European Commission

Synopsis Report

Looking into the R&I future priorities 2025-2027

Research and Innovation

Synopsis Report - Looking into the R&I future priorities 2025-2027

European Commission
Directorate-General for Research and Innovation
Directorate G — COMMON POLICY CENTRE
Unit G.3 — COMMON STRATEGIC PLANNING & PROGRAMMING SERVICE
Contact Massimiliano ESPOSITO
Email RTD-G3-ASSIST@ec.europa.eu
RTD-PUBLICATIONS@ec.europa.eu
European Commission
B-1049 Brussels

Manuscript completed in April 2023
First edition

PDF ISBN:978-92-68-02703-5 doi:10.2777/93927 KI-03-23-132-EN-N

Luxembourg: Publications Office of the European Union, 2023

EUROPEAN COMMISSION

Synopsis Report

Looking into the R&I future priorities 2025-2027

Directorate-General for Research and Innovation
2023 Public Consultation on European R&I Framework Programmes 2014-2027.

Table of contents

INTRODUCTION

A public consultation on the past, present and future of the European Research & Innovation Framework programmes 2014-2027 ran between 30 November 2022 and 23 February 2023. The consultation had five sections:

- Section A asked for information about the respondent's profile.
- Section B focused on the past programme Horizon 2020 (2014 – 2020) and aimed to collect feedback and evidence to draw lessons from the past. This part of the consultation will feed into the ex-post evaluation of Horizon 2020.
- Section C focused on the current programme Horizon Europe (2021 – 2027) and aimed to take stock of what stakeholders are currently experiencing to possibly adapt current actions. This part of the consultation will feed into the mid-term evaluation of Horizon Europe, covering the period 2021 – 2023.
- Section D collected views and opinions for the upcoming Strategic Plan of Horizon Europe (2025 – 2027). The questionnaire concerned societal challenges that should shape future EU research and innovation activities, the strengths and weaknesses of the European R&I system, EU Missions, European partnerships, synergies with other EU programmes etc.
- Section E asked about the key lessons learned and messages for the future.

This document presents the analysis of the responses received in section D of the consultation "Looking into the R&I future priorities 2025-2027".

108 position papers commented on topics relevant for this part of the consultation. The input from the position papers was integrated within the report under the relevant topic. Among the 108 position papers, 40 were written by academic or research institutions, 17 by public authorities[1], 12 by non- governmental organisations, 7 by business associations, 5 by companies or business organisations, 2 by EU citizens, 1 by a trade union. 24 position papers were submitted by "other" respondents including innovation agencies, networks, and consortia of universities. The largest number of position papers came from Belgium (33), France (12) and Finland (11).

Responses were reviewed manually to identify campaigns and potential duplicates in the position papers submitted and in the open questions of the questionnaire. Overall, **21 campaigns** were identified, with a number of identical contributions ranging from 2 to 8. The 21 identified campaigns include responses by **78 respondents**, representing **3%** of all responses.

[1] 12 position papers were submitted by public authorities at national level, 3 by public authorities at regional level and 2 at international level.

OVERVIEW OF THE RESPONDENTS

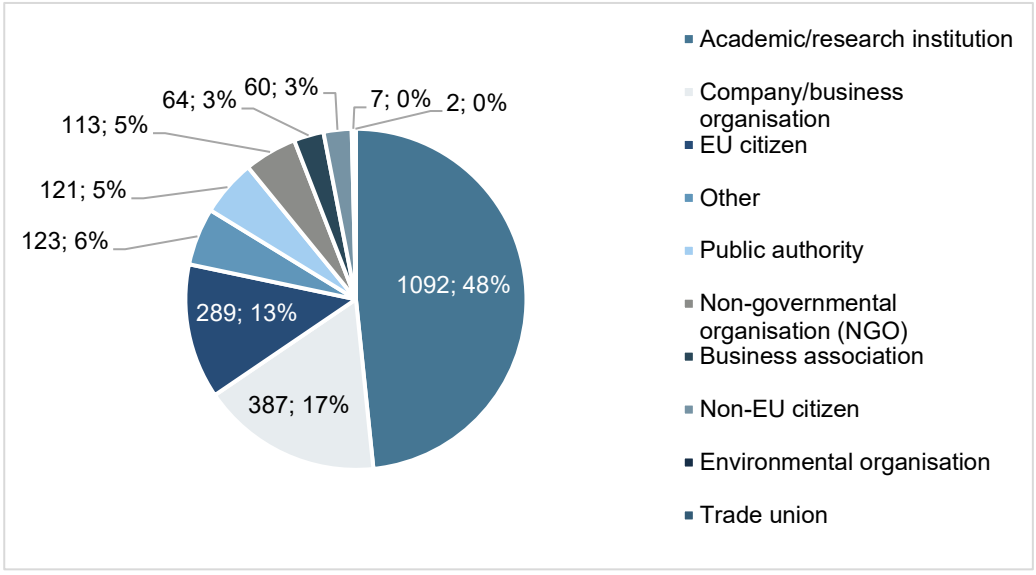
This section describes the profiles of the respondents that have contributed to sections D of the consultation.

1.1. Types of respondents

In total, **2 258** respondents completed section D "Looking into the R&I future priorities 2025-2027". The respondents could choose to answer all the questions or only some of them. Because of that, the total number of respondents for each question may vary.

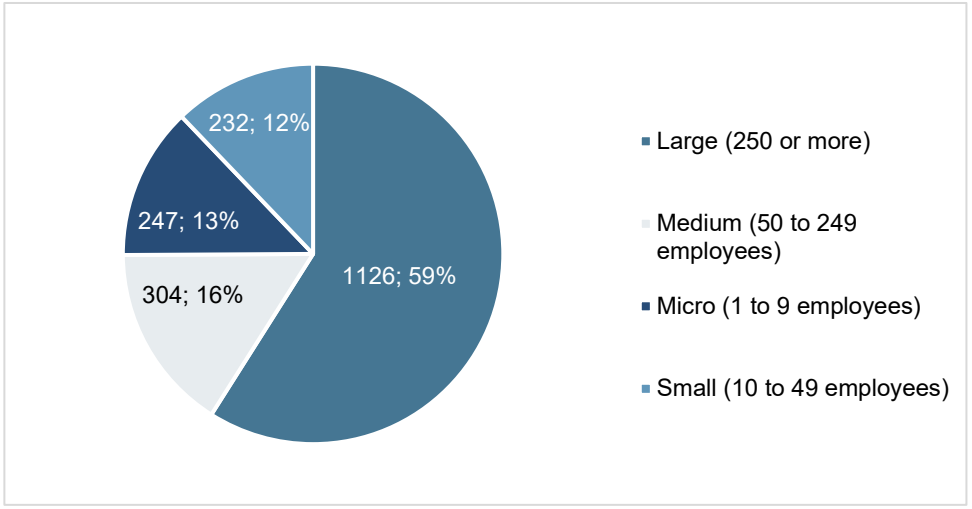
A wide range of actors contributed to this section. Around half of the respondents (48%; 1 092) are part of academic or research institutions, 17% (387) are companies or business organisations, and 16% (349) are citizens (EU and not EU). The remaining respondents (19%; 430) include different types of stakeholders: 121 are public authorities, 113 are NGOs, 64 are business associations, 7 are environmental organisations and 2 are trade unions. 123 respondents selected the category "other". Among the 121 (5%) public authorities that contributed to sections D, 51 work at the national level, 34 at the international level, 24 at the regional level and 12 at the local level.

Figure 1. Types of respondents (N=2 258)



62% (1 397) of respondents provided personal views, while 36% (811) contributed as a member of an institution or organisation and 2% (50) did not indicate this information. More than half (59%; 1 126) of the organisations that contributed are large, whereas 16% (304) are medium size, 13% (247) are micro and 12% (232) are small.

Figure 2. Size of the organisations participating in the consultation (N=1 909)



1.2. Geographical coverage

The consultation gathered responses from **75 different countries**. 86% (1 931) of respondents came from EU-27 countries, 7% (148) from the EU Associated Countries[2], and 8% (179) from third countries[3]. The countries with the largest number of respondents are Italy (273), France (260), Germany (252) and Spain (232).

Figure 3. Number of respondents by EU27 Member State (N=1 931)

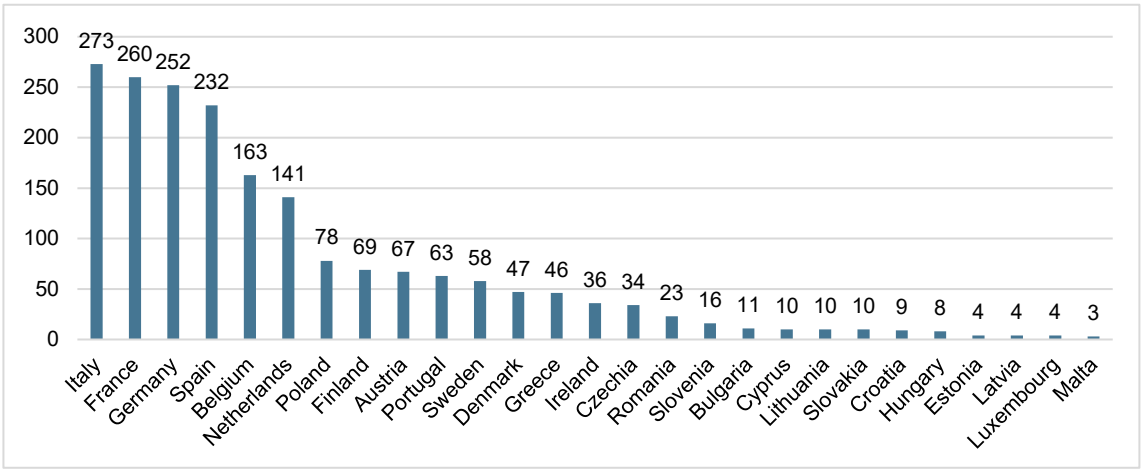
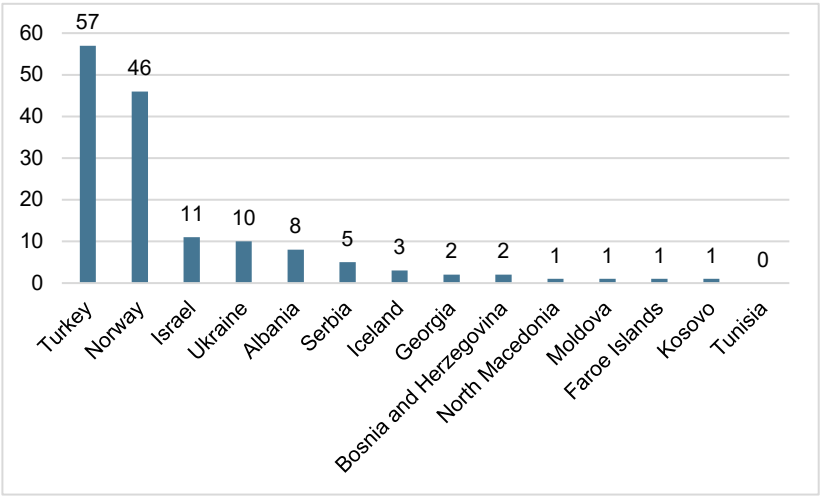


Figure 4. Number of respondents by EU Associated Country (N=148)



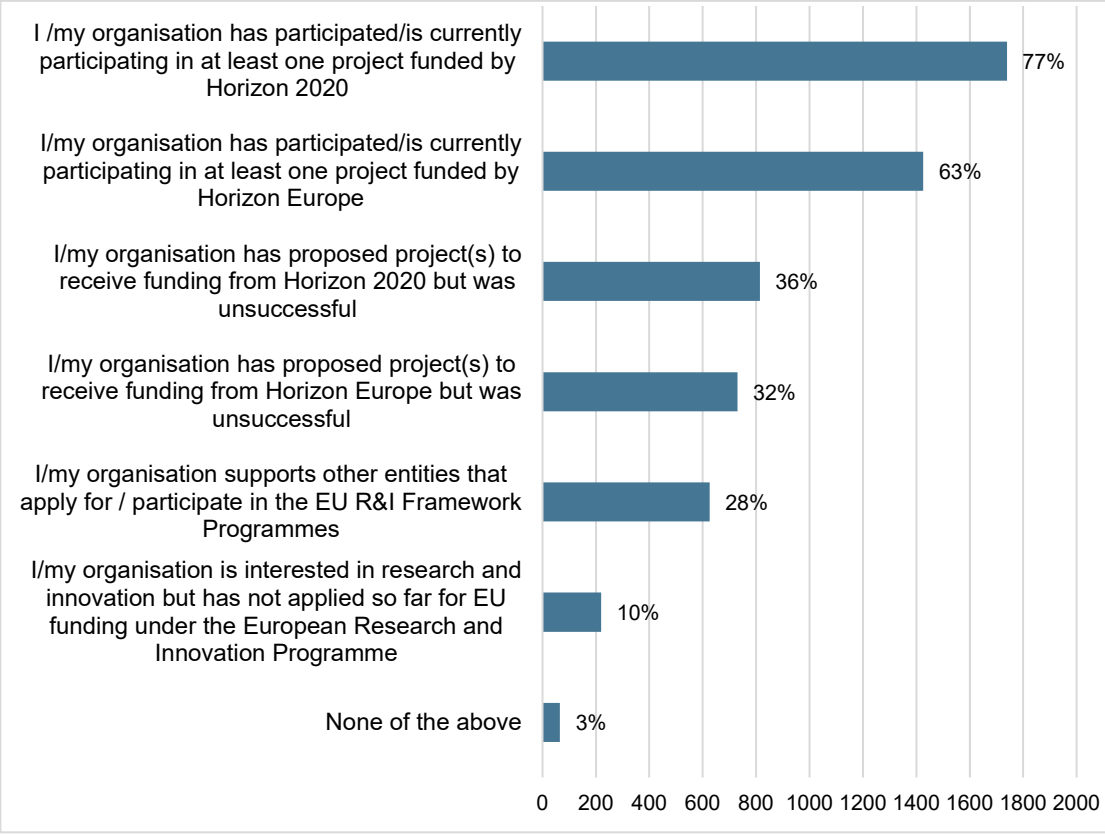
[2] Associated countries include Turkey (57), Norway (46), Israel (11), Ukraine (10), Albania (8), Serbia (5), Iceland (3), Georgia (2), Bosnia and Herzegovina (2), North Macedonia (1), Moldova (1), Faroe Islands (1), and Kosovo (1). Switzerland was not included.

[3] United Kingdom, Switzerland, United States, Brazil, China, Colombia, India, Philippines, Ethiopia, Belarus, Australia, Jordan, Venezuela, Uruguay, South Africa, Nigeria, El Salvador, Uganda, Antigua and Barbuda, Indonesia, Egypt, Bangladesh, Japan, Taiwan, Kenya, Senegal, Russia, Laos, Rwanda, Singapore, Palestine, Sri Lanka.

1.3. Experience with the framework programmes

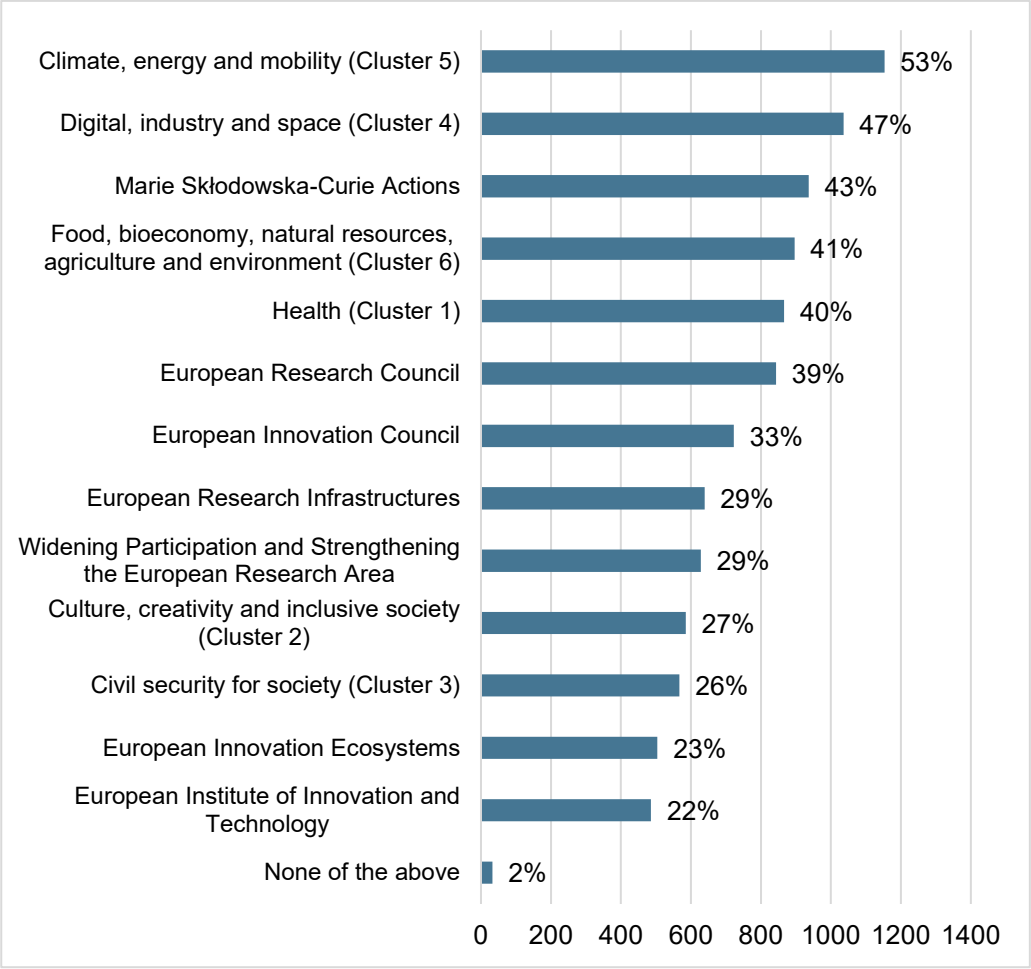
More than three-quarters (77%; 1 739) of all the respondents that contributed to the part of the consultation on the Horizon Europe Strategic Plan 2025-2027 were beneficiaries of Horizon 2020, and 63% (1 426) of them are beneficiaries of Horizon Europe. Respondents include also organisations supporting other entities that apply for or participate in the EU R&I framework programmes (28%; 626) and organisations that have never applied for funding but are interested in R&I (10%; 220).

