Digital construction, R&D funding needs and opportunities from the EU

Opportunities under European research programmes

11 April 2019
Bauma fairgrounds - Munich

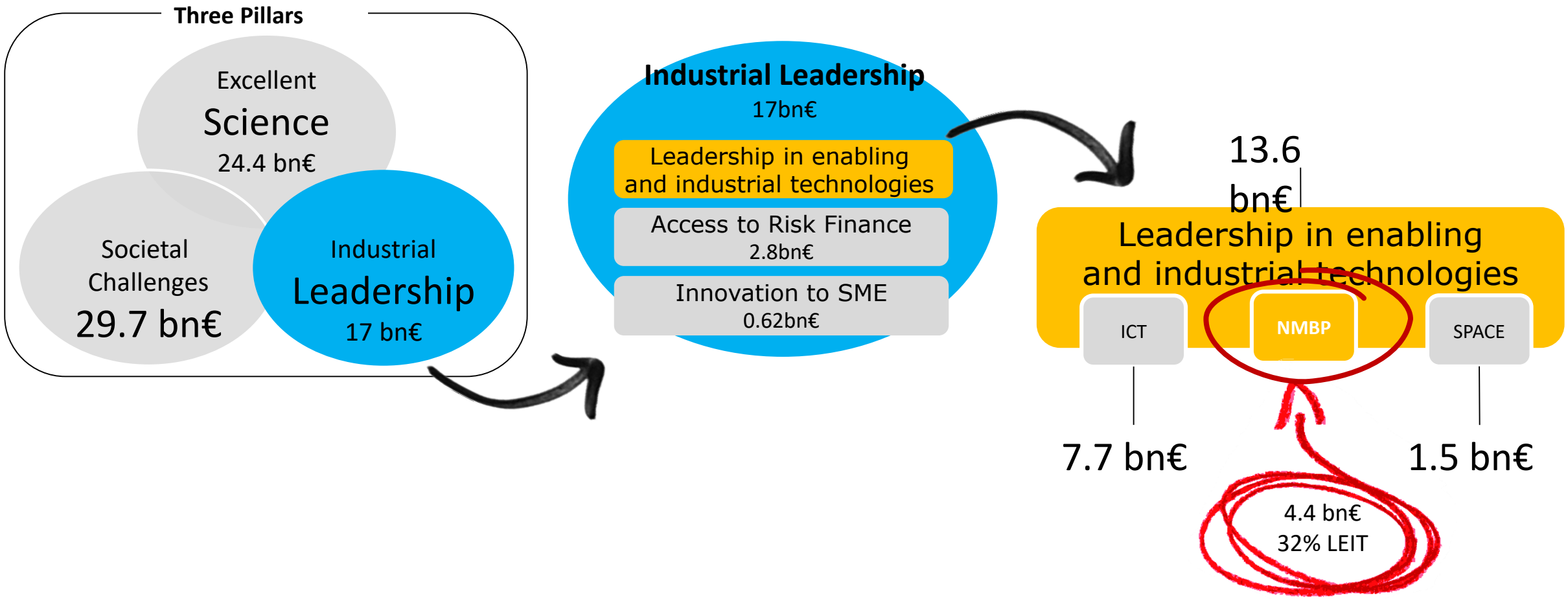
Jürgen Tiedje
Head of Unit
Advanced Manufacturing Systems and Biotechnologies
DG Research and Innovation
European Commission

Overview

- Horizon 2020
- Proposed contents of Pillar 2 of Horizon Europe and potential for industry
- Possible implementation of Pillar 2 (mission, partnerships, ordinary calls)
- Upcoming strategic planning in 2019

European Commission

Funding under Horizon 2020 (2014 – 2020)



Horizon 2020 (NMBP WP2020 – adoption scheduled for June) Context –Energy Efficient Buildings (EEB)

- **Monitoring and safety of bridges (CSA)**
- **Industrialisation of building envelope for the renovation market (IA)**
- **Smart Operation of Proactive Residential Buildings (IA)**
- **Construction by Digital-Twin (RIA) - EEB**

