



# HORIZON EUROPE

## THE EU RESEARCH & INNOVATION PROGRAMME

2021 – 2027

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EU DELEGATION TO SINGAPORE

Horizon Europe Launch Event - ASEAN  
21 July 2021

Research  
and  
Innovation

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# Horizon Europe Programme



# HORIZON EUROPE

# EURATOM


**SPECIFIC PROGRAMME: EUROPEAN DEFENCE FUND**  
*Exclusive focus on defence research & development*

Research actions

Development actions

**SPECIFIC PROGRAMME IMPLEMENTING HORIZON EUROPE & EIT\***  
*Exclusive focus on civil applications*

**Pillar I  
EXCELLENT SCIENCE**




European Research Council

Marie Skłodowska-Curie

Research Infrastructures

**Pillar II  
GLOBAL CHALLENGES & EUROPEAN INDUSTRIAL COMPETITIVENESS**




**Clusters**

- Health
- Culture, Creativity & Inclusive Society
- Civil Security for Society
- Digital, Industry & Space
- Climate, Energy & Mobility
- Food, Bioeconomy, Natural Resources, Agriculture & Environment

Joint Research Centre

**Pillar III  
INNOVATIVE EUROPE**



European Innovation Council

European Innovation Ecosystems

European Institute of Innovation & Technology\*

**WIDENING PARTICIPATION AND STRENGTHENING THE EUROPEAN RESEARCH AREA**

Widening participation & spreading excellence

Reforming & Enhancing the European R&I system

Fusion

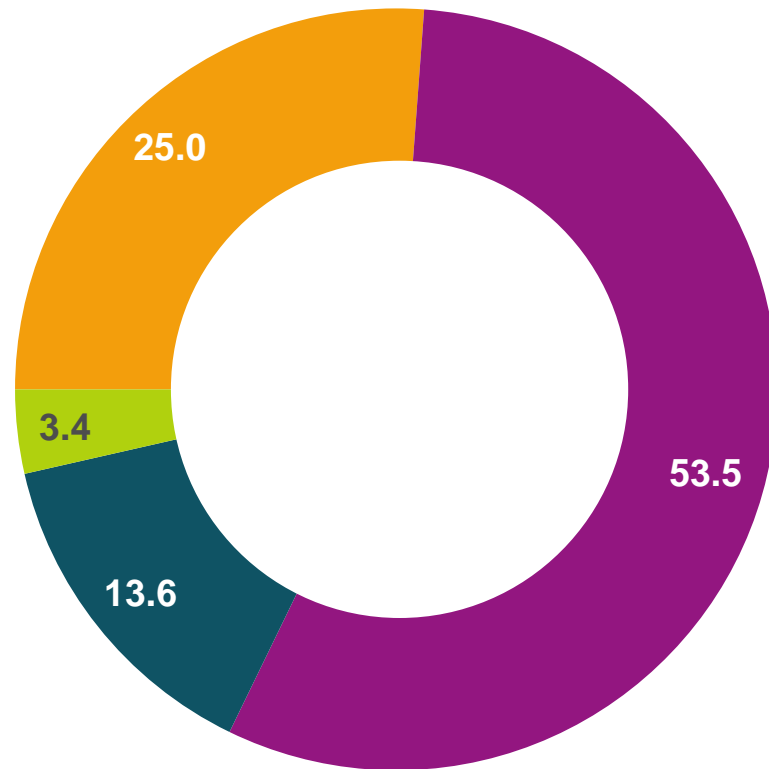
Fission

Joint Research Center

\* The European Institute of Innovation & Technology (EIT) is not part of the Specific Programme

# Horizon Europe Budget: €95.5 billion (2021-2027)

(including €5.4 billion from NGEU – Next Generation Europe – programme of EU for Recovery from COVID-19 crisis)



## Political agreement December 2020

*€ billion in current prices*

- Excellent Science
- Global challenges and European ind. comp.
- Innovative Europe
- Widening Part and ERA

CLIMATE, ENERGY AND MOBILITY

# Cluster 5



# EU Policy priorities

## European Green Deal

- Climate Action; Clean Energy; Sustainable Mobility; Eliminating pollution; Building and renovating; Biodiversity; Sustainable Industry