Figure 5. Please select the option(s) that best describe(s) your experience with the European Union Research and Innovation programmes (N=2 258; multiple answers possible)



The respondents were active or interested in all the parts of Horizon Europe[4]. The highest number of respondents were interested in **cluster 5** "Climate, energy and mobility" (53%; 1 153), **cluster 4** "Digital, industry and space" (47%; 1 036), **Marie Skłodowska-Curie Actions** (43%; 937), **cluster 6** "Food, bioeconomy, natural resources, agriculture and environment" (41%; 896), and **cluster 1** "Health" (40%; 866).

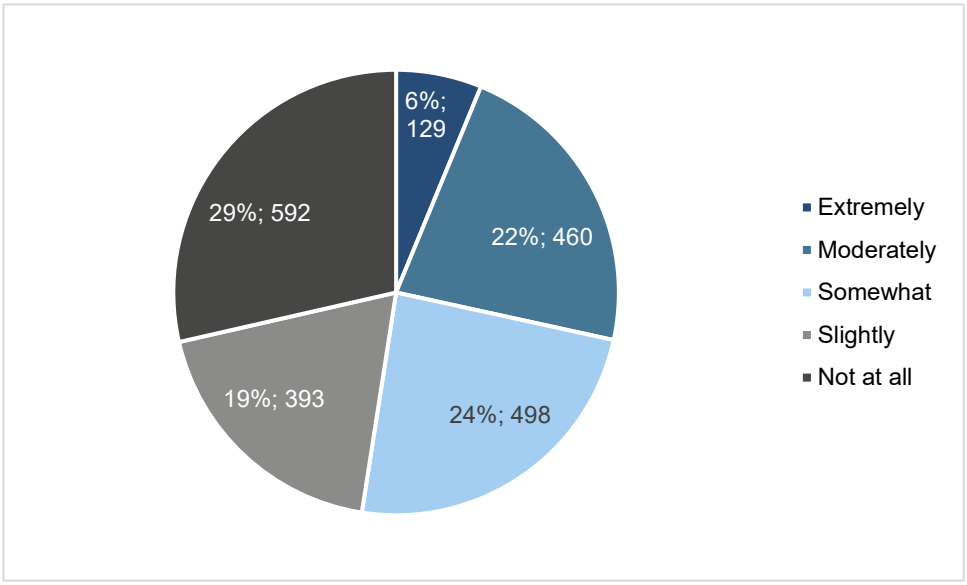
Figure 6. In which of the following areas of Horizon Europe are you or your organisation mainly active / interested in? (N=2 186; multiple answers possible)



Around half of the respondents are at least somewhat familiar with the strategic planning process for Horizon Europe, whereas one third of them is not familiar with it at all.

[4] Question: In which of the following areas of Horizon Europe are you or your organisation mainly active / interested in? Please select all that apply.

Figure 7. How familiar are you with the strategic planning process for Horizon Europe? (N=2 072)



RESULTS OF THE CONSULTATION

2. Identifying priorities and societal challenges for the future

2.1. The most important R&I solution over the next 10 years

The respondents were asked to “name the most important R&I solution that would help [them] in [their] life over the next 10 years”. This open question received 1 110 responses, of which 1 105 were valid after filtering “I don’t know”, N/A, “No opinion”. The answers span different fields, some of them are more specific (e.g., referring to certain technologies or applications), others indicate broad areas of research.

The word cloud below gives an overview of the most recurrent words used in the responses. **Thematic areas such as health, energy, climate, sustainability and digitalisation** stand out.

Figure 8. Name the most important R&I solution that would help you in your life over the next 10 years (N=1 105)

The table below reports the key topics for each area of research.[5]

Table 1. Examples of the most important R&I solutions mentioned in the consultation

THEMATIC AREA	KEY TOPICS[6]
HEALTH	Cancer (prevention, cure, treatment, personalised medicine, vaccine development, targeted therapies, aggressive cancers) Rare diseases (diagnostics, cure) Dementia (prevention, treatment) Cardiovascular diseases (prevention, cure) Autoimmunity and degenerative diseases (prevention, treatment) Infectious diseases (prevention, cure, viral control) Chronic diseases (new remedies) Development of new diagnostics, vaccines, and therapeutics against neglected diseases Alzheimer's disease (cure) Antimicrobial resistance Multidisciplinary approach to health research, including AI-assisted medical diagnosis
AGING POPULATION AND ELDERLY CARE	Solutions to improve the quality of life for elderly people Prevention of loss of autonomy Solution to provide appropriate care for elderly people
ENERGY	R&I solutions for clean, sustainable and affordable energy production Solutions to substitute fossil fuel dependency from external countries, making the EU self-sufficient for energy Development of renewable energy solutions (e.g., wind energy) R&I solutions for clean mobility (e.g., in aviation and shipping), energy storage solutions for mobility. Energy-efficient solutions for advanced manufacturing and industrial processes Sustainable energy solutions for the construction industry

[5] The topics were identified using a mix of automatic and manual techniques, through the following steps: 1) Identify the comments referring to a certain area using text clustering (automatic) and / or content analysis (using keywords highlighted by the text clustering). 2) Use artificial intelligence to extract the key topics from a homogenous group of comments in the same area. 3) Perform manual checks to validate the results.

[6] The order does not indicate any ranking of prevalence.

THEMATIC AREA	KEY TOPICS[6]
	Development of zero-emission solutions for the defence industry R&I solutions to use green gases (hydrogen, biomethane).
CLIMATE	R&I solutions for climate change adaptation and mitigation R&I solutions for sustainable agriculture R&I solutions for water management and cleaning water from pollutants Protection of seas and oceans R&I solutions for preparedness to respond to threats and disasters Carbon capture technologies
FOOD	Food security Sustainable production of food systems (e.g., crop and tree improvement for climate change adaptation and mitigation) Plant-based and cellular agriculture research to increase the number of plant-based products Promotion of plant-based food The role of food, healthy diets, and personal nutrition in disease prevention and cure Digital solutions for food systems (e.g., digital technologies to shorten the food supply chain) Sustainable production of mass-produced goods, addressing social inequalities, protection of seas and oceans, and preparedness to respond to threats and disasters
CIRCULAR ECONOMY	R&I solutions for circular economy in manufacturing industries R&I solutions to introduce circular business models and processes R&I solutions for waste management and recycling Implementation of circular economy principles in building materials, components and systems
DIGITALISATION	R&I solutions for the digitalisation of industry Digital solutions for mobility Digital solutions for the construction industry Digital infrastructures and networks Digital governance Cybersecurity

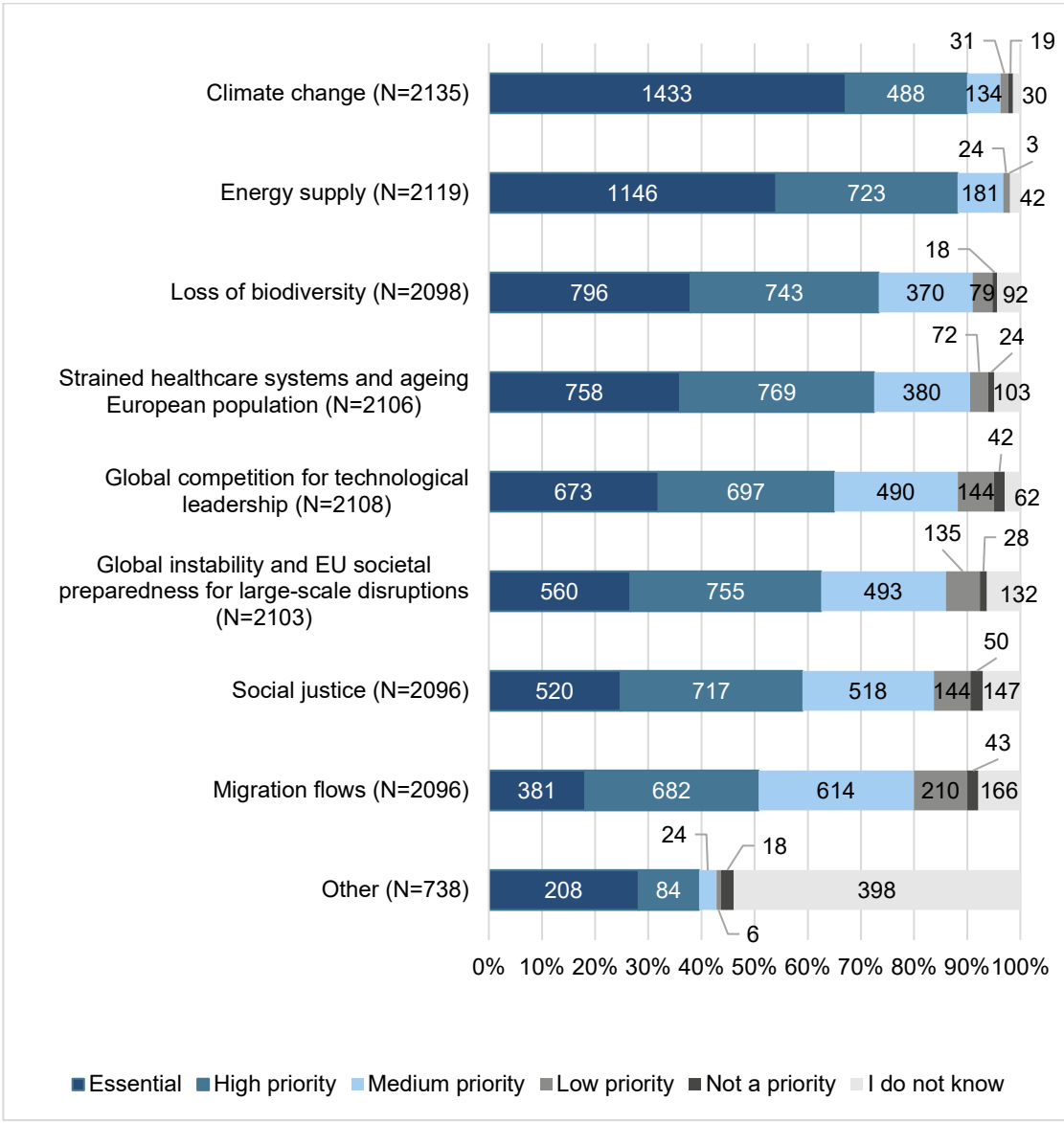
THEMATIC AREA	KEY TOPICS[6]
TECHNOLOGIES	Artificial intelligence solutions for: migration management, administrative practices, communication, automated driving, healthcare, chatbot AI for research Ethical use of technologies Advanced computing Advancement of Microfluidics and Lab-on-a-Chip technology Photonics technology (in sensing, telecom and other application fields) Electric battery technology Quantum technologies Microelectronics Industrial internet-of-things Digital twins for industrial products and processes Next generation of internet
SOCIETAL ISSUES	Inclusivity in R&I Research to strengthen democratic societies (e.g., on cultural heritage, history, law, human and civil rights) Research addressing ethical concerns and democratic risks of an IT-driven (AI, IoT, robotics, etc.) society Platforms for democratic participation Solutions to increase the resilience of society (e.g., post-pandemic) Climate justice Social justice Solutions to restore/ maintain peace Migration and integration

2.2. The most important societal challenges in the next 10 years

Respondents indicated “climate change”, “energy supply” and “loss of biodiversity” as the three most important “societal challenges that should be the focus of EU investments for research and innovation” in the next 10 years. **Almost all the respondents rated ”climate change” (90%; 1 921) and “energy supply” (88%; 1 869) as an essential or high priority for the next 10 years**. All the societal challenges listed in the consultation were classified as essential or high priorities by more than 50% of participants. Respondents also reported other challenges not listed in the consultation. These challenges include food security, access to natural resources (e.g., drinking water) and critical raw material, transformation of work (e.g., mismatch between skills and work opportunities), transformation towards sustainable entrepreneurship and

business in Europe, preserving and enhancing democracy, fight against disinformation, preserving peace.[7]

Figure 9. In the next ten years, which societal challenges should be the focus of EU investments for research and innovation activities?

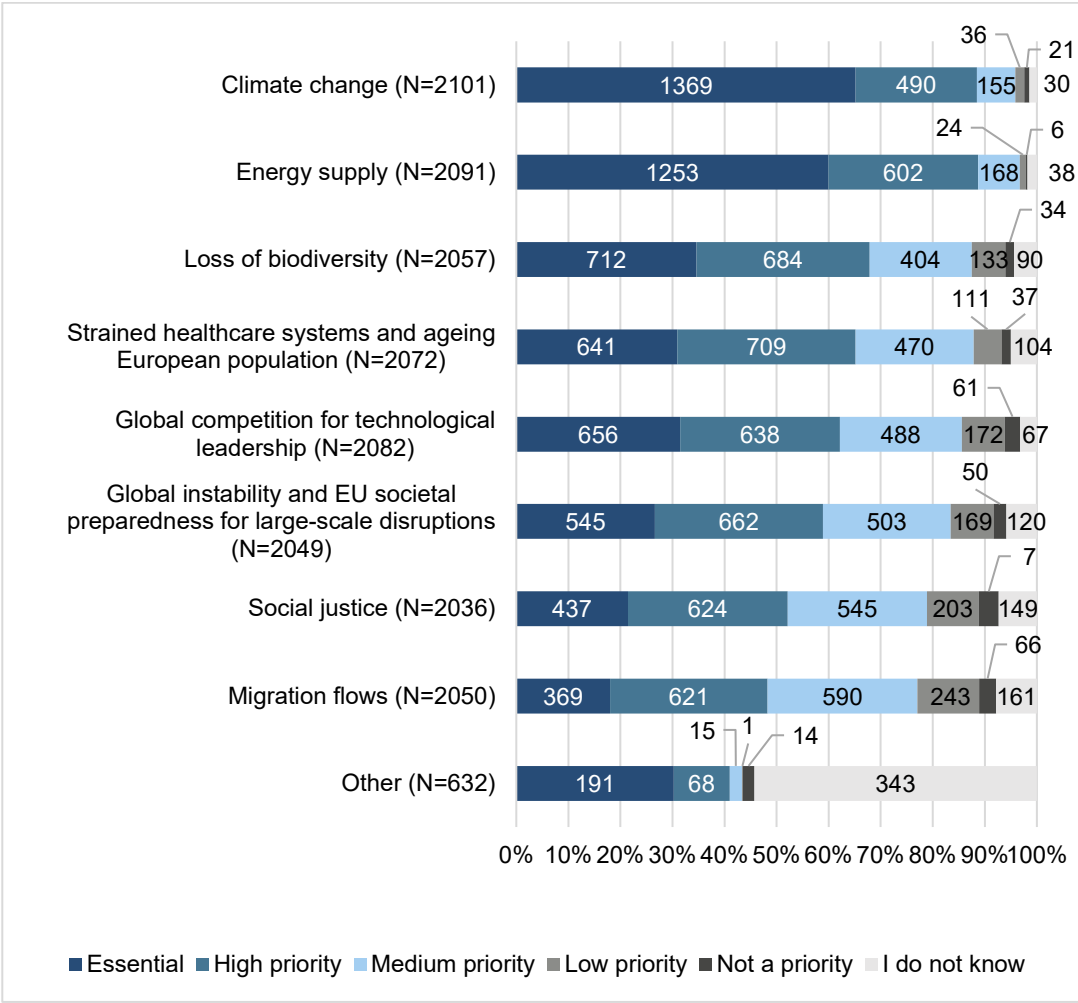


[7] 331 respondents provided comments in the open box where it was asked to specify other societal challenges. Most of the comments however refer to the societal challenges already listed and, in many cases, rather than answering the question about the societal challenges, the respondents provided input on the R&I solutions that should be prioritised.

2.3. The most important challenges in the next 3 years

The respondents' opinion on the most important societal challenges for the next three years was the same as for the next 10 years. All the challenges were considered as "essential" or "high priority" by at least half of the respondents. The comments concerning other possible societal challenges were more focused on the possible solutions rather than on the challenges. In many cases, the respondents repeated the same comment provided in the previous question.[8]

Figure 10. In the next three years, which societal challenges should be the focus of EU investments for research and innovation activities?



[8] 459 respondents provided comments in the open box where they were asked to specify other societal challenges. 114 respondents provided an identical answer as to the previous question and 5 respondents explicitly referred to the answer given to the previous question. The analysis of the responses does not highlight any additional societal challenge (i.e., all the responses provide comments that can be associated to any of the challenges listed in the matrix). In many cases, rather than answering the question about the societal challenges, the respondents provided input on the R&I solutions that should be prioritised.

