

**Friday  
June 9**

## Lightweight contributions to the European Green Deal

*Advanced materials for the Green Deal.*

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Spain





# Advanced materials for the Green Deal

European Lightweight Network Conference, 8-9 June,  
Stockholm, Sweden

*Javier Sanfélix  
Policy Officer, Industrial Transformation Unit  
DG Research and Innovation*

# Political priorities



## European Green Deal

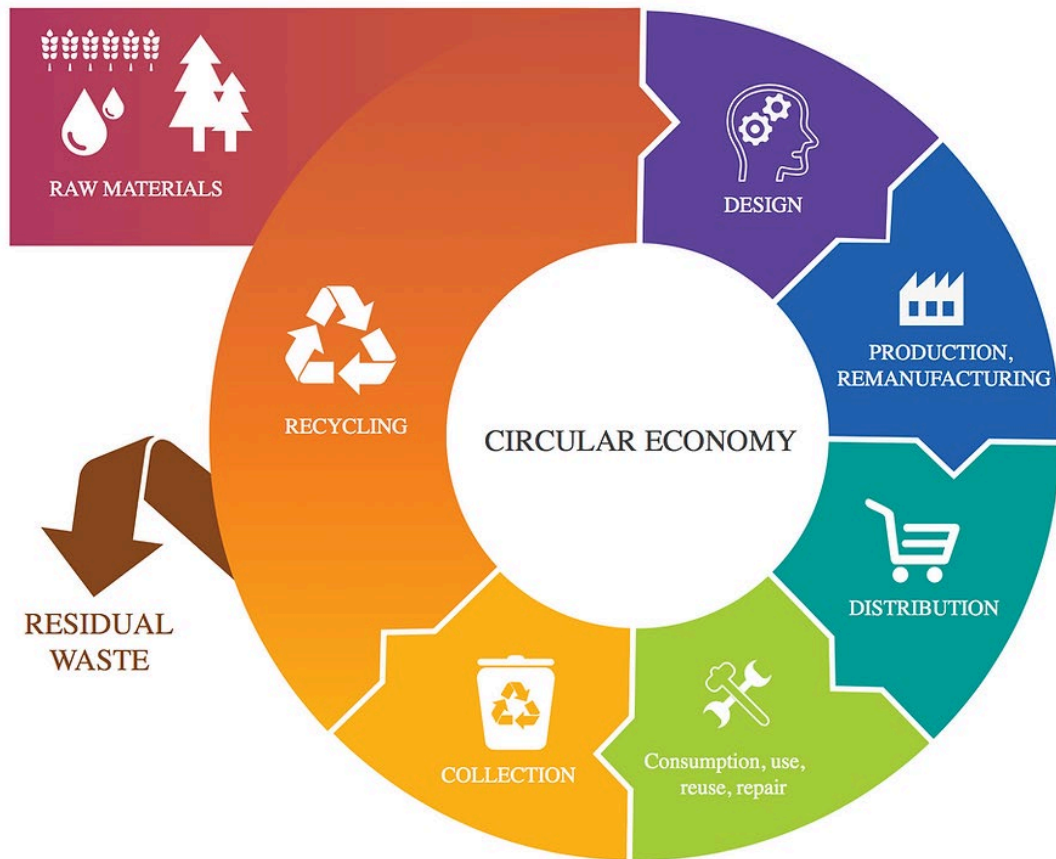
- The first climate-neutral continent by 2050
- At least 55% less net greenhouse gas emissions by 2030, compared to 1990 levels



## A Europe Fit for the Digital Age

- €250 billion boost to digitalisation from Next Generation EU
- €43 billion of policy-driven investment will support the Chips Act until 2030

# Circular economy



“The European Green Deal is our new growth strategy. The novelty and the difference to our fossil fuel based model is that we will foster growth that is **not extracting resources but that gives back more to the planet** than it takes away.