## A Europe fit for the digital age

- Artificial Intelligence; European data strategy; European Industrial Strategy; Cybersecurity

## An economy that works for the people

- Internal market; Jobs, Growth and investment

## Promoting our European way of life

- European Security Union; European Health Union

## A stronger Europe in the world

- International partnerships; Trade policy; EU Foreign policy

## A new push for European Democracy

- Strategic foresight; Future of Europe

## Recent Commission initiatives:

### Climate Action

- Fit for 55 package
- EU Climate Law (EU climate neutral by 2050)
- 2030 Climate Target Plan (55% GHG reduction by 2030)
- Make sectoral legislation 'fit for 55'
- EU Climate Adaptation Strategy
- Zero Pollution Action Plan

### Energy

- EU Strategy for Energy System Integration
- Hydrogen strategy
- Renovation wave for Europe
- Offshore renewable energy

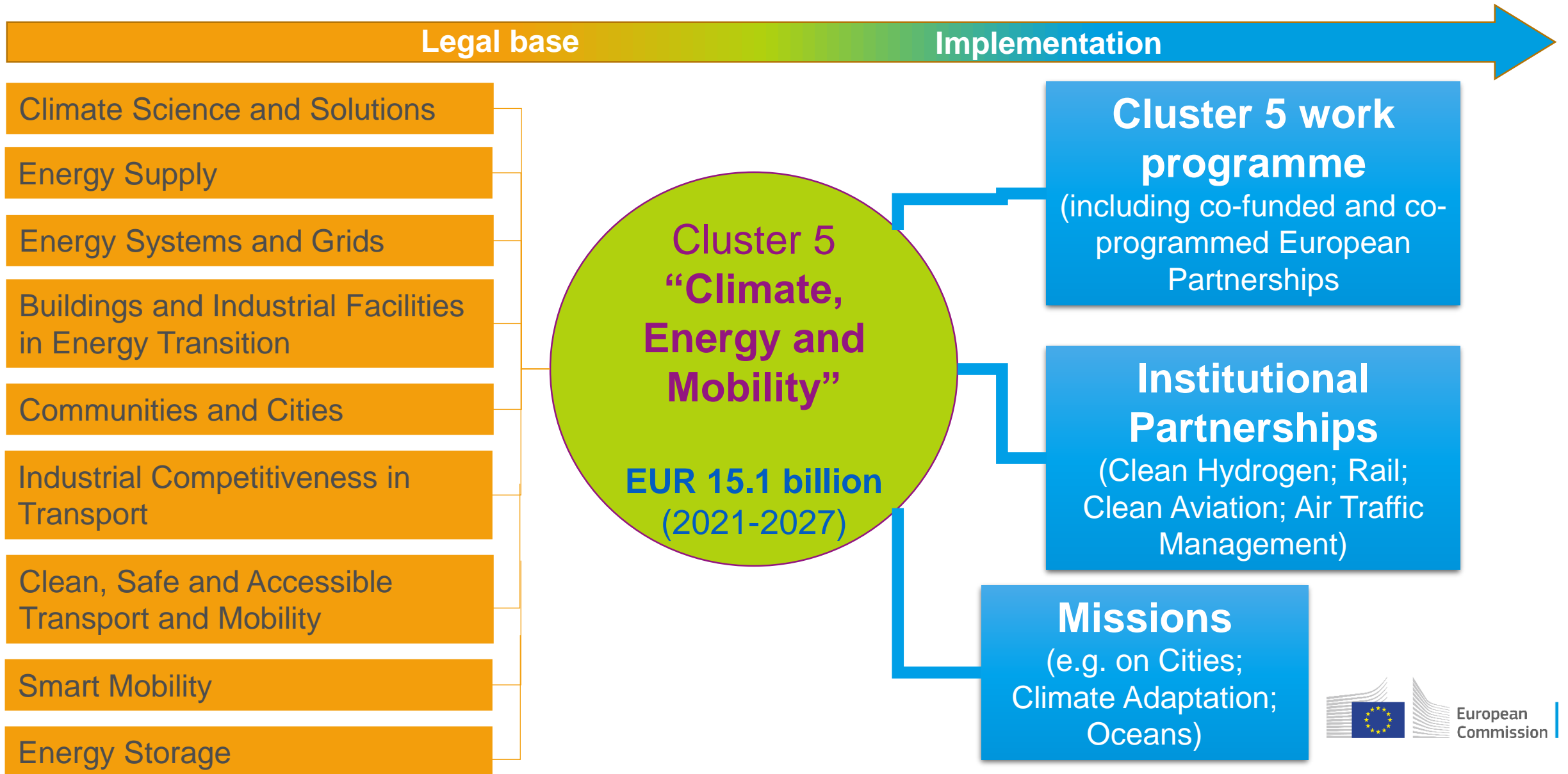
### Mobility

- Sustainable and Smart Mobility Strategy

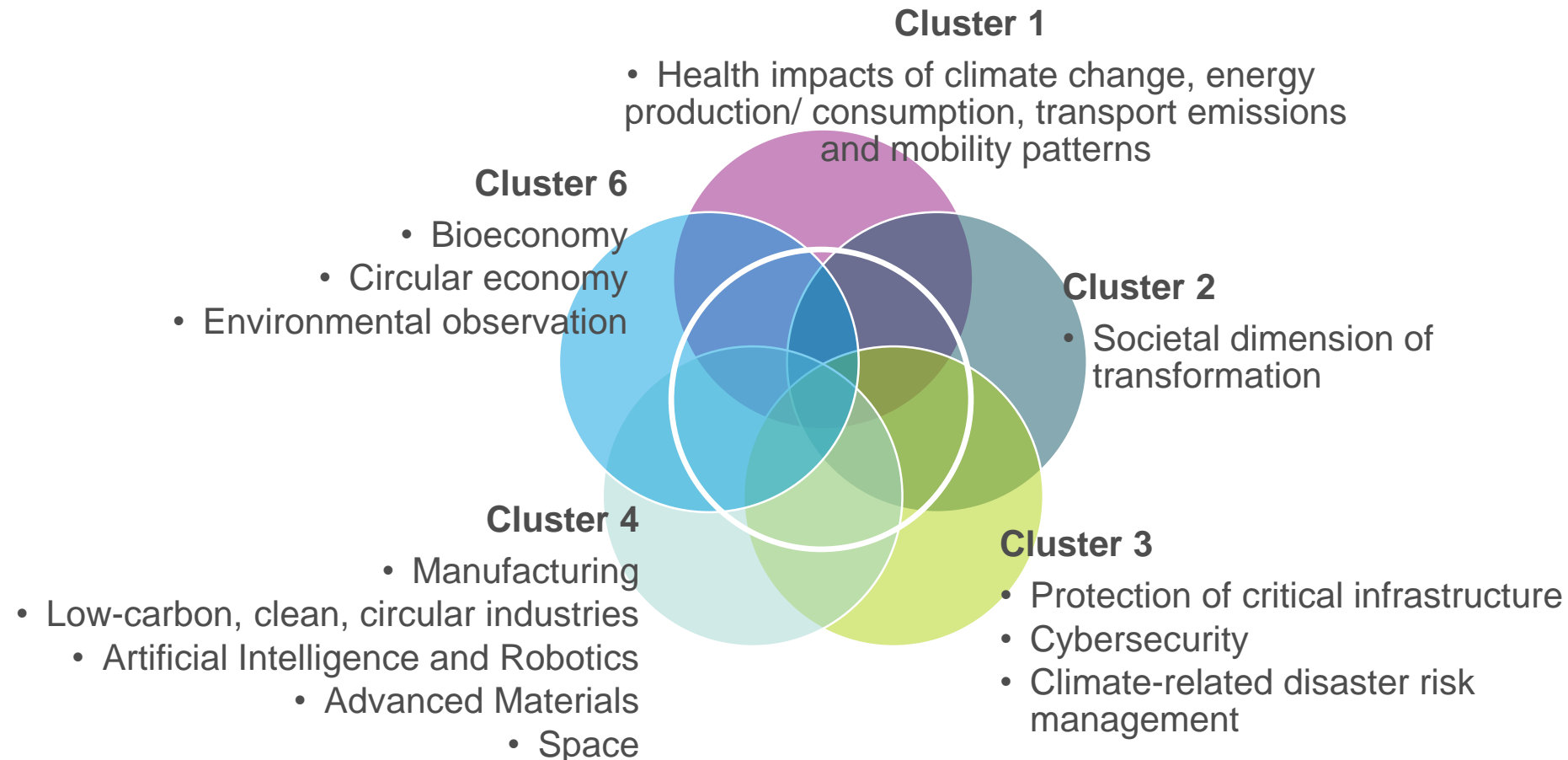