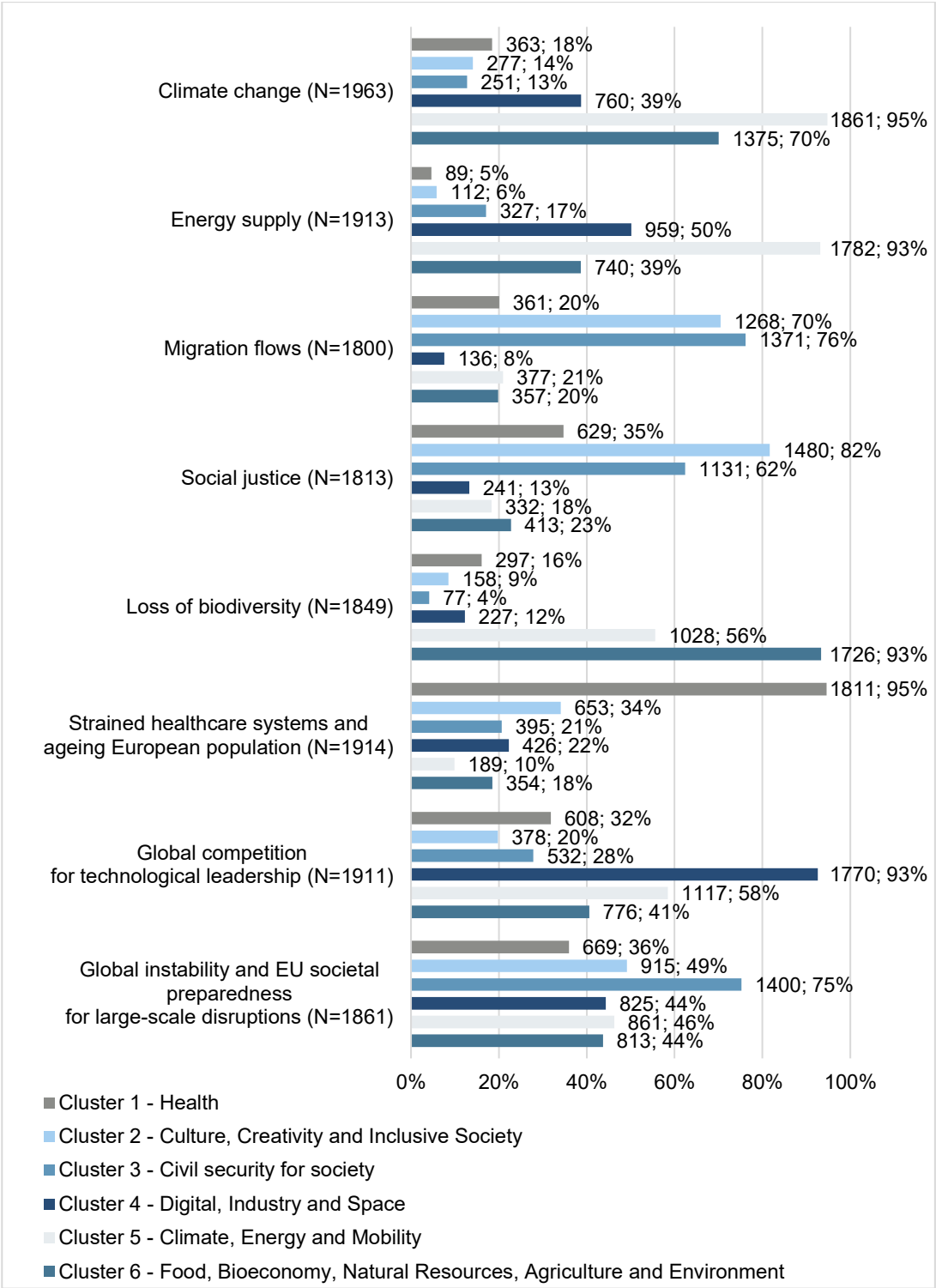
2.4. The Horizon Europe clusters addressing the societal challenges

As regards the capacity of the Horizon Europe clusters to address societal challenges, stakeholders from different groups (i.e., academia, NGOs, public authorities) underlined in their position papers that a **multidisciplinary and collaborative approach** including different types of actors is essential to tackle societal challenges. Some universities and research organisations maintained that all clusters have the potential to address current and upcoming societal challenges. However, in their opinion, to fully exploit their potential, clusters should fund more research at lower technology readiness level, combining a top-down and a bottom-up approach. In this way, the applied research and innovative solutions could benefit from new, exploratory knowledge.

The following chart shows the responses to the question “In your opinion, which Horizon Europe cluster(s) contribute(s) to addressing the societal challenges?”. Although all the clusters were selected for all the societal challenges (by at least 5% of respondents), certain clusters seem to have a more prominent role in addressing some societal challenges:

- “Climate change” is addressed by cluster 5 and cluster 6 according to respectively 95% and 70% of respondents.
- “Energy supply” is addressed by cluster 5 according to 93% of respondents.
- “Migration flows” is addressed by cluster 3 and cluster 2 according to respectively 76% and 70% of respondents.
- “Social justice” is addressed by cluster 2 and cluster 3 according to respectively 82% and 62% of respondents.
- “Loss of biodiversity” is addressed by cluster 6 and cluster 5 according to respectively 93% and 56% of respondents.
- “Strained healthcare systems and ageing European population” is addressed by cluster 1 according to 95% of respondents.
- "Global competition for technological leadership” is addressed by cluster 4 and cluster 5 according to respectively 93% and 58% of respondents.
- "Global instability and EU societal preparedness for large-scale disruptions” is addressed by cluster 3 according to respectively 75% of respondents.

Figure 11. In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges? Multiple answers possible.



Other societal challenges, not mentioned above, could be efficiently addressed by cluster 6 for 53% (77) of respondents and by cluster 4 for 42% (61) of them. **100 contributions were submitted that further detail these other challenges**. However, most of these contributions are not within scope as they do not answer the question, but mention some broad themes (e.g., digitalisation, peace, gender equality, food security, healthy oceans, etc.) without indicating which cluster addresses it. 26 responses are instead within scope, and they indicate:

- Food and water security – Cluster 1, 5 and 6
- Pesticide-free agrifood systems and soil health – Cluster 1, 5, 6
- Pandemic preparedness – Cluster 6
- Combating inequality and anti-democratic narratives – Cluster 2
- Skilled and diverse European research and innovation workforce – Cluster 2
- Pollution and waste – Clusters 5 and 6
- Ocean protection – Clusters 5 and 6

2.5. Scientific areas of strengths or weaknesses which should be prioritised in Horizon Europe to keep Europe at the forefront of international scientific competition

823 respondents answered the question about which "European scientific areas of strengths or weaknesses should be prioritised in Horizon Europe to keep Europe at the forefront of international scientific competition". Their comments are in line with the answers to the question on the most important R&I solutions. Some comments indicated broad areas of research (e.g., climate, health, etc.), whereas others were more specific. To synthesise the amount of information received, the table below shows the most recurrent research topics by cluster.[9] Topics in Cluster 4 and Cluster 5 were mentioned by the highest number of respondents. Contributions from the position papers are integrated in this summary analysis.

[9] The topics were identified using a mix of automatic and manual techniques, through the following steps: 1) Identify which responses are relevant for a certain cluster using keyword search. 2) Use artificial intelligence and manual checks to identify the most recurrent research areas within the group of responses. If relevant research areas emerged in the analysis of the responses linked to other clusters, these have been considered in the appropriate cluster. The same response may include elements relevant for more clusters.

Table 2. Overview of research topics that should be prioritised according to the consultation respondents (N=823)

CLUSTER	RESEARCH TOPICS THAT SHOULD BE PRIORITISED
CLUSTER 1 HEALTH 136 responses	Health data for prevention and clinical use in Europe New therapeutic options for chronic hepatitis B virus infection Mental health and the medical use of psychedelics Infectious disease research Research on global health challenges, including pandemic preparedness and response Precision medicine/precision health Vaccine development Research on the links between environment, pollution, biodiversity, and human and animal health Research on the wellbeing of citizens Digital health solutions Personalised treatments Neuroscience Microbiome AI in healthcare Cancer therapies, such as immunotherapies or targeted therapies Regenerative medicine Health systems Biomarker discovery
CLUSTER 2 CULTURE, CREATIVITY AND INCLUSIVE SOCIETY 88 responses	Digitalisation of cultural heritage Global societal solutions Transition towards resilient societies[10] Fight against illicit traffic of cultural goods Inclusive society for global instability and EU societal preparedness Industrialisation of EU society and its dependence on actors outside EU Turning AI into safe and human-centred applications for society Social innovation Cultural Heritage Sustainability
CLUSTER 3 CIVIL SECURITY FOR SOCIETY 88 responses	Cybersecurity (e.g., quantum technology, encryption, etc.) Preparedness for large-scale disruptions Technology for homeland security (e.g., for aviation) Resilience of communication systems and infrastructure Operational technology security High-performance computing Military technologies Space research and exploration Disaster resilience

[10] For example, political, cultural, social, and ideological conditions of well-being and equality; values, infrastructures, and transit zones that enable the movement of goods, people, and ideas in(to) Europe; conflicting narratives about European law, values and ideals; transition zones, infrastructures, and borders that define Europe as space; multi-lingual and multi-cultural interaction.

CLUSTER 4 DIGITAL, INDUSTRY AND SPACE 276 responses	Digital infrastructures and networks Transformation of value chains (linked to the digital and green transition) Circular economy (including in heavy industry and waste management) Supply of raw materials Enabling technologies, such as Artificial Intelligence[11], micro- and nanotechnology, quantum technology, photonics, microelectronics Innovative materials, such as semiconductors Digital technologies (e.g., digital twins, 6G) Space technologies and sustainable utilisation of space
CLUSTER 5 CLIMATE, ENERGY AND MOBILITY 239 responses	Clean technologies for energy supply and storage (not only manufacturing but also design and innovative ideas) Energy harvesting technologies Technologies to exploit renewable sources, especially for wind and photovoltaic energy (e.g., innovative grid technologies to facilitate efficient, long-range transmission of onshore and offshore renewable electricity) Renewable methane (e.g., upgraded biogas, gasification and methanation of woody biomass, and electro-methane) Solar heating and cooling technologies, especially solar heat for industrial applications (SHIP), thermal energy storage (TES), district heating and cooling (DHC) Solutions for energy efficiency of buildings (e.g., considering optimal level of energy retrofits) Eco-friendly building materials and processes Innovations on carbon capture, use and sequestration (CCUS) Advanced biofuels and synthetic renewable fuels and chemicals Cooperative, connected and automated mobility Smart and sustainable mobility (hydrogen and battery electric vehicles, power electronics, automated driving) Technologies for clean aviation Interconnected Earth System Science and global teleconnections (e.g., Environmental Big Data)
CLUSTER 6 FOOD, BIOECONOMY, NATURAL RESOURCES, AGRICULTURE AND ENVIRONMENT 137 responses	Transformation of forest, agricultural and food systems towards long-term sustainability, integrating cross-sectorial challenges (e.g., energy, water, climate, biodiversity, health) Research to increase the resilience of agricultural and food systems and ecosystems (e.g., research on genetics on food, feed and agriculture) Fostering food security Research on plant-based food (e.g., crop breeding, fermentation, protein characterisation and biochemistry, and food science) Advanced food manufacturing, storage and distribution systems Key technologies applicable to developing plant-based food (including shear cell technology, 3D printing, and high- and low- moisture extrusion technologies) Mobilising research in support to the EU forest strategy for 2030 New breeding technologies Environmental law and climate litigation Methods for measuring the biodiversity impacts of economic activities Observations systems for global environmental change and prediction

[11] E.g., AI-driven autonomous robotic systems operating in a safe and sustainable manner; Explainable AI that can pave the way to the deterministic behaviour of intelligent machine; self-supervised, lifelong learning systems; democratizing both the development and the accessibility of AI technology.

	Interdisciplinary research to solve problems in biological systems and ecosystems Sustainable use of natural resources

3. Expected impacts across the six Clusters

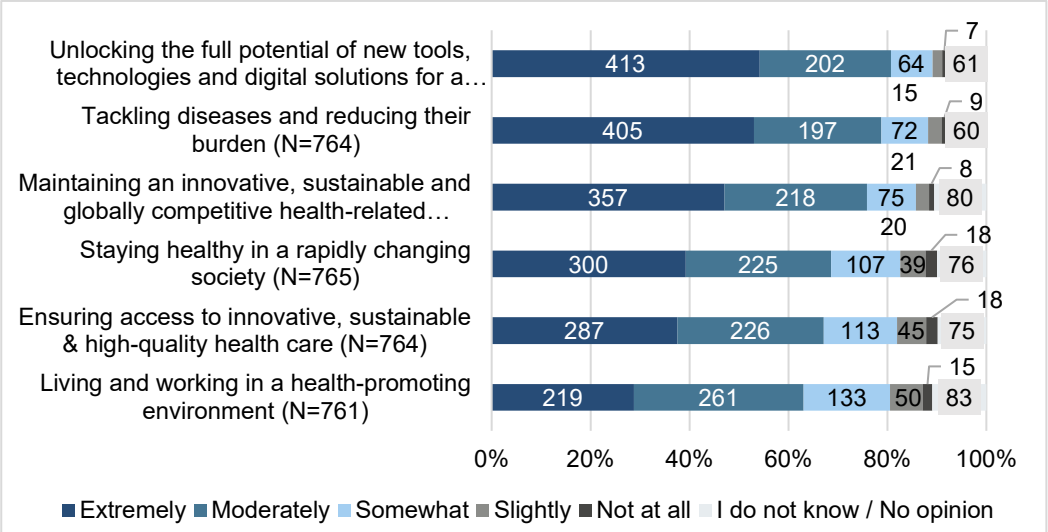
3.1. Cluster 1 – Health

Overall, respondents reported positive feedback regarding the effectiveness of EU support on Cluster 1 expected impacts as **more than 60% of respondents considered it as "extremely" or "moderately" effective**. In particular, more than 50% of participants rated EU support as "extremely" effective for "unlocking the full potential of new tools, technologies and digital solutions for a healthy society" (54%; 413) and for "tackling diseases and reducing their burden" (53%; 405).

Other areas where some of the respondents (notably universities and research centres) think that the EU support would be more impactful than national or regional support are[12]:

- Pandemic preparedness
- The effects of climate change on the health of individuals and on the health systems and how to mitigate them.

Figure 12. In your view, for which expected impacts under Cluster 1 (Health) is EU support more impactful than national and/or regional support alone?

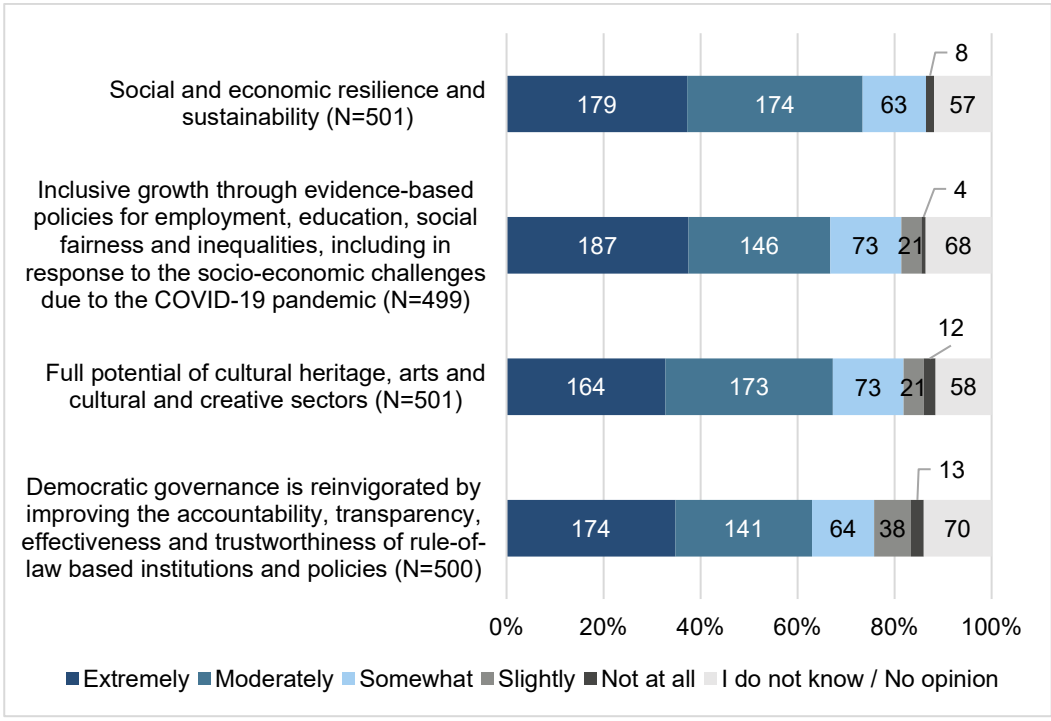


[12] 106 respondents answered the question on other possible areas, but most of them used the open field to specify research priorities under any of the impacts already listed.

3.2. Cluster 2 – Culture, Creativity and Inclusive Society

More than 60% of respondents considered EU support as "extremely" or "moderately" effective on Cluster 2 expected impacts compared to national/regional support alone. Several academic institutions stressed the importance of this cluster in their comments and position papers, especially with regard to enhancing democratic governance, transparency and equality and the role culture and arts could have in actions related to democratic governance. Some academic institutions also highlighted the need for the EU to support re-skilling of workforce in view of the digital and green transition.

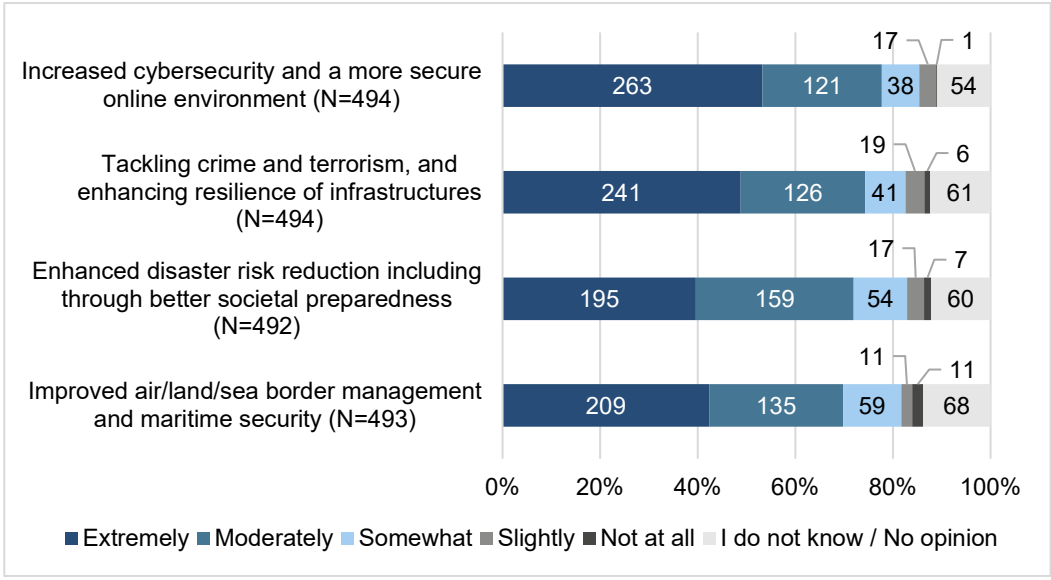
Figure 13. In your view, for which expected impacts under Cluster 2 (Culture, creativity and inclusive society) is EU support more impactful than national and/or regional support alone?



