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Horizon Europe First Strategic Plan 2021-2024

Fields marked with * are mandatory.

INTRODUCTION

Horizon Europe, the ninth European Research and Innovation Framework programme (2021-2027), is the key instrument of the Union for supporting research and innovation. It also plays an important role in steering and accelerating Europe's recovery, preparedness and resilience along the twin digital and green transitions. It will strengthen our knowledge base through frontier research, spur breakthrough innovation and support the development and demonstration of innovative solutions, and it will help restore our industrial leadership and strategic autonomy, while helping tackle the coronavirus pandemic and the climate challenges.

The first Horizon Europe Strategic Plan will define the strategic orientations for our research and innovation investments over the period 2021-2024 and will act as a compass to stay on course with the political priorities of the Commission: a climate-neutral and green Europe, fit for the digital age, where the economy works for the people.

This **survey is part of the strategic planning process**, to which the European Parliament, EU Member States, Countries of the European Economic Area (EEA Countries), as well as stakeholders and interested citizens, contribute collectively.

The **objective of this survey** is to receive feedback on the expected impacts to be targeted by research and innovation within Horizon Europe and the contribution of Research and Innovation (R&I) investments to the EU's political priorities. The results of the survey will be used to finalise the Strategic Plan and to precise the impact logic, which will set the direction for to the future Horizon Europe work programmes.

The survey is structured around **six Horizon Europe clusters and their expected impacts**: 1. Health; 2. Culture, Creativity and Inclusive Society; 3. Civil Security for Society; 4. Digital, Industry and Space; 5. Climate, Energy and Mobility; 6. Food, Bioeconomy, Natural Resources, Agriculture and Environment.

You do not have to respond to all six clusters. It should take **about 20 minutes to reply to the questions for each cluster**. The **deadline is Friday, 18 September 2020, 18.00 Brussels time**.

ABOUT YOU

* Have you or your organisation participated in the web-survey "Horizon Europe Co-design 2021-2024" in July 2019?

- (●) Yes
- ( ) No

* You or your organisation are mainly active/interested in the following areas of Horizon Europe (please select all that apply):

- [x] Health (cluster 1)
- [x] Culture, creativity and inclusive society (cluster 2)
- [ ] Civil security for society (cluster 3)
- [x] Digital, industry and space (cluster 4)
- [x] Climate, energy and mobility (cluster 5)
- [x] Food, bioeconomy, natural resources, agriculture and environment (cluster 6)
- [x] Widening Participation and Strengthening the European Research Area
- [ ] Pillar I - Excellent Science
- [ ] Pillar III - Innovative Europe
- [ ] Other

* You are responding:

- ( ) As an individual
- ( ) As a representative of a single organisation
- (●) As a representative of an 'umbrella' organisation (a group of organisations)

* You are responding:

- ( ) As a researcher
- ( ) As an entrepreneur
- ( ) As an expert in research and innovation
- ( ) A citizen
- (●) Other

* You are representing:

- ( ) Yourself
- ( ) A university or similar institution
- ( ) A research organisation
- ( ) A business or an industry
- ( ) An international organisation
- ( ) A national public authority
- ( ) A regional or local public authority
- (●) A civil society organisation (including non-governmental organisations, community associations, etc.)
- ( ) Other

Name of the organisation:

150 character(s) maximum

EuroHealthNet

Your name and last name:

150 character(s) maximum

Alba Godfrey

* What is your country of residence or establishment?

BE - Belgium

* Please select the option that best describes your interest in European research and innovation programmes:

- ○ I/my organisation is currently participating in at least one project funded by a European Union research and innovation framework programme
- ◉ I/my organisation has proposed and/or participated in project(s) funded by a European Union research and innovation framework programme in the past, but I am/it is not participating in a running projects at this moment
- ○ I/my organisation has not yet proposed or participated in projects funded by European Union research and innovation framework programmes, but would be interested to do so
- ○ I/my organisation currently does not intend to propose and/or participate in projects funded by European Union research and innovation framework programmes, but I may be interested in the results of the projects/programme

* **Publication privacy settings**

The Commission will publish the responses to this public consultation. You can choose whether you would like your details to be made public or to remain anonymous:

- ○ **Anonymous**: Only your type of respondent, country of origin and contribution will be published. All other personal details (name, organisation name and size, transparency register number) will not be published
- ◉ **Public**: Your personal details (name, organisation name and size, transparency register number, country of origin) will be published with your contribution

Please have a look at our Privacy Statement.

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EXPECTED IMPACTS AND R&I CONTRIBUTION

This section aims at validating the targeted impacts and the role of R&I to reach the impact for the four years covered by the Strategic Plan, as developed with stakeholders during the Strategic Planning Process. This survey builds upon last year's survey and aims at making final revisions.

* You would like to provide your views on the following Horizon Europe clusters:

at least 1 choice(s)

- ☑ Cluster 1 : Health
- ☑ Cluster 2 : Culture, Creativity and Inclusive Society
- ☐ Cluster 3 : Civil Security for Society
- ☐ Cluster 4. Digital, Industry and Space
- ☑ Cluster 5. Climate, Energy and Mobility
- ☑ Cluster 6. Food, Bioeconomy, Natural Resources, Agriculture and Environment

CLUSTER 1: Health

Impact 1: Staying healthy in a rapidly changing society

Short description of the impact: Citizens stay healthy in a rapidly changing society thanks to healthier lifestyles and behaviours, healthier environments, improved evidence-based health policies, and more effective solutions for health promotion and disease prevention.

R&I contribution: Research and innovation can provide a better understanding of specific health and care needs throughout the life course, including age-specific and sex/gender-specific needs, and develop more effective solutions for health promotion and disease prevention, including for needs related to chronic health conditions, physical and mental disabilities, or age-related impairments. Research and innovation can help people, as well as communities, in developing innovative services, policies, guidelines and digital solutions, also ensuring that they are accessible, equitable and effective in preventing disease and promoting health. Key to achieving these objectives is the availability and accessibility of real-world health data, which will require appropriate support by research and data infrastructures.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Citizens need an enabling and encouraging environment to be able to make positive behaviour changes. The impact should also mention issues of equity and of effective cross-sectoral, integrated and upstream solutions to health promotion. New suggested wording: "All citizens are enabled and encouraged to stay or become healthy in a rapidly changing society thanks to healthier behaviours, healthier environments, improved evidence-based cross-sectoral policies, and more effective upstream.... etc"

Impact 2: Living and working in a health-promoting environment

Short description of the impact: Living and working environments are health-promoting and sustainable thanks to better understanding of environmental, occupational, social and economic determinants of health.

R&I contribution: Research and innovation will produce the knowledge necessary to identify and assess the risks and benefits for health, and to enable health promoting and disease preventive policy actions.

Results will support the EU's environment and health policies and overarching policy frameworks such as the European Green Deal, the future 8th Environment Action Programme, the EU Strategic Framework on Health and Safety at Work and the European Environment and Health Process (EHP). The outcome will also contribute to the development of new and improved health interventions and technologies. In order to achieve sustainable impacts, research and innovation must provide solid evidence and stimulate its uptake into a large number of environmental, occupational, social, economic, fiscal and health policies at the EU, national and regional level. Strong collaborations across sectors and with other Horizon Europe clusters dealing with issues such as agriculture, food, environment, climate, mobility, security, urban planning, social inclusion and gender will be needed to ensure that maximal societal benefits will be reached. Likewise, international cooperation, including at science-policy level, will be key to drive forward and tackle this challenge.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The R&I contribution could also highlight the need to focus on equity (i.e., developing evidence on links between environment, health and inequalities). The impact could reflect this as follows: "Living and working environments are health-promoting, inclusive and sustainable...". Will this also investigate commercial determinants of health?

Impact 3: Tackling diseases and reducing disease burden

Short description of the impact: Health care providers are able to tackle diseases (infectious diseases, including poverty-related and neglected diseases, non-communicable and rare diseases) and reduce the disease burden on patients effectively thanks to better understanding of diseases, using more effective and innovative health technologies and better ability and preparedness to manage epidemic outbreaks.