European Commission

Commission proposal for

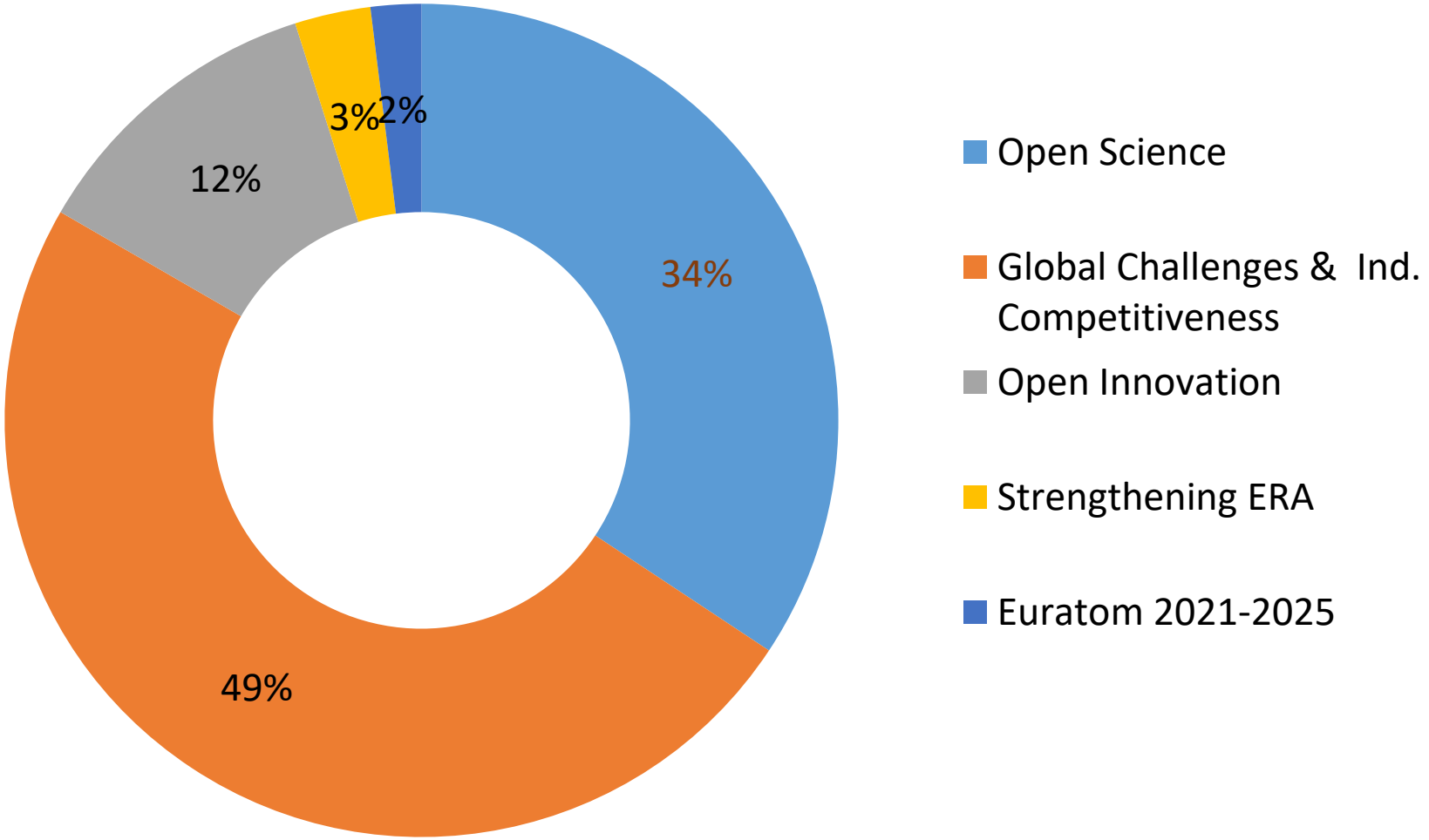
Horizon Europe

THE NEXT EU RESEARCH & INNOVATION PROGRAMME (2021 – 2027)