This is what economists call the **regenerative growth model.**”

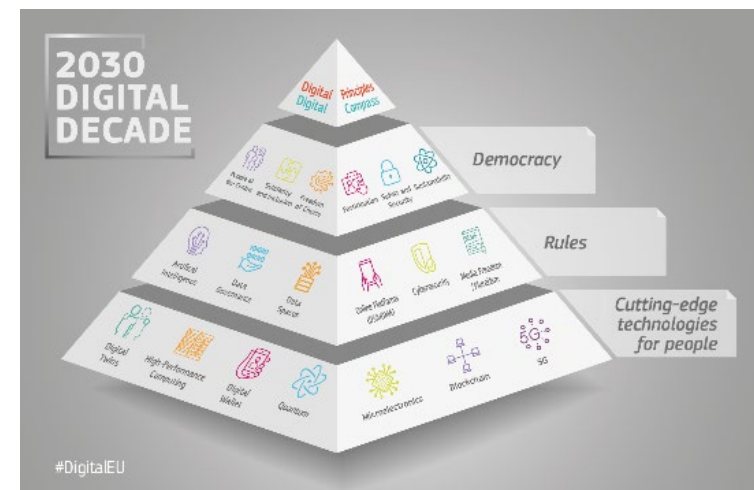
# Commission strategies



**EU Chemicals Strategy:** boosting innovation for safe and sustainable chemicals by design



**European Industrial Strategy Update:** more sustainable, digital, resilient and competitive industry



**2030 Digital Decade:** human-centric digital technologies and digital transformation of businesses

# Commission legislative proposals

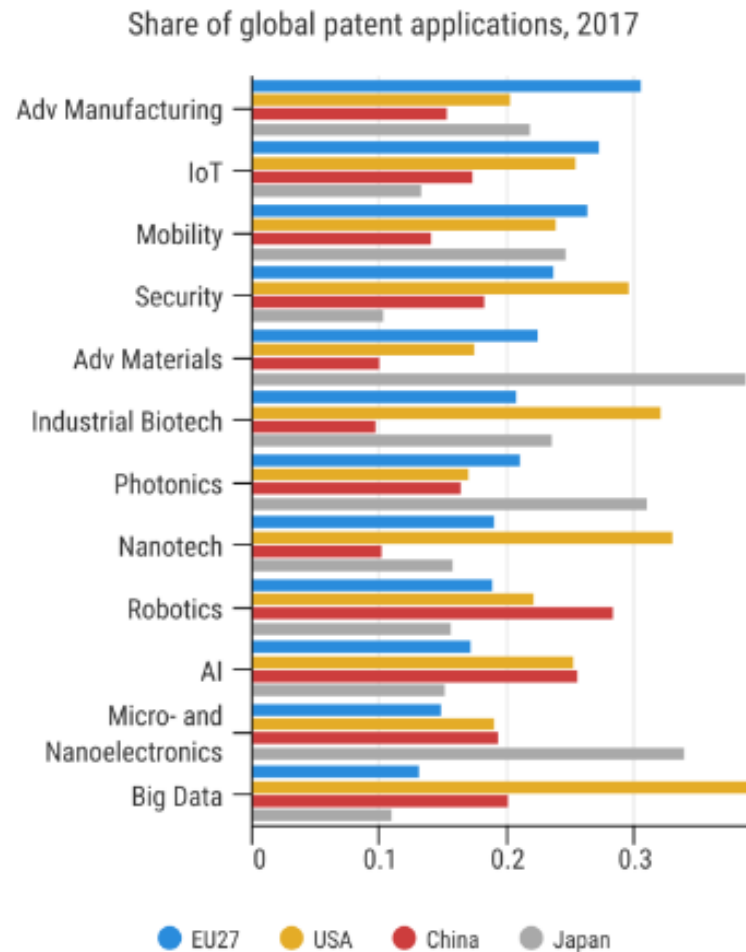


A secure and sustainable supply of raw materials for the twin transition



Innovating and scaling up the manufacturing capacity of net-zero technologies to support climate neutrality and resilience

