



European
Commission

Results of Horizon 2020 Stakeholder Consultation

Interim Evaluation of Horizon 2020



Research and
Innovation



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Results of Horizon 2020 Stakeholder Consultation

Interim Evaluation of Horizon 2020

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FOREWORD

Horizon 2020, the EU Framework Programme for Research and Innovation, has become a cornerstone of Europe's research and innovation ecosystem.

The recently completed evaluation of Horizon 2020 has confirmed this. We launched this evaluation to assess the progress made so far on the basis of five evaluation criteria: coherence (internally and with other EU programmes and national initiatives), effectiveness, efficiency, EU added value, and relevance. As an integral part of this interim evaluation, a public consultation was held.

The views of stakeholders presented an invaluable source of insight. After all, it is the researchers and innovators in Europe and beyond who make the programme the success it is. This enormous interest in, and engagement with, Horizon 2020 is evident in the overwhelming response to the consultation: nearly 3500 replies to the online questionnaire and more than 300 position papers were submitted.

The consultation results demonstrate the wide reach and strong relevance of the programme, with responses received from 69 countries. We take heart from the strong indications that Horizon 2020 is on track to achieve its major objectives, with 95% of respondents agreeing that the programme contributes to boosting jobs and growth and 92% agreeing that it helps to strengthen the role of the European Union as a global actor. The additionality of Horizon 2020 is shown by the fact that 83% of the participants could not have done their research project without EU financial support. Most importantly, we take pride in the very high rate of satisfaction: 80% are satisfied or very satisfied with the simplification of rules and procedures under Horizon 2020.

We take the stakeholder consultation seriously, which is why we have committed to publishing this detailed analysis of the results. There are many revealing findings throughout, for example on the flexibility of the programme, on the simplification of rules, or the European added value of the programme as perceived by stakeholders. Each section contains a concluding set of key messages and suggested areas for improvement. The publication concludes with a separate assessment of the submitted position papers.

I am very grateful to all those who participated in the consultation – your feedback has enabled us to enrich the interim evaluation of Horizon 2020. It will also be an important basis and source of inspiration as we prepare for its successor.



Robert-Jan Smits
Director-General
Directorate-General for Research and
Innovation

A handwritten signature in black ink, consisting of a large, stylized 'R' followed by a horizontal line and a small flourish.

1. INTRODUCTION

A public stakeholder consultation on the interim evaluation of Horizon 2020 was launched on 20 October 2016 and closed on 15 January 2017. This document presents an analysis of the responses received, structured according to the five evaluation criteria:

- Relevance
- Effectiveness
- Efficiency and use of resources
- Coherence
- EU added value

The document concludes with the analysis of 296 position papers also received within the context of the stakeholder consultation.

2. OVERVIEW OF RESPONDENTS

2.1. Who are the respondents?

In total 3483 responses to the online questionnaire were received:

- 49% (1721) from individuals;
- 5% (175) from representatives of "umbrella" organisations of EU interest; and
- 46% (1587) from representatives of a single institution or a company.

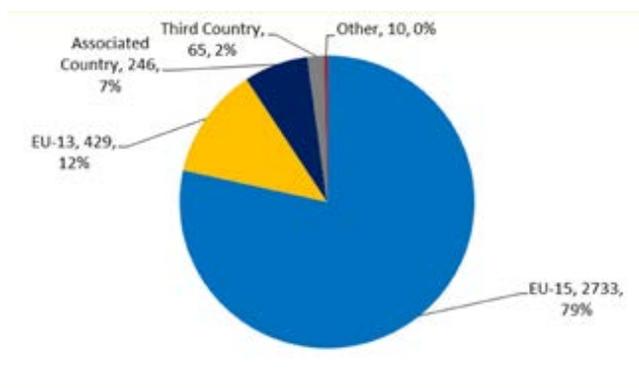
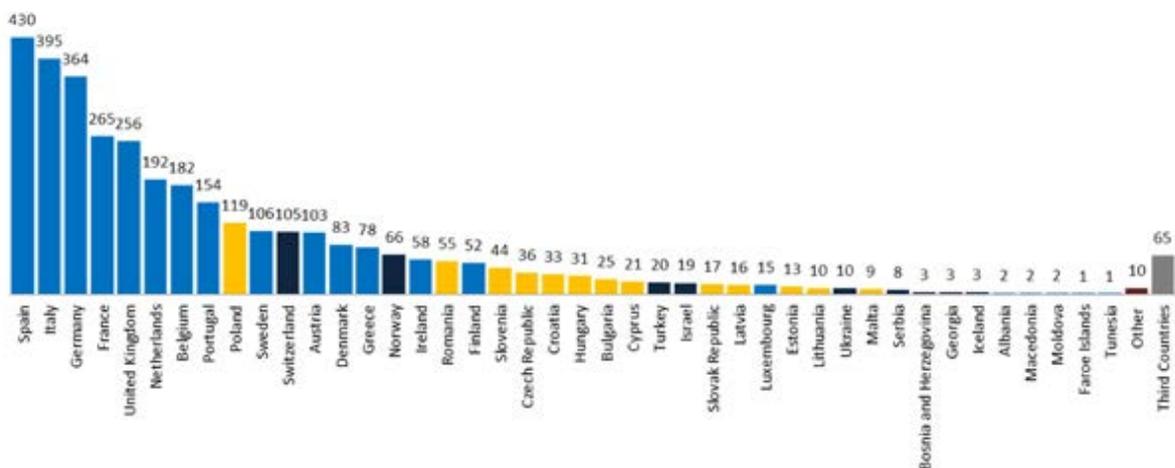
Among different types of organisations, the highest number of responses was submitted by businesses (687 or 20%), of these 65% (443) were SMEs.

Answers came from 69 different countries. However, the majority of the respondents come from EU-15 countries with Spain and Italy being the most active. 65 respondents come from third countries.

Table 1 What type of organisation do you represent?

| Type of respondent | 1. I am responding | Total | % of respondents |
|--------------------------------------|--|-------------|------------------|
| As an individual | n/a | 1721 | 49.4% |
| Academia | On behalf of a single institution/company | 297 | 8.5% |
| | On behalf of an "umbrella" organisation of EU interest | 27 | 0.8% |
| Business | On behalf of a single institution/company | 664 | 19.1% |
| | On behalf of an "umbrella" organisation of EU interest | 23 | 0.7% |
| Non-Governmental Organisation | On behalf of a single institution/company | 88 | 2.5% |
| | On behalf of an "umbrella" organisation of EU interest | 37 | 1.1% |
| Public authority | On behalf of a single institution/company | 133 | 2.9% |
| | On behalf of an "umbrella" organisation of EU interest | 13 | 1.6% |
| Research organisation | On behalf of a single institution/company | 305 | 8.8% |
| | On behalf of an "umbrella" organisation of EU interest | 20 | 0.6% |
| Other | On behalf of a single institution/company | 100 | 3.8% |
| | On behalf of an "umbrella" organisation of EU interest | 55 | 0.4% |
| Total | | 3483 | 100.0% |

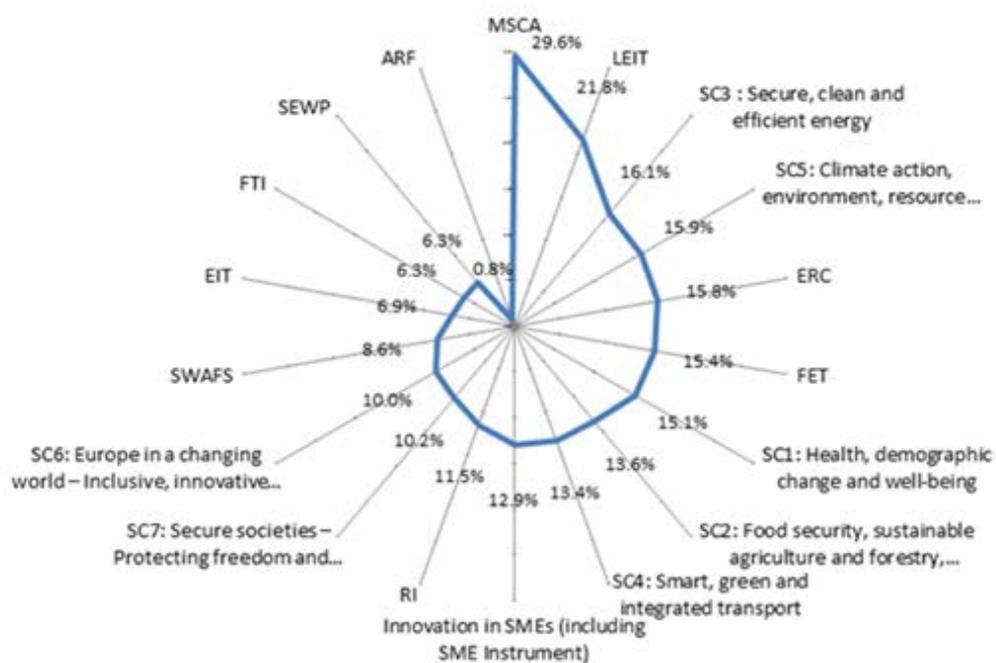
Figure 1 Country of respondents



2.2. Which part of the programme have they participated in?

76% (2648) of the respondents received support from different parts of the Horizon 2020 programme. Most commonly, they participated in the Marie Skłodowska-Curie Actions (MSCA, 30% of respondents) or the Leadership in Enabling and Industrial Technologies (LEIT, 22% of respondents) parts of the programme. 30% (790) of the respondents who received support from Horizon 2020 are newcomers to the programme (not having participated in FP7).

Figure 2 Share of respondents that have participated in Horizon 2020 (2648) stating which part of the programme they have participated in



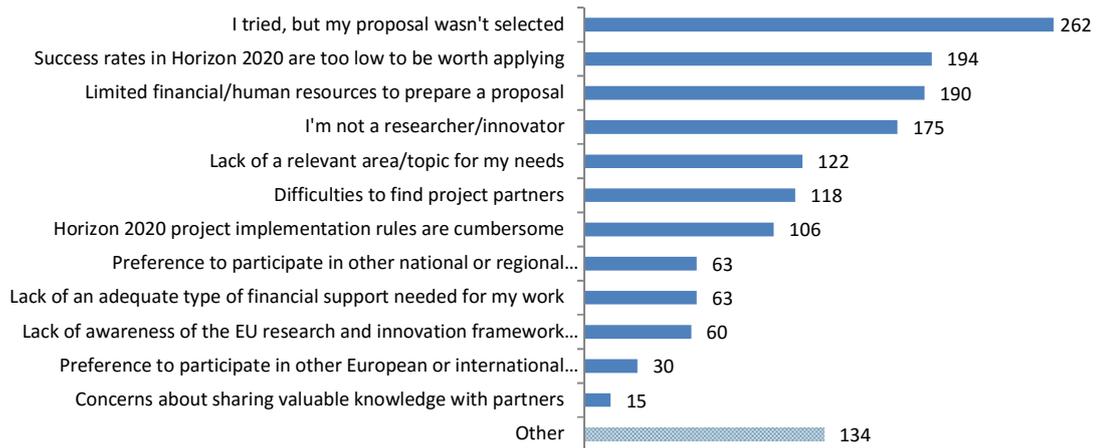
| Horizon 2020 Pillar | Number of respondents | Share of respondents |
|---------------------|-----------------------|----------------------|
| Societal Challenges | 2227 | 36.6% |
| Excellent Science | 2185 | 35.9% |
| LEIT | 940 | 15.4% |
| Other | 745 | 12.2% |

2.3. Main reasons for not participating

24% (835) of respondents did not receive support from Horizon 2020. Besides not being funded, the main reasons for not participating in Horizon 2020 were:

- 1) Success rates in Horizon 2020 are too low to be worth applying; and
- 2) Limited financial/human resources to prepare a proposal.

Figure 3 Main reasons for not participating to Horizon 2020 (max 3 answers)



Out of the 134 respondents who listed "Other", 58 were not researchers/ innovators and a few more quoted reasons for not participating that are already listed above ('lack of relevant topics-areas', for example, because topics are too broad and limited resources). 8 indicated they were in the process of applying or were awaiting results after a proposal submission, while 5 were still involved in ongoing FP7 projects that had prevented them from applying to the new programme. A few mentioned conflicts of interest or a desire to maintain an independent view of the programme, for example consulting firms involved in evaluations of Framework Programmes (FPs).

Some respondents commented on Horizon 2020 requirements that had hampered their participation mostly because they applied from third countries (e.g. Swiss respondents). Among other reasons for not participating were the lack of incentives, lack of awareness of the Horizon 2020 programme, lack of experience in participating in such a programme, and the limited involvement of end-users in FP projects.

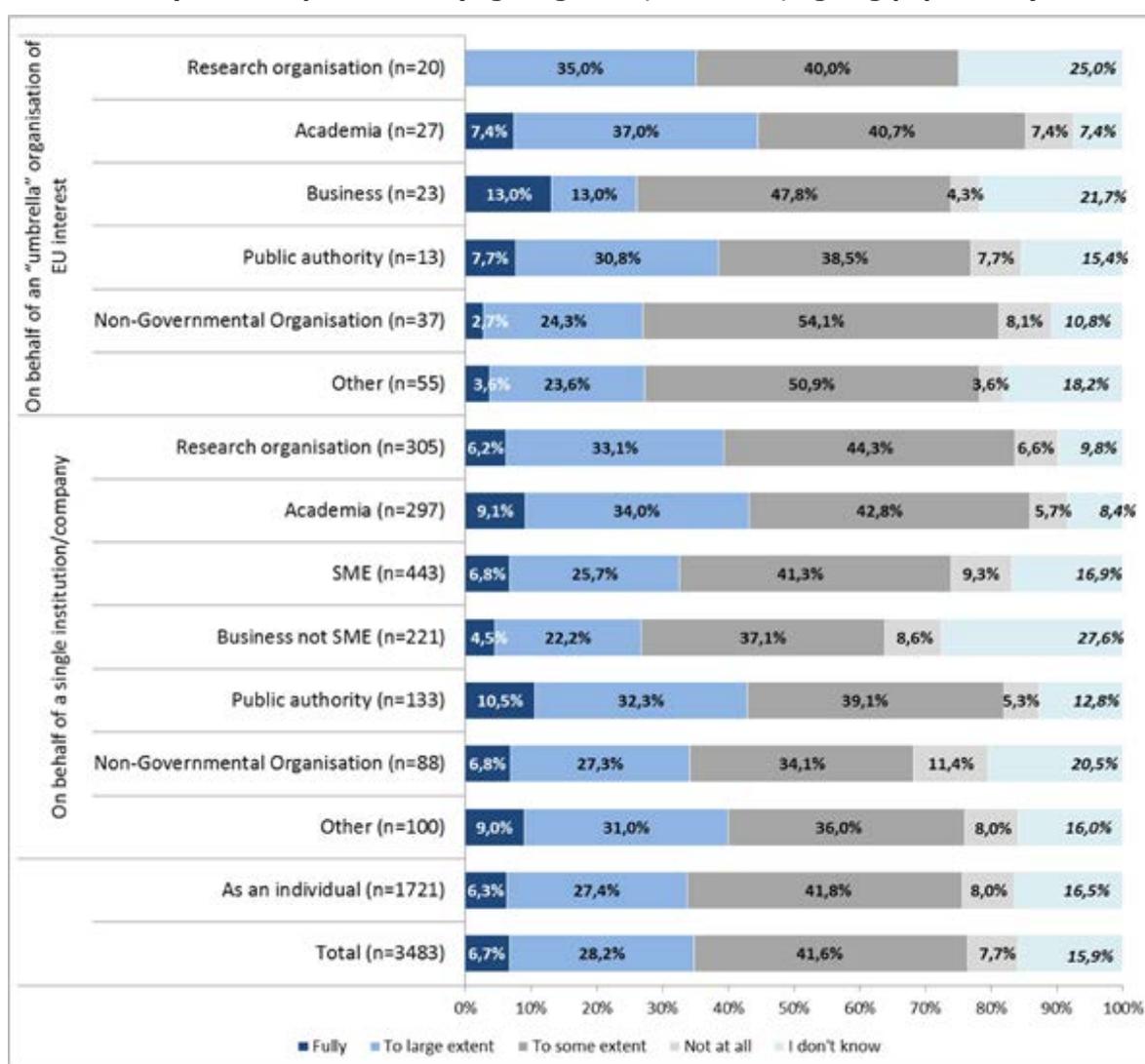
3. RELEVANCE

3.1. Is Horizon 2020 tackling the right issues?

3.1.1. The relevance of Horizon 2020 given the challenges to address

When asked whether Horizon 2020 priorities address the current challenges confronted by the European Union (e.g. migration, terrorism, ageing population), 77% of the consultation respondents agree fully or to a large extent, and 8% judge that it is not the case at all. Academia and research organisations tend to be more positive (86-83% think it does at least to some extent) than business (71% think it does at least to some extent).