3.3. Cluster 3 – Civil Security for Society

Respondents expressed very positive opinions as regards the effectiveness of EU support on Cluster 3 expected impacts compared to national/regional support alone. **EU support is perceived as "extremely" or "moderately" effective by more than 70% of participants for all the expected impacts of Cluster 3**. 53% (263) of respondents rated it as "extremely" effective for "increasing cybersecurity and creating a more secure online environment". The comments[13] confirmed the relevance of the identified impacts. Some comments underlined the need for multi-disciplinary cross-border cooperation to tackle the cluster 3 expected impacts.

Figure 14. In your view, for which expected impacts under Cluster 3 (Civil security for society) is EU support more impactful than national and/or regional support alone?

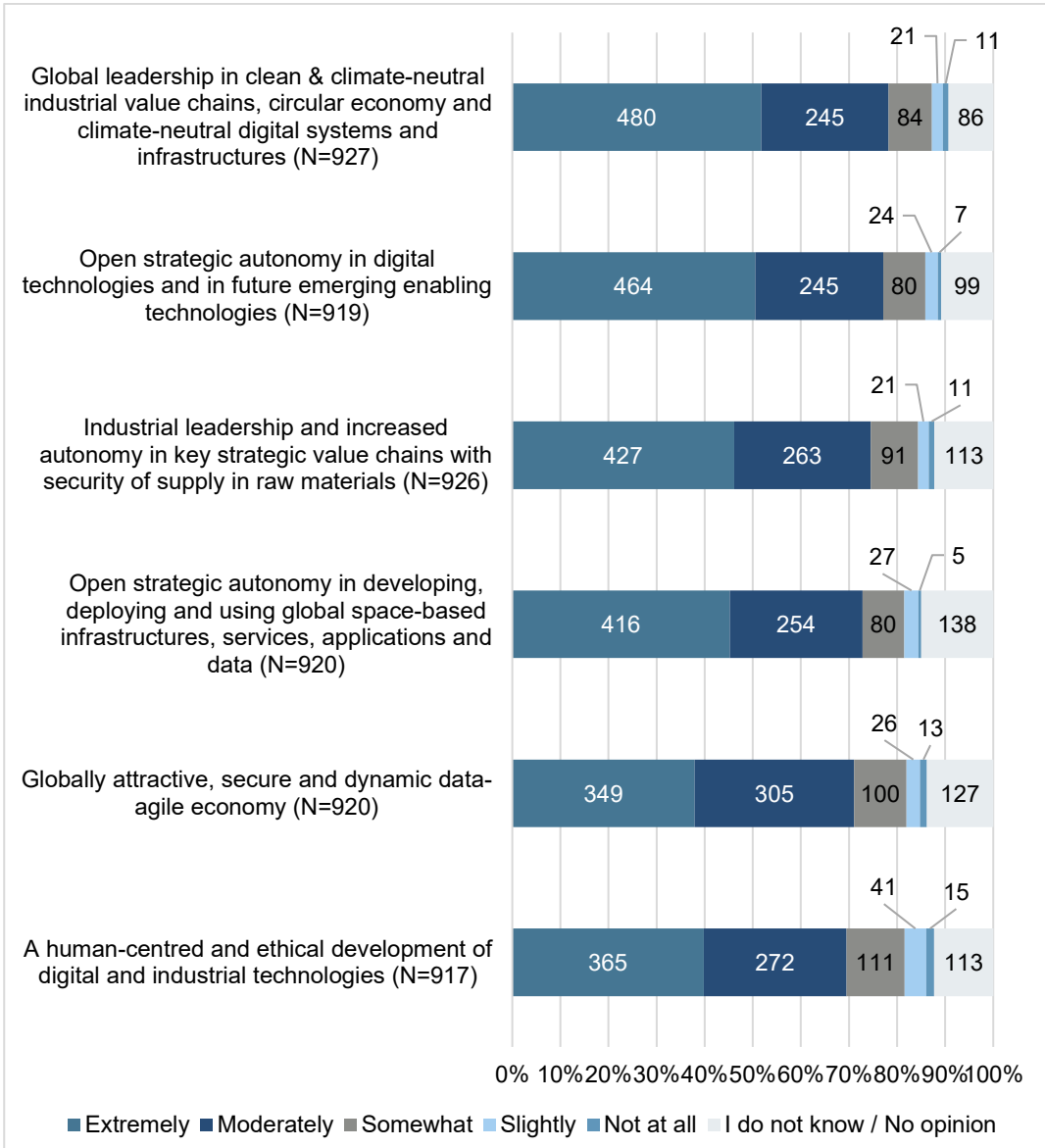


[13] Provided in response to the open question "Please feel free to specify any other area missing from the list above".

3.4. Cluster 4 – Digital, Industry and Space

More than **70%** of respondents considered the EU support as **"extremely" or "moderately" more impactful** than national and/or regional support alone on the expected impacts of Cluster 4. In particular, the majority of respondents deemed it as "extremely" effective to "establish a global leadership in clean and climate-neutral industrial value chains, circular economy and climate-neutral digital systems and infrastructures" (52%; 480) and to "establish open strategy autonomy in digital technologies and future emerging enabling technologies" (50%; 464).

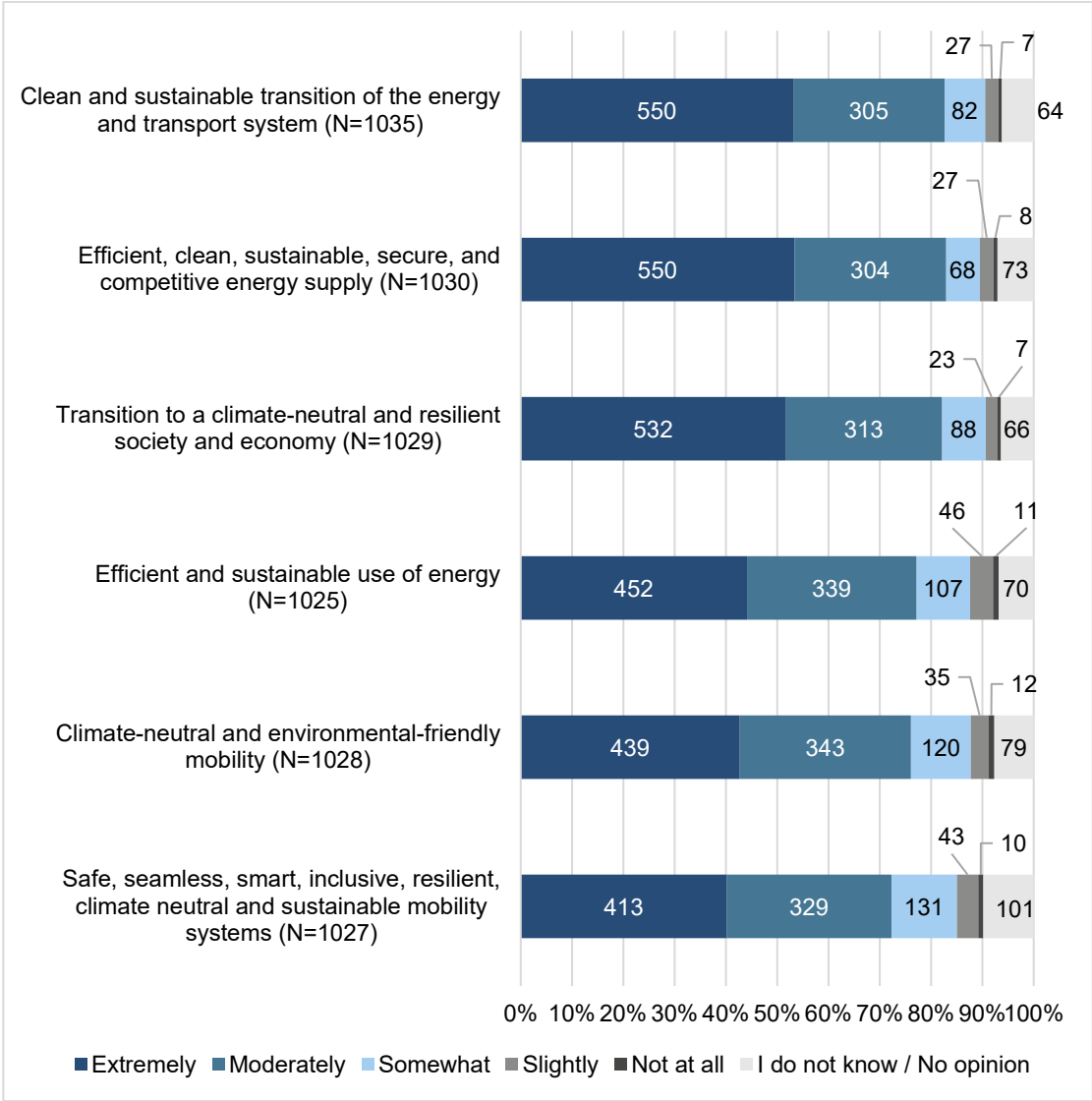
Figure 15. In your view for which expected impacts under Cluster 4 (Digital, industry and space) is EU support more impactful than national and/or regional support alone?



3.5. Cluster 5 – Climate, Energy and Mobility

More than **70%** of respondents declared that the EU support has **been "extremely" or "moderately" more impactful** than national and/or regional support alone on the expected impacts of Cluster 5. More than 50% reported EU support as "extremely" effective compared to national/regional support alone for the following three expected impacts: "Clean and sustainable transition of the energy and transport system" (53%; 550), "Efficient, clean, sustainable, secure and competitive energy supply" (53%; 550), and "Transition to a climate-neutral and resilient society and economy" (52%; 532).

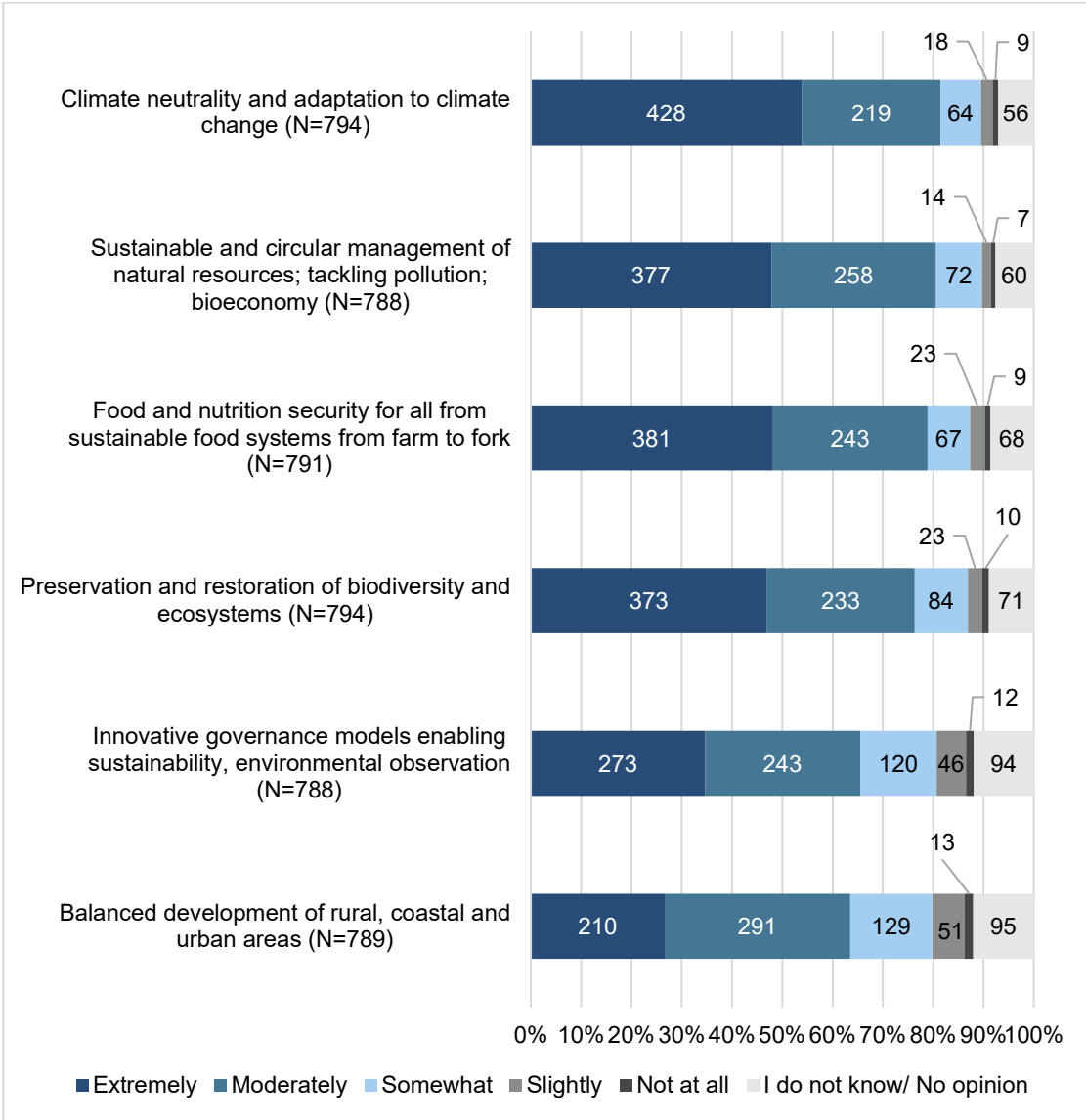
Figure 16. In your view, for which expected impacts under Cluster 5 (Climate, energy and mobility) is EU support more impactful than national and/or regional support alone?



3.6. Cluster 6 – Food, Bioeconomy, Natural Resources, Agriculture and Environment

More than **60%** of respondents declared that the EU support has **been "extremely" or "moderately" more impactful** than national and/or regional support alone on the expected impacts of Cluster 6. In particular, 54% (428) of respondents indicated that EU support has been "extremely" more impactful for the expected impact "Climate neutrality and adaptation to climate change". With regard to this cluster, some comments underline the importance of a holistic approach to translate research results into societal changes.

Figure 17. In your view, for which expected impacts under Cluster 6 (Food, bioeconomy, natural resources, agriculture and environment) is EU support more impactful than national and/or regional support alone?



4. Synergies and complementarities

4.1. Between Horizon Europe clusters

Some respondents saw unexploited potential for complementarities between the different clusters. Some of the comments and position papers proposed “cross-cluster calls" as a way to address this issue. These calls should facilitate inter and transdisciplinary research on issues covering several clusters (e.g., climate change and health, food security and renewable energy development). While there are by design complementarities between the different clusters, some of the respondents consider the practical implementation and impact of cross-cluster activities insufficient. For example, a research institute for agriculture, food and environment pointed out in its position paper the need for a more comprehensive approach to tackle simultaneously the multiple challenges of the ecological transition (e.g., considering the interactions between climate and agriculture, climate and ecosystem service delivery, climate and health, energy and food production, digitalisation and consumers behaviour, etc.). Conversely, positive examples were also mentioned, as the fact that emerging digital technologies are a common topic in different clusters.

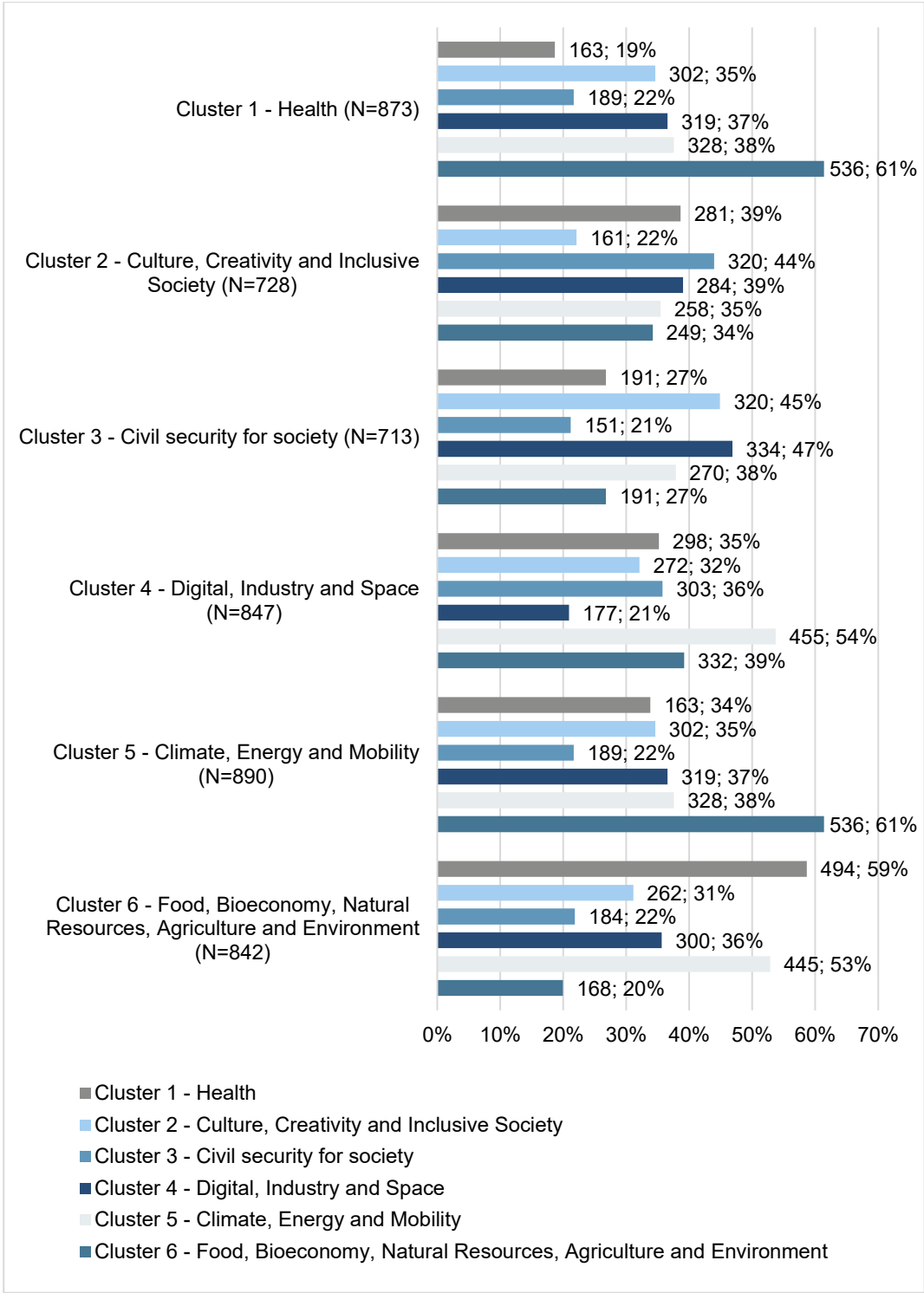
The following chart shows the responses to the closed question “compared to the Strategic Plan 2021-2024, do you see any unexploited potential for complementarities between different clusters?”. It should be noted that there was not an option to answer “no unexploited complementarities with any cluster”. The comments to this question suggest that some respondents may have misunderstood the question.[14]

The chart shows that, according to the respondents, the clusters among which there is “more unexploited potential for complementarities” are:

- Cluster 1 with Cluster 6 – according to 61% of respondents.
- Cluster 2 with Cluster 3 – according to 44% of respondents.
- Cluster 3 with Cluster 2 and Cluster 4 – according to respectively 45% and 47% of respondents.
- Cluster 4 with Cluster 5 – according to 54% of respondents.
- Cluster 5 with Cluster 6 – according to 61% of respondents.
- Cluster 6 with Cluster 1 and Cluster 5 – according respectively to 59% and 53% of respondents.