R&I contribution: There is an urgent need for research and innovation on new prevention, public health interventions, diagnostics, vaccines, therapies, alternatives to antibiotics, as well as to improve existing prevention strategies to create tangible impacts, taking into account sex/gender-related issues. This will require international cooperation to pool the best expertise and know-how available worldwide, to access world-class research infrastructures and to leverage critical scales of investments on priority needs through better alignment with other funders of international health research and innovation cooperation. The continuation of international partnerships and cooperation with international organisations is particularly

needed to combat infectious diseases, including antimicrobial resistances, to respond to major unmet needs for global health security, including the global burden of non-communicable diseases, and to strengthen patient safety.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

It is important that research funding for health should not just support biomedical sciences, but also prioritise research that focuses on a psycho-social model of health, helping to generate specialist knowledge able to embrace the social determinants of health inequalities and place people at the centre. It could also be relevant to adopt a life-course approach to research, to better understand the impact of early years experience and interventions.

Impact 4: Ensuring access to innovative, sustainable and high-quality health care

Short description of the impact: Health care systems provide equal access to innovative, sustainable and high-quality health care thanks to the development and uptake of safe, cost-effective and people-centred solutions, with a focus on population health, health systems resilience, as well as improved evidence-based health policies.

R&I contribution: Research and innovation can help by supporting the development of innovative solutions for health care systems in all their various dimensions (e.g. governance, resilience, financing, generation of human and physical resources, health service provision, and patient empowerment). In addition, research and innovation can provide decision-makers with new evidence, methods and tools to successfully implement those innovative solutions into their health care systems. It will in turn help to improve the governance and resilience of health care systems as well as to allocate resources according to people's needs and preferences while delivering fiscal sustainability to make sure those needs can be met in the long-term.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree

The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Social care can also play an important role here, and perhaps those innovations in this area that also improve quality of life can be found in societal/community solutions (e.g., social prescribing). The R&I contribution could emphasise more the importance of involving end-users and their communities through participatory health promotion and prevention methods. Beyond access, we need to understand how to best reach out to vulnerable groups, who may be less health literate.

Impact 5: Unlocking the full potential of new tools, technologies and digital solutions for a healthy society

Short description of the impact: Health technologies, new tools and digital solutions are applied effectively thanks to their inclusive, secure and ethical development, delivery, integration and deployment in health policies and health and care systems.

R&I contribution: Research and innovation is needed on the large spectrum of tools and technologies for bio-medical research, prevention, diagnosis, therapy and monitoring. Managing benefits and risks of new technologies and due consideration of aspects of safety, effectiveness, inter-operability, appropriateness, accessibility, comparative value-added, affordability and sustainability (environmental, fiscal, socio-economic) and issues of ethical, societal, regulatory and legal nature will be crucial in order to boost the acceptability of these novelties and to translate these innovations into health policies, health and care systems, and clinical practice responsibly. Moreover, to provide high-quality healthcare and reduce health inequalities, end users' engagement in multidisciplinary, cross-sectorial cooperation with key stakeholders (patients, health care providers, researchers, regulatory bodies, policy-makers, funders) could help addressing specific unmet needs for health tools, technologies and digital solutions with limited commercial interest but also designing and developing suitable health products and services tailored to specific needs related to sex/gender or other aspects. Artificial Intelligence technologies have recently shown great promise for analysing high volumes of health data, with high potential for advancing biomedical research, personalised medicine and health care and for supporting health care systems in their clinical, organisational and logistical functions.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○

R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

In parallel with developing suitable health products and tools tailored to specific needs, it is necessary to understand how to improve digital health literacy, skills and competencies to ensure that no-one is left behind in the digital transition.This could be further strengthened in the R&I contribution. We suggest adding "non-discriminatory" in the impact (i.e., always keeping a human element rather than decisions being made by arbitrary AI algorithms).

Impact 6: Maintaining an innovative, sustainable and globally competitive health-related industry

Short description of the impact: EU health industry is more innovative, sustainable and globally competitive thanks to improved up-take of breakthrough technologies and innovations, which makes the EU with its Member States more resilient and less dependent from imports with regard to the access to and supply of critical health technologies.

R&I contribution: There is a convergence and a need for cross-sectorial research and innovation (integrating medical technologies, pharmaceuticals, biotechnologies, digital health and eHealth technologies) to strengthen the single market, including by implementing the Digital Single Market strategy, supporting the standardisation policy, driving innovation from the demand side and providing evidence and guidelines for stakeholders and regulators to ensure take-up of innovations supports sustainability (environmental, fiscal, socio-economic) while fostering access and reducing health inequalities. The health sector is subjected to strict regulatory requirements that impose the demonstration of clinical benefit(s) and safety. This means additional development steps, uncertainties and a longer time to market. Support to studies for health assessment procedures, clinical performance demonstration, quality assurance schemes and standardisation are therefore important elements.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Do you have any other comments regarding the expected impacts of this Cluster?

1500 character(s) maximum

CLUSTER 1 - COHERENCE AND SYNERGIES

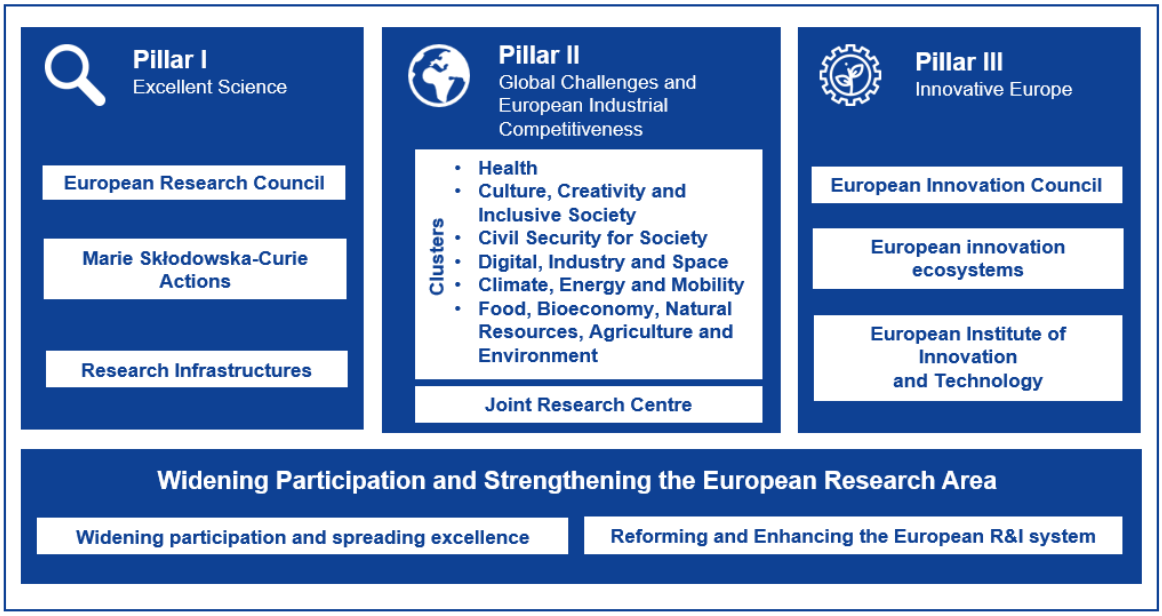
Coherence and synergies with other parts of the Framework Programme or with other EU programmes

In order to maximise the impact of research and innovation on society, environment and economy at large and to contribute to the achievement of the Union's objectives, Union funding programmes must be coherent and work in synergy. Synergies and coherence are based on complementarity between programme design and objectives, as well as financing rules and processes at implementation level.

The Strategic Planning process, and the ensuing implementation process, must ensure the alignment of priorities of the different parts of Horizon Europe and between Horizon Europe and other EU funding programmes, ensuring coherent funding options at different stages of the research and innovation cycle. This includes facilitating the deployment of research results and innovative solutions developed in Horizon Europe (or previous Framework Programmes) with the support of other Union funding programmes.

The following questions seek your views on the priorities for coherence and synergies between this cluster of Horizon Europe and other parts of the Horizon Europe, and other EU funding programmes.