### Research and Innovation

- A new European Research Area

# Cluster 5 - overview



# Cluster 5 – Links to other clusters





CLIMATE, ENERGY AND MOBILITY

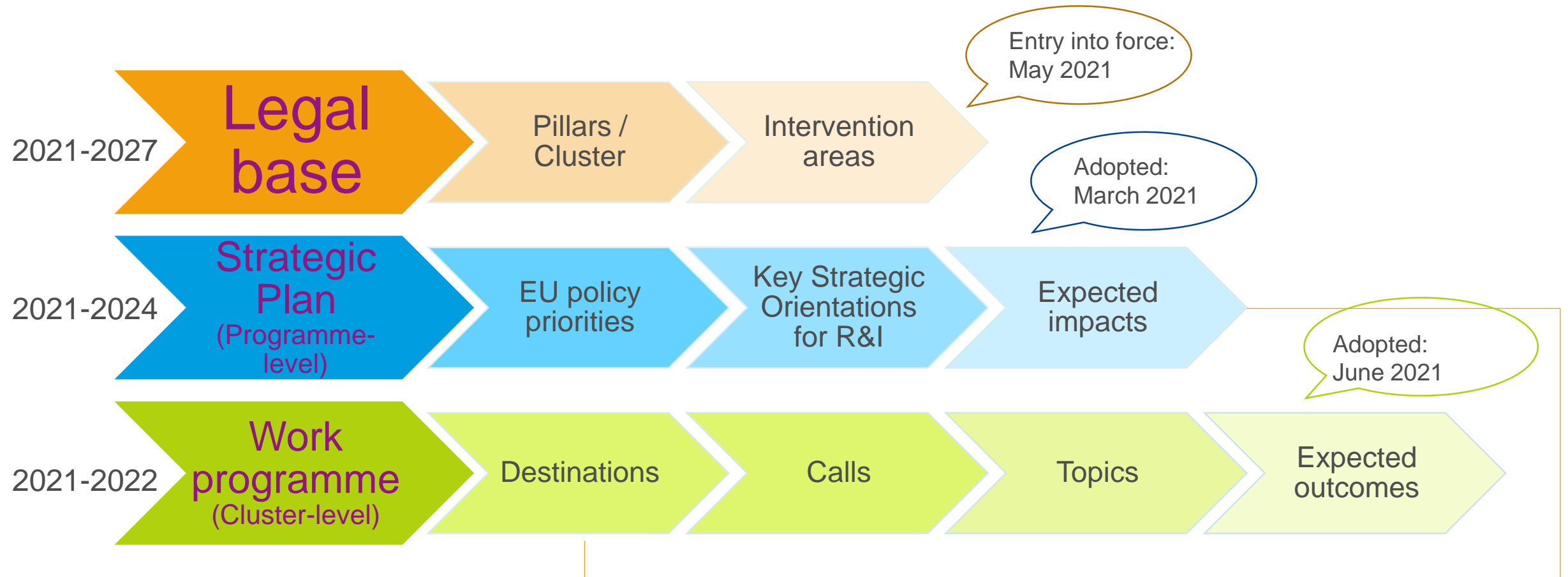


# Cluster 5

# Work programme 2021-2022



# Programme intervention logic



# Cluster 5 – Expected impacts

Transition to a climate-neutral and resilient society and economy enabled through **advanced climate science**, pathways and responses to climate change (mitigation and adaptation)