[14] Some of the comments suggest that some respondents indicated the cluster(s) with which more complementarities are possible, without considering whether they have been already exploited or not.

Figure 18. Compared to the Strategic Plan 2021-2024, do you see any unexploited potential for complementarities between different clusters? Multiple answers possible

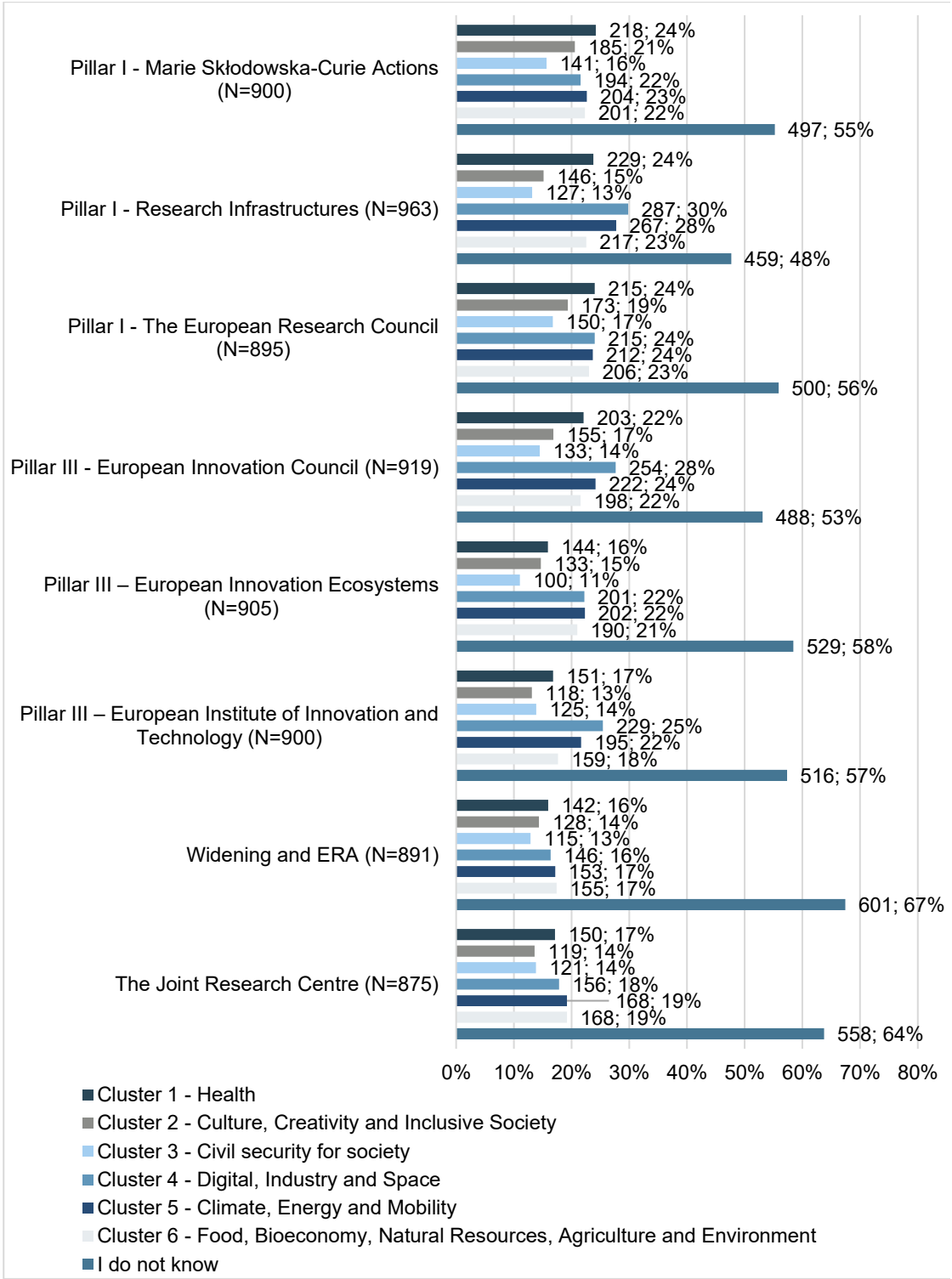


4.2. With other parts of Horizon Europe

Around half of the respondents did not express any opinion on the potential synergies between the Pillar II clusters and other parts of Horizon Europe. Comments from business organisations and academic and research institutions underline the importance of exploiting synergies between the three Horizon Europe pillars. Within pillar I, the programme on **research infrastructures is considered the programme part with which more synergies could be exploited**, especially with Cluster 4 and 5, respectively by 30% and 28% of respondents. This finding is confirmed by the comments, which underline how research infrastructures are essential to generate new knowledge and unlock the technologies necessary to address the Pillar II challenges. At the same time, according to some position papers, **more synergies with Pillar III** (EIC, EIE and EIT) would facilitate the exploitation of the project results and the innovation uptake.

Finally, different stakeholders pointed out the **lack of clarity** on the linkages, complementarities and synergies between the clusters in Pillar II, the EU Missions and the European Partnerships.

Figure 19. Do you see any unexploited potential for complementarities between the six clusters and the other parts of Horizon Europe? Multiple answers possible.



4.3. With other EU programmes

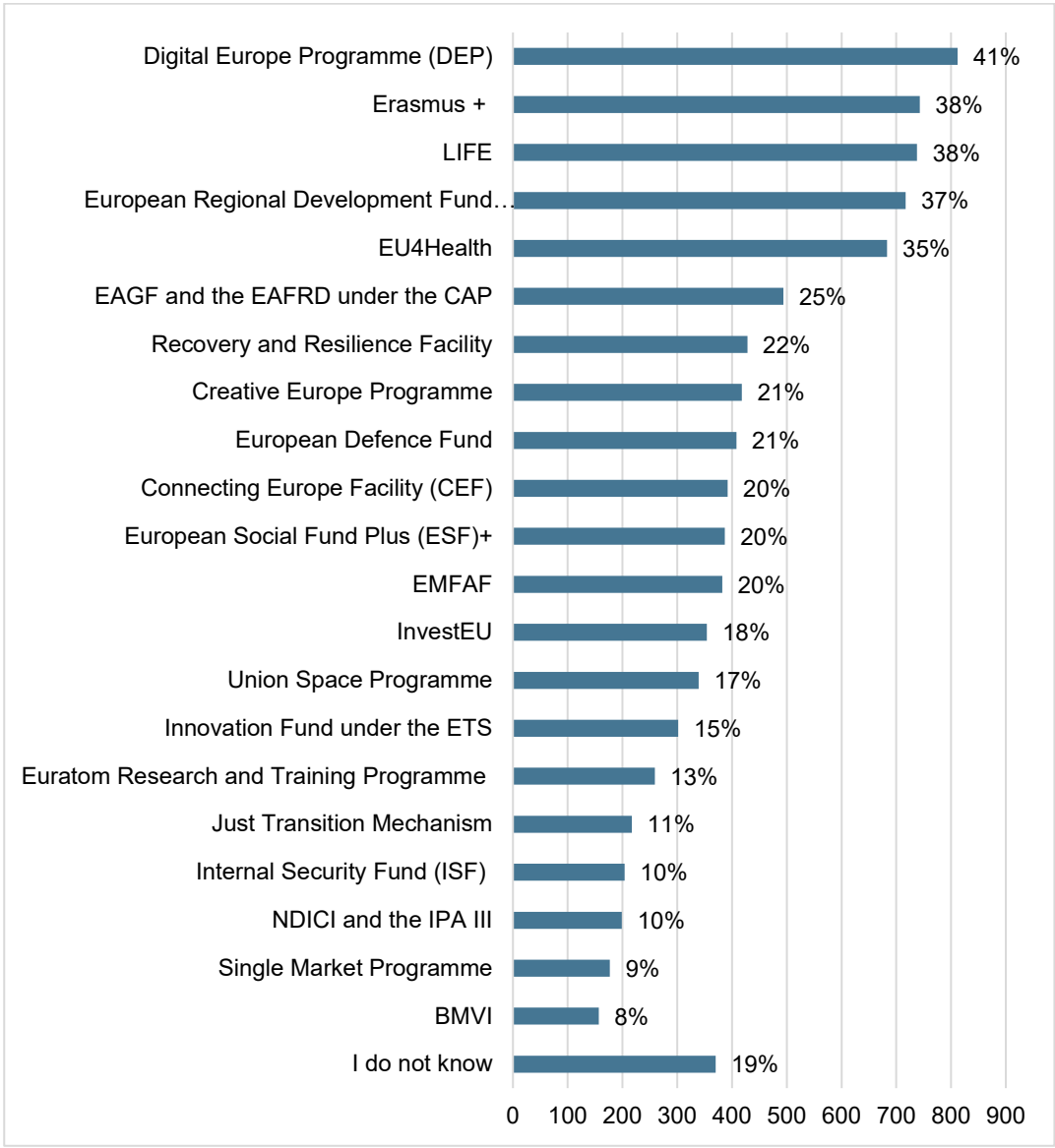
According to the respondents, the EU programmes for which synergies with Horizon Europe could be strengthened are the Digital Europe Programme (DEP) (41%; 812), Erasmus+ (38%; 743), the Programme for Environment and Climate Action (LIFE) (38%; 738), the European Regional Development Fund (ERDF) (37%; 717) and the EU4Health Programme (35%; 683). A quarter of respondents (25%; 494) maintained that synergies could be better exploited between Horizon Europe, the European Agricultural Guarantee Fund (EAGF) and the European Agricultural Fund for Rural Development (EAFRD) under the Common Agricultural Policy (CAP). In the respondents' opinion, the least potentially synergetic EU programmes with Horizon Europe are the Single Market Programme (9%; 157) and the Border Management and Visa Instrument (BMVI) (8%; 117).

The position papers recommend strengthening synergies with several of the EU programmes listed in the chart below. Programmes such as the European Defence Fund, the Innovation Fund or Invest EU are deemed as crucial to ensure the exploitation of the results of industrial projects. They also highlighted some barriers that prevent beneficiaries from benefitting from synergies between Horizon Europe and other programmes (especially with the European Regional Development Fund):

- Difficulties in finding opportunities and navigate the EU programmes' landscape
- Lack of clarity on the possibilities for sequential funding and rules to benefit from multiple programmes
- Different timing for different programmes (e.g., for the publication of work programmes, opening and closing of calls).

One research organisation underlined that, even when formal mechanisms are in place, synergies can be exploited only when the programmes address similar topics. Positive examples in this regard are the EU Space Programme taking over technologies developed under the space cluster of Horizon Europe and some projects of the ERDF programme benefitting from technologies developed under the aviation and / or space topics of Horizon Europe.

Figure 20. With which EU programme(s) could synergies be strengthened? (N=1 957; multiple answers possible)[15]



[15] BMVI: Border Management and Visa Instrument

EAGF and EAFRD under the CAP: European Agricultural Guarantee Fund and the European Agricultural Fund for Rural Development under the Common Agricultural Policy

EMFAF: European Maritime, Fisheries and Aquaculture Fund

Innovation Fund under the ETS: Innovation Fund under the Emission Trading Scheme

LIFE: Programme for Environment and Climate Action

NDICI and the IPA III: Neighbourhood, Development and International Cooperation Instrument and the Instrument for Pre-accession Assistance (IPA III)

5. EU Missions, European Partnerships and specific issues

5.1. The EU Missions added value

Around 750 consultation participants replied to the question on the "added value" EU Missions can bring to European, national, regional and local programmes and initiatives.[16] The comments provided were diverse: most of the respondents shared opinions, suggestions and criticisms on the EU Missions in general. Several respondents remarked that the added value of the EU missions is still unclear and difficult to assess.

The points below summarise the main messages on the EU Missions from the analysis of the answers[17] and the content of the position papers.

5.1.1. On the added value of the EU Missions

- EU Missions provide a holistic, multidisciplinary and multisectoral approach to solving some of the greatest societal challenges, supporting the alignment of R&I policy with other sectoral policies.
- Missions can be an important instrument to increase the impact and visibility of European research and innovation and foster a spirit of European collaboration between different disciplines, stakeholders and sectors.
- EU Missions put research and innovation into a new role, combined with new forms of governance and collaboration.
- EU Missions create a new way to bring concrete solutions to societal challenges, engage citizens, and deliver impact.
- EU Missions can indicate prioritisation of policy and funding for European citizens.
- The EU Missions can mobilize and activate various public and private actors, but it remains to be seen if they can make a real impact.
- The EU Missions have contributed to enhanced international collaboration between European cities and regions, also beyond the Horizon-funded projects.
- The EU Missions might have a strong leverage effect on private, national and regional funding.
- The EU Missions may lead to more innovation uptake by stakeholders on local and regional levels.

[16] Excluding answers as "I do not know", "no opinion", N/A, etc.

[17] The analysis was carried out using an artificial intelligence software and manual checks.

5.1.2. On the Missions design

- As EU Missions are funded by the EU Framework Programme for Research and Innovation, research and innovation activities should be the core of the Missions (not procurement of technologies).
- EU Missions can help bring focus to EU R&I funding programs, but it is important to ensure they are broad enough not to inhibit important R&I. At the same time, they should have clear operational priorities.
- Industry, as well as some regional and local stakeholders, do not feel that they have been included enough in the co-creation process.
- Better integration with clusters to deliver on overarching objectives would reduce the risk of duplication.
- More resources would help achieve more impacts.
- The Missions' calls should also address lower TRL (1-5) to allow fundamental research to nurture further ground-breaking developments and ultimately the goals of the EU Missions.
- It is important to have a clear plan for evaluation and feedback for the Missions before introducing new Missions or continuing the current Missions in the next Framework Programme. A possible proliferation in the number of missions could undermine the effectiveness of initiatives already undertaken.

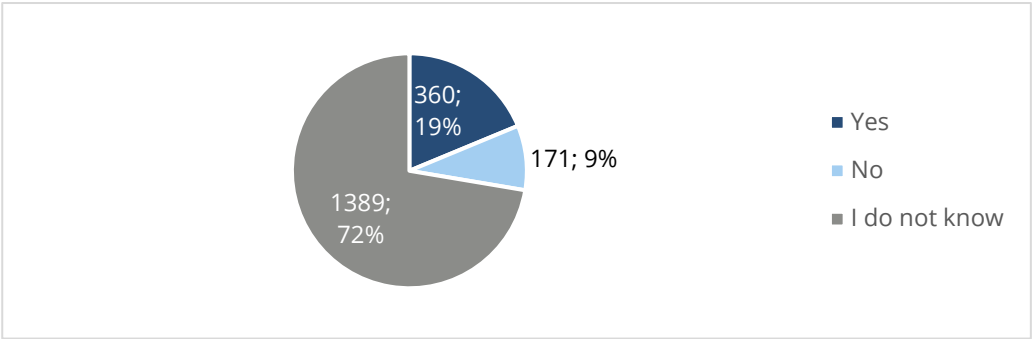
5.1.3. On the Missions implementation

- The Mission instrument is still unclear to many stakeholders.
- Research and Technology Organisations and industrial beneficiaries advocate for greater involvement in the Missions implementation.
- Finding an entry point to the EU Missions has been challenging for industry/ business stakeholders.
- Better collaboration is needed between academia, public sector and industry.
- The success of Missions depends on the implementation and governance at the national and regional levels, and there is a need for real coordination between Missions and regional policies to make them work.
- Universities, research institutions, and researchers do not feel involved enough in the implementation of the EU Missions.

5.2. Areas in which the partnership approach could deliver more impacts

More than two third of respondents did not express any opinion on other areas for which a partnership approach could be beneficial. Only 19% (360) of them confirmed that a partnership approach could deliver more impacts in other areas. The list of areas proposed are reported in Annex 4.