Horizon Europe Structure



Missions shall be programmed within the **Pillar II**, 'Global Challenges and European Industrial Competitiveness ', but may also benefit from actions carried out within other parts of the Programme as well as complementary actions carried out under other Union funding programmes.

Horizon Europe Missions are an integral part of the Horizon Europe framework programme. Missions are programmed under Horizon Europe Pillar II. Missions implementation will go beyond research and innovation. Missions will benefit from actions carried out within other parts of the Programme as well as complementary actions carried out at national level and under other Union funding programmes. Each selected mission will be a mandate to solve a pressing challenge in society within a certain timeframe and budget. More information on Missions is available on the Missions website.

1. In your view, how important is coherence between this cluster and other clusters or elements of Horizon Europe Pillar II?

	Very important	Important	Neutral	Not important	Not important at all
Pillar II – Cluster 2 'Culture, Creativity and Inclusive Society'	○	◉	○	○	○
Pillar II – Cluster 3 'Civil Security for Society'	○	○	○	◉	○
Pillar II – Cluster 4 'Digital, Industry and Space'	○	◉	○	○	○
Pillar II – Cluster 5 'Climate, Energy and Mobility'	◉	○	○	○	○
Pillar II – Cluster 6 'Food, Bioeconomy, Natural Resources, Agriculture and Environment'	◉	○	○	○	○
Mission Area 'Cancer'	◉	○	○	○	○

Mission Area ‘Adaptation to climate change including societal transformation’	◉	○	○	○	○
Mission Area ‘Healthy oceans, seas coastal and inland waters’	○	◉	○	○	○
Mission Area ‘Climate-neutral and smart cities’	◉	○	○	○	○
Mission Area ‘Soil health and food’	◉	○	○	○	○

2. In your view, how important is coherence between this cluster and the other parts of Horizon Europe?

	Very important	Important	Neutral	Not important	Not important at all
Pillar I – Excellent Science: European Research Council	○	○	◉	○	○
Pillar I - Excellent Science: Marie-Skłodowska Curie Actions	○	○	◉	○	○
Pillar I – Research Infrastructures	○	○	◉	○	○
Pillar III - Innovative Europe: European Innovation Council	○	○	◉	○	○
Pillar III - Innovative Europe: European Innovation Ecosystems	○	○	◉	○	○
Pillar III - Innovative Europe: European Institute of Innovation and Technology	○	○	◉	○	○
Widening participation and spreading excellence	○	○	◉	○	○
Reforming and enhancing the European R&I system	○	○	◉	○	○

3. In your view, how important are synergies between this cluster and the following other EU funding programmes?

	Very important	Important	Neutral	Not important	Not important at all
European Space Programme	○	○	○	◉	○
European Agricultural Fund for Rural Development (EAFRD)	○	○	◉	○	○
Other [Note: A field for comments opens at the end of the list, when you select the level of importance]	○	○	○	○	○

Single Market Programme	○	○	◉	○	○
European Social Fund Plus (ESF+)	◉	○	○	○	○
Digital Europe Programme (DEP)	○	○	◉	○	○
Internal Security Fund (ISF)	○	○	○	◉	○
Creative Europe	○	○	◉	○	○
European Maritime and Fisheries Fund (EMFF)	○	○	◉	○	○
Connecting Europe Facility (CEF)	○	○	○	◉	○
Neighbourhood, Development and International Cooperation	○	○	◉	○	○
Programme for Environment and Climate Action (LIFE)	○	◉	○	○	○
InvestEU	○	◉	○	○	○
Border Management and Visa Instrument (BMVI) as part of the Integrated Border Management Fund	○	○	○	◉	○
Erasmus Programme	○	○	◉	○	○
European Agricultural Guarantee Fund (EAGF)	○	○	◉	○	○
Euratom Research and Training Programme	○	○	○	◉	○
European Defence Fund	○	○	○	◉	○
European Regional Development Fund (ERDF)	○	◉	○	○	○
Innovation Fund under the Emission Trading Scheme (the 'Innovation Fund')	○	◉	○	○	○

4. Do you have any other comments or suggestions regarding the expected potential of coherence or synergies with Horizon Europe?

1500 character(s) maximum

CLUSTER 2: Culture, Creativity and Inclusive Society

Impact 1: Reinvigorated democracy

Short description of the impact: Trust in democracy is restored, through a reinvigorated democratic governance improving accountability, transparency and effectiveness of rule of law based institutions and policies, and through the expansion of active and inclusive citizenship empowered by the safeguarding of fundamental rights.

R&I contribution: The aim of the research investments is to develop innovations, policies and institutions that expand political participation, social dialogue, civic engagement and gender equality. Activities will also enhance transparency, the effectiveness of public policy-making, accountability and legitimacy and will equally improve trust in democratic institutions, safeguard liberties and the rule of law, and protect democracy from multidimensional threats. Rich historical perspectives associated with experimentation will set the frame for soundly understanding present developments and help the mapping of future pathways. In the medium to long term, the knowledge, data, scientifically robust recommendations and innovations generated will enhance decision making on all aspects relevant to democratic governance.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	○	○	○	○
R&I will play an important role to reach this impact	○	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	○	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Impact 2: Exploitation of the full potential of cultural heritage

Short description of the impact: The full potential of cultural heritage, arts and cultural and creative sectors as a driver of sustainable innovation and a European sense of belonging is realised through a continuous engagement with society, citizens and economic sectors as well as through better protection, restoration and promotion of cultural heritage.

R&I contribution: The investments will result in better access to, understanding of and engagement with cultural heritage. They will bring to the fore common values, traditions and beliefs and the different influences our cultures have been exposed to and have absorbed over time. This will support the emergence of a sense of belonging based on the common roots of the diversity of European cultural heritage while opening up new perspectives and dimensions for the future. Research and innovation results will contribute to European integration by providing better, wider and more equal access to culture, heritage and the arts. Horizon Europe activities will also enhance the governance and cooperation of European cultural heritage institutions and networks. As a key action, they will improve the protection, enhancement,

conservation and more efficient restoration of European cultural heritage. Research activities shall increase the quality standards for conservation and restoration of European cultural heritage. Research and innovation will provide solutions for making the EU a world leader in conservation technologies, management, high quality digitisation and curation of digital heritage assets. Supported activities will provide research and innovation for developing sustainable and inclusive cultural tourism in Europe. They will also increase capacities for the protection of endangered cultural heritage and deployment of preventive measures against the illicit trade in cultural goods. Research and innovation will also help the preservation of endangered languages. Finally, research and innovation will support European policies for cultural and creative industries contributing to sustainable growth and job creation.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	○	○	○	○
R&I will play an important role to reach this impact	○	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	○	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Impact 3: Boosted inclusive growth

Short description of the impact: Inclusive growth is boosted and vulnerabilities are reduced effectively through evidence-based policies for protecting and enhancing employment, education, social fairness and tackling inequalities, including in response to the socio-economic challenges due to the Covid-19 pandemic.

R&I contribution: Promote inclusive growth and upward convergence via social investment and productivity enhancing policies in line with the European Pillar of Social Rights and the EU's policies on jobs and growth. Reverse inequalities, support equal opportunities and tackle social exclusion taking into account long-term trends and risks to advance the EU's employment, education and social inclusion policies. Assess and take advantage of the multidimensional impacts of technology on the future of work, productivity, employment, taxation, economy, welfare and the public sector. Develop innovative approaches to connecting education, life-long learning and training to emerging social and labour market needs in support of EU education and employment policies. Respond to new impacts of globalisation with a view to fairness as well as economic and social resilience. Strengthen economic resilience through shock absorption mechanisms at EU level via fiscal, monetary, labour market and macro prudential policies. Activities will also support the governance of migration and the integration of migrants and populations of immigrant background. They will contribute to EU migration and mobility policies, both internal and external. The overall knowledge generated will feed into the design of institutions in line with the above mentioned

objectives and will facilitate the assessment of policy needs and outcomes in the field of the societal and economic transformations.