Clean and sustainable transition of the energy and transport sectors towards climate neutrality facilitated by innovative **cross-cutting solutions**

Efficient and sustainable **use of energy**, accessible for all is ensured through a clean energy system and a just transition

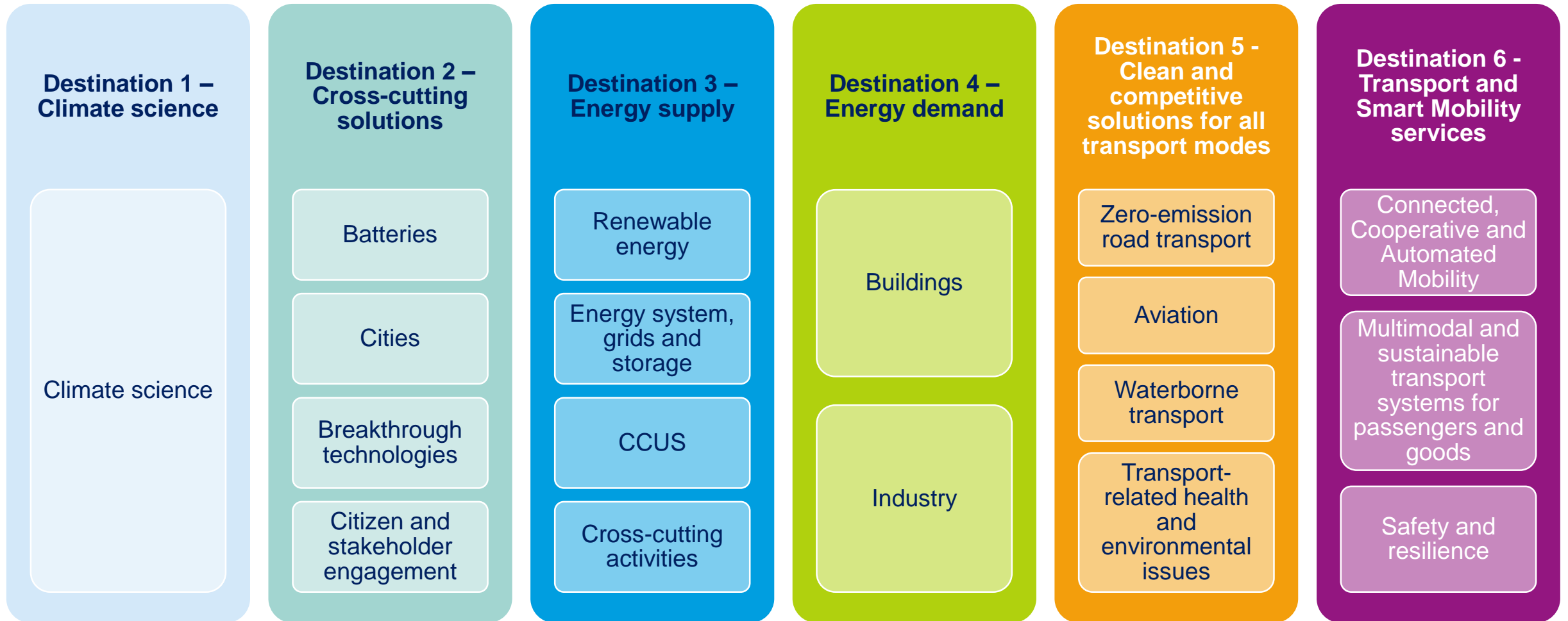


More efficient, clean, sustainable, secure and competitive **energy supply** through new solutions for smart grids and energy systems based on more performant renewable energy solutions

Safe, seamless, smart, inclusive, resilient, climate neutral and sustainable **mobility systems** for people and goods

Towards **climate-neutral and environmental friendly mobility** through clean solutions across all transport modes while increasing global **competitiveness** of the EU transport sector