Figure 21. Is there any other area where a partnership approach could deliver more impacts? (N=1 920)



5.3. Specific issues in the Strategic Plan

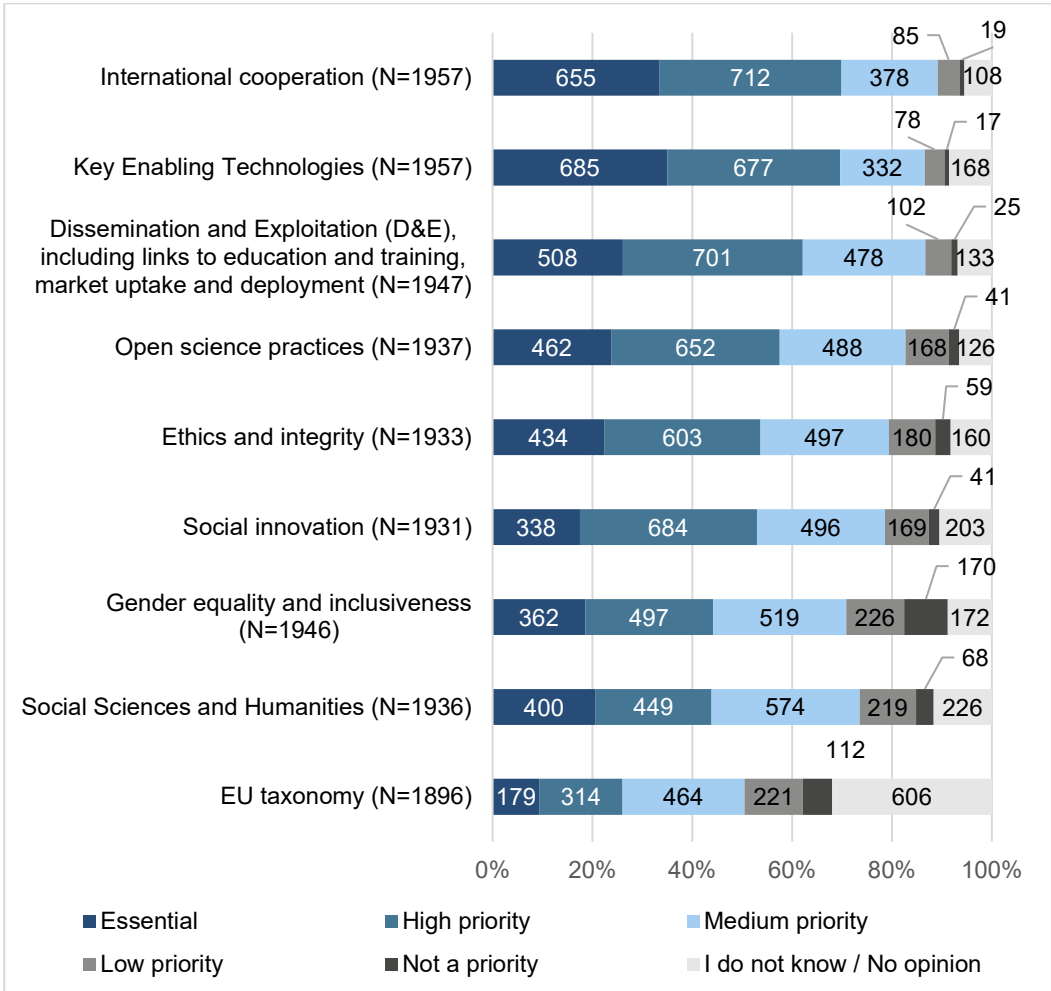
According to the majority of the respondents, the 2025 - 2027 Strategic Plan should further elaborate some specific themes. Improvements are required especially with regard to international cooperation (70%; 1,367), key enabling technologies (69%; 1,362), dissemination and exploitation (62%; 1,209). Asked about additional themes that could be integrated as specific themes in the 2025 – 2027 Strategic Plan, 392 consultation participants left a comment. However, 169 of these comments were not in scope as they did not answer the question. The remaining comments refer to the following issues (some of them are already considered in the Strategic Plan):

- International cooperation
- Diversity and inclusiveness (category broader than gender)
- Climate/sustainability/biodiversity/circular economy
- Digitalisation/enabling digital technologies
- Health and well being
- Reciprocity & scientific collaboration
- Security (protecting knowledge and research infrastructures) & EU strategic autonomy
- Ethics and integrity
- Skills and education
- Open science (e.g., more emphasis on sharing data across borders)

- Citizen engagement, R&I valorisation
- Interdisciplinarity/Social Science and Humanities (SSH)
- Communication (disseminating scientific information to wider audiences, bridging the gap between science and society, and fighting against misinformation and disinformation)

Some position papers from academic actors are sceptical about the way specific issues have been integrated in Horizon Europe. According to these comments, increasing the number of specific issues has added content-related requirements that applicants find difficult to fulfil comprehensively. At the same time, it is unclear to what extent these aspects are actually implemented within projects. These comments concern especially how the issue on "Social Sciences and Humanities" has been included across Pillar II, with the issue being satisfied by involving social science experts in the consortia, but without integrating social sciences approaches in the project.

Figure 22. Should any of these specific themes be further elaborated for the Strategic Plan 2025-2027?



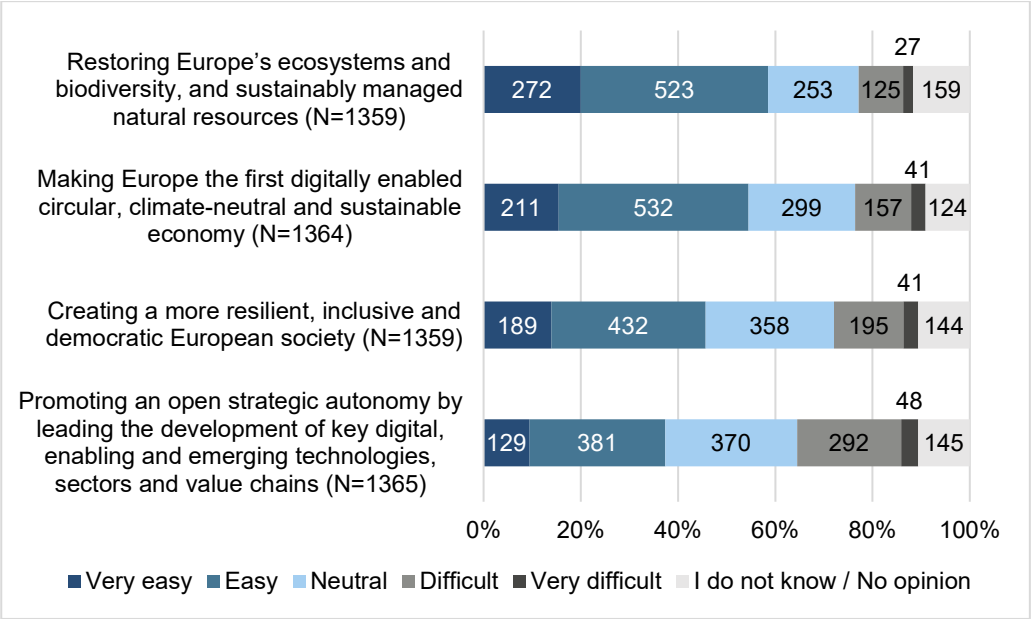
6. The Horizon Europe Strategic Plan structure

Two of the Key Strategic Orientations (KSOs) of the Horizon Europe's Strategic Plan 2021-2024 were "easy" or "very easy" to understand for the majority of the respondents: "restoring Europe's ecosystems and biodiversity, and sustainably managed natural resources" (58%; 795), and "making Europe the first digitally enabled circular, climate-neutral and sustainable economy" (54%; 743). Also, 46% (621) of respondents confirmed that understanding the KSO of "creating a more resilient, inclusive, and democratic European society" was "easy" or "very easy". Conversely, 25% (340) of respondents found it "difficult" or "very difficult" to understand the KSO on "promoting an open strategic autonomy". Different stakeholders confirmed in their position papers that the four KSO remain highly relevant for the coming years of Horizon Europe. Others pointed to some specific issues in the current KSO structure, such as:

- The KSOs are difficult to understand because they are too broad and merge too many, sometimes not strongly linked concepts. Limiting the number of KSOs is a positive objective but it should not harm the understanding of their meaning.
- The KSOs encompass too many impacts, making it difficult to understand the link with the work programmes.
- The four KSOs partially overlap, which makes it difficult to understand what should be covered by one or the other.
- The formulations of the KSOs are too complex and abstract and make the overall comprehension challenging.
- In the documents of the European Commission, different formulations are used for the 4 KSOs, which makes it difficult to recognise them and apply them in the proposal.
- The first KSO on strategic autonomy could be explained in a simpler way.
- The fourth KSO on resilient, inclusive and democratic European society needs a clear definition of "resilient."
- Some respondents would like to remove the 4 KSOs since multiple EU policies already give strategic indications.

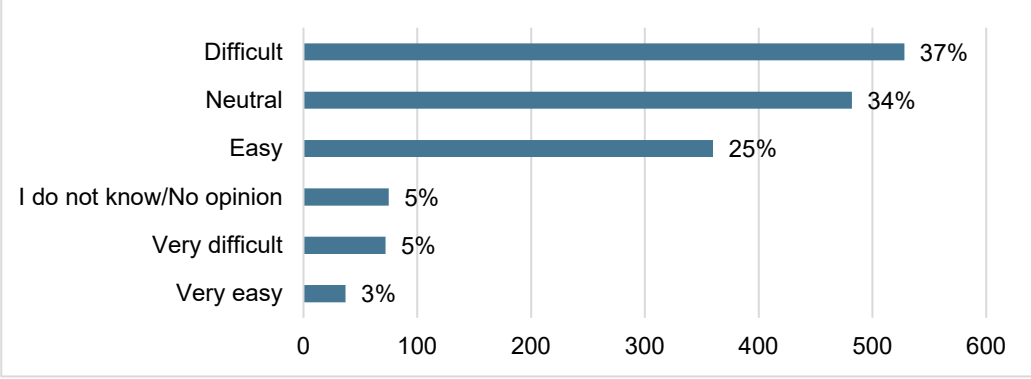
Conversely, different stakeholders confirmed in their position papers that the four KSO remain highly relevant for the coming years of Horizon Europe.

Figure 23. How easy is it to understand the four Key Strategic Orientations (KSOs) of the Horizon Europe's 2021-2024 Strategic Plan?



More than one third of respondents (37%; 528) found difficult to understand the 2021-2024 Strategic Plan's structure. Only one quarter (25%; 360) found it easy while 5% (72) reported that understanding this structure was very difficult.

Figure 24. How easy is it to understand this structure the Horizon Europe's 2021-2024 Strategic Plan's structure? (N=1 554)



The respondents provided feedback or suggestions for improving the structure, language and presentation of the Strategic Plan. They underlined the **need to simplify the structure reducing the number of layers** (KSO, clusters, impacts, etc.), use more accessible language, and make the plan more concrete. Suggestions for improvement include:

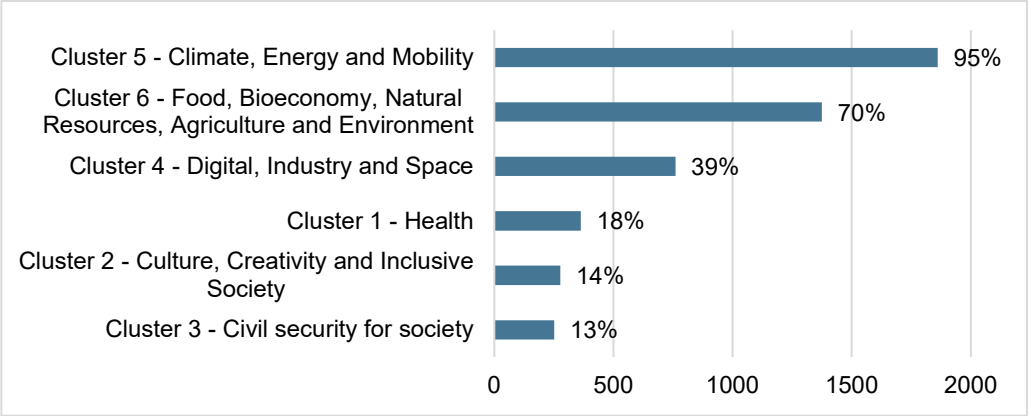
- Better describe impact areas and expected impacts
- Reduce the number of impacts / prioritise the importance of the expected impacts
- Better explain the difference between impact/results, outputs/deliverables
- Provide definitions of the terms used
- Avoid using official or technical jargon
- Use the same terminology in the Strategic Plan as in the work programmes
- Add charts to help to understand the structure
- Add infographics / visuals to summarise the main messages
- Provide explanatory videos as supporting materials
- Communicate to different audiences and sectors to ensure the rationale is understood.

Different stakeholders suggested including specific references in the work programme topics or in the calls for proposal to relevant descriptions in the Strategic Plan so that applicants familiarise with it and are able to link the Strategic Plan concepts with concrete actions.

ANNEX 1. STATISTICS ON WHICH CLUSTER(S) CONTRIBUTE TO ADDRESS THE SOCIETAL CHALLENGES

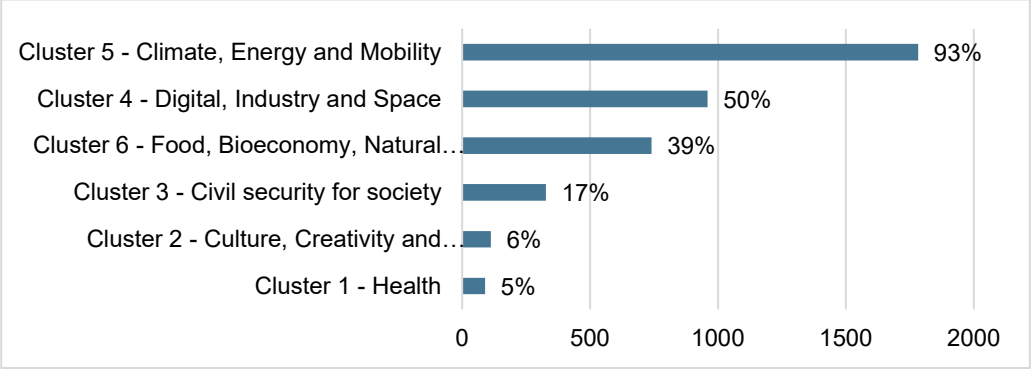
For almost all the participants (95%; 1 861), Cluster 5 is the best suited to address **climate change**. Cluster 6 was also selected by 70% (1 375) of respondents as relevant to address this societal challenge. Conversely, Clusters 1, 2 and 3 are the least relevant in respondents' opinion in tackling climate change.

Figure 25. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "climate change"[18] (N=1 963; multiple answers possible)



As for climate change, Cluster 5 is the most suitable Horizon Europe's clusters to address the societal challenge of **energy supply** for almost all respondents (93%; 1 782). Cluster 4 has also been selected by half of participants (50%; 959) for being relevant to address energy supply.

Figure 26. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "energy supply"[19] (N=1 913; multiple answers possible)

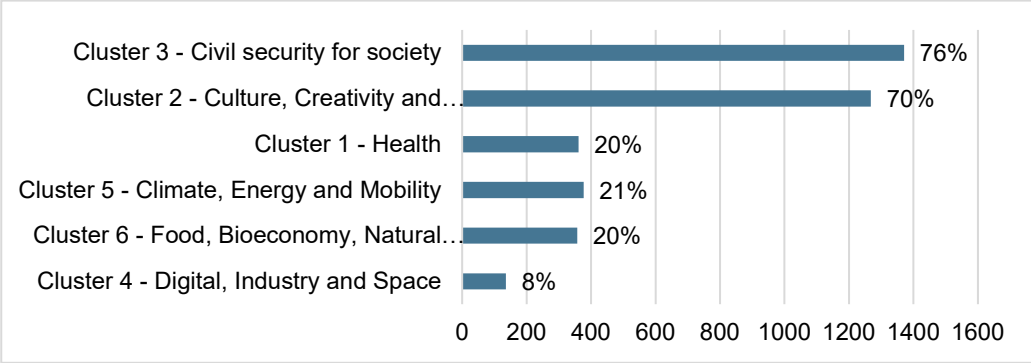


[18] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: climate change.

[19] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: energy supply.

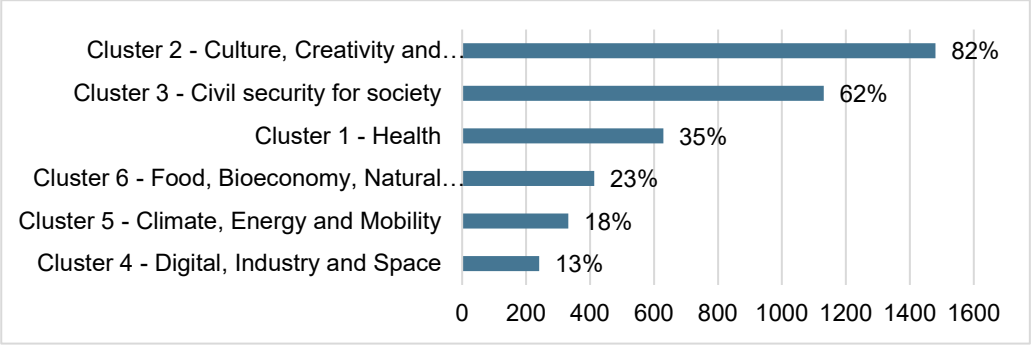
A majority of participants consider Cluster 3 (76%; 1 371) and 2 (70%; 1 268) as the most relevant to address **migration flows**. Clusters 1, 5 and 6 were each selected by around 20% of respondents as appropriate to address migration flows issues.

Figure 27. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "migration flows"[20] (N=1 800; multiple answers possible)



A large majority of respondents (82%; 1 480) declared that Cluster 2 is the Horizon Europe's cluster that contributes the most to the societal challenge of **social justice**. Likewise, Cluster 3 was reported as one of the most relevant clusters to address social justice by more than half of participants (62%; 1 131).

