



Horizon Europe

An ambitious programme!



14 December 2021

Objectives of Horizon Europe

A budget of at least **95,5 billion €** (current prices) to...



... strengthen the EU's scientific and technological bases and the European Research Area (ERA)



...boost Europe's innovation capacity, competitiveness and jobs



...deliver on citizens' priorities and sustain our socio-economic model and values

Research & Innovation

Important drivers of change



Accelerate the twin transition

and find solutions in areas such as the **decarbonisation of industry** or **sustainable mobility**



Strengthen resilience and prepare crises

R&I in the fields of **health, digital, socio-economic** and **climate** are essential



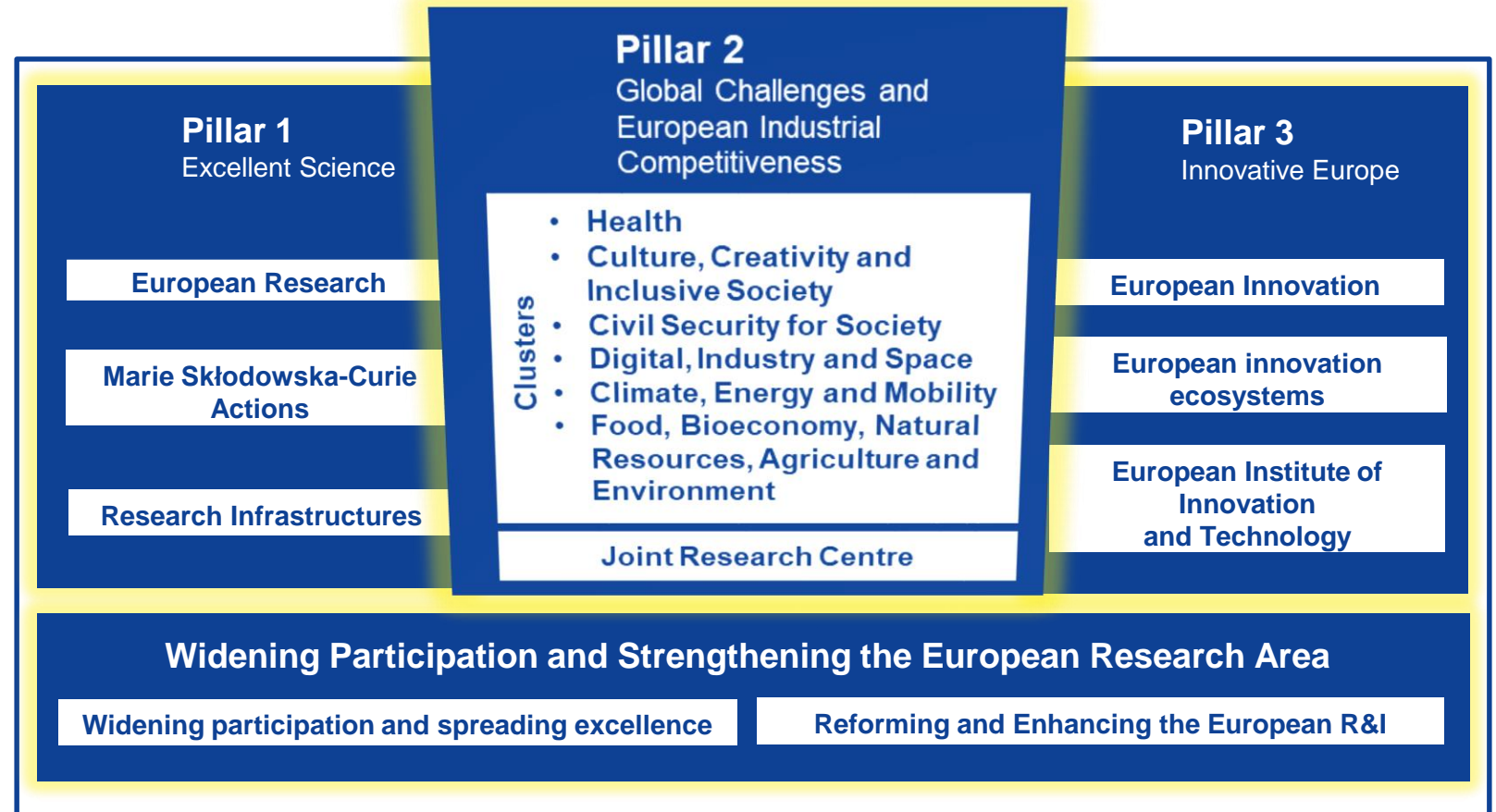
Support Europe's competitive edge

in the global race for knowledge and tech sovereignty in **cybersecurity, space, AI, 5G** and **e-mobility**