Note: Impacts 3 and 4 of Cluster 2 are closely linked to each other and are both supported by interrelated research and innovation activities of the third intervention area "Social and economic transformations" of Cluster 2. For this reason their R&I contributions are explained by a joint description.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The wording of this impact could include the aim to strive towards achieving an "economy of wellbeing", in line with the Council Conclusions of the Finnish Presidency of the EU. It could also be good to mention the unique added value of this impact, compared with impact 4.

Impact 4: Strengthened social and economic resilience and sustainability

Short description of the impact: Social and economic resilience and sustainability are strengthened through a better understanding of the social, ethical, political and economic impacts of drivers of change (such as technology, globalisation, demographics, mobility and migration) and their interplay.

R&I contribution: Promote inclusive growth and upward convergence via social investment and productivity enhancing policies in line with the European Pillar of Social Rights and the EU's policies on jobs and growth. Reverse inequalities, support equal opportunities and tackle social exclusion taking into account long-term trends and risks to advance the EU's employment, education and social inclusion policies. Assess and take advantage of the multidimensional impacts of technology on the future of work, productivity, employment, taxation, economy, welfare and the public sector. Develop innovative approaches to connecting education, life-long learning and training to emerging social and labour market needs in support of EU education and employment policies. Respond to new impacts of globalisation with a view to fairness as well as economic and social resilience. Strengthen economic resilience through shock absorption mechanisms at EU level via fiscal, monetary, labour market and macro prudential policies. Activities will also support the governance of migration and the integration of migrants and populations of immigrant background. They will contribute to EU migration and mobility policies, both internal and external. The overall knowledge generated will feed into the design of institutions in line with the above mentioned objectives and will facilitate the assessment of policy needs and outcomes in the field of the societal and

Note: Impacts 3 and 4 of Cluster 2 are closely linked to each other and are both supported by interrelated research and innovation activities of the third intervention area "Social and economic transformations" of Cluster 2. For this reason their R&I contributions are explained by a joint description.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The wording of this impact could include the aim to strive towards achieving an "economy of wellbeing", in line with the Council Conclusions of the Finnish Presidency of the EU. It could also be good to mention the unique added value of this impact, compared with impact 3.

Do you have any other comments regarding the expected impacts of this Cluster?

1500 character(s) maximum

CLUSTER 2 - COHERENCE AND SYNERGIES

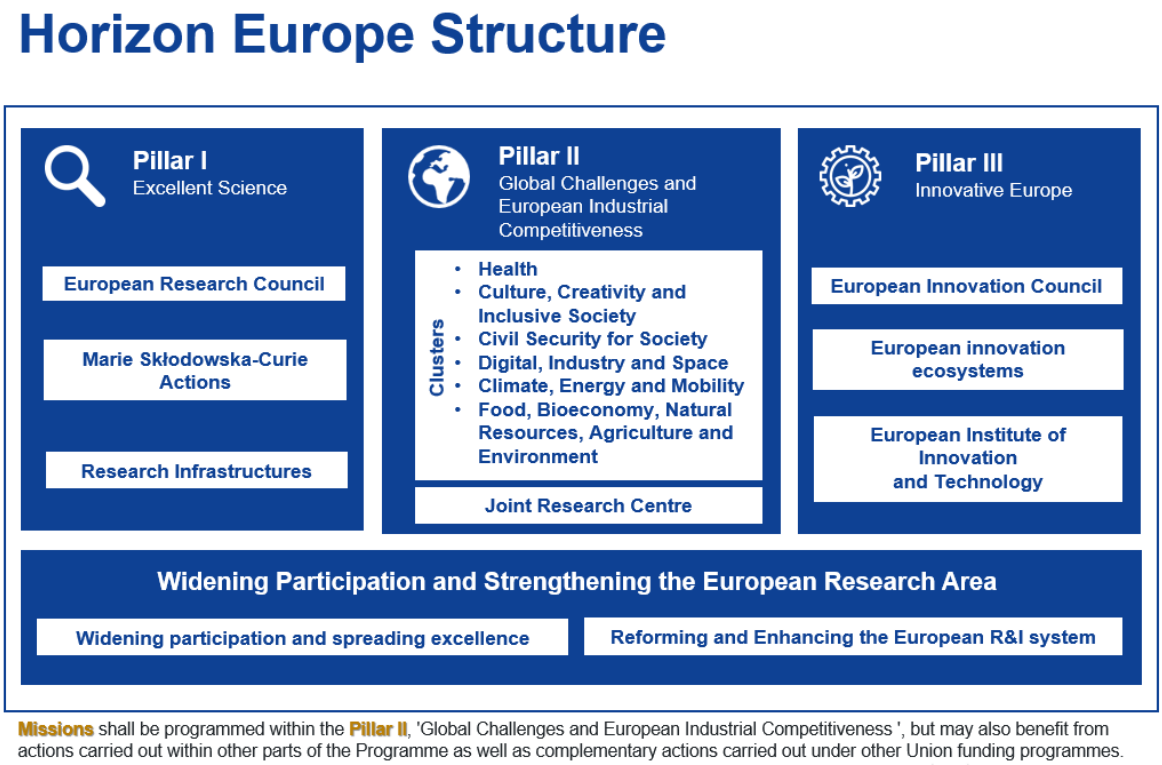
Coherence and synergies with other parts of the Framework Programme or with other EU p r o g r a m m e s

In order to maximise the impact of research and innovation on society, environment and economy at large and to contribute to the achievement of the Union's objectives, Union funding programmes must be coherent and work in synergy. Synergies and coherence are based on complementarity between programme design and objectives, as well as financing rules and processes at implementation level.

The Strategic Planning process, and the ensuing implementation process, must ensure the alignment of priorities of the different parts of Horizon Europe and between Horizon Europe and other EU funding

programmes, ensuring coherent funding options at different stages of the research and innovation cycle. This includes facilitating the deployment of research results and innovative solutions developed in Horizon Europe (or previous Framework Programmes) with the support of other Union funding programmes.

The following questions seek your views on the priorities for coherence and synergies between this cluster of Horizon Europe and other parts of the Horizon Europe, and other EU funding programmes.



Horizon Europe Missions are an integral part of the Horizon Europe framework programme. Missions are programmed under Horizon Europe Pillar II. Missions implementation will go beyond research and innovation. Missions will benefit from actions carried out within other parts of the Programme as well as complementary actions carried out at national level and under other Union funding programmes. Each selected mission will be a mandate to solve a pressing challenge in society within a certain timeframe and budget. More information on Missions is available on the Missions website.

1. In your view, how important is coherence between this cluster and other clusters or elements of Horizon Europe Pillar II?

	Very important	Important	Neutral	Not important	Not important at all
Pillar II – Cluster 1 'Health'	○	○	○	○	○
Pillar II – Cluster 3 'Civil Security for Society'	○	○	○	○	○
Pillar II – Cluster 4 'Digital, Industry and Space'	○	○	○	○	○
Pillar II – Cluster 5 'Climate, Energy and Mobility'	○	○	○	○	○

Pillar II – Cluster 6 ‘Food, Bioeconomy, Natural Resources, Agriculture and Environment’					
Mission Area ‘Cancer’					
Mission Area ‘Adaptation to climate change including societal transformation’					
Mission Area ‘Healthy oceans, seas coastal and inland waters’					
Mission Area ‘Climate-neutral and smart cities’					
Mission Area ‘Soil health and food’					

2. In your view, how important is coherence between this cluster and the other parts of Horizon Europe?

	Very important	Important	Neutral	Not important	Not important at all
Pillar I – Excellent Science: European Research Council					
Pillar I - Excellent Science: Marie-Skłodowska Curie Actions					
Pillar I – Research Infrastructures					
Pillar III - Innovative Europe: European Innovation Council					
Pillar III - Innovative Europe: European Innovation Ecosystems					
Pillar III - Innovative Europe: European Institute of Innovation and Technology					
Widening participation and spreading excellence					
Reforming and enhancing the European R&I system					

3. In your view, how important are synergies between this cluster and the following other EU funding programmes?

	Very important	Important	Neutral	Not important	Not important at all
Programme for Environment and Climate Action (LIFE)					

Border Management and Visa Instrument (BMVI) as part of the Integrated Border Management Fund					
InvestEU					
Neighbourhood, Development and International Cooperation					
European Maritime and Fisheries Fund (EMFF)					
European Space Programme					
Creative Europe					
Digital Europe Programme (DEP)					
European Agricultural Fund for Rural Development (EAFRD)					
Internal Security Fund (ISF)					
Innovation Fund under the Emission Trading Scheme (the 'Innovation Fund')					
Euratom Research and Training Programme					
European Agricultural Guarantee Fund (EAGF)					
European Social Fund Plus (ESF+)					
Erasmus Programme					
Connecting Europe Facility (CEF)					
Other [Note: A field for comments opens at the end of the list, when you select the level of importance]					
European Defence Fund					
Single Market Programme					
European Regional Development Fund (ERDF)					

4. Do you have any other comments or suggestions regarding the expected potential of coherence or synergies with Horizon Europe?

