



# Horizon Europe

## the next EU Research and Innovation Framework Programme

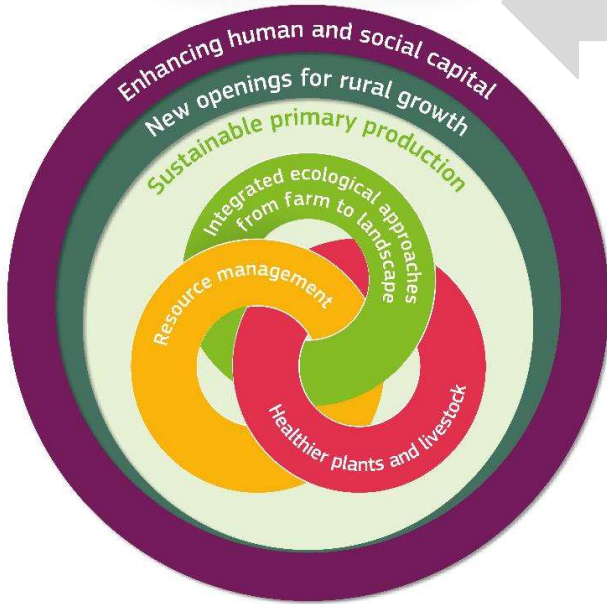
***Luis Viva-Alegre***

DG SANTE Unit D1:

Food Chain Science and  
Stakeholder Relations

*Health and  
Food Safety*

# Horizon 2020



**Why do research and innovation on plant health matter?**

Plant health is under mounting pressure due to the increasing number and frequency of new and emerging pests resulting from international globalization, trade development and climate change, which increase their potential to establish themselves and spread. The introduction and spread of plant pests are a serious threat that can have far-reaching economic, social and environmental consequences. European agriculture and forestry need to be granted sufficient means to cope with the above-mentioned threats to ensure their vital functions, avoid trade disruptions and ensure consumer confidence in food by mitigating the entry risk to plant health. This requires integrated, highly dynamic tools. This requires integrated approaches and the development of a wide range of tools for prevention, monitoring, control and management strategies. This includes seeking alternatives to conventional pesticides.

**Plant health under Horizon 2020 societal challenge 2**



**Key themes**  
Integrated pest management - Emerging diseases - Alternative to pesticides - Ecological services

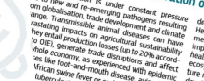


**Why do research and innovation on animals and health matter?**

Animal production is under constant pressure from debilitating trade disruptions, including sanitary measures, and animal diseases that threaten EU's generation of agricultural sustainability. The EU's generation of agricultural sustainability is the top-and-truest challenge and affects its infrastructure and economic growth (e.g. zoonoses). These pathogens can have a direct impact on human health and food safety (i.e. diseases that can be transmitted between animals and humans) and/or impact on the environment (i.e. diseases that can be transmitted from animals to humans) and/or impact on the environment (i.e. diseases that can be transmitted from animals to humans).

Deaths per year in the EU exceed and makes the health an important approach. Diseases are detrimental to animal welfare and food control is key to improving overall production efficiency. However, health is critical not only for agriculture but also for ecosystem services (pollination). European farmers need sufficient means to fight diseases and develop practices that would prevent their occurrence in the first place. It makes integrating agricultural approaches and the development of a range of tools for prevention, monitoring, control along with the management strategies. This includes ensuring prudent use of antimicrobials and seeking alternatives in antimicrobials.

**Animals and health under Horizon 2020 societal challenge 2**



**Key themes**  
Food safety and food security, Vaccination, One health, and zoonosis, Antimicrobials, International cooperation



**Why do R&I on sustainable, circular and innovative value chains matter?**

Sustainable growth and resilient value chains are a prerequisite for a sustainable life of biological resources. Food and high-tech and dynamic environment. For reaching this goal, dynamic environment is an enabler. For reaching this goal, dynamic environment is an enabler. For reaching this goal, dynamic environment is an enabler.