Range and coverage of Horizon Europe

Pillar II of Horizon Europe is the most versatile one.

Western Balkans and Montenegrin legal entities might want to look at the **Horizontal Pillar IV** that has **specific measures targeting the region**.



Strategic orientations to guide research and innovation

Key strategic orientations and expected impacts

Four key strategic orientations

Key Strategic Orientation A

Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains

Key Strategic Orientation B

Restoring Europe's ecosystems and biodiversity, and managing sustainably natural resources

Key Strategic Orientation C

Making Europe the first digitally enabled circular, climate-neutral and sustainable economy

Key Strategic Orientation D

Creating a more resilient, inclusive and democratic European society

Key Strategic Orientation A

Key Strategic Orientation A

Promoting an open strategic autonomy by leading the development of key digital, enabling and emerging technologies, sectors and value chains to accelerate and steer the digital and green transitions through human-centred technologies and innovations

Impact areas

- Competitive and secure data-economy
- Industrial leadership in key and emerging technologies that work for people
- Secure and cybersecure digital technology
- High quality digital services for all

Expected impacts

- Unlocking the full potential of new tools, technologies and digital solutions for a healthy society
- Maintaining an innovative, sustainable and globally competitive health-related industry
- Full potential of cultural heritage, arts and cultural and creative sectors
- Increased cybersecurity and a more secure online environment
- Industrial leadership and increased autonomy in key strategic value chains with security of supply in raw materials
- Globally attractive, secure and dynamic data-agile economy
- Open strategic autonomy in digital technologies and in future emerging enabling technologies
- Open strategic autonomy in developing, deploying and using global space-based infrastructures, services, applications and data
- A human-centred and ethical development of digital and industrial technologies
- Clean and sustainable transition of the energy and transport sectors
- Climate-neutral and environmental-friendly mobility

Key Strategic Orientation B

Impact areas

- Enhancing ecosystems and biodiversity on land and in waters
- Clean and healthy air, water and soil
- Sustainable food systems from farm to fork on land and sea

Expected impacts

- Reduced emissions and enhanced CSS in ecosystems
- Biodiversity and ecosystems preservation and restoration on land, inland water and at sea
- Food and nutrition security for all from farm to fork
- Sustainable rural, coastal and urban areas

Key Strategic Orientation B

Restoring Europe's ecosystems and biodiversity, and managing sustainably natural resources to ensure food security and a clean and healthy environment

Key Strategic Orientation C

Expected impacts

- Global leadership in clean & climate-neutral industrial value chains, circular economy and climate-neutral digital systems and infrastructures
- Transition to a climate-neutral and resilient society and economy
- Efficient, clean, sustainable, secure, and competitive energy supply
- Efficient and sustainable use of energy
- Safe, seamless, smart, inclusive, resilient, climate neutral and sustainable mobility systems
- Sustainable and circular management and use of natural resources
- Innovative governance models enabling sustainability and resilience

Key Strategic Orientation C

Making Europe the first digitally enabled circular, climate-neutral and sustainable economy through the transformation of its mobility, energy, construction and production systems

Impact areas

- Climate change mitigation and adaptation
- Affordable and clean energy
- Smart and sustainable transport
- Circular and clean economy