Figure 4 Do you think that Horizon 2020 priorities address the current challenges confronted by the European Union (e.g. migration, terrorism, ageing population)?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

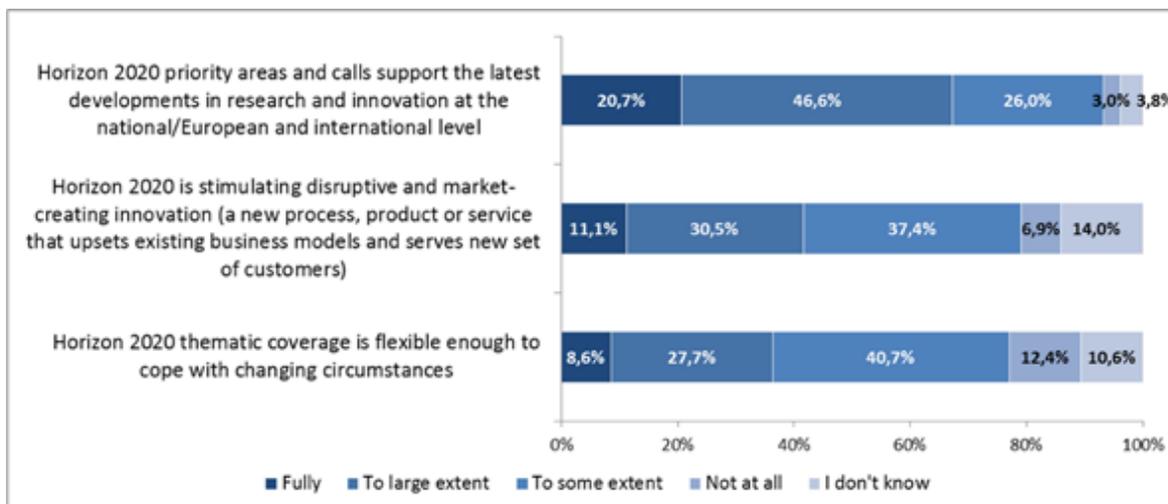
3.1.2. The relevance of Horizon 2020 to address European objectives

Almost all the consultation respondents agreed to some extent or more that **Horizon 2020 is contributing to support jobs, growth and investments (95%) and to foster the role of the European Union as a stronger global actor (92%).**

The vision of respondents on the contribution of Horizon 2020 to other EU priorities is more nuanced: 74% agree to some extent or more that Horizon 2020 is contributing to

achieving a deeper and fairer internal market with a strengthened industrial base, 72% to promoting an Energy Union with a forward-looking climate policy (25% do not share this vision at all, that is the priority which sees the highest proportion of disagreement), and 66% to helping to create a Digital Single Market (however 29% of respondents declare that they do not know).

Figure 5 Do you think that Horizon 2020 is contributing to the following priorities of the European Union?

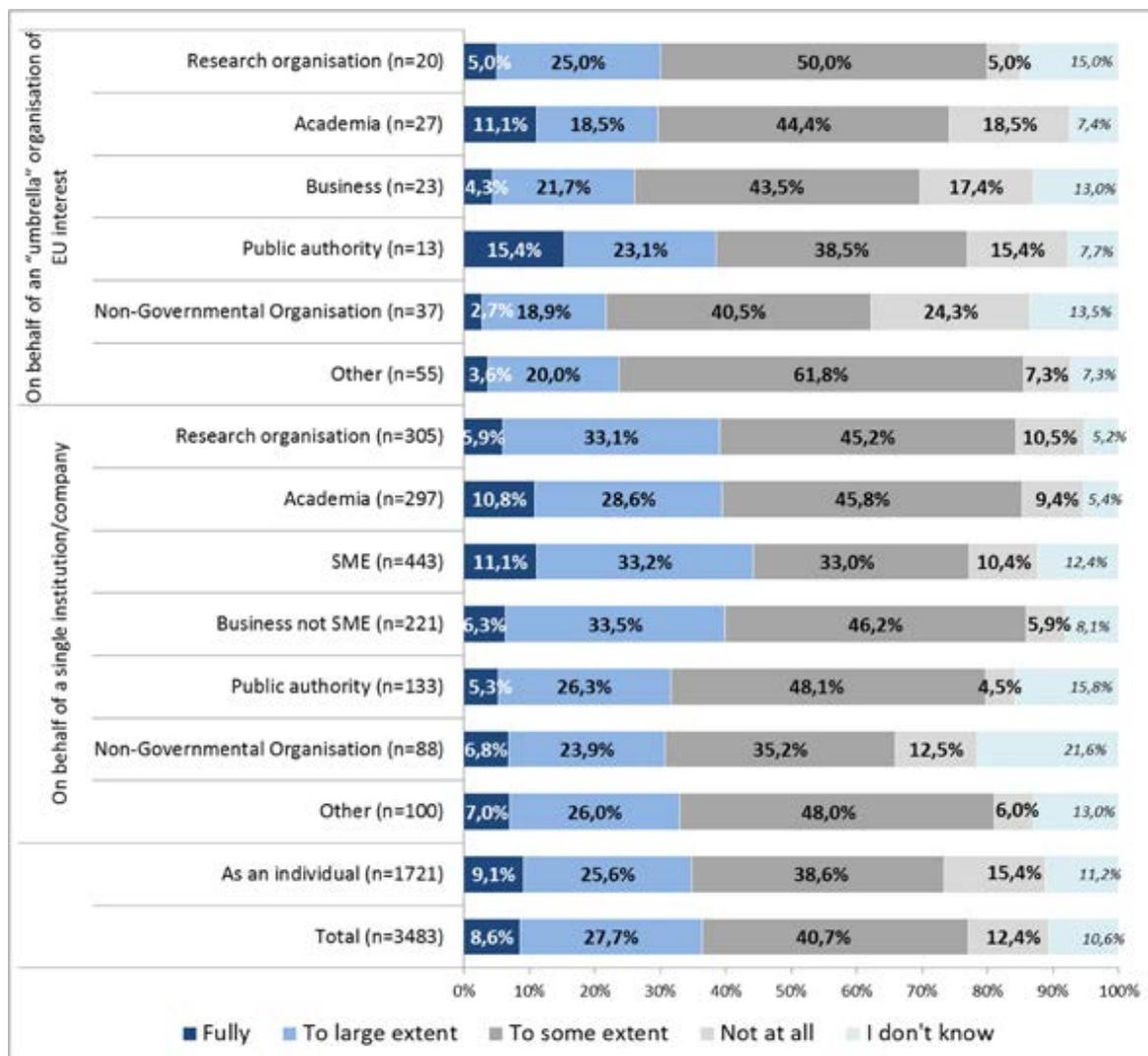


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

3.2. Does Horizon 2020 allow adapting to new scientific and socio-economic developments?

While the majority of consultation respondents thought that the programme's thematic coverage was flexible enough to cope with changing circumstances (77% agree to some extent or more), the rate of disagreement is higher than for other statements (12% do not agree at all). In addition, NGOs tended to disagree more than the other categories of respondents (16% of NGOs do not agree at all).

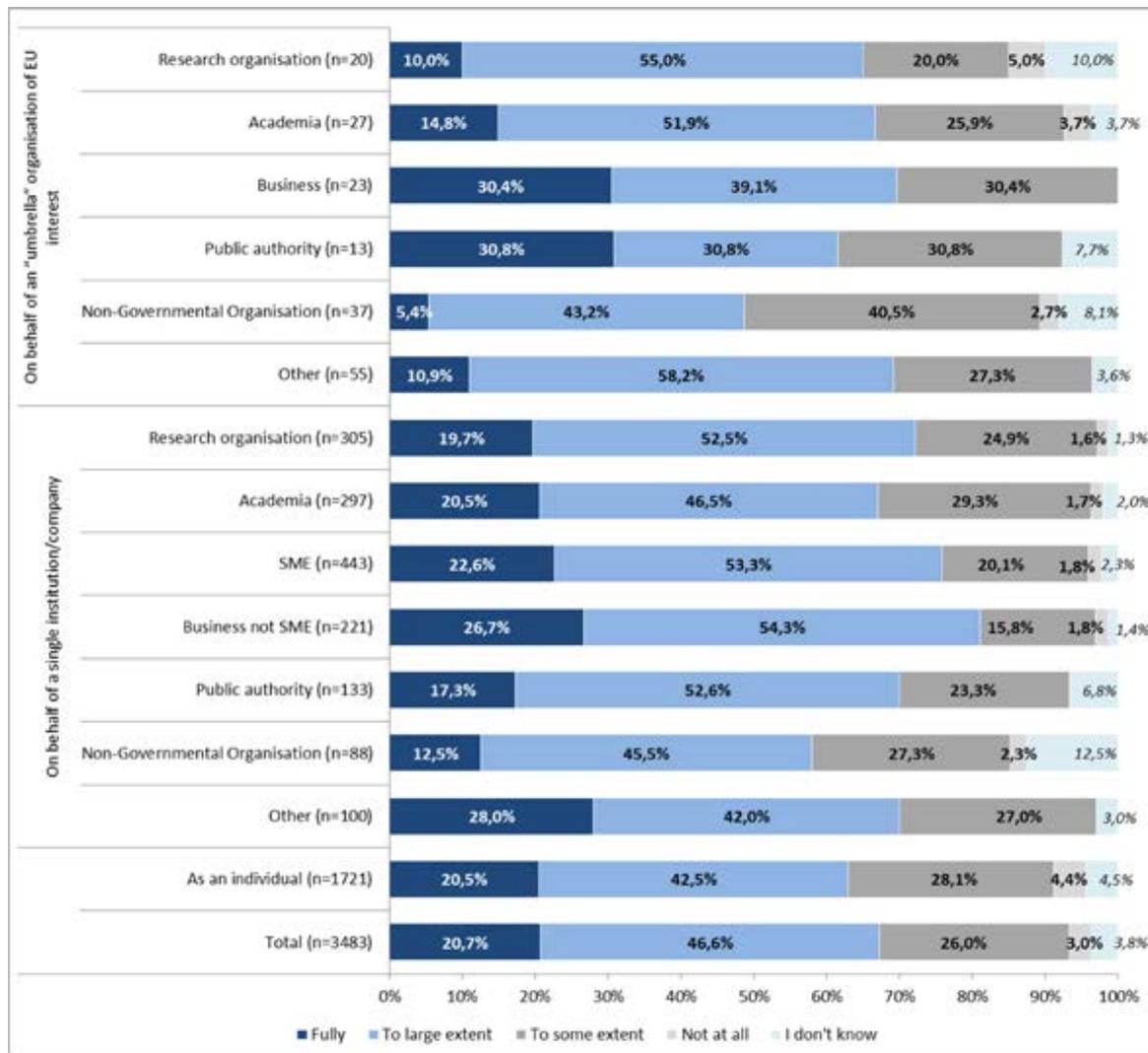
Figure 6 Do you think that Horizon 2020 thematic coverage is flexible enough to cope with changing circumstances?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

A high percentage of respondents agreed, to some extent or more, that Horizon 2020 supported the latest developments in research and innovation (93% of agreement rate). The most positive respondents are business and public authorities.

