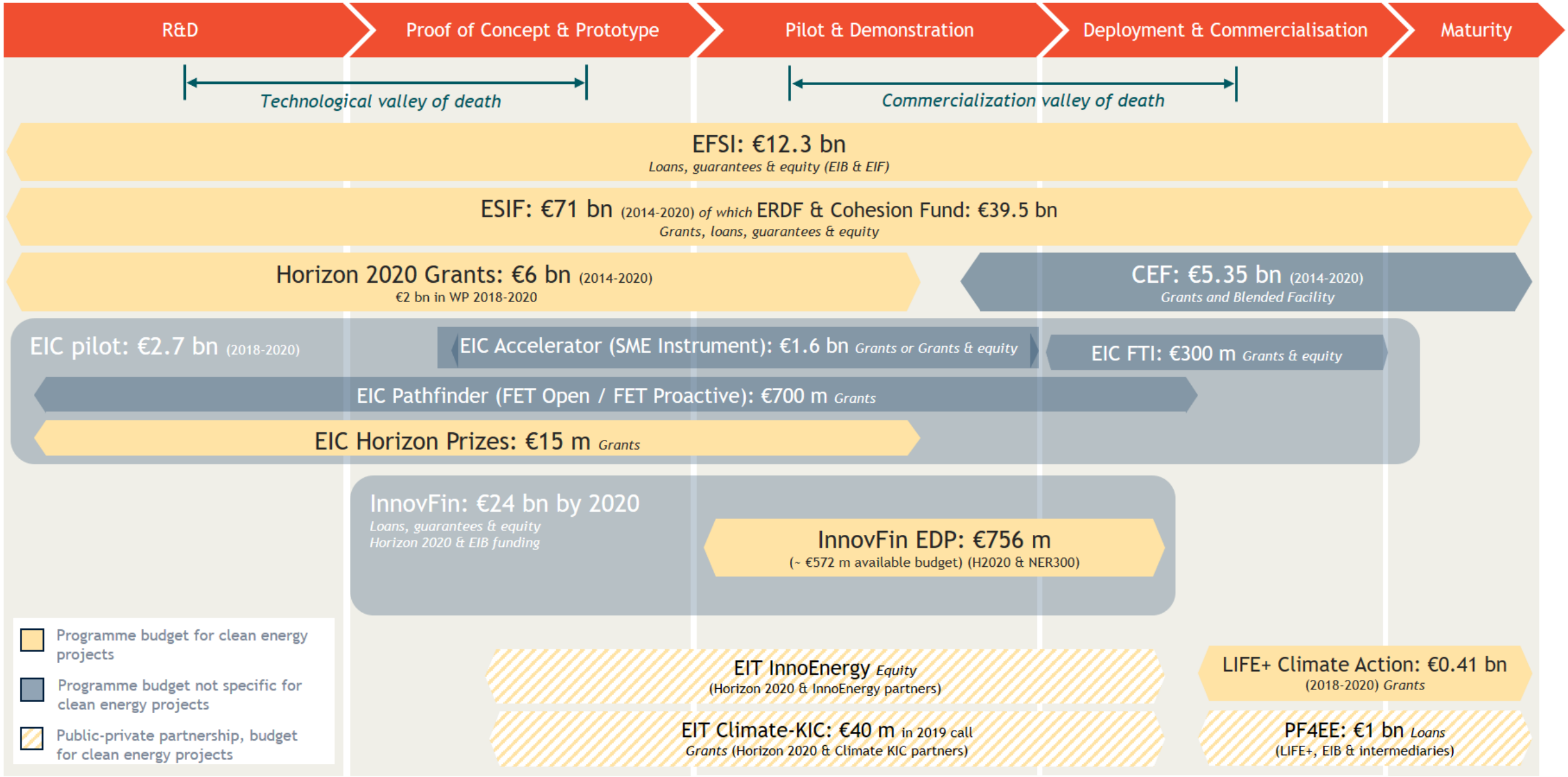
The European Green Deal

The EU will be climate neutral in 2050. Reaching this target will require R&I action in all sectors of our economy (**ENERGY**, **BUILDINGS**, **INDUSTRY**, **MOBILITY**)

→ A **strategic approach to clean technologies** will therefore be central to achieving the 2030 and 2050 energy and climate objectives, but also to fully reaping the first **competitive advantage** of the energy transition.

