



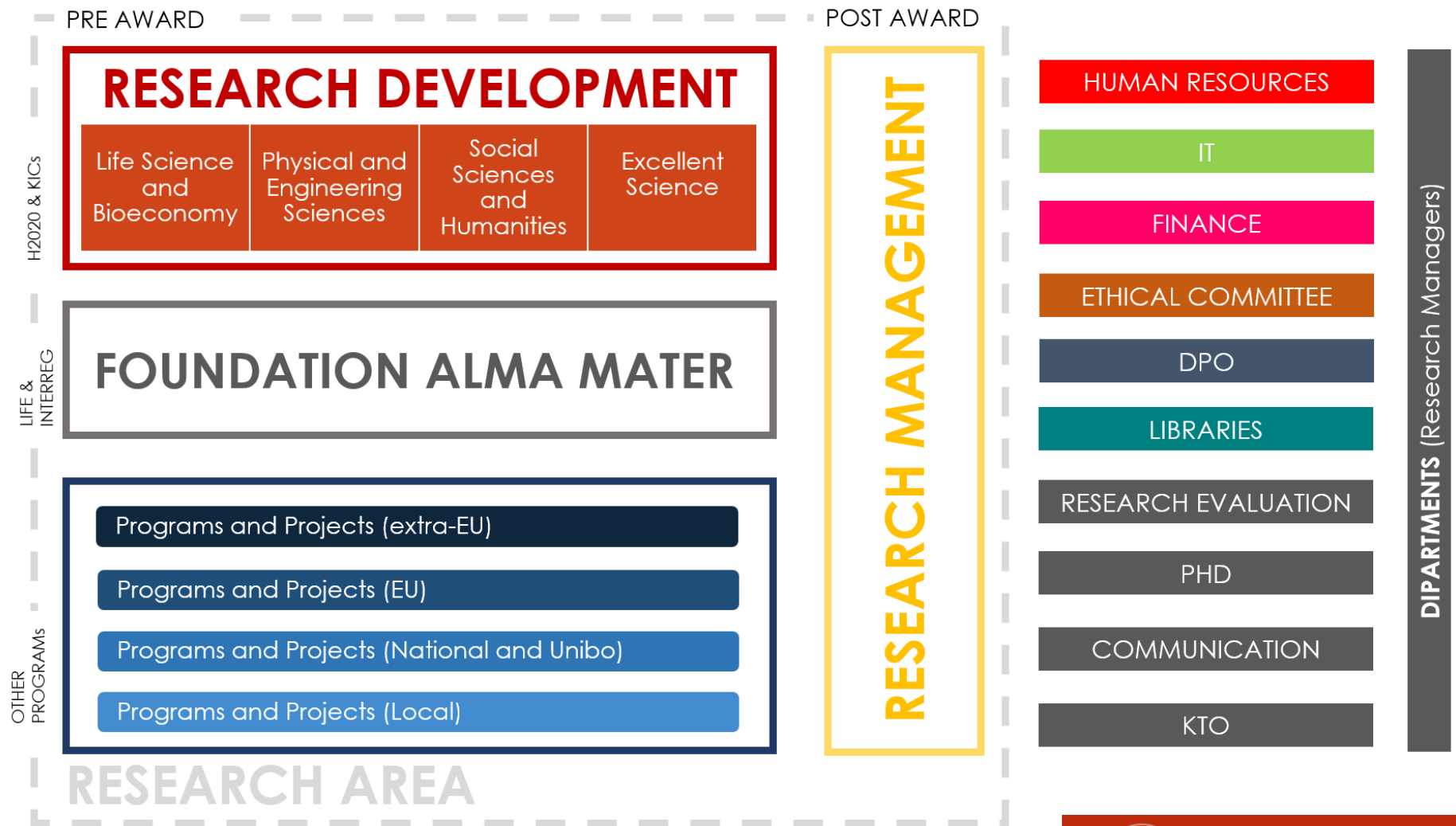
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UNIVERSITÀ DI BOLOGNA

Climate change: adaptation and mitigation

European main funding
programmes & opportunities

Bologna, 14 November 2019

RESEARCH AND COMPETITIVE FUNDING @ UNIBO



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THE CONTEXT

multiannual financial framework (MFF)

€ 1 087 . 97 EUR million

2014 - 2020

hundreds of thousands of **beneficiaries** such as farmers, students, scientists, non-governmental organisations (NGOs), businesses, towns, regions and many others



THE FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION

HORIZON 2020



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HORIZON 2020

Priority 1

Excellent science

- European Research Council (ERC)
- Future and Emerging Technologies (FET)
- Marie Skłodowska-Curie Actions
- Research infrastructures