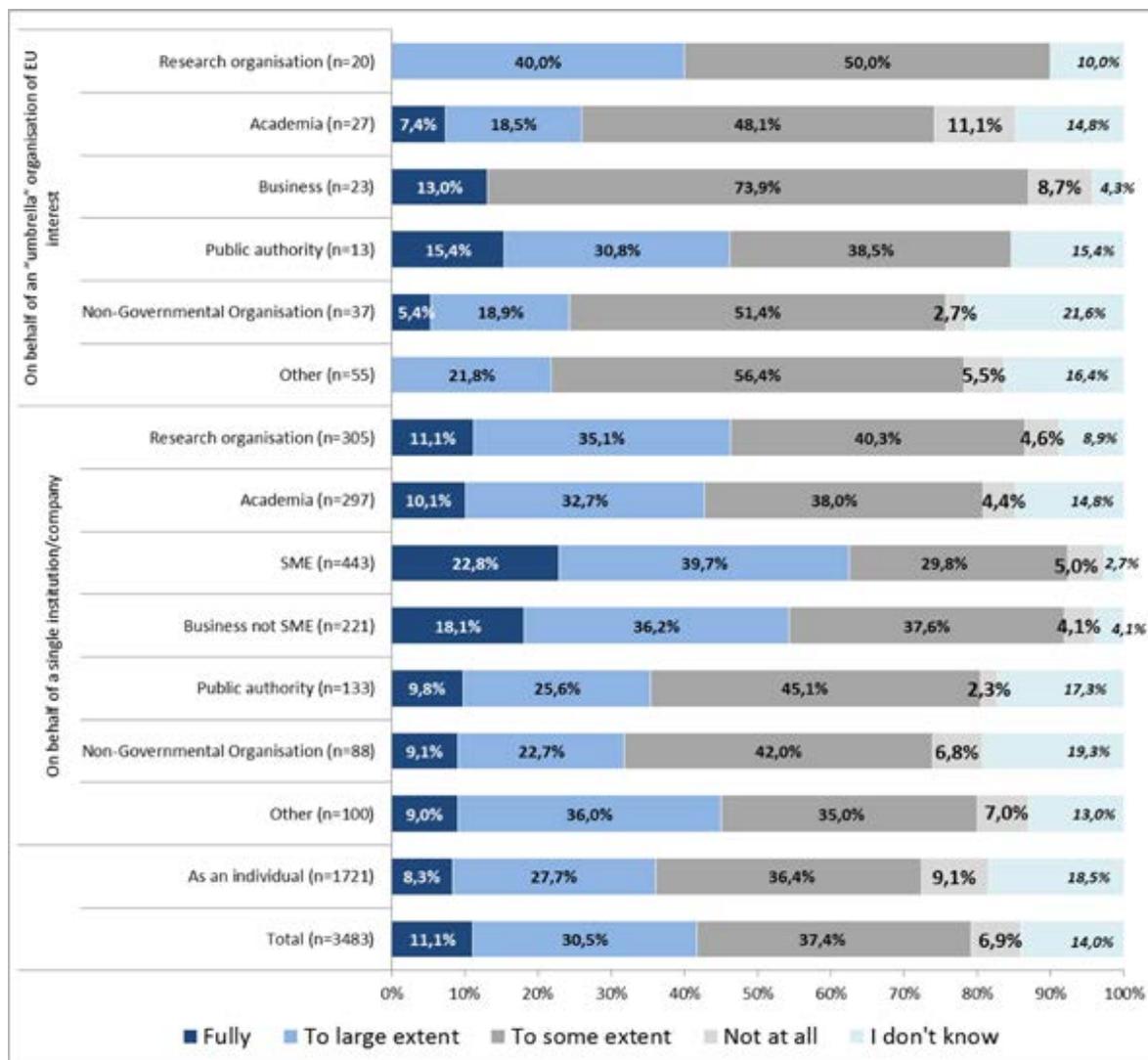
Figure 7 Do you think that Horizon 2020 priority areas and calls support the latest developments in research and innovation at the national/European and international level?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Overall, consultation respondents think that Horizon 2020 is stimulating disruptive and market-creating innovation but a large share think this is only the case to some extent (37%). The most positive respondents on this question are SMEs, with 63% thinking that Horizon 2020 is fully or to a large extent stimulating disruptive and market-creating innovation.

Figure 8 Do you think that Horizon 2020 is stimulating disruptive and market-creating innovation (a new process, product or service that upsets existing business models and serves new set of customers)?



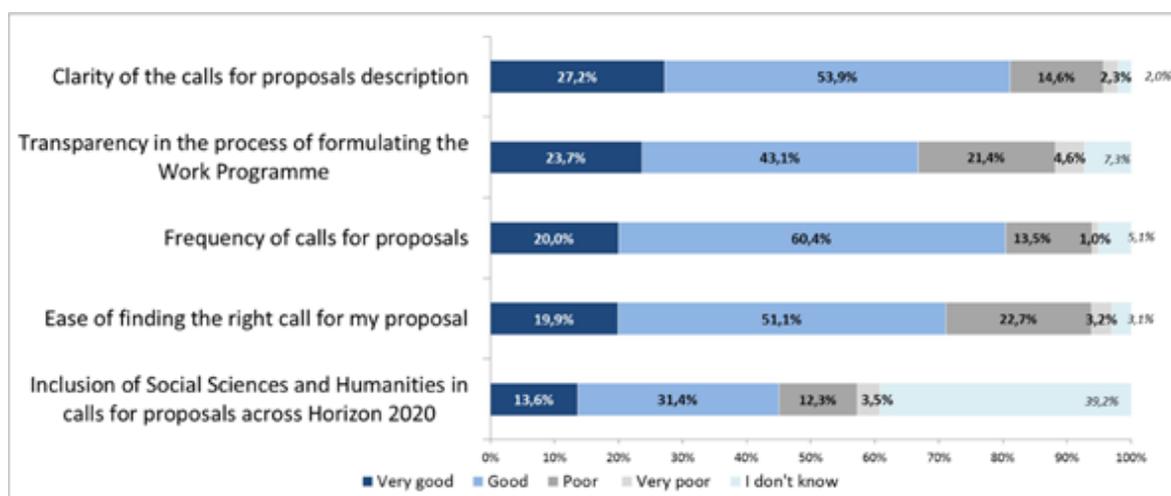
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

3.3. Is Horizon 2020 responding to stakeholder needs?

More than 80% of the consultation respondents agreed that the frequency of the calls and their clarity were either "good" or "very good".

However, the views regarding the transparency of the process of formulating the Work Programmes and the ease of finding the right call for proposal differ. Many of the respondents (67%) had a positive opinion on both these aspects. But some respondents (26%) found that the transparency of the process of formulating the Work Programmes and the ease of finding the right call "poor" or "very poor". 45% of the respondents thought that the inclusion of Social Sciences and Humanities in the calls was "good" or "very good" and many (39%) did not know.

Figure 9 Please rate the following Horizon 2020 implementation aspects – Work Programme and calls



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648.

The comments to the open responses elaborate on the observed quantitative results. Some respondents highlighted difficulties in finding and identifying the calls documents. For instance, they mentioned a lack of clarity in the calls and the dispersion of documents and information in various places. They also asked for explanatory documents, as it was judged difficult to find aggregated and clear information on the programme.

In addition, through an open question, consultation respondents were asked to outline the main reasons for participating in Horizon 2020. Three main reasons stand out from the analysis, pointing to the type of needs Horizon 2020 is able to address:

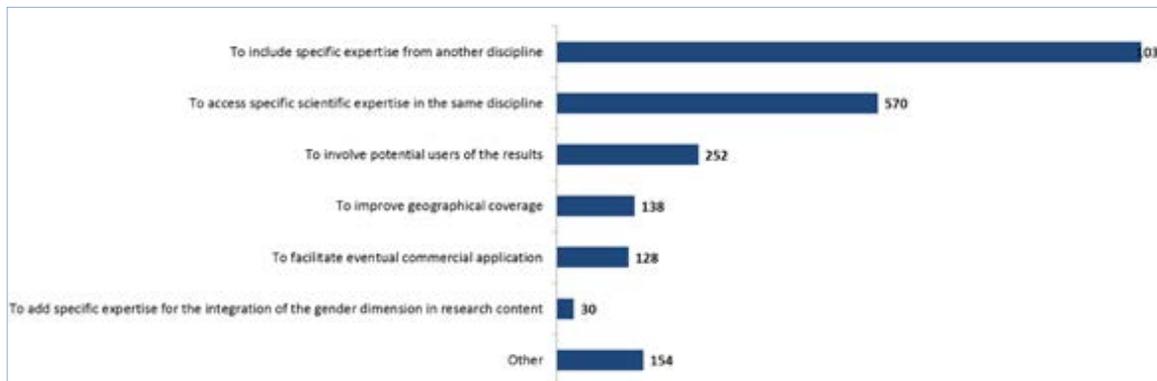
- Respondents highly valued the **financial support** provided by Horizon 2020 (with a few respondents underlying the long-term and reliable nature of Horizon 2020 funding streams);
- Respondents valued the **access to new knowledge and know-how**, mostly through exchanges of experiences and skills with partners, that allowed them to build new competences and capacities;
- Respondents underlined that participation provided **unique opportunities for collaboration with European or international partners and for contacts with key players that were often the best in their field**. Respondents valued the opportunities to strengthen partnerships inside existing networks as much as the ability to meet new partners or build new networks. Interdisciplinary work and the opportunity to work with other types of actors (business-academia-research organisations- governments- end users) also stood out.

Among the other reasons for participating in Horizon 2020 that were underlined by respondents, it is worth mentioning the following: products, solutions development and commercialisation (mainly quoted by businesses); internationalisation, visibility and enhancement of the participants' research profile (mainly quoted by academia); the ability to advance global knowledge and solve societal challenges such as climate change and health; and the ability to perform or have access to high-profile research. Some business respondents also mentioned growth opportunities and a better or secured position on markets, as well as the ability to develop innovation faster.

30% (790) of the respondents who received support from Horizon 2020 are newcomers to the programme (not having participated in FP7). 87% (2310) of respondents who received support from Horizon 2020 are cooperating with a new partner(s) in Horizon 2020. The main reason for collaboration with new partners in Horizon 2020 is to include specific expertise from another discipline. Out of the 134 respondents, who listed "Other reasons", 52 explained that they could not choose only one main reason and that various or all reasons applied. 28 were approached by other organisations and were not themselves engaged in finding new

partners. Other reasons include: accessing new contacts, larger networks, expertise or information on local specificities for product development, and benchmarking organisations' practices (for public authority).

Figure 10 Why did you look for a new partner (one main reason)?



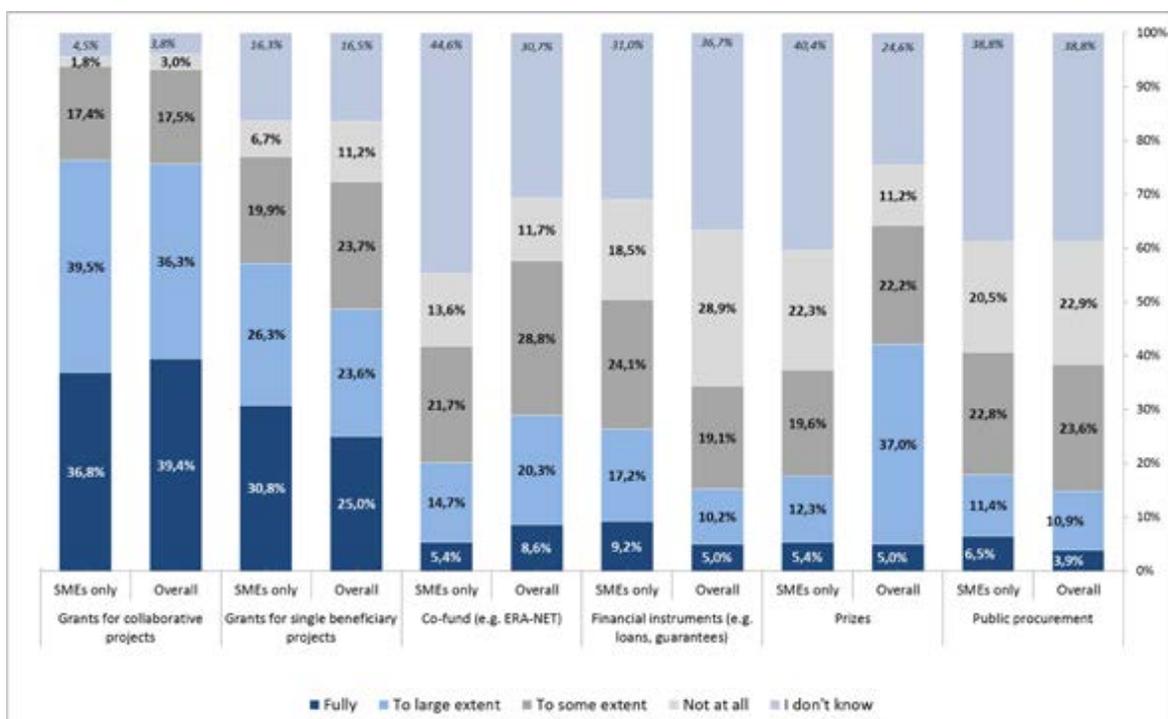
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2310.

When asked whether the different forms of funding provided through Horizon 2020 are relevant to their needs or not, **76% of consultation respondents agreed that grants for collaborative projects are “fully” or “largely” relevant to their needs**, while 49% do so for grants for single beneficiary projects. Grants are therefore considered by consultation respondents to be the most relevant forms of funding provided through Horizon 2020, followed by co-funding actions, prizes, financial instruments and public procurement.

Compared to other respondents, **SMEs value more the financial instruments and the grants for single beneficiary projects**. However they seem to be less aware of prizes than other types of stakeholders.

It is also worth noting that some **8% of the respondents who did not participate in Horizon 2020 underline that they lacked an adequate type of financial support for their work and 15% mentioned that the programme lacked a relevant area/ topic for their needs** (see Figure 2). This therefore suggests that despite increased interest from newcomers, there is still room for attracting more participants.

Figure 11 Are the forms of funding provided through Horizon 2020 relevant to your needs?

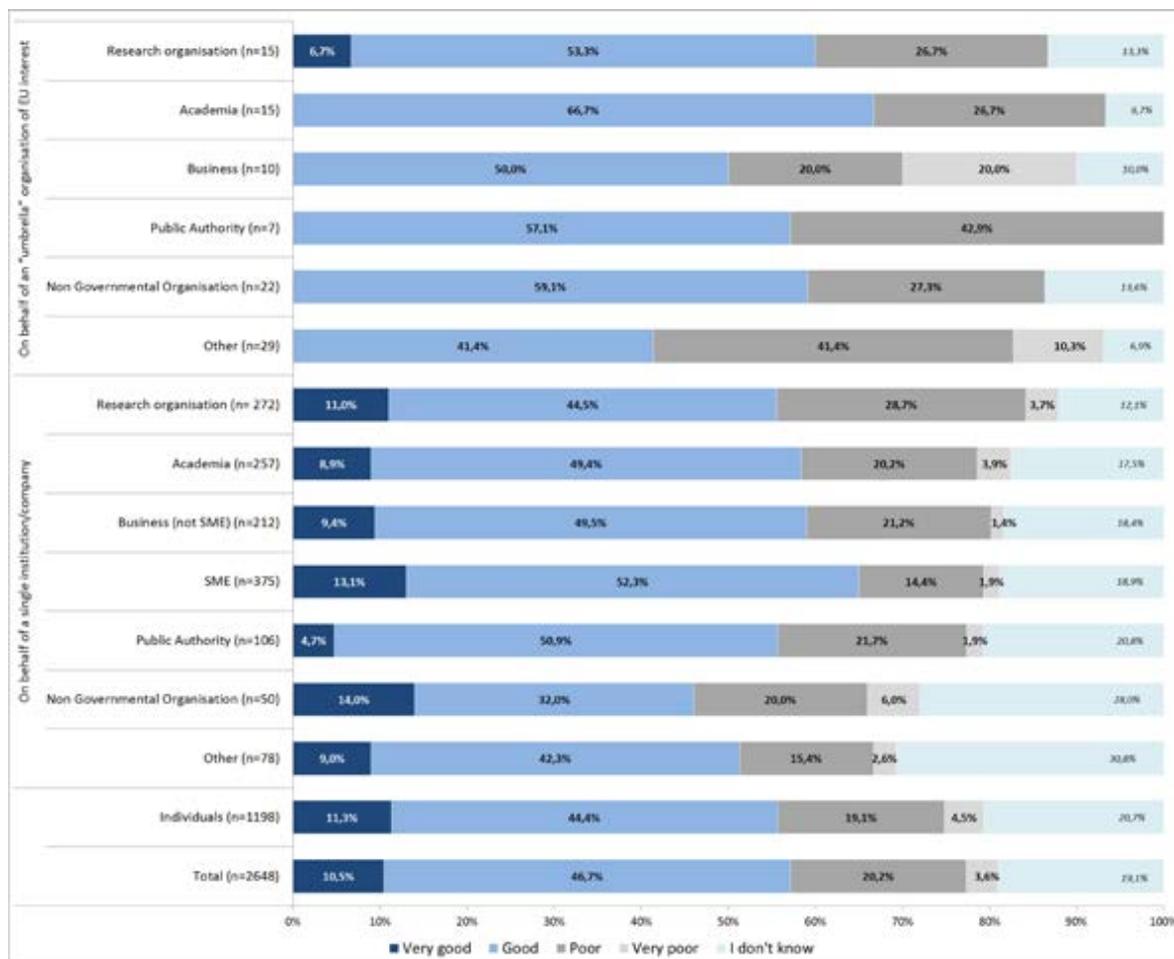


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Additional comments provided by survey respondents in the open boxes corroborated these results. Collaborative grants and the European Research Council stood out as being particularly relevant to respondents. Some respondents specified that they found grants more relevant than financial instruments (this applies to research organisations and academia as well as to business respondents). Some respondents indicated that Horizon 2020 is too costly and the process is too slow and complex to efficiently meet their needs.