#HorizonEU

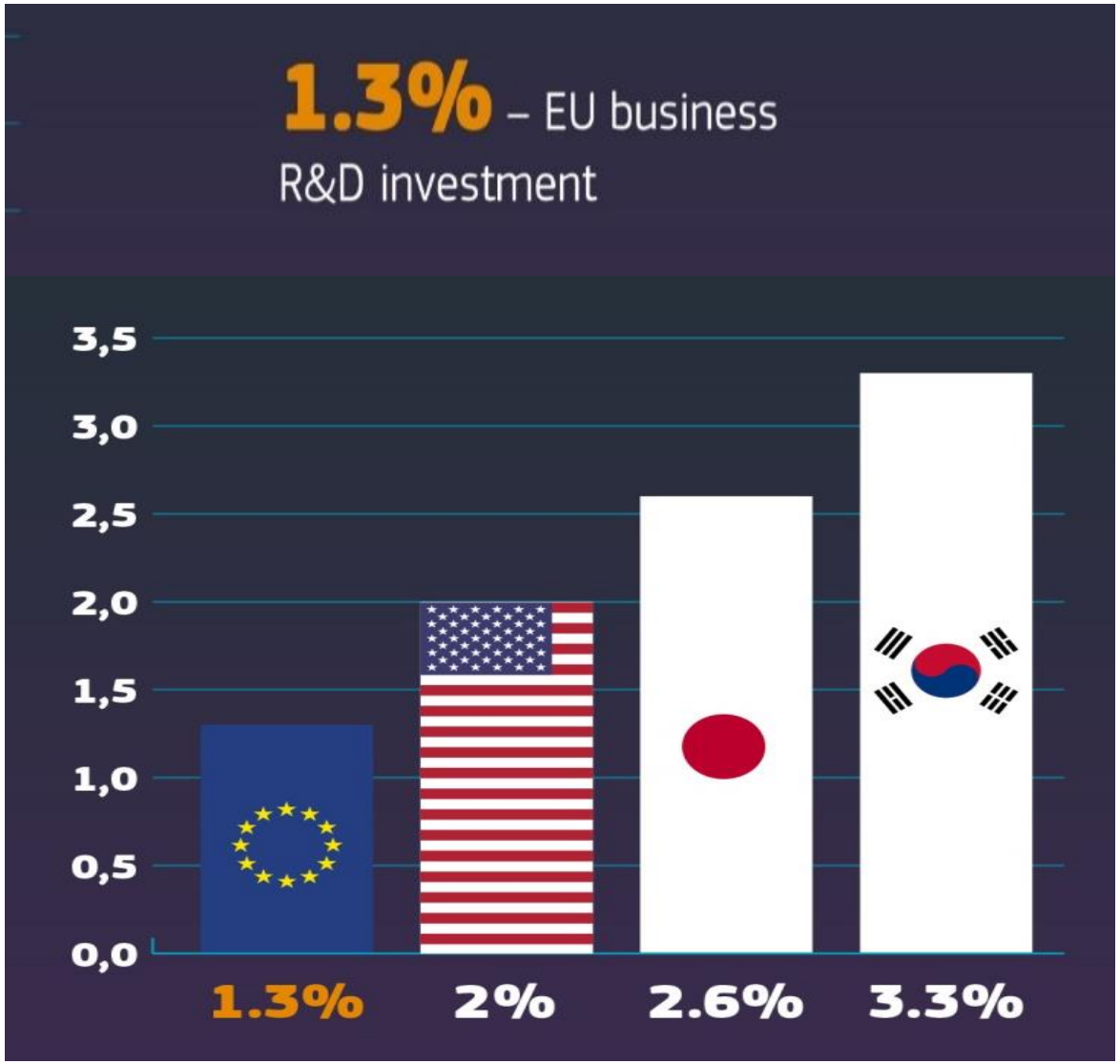
Research and Innovation

Proposed Budget for Horizon Europe: EUR 100 Billion *



* In addition, this envelope includes EUR 3.5 billion allocated under the InvestEU Fund.

European Commission



Science Research and Innovation Performance of the EU 2018

Proposal for Horizon Europe (2021-2027)

Pillar 1
Open Science

- European Research Council
- Marie Skłodowska-Curie Actions
- Infrastructures

Pillar 2
Global Challenges and Industrial Competitiveness

Clusters
- Health
- Inclusive and Secure Society
- Digital and Industry
- Climate, Energy and Mobility
- Food and natural resources