Figure 28. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "social justice"[21] (N=1,813; multiple answers possible)

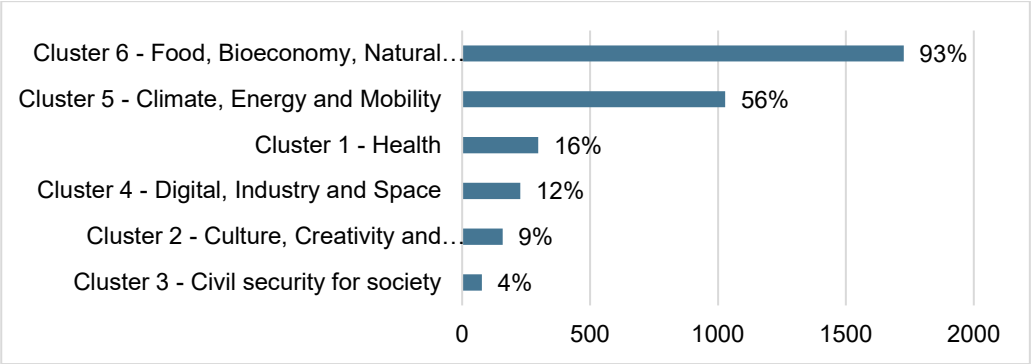


Cluster 6 was identified by almost all respondents (93%; 1 726) as the cluster contributing the most to the societal challenge "**loss of biodiversity**". Another Horizon Europe's cluster related to climate, energy and mobility (Cluster 5) was selected by more than half of respondents (56%; 1 028) as being relevant regarding loss of biodiversity.

[20] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: migration flows.

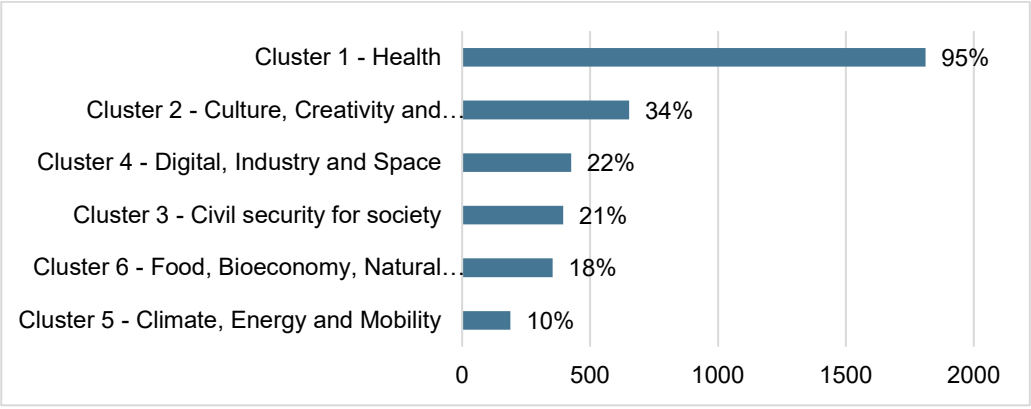
[21] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: social justice.

Figure 29. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "loss of biodiversity"[22] (N=1,849; multiple answers possible)



Almost all respondents (95%; 1 811) think that Cluster 1 is the cluster which best contributes to addressing **strained healthcare systems and the ageing European population**. Moreover, around one third (34%; 653) selected Cluster 2 as the cluster contributing the most to this societal challenge.

Figure 30. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "strained healthcare systems and ageing European population"[23] (N=1 914; multiple answers possible)

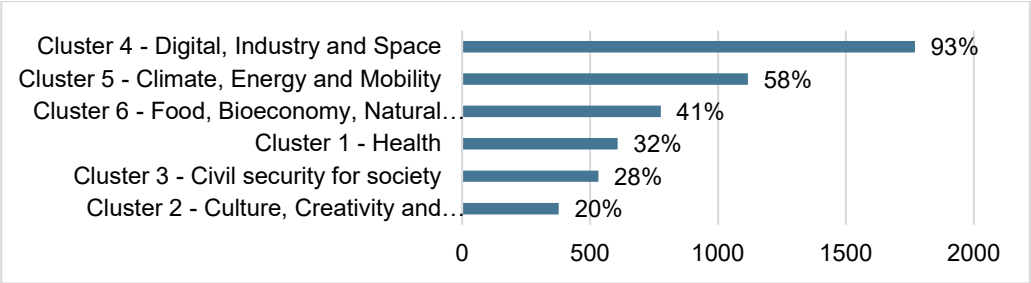


Nearly all participants (93%; 1 770) declared that Cluster 4 is the most relevant cluster of Horizon Europe to ensure European **global competitiveness for technological leadership**. Cluster 5 also seems relevant in addressing this challenge for more than half of respondents (58%; 1 117).

[22] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: loss of biodiversity.

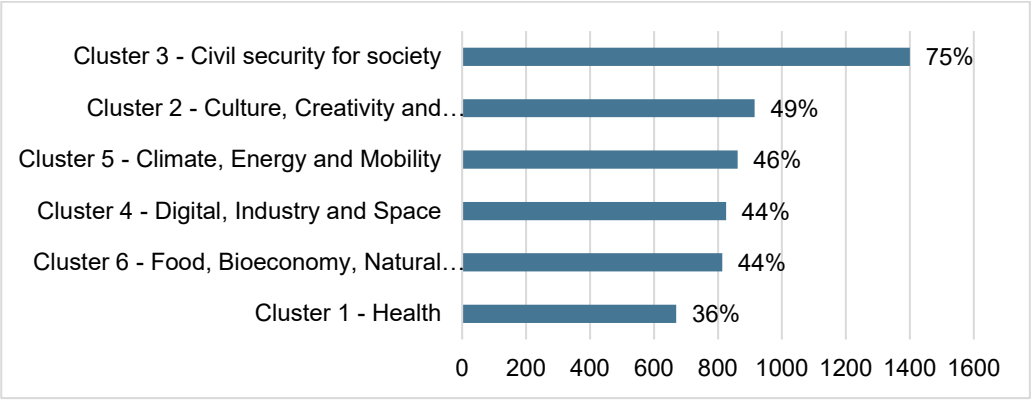
[23] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: strained healthcare systems and ageing European population.

Figure 31. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "global competition for technological leadership"[24] (N=1 911; multiple answers possible)



Three quarters of the respondents (75%; 1 400) declared that Cluster 3 is the most appropriate cluster to face **global instability** and support **societal preparedness of the EU for large-scale disruptions**. Furthermore, almost half of the respondents (49%; 915) indicated Cluster 2 and 46% (861) chose Cluster 5.

Figure 32. Respondents' opinion on the Horizon Europe clusters contributing the most to the societal challenge "global instability and EU societal preparedness for large-scale disruptions"[25] (N=1 861; multiple answers possible)



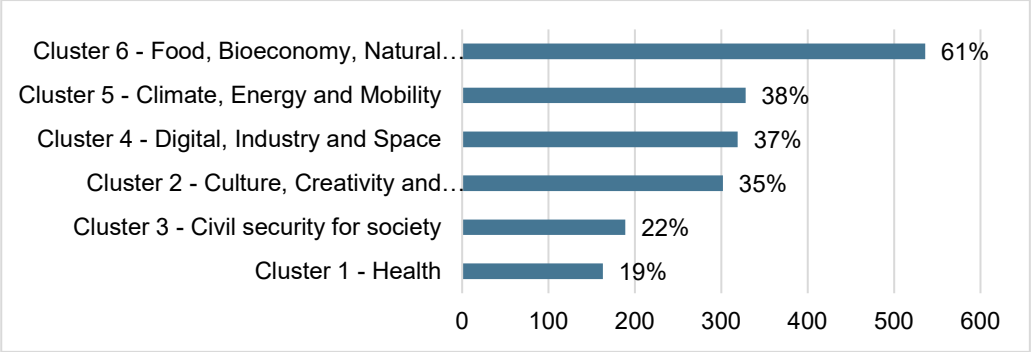
[24] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: global competition for technological leadership.

[25] Question: "In your opinion, which Horizon Europe Cluster(s) contribute(s) to addressing the societal challenges?" Option: global instability and EU societal preparedness for large-scale disruptions.

ANNEX 2. STATISTICS ON COMPLEMENTARITIES AMONG CLUSTERS

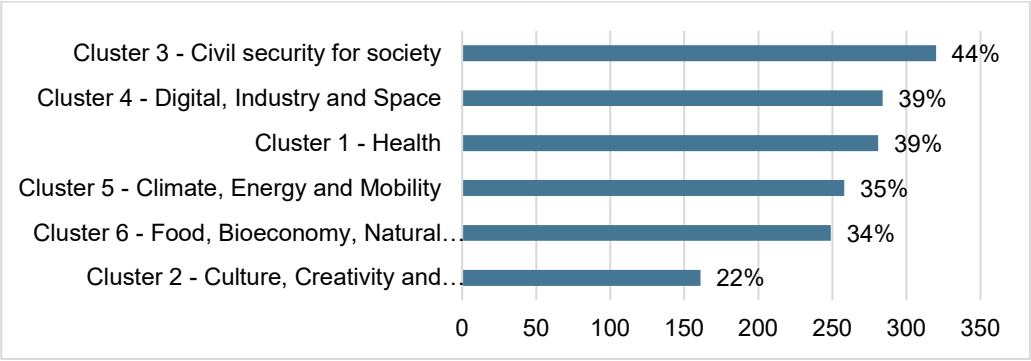
More than half of the respondents (61%; 536) think that Cluster 1 could be more synergetic with Cluster 6. This result is in line with the comments received on prioritising research on the links between food and health. More than one third of them also reported that Cluster 1 is not exploiting enough potential complementarities with Cluster 5 (38%; 328), Cluster 4[26] (37%; 319) and Cluster 2 (35%; 302).

Figure 33. Respondents' opinion on the unexploited potential for complementarities between Cluster 1 and other Horizon Europe clusters (N=873; multiple answers possible. No answer = 607)



44% (320) of respodents indicated that there are unexploited complementarities between Cluster 2 and Cluster 3, 39% with Cluster 4 (284) and Cluster 1 (281), 35% with Cluster 5[27] (258) and 35% with Cluster 6 (249).

Figure 34. Respondents' opinion on the unexploited potential for complementarities between Cluster 2 and other Horizon Europe clusters (N=728; multiple answers possible. No answer = 752)

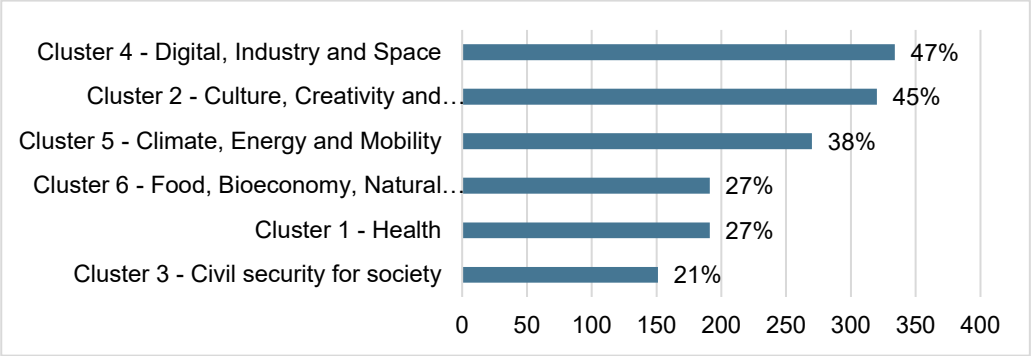


[26] For example, one position paper referred to the fact the digital Research Infrastructures could help reinforce the link between cluster 1 and cluster 4.

[27] For example, one position paper underlined the importance of considering social, economic, gender and cultural dimensions of environmental protection and climate change, encouraging complementarities between Cluster 2 and Cluster 5.

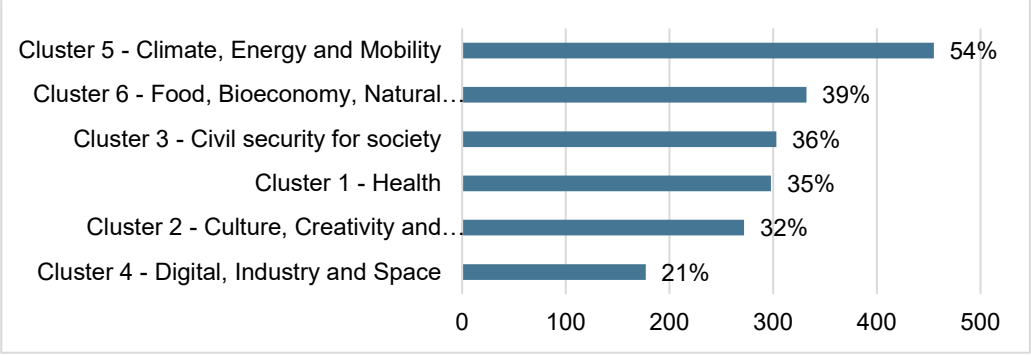
Almost half of the respondents (47%; 334) reported unexploited synergies between of Cluster 3 and Cluster 4. Moreover, for 45% (320) of them, potential complementarities are not exploited enough with Cluster 2.

Figure 35. Respondents' opinion on the unexploited potential for complementarities between Cluster 3 and other Horizon Europe clusters (N=713; multiple answers possible. No answer = 767)



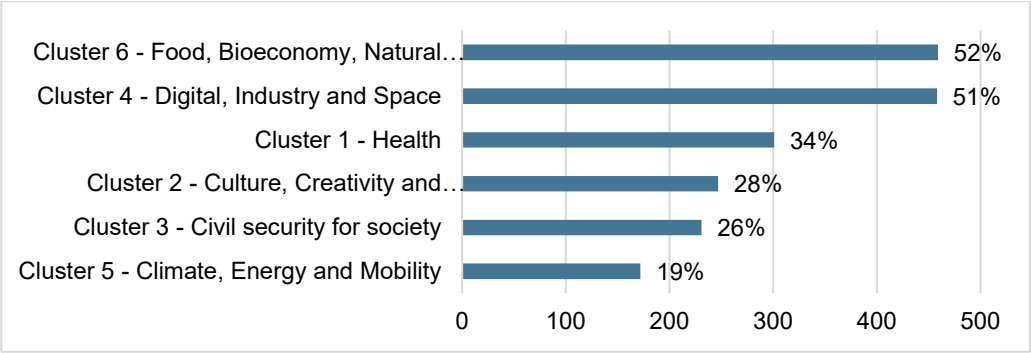
More than half of the respondents (54%; 455) think that Cluster 4 might be more synergetic with Cluster 5. Room for more complementarities exists also with the other clusters according to more than one third of the respondents.

Figure 36. Respondents' opinion on the unexploited potential for complementarities between Cluster 4 and other Horizon Europe clusters (N=847; multiple answers possible. No answer = 633)



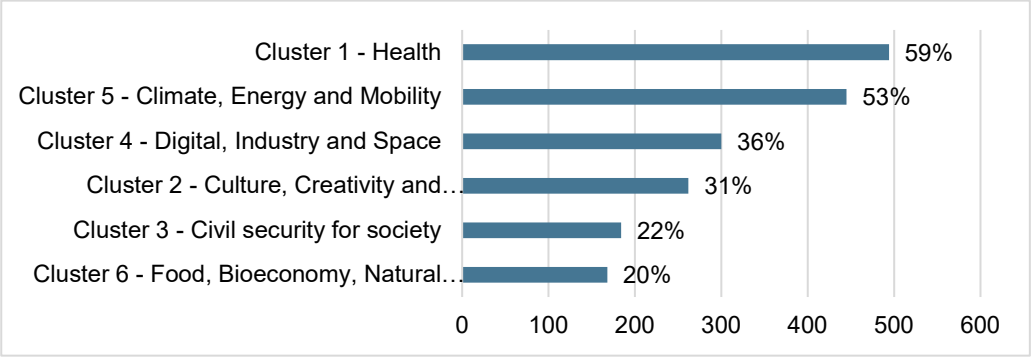
More than half of the respondents think that Cluster 5 does not exploit enough potential complementarities with Cluster 6 (52%; 459) and Cluster 4 (51%; 458). Around one third (34%; 301) of them reported unexploited potential for complementarities with Cluster 1.

Figure 37. Respondents' opinion on the unexploited potential for complementarities between Cluster 5 and other Horizon Europe clusters (N=890; multiple answers possible. No answer = 590)



More than half of the respondents think that Cluster 6 could be more synergetic with Cluster 1 (59%; 494) and Cluster 5 (53%; 445). More than one third of respondents (36%; 300) think that Clusters 6 and 4 could be more synergetic.