Key Strategic Orientation D

Expected impacts

- Staying healthy in a changing society
- Living and working in healthy environments
- Tackling diseases and reducing their burden
- Ensuring access to innovative, sustainable & high-quality health care
- Democratic governance is reinvigorated by improving the accountability, transparency, effectiveness and trustworthiness of rule-of-law based institutions and policies
- Social and economic resilience and sustainability
- Inclusive growth through evidence-based policies for employment, education, social fairness and inequalities, including in response to the socio-economic challenges due to the COVID-19 pandemic
- Enhanced disaster risk reduction
- Improved air/land/sea border management & maritime security
- Tackling crime and terrorism, and threats to infrastructures

Impact areas

- A resilient EU prepared for emerging threats
- A secure, open and democratic EU society
- Good health and high-quality accessible healthcare
- Inclusive growth and new job opportunities

Key Strategic Orientation D

Creating a more resilient, inclusive and democratic European society, prepared and responsive to threats and disasters, addressing inequalities and providing high-quality health care, and empowering all citizens to act in the green and digital transitions

Missions

The concept of EU Missions

- EU Missions are an **entirely new concept** for the EU framework programmes
- Address **major global challenges** that affect our daily lives and put forward highly **ambitious and inspirational** goals.
- Commitment to solve these challenges in a **holistic way and by concerted action.**
- Large **portfolio of instruments** across diverse disciplines and policy areas, also involving several services of the European Commission

EU Missions

Healthy oceans,
seas, coastal and
inland waters



**5 mission
areas**

Adaptation to climate
change, including societal
transformation



Cancer



Climate-
neutral and
smart cities



Soil health
and food



The 'horizontal side' of Horizon Europe

What are horizontal issues?

- Horizon Europe is structured along the **three pillars and programme components**
- However: some themes, principles, or methods are **relevant throughout the whole programme** ⇒ horizontal
- **Level and means of integration** depend on specific programme part; for Clusters e.g. via flagging of relevant topics

Horizontal issues



- **Eliminate gender inequality** and intersecting socio-economic inequalities, including those based on disability, ethnicity, and LGBTI+
- Integration of the gender dimension as a **requirement by default** across the whole programme

Horizontal issues



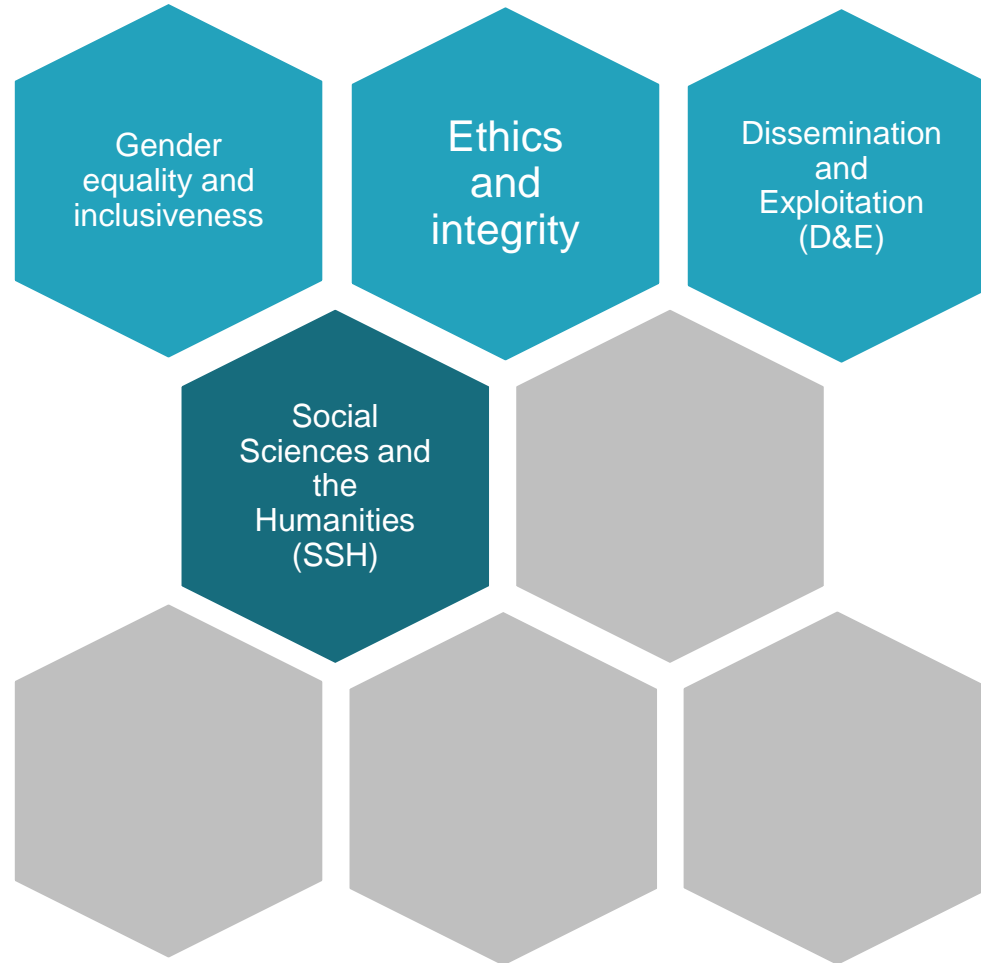
- Research ethics and integrity as **overarching principle**
- All projects must respect the **European Code of Conduct for Research Integrity** and adhere to ethics principles and legislation
- Safeguards against **Ethics Dumping**
- Ethical dimension of new technologies (e.g. AI)