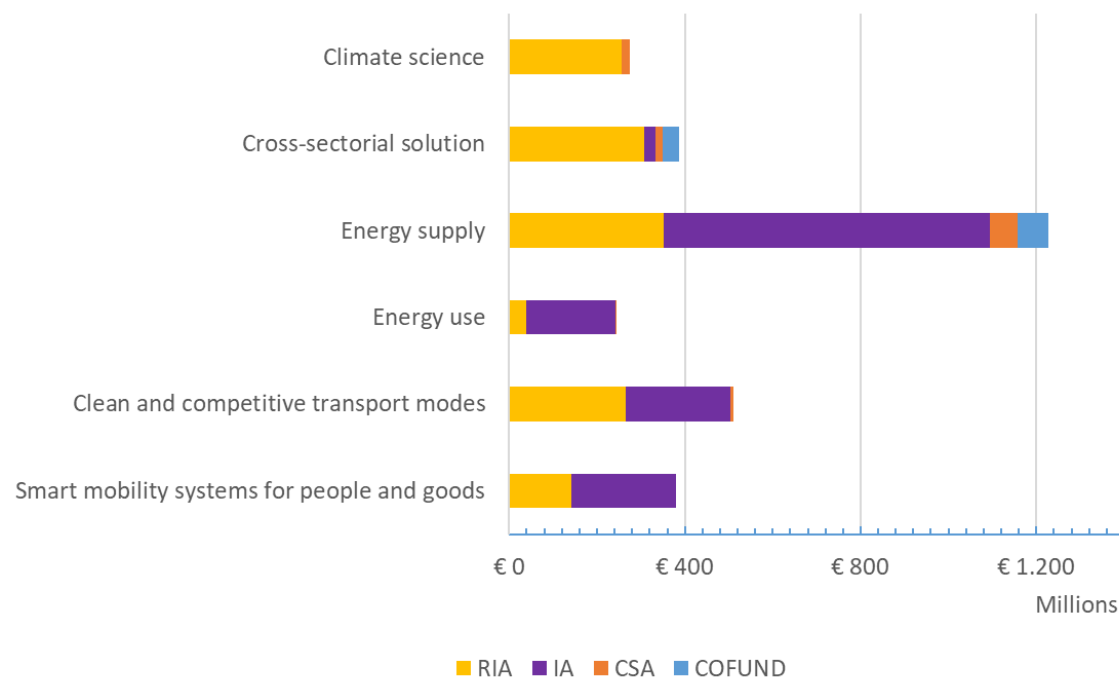
# Cluster 5 Work programme - overview



# Cluster 5 Work programme - overview

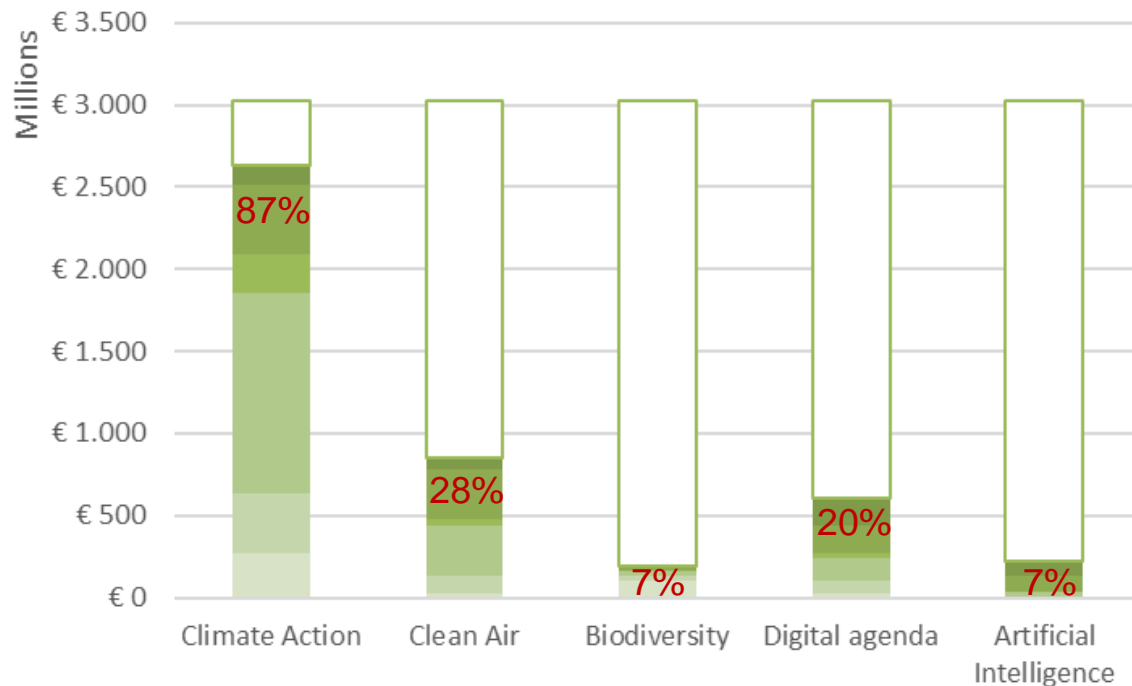
	Budget (Mio €)	Share of total	Number of topics	Share of total
Climate science	274.0	9%	17	9%
Cross-sectorial solution	387.5	13%	25	13%
Energy supply	1226.3	40%	67	36%
Energy use	244.0	8%	18	10%
Clean and competitive transport modes	511.0	17%	31	17%
Smart mobility systems for people and goods	380.0	13%	28	15%
<b>TOTAL</b>	<b>3022.8</b>		<b>186</b>	