1500 character(s) maximum

CLUSTER 5: Climate, Energy and Mobility

Impact 1: A climate-neutral and resilient society and economy

Short description of the impact: Transition to a climate-neutral and resilient society and economy enabled through advanced climate science, pathways and responses to climate change (mitigation and adaptation) and behavioral transformations.

R&I contribution: Advancing climate science and creating a user-centric knowledge base remain essential to catalyze the global transition to a climate neutral and resilient economy. Addressing this challenge will involve research that furthers our understanding of the changing climate and its implications, closes knowledge gaps (as identified in IPCC reports), develops the tools that support decision makers for mitigation and adaptation actions on various time and spatial scales, and evaluates the societal impact of climate change and the technologies required for a low-carbon transition.

The first objective is to accelerate climate action (both mitigation and adaptation) uptake globally in line with the Paris Agreement and the SDGs, by improving knowledge of the earth system under different socio-economic pathways, estimating the impacts of climate change and by designing and evaluating solutions and pathways for mitigation and adaptation and related social transformation. The second objective is to contribute substantially to key international assessments such as the Intergovernmental Panel on Climate Change (IPCC). The third objective is to strengthen the European research area on climate change.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The impact and R&I contribution should aim to ensure that the transition is just and leaves no one behind. It is important to acknowledge that "behavioural transformations" need to be enabled and encouraged through wider enabling conditions for a fair transition, and with a solid understanding of the underlying socio-economic determinants.

Impact 2: Clean and sustainable transition of the energy and transport sectors towards climate neutrality

Short description of the impact: Clean and sustainable transition of the energy and transport sectors towards climate neutrality facilitated by innovative cross-cutting solutions.

R&I contribution: Many challenges of the energy and transport sectors are closely interlinked and must be addressed in a holistic approach, including with regard to their implications for citizens and society and making use of the social sciences and the humanities (SSH). As regards batteries, R&I activities will develop more performant, sustainable and circular battery technologies according to sectoral needs, thereby sustaining a competitive and sustainable EU battery value chain. With a view to hydrogen, a global leadership role of European industry along a competitive near-zero carbon hydrogen supply chain will be supported with R&I actions targeting improved efficiency, cost, performance, safety and environmental footprint of hydrogen and fuel cell technologies. Synergies and collaboration between these cross-sectoral solutions and their application in down-stream sectoral R&I in energy, transport and industry will be ensured. In addition, emerging and break-through technologies with a high potential for decarbonising the energy and transport sector will be supported.

More than 80% of the EU's population live in urban areas – R&I actions will provide concrete solutions for urban energy and mobility systems, thereby increasing the overall energy and resource efficiency as well as the climate-resilience of Europe's cities and communities and their attractiveness to businesses and citizens in a holistic fashion. The low-carbon transition will however only succeed if citizens accept and engage in it – R&I actions will investigate more effective ways to involve citizens, in particular through the Mission on Climate-neutral Cities.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The R&I contribution could further research the strong links between a clean/sustainable transition, health, and inequalities.

Impact 3: More efficient, clean, sustainable, secure and competitive energy supply

Short description of the impact: More efficient, clean, sustainable, secure and competitive energy supply through new solutions for smart grids and energy systems based on more performant renewable energy solutions.

R&I contribution: The transition of the energy system will rely on reducing the overall energy demand and decarbonising the energy supply side. R&I actions will make the energy supply side cleaner, more secure, and competitive by boosting cost performance and reliability of a broad portfolio of renewable energy solutions , in line with societal needs and preferences. Furthermore, R&I activities are needed to underpin the modernisation of the energy networks to support energy system integration, including the progressive electrification of demand side sectors (buildings, mobility, industry) and integration of other decarbonised energy carriers, such as clean hydrogen. Innovative energy storage solutions (including chemical, mechanical, electrical and thermal storage) are a key element of such energy system and R&I actions will advance their technological readiness for industrial-scale and domestic applications. Carbon Capture, Utilisation and Storage (CCUS) is a CO2 emission abatement option that holds great potential and R&I actions will accelerate the development of CCUS in electricity generation and industry applications.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	○	○	○	○
R&I will play an important role to reach this impact	○	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	○	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Impact 4: Efficient and sustainable use of energy, accessible for all

Short description of the impact: Efficient and sustainable use of energy, accessible for all is ensured through a clean energy system and a just transition.

R&I contribution: Fostering demand side solutions and improving energy efficiency are among the most cost effective ways to support decarbonisation, to create inclusive growth and employment in Europe, to bring down costs for consumers, to reduce our import dependency and redirect investments towards smart and sustainable infrastructure.

Buildings are pivotal to the energy transition and the achievement of a climate neutral economy and R&I actions will facilitate cost-effective energy renovation of buildings, thereby delivering energy savings, better life-cycle resource efficiency, and a more synergetic interactions of buildings with the energy system and between buildings. Furthermore, R&I is needed to scale the positive impacts from building level to the much more complex district and city level where a maximum of synergies can be achieved, involving citizens and

different levels of government. As regards industry, efficient use of decarbonised energy will be optimised at all levels, with a focus on the integration of renewable and low-carbon energy sources and the optimisation of energy flows across integrated industrial installations and the wider energy system.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	○	○	◉	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The R&I contribution could be more clearly described, in particular regarding how to ensure that clean energy is accessible to all, as this is an important consideration. Behaviour change elements could also be included in the research, noting that behaviour change needs to be enabled and encouraged through wider enabling conditions for a fair transition, and with a solid understanding of the underlying socio-economic determinants.

Impact 5: Climate-neutral and environmental friendly mobility

Short description of the impact: Towards climate-neutral and environmental friendly mobility through clean solutions across all transport modes while increasing global competitiveness of the EU transport sector.

R&I contribution: The transport sector is responsible for 23% of CO2 emissions and remains dependent on oil for 92% of its energy demand. While there has been significant technological progress over past decades, projected GHG emissions are not in line with the objectives of the Paris Agreement due to the expected increase in transport demand. Intensified research and innovation activities are therefore needed, across all transport modes and in line with societal needs and preferences, in order for the EU to reach its policy goals towards a net-zero greenhouse gas emissions by 2050 and to reduce significantly air pollutants.

As regards road transport, R&I actions will contribute to the transformation to zero-emission mobility ensuring that Europe remains world leader in innovation, production and services in relation to road transport. The rail system will be supported with R&I action in its transformation focussing on decarbonisation, automation and digitalization. R&I action on aviation will develop enabling and integrated aircraft technologies for deep decarbonisation transformation, reducing all aviation impacts and emissions, and strengthening European aero-industry collaboration and industrial leadership position. With a view to waterborne transport, R&I actions will advance zero-emission solutions in the shipping sector, improve its

system efficiency, enhancing digital and EU satellite-navigation solutions and contribute to its competitiveness. To reduce the negative impact of transport on environment and the human health, R&I actions will help to devise more effective ways of reducing emissions and their impacts.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	○	◉	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The impact should include equity considerations: "Towards climate-neutral and environmentally friendly mobility through clean solutions across all transport modes accessible to everyone, while...."

Impact 6: Safe, seamless, smart, inclusive, resilient and sustainable mobility systems

Short description of the impact: Safe, seamless, smart, inclusive, resilient and sustainable mobility systems for people and goods thanks to user-centric technologies and services including digital technologies and advanced satellite navigation services.

