



# HORIZON 2020

## Research and Innovation in Cultural Heritage

Ekaterini Hambouri  
Unit I3 Sustainable Management of Natural Resources  
Directorate Climate Action and Resource Efficiency  
DG Research and Innovation  
European Commission

# What is Horizon 2020

- **Initial Commission proposal for a €80 billion research and innovation funding programme (2014-2020); now just over €70 billion (79 billion in current prices including inflation)**
- **A core part of Europe 2020, Innovation Union & European Research Area:**
  - Responding to the economic crisis to invest in future jobs and growth
  - Addressing people's concerns about their livelihoods, safety and environment
  - Strengthening the EU's global position in research, innovation and technology

# What's new

- **A single programme** bringing together three separate programmes/initiatives\*
- **Coupling research to innovation** – from research to retail, all forms of innovation
- **Focus on societal challenges** facing EU society, e.g. health, clean energy and transport
- **Simplified access**, for all companies, universities, institutes in all EU countries and beyond

\* The 7<sup>th</sup> Research Framework Programme (FP7), innovation aspects of Competitiveness and Innovation Framework Programme (CIP), EU contribution to the European Institute of Innovation and Technology (EIT)

# Three priorities



# **Priority 1.**

## **Excellent science**

### **Why:**

- **World class science is the foundation of tomorrow's technologies, jobs and wellbeing**
- **Europe needs to develop, attract and retain research talent**
- **Researchers need access to the best infrastructures**

## **Priority 2. Industrial leadership**

### **Why:**

- **Strategic investments in key technologies (e.g. advanced manufacturing, micro-electronics) underpin innovation across existing and emerging sectors**
- **Europe needs to attract more private investment in research and innovation**
- **Europe needs more innovative small and medium-sized enterprises (SMEs) to create growth and jobs**

## **Priority 3. Societal challenges**

### **Why:**

- **Concerns of citizens and society/EU policy objectives (climate, environment, energy, transport, etc) cannot be achieved without innovation**
- **Breakthrough solutions come from multi-disciplinary collaborations, including social sciences & humanities**
- **Promising solutions need to be tested, demonstrated and scaled up**

# Horizon 2020 and partnering

## Public private partnerships:

- Through Joint Technology Initiatives or other formal structures (Art. 187)
- Through contractual agreements, which provide inputs for work programmes
- Only when criteria met, e.g. clear commitments from private partners

## Public public partnerships:

- Through « ERA-Nets » for topping up individual calls/actions (replacing current ERA-Net, ERA-Net Plus, Inco-Net, Inno-net)
- Through participation in joint programmes between Member States (Art. 185)
- Supporting agendas of Joint Programming Initiatives when in line with Horizon 2020
- Only when criteria met, e.g. financial commitments of participating countries

## European Innovation Partnerships:

- Not funding instruments, but for coordination with broader policies and programmes



# Benefits of Partnerships

## Joint Technology Initiatives (with industry)

- Industry driven research agenda
- Fixed budget for 7 years to leverage more industry investment
- Sector structuring to achieve impact
- Coverage of longer value chains and interrelated sectors
- Higher level of SME participation (30%) than in FP7
- Links and synergies with Structural and Investment Funds

## Joint programmes (with Member States)

- Link to national programmes
- Leverage effect
- Industry involvement
- Cross-border collaboration

# Simplification: Rules for Participation

## 1. A single set of rules:

- ✓ Adapted for the whole research and innovation cycle
- ✓ Covering all research programmes and funding bodies
- ✓ Aligned to the Financial Regulation, coherent with other new EU Programmes

## 2. One project – one funding rate

- ✓ Maximum of 100% of the total eligible costs (except for innovation actions, where a 70% maximum will apply for profit making entities)
- ✓ Indirect eligible costs: a flat rate of 25% of direct eligible costs

## 3. Simple evaluation criteria

- ✓ Excellence – Impact – Implementation (Excellence only, for the ERC)