# European competitive edge - General



Source: Technopolis Group, 2020

# Importance of advanced materials

2022

- February: Pivotal stakeholders present the Materials Manifesto to Commissioner Gabriel
- Enlargement of the stakeholder group and creation of AMI 2030 - Materials Roadmap December 2022

2023

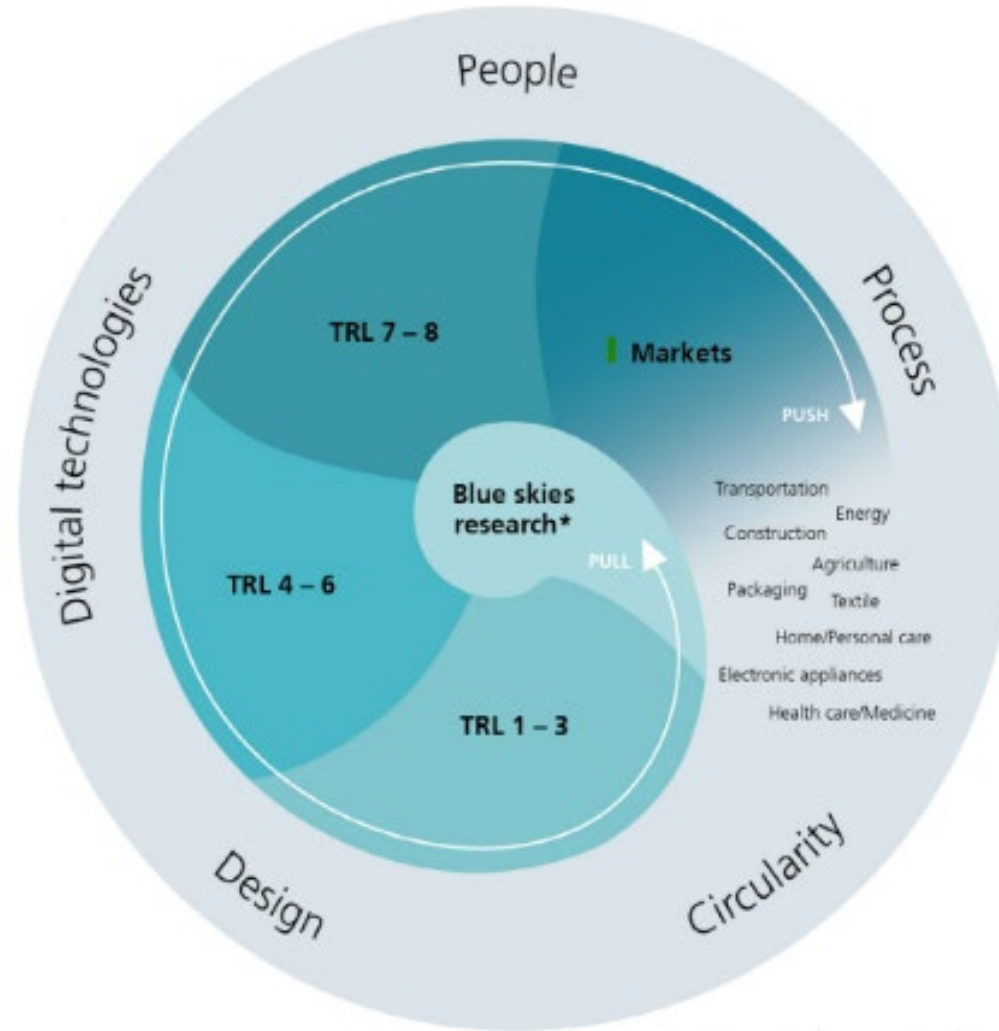
- Strategic Materials Agenda from AMI 2030 (April 2030)
- CRM Act Communication announces Coordinated Plan on Advanced materials with MS
- Discussions with stakeholders, including Member States (lightweight, nano, 2-dimensional, etc.)