R&I contribution: Europe needs to maintain the competitiveness of its transport industry and manage the transformation of supply-based transport to demand-driven, safe and sustainable mobility services for passenger and freight. Suitable research and innovation initiatives will help to prepare such transformation. Emerging digital technologies and advanced satellite navigation services (Galileo/EGNOS) provide a great potential for developing connected and automated transport and managing traffic across the whole transport network. It can enable significant safety, environmental, economic and social benefits by reducing accidents, traffic congestion, energy consumption and emissions of vehicles and logistics networks while increasing efficiency and productivity of operations and improving working conditions.

To succeed in this transformation, Europe's ageing (and not always sustainable) transport infrastructure needs to be prepared for enabling cleaner and smarter operations.

Research and innovation results will set the basis for future standards and regulatory framework, creating European and global markets. To maximise societal, environmental and economic benefits, in addition to technological solutions, it is essential to address human and social aspects such as: analysis of mobility factors and patterns (for both passenger and freight transport), representations of different social groups and inclusiveness of new solutions, data privacy concerns, capacity building and public acceptance, etc.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	◉	○	○	○
R&I will play an important role to reach this impact	○	◉	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The impact should include equity considerations: "Safe, seamless, smart, inclusive, resilient and sustainable mobility systems for all people as well as goods..."

Do you have any other comments regarding the expected impacts of this Cluster?

1500 character(s) maximum

CLUSTER 5 - COHERENCE AND SYNERGIES

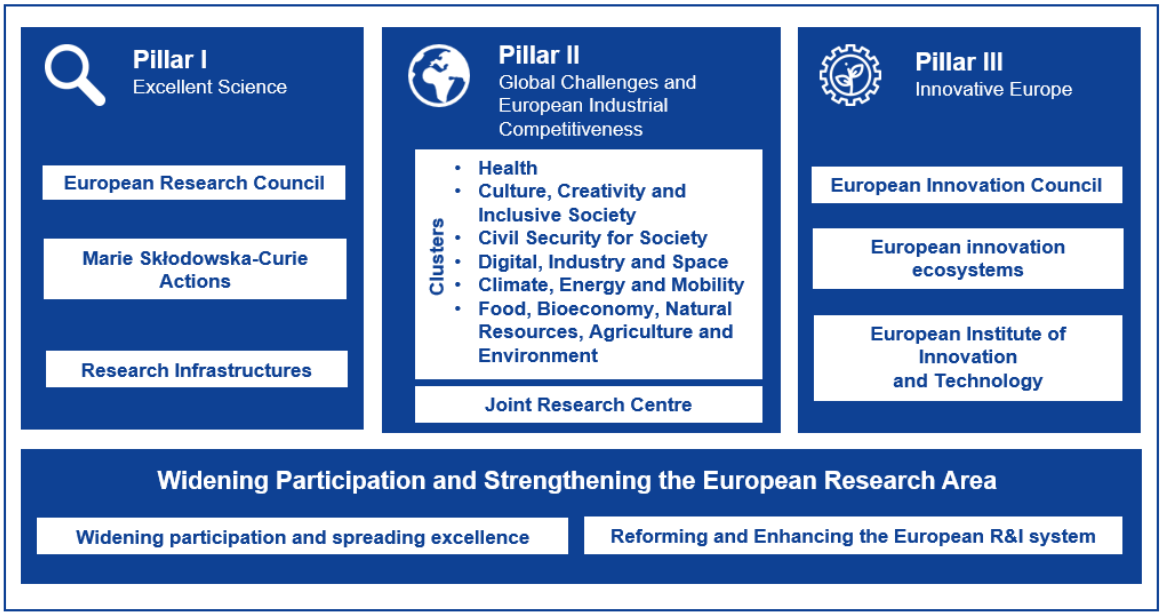
Coherence and synergies with other parts of the Framework Programme or with other EU programmes

In order to maximise the impact of research and innovation on society, environment and economy at large and to contribute to the achievement of the Union's objectives, Union funding programmes must be coherent and work in synergy. Synergies and coherence are based on complementarity between programme design and objectives, as well as financing rules and processes at implementation level.

The Strategic Planning process, and the ensuing implementation process, must ensure the alignment of priorities of the different parts of Horizon Europe and between Horizon Europe and other EU funding programmes, ensuring coherent funding options at different stages of the research and innovation cycle. This includes facilitating the deployment of research results and innovative solutions developed in Horizon Europe (or previous Framework Programmes) with the support of other Union funding programmes.

The following questions seek your views on the priorities for coherence and synergies between this cluster of Horizon Europe and other parts of the Horizon Europe, and other EU funding programmes.

Horizon Europe Structure



Missions shall be programmed within the **Pillar II**, 'Global Challenges and European Industrial Competitiveness ', but may also benefit from actions carried out within other parts of the Programme as well as complementary actions carried out under other Union funding programmes.

Horizon Europe Missions are an integral part of the Horizon Europe framework programme. Missions are programmed under Horizon Europe Pillar II. Missions implementation will go beyond research and innovation. Missions will benefit from actions carried out within other parts of the Programme as well as complementary actions carried out at national level and under other Union funding programmes. Each selected mission will be a mandate to solve a pressing challenge in society within a certain timeframe and budget. More information on Missions is available on the Missions website.

1. In your view, how important is coherence between this cluster and other clusters or elements of Horizon Europe Pillar II?

	Very important	Important	Neutral	Not important	Not important at all
Pillar II – Cluster 1 'Health'	○	○	○	○	○
Pillar II – Cluster 2 'Culture, Creativity and Inclusive Society'	○	○	○	○	○
Pillar II – Cluster 3 'Civil Security for Society'	○	○	○	○	○
Pillar II – Cluster 4 'Digital, Industry and Space'	○	○	○	○	○
Pillar II – Cluster 6 'Food, Bioeconomy, Natural Resources, Agriculture and Environment'	○	○	○	○	○
Mission Area 'Cancer'	○	○	○	○	○

Mission Area ‘Adaptation to climate change including societal transformation’					
Mission Area ‘Healthy oceans, seas coastal and inland waters’					
Mission Area ‘Climate-neutral and smart cities’					
Mission Area ‘Soil health and food’					

2. In your view, how important is coherence between this cluster and the other parts of Horizon Europe?

	Very important	Important	Neutral	Not important	Not important at all
Pillar I – Excellent Science: European Research Council					
Pillar I - Excellent Science: Marie-Skłodowska Curie Actions					
Pillar I – Research Infrastructures					
Pillar III - Innovative Europe: European Innovation Council					
Pillar III - Innovative Europe: European Innovation Ecosystems					
Pillar III - Innovative Europe: European Institute of Innovation and Technology					
Widening participation and spreading excellence					
Reforming and enhancing the European R&I system					

3. In your view, how important are synergies between this cluster and the following other EU funding programmes?

	Very important	Important	Neutral	Not important	Not important at all
Digital Europe Programme (DEP)					
European Agricultural Fund for Rural Development (EAFRD)					
Programme for Environment and Climate Action (LIFE)					
Erasmus Programme					

Single Market Programme	○	○	○	○	○
European Maritime and Fisheries Fund (EMFF)	○	○	○	○	○
Border Management and Visa Instrument (BMVI) as part of the Integrated Border Management Fund	○	○	○	○	○
European Agricultural Guarantee Fund (EAGF)	○	○	○	○	○
InvestEU	○	○	○	○	○
Connecting Europe Facility (CEF)	○	○	○	○	○
Internal Security Fund (ISF)	○	○	○	○	○
Neighbourhood, Development and International Cooperation	○	○	○	○	○
Other [Note: A field for comments opens at the end of the list, when you select the level of importance]	○	○	○	○	○
Creative Europe	○	○	○	○	○
Innovation Fund under the Emission Trading Scheme (the 'Innovation Fund')	○	○	○	○	○
European Regional Development Fund (ERDF)	○	○	○	○	○
European Space Programme	○	○	○	○	○
European Defence Fund	○	○	○	○	○
European Social Fund Plus (ESF+)	○	○	○	○	○
Euratom Research and Training Programme	○	○	○	○	○

4. Do you have any other comments or suggestions regarding the expected potential of coherence or synergies with Horizon Europe?