Horizontal issues



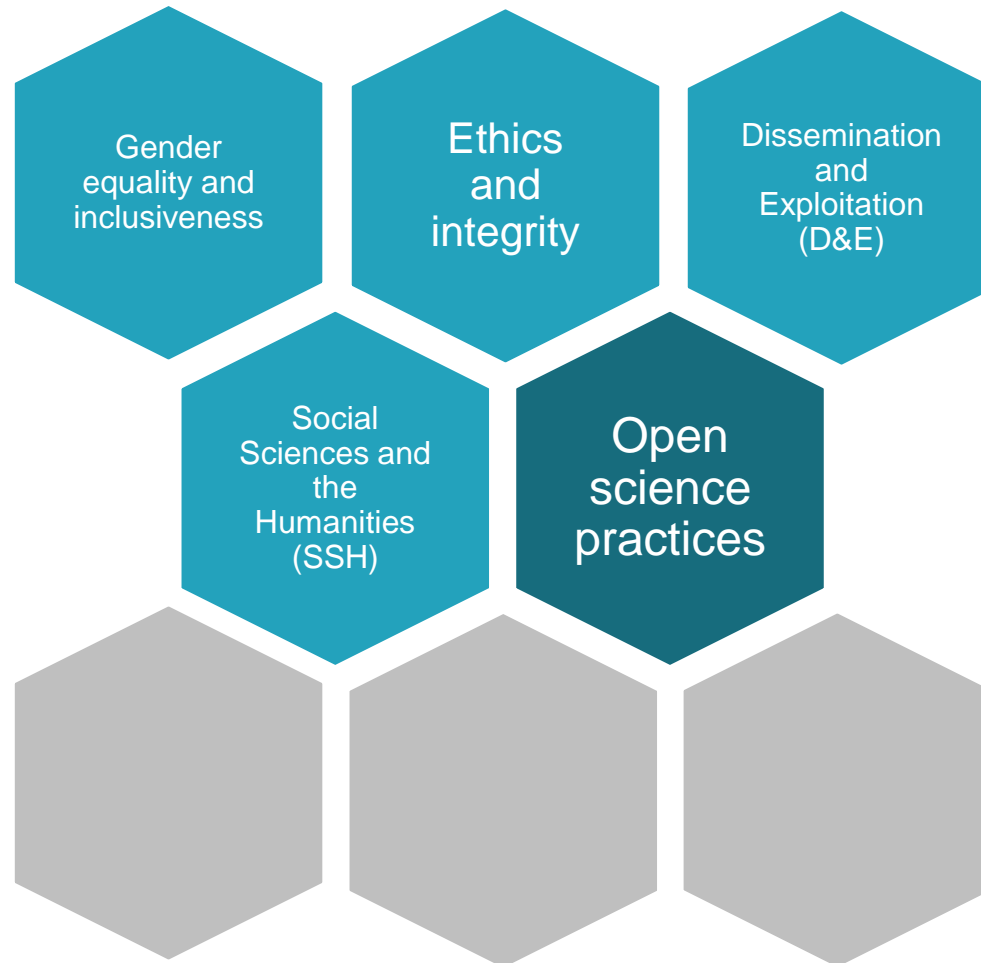
- Support to **project activities that enhance dissemination, use and valorisation** of R&I results
- E.g. integration in higher education and training activities
- Integrated services and activities: **Horizon Results Platform, Horizon Impact Awards, etc.**