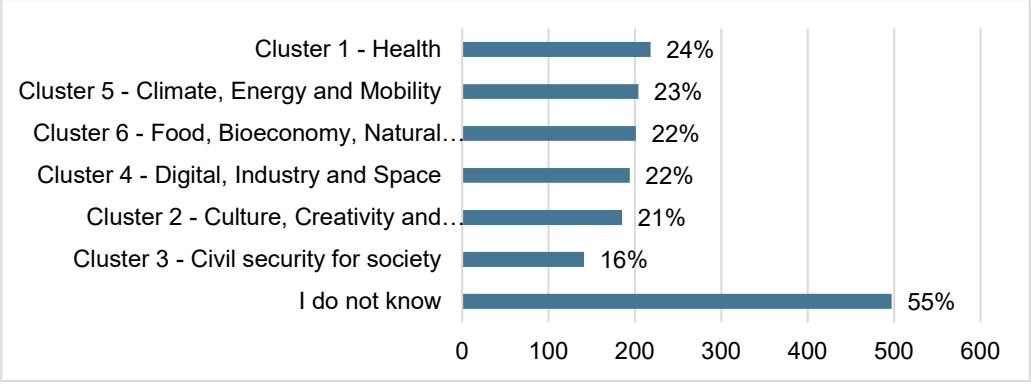
Figure 38. Respondents' opinion on the unexploited potential for complementarities between Cluster 6 and other Horizon Europe clusters (N=842; multiple answers possible. No answer = 639)



ANNEX 3. STATISTICS ON COMPLEMENTARITIES BETWEEN CLUSTERS AND OTHER PARTS OF HORIZON EUROPE

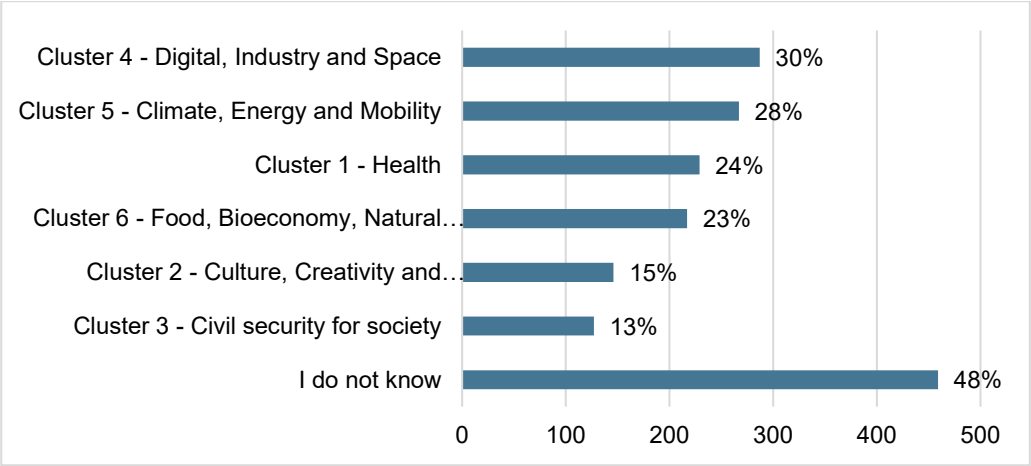
The majority of respondents (55%; 497) did not express an opinion regarding potential unexploited complementarities between Horizon Europe clusters and **Marie Sklodowska-Curie Actions (MSCA)** (Pillar I). However, almost one quarter of participants declared that Cluster 1 (24%; 218) and 5 (23%; 204) could be more synergetic with MSCA. Some of the respondents recommended to improve the synergies with MSCA and ERC by leveraging on the results of the projects funded by Pillar I to identify some of the topics to be included in the clusters' work programmes. Another suggestion is to include early career researchers among the Pillar II target groups (e.g., by dedicating a call to consortia involving MSCA or ERC beneficiaries).

Figure 39. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Pillar I – Marie Sklodowska-Curie Actions (MSCA) (N=900; multiple answers possible)



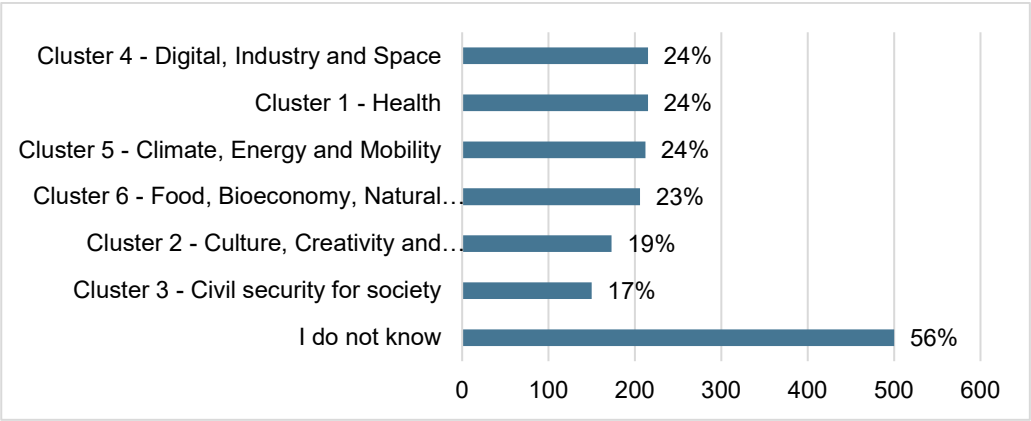
Clusters 4 and 5 could be more synergetic with **Research Infrastructures** (Pillar I) according to 30% (287) and 28% (267) of respondents. Moreover, nearly one quarter of them (24%; 229) think that Cluster 1 is not exploiting enough the potential complementarities that could exist with Research Infrastructures of Pillar I. For example, some comments explained that research infrastructures allow researchers to have access to and use comprehensive data sets through open platforms, interoperable and secure dataspaces, or machineries and laboratories to test innovative products.

Figure 40. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Pillar I – Research Infrastructures (N=963; multiple answers possible)



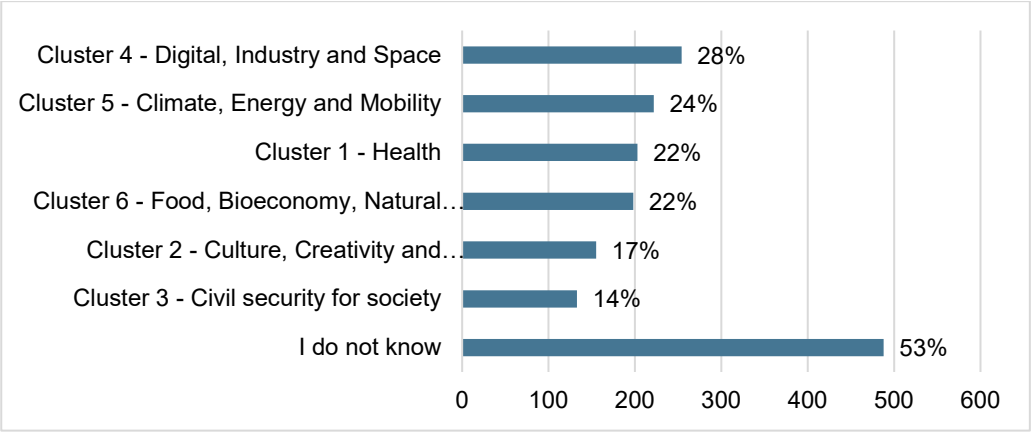
The majority of respondents did not express any opinion (56%; 500) as regards the unexploited potential complementarities between Horizon Europe's clusters and the **European Research Council (ERC)** (Pillar I). Nonetheless, almost one quarter of them stated that Clusters 4 (24%; 215), 1 (24%; 215) and 5 (24%; 212) could be more synergetic with the ERC.

Figure 41. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Pillar I – European Research Council (ERC) (N=895; multiple answers possible)



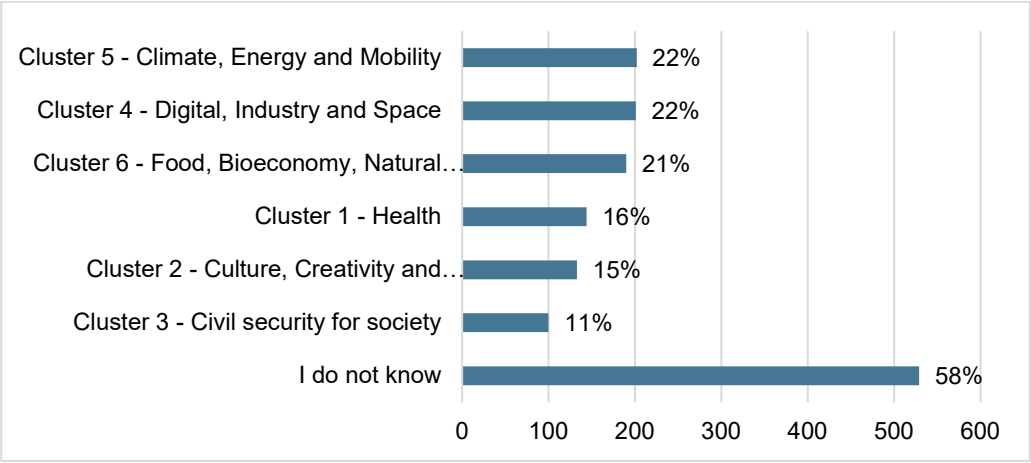
More than a quarter of respondents (28%; 254) declared that Cluster 4 could be more synergetic with the **European Innovation Council (EIC)** (Pillar III). Moreover, nearly another quarter (24%; 222) think that unexploited potential complementarities exist between the EIC and Cluster 5 of Horizon Europe. For 22% of respondents, this is also the case for Clusters 1 and 6, respectively for 203 and 198 respondents. Some respondents commented that they are not aware of any mechanism to build synergies between Pillar II and the EIC.

Figure 42. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Pillar III – European Innovation Council (EIC) (N=919; multiple answers possible)



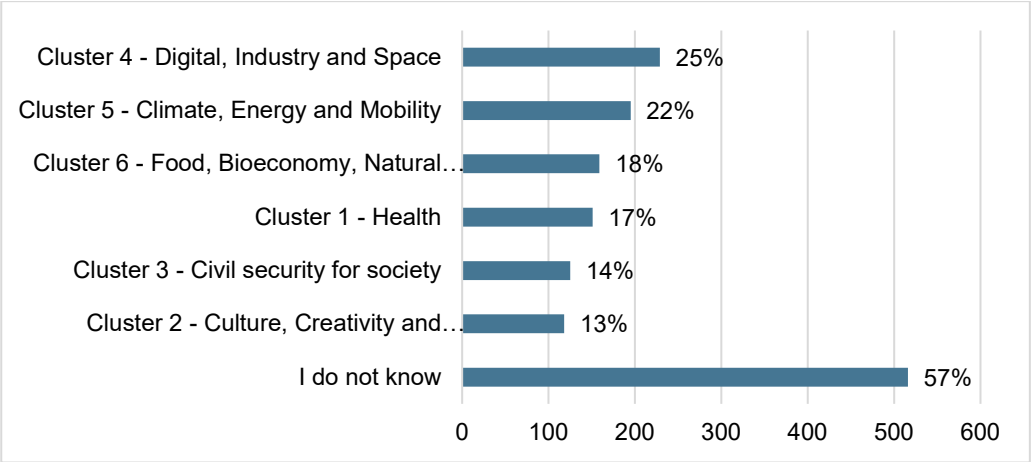
Clusters 5 and 4 could be more synergetic with the **European Innovation Ecosystems** (Pillar III) for 22% of respondents (respectively for 202 and 201 participants). Around 21% of them (190) also expressed unexploited potential complementarities between this part of Horizon Europe and Cluster 6.

Figure 43. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Pillar III – European Innovation Ecosystems (N=905; multiple answers possible)



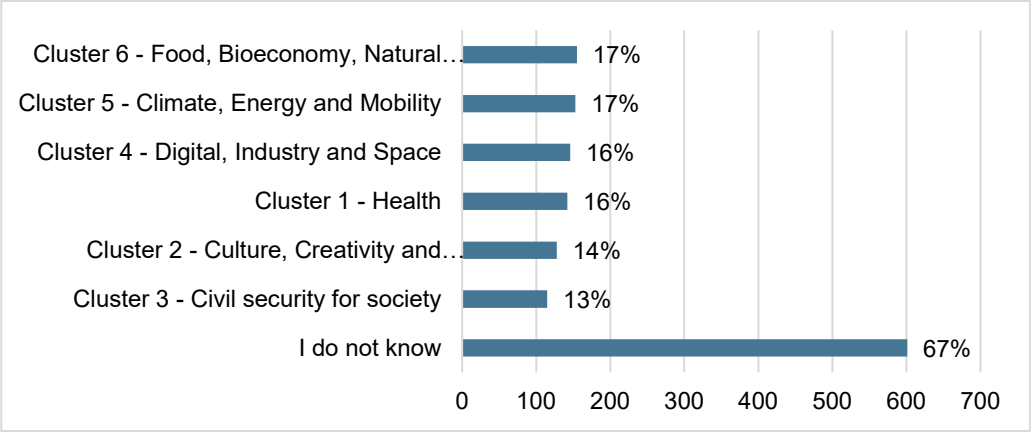
A quarter of participants (25%; 229) reported unexploited potential for complementarities between Horizon Europe's Cluster 4 and the **European Institute of Innovation and Technology** (Pillar III). More than a fifth of them (22%; 195) also think this is the case for Cluster 5. Some respondents underlined the need to avoid duplication between the EIT KICs and the Pillar II projects.

Figure 44. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Pillar III – European Institute of Innovation and Technology (N=900; multiple answers possible)



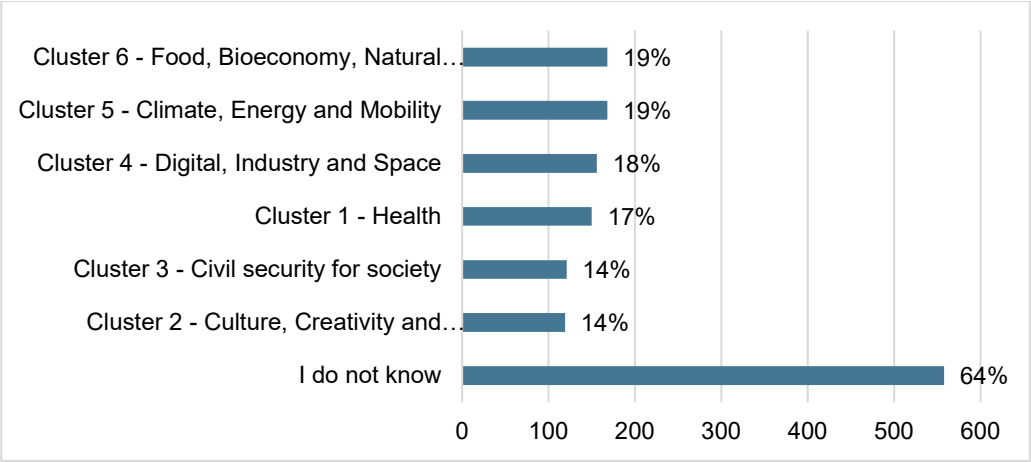
A large majority of respondents (67%; 601) did not share any opinion concerning potential synergies that could be further explored between Horizon Europe Clusters and the **Widening and European Research Area (ERA)**. Only 17% of respondents considered that unexploited synergies exist between the Widening and ERA and Clusters 6 (155) and 5 (153).

Figure 45. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and Widening & European Research Area (ERA) (N=891; multiple answers possible)



Overall, participants did not express an opinion on potential unexploited synergies between Horizon Europe's clusters and the **Joint Research Centre (JRC)**. Only 19% (168 for both Clusters) of them think that such synergies exist between Clusters 6 and 5, and the JRC.

Figure 46. Respondents' opinion on unexploited potential for complementarities between Horizon Europe's Clusters and the Joint Research Centre (JRC) (N=875; multiple answers possible)



ANNEX 4.

ANNEX 4. AREAS FOR NEW PARTNERSHIPS

The following table illustrate the areas in which the respondents think more impacts could be reached through a partnership approach. It is important to note that for some of the proposed areas a Partnership may already exist or the topic is already covered by existing Partnerships.

DIGITAL, INDUSTRY AND ENABLING TECHNOLOGIES
Advanced materials
Artificial Intelligence
Blockchain
Digital Twin
Data Communication / Internet connectivity
Quantum technology
Microelectronics
ENERGY
Thermal energy storage
Decarbonised heating solutions
Advanced biofuels and synthetic renewables
Accelerator-based photon sources
Renewable energy sources (e.g., wind energy)
Integrated distributed energy management systems

Raw materials
Nuclear Fusion technologies
FOOD
Food (in general)
Crop improvement and plant breeding
Sustainable proteins/ protein diversification/ novel foods
Agriculture and ecology
TRANSPORT
Solution to decrease the carbon footprint of heavy working machinery and heavy-duty vehicles
Railway (hydrogen, high speed, digitalisation of the industry)
Waterborne transport
CULTURE, CREATIVITY AND INCLUSIVE SOCIETY
Cultural heritage
Education
Social resilience
Gender equality

CIVIL SECURITY FOR SOCIETY
Internal security
International security
Protection/Management of critical Infrastructures
Cybersecurity
SOCIAL SCIENCES AND HUMANITIES
CLIMATE CHANGE & ENVIRONMENT
Climate adaptation
Forests
Water
Polar research
Industrial decarbonisation
Circular economy
Sustainable development

HEALTH
Brain science
One heath food safety
Inflammation, non-communicable diseases, and comorbidities
Digitalisation of healthcare
Mental health
Ageing society
Cancer
Pandemic preparedness

GETTING IN TOUCH WITH THE EU

In person

All over the European Union there are hundreds of Europe Direct centres. You can find the address of the centre nearest you online (european-union.europa.eu/contact-eu/meet-us_en).

On the phone or in writing

Europe Direct is a service that answers your questions about the European Union.
You can contact this service:

- by freephone: 00 800 6 7 8 9 10 11 (certain operators may charge for these calls),
- at the following standard number: +32 22999696,
- via the following form: european-union.europa.eu/contact-eu/write-us_en.

FINDING INFORMATION ABOUT THE EU

Online

Information about the European Union in all the official languages of the EU is available on the Europa website (european-union.europa.eu).

EU publications

You can view or order EU publications at op.europa.eu/en/publications. Multiple copies of free publications can be obtained by contacting Europe Direct or your local documentation centre (european-union.europa.eu/contact-eu/meet-us_en).

EU law and related documents

For access to legal information from the EU, including all EU law since 1951 in all the official language versions, go to EUR-Lex (eur-lex.europa.eu).

EU open data

The portal data.europa.eu provides access to open datasets from the EU institutions, bodies and agencies. These can be downloaded and reused for free, for both commercial and non-commercial purposes. The portal also provides access to a wealth of datasets from European countries.

This document presents the analysis of the responses received in section D “Looking into the R&I future priorities 2025-2027” of the public consultation on the past, present and future of the European Research & Innovation Framework programmes 2014-2027. The consultation, which ran from 30 November 2022 to 23 February 2023, received 2,258 responses and 108 position papers specifically related to the section “Looking into the R&I future priorities 2025-2027”.

The analysis of these responses provides valuable insights into the priorities and concerns of stakeholders within the European Research & Innovation community and will be useful in shaping the future direction of the Framework programmes.

Studies and reports

Publications Office
of the European Union