



# Transdisciplinarity, responsibility and Horizon 2020

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**\*The views expressed are those of the speaker and do not necessarily reflect the official opinion of the European Commission**

# Outline

1. Horizon 2020 architecture
2. Transdisciplinarity and Responsibility in the context of Horizon 2020
3. Implementing transdisciplinarity and responsibility via 'embedding SSH' and via 'RRI'

*Please note that this presentation is based on EC proposals that are still under negotiation with the EU Member States and the European Parliament: **details and budget figures mentioned in this presentation are therefore still subject to change!***

# What is Horizon 2020

*Commission proposal for a 80 billion euro research and innovation funding programme (2014-20)*

*A core part of Europe 2020, Innovation Union & European Research Area:*

- Responding to the economic crisis **to invest in future jobs and growth**
- Addressing peoples' concerns **about their livelihoods, safety and environment.**
- Strengthening the EU's global position **in research, innovation and technology**

# Three priorities:

**1 Excellent science**

**2 Industrial leadership**

**3 Societal challenges**

# 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/inter-disciplinary collaborations, including social sciences & humanities*
- *Promising solutions need to be tested, demonstrated and scaled up*

# Proposed funding (million euro, 2014-20)

<i>Health, demographic change and wellbeing</i>	<b>8 033</b>
<i>Food security, sustainable agriculture, marine and maritime research &amp; the bioeconomy</i>	<b>4 152</b>
<i>Secure, clean and efficient energy*</i>	<b>5 782</b>
<i>Smart, green and integrated transport</i>	<b>6 802</b>
<i>Climate action, resource efficiency and raw materials</i>	<b>3 160</b>
<i>Inclusive, innovative and secure societies</i>	<b>3 819</b>

\*Additional €1 788m for nuclear safety and security from the Euratom Treaty activities (2014-18). Does not include ITER.

# In addition: cross cutting actions

## *Three priorities*

- (1) Excellent science, EUR 27818 million;
- (2) Industrial leadership, EUR 20280 million;
- (3) Societal challenges, EUR 35888 million.

Ensuring societal engagement in research and innovation

**SiS legacy**



# Horizon 2020 decision

**Art. 12 External advice and societal engagement**

**Art. 13 Cross-cutting actions**

Art. 15 Gender equality

Art. 16 Ethical principles



## Horizon 2020 decision: Article 12 External advice and societal engagement

For the implementation of Horizon 2020, **account shall be taken of advice and inputs provided by:** advisory groups of independent, high level experts set up by the Commission; dialogue structures created under international science and technology agreements; forward looking activities; targeted public consultations; and **transparent and interactive processes that ensure responsible research and innovation is supported.**

## Horizon 2020 decision: Article 13 Cross-cutting actions

Linkages and interfaces shall be implemented across and within the priorities of Horizon 2020. Particular attention shall be paid in this respect to the development and application of key enabling and industrial technologies, to bridging from discovery to market application, to cross-disciplinary research and innovation, to **social and economic sciences and humanities**, to fostering the functioning and achievement of the ERA, to cooperation with third countries, to **responsible research and innovation including gender**, and to enhancing the attractiveness of the research profession and to facilitating cross-border and cross-sector mobility of researchers.

# Responsible Research and Innovation (RRI)

*Six keys to RRI: "For, with and by society!"*

- 1. People and civil society engagement*
- 2. Gender equality and gender in R&I content*
- 3. Science education*
- 4. Open access to science information*
- 5. Ethics compliance*
- 6. Governance framework*

## Transdisciplinarity in the context of Horizon 2020

- Transdisciplinarity is not explicitly identified as action point in Horizon 2020.
- Horizon 2020 speaks of `embedding Social Sciences and Humanities (SSH), which is also meant as stimulating interdisciplinarity (integration of knowledge and methods from different disciplines and, to a certain extent, transdisciplinarity (integrating also non-disciplinary knowledge).
- Transdisciplinarity is furthermore fostered via the actions under RRI

## Responsibility in the context of Horizon 2020

- Horizon 2020 generally describes RRI, but does not go into detail explicitly about responsibility as such
- Horizon 2020 clearly addresses responsibility in the form of requirements for public engagement, ethics, gender, sustainability, etc. (both under RRI, and as 'stand-alone' action points)

## Fostering transdisciplinarity & responsibility in H2020

Transdisciplinarity is fostered via:

- The cross-cutting actions Social Sciences and Humanities (SSH) and RRI
- The 'societal challenges' approach

Responsibility is mainly fostered via RRI and its actions points, but indirectly also via the 'societal challenge' approach

Besides being a cross-cutting action, both SSH and RRI also have an explicit place in Societal Challenge 6. INCLUSIVE, INNOVATIVE  
SECURE SOCIETIES

# **A bit more about the implementation of SSH and RRI in Horizon 2020**

## Embedding SSH

- Internal review regarding the embedding of SSH in Societal Challenges Work Programmes
- Consultation on interdisciplinary topics with (SSH) experts and, when relevant, with civil society organizations
- SSH representation in Expert Advisory Groups and evaluation panels
- Monitoring of SSH embedding and review of implementation



## Implementing RRI

- Internal review regarding the implementation of RRI in Horizon 2020
- Concrete list of actions under RRI, covering the six `keys`
- Specific instruments such as `Mobilisation and Mutual Learning Action Plans` (MMLAPS)
- New pilots on citizen engagement such as `VOICES`

## ***Concluding:***

- Transdisciplinarity and responsibility addressed via the Societal Challenges approach and, more directly, via embedding SSH and RRI
- Embedding SSH and RRI should be reflected in Horizon 2020 Work Programmes (especially those under the Societal Challenges pillar)
- First WPs foreseen to be published in Summer 2013: *be active!*

# Thank you for your attention!

## ***More information:***

*HORIZON 2020*

[http://ec.europa.eu/research/horizon2020/index\\_en.cfm](http://ec.europa.eu/research/horizon2020/index_en.cfm)

*SCIENCE IN SOCIETY PORTAL (EUROPA)*

[http://ec.europa.eu/research/science-society/home\\_en.cfm](http://ec.europa.eu/research/science-society/home_en.cfm)

*EUROPEAN RESEARCH AREA*

[http://ec.europa.eu/research/era/index\\_en.htm](http://ec.europa.eu/research/era/index_en.htm)