

Horizon Europe – what is there for agriculture, food, bioeconomy and environment ?

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Pillars H2020 vs. Horizon Europe (HE)

71.1 M€ Excellent Science
97.6 M€ Open Science

Leadership in Enabling
Industrial Technologies

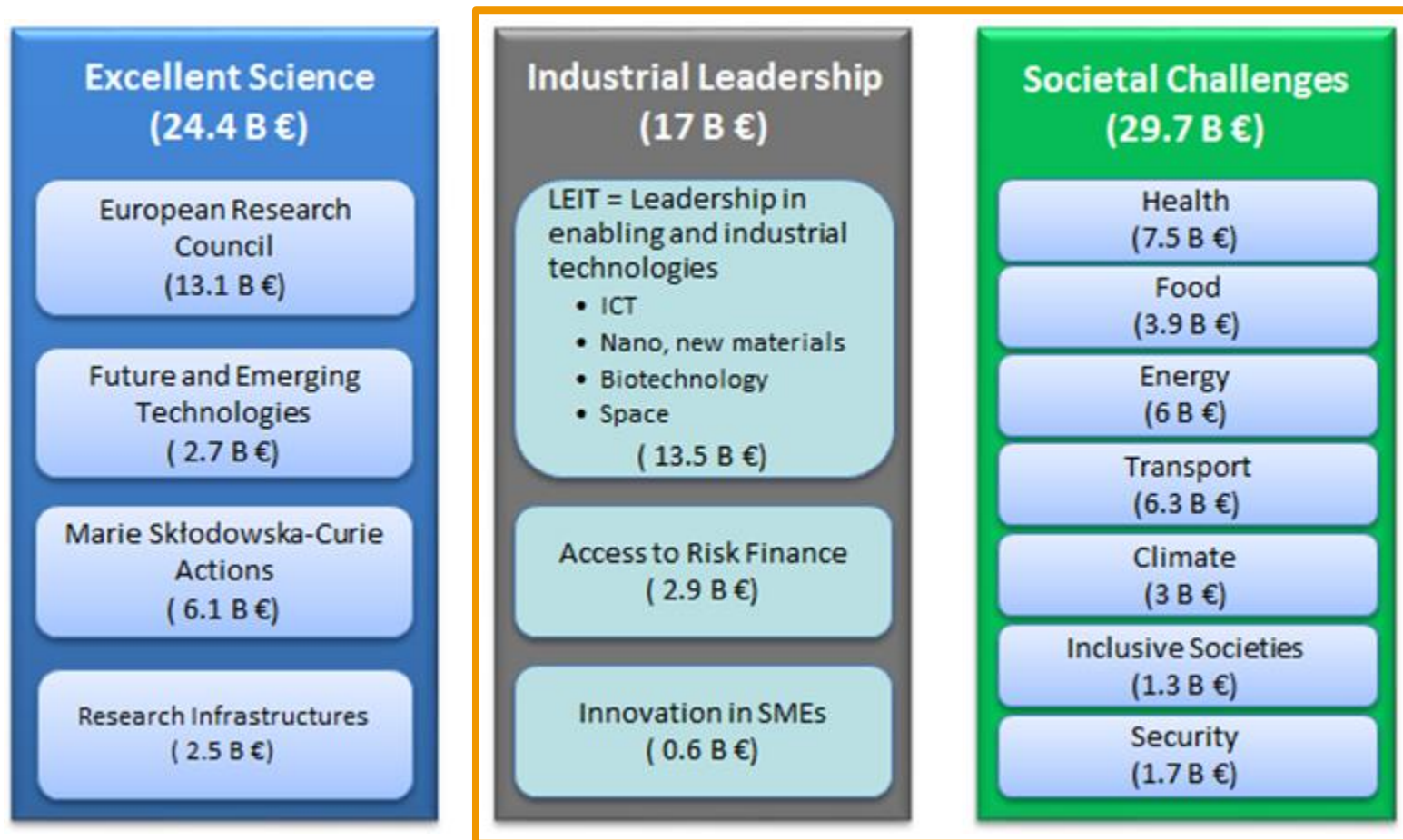
Global Challenges and
Industrial Competitiveness

Societal Challenges
(+ EIC Pilot)

Open Innovation



Pillars H2020 vs. HE



H2020 – Thematic areas

3 (4)