## 4. New forms of funding aimed at innovation

- ✓ pre-commercial procurement, inducement prizes, dedicated loan and equity instruments

## 5. International participation

- ✓ facilitated but better protecting EU interests

# Simplification: Rules for Participation

## 6. Simpler rules for grants

- ✓ broader acceptance of participants accounting practices for direct costs, flat rate for indirect costs, no time-sheets for personnel working full time on a project, possibility of output-based grants

## 7. Fewer, better targeted controls and audits

- ✓ Lowest possible level of requirements for submission of audit certificates without undermining sound financial management
- ✓ Audit strategy focused on risk and fraud prevention

## 8. Improved rules on intellectual property

- ✓ Balance between legal security and flexibility
- ✓ Tailor-made IPR provisions for new forms of funding
- ✓ A new emphasis on open access to research publications

***Beyond the Rules: further simplified provisions in the Grant Agreement and implementing procedures to facilitate access to Horizon 2020 (e.g. common IT platform).***

# Simplification: summary

- **Single set of** simpler and more coherent participation **rules**
- New **balance between trust and control**
- Moving from several **funding rates** for different beneficiaries and activities to just two
- Replacing the four methods to calculate overhead or «indirect costs» with a **single flat rate**
- Major simplification under the **forthcoming financial regulation**
- **Successful applicants to get working more quickly:** time-to-grant of 8 months; exceptions for the ERC and in duly justified cases
- **No negotiation of the grant agreement in future, what is submitted will be evaluated. Potential participants must now be aware of this.**

# Contributing to the European Research Area (ERA)

- ERA framework proposal in 2012 to create a single market for knowledge research and innovation
- Complemented by Horizon 2020:
  - ✓ Boosting support to ERA priorities – mobility, infrastructures, knowledge transfer, policy learning
  - ✓ Stronger partnerships with Member States and private sector to invest more efficiently
  - ✓ Taking account of gender, ethical issues, researcher careers and open access to results

# Strong participation by SMEs

- **Integrated approach** - around 20% of the total budget for societal challenges and LEITs to go to SMEs
- **Simplification** of particular benefit to SMEs (e.g. single entry point)
- A **new SME instrument** will be used across all societal challenges as well as for the LEITs
- A dedicated activity for research-intensive SMEs in **'Innovation in SMEs'**
- **'Access to risk finance'** will have a strong SME focus (debt and equity facility)

# Socio-economic sciences and humanities (SSH)

- **Integrated approach:** SSH included as an integral part of the activities, working beyond 'silos' (e.g. understanding the determinants of health and optimising the effectiveness of healthcare systems)
- The '**Inclusive and reflective societies**' challenge: issues such as smart and sustainable growth, social transformations, social innovation and creativity, the position of Europe as a global actor as well as the social dimension of a secure society (SSH have the tools to contribute to addressing security challenges, enhancing the societal dimension of security policy and research)
- **Bottom-up funding:** ERC, MSCA, Research Infrastructures

# Widening participation

- **Principle of excellence:** continue to allocate funding on the basis of competitive calls, selecting only the best projects
- **Clear division of labour** between cohesion policy and Horizon 2020
  - ✓ Cohesion policy: support for regions in building up their research and innovation capacity
  - ✓ Horizon 2020: widen participation, better coordination between the two Union funding programmes, support policy learning reforms
- **Accompanying measures in Horizon 2020** to ensure that excellence prevails wherever it exists, including: twinning, ERA chairs, support for access to international networks, development of smart specialisation strategies



# International cooperation

- **International cooperation is crucial** to address many Horizon 2020 objectives
- **Principle of general openness:** the programme will remain to be the most open funding programme in the world
- Horizon 2020 shall be open to the **association** of: acceding countries, candidate countries and potential candidates and selected international partner countries that fulfil the relevant criteria (capacity, track record, close economic and geographical links to the Union, etc.)
- Targeted actions to be implemented taking **a strategic approach to international cooperation** (dedicated measures in the 'Inclusive, innovative and secure societies' challenge)