57% of the respondents find the balance between small and large projects in calls for proposals "good" or "very good", but 24% of them find it "poor" or "very poor" and 19% of respondents do not know. In their open comments, consultation respondents asked for more opportunities for small projects (although some respondents are in favour of more support for large-scale demonstrators), more prescriptive calls (to decrease the number of applicants); and more funding opportunities for SMEs.

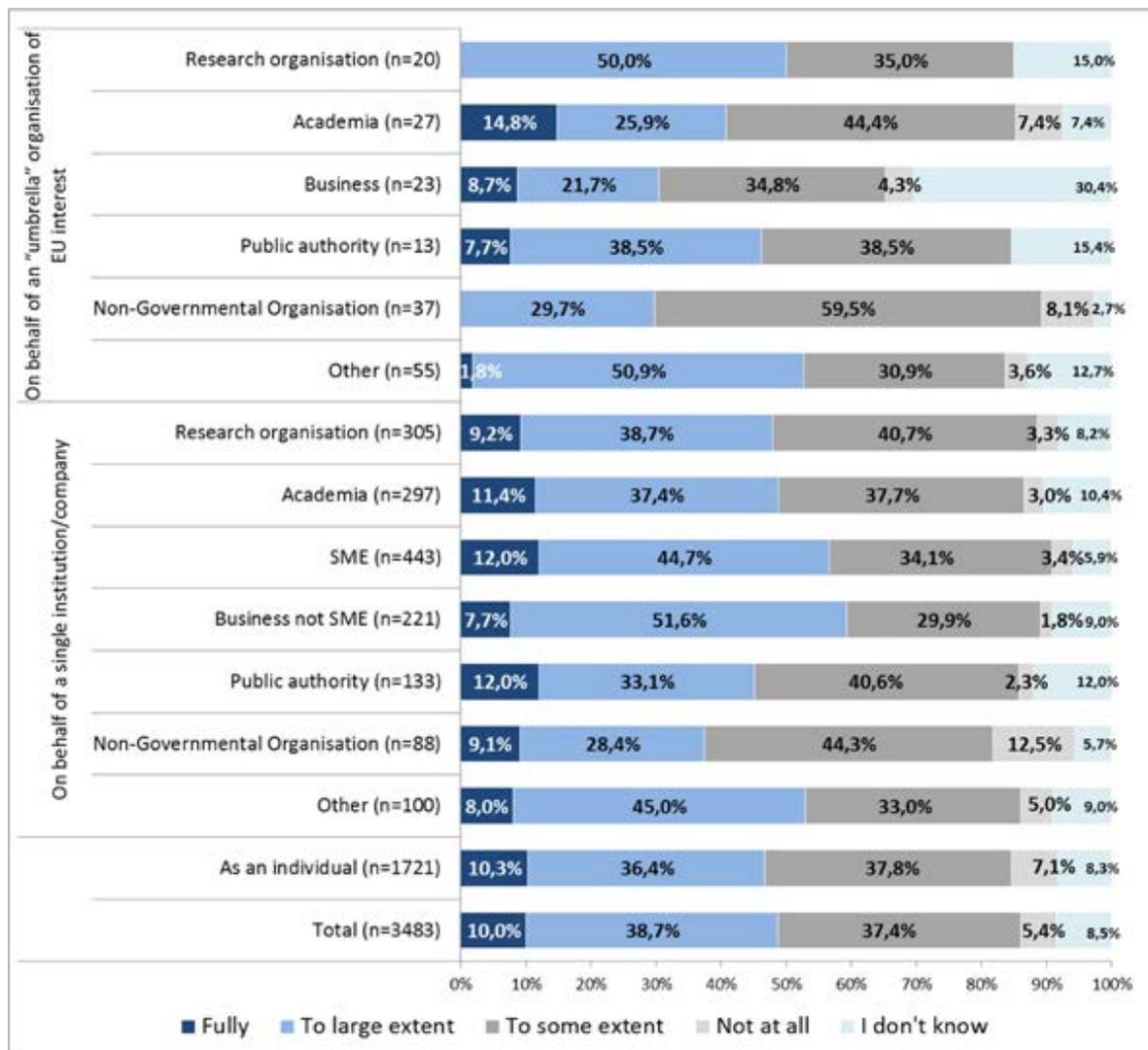
Figure 12 Please rate the balance between small and large indicative project sizes in the calls for proposals



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648.

A high percentage of respondents agreed, to some extent or more, that Horizon 2020 addresses the main citizens' needs (86% agreement rate), however 37% agree only to some extent. The least positive respondents are NGOs.

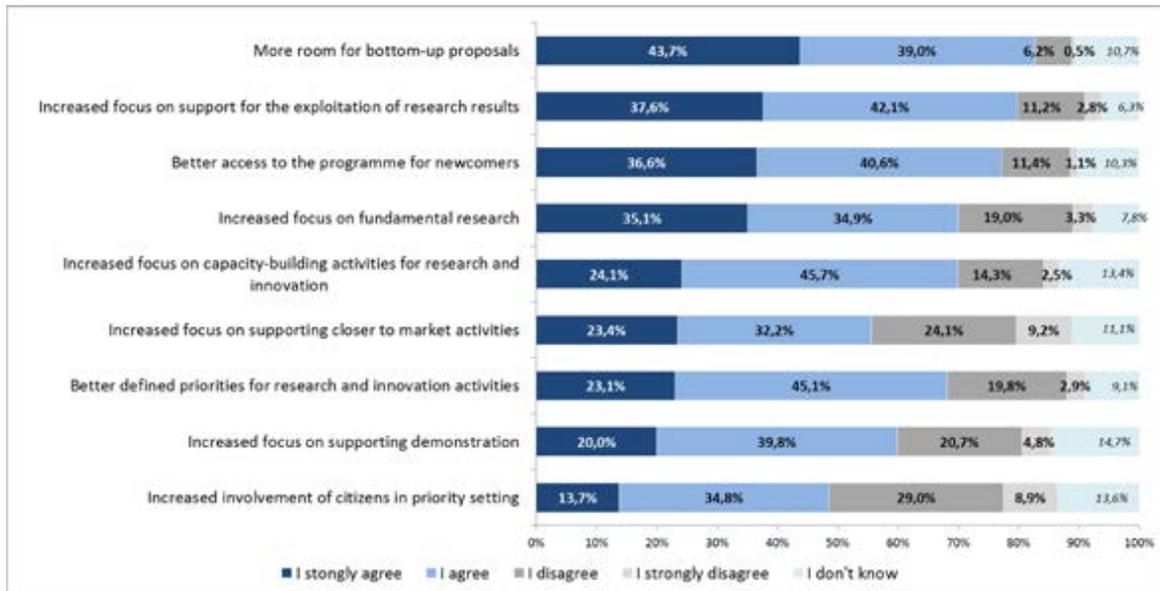
Figure 13 Do you think that Horizon 2020 addresses the main citizens' needs in terms of research and innovation?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Among the issues listed as needed to further maximize the socio-economic impact of the EU framework programme for research and innovation, four items stood out (i.e. more than 30% of respondents strongly agreed): **i) more room for bottom-up proposals; ii) more focus on the support for the exploitation of research results; iii) better access to the programme for newcomers and iv) increased focus on fundamental research.**

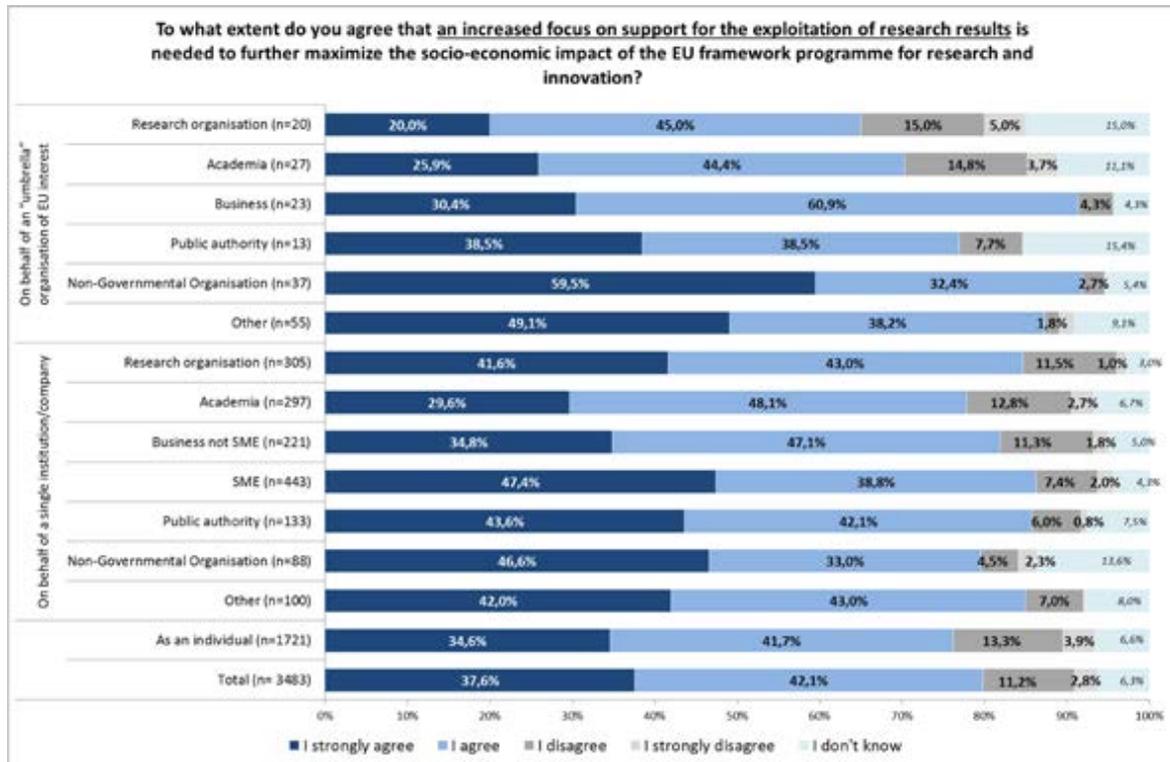
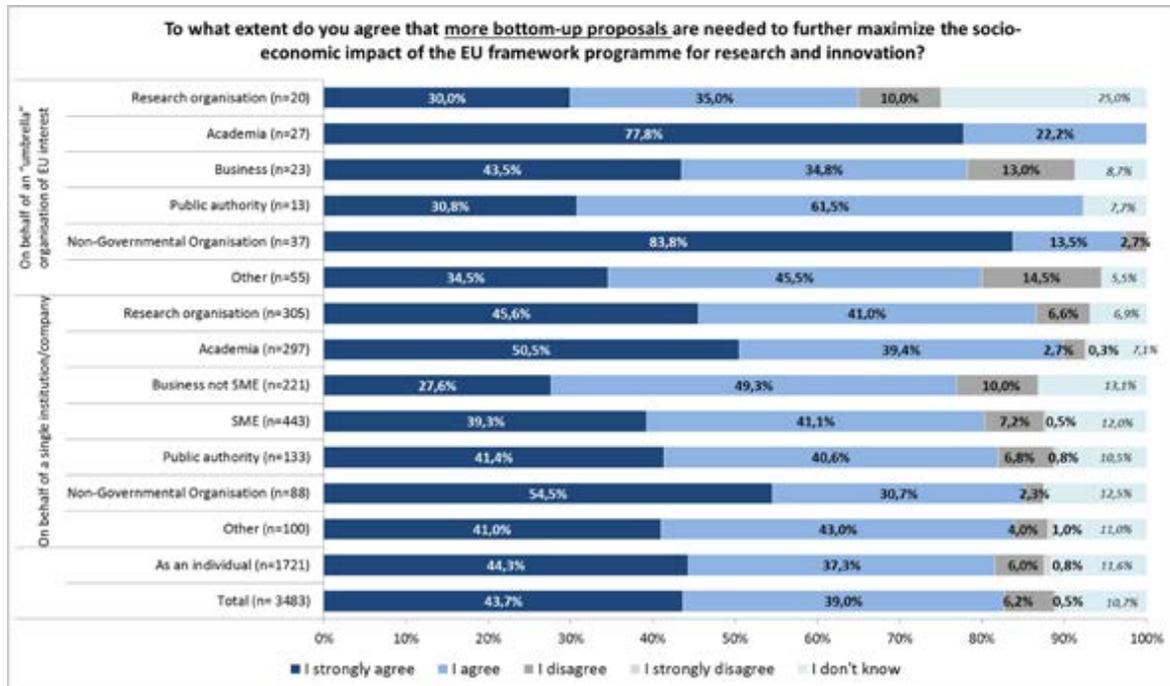
Figure 14 To what extent do you agree that the following issues are needed to further maximize the socio-economic impact of the EU framework programme for research and innovation?