Horizontal issues



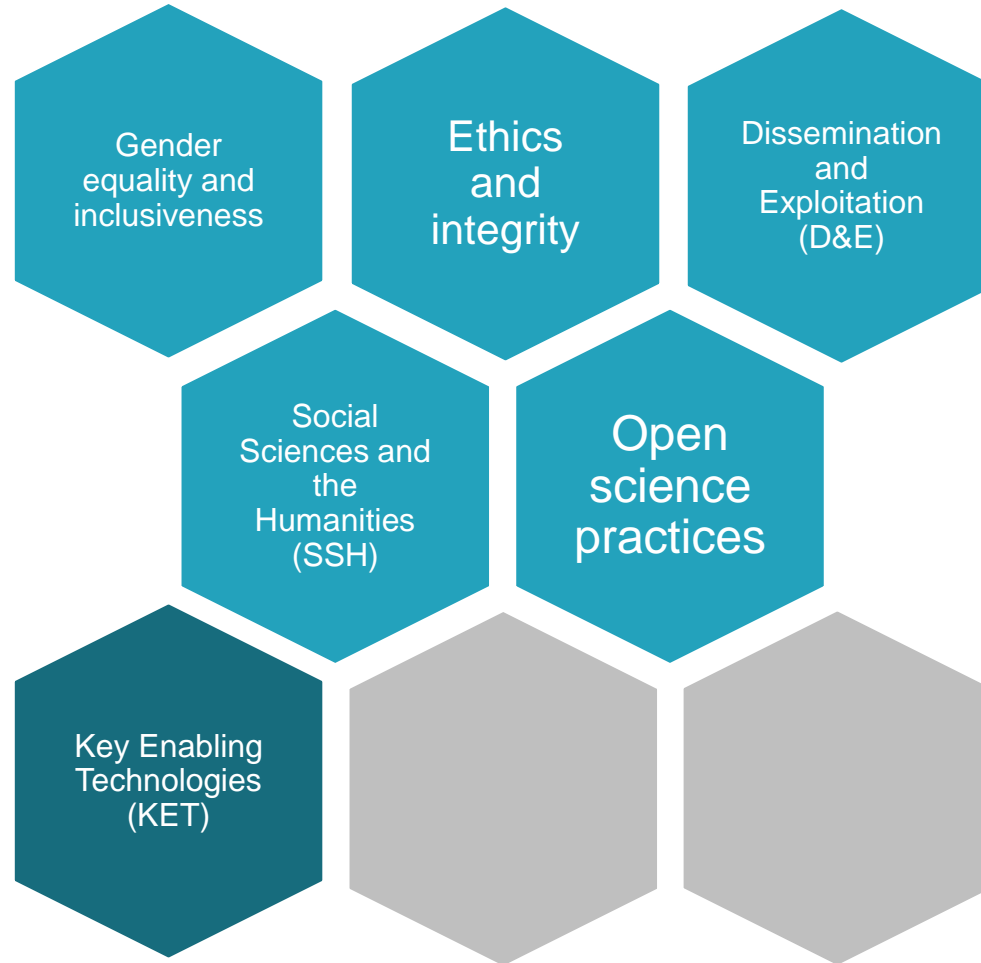
- **Social Sciences and the Humanities (SSH) is of key importance** for many research and innovation projects, especially regarding the twin green and digital transitions.
- **Flagging** of specific topics **for full SSH integration** and/or assessment of societal impact of R&I.