1500 character(s) maximum

CLUSTER 6: Food, Bioeconomy, Natural Resources, Agriculture and Environment

Impact 1: Climate neutrality

Short description of the impact: Climate neutrality is achieved by reducing GHG emissions, maintaining natural carbon sinks, and enhancing the sequestration and storage of carbon in ecosystems, including by unfolding the potential of nature based solution, production systems on land and at sea as well as rural and coastal areas, where adaptations to climate change are also being fostered.

R&I contribution: Cluster 6 has the potential to deliver significantly on EU climate objectives by accelerating systemic changes. Thanks to R&I the climate mitigation and adaptation potential of ecosystems, primary production systems on land and at sea as well as in food and bio-based systems will be better understood and seized. Innovative production, transformation, distribution consumption and waste management systems will lead to the reduction of GHG emissions in primary and secondary production, notably in agriculture, food and bio-based systems. Innovative approaches will enable maintaining natural carbon sinks and enhance capture and storage functions provided by ecosystems, including soils (in particular organic soils), forests and oceans, primary production systems (e.g., carbon farming and agroforestry) as well as sustainable bio-based industry and products. R&I will also foster adaptation to the impacts of climate change. It will allow resource efficiency and sustainable cascading use of biomass. The ocean-climate nexus will be better understood. R&I will support monitoring, risk-based assessment and forecasting capacities including sea-level rise, and adaptation solutions to extreme sea level events and coastal hazards.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

It is important to note that climate neutrality has strong links with health (further research to better understand and support this could be carried out), and that the transition to climate neutrality needs to be just and leave no one behind.

Impact 2: Biodiversity decline is halted

Short description of the impact: Biodiversity in Europe is back on a path of recovery by 2030, and ecosystems and their services are preserved and sustainably restored on land, inland water and at sea through improved knowledge and innovation.

R&I contribution: Although transformative changes could bend the curve of biodiversity loss, they are currently not happening sufficiently quickly, widely or systemically, requiring the increased mobilization of

R&I and all actors. R&I will be used to better observe, understand, monitor, value, restore and manage biodiversity and ecosystem services. Innovative solutions will be designed, up-scaled and implemented, to reverse ecosystems degradation and biodiversity decline, including of pollinators, corals, etc. R&I will also improve conservation, management and use of plant, animal, fungal and microbial genetic resources, thereby preserving and enhancing biodiversity in natural and primary production systems (including agriculture, forestry, aquaculture and fisheries), environmental applications and biodiscovery. Direct and indirect drivers of biodiversity loss will be tackled, and transformative change promoted in all sectors and societal aspects, notably by using natural capital accounting. European R&I will increase its contribution to biodiversity science and policy at European and global level.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	○	○	○	○
R&I will play an important role to reach this impact	○	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	○	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Impact 3: Sustainable and circular management and use of natural resources

Short description of the impact: Sustainable and circular management and use of natural resources as well as prevention and removal of pollution are mainstreamed, unlocking the potential of the bioeconomy, ensuring competitiveness and guaranteeing healthy soil, air, fresh and marine water for all, through better understanding of planetary boundaries and deployment of innovative technologies and other solutions, notably in primary production, forestry and bio-based systems.

R&I contribution: Physical and biological planetary boundaries and flows will be better understood and defined, notably in relation to the use and management of natural resources. Innovative solutions for a minimised, circular use of resources and the mainstreaming of circular systems, including at local and regional levels, to increase resource efficiency along and across value chains will be developed, tested and demonstrated. Attention will be given to prevention and mitigation of pollution, including with nutrients, pesticides, plastics and emerging contaminants, towards clean seas and oceans, water, soil and air. The innovative, safe circular approaches, implemented through adequate business models, will ensure competitiveness and contribute to increased and fairly distributed added-value along and across value chains as well as to more attractive jobs in areas which are more socially and economically disadvantaged (e.g. rural areas), especially in the context of the post-COVID-19 pandemic. Innovative circular approaches will enable sustainable management of soil, water resources and nutrients, enhance their value, allow to

better cope with the impacts of floods and droughts and reduce the high economic costs related to soil remediation and water pollution prevention, control and removal. R&I will benefit also sustainable forest management and the delivery of multiple forest products and services. Innovative bio-based solutions will unlock the potential of sustainable bioeconomy and replace fossil – based, carbon intensive and harmful materials with innovative, climate-neutral, bio-based, circular, non-toxic materials and chemicals.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The R&I contribution could make a stronger link to health, given the health benefits of reduced pollution /clean water, etc. This is an area in which further research is needed to expand upon what is already known and help make a strong case for the sustainable use of natural resources and reduction of pollution.

Impact 4: Food and nutrition security for all

Short description of the impact: Food and nutrition security for all within planetary boundaries is ensured through knowledge, innovation and digitalisation in agriculture, fisheries, aquaculture and food systems, which are sustainable, resilient, inclusive, safe and healthy from farm to fork.

R&I contribution: R&I will be a key driver in accelerating the transition to sustainable, low ecological footprint, healthy and inclusive food system from primary production to consumption. Farmers will be empowered to manage land, soil, water and nutrients in sustainable ways, reduce the use of pesticides and antimicrobials as well as excess fertilisation and to move towards more climate and environment-friendly and resilient agriculture systems. The fish and seafood production will rely on more sustainable fisheries and aquaculture, including with novel foods. Key research areas include governance, AKIS, agroecology, organic farming and diversified farming systems, low trophic aquaculture, plant and animal health (including One-Health approach), animal nutrition, animal welfare, the microbiome, alternative proteins for sustainable agriculture and dietary shift, feed and food safety and traceability, personalised nutrition, prevention and reduction of food losses and waste, and urban food systems transformation. Innovative, climate smart, deforestation free, and sustainable food value chains with balanced power relations will ensure access to a sufficient supply of affordable food to citizens including when facing crisis situations. R&I will advance solutions to shift to sustainable healthy diets. Efforts to boost digitalisation based on fair data economy in

agriculture, fisheries, aquaculture, and at the food system level will foster the development of tailored digital technology-based solutions enabling sustainability and transparency, as well as enhance data generation capacities and enhance databases increasing their effectiveness.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	◉	○	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

The research could also aim to better understand how to foster behaviour change for sustainable healthy diets. It would also be interesting to better understand the trade-offs between sustainability and health in relation to food, and to be able to explain this to consumers in an easily understandable way. The impact should also include the notion of affordability (after "inclusive").

Impact 5: Sustainable development of rural, coastal and urban areas is achieved

Short description of the impact: Rural coastal and urban areas are developed in a sustainable, balanced and inclusive manner thanks to a better understanding of the environmental, socio-economic, behavioural and demographic drivers of change as well as deployment of digital, social and community-led innovations.

R&I contribution: The differential impacts of climate, environmental, socio-economic and demographic changes on rural, coastal and urban areas, will be better understood and turned into equal opportunities for people wherever they live, enhancing territorial cohesion. Transdisciplinary R&I with a strong social sciences dimension will improve understanding of the behaviours and values of producers, consumers and all other actors, with attention to the gender aspects. People will have also more equitable access to knowledge and skills required for making informed choices and being actively engaged in sustainable management of natural resources, from production to consumption and disposal. Rural, coastal and urban communities, in particular women and the most vulnerable groups and those hit hardest by the COVID-19 pandemic, will see their labour conditions, quality of life, access to services and long-term socio-economic prospects in the context of major transitions and rising health threats improved. Their capacity to drive community-led innovations will be enhanced. Mobilising the forces of digital transformation, nature-based solutions, as well as social and policy innovation will facilitate those changes and support smart, environment friendly, climate-neutral and resilient lifestyles. In marine and costal environments, emphasis will be put on ecosystem protection, climate adaptation and resilience.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	○	○	○	○	○
R&I will play an important role to reach this impact	○	○	○	○	○
The text describes well the role of R&I and the ambition of the impact	○	○	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

Impact 6: Established Innovative governance models enable sustainability and resilience

Short description of the impact: Innovative governance models enabling sustainability and resilience are established and monitored through enhanced and shared use of new knowledge, tools, foresight, and environmental observations as well as digital, modelling and forecasting capabilities.

R&I contribution: R&I will provide strong evidence-based knowledge and tools to support policy design, implementation and monitoring for achieving the necessary transformative changes. Environmental observations will be enhanced and metrics improved, including for ocean exploration, conservation and the digital ocean. Particular efforts will be dedicated to support the development of digital twins of the Earth systems in collaboration with the Destination Earth initiative of the European strategy for data. By supporting better understanding of the impacts of global changes, environmental observations as well as the application of digital and big data technologies to assess socio-economic and environmental aspects, systems and flows will provide solid and reliable information and enable sound decision making and adaptation measures. Moreover, effective knowledge and innovation systems will encourage multi-actor, risk-aware, place-based and community-led innovations to benefit all, from primary producers to consumers. The EU's and international science-policy interfaces will be strengthened with a view to establish governance models fostering sustainable solutions to be applied.

1. Based on the description above, to what extent do you agree with the following statements:

	Strongly agree	Somewhat agree	Neither agree nor disagree	Somewhat disagree	Strongly disagree
The expected impact is clear	◉	○	○	○	○
R&I will play an important role to reach this impact	◉	○	○	○	○

The text describes well the role of R&I and the ambition of the impact	○	◉	○	○	○

2. Would you like to share an original idea or wording suggestion on this impact?

500 character(s) maximum

It would be important to integrate health and equity considerations within the new established models.

Do you have any other comments regarding the expected impacts of this Cluster?

1500 character(s) maximum

CLUSTER 6 - COHERENCE AND SYNERGIES

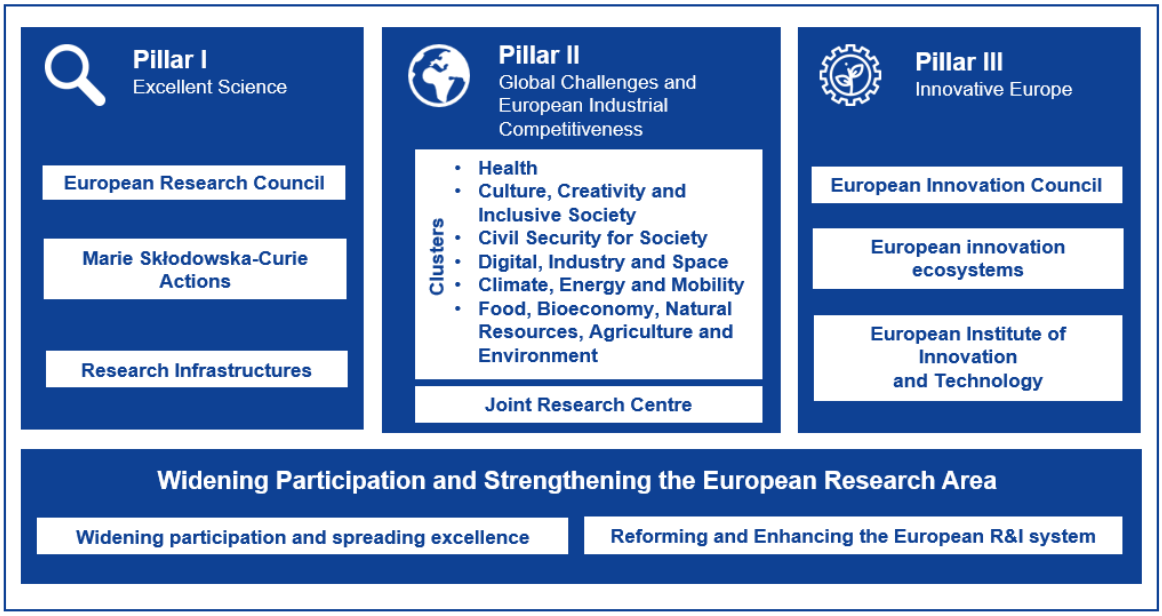
Coherence and synergies with other parts of the Framework Programme or with other EU programmes

In order to maximise the impact of research and innovation on society, environment and economy at large and to contribute to the achievement of the Union's objectives, Union funding programmes must be coherent and work in synergy. Synergies and coherence are based on complementarity between programme design and objectives, as well as financing rules and processes at implementation level.

The Strategic Planning process, and the ensuing implementation process, must ensure the alignment of priorities of the different parts of Horizon Europe and between Horizon Europe and other EU funding programmes, ensuring coherent funding options at different stages of the research and innovation cycle. This includes facilitating the deployment of research results and innovative solutions developed in Horizon Europe (or previous Framework Programmes) with the support of other Union funding programmes.

The following questions seek your views on the priorities for coherence and synergies between this cluster of Horizon Europe and other parts of the Horizon Europe, and other EU funding programmes.

Horizon Europe Structure



Missions shall be programmed within the **Pillar II**, 'Global Challenges and European Industrial Competitiveness ', but may also benefit from actions carried out within other parts of the Programme as well as complementary actions carried out under other Union funding programmes.

Horizon Europe Missions are an integral part of the Horizon Europe framework programme. Missions are programmed under Horizon Europe Pillar II. Missions implementation will go beyond research and innovation. Missions will benefit from actions carried out within other parts of the Programme as well as complementary actions carried out at national level and under other Union funding programmes. Each selected mission will be a mandate to solve a pressing challenge in society within a certain timeframe and budget. More information on Missions is available on the Missions website.

1. In your view, how important is coherence between this cluster and other clusters or elements of Horizon Europe Pillar II?

	Very important	Important	Neutral	Not important	Not important at all
Pillar II – Cluster 1 'Health'	○	○	○	○	○
Pillar II – Cluster 2 'Culture, Creativity and Inclusive Society'	○	○	○	○	○
Pillar II – Cluster 3 'Civil Security for Society'	○	○	○	○	○
Pillar II – Cluster 4 'Digital, Industry and Space'	○	○	○	○	○
Pillar II – Cluster 5 'Climate, Energy and Mobility'	○	○	○	○	○
Mission Area 'Cancer'	○	○	○	○	○
Mission Area 'Adaptation to climate change including societal transformation'	○	○	○	○	○

Mission Area ‘Healthy oceans, seas coastal and inland waters’					
Mission Area ‘Climate-neutral and smart cities’					
Mission Area ‘Soil health and food’					

2. In your view, how important is coherence between this cluster and the other parts of Horizon Europe?

	Very important	Important	Neutral	Not important	Not important at all
Pillar I – Excellent Science: European Research Council					
Pillar I - Excellent Science: Marie-Skłodowska Curie Actions					
Pillar I – Research Infrastructures					
Pillar III - Innovative Europe: European Innovation Council					
Pillar III - Innovative Europe: European Innovation Ecosystems					
Pillar III - Innovative Europe: European Institute of Innovation and Technology					
Widening participation and spreading excellence					
Reforming and enhancing the European R&I system					

3. In your view, how important are synergies between this cluster and the following other EU funding programmes?

	Very important	Important	Neutral	Not important	Not important at all
Erasmus Programme					
Creative Europe					
Other [Note: A field for comments opens at the end of the list, when you select the level of importance]					
Digital Europe Programme (DEP)					
Neighbourhood, Development and International Cooperation					

European Agricultural Guarantee Fund (EAGF)					
InvestEU					
Innovation Fund under the Emission Trading Scheme (the 'Innovation Fund')					
Euratom Research and Training Programme					
European Regional Development Fund (ERDF)					
Internal Security Fund (ISF)					
European Maritime and Fisheries Fund (EMFF)					
Connecting Europe Facility (CEF)					
Programme for Environment and Climate Action (LIFE)					
Single Market Programme					
Border Management and Visa Instrument (BMVI) as part of the Integrated Border Management Fund					
European Social Fund Plus (ESF+)					
European Agricultural Fund for Rural Development (EAFRD)					
European Defence Fund					
European Space Programme					

4. Do you have any other comments or suggestions regarding the expected potential of coherence or synergies with Horizon Europe?

1500 character(s) maximum

Contact

Contact Form