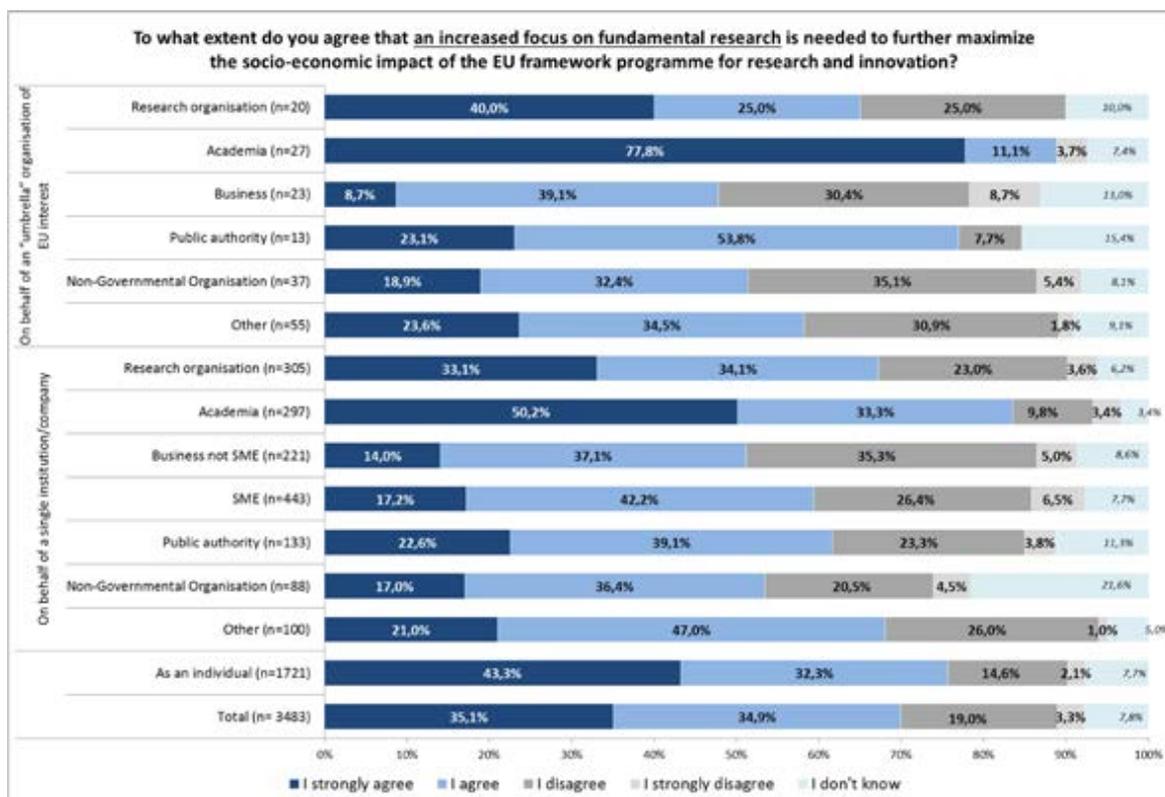
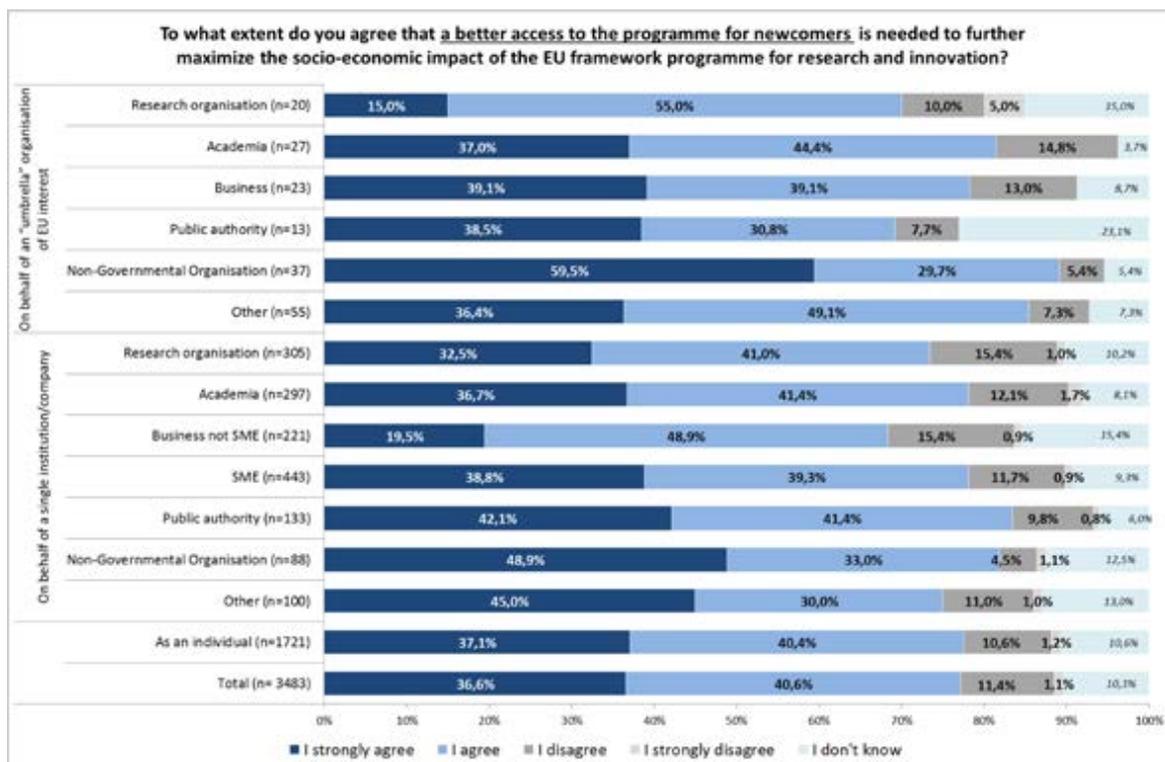


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Academia strongly agreed with the statement that suggested increasing the focus on bottom-up research and fundamental research (53% of the total number of academia respondents "strongly agreed"), whereas 48% of business respondents "strongly agreed" with an increased focus on support to closer-to-market activities, 38% with an increased focus on demonstration and 43% with an increased focus on supporting the exploitation of research results. 40% of research organisations also "strongly agreed" that more needed to be done with respect to the exploitation of research results.

Figure 15 To what extent do you agree that the following issues are needed to further maximize the socio-economic impact of the EU framework programme for research and innovation? Specific issues





Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

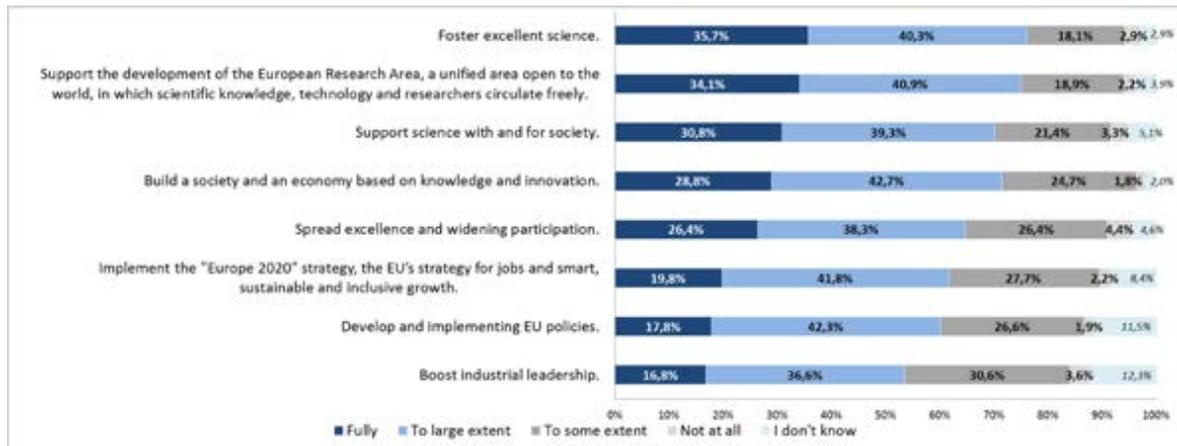
The consultation's respondents were asked to share a short, telegraphic testimonial on Horizon 2020. The results were analysed using a word cloud. The most common words used by stakeholders to express what Horizon 2020 means to them are 'research', 'innovation', 'funding', 'opportunity', 'collaboration', 'new', 'international', 'cooperation' (see below).

4. EFFECTIVENESS

4.1. Progress towards achieving Horizon 2020's objectives

Stakeholders were asked about the progress of Horizon 2020 in achieving its objectives. The figure below provides an overview of the results by each of the eight objectives. A more in-depth analysis for each objective is presented in the subsections underneath.

Figure 17 Do you think that Horizon 2020 is helping to:

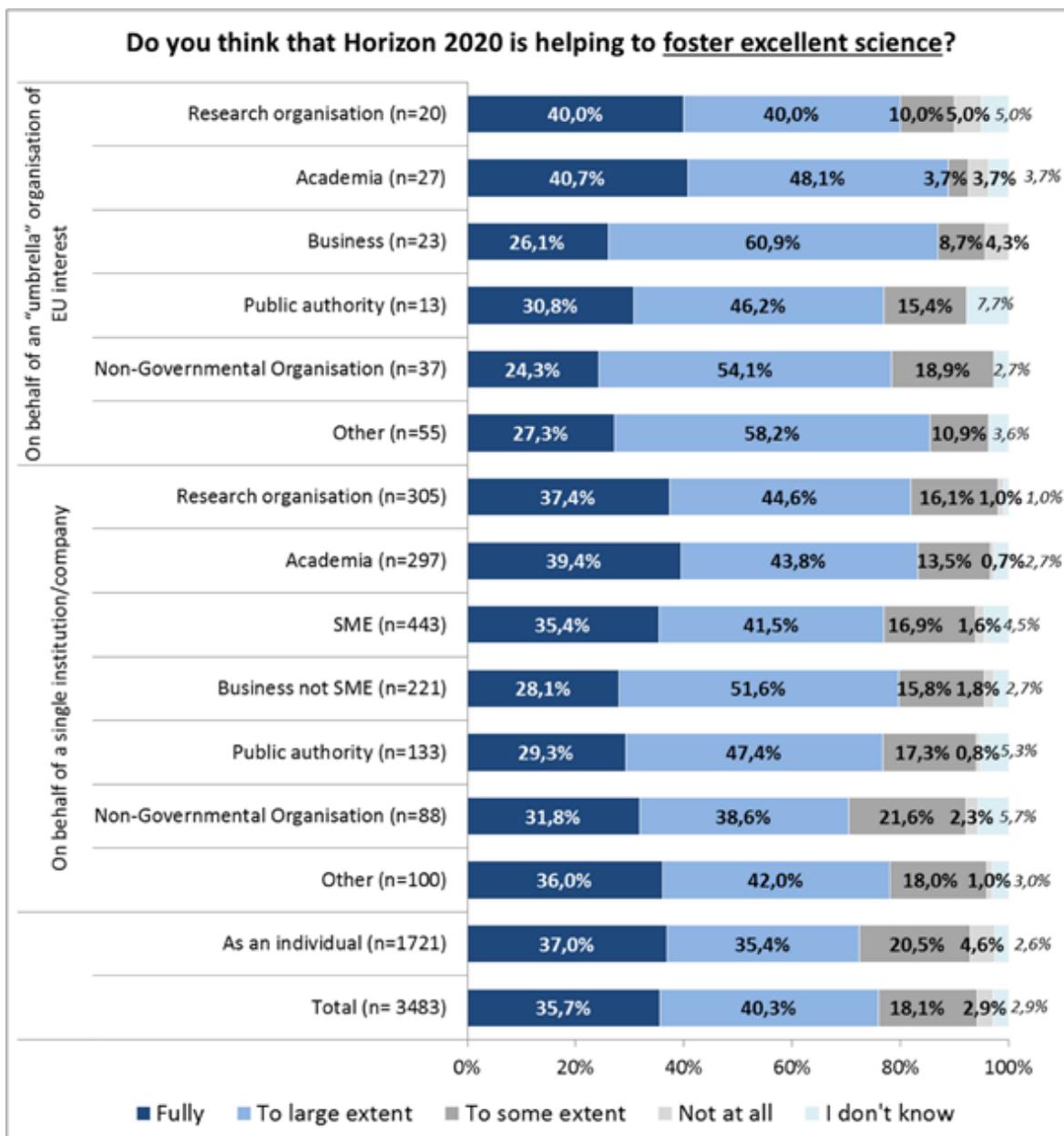


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.1. EU world-class excellence in science

94% (3279) of the public consultation respondents agreed, to some extent or more, that Horizon 2020 helps to foster excellent science. The contribution of the programme to this objective was assessed very positively, since 36% (1242) of the respondents agreed "fully" with this statement, which is the highest result scored by the statements that were proposed in the survey.

Figure 18 Do you think that Horizon 2020 is helping to foster excellent science?



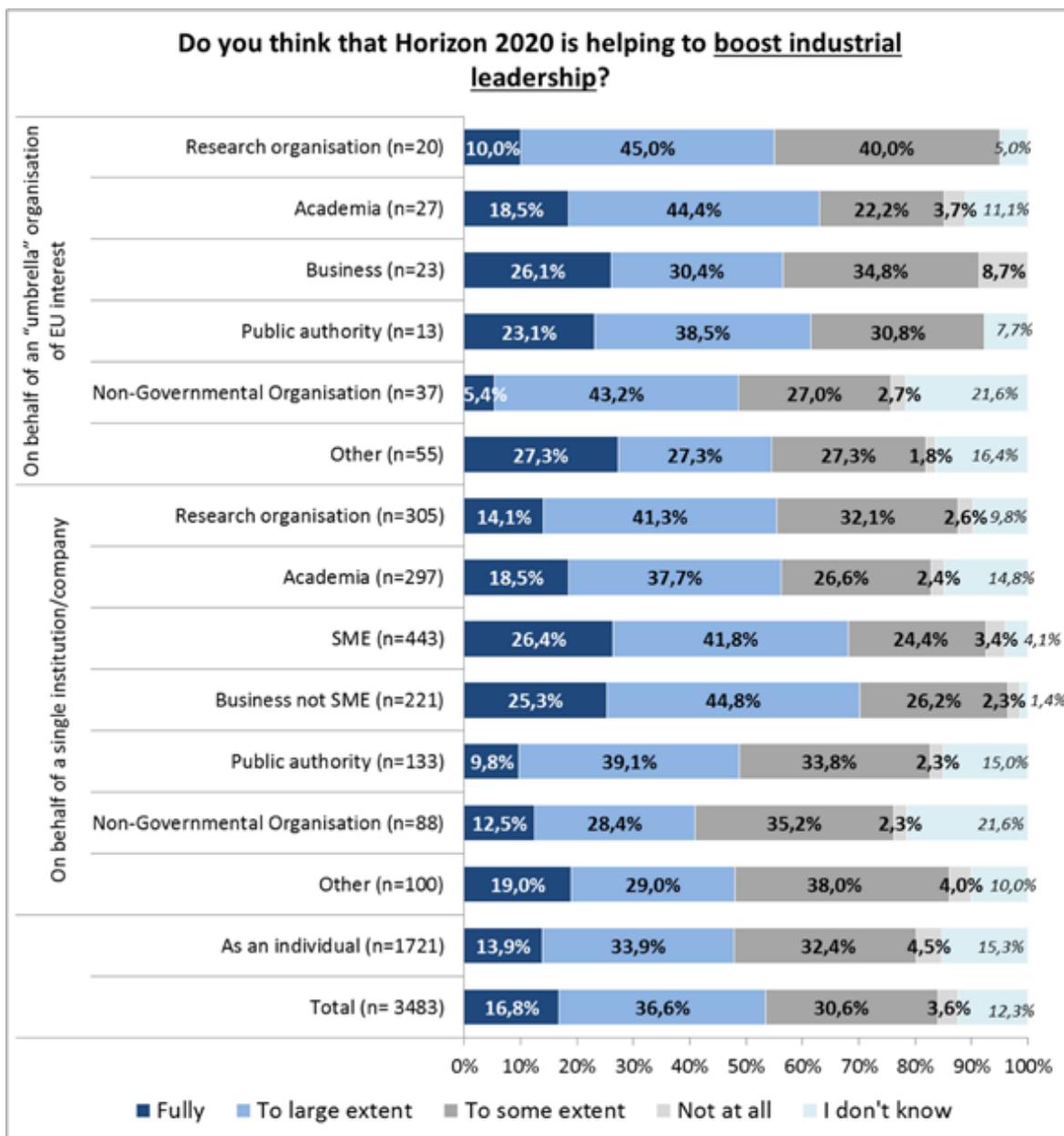
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.2. Fostering European Industrial Leadership

84% (2927) of the public consultation respondents agreed, to some extent or more, that Horizon 2020 helps foster European industrial partnerships. Businesses agreed more with this statement (94% of agreement rate) when compared to academia or research organisations (83%).