Priority 2

Industrial leadership

- Leadership in enabling and industrial technologies (LEIT)
 - Information and Communication Technologies (ICT)
 - Nanotechnologies
 - Biotechnology
 - Advanced manufacturing and Processing
 - Space
- Access to risk finance
- Innovation in SMEs

Priority 3

Societal challenges

- SC1 - Health, demographic change and well-being
- SC2 - Food security, sustainable agriculture and forestry, Marine, Maritime and Inland water research, and Bioeconomy
- SC3 - Secure, clean and efficient energy
- SC4 - Smart, green and integrated transport
- SC5 - Climate action, Environment, Resource efficiency and Raw materials
- SC6 - Europe in a changing world – Inclusive, Innovative and Reflective societies
- SC7 - Secure societies – Protecting freedom and Security of Europe and its citizens

EU CONTRIBUTION: 100% (RIA & CSA) or 70% (IA)



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Work Programme “*Climate Action, Environment, Resource Efficiency and Raw Materials*” – Societal Challenge 5

SC5 funds research and innovation with the following **specific objectives**:

- to achieve a **resource – and water - efficient and climate change resilient economy and society**
- the **protection and sustainable management of natural resources and ecosystems**
- a **sustainable supply and use of raw materials**

HORIZON 2020

Work Programme “*Climate Action, Environment, Resource Efficiency and Raw Materials*” – Societal Challenge 5

Broad lines of activities:

- **Climate Action** - Informed decisions for a climate-resilient low-carbon society
- **Cultural Heritage** - Engaging a new cultural heritage agenda for economic growth
- **Earth Observations** - Crucial info on climate, energy, natural hazards and other societal challenge
- **Nature-Based Solutions** - Providing viable solutions of natural ecosystems
- **Systemic Eco-Innovation** - Generating and sharing economic and environmental benefits



Work Programme “*Climate Action, Environment, Resource Efficiency and Raw Materials*” – Societal Challenge 5

- ✓ **Call - Building a low-carbon, climate resilient future: climate action in support of the Paris Agreement**
 - Actions in this call aim to **produce solutions for the achievement of the PA's mitigation and adaptation goals**, and to further relevant scientific knowledge for the implementation of the Nationally Determined Contributions (NDCs)
- ✓ **Call - Greening the economy in line with the Sustainable Development Goals (SDGs)**
 - The call focuses on moving to a **greener, more resource efficient and climate-resilient economy** demonstrating a strong commitment to supporting the UN's Sustainable Development Goals (SDGs)

27
topics
2020



HORIZON 2020

SC5 TOPICS – TWO EXAMPLES

LC-CLA-13-2020	RIA	Climate Resilience of European coastal cities and settlements Provide scientific insight, tools, methodologies and innovative solutions to assist European coastal cities in developing their own coastal resilience plans and adaptation pathways
CE – SC5 – 25 - 2020	RIA	Understanding the transition to a circular economy and its implications on the environment, economy and society The reasearch will identify the key factors (regulatory, gonnernance-based, technological, cultural etc.) that can stimulate or hinder this transition

WORK-PROGRAMME H2020 SC5:

https://ec.europa.eu/research/participants/data/ref/h2020/wp/2018-2020/main/h2020-wp1820-climate_en.pdf



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Horizon Europe

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



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Ninth Framework Programme funding research and innovation for seven years **2021-2027**

Total budget **€ 110 billion**-> to be define



Strategic aims:



- To strengthen the EU's scientific and technological bases
- To boost Europe's innovation capacity, competitiveness and jobs
- To deliver on citizens' priorities and sustain our socio-economic model and values
- To help to achieve the sustainable Development Goals (35% budgetary target to tackle climate change)
- To reduce the R&I divide between different European areas

Additional **4.1 billion** for defence research (European Defence Fund)