Horizontal issues



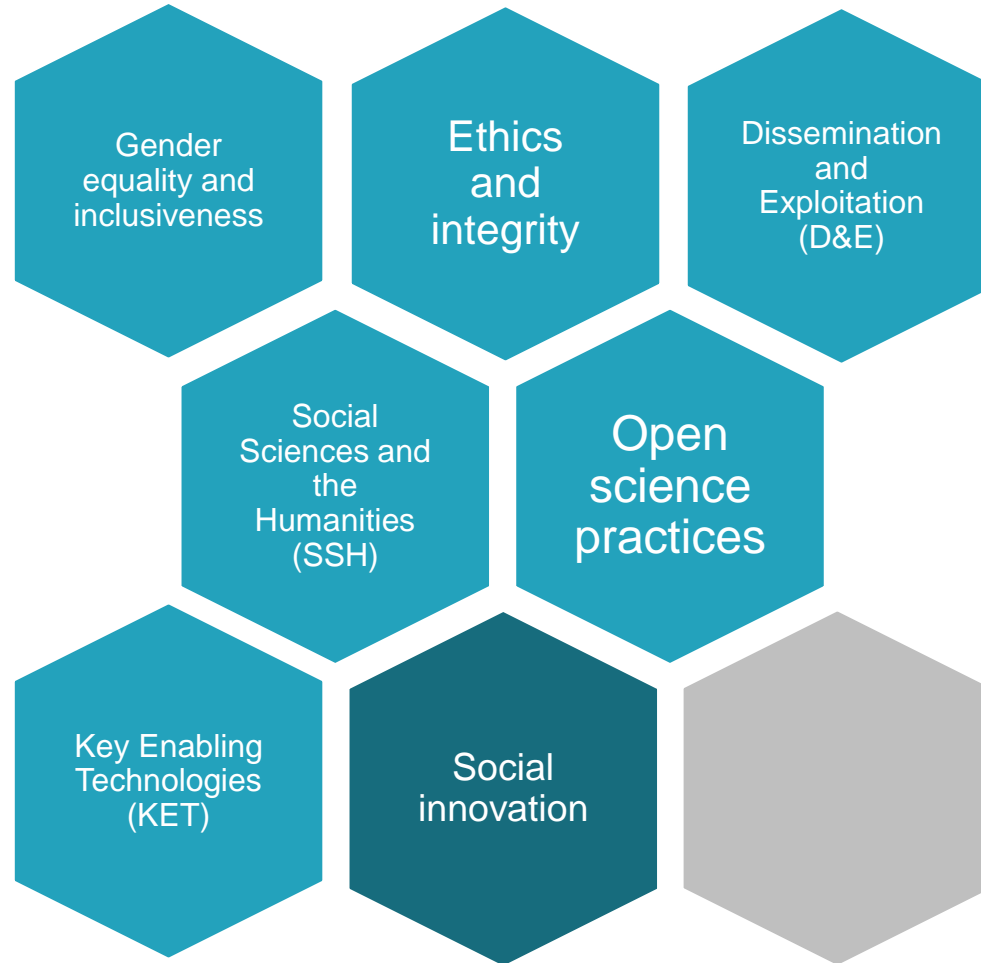
- Importance of **sharing knowledge, data and tools** as early as possible, in open collaboration with all relevant actors and society
- E.g. development and consolidation of the **European Open Science Cloud (EOSC)**
- Plus: inclusion of citizens, civil society and end-users

Horizontal issues



- Acknowledgement that **Key Enabling Technologies (KETs)** are **crucial for Europe's competitiveness** in strategic value chains
- Particular attention through Clusters 1, 4, 5 and 6
- Pillars I and III also play an important role

Horizontal issues



- Social innovations help **tackle societal and environmental challenges**
- Combination of new technological capabilities with **new organisational or social practices**
- **Support to social innovations** in relevant topics throughout all Clusters

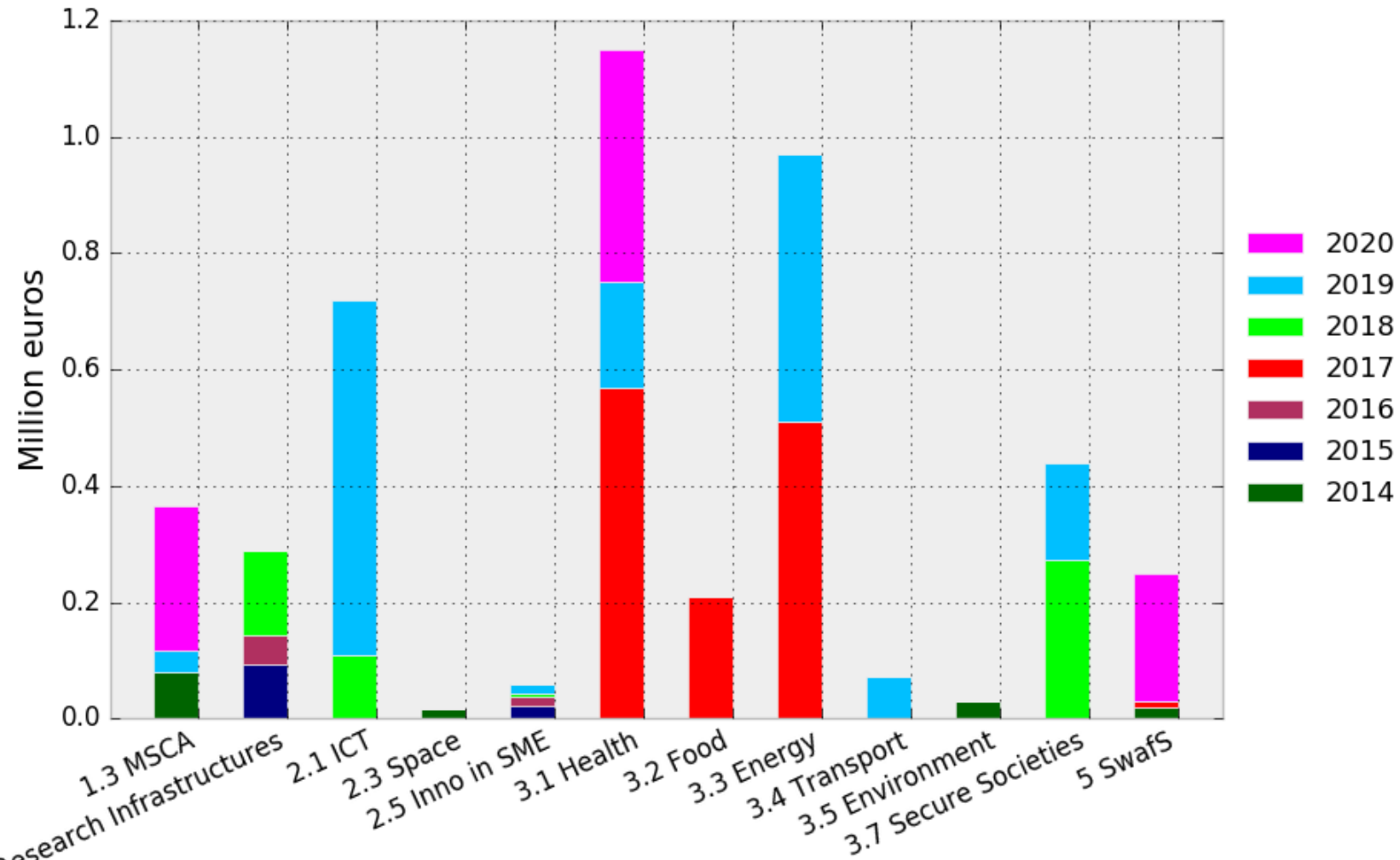
Horizontal issues



- Regulation (EU) 2020/852 on the establishment of a **framework to facilitate sustainable investments**
- Clear and common **classification system** defining sustainable economic activities (**‘green list’**)
- Inclusion of the **‘do no harm’ principle** in Horizon Europe