The contribution of the programme to this objective is assessed positively by a large majority of respondents, but a comparatively low number of respondents (17%) agreed "fully" with this statement. This is less than the number of respondents who did so for the contribution of the programme to fostering excellence in science. Also a comparatively large share of respondents (12%) "don't know" about the Horizon 2020 contribution to this objective.

Figure 19 Do you think that Horizon 2020 is helping to boost industrial leadership?

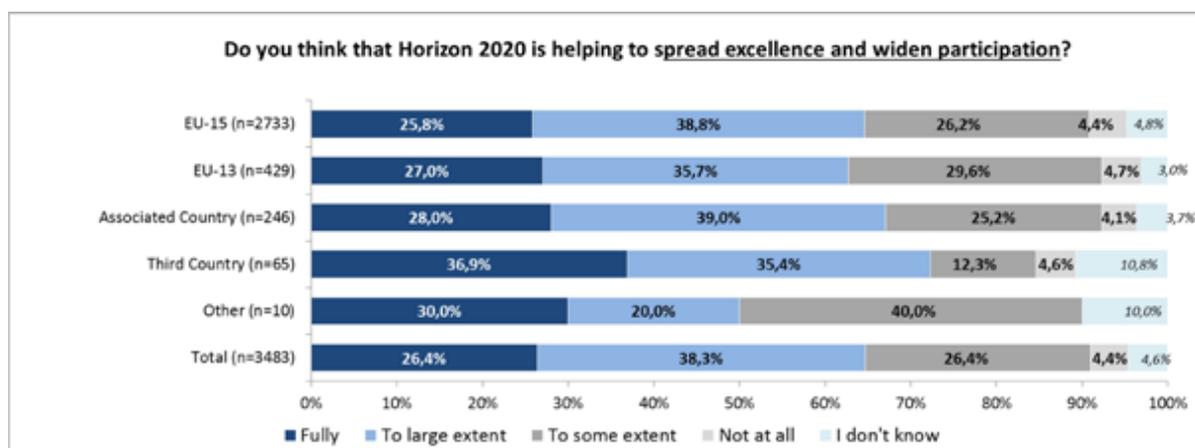
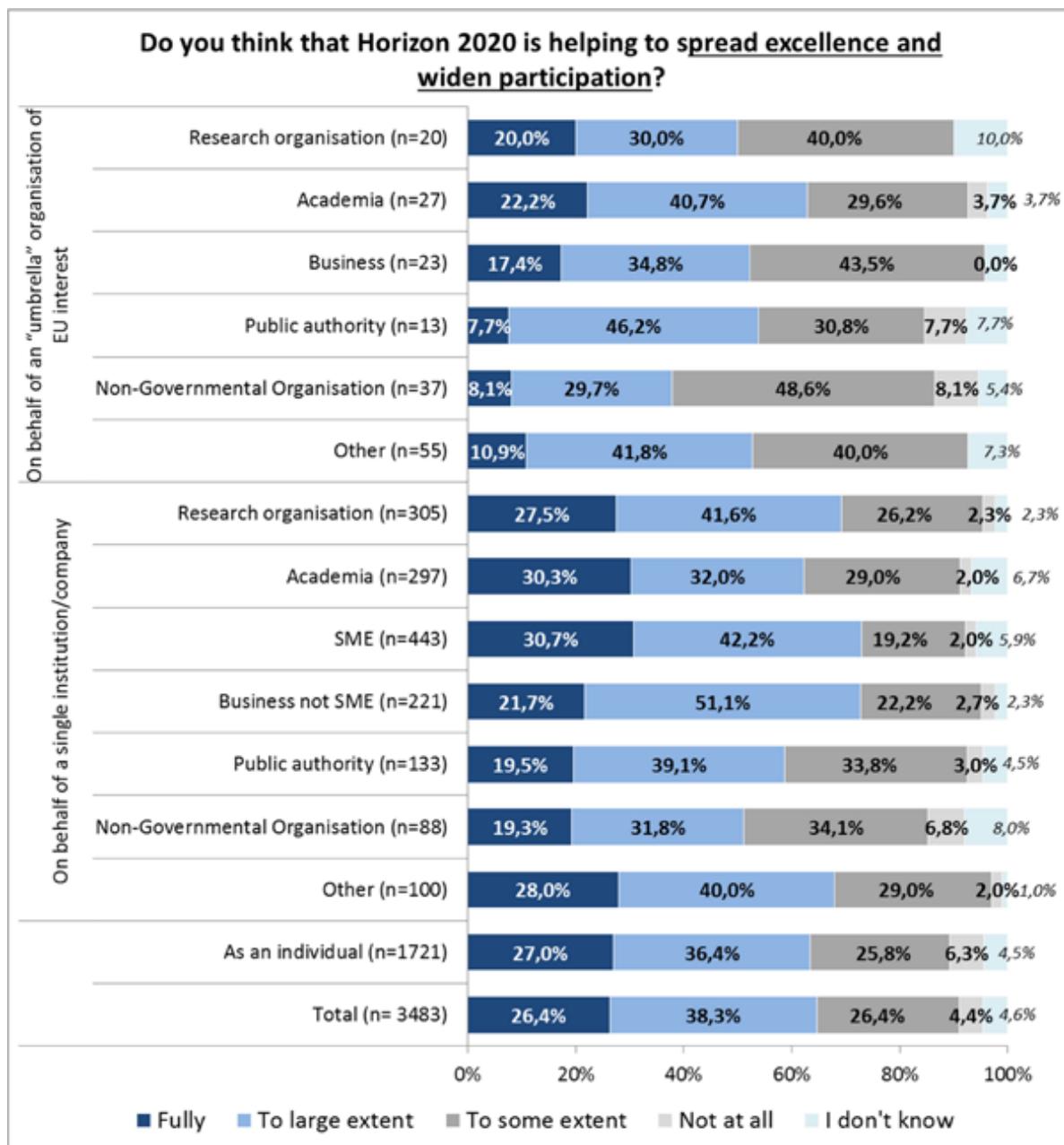


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.3. Spreading Excellence and Widening Participation

65% of the public consultation respondents agreed fully or to a large extent that Horizon 2020 helps spread excellence and widen participation (and 91% agreed at least to some extent) in research and innovation across Europe. The agreement level is similar for EU-15 and EU-13 respondents, but respondents from third countries (72%) and associated countries (67%) are even more positive. The most positive types of stakeholders are SMEs (73% think it does fully or to large extent) and individuals (63.4%). NGOs are slightly less positive.

Figure 20 Do you think that Horizon 2020 is helping to spread excellence and widen participation?



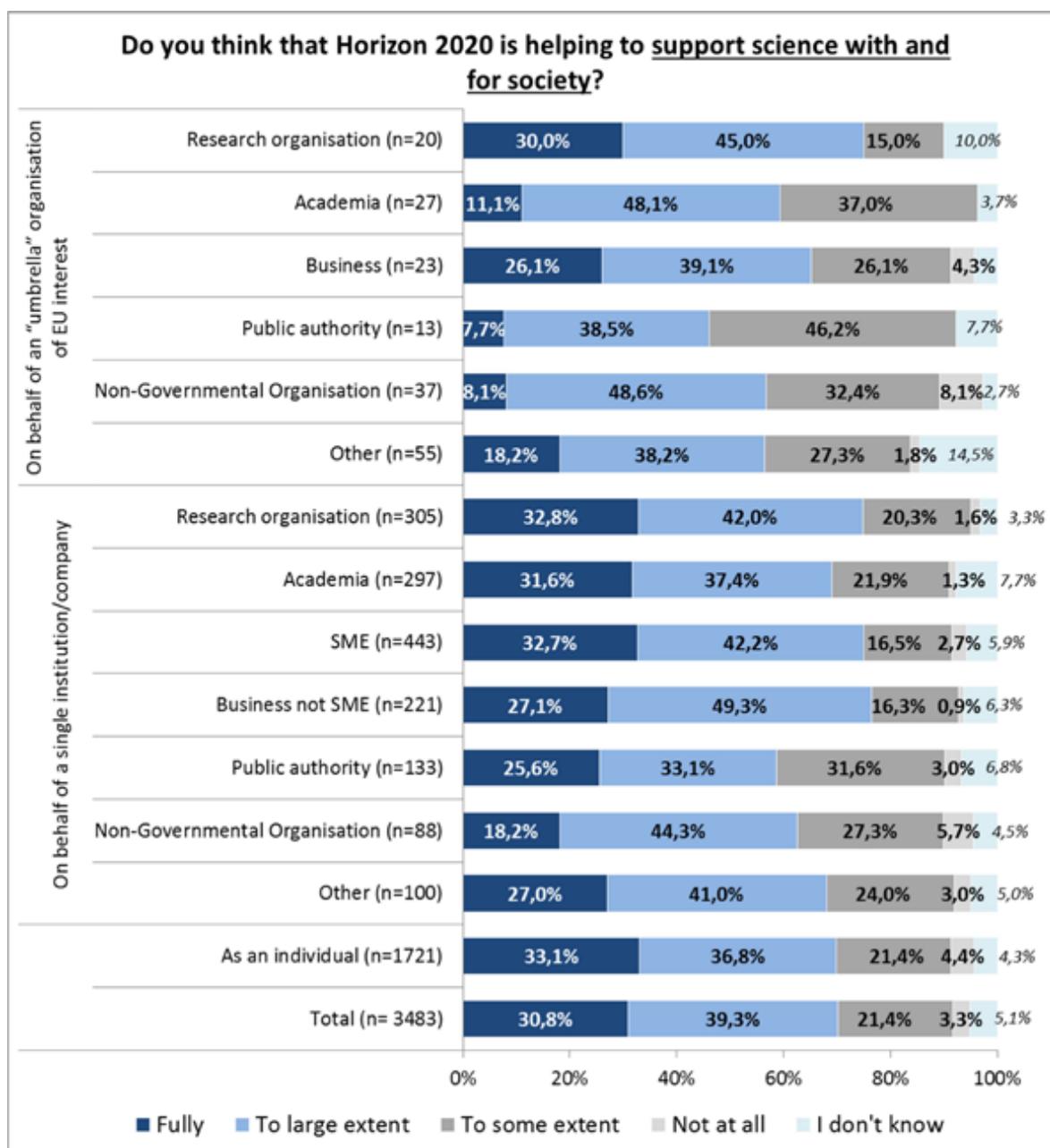
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.4. Generating Science with and for Society

70% of the public consultation respondents agreed fully or to a large extent that Horizon 2020 is helping to support science with and for society (92% agreed at least to some extent). 3.3% do not agree at all. The most positive respondents are businesses and research organisations, whereas the least positive are NGO and public authorities.

In addition, 87% (2310) of the public consultation respondents who were funded by Horizon 2020 cooperated with new partners thanks to Horizon 2020 projects and **11% of them did so in order to involve potential users of the results.**

Figure 21 Do you think that Horizon 2020 is helping to support science with and for society?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.5. Generating Science for Policy

87% (3018) of the public consultation respondents agreed, to some extent or more, that Horizon 2020 helps developing and implementing EU policies, yet a

comparatively low number of respondents (18%) agreed "fully" with this statement, which is less than the number of respondents who did so for the contribution of the programme to support science with and for society.

4.1.6. Integrating the knowledge triangle of higher education, science, and education

96% (3279) of the public consultation respondents agreed, to some extent or more, that Horizon 2020 helps building a society and an economy based on knowledge and innovation.

87% (2310) of the respondents who were funded by Horizon 2020 cooperated with new partners thanks to Horizon 2020 projects, and 1037 of them (45%) declared **they have done so to include specific expertise from another discipline.** This result underlines the importance of interdisciplinary work.