- Joint Research Centre

Pillar 3
Open Innovation

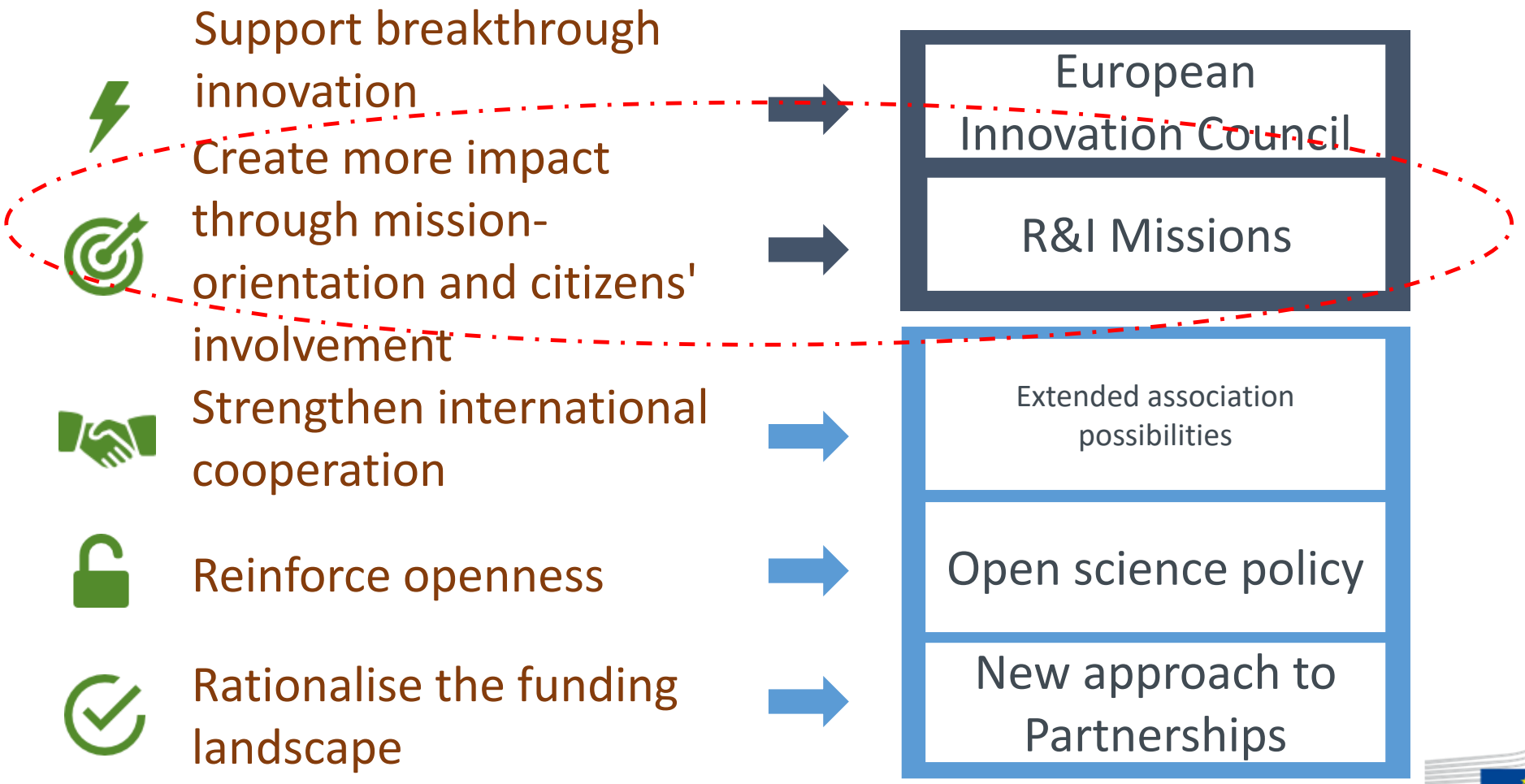
- European Innovation Council
- European innovation ecosystems
- European Institute of Innovation and Technology

Strengthening the European Research Area

- Sharing excellence
- Reforming and Enhancing the European R&I system

Clusters	Areas of intervention	
Health	* Health throughout the life course * Non-communicable and rare diseases * Tools, technologies and digital solutions for health and care	* Environmental and social health determinants * Infectious diseases * Health care systems	€7.7bn
Inclusive and Secure Societies	* Democracy * Social and economic transformations * Protection and Security	* Cultural heritage * Disaster-resilient societies * Cybersecurity	€2.8bn
Digital and Industry	* Manufacturing technologies * Advanced materials * Next generation internet * Circular industries * Space	* Key digital technologies * Artificial intelligence and robotics * Advanced computing and Big Data * Low carbon and clean industry	€15bn
Climate, Energy and Mobility	* Climate science and solutions * Energy systems and grids * Communities and cities * Industrial competitiveness in transport * Smart mobility	* Energy supply * Buildings and industrial facilities in energy transition * Clean transport and mobility * Energy storage	€15bn
Food and Natural Resources	* Environmental observation * Agriculture, forestry and rural areas * Food systems * Circular systems	* Biodiversity and natural capital * Sea and oceans * Bio-based innovation systems	€10bn