Efficiency, resilience and sustainability, it leads to help understanding food chain dynamics and the role of innovation. Farmers are looking for a long-term, profitable and non-toxic solution. The need to create value for the farmer and for the consumer is a key challenge. The need to create value for the farmer and for the consumer is a key challenge. The need to create value for the farmer and for the consumer is a key challenge.

**Sustainable, circular and innovative value chains under Horizon 2020 societal challenge 2**



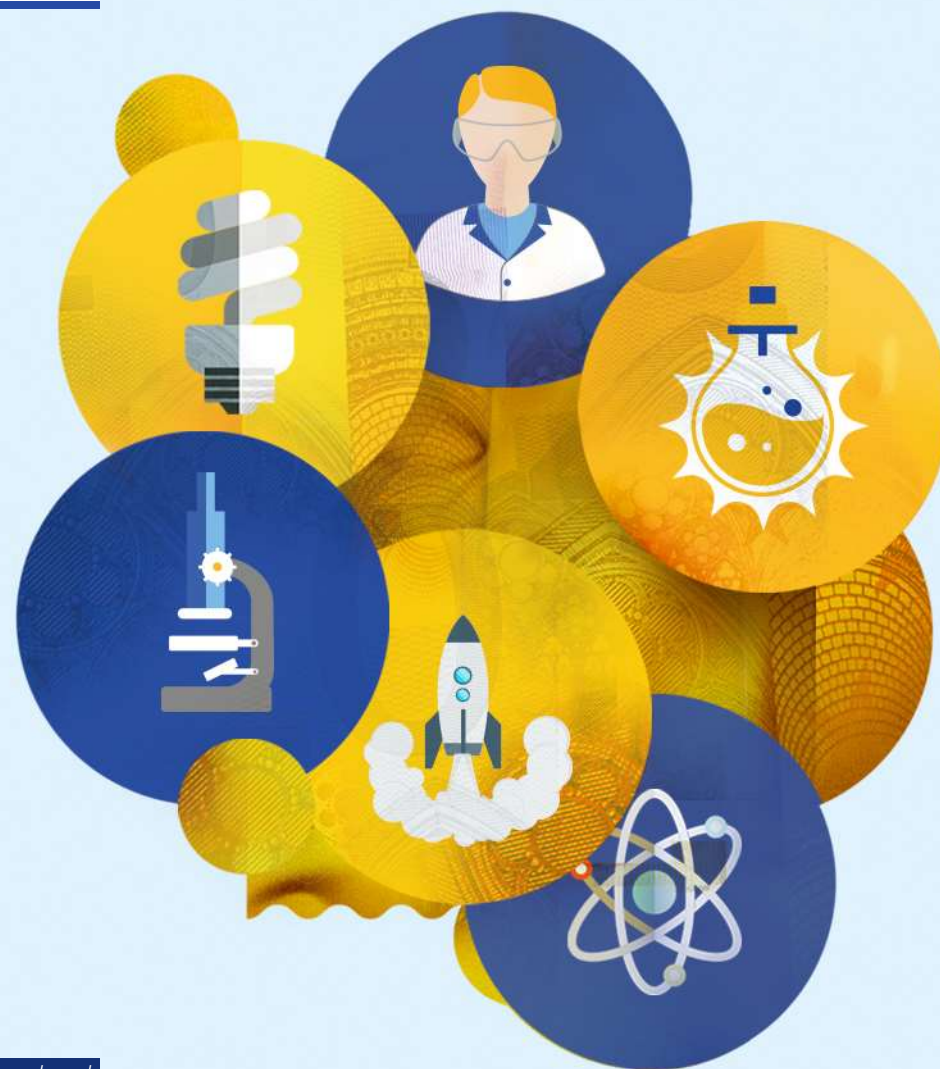
**Key themes**  
Innovation of business models and waste - Improved business systems - Low carbon agriculture - Food safety and food security - Antimicrobials - One health - International cooperation