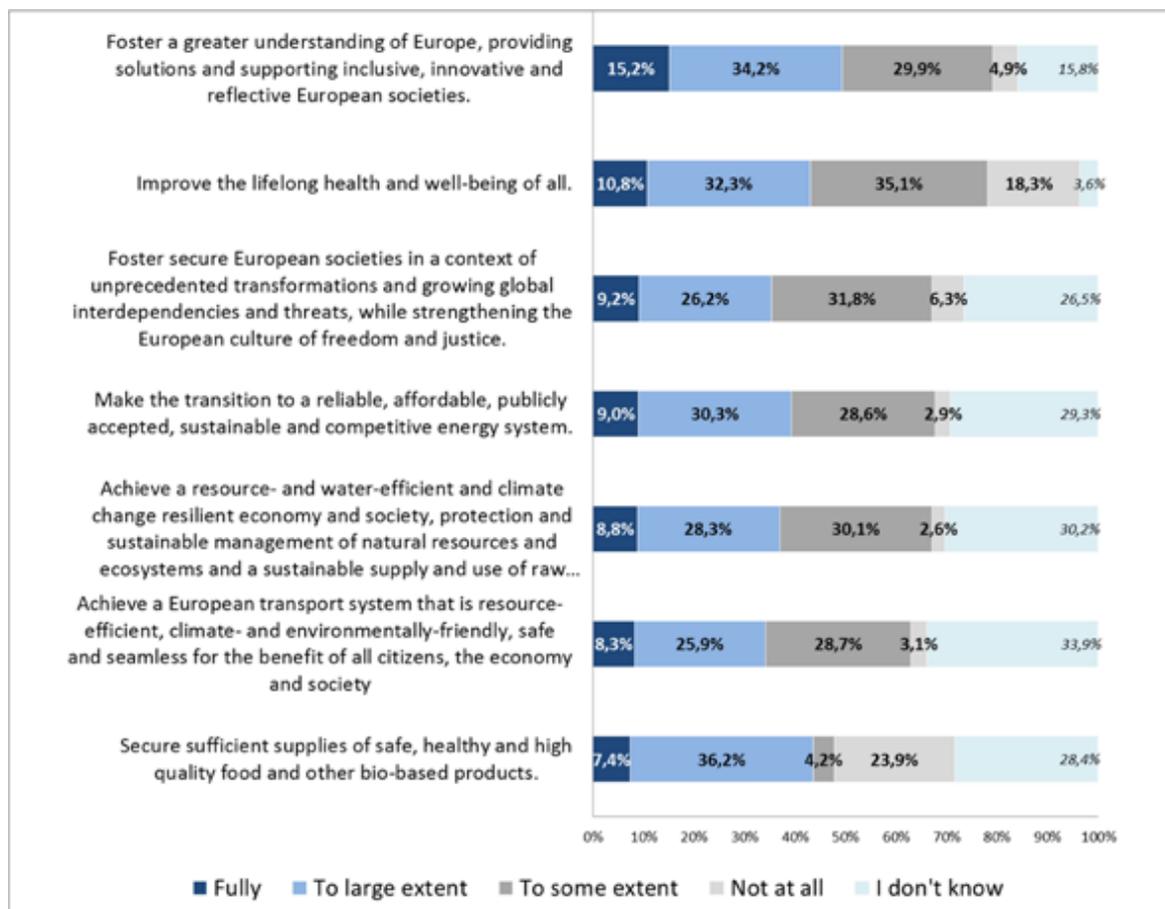
4.1.7. Addressing the Major Societal Challenges

The results of the consultation suggest that **Horizon 2020's contribution to addressing the major societal challenges was assessed more negatively by respondents than its contribution to the other objectives.**

Horizon 2020 scored higher on its contribution to fostering a greater understanding of Europe, providing solutions and supporting inclusive, innovative and reflective European societies (Societal Challenge 6), with 79% of respondents agreeing at least to some extent, and on its capacity to improve the lifelong health and well-being of all (Societal Challenge 1) (78% agree to some extent, but also 18% think the programme is not helping at all). For all the other challenges, around 30% of the respondents do not know, which is not surprising given the early stage of the programme's implementation.

24% of respondents think Horizon 2020 is not helping at all to address the challenge of securing sufficient supplies of safe, healthy and high quality food and other bio-based products (Societal Challenge 2). A comparatively lower number of respondents agreed "fully" with the statements that were provided and more respondents expressed their disagreement.

Figure 22 Do you think that Horizon 2020 is helping to address major societal challenges?

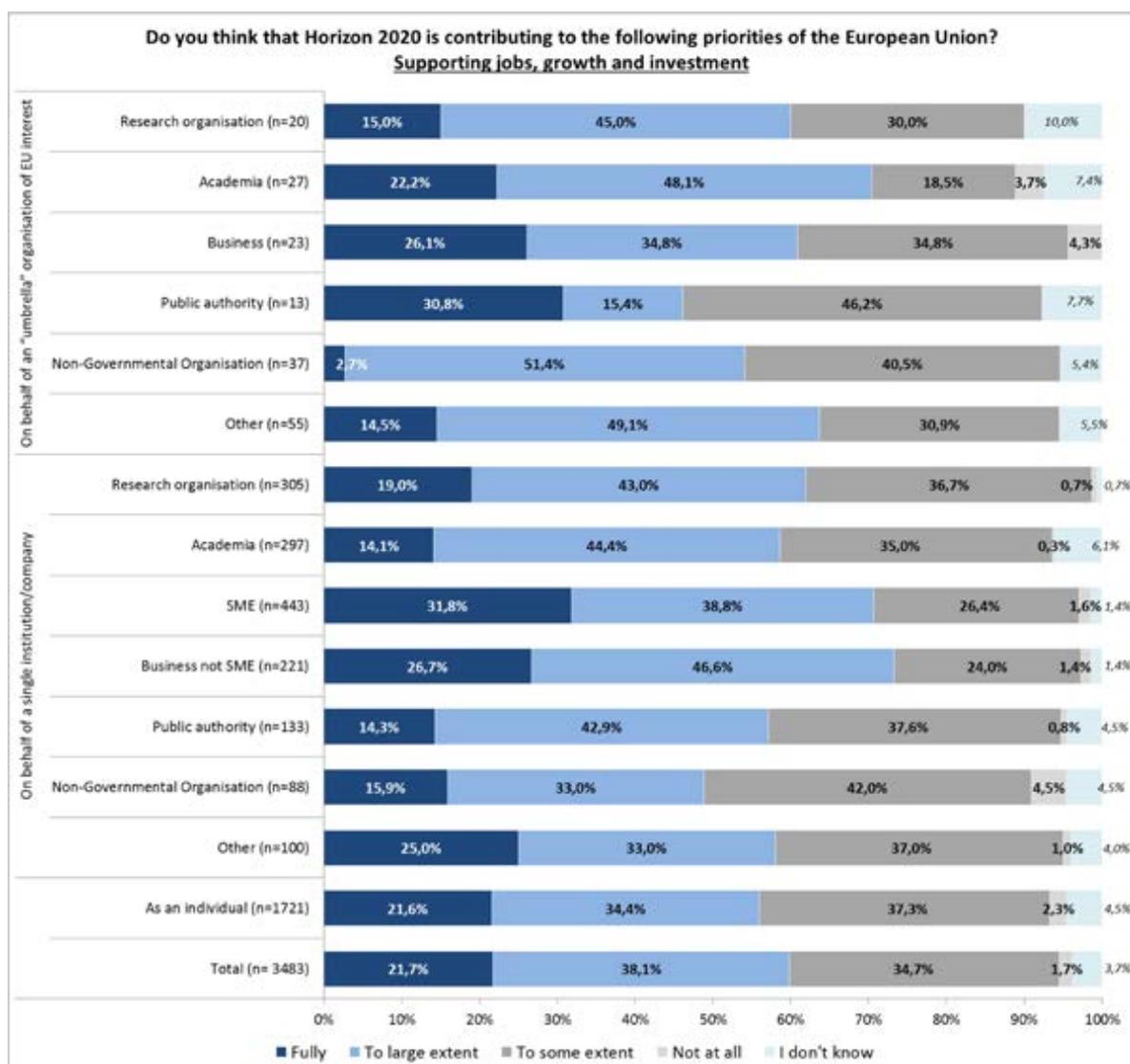


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.8. Contribution of Horizon 2020 to Growth, Jobs and Investments

60% of the survey respondents agree "fully" or "to large extent" that Horizon 2020 is supporting jobs, growth and investments (95% of the respondents think so at least to some extent). Only 1.7% entirely disagreed.

Figure 23 Do you think that Horizon 2020 is contributing to the following priorities of the European Union? Supporting jobs, growth and investment

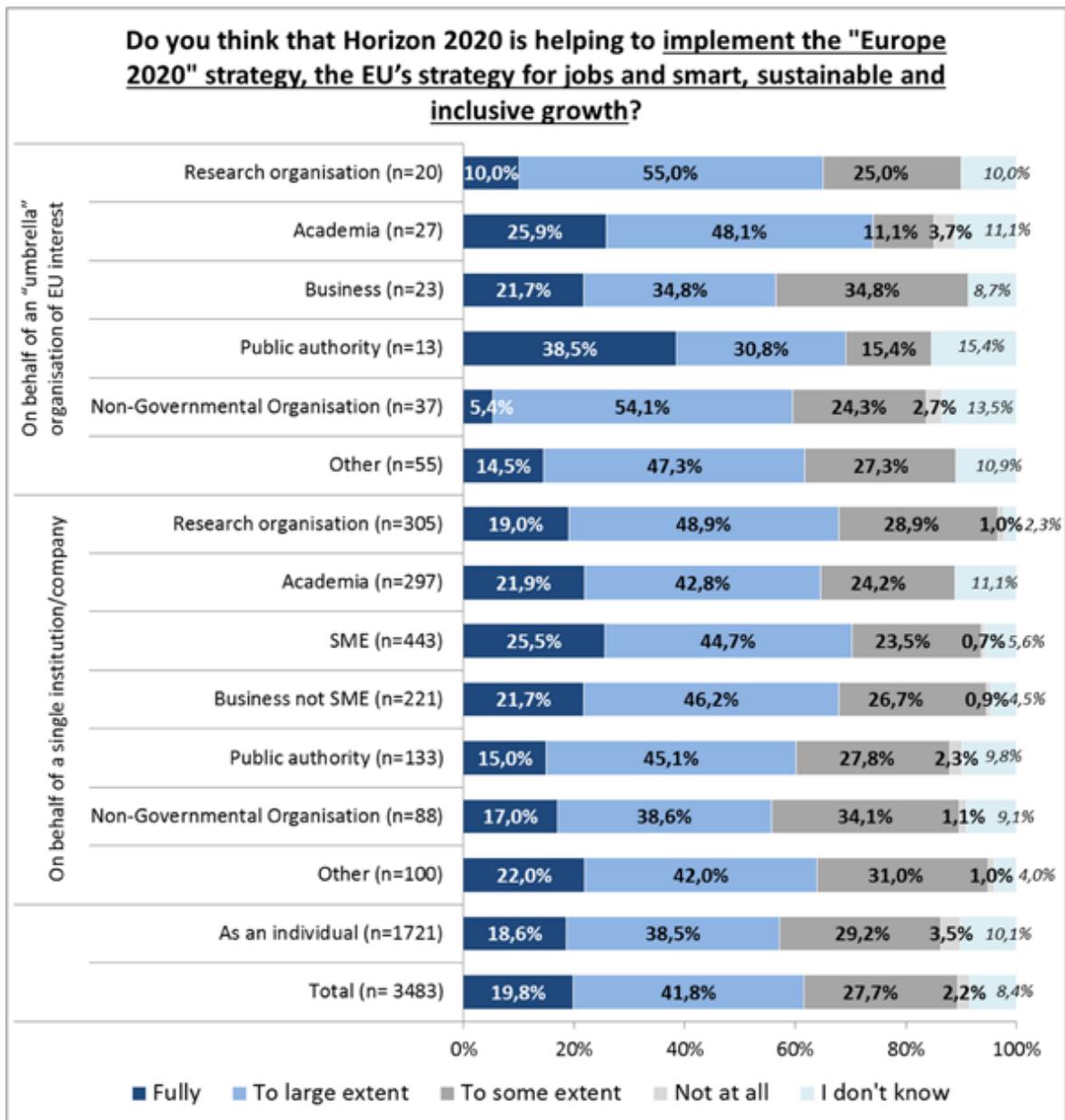


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.1.9. Contribution of Horizon 2020 to the Europe 2020 Strategy

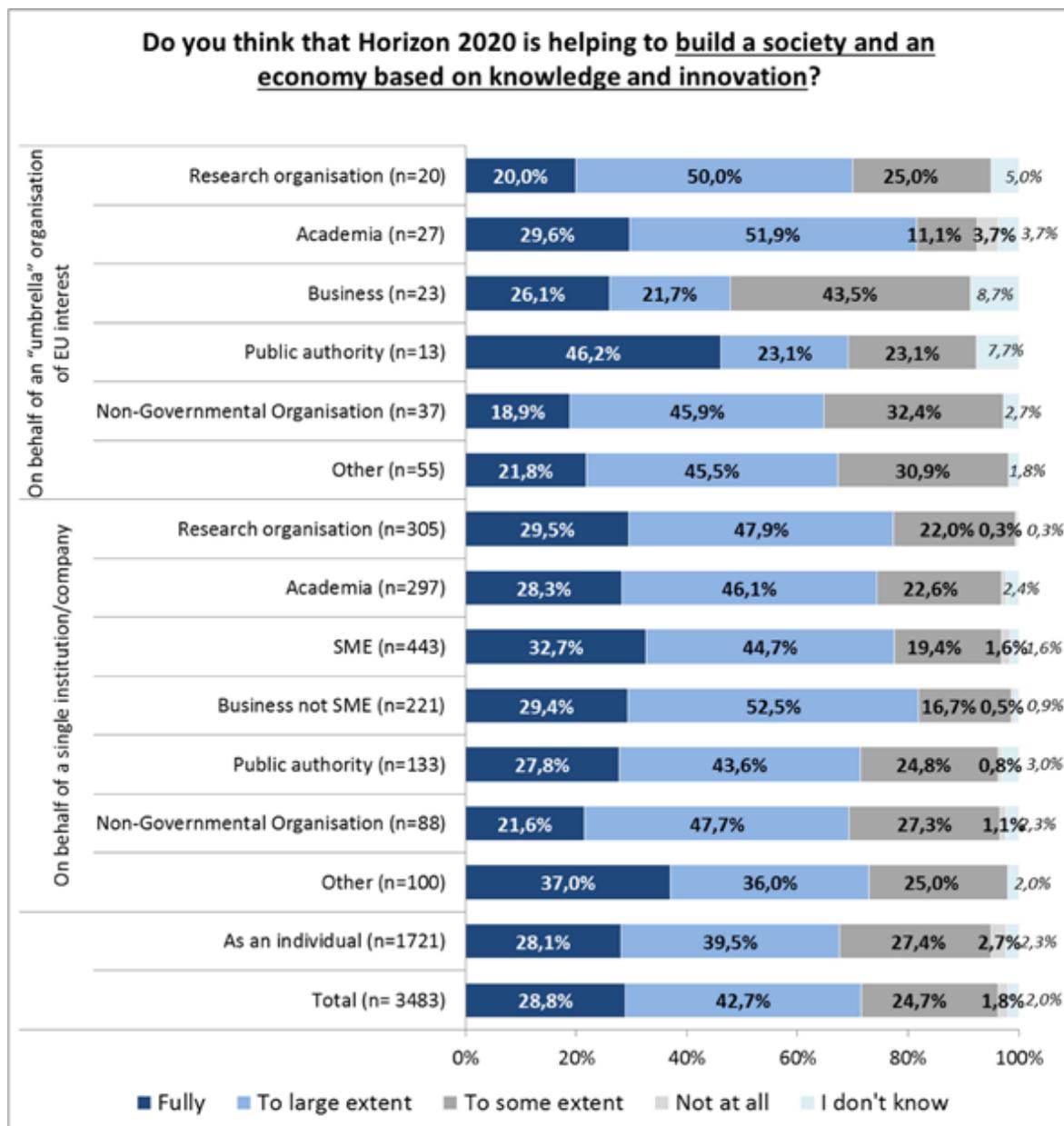
62% of the survey respondents think that Horizon 2020 is helping fully or to a large extent to 'implement the Europe 2020 strategy, the EU's strategy for jobs and smart, sustainable and inclusive growth' (90% of the respondents think so at least to some extent). Only 2% do not share this view at all. In addition, 72% of the respondents think that Horizon 2020 is helping fully or to a large extent to build a society and an economy based on knowledge and innovation. For both options, the least positive respondents are umbrella organisations representing research organisations and NGOs.

Figure 24 Do you think that Horizon 2020 is helping to implement the "Europe 2020" strategy, the EU's strategy for jobs and smart, sustainable and inclusive growth?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Figure 25 Do you think that Horizon 2020 is helping to build a society and an economy based on knowledge and innovation?

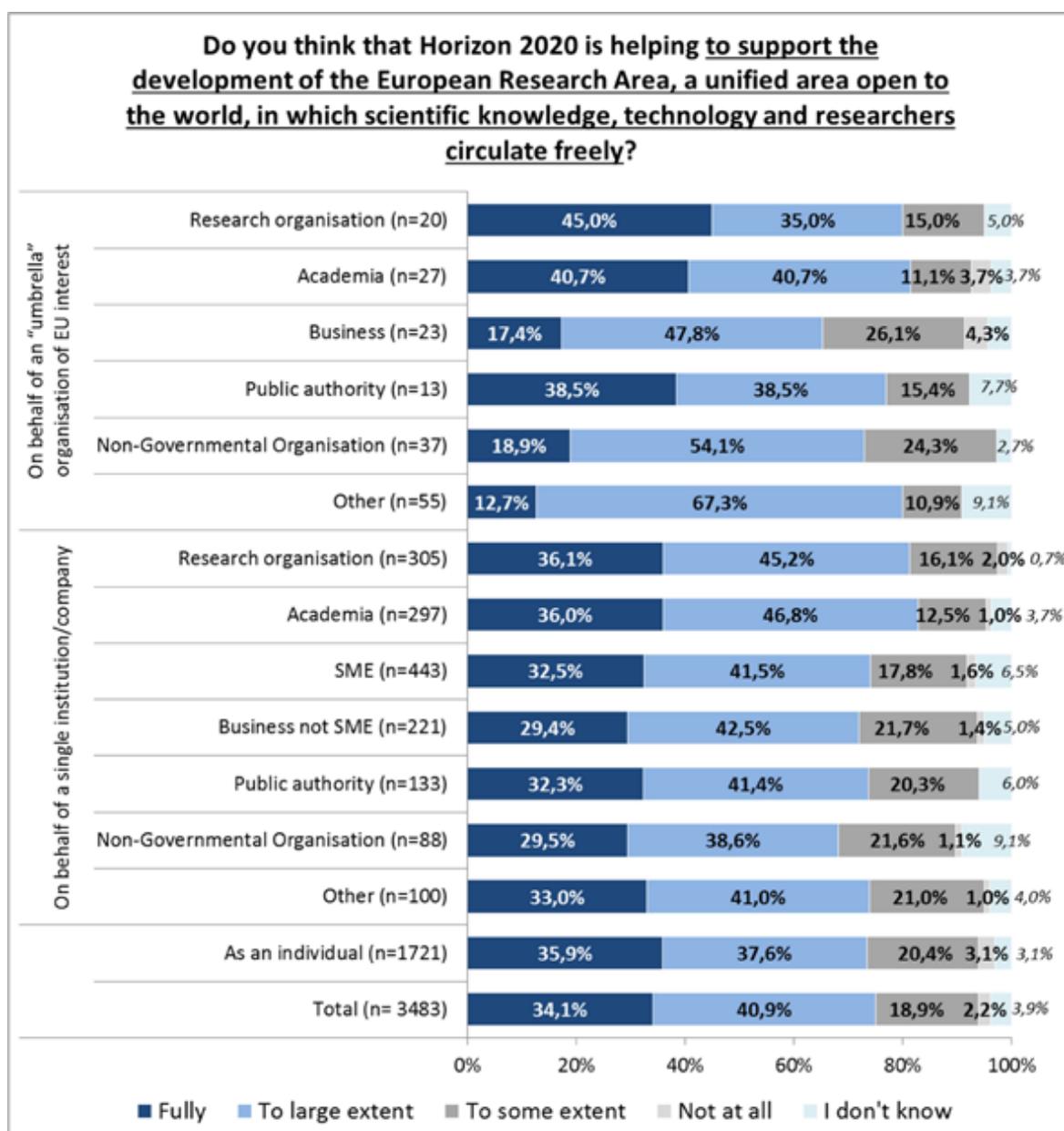


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.2. Contribution of Horizon 2020 to the achievement and functioning of the European Research Area

75% of the respondents to the stakeholder consultation think that Horizon 2020 is fully or to a large extent 'helping to support the development of the European Research Area, a unified area open to the world, in which scientific knowledge, technology and researchers circulate freely' (94% think so at least to some extent). Only 2.2% do not share this view at all. The least positive respondents are umbrella organisations representing businesses and NGOs.

Figure 26 Do you think that Horizon 2020 is helping to support the development of the European Research Area, a unified area open to the world, in which scientific knowledge, technology and researchers circulate freely?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

4.3. Key points / Areas for improvement

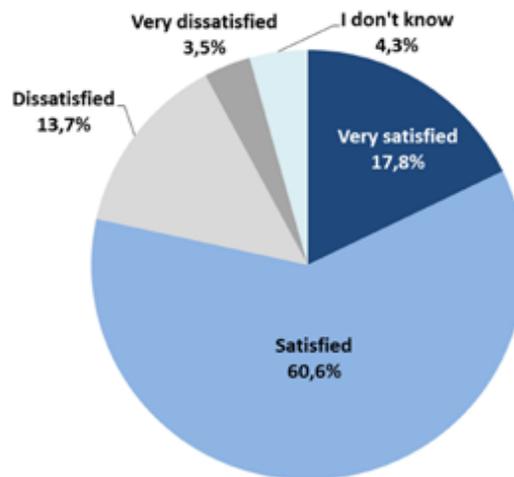
To conclude, the respondents to the stakeholder consultation generally:

- Agree that Horizon 2020 contributes to achieving the Europe 2020 strategy and the European Research Area.
- Agree that the programme is effective in achieving its own objectives, for instance in fostering excellent science.
- Agree to a lesser extent that Horizon 2020 is boosting European industrial leadership, compared to other objectives.
- Agree that the programme is having at least some impacts, but the rates of disagreement increase when asked about the programme's contribution to addressing a set of societal challenges.

5. EFFICIENCY AND USE OF RESOURCES

Satisfaction with the programme was high among respondents: **78% (2732) stated that they were very satisfied or satisfied with the programme.** Comparatively, a higher number of NGOs were dissatisfied with the programme (20%) and a higher number of businesses (25%) were very satisfied with the programme. EU-13 countries expressed a higher level of dissatisfaction (18%), while 25% of third-country respondents were very satisfied with the programme. The satisfaction rate reached 88% among the participants in Horizon 2020, but decreased to 49% for the respondents who had not participated in the programme.

Figure 27 Overall are you so far satisfied with Horizon 2020?



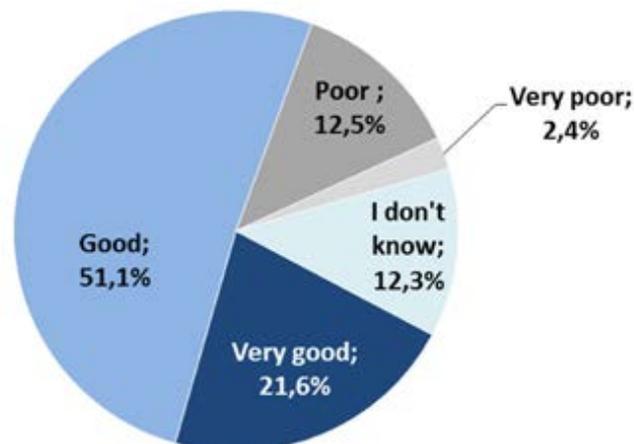
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

5.1. Programme's management and use of resources

5.1.1. New management modes

For **73% (1927)** of the respondents, the support provided by the EC services (including agencies) during grant preparation and implementation was either "very good" or "good".

Figure 28 Please rate Horizon 2020 implementation aspects for support provided by the EC services (including agencies) during grant preparation and implementation



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648.

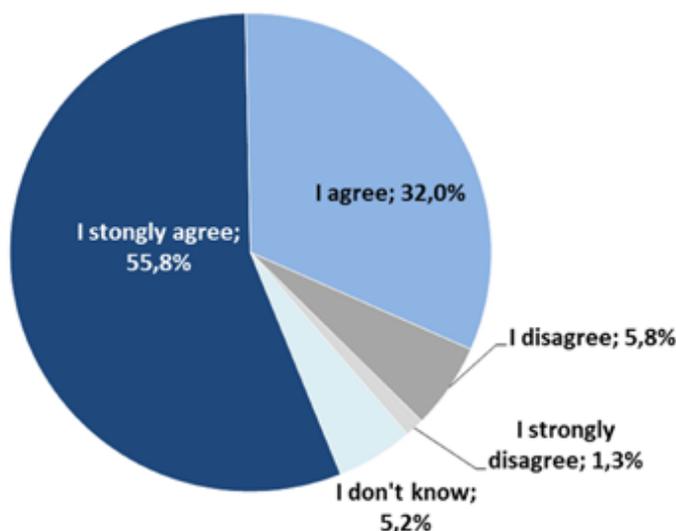
This analysis of the open responses also revealed some testimonials of good working relationships with European Commission project officers. However some of the respondents who described this relationship underlined the delays they experienced in receiving answers to their request from the project officers, while a few others asked for more personalised support from the agencies.

Additionally, a few respondents specifically commented on "New management modes" in their open responses to questions on the efficiency and implementation of the programme.

5.1.2. Use of resources

89% of respondents "strongly agreed" or "agreed" that an increased budget was needed for financing research and innovation at EU level.

Figure 29 To what extent do you agree that increased budget for financing research and innovation at EU level is needed to further maximize the socio-economic impact of the EU framework programme for research and innovation?

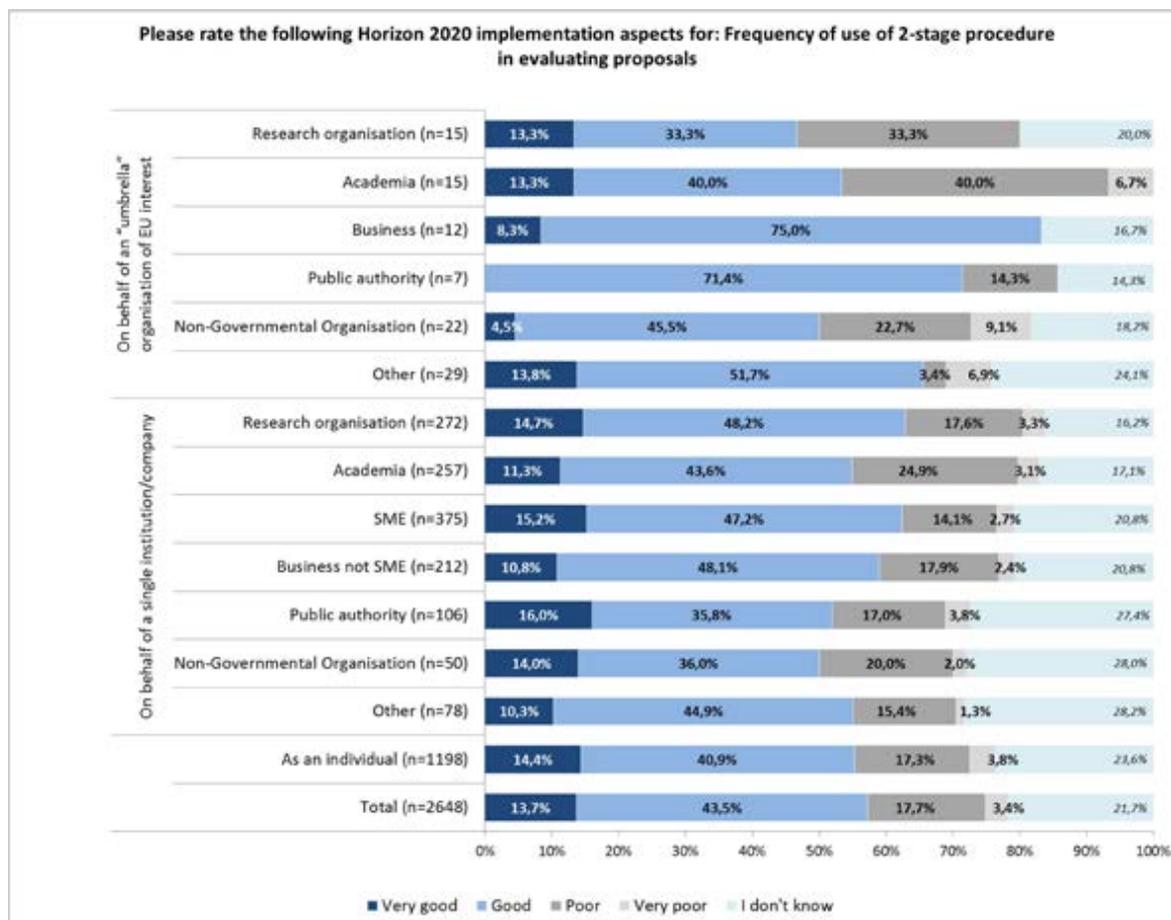


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

For 21% of respondents the frequency of use of a two-stage procedure in evaluating proposals was "poor" or "very poor".

Furthermore, in the open comments, some stakeholders called for a more competitive selection process at the first stage of the two-stage application process. Given the competitiveness of Horizon 2020 funding, they felt high-quality projects were not being funded, and this could reduce the number of proposals submitted at second stage and mitigate the risk of "wasting" time in developing proposals. In this respect, a large number of open comments dealt with oversubscription and the low success rate caused by the high number of (good) proposals given the limited amount of funding. This is further illustrated by the fact that, out of the 835 respondents who did not participate in Horizon 2020, 194 explained that the main reason was the success rates that were too low to be worth applying. This item was the most common explanation for non-participation for respondents who had never applied for Horizon 2020 funding (see Figure 2).

Figure 30 Please rate the following Horizon 2020 implementation aspects: frequency of use of 2-stage procedