## From Horizon 2020 to Horizon Europe



Mariya Gabriel Commissioner for Innovation, Research, Culture, Education and Youth

Carlos Moedas Commissioner for Research, Science and Innovation

#### **Horizon 2020**

Horizon 2020

Nanotech.,Advanced
 Materials, Biotechnology &
 Advanced Manufacturing and
 Processing

**⊀-** ICT

#### **Excellent Science**

European Research Council (ERC)

Future and Emerging Technologies (FET)

Marie Skłodowska Curie Actions

Research infrastructures

Spreading excellence & widening participation

#### **Industrial Leadership**

Leadership in enabling and industrial technologies

Access to risk finance

Support innovation in SMEs

Science with and for society

#### Societal Challenges

Health, demographic change

Food security, water

Secure, clean and efficient energy

Smart, green and integrated transport

Climate action, resource efficiency & raw materials

Inclusive, innovative and reflective societies

Protecting freedom and security

EIT

**JRC** 







HZDR EU-Day December 9th, 2019

### **Vision of Horizon Europe**

- → Tackling climate change (budgetary target 35%)
- → Contribute to achieving the Sustainable Development Goals
- → Boosting the competitiveness and growth of Europe

# SUSTAINABLE GALS DEVELOPMENT GALS





































Source: UN



Dr. Barbara Schramm I FSPP I www.hzdr.de





### The structure of Horizon Europe



**Excellent Science** 

**European Research Council** 

Marie Skłodowska-Curie **Actions** 

**Research Infrastructures** 

#### Pillar 2

Global Challenges and European Industrial Competitiveness

- Health
- · Culture, Creativity and **Inclusive Society**
- Climate, Energy and Mobility
  - - Food, Bioeconomy, Natural Resources, Agriculture and **Environment**

**Joint Research Centre** 

#### Pillar 3

**Innovative Europe** 

**European Innovation Council** 

**European innovation** ecosystems

**European Institute of** Innovation and Technology

Widening Participation and Strengthening the European Research Area

Widening participation and spreading excellence

Reforming and Enhancing the European R&I system

Source: European Commission







December 9th, 2019 Member of the Helmholtz Association

### **Areas of Intervention**

Clusters	Areas of intervention	
Health	<ul> <li>Health throughout the life course</li> <li>Non-communicable and rare diseases</li> <li>Tools, technologies and digital solutions for health and care, including personalised medicine</li> </ul>	<ul> <li>Environmental and social health determinants</li> <li>Infectious diseases, including poverty-related and neglected disease</li> <li>Health care systems</li> </ul>
Culture, creativity and inclusive society	<ul><li>Democracy and Governance</li><li>Social and economic transformations</li></ul>	Culture, cultural heritage and creativity
Civil security for society	<ul><li>Disaster-resilient societies</li><li>Protection and Security</li></ul>	Cybersecurity
Digital, Industry and space	<ul> <li>Manufacturing technologies</li> <li>Advanced materials</li> <li>Next generation internet</li> <li>Circular industries</li> <li>Space, including Earth Observation</li> <li>Emerging enabling technologies</li> </ul>	<ul> <li>Key digital technologies, including quantum technologies</li> <li>Artificial Intelligence and robotics</li> <li>Advanced computing and Big Data</li> <li>Low-carbon and clean industry</li> <li>Emerging enabling technologies</li> </ul>
Climate, Energy and Mobility	<ul> <li>Climate science and solutions</li> <li>Energy systems and grids</li> <li>Communities and cities</li> <li>Industrial competitiveness in transport</li> <li>Smart mobility</li> </ul>	<ul> <li>Energy supply</li> <li>Buildings and industrial facilities in energy transition</li> <li>Clean, safe and accessible transport and mobility</li> <li>Energy storage</li> </ul>
Food, bioeconomy, natural resources, agriculture and environment	<ul> <li>Environmental observation</li> <li>Agriculture, forestry and rural areas</li> <li>Circular systems</li> <li>Food systems</li> </ul>	<ul> <li>Biodiversity and natural resources</li> <li>Seas, oceans and inland waters</li> <li>Bio-based innovation systems in the EU Bioeconomy</li> </ul>

Source: European Commission

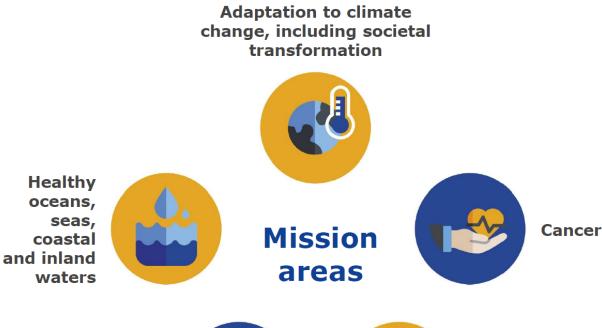




### **Missions in Horizon Europe**

A mission is a portfolio of actions across disciplines intended to achieve a **bold and inspirational and measurable goal** within a set timeframe,

with impact for society and policy making as well as relevance for a significant part of the European population and wide range of European citizens.









Soil health and food





### The Budget of Horizon Europe

Order of magnitude indication

Total Budget: 100 billion Euros