2024

- Expected adoption of the Coordinated Plan



# Advanced Materials Manifesto



\* Research where „real-world“ applications are not immediately apparent

# Coordinated Plan - Objectives

**“To develop a strong, coherent and inclusive materials ecosystem in Europe”**

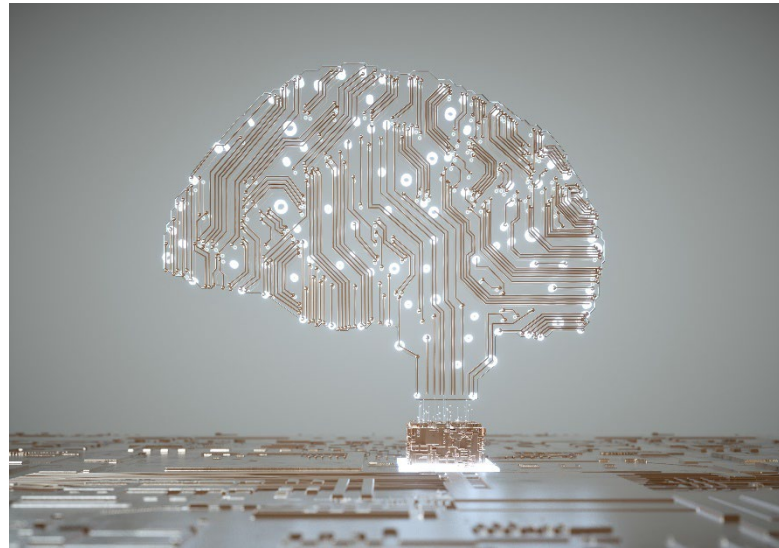
- Enabling **technological leadership** in the next generation materials
- Driving the transition to a **circular economy and the digital age**
- Shaping **resilient industrial value chains**
- **Secure R&I investments** commensurate with the challenges