EU contribution per Destination and type of action (2021-2022, in Mio EUR)



# Cross-cutting priorities

Contribution of **cluster 5** topics to cross-cutting policy priorities  
(percentage of total call budget; WP 2021-2022)



Budget share dedicated to **climate action** in other HE parts:

- Cluster 1: 300 M€ (17%)
- Cluster 2: 30 M€ (7%)
- Cluster 3: 40 M€ (10%)
- Cluster 4: 1235 M€ (41%)
- **Cluster 5: 2630 M€ (87%)**
- Cluster 6: 1345 M€ (72%)

Budget share dedicated to **digital agenda** in other HE parts:

- Cluster 1: 600 M€ (34%)
- Cluster 2: 95 M€ (22%)
- Cluster 3: 220 M€ (54%)
- Cluster 4: 1840 M€ (61%)
- **Cluster 5: 605 M€ (20%)**
- Cluster 6: 375 M€ (20%)

# International Cooperation

- **General opening of Horizon Europe to international cooperation**
  - Low- and middle-income countries can participate with EU funding
  - Other countries can participate, normally without EU funding, except in justified cases
- **International cooperation explicitly encouraged in 42 topics of the cluster**
  - Flagged on portal as ‘A Stronger Europe in the World’
- **Association of third countries**
  - Key novelty of Horizon Europe

# Important websites

## **Cluster 5 draft work programme 2021-2022**

[https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-8-climate-energy-and-mobility\\_horizon-2021-2022\\_en.pdf](https://ec.europa.eu/info/funding-tenders/opportunities/docs/2021-2027/horizon/wp-call/2021-2022/wp-8-climate-energy-and-mobility_horizon-2021-2022_en.pdf)

## **Information event on cluster 5 calls**

<https://www.horizon-europe-infodays2021.eu/event/cluster-5-climate-energy-mobility>

## **Funding & Tender Portal**

<https://ec.europa.eu/info/funding-tenders/opportunities/portal/screen/programmes/horizon>



# Follow us and keep up to date via:

## HorizonEU

*Commissioner Mariya Gabriel:* @GabrielMariya

*Director-General Jean-Eric Paquet:* @JEPaquetEU

**DG Research and Innovation:** @EUScienceInnov @EU\_H2020

<https://www.facebook.com/EUScienceInnov/>

**Horizon Magazine:** @HorizonMagEU

**Horizon Europe website:** <http://ec.europa.eu/horizon-europe>

**European Innovation Council:** <http://ec.europa.eu/research/eic>

**European Research Council:** <https://erc.europa.eu/>





# Thank you!

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**# HorizonEU**

<http://ec.europa.eu/horizon-europe>



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