Concept of missions – new way for implementing a programme



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Lessons Learned

Support breakthrough innovation

Create more impact through mission-orientation and citizens' involvement

Strengthen international cooperation

Reinforce openness

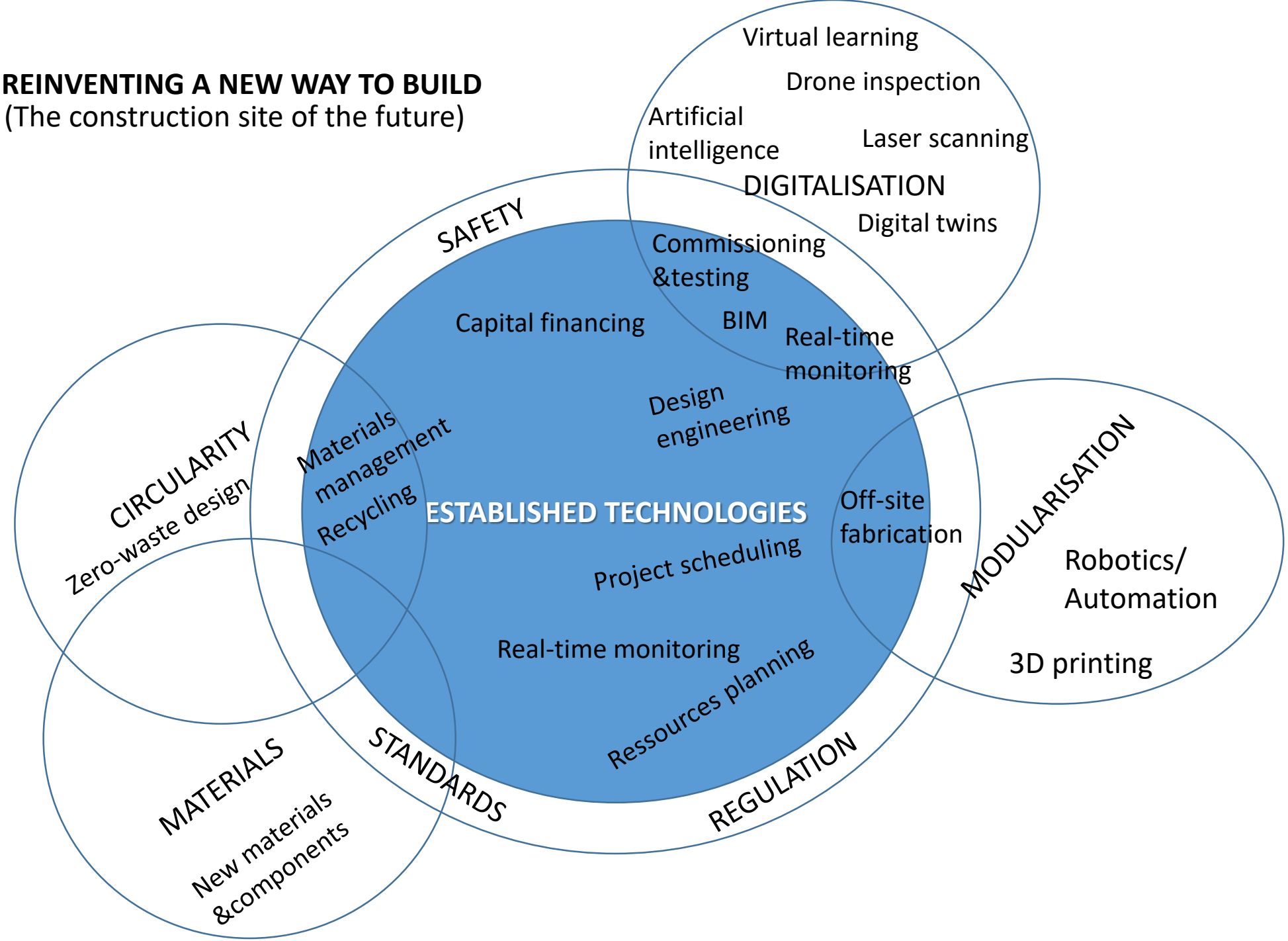
Rationalise the funding landscape

Key novelties

- European Innovation Council
- R&I Missions
- Extended association possibilities
- Open science policy
- New approach to Partnerships