Montenegro on Horizon 2020

ME: EU contribution to participants of Horizon 2020

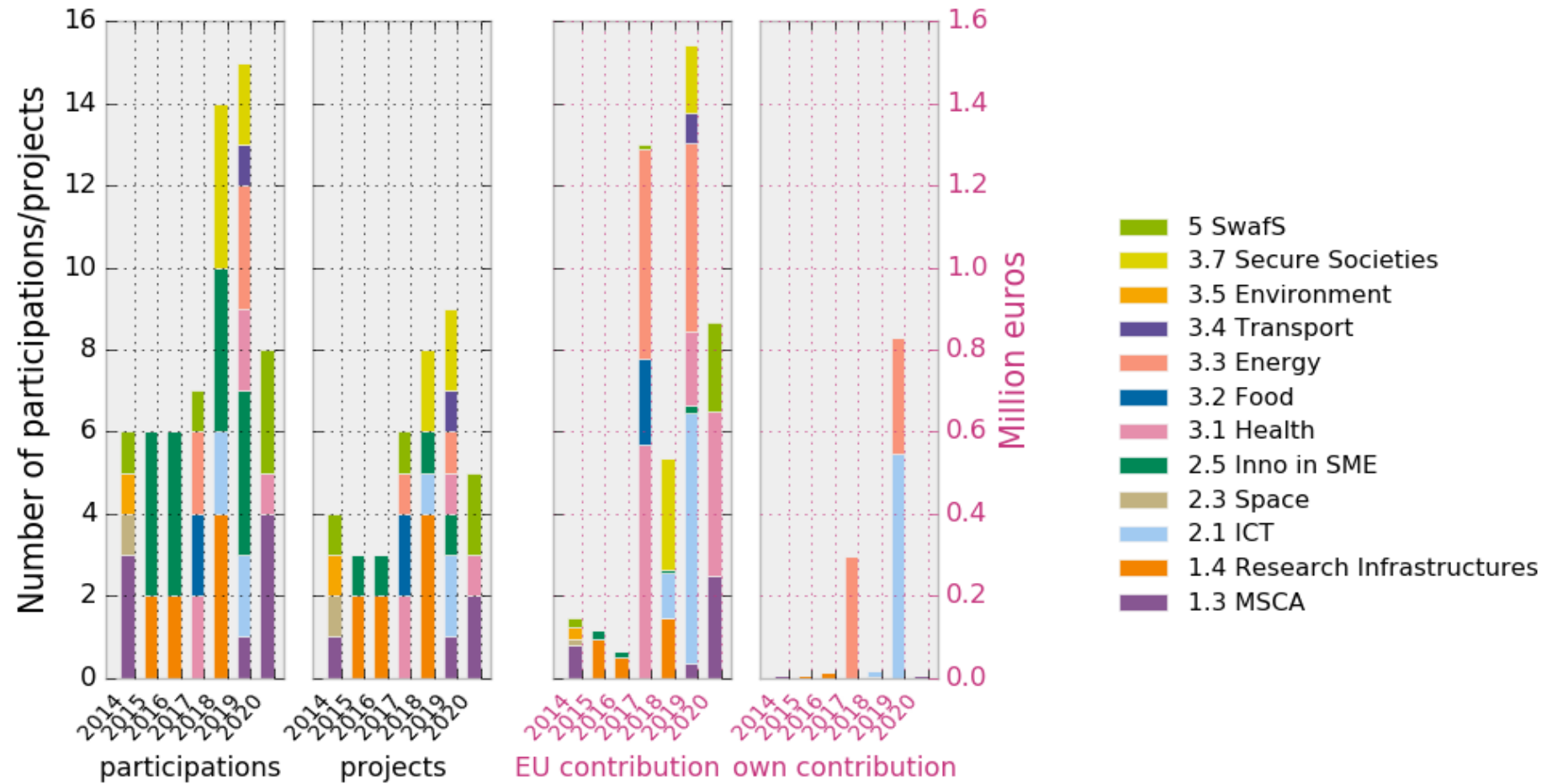


Note: Data for signed projects.

Source: DG Research and Innovation - International Cooperation

Data: CORDA (JRC, EIT & art.185 not included.), extraction date: 26/11/2021

Montenegro: Participation in signed projects of H2020



Note: Participations of beneficiaries, third-parties and partner-organisations.
 Source: DG Research and Innovation - International Cooperation
 Data: CORDA (JRC, EIT and art.185 not included); extraction date: 26/11/2021

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Thank you



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