# Cultural Heritage in HORIZON 2020

◦ Cultural heritage is addressed in “**HORIZON 2020**” in different ways under its three mutually reinforcing priorities:

◦ **Excellent Science**

European RTD infrastructures for CH  
Marie Skłodowska-Curie Actions (MSC)  
European Research Centre (ERC)

◦ **Industrial Leadership**

Materials' based solutions for protection/preservation CH

◦ **Societal Challenges**

- SC 3, Secure, clean and efficient energy
- SC 5, Climate Action, Environment, Resource Efficiency and Raw Materials
- SC 6, Europe in a changing world – inclusive, innovative and reflective Societies
- SC 7, Secure societies – Protecting freedom and security of Europe and its citizens

# Pillar 2: Industrial Leadership

## Objective:

"to maintain and build global leadership through research and innovation in enabling technologies and space, which underpin competitiveness across a range of existing and emerging industries and sectors."

✓ **Cultural Heritage exists in the sub-challenge 1.3 "Advanced Materials" of Pillar 2**

▪ 1.3.5 - Materials for creative industries, including heritage

# Societal Challenge 5: Climate action, environment, resource efficiency and raw materials

## Objective:

"to achieve a resource – and water – efficient and climate change resilient economy and society, the protection and sustainable management of natural resources and ecosystems, and a sustainable supply and use of raw materials, in order to meet the needs of a growing global population within the sustainable limits of the planet's natural resources and eco-systems."

### ✓ **Cultural Heritage is the sub-challenge 5.6 of SC5**

- **5.6.1**- Identifying resilience levels via observations, monitoring & modeling
- **5.6.2** - Better understanding on how communities perceive & respond to climate change, seismic and volcanic hazards

# Societal Challenge 6: Europe in a changing world

## – Inclusive, innovative and reflective societies

### Objective:

"to foster a greater understanding of Europe, provide solutions and support inclusive, innovative and reflective European societies in a context of unprecedented transformations and growing global interdependencies."

✓ **Cultural Heritage exists in the sub-challenge 6.3 "Reflective societies – Cultural heritage and European identity of SC6"**

▪ **6.3.1-** Studying European heritage, memory, identity, integration and cultural interaction and translation, including its representations in cultural and scientific collections, archives and museums, to better inform and understand the present by richer interpretations of the past

# H2020 WP2014: Cultural heritage topics

**ERC** and **MCSA** calls

**INFRAIA 1-2014:** Integrating and opening existing national and regional research infrastructures of European interest (including restoration and conservation of cultural heritage / Holocaust research / cultural innovation)

**NMP 21 – 2014:** Materials-based solutions for the protection or preservation of European cultural heritage

**EE3-2014:** Energy strategies and solutions for deep renovation of historic buildings

**REFLECTIVE-1-2014:** ERA Net on Uses of the Past

**REFLECTIVE-7-2014:** Advanced 3D modelling for accessing and understanding European cultural assets

**REFLECTIVE-9-2014:** Social Platform on Reflective Societies  
Mobilising the network of NCPs in SC6

## H2020: Cultural heritage expert group

- A group of external experts will be established to
  - ✓ provide analyses of past activities,
  - ✓ assess policy relevant state-of-the-art scientific knowledge and innovation,
  - ✓ engage in forward looking reflection and
  - ✓ contribute to establishing an EU reference policy framework for research and innovation on issues related to green economy and sustainable development, with a particular focus on cultural heritage.
- Its mandate will focus on the
  - ✓ trans-disciplinary and multi-stakeholder potential of cultural heritage research and innovation,
  - ✓ innovative financing and investment,
  - ✓ new governance modes.



# HORIZON 2020

**Thank you  
for your attention!**

**Find out more:**  
[www.ec.europa.eu/horizon2020](http://www.ec.europa.eu/horizon2020)

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