Support the creation and diffusion
of high-quality knowledge

Strengthen the impact of R&I
in supporting EU policies

Foster all forms of innovation and
strengthen market deployment

Optimise the Programme's delivery for impact in a strengthened ERA



Pillar 1 Open Science

European Research Council

Marie Skłodowska-Curie Actions

Research 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

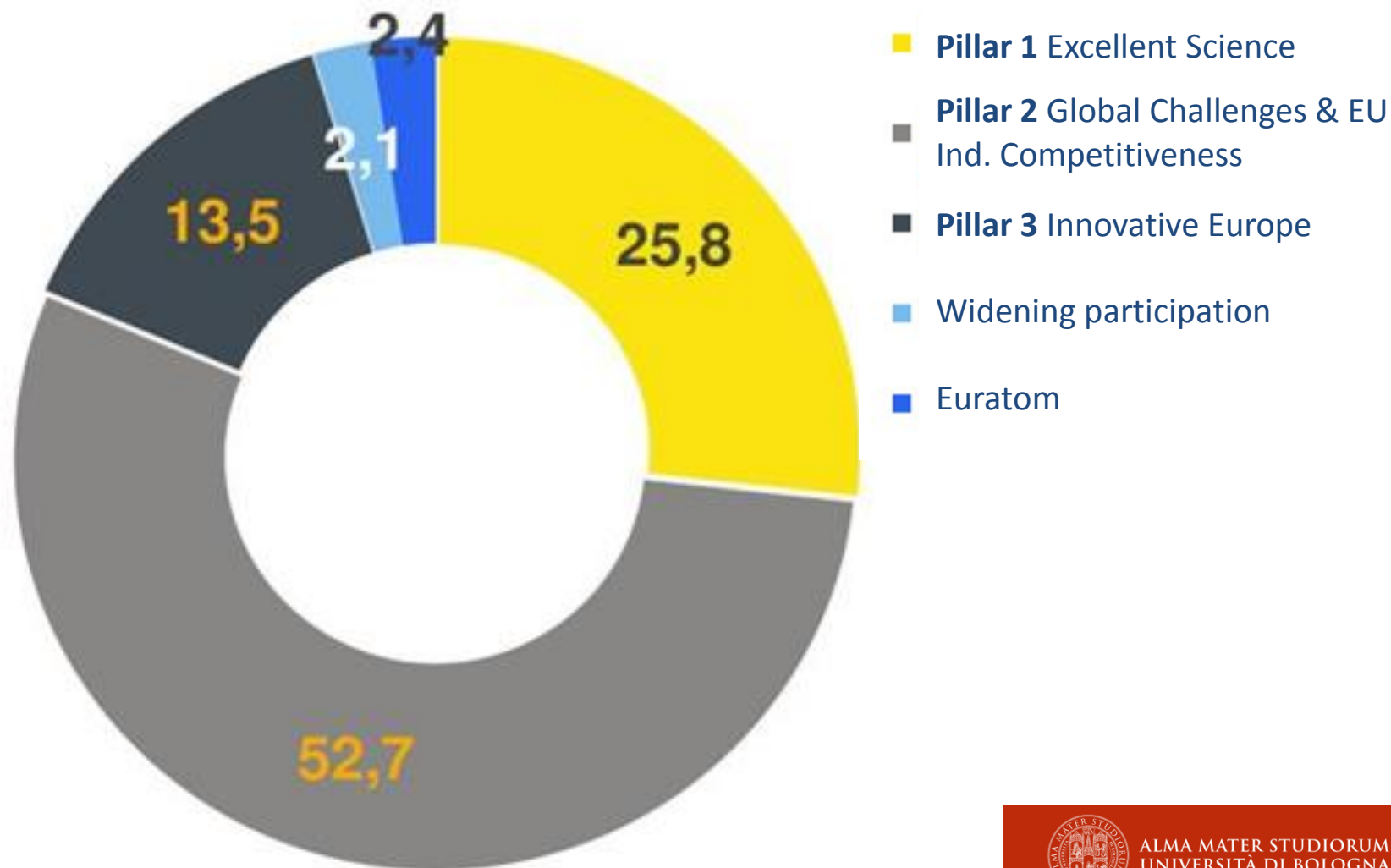
Reforming and Enhancing the European R&I system

Pillar 2

Clusters	Areas of intervention	
Health	<ul style="list-style-type: none"> * Health throughout the life course * Non-communicable and rare diseases * Tools, technologies and digital solutions for health and care 	<ul style="list-style-type: none"> * Environmental and social health determinants * Infectious diseases * Health care systems
Inclusive and Secure Societies	<ul style="list-style-type: none"> * Democracy * Social and economic transformations * Protection and Security 	<ul style="list-style-type: none"> * Cultural heritage * Disaster-resilient societies * Cybersecurity
Digital and	<ul style="list-style-type: none"> * Manufacturing technologies 	<ul style="list-style-type: none"> * Key digital technologies
Climate, Energy and Mobility	<ul style="list-style-type: none"> * Climate science and solutions * Energy systems and grids * Communities and cities * Industrial competitiveness in transport * Smart mobility 	<ul style="list-style-type: none"> * Energy supply * Buildings and industrial facilities in energy transition * Clean transport and mobility * Energy storage
Natural Resources	<ul style="list-style-type: none"> * Agriculture, forestry and rural areas * Food systems * Circular systems 	<ul style="list-style-type: none"> * Sea and oceans * Bio-based innovation systems

HORIZON EUROPE

Total budget € 110 billion-> to be define



The Climate target: at least 35%

of HEU budget should go to climate-related research
(EC proposal: at least 25%)





R&I Missions

R&I Missions

Connecting to citizens: Missions will relate EU's research and innovation to society and citizens' needs, with strong visibility and impact

A mission will consist of a portfolio of actions intended to achieve **a bold and inspirational as well as measurable goal** within a set timeframe, with impact for science and technology, society and citizens that goes beyond individual actions

Horizon Europe proposal defines mission characteristics and criteria

Specific missions will be **co-designed with Member States, stakeholders and citizens** and programmed within the Global Challenges and Industrial Competitiveness pillar (drawing on inputs from other pillars)

During the first 3 years of HORIZON EU, max 10% of the annual budget of Pillar II shl be programmed through specific calls for implementing missions



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MISSION

Adaptation to Climate Change, including Societal Transformation

More info: https://ec.europa.eu/info/horizon-europe-next-research-and-innovation-framework-programme/mission-area-adaptation-climate-change-including-societal-transformation_en#Timeline





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LIFE



The LIFE programme is the EU's funding instrument for the environment and climate action created in 1992.

The current funding period 2014-2020 has a budget of **€3.4 billion**.

EU CONTRIBUTION: 55%



LIFE

SUB-PROGRAMME FOR CLIMATE Call in 1 step

- LIFE Climate Change Mitigation
- LIFE Climate Change Adaptation
- LIFE Climate Governance and Information

DEADLINES

Full Stage: November 2020

SUB-PROGRAMME FOR ENVIRONMENT Call in 2 steps

- LIFE Environment and Resource Efficiency (5 topics: water, waste, circular econ., chemicals, air)
- LIFE Nature and Biodiversity
- LIFE Environmental Governance and Information

DEADLINES

First stage: April 2020

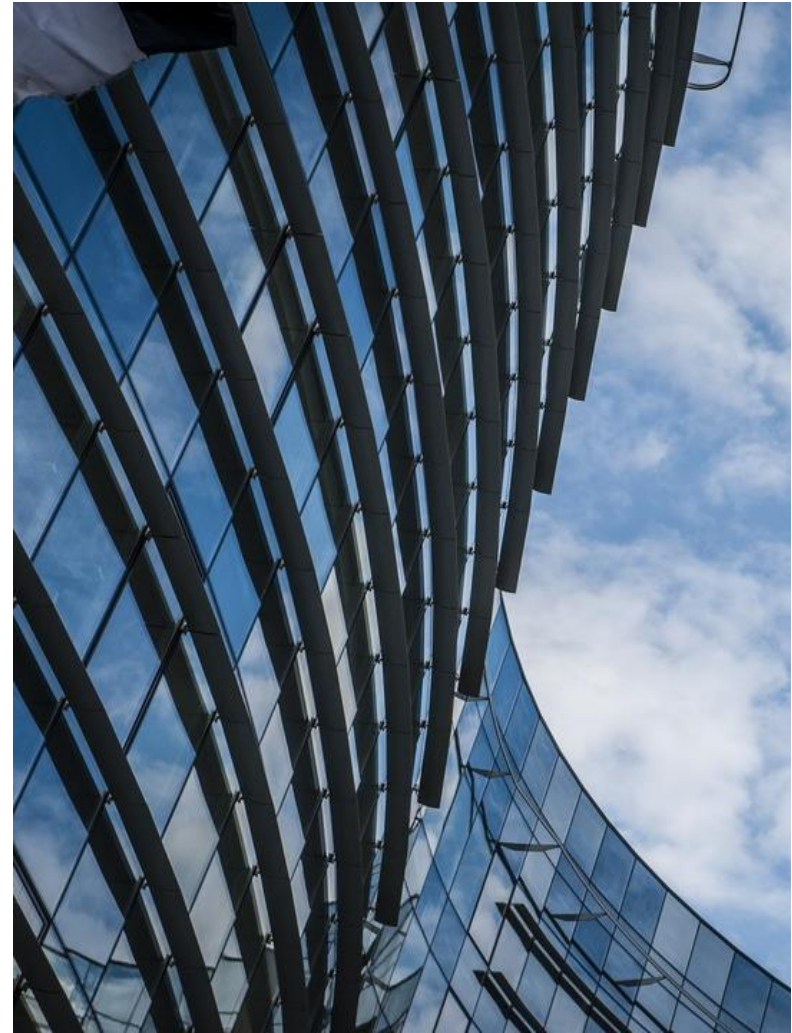
Second Stage: November 2020



POST 2020?

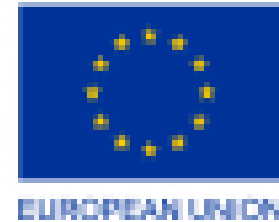
EUROPEAN PARLAMENT PROPOSES
TO **DOUBLE FUNDS**

Same sub-programmes
Synergies with Horizon Europe



OTHER PROGRAMMES

Interreg



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