# Key technological challenges

**Achieve circularity**



**Digital tools as game changer**



**Accelerate up-scaling and deployment**

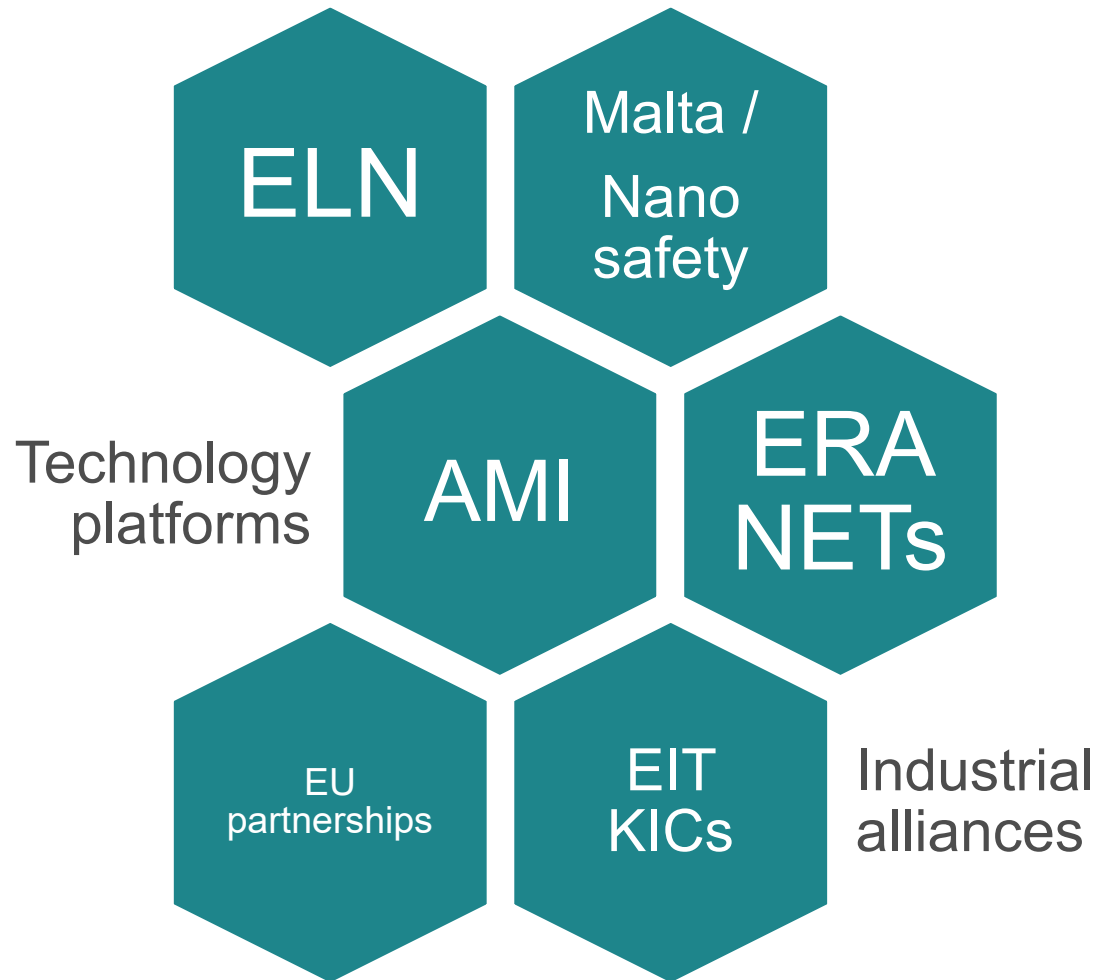


# Lightweight under Horizon Europe Cluster 4

- Ensuring circularity of composite materials (24,7 M€)
- Advanced lightweight materials for energy efficient structures (20 M€)
- Functional multi-material components and structures (20M €)
- On open innovation test beds:
  - LightCoce offers five pilot lines to upscale the production of lightweight concrete and ceramics
  - OASIS focuses on light weight composite materials and components in the automotive sector



# Comprehensive approach

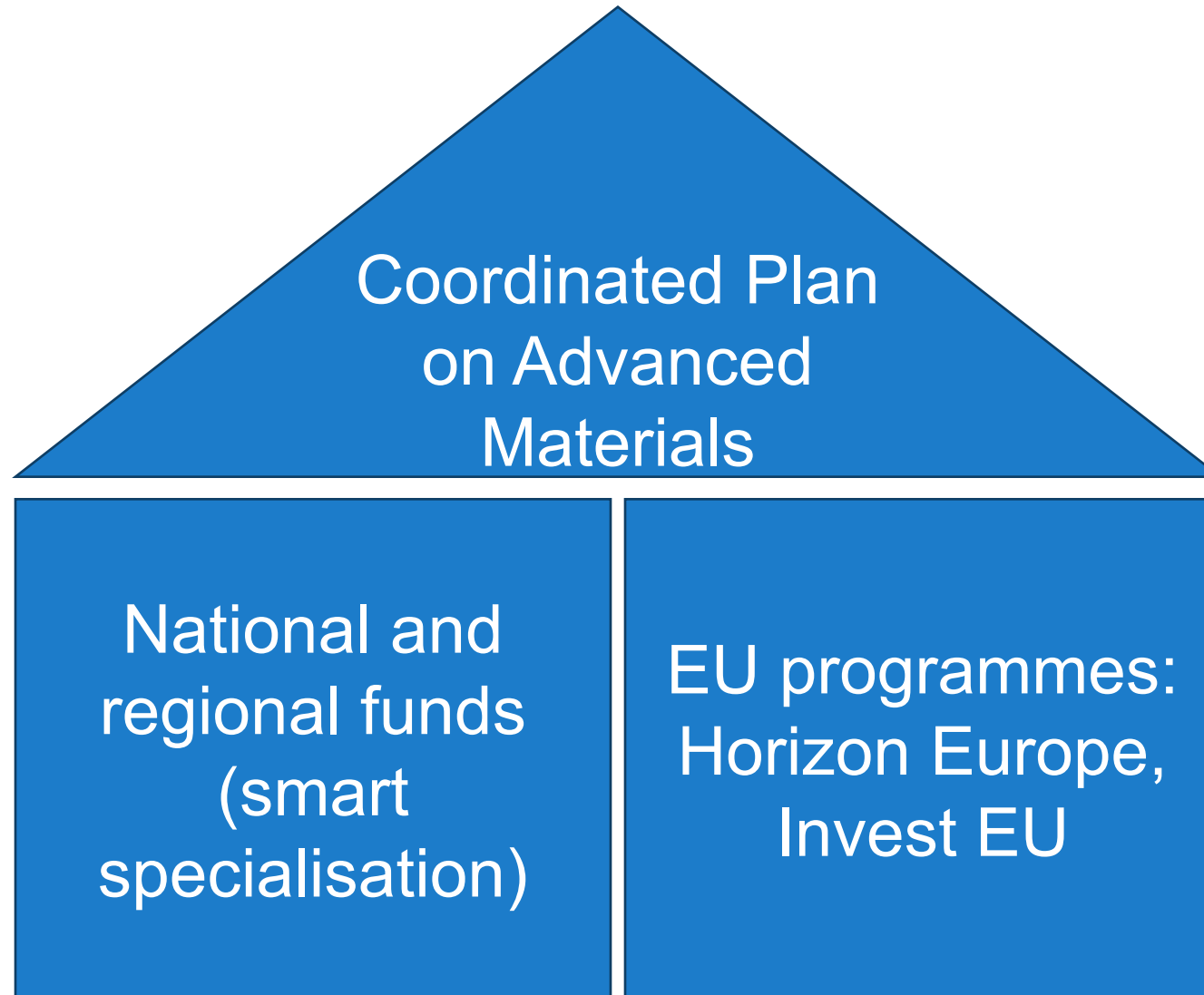


- Cover advanced materials as a whole
  - 2dimensional, nanomaterials, lightweight, composite, multifunctional, etc.
- Cooperation across existing initiatives
  - Build on complementarities and synergies among them and identify collaboration areas
  - Establish joint activities (roadmaps, knowledge and results exchange, joint calls, etc.)
  - Maximize impacts on defined objectives at European and national level

# MS landscape on advanced materials

- National research programmes and strategies focusing on AM:
  - AT, FR, DE, EL, LU, and NL: dedicated programme/strategy
  - BG, CZ, DK, EE, IE, IT, LT, MT, LV, ES and SE: AM are included in national R&I strategies
  - CY, HR and PL: no specific R&I programme/strategy
- Main priorities:
  - Industrial sectors (energy, medicine and health, electronics, ICT and quantum tech, construction and buildings, mobility, textiles, chemical industry, agriculture, food, etc.)
  - Societal challenges (circularity, including recycling and reuse, energy efficiency, reducing environmental pressures and mitigation of climate change)
- Priority setting mechanisms:
  - Open public consultation with national stakeholders (DK, EE, IE, ES, SE)
  - Consultation via ministries (HR and LU), national innovation platforms (AT and CZ), foundation (CY)
  - FR had calls for expression of interests to identify main industrial and research actors
  - EL is using an advisory committee

# Implementation tools



# Timeline

- 22 June – discussion with European Research Area and Innovation Committee
- September – discussion with Programme Committee HE-CL4
- October – outreach event with stakeholders
- Q1 2024 – adoption Coordinated Plan on advanced materials



# Conclusions

- Lightweight materials matter for the coordinated plan
- Further discussions and input by you on collaborations as well as key challenges
- How do you see your priorities in line with the circularity and digital objectives
- Which would be your expectations towards future involvement of industry in such coordinated plan
- Collaborations on technologies infrastructures for the benefit of SMEs

# Thank you



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