+

7

46.7

HE - Clusters

5

50.5

H2020 vs. Horizon Europe – rozpočty

	H2020	M€		M€	Horizon Europe
LEIT	• ICT	13.6	}	15	• Digital and Industry
	• NMBP				
	• Space				
Societal Challenges	• Health	7.5	}	7.7	• Health
	• Food	3.9		10	• Food and Natural Resources
	• Energy	6		15	• Climate, Energy and Mobility
	• Transport	6.3			
	• Climate	3			
	• Inclusive Societies	1.3		2.8	• Inclusive and Secure Society
	• Security	1.7			
	• JRC	1.9		2.2	• JRC

5 clusters

CLUSTER 5 Food and Natural Resources

Collaborative projects remain the default:

Consortiums of **at least three independent legal entities** and with at least one of them established in a Member State

Competitive and Open calls for proposals, as **regular calls**, calls for **missions** and **partnerships**

CLUSTER 5: Food and natural resources

7 intervention areas:

- Environmental observation
- Biodiversity and natural capital
- Agriculture, forestry and rural areas
- Sea and oceans
- Food systems
- Bio-based innovation systems
- Circular systems

Environmental observation (SP Annex I, 5.2.1)

- Underpinning R&I through Earth Observation for the sustainable use and monitoring of food and natural resources and more broadly the Earth System;
- Deploying, exploiting and up taking user-oriented technologies and applications;
- Addressing gaps in Earth Observation through GEOSS and EuroGEOSS, including in support of COPERNICUS products and services.

Biodiversity and natural capital (SP Annex I, 5.2.2)

- State, value and trends of biodiversity, ecosystems and their services, natural capital and the 'planetary boundaries' & ecotoxicology of new compounds;
- Mainstreaming biodiversity and ecosystems services in decision making, enhancing the science-policy interface, including in international processes;
- Nature-based solutions for addressing challenges in cities, rural, marine and coastal areas applying multi-actor living labs approaches.
- Governance aspects of transition to sustainability – in economic, social and natural systems across scales local to global.

Agriculture, forestry and rural areas (SP Annex I, 5.2.3)

- Sustainable management of land and efficient use of natural resources (e.g. soils, water, nutrients and biodiversity including genetic resources);
- Diverse and resilient production systems using and delivering a range of ecosystems services; the potential of agriculture and forestry as carbon sinks;
- Integrated approaches towards plant pests and diseases; animal health and welfare; tackling antimicrobial resistance and biological and agro-chemical hazards;
- Digital innovations in farming, forestry and across value chains in rural areas;
- Rural development, skills and Agricultural Knowledge and Innovation Systems (AKIS).

Sea and oceans (SP Annex I, 5.2.4)

- Sustainably manage, protect and restore marine and coastal ecosystems and prevent marine pollution;
- Sustainably unlock the vast and unexploited potential of seas and oceans, producing more food, while alleviating pressure on land and fresh water resources;
- Partnering approaches and macro-regional strategies, ocean governance and UN Decade of Ocean Science for Sustainable Development.

Food systems (SP Annex I, 5.2.5)

- Food systems transformation – environmentally sustainable, circular and resource efficient food systems from land and sea;
- Healthy diets and personalised nutrition;
- Food safety and authenticity;
- Consumer behaviour, lifestyle and motivations for better health and environmental sustainability along the food value chain

Bio-based innovation systems (SP Annex I, 5.2.6)

- Laying the foundations for the transition away from fossil-based into bio-based materials and products;
- Capitalising on the potential of living resources, life sciences and industrial biotechnology for new discoveries, products and processes;
- New economic activities and employment to regions, cities and revitalising rural and coastal areas;
- Strengthen the circularity of the bioeconomy.

Circular systems (SP Annex I, 5.2.7)

- Systemic transition to a resource-efficient and circular economy;
- Metrics, indicators and governance, involving new business models, new products and services, new financing and new multi-stakeholder and cross-value chain collaborations;
- Sustainable and regenerative development of cities and peri-urban areas and regions;
- Eco-innovation for prevention and remediation of environmental pollution;
- Circular use of water resources.

More **impact-focused R&I** – supporting the implementation of EU policy goals like the shift towards a circular economy, bio-economy and blue economy

New **holistic / system-wide / integrated view**

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 (e.g. EARD, EMFF)

Zdroje / odkazy

- https://ec.europa.eu/commission/publications/research-and-innovation-including-horizon-europe-iter-and-euratom-legal-texts-and-factsheets_en
- <https://www.h2020.cz/cs/9-rp/informace>
- <https://www.evropskyvyzkum.cz/cs/nastroje-spoluprace/ramcove-programy/9-rp>
- <http://www.msmt.cz/vyzkum-a-vyvoj-2/evropska-komise-zverejnila-prvni-oficialni-navrh-9-ramcoveho?highlightWords=Horizon+Europe>