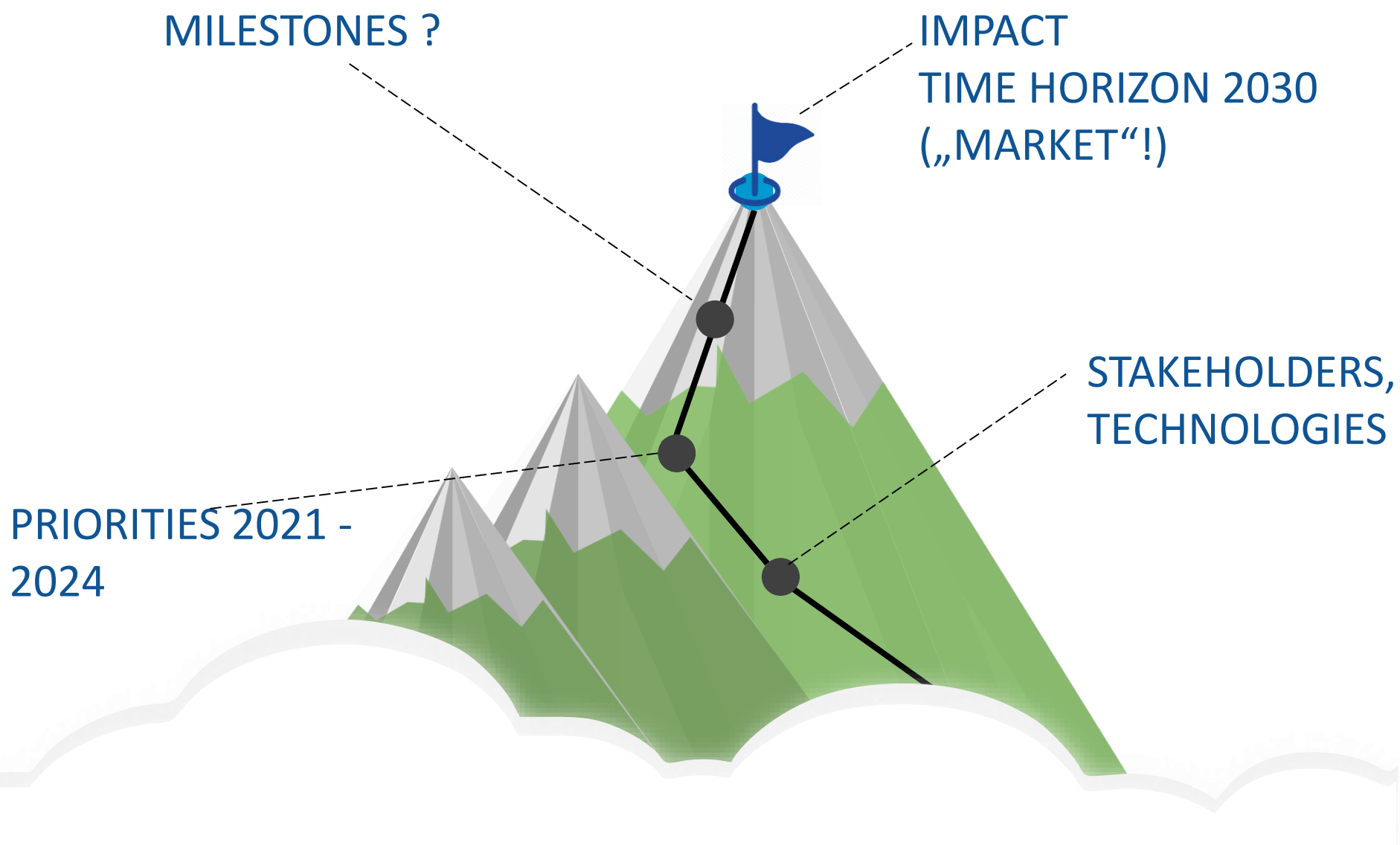
Horizon Europe: Strategic planning ”

REINVENTING A NEW WAY TO BUILD
(The construction site of the future)



HORIZON EUROPE STRATEGIC PLANNING

Public consultation June to Sep)



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Horizon Europe dedicated website
http://ec.europa.eu/horizon-europe

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

EU budget for the future
http://ec.europa.eu/budget/mff/index_en.cfm

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