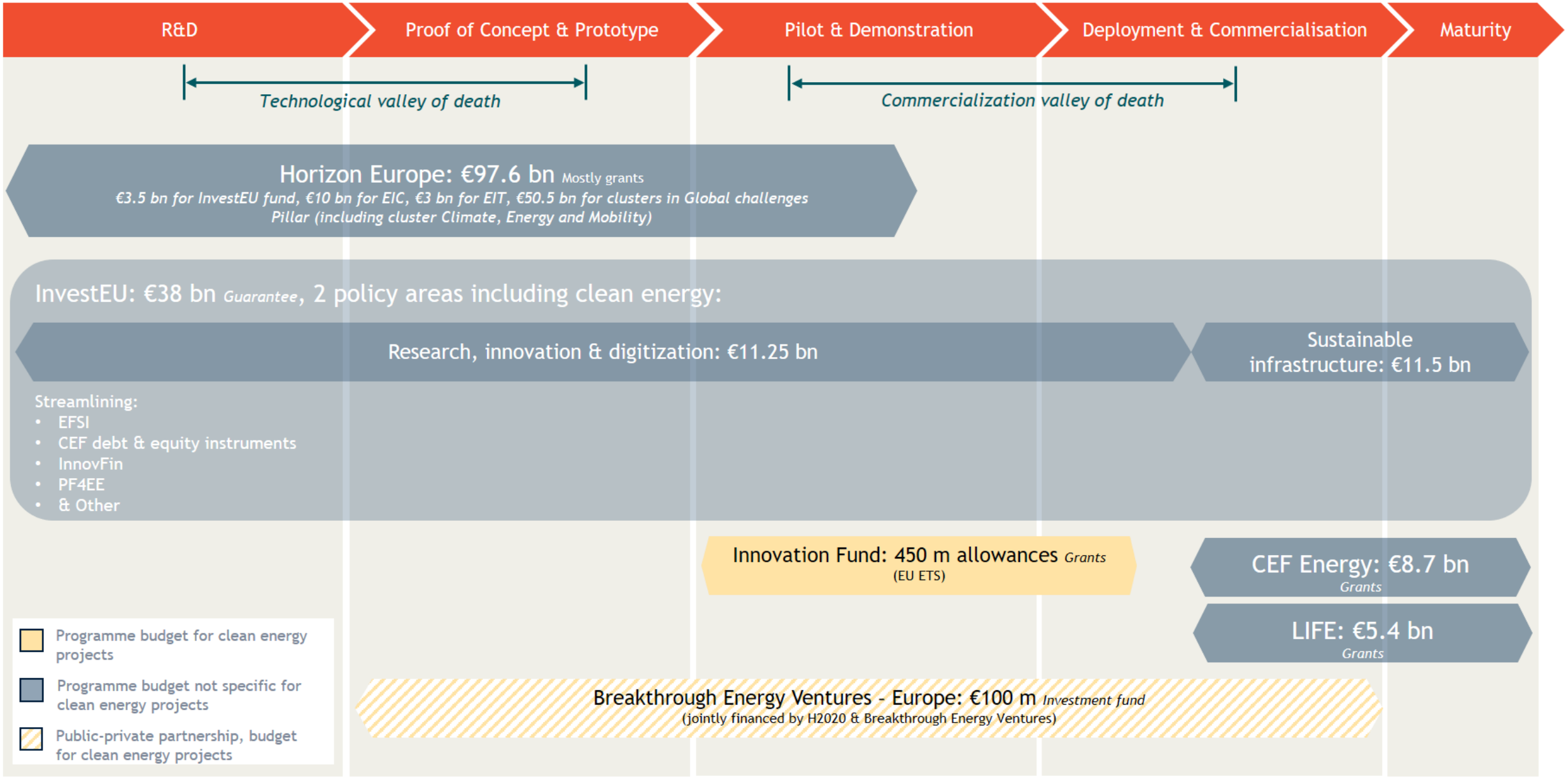
→ The **rate** at which the R&I system succeeds in developing and commercialising innovative solutions will **steer the EU's future competitiveness** of its existing and newly emerging industries.

EU funding and financing instruments for clean energy (up to 2020)



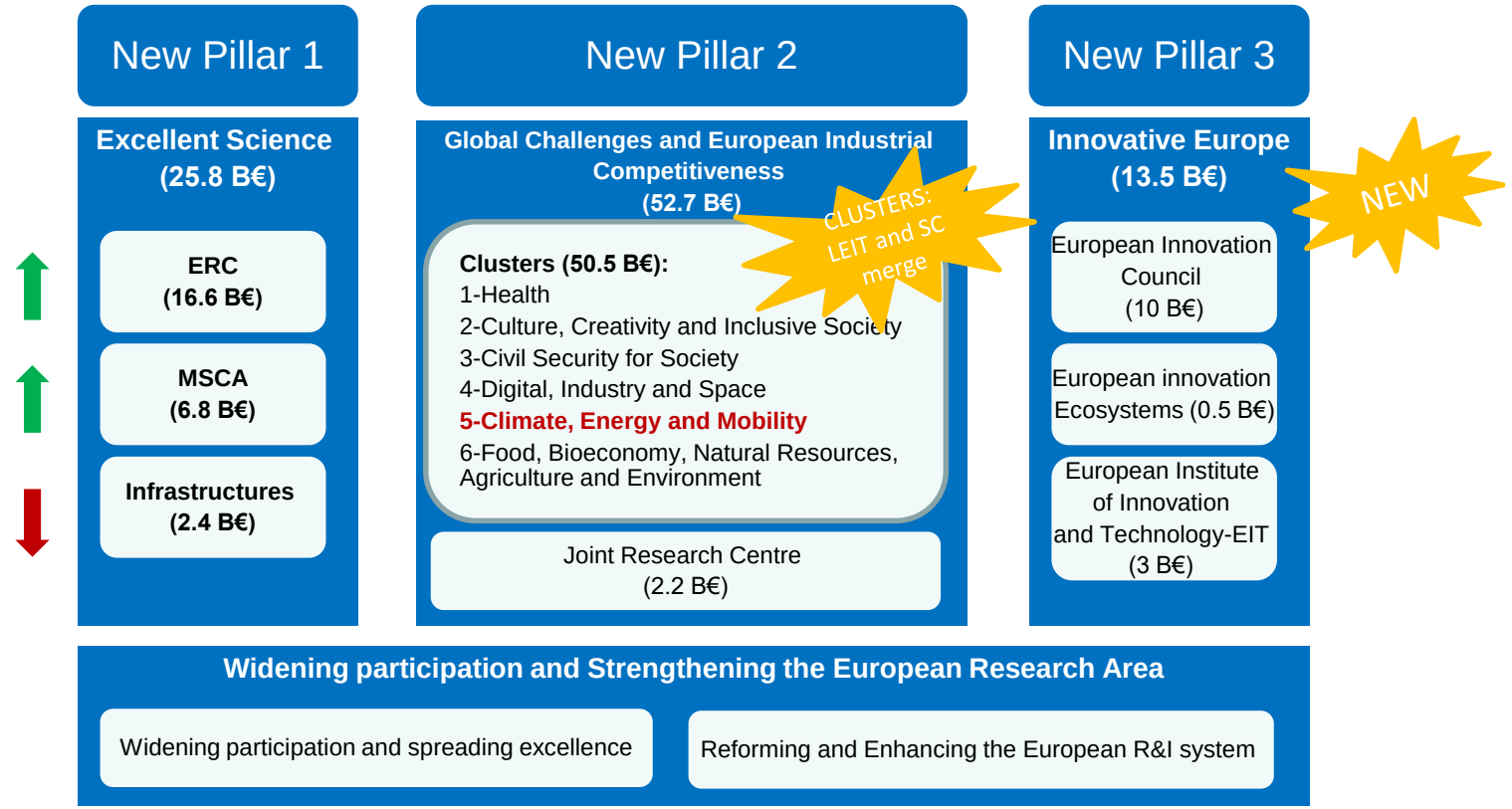
Source: Trinomics on behalf of European Commission

EU funding and financing instruments for clean energy (2021-2027)



Source: Trinomics on behalf of European Commission

Pillars Horizon Europe



Horizon Europe

- By far the **biggest EU research and Innovation programme**, and a key instrument to bring great ideas from the lab to the market in order to reach the more ambitious 2030 and 2050 targets.
- R&I priorities in the proposed Cluster 5 "**Climate, Energy and Mobility**"
  - Advance **CLIMATE SCIENCE AND SOLUTIONS** for a climate neutral and resilient society.
  - Cross-sectoral solutions for **DECARBONISATION**.
  - Develop cost-efficient, net zero-greenhouse gas emissions energy system centred on **RENEWABLES**.
  - Develop **DEMAND SIDE SOLUTIONS TO DECARBONISE THE ENERGY SYSTEM**.
  - Develop low-carbon and competitive **TRANSPORT SOLUTIONS** across all modes.
  - Develop smart, safe, accesible and inclusive **MOBILITY SYSTEMS**.

Horizon Europe strategic planning



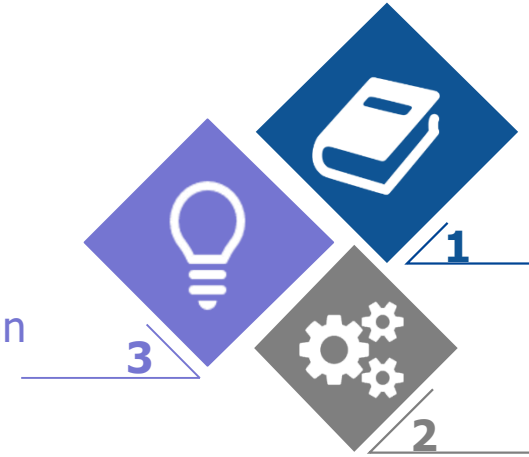
Main Features

- Early involvement and extensive exchanges with Member States
- Extensive exchanges with the European Parliament
- Consultations with stakeholders and public at large

Better informing R&I prioritization



Based on the mapping out of key technological pathways, we will:
provide a strategic analysis of the EU clean technologies' market outlook and the competitive position (by identifying gaps, cost factors and opportunities in their value chains).



We need:
An evidence-based strategic analysis methodology of R&I priorities.

We aims at:
Linking the technology expectations from the 2050 Long-term Strategy (to carbon neutrality) to the analysis on competitiveness.

Methodology