Commission proposal for  
**Horizon Europe**

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

#HorizonEU



Research and  
Innovation

# Horizon Europe

is the Commission proposal for a research and innovation funding programme for seven years (2021-2027)



**to strengthen the EU's scientific and technological bases**



**to boost Europe's innovation capacity, competitiveness and jobs**

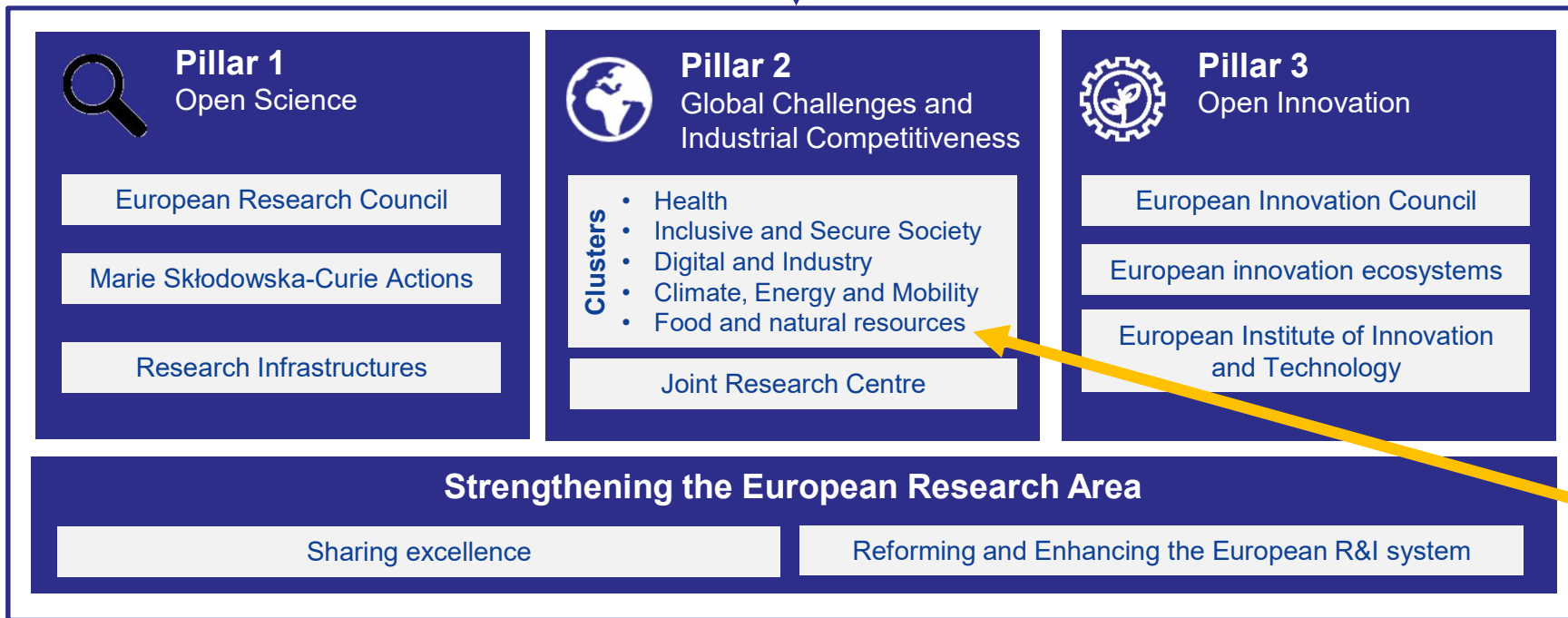


**to deliver on citizens' priorities and sustain our socio-economic model and values**

**€ 4.1 billion** are proposed to be allocated for defence research, in a separate proposal for a European Defence Fund

# Horizon Europe: evolution not revolution

## Specific objectives of the Programme



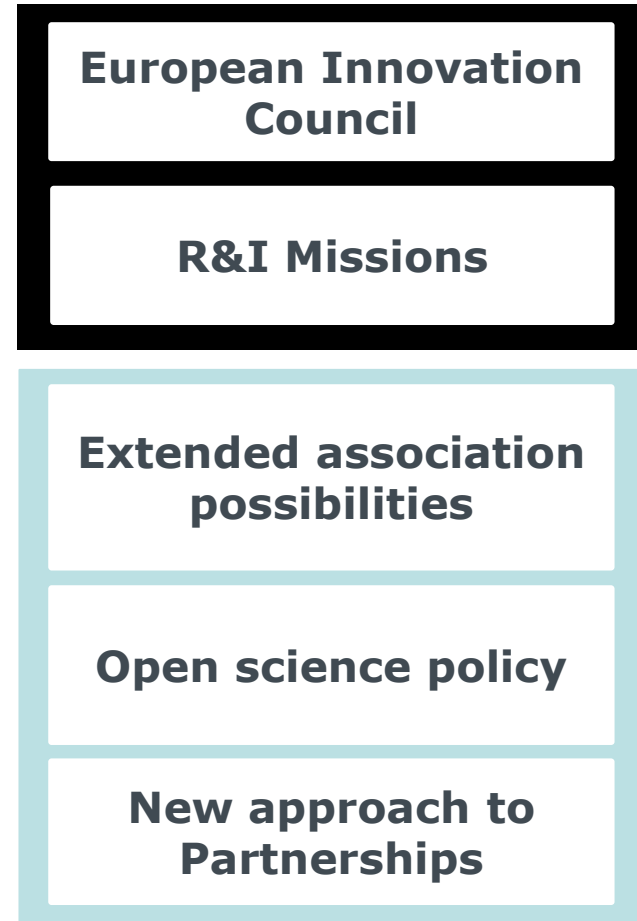
# Lessons Learned

from Horizon 2020 Interim Evaluation

# Key Novelties

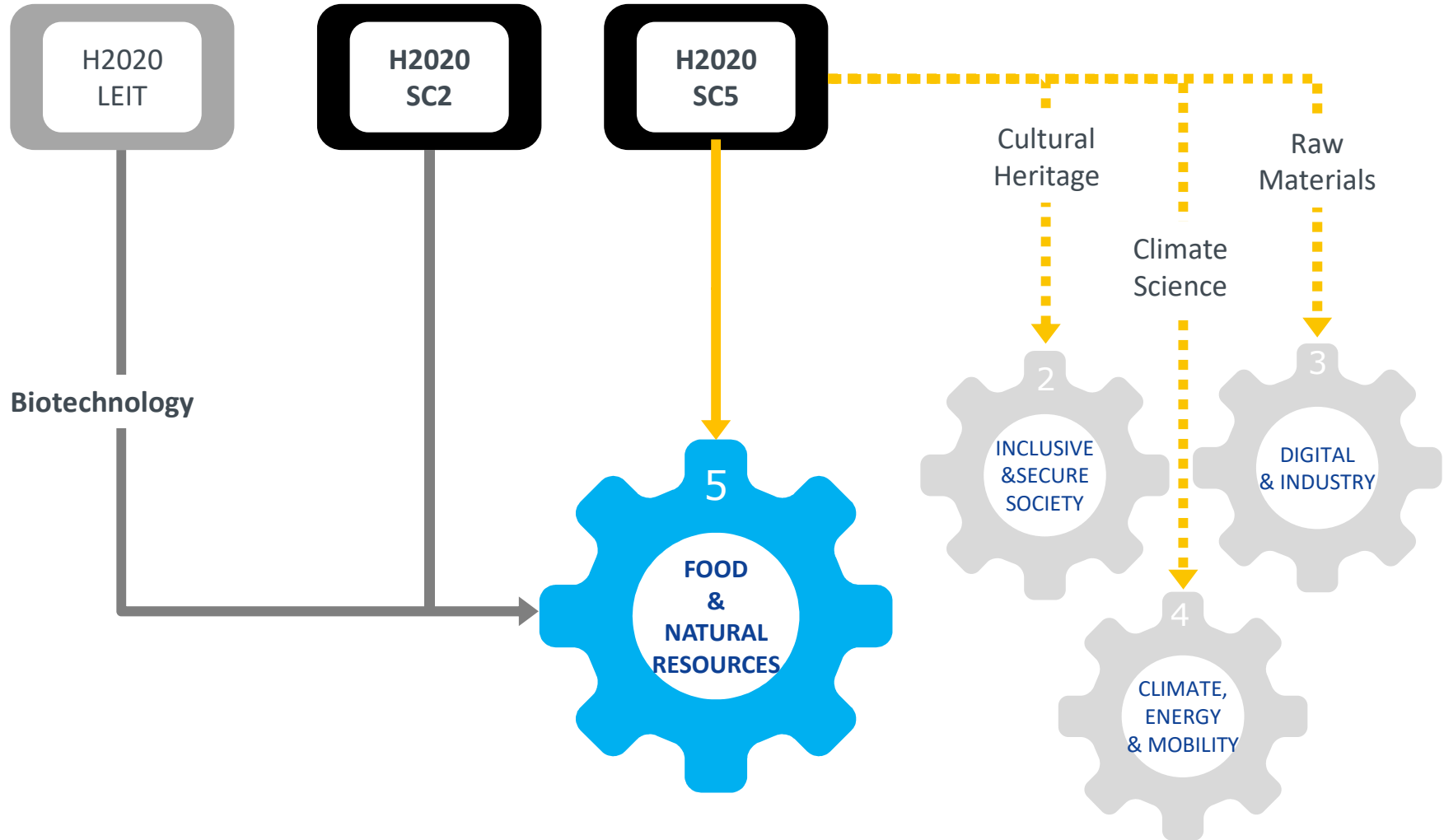
in Horizon Europe

-  **Support breakthrough innovation** →
-  **Create more impact through mission-orientation and citizens' involvement** →
-  **Strengthen international cooperation** →
-  **Reinforce openness** →
-  **Rationalise the funding landscape** →



# Cluster 5 Food and Natural Resources

*What is in/out?*



# Cluster 5 Food and Natural Resources

## *Why a single cluster?*

- New **holistic, system-wide, integrated view**
- Mainstreaming a **participatory approach to R&I** and exploitation of **big data**
- More **impact-focused R&I**: SDGs and EU policy goals
- More **synergies across R&I areas**, along the full innovation cycle:
  - ❑ between **intervention areas** (e.g. circular and bio-based systems)
  - ❑ between **clusters** (e.g. digital and agriculture; marine & maritime)
  - ❑ between **pillars** (through wide / joint Missions)
  - ❑ with other **EU funding instruments**



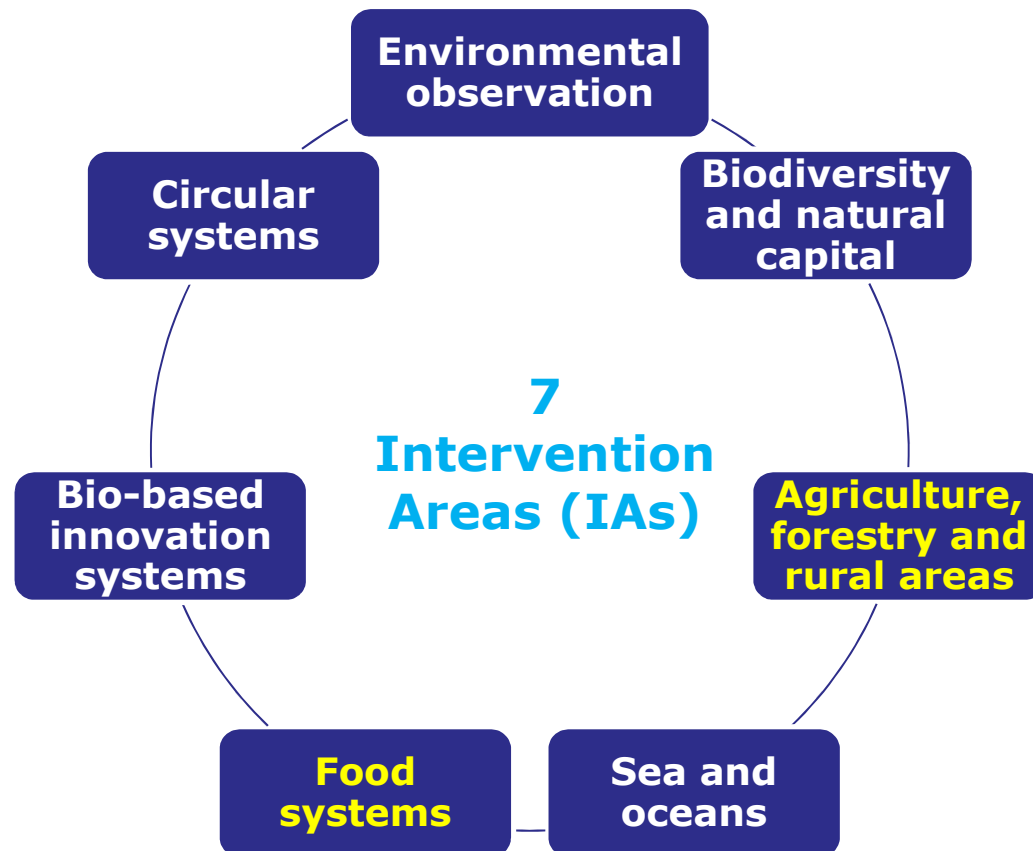
# Cluster 5 Food and Natural Resources

## *Contribution to SDGs*



# Cluster 5 Food and Natural Resources

*What is in it?*



# Cluster 5 on food safety and related issues

## Agriculture, forestry and rural areas

- Plant pests and diseases and animal health and welfare;
- Alternatives to the use of contentious pesticides, antibiotics and other substances;
- Antimicrobial resistance and threats from biological and agrochemical hazards as well as chemical contaminants tackling the links between plant, animal, ecosystems and public health from One-Health and Global-Health perspectives;

## Food systems

- Modern food safety and authenticity systems, enhancing consumer confidence in the food system;

***(SP Annex I, 5.2.3 & 5.2.5)***

# What we think are the opportunities?

- Prevention of, and preparedness for, crisis situations and emerging risks related to food and feed safety, animal health and plant health.
- Supporting effective evidence-based policy frameworks, including science for risk assessment (EFSA).
- Boosting safe innovation for sustainable food and feed systems.

# Not only through Cluster 5...

- **Cluster 1, Health:**
  - Infectious diseases, including zoonosis
  - Promotion of healthy lifestyles and consumption behaviour
  - Prevention of non-communicable diseases
- **European Innovation Council**
- **European Institute of Technology on Food**

# How to deliver those opportunities?

- Use the appropriate 'Horizon Europe' tools:
  - **Missions:** MS/EP preliminary agreement
  - **Partnerships:** ongoing discussions
  - **Individual projects:** future discussions
- Deliver impactful results:
  - **Stakeholder engagement: you!**
  - **Disseminating results**



# Engage?

- May/June: call for Membership to 'Mission Boards'
- June-August: public consultation on *Orientations towards a Strategic Plan*
- 24-26 September:



***We will remind you in due time!***

#HorizonEU

<http://ec.europa.eu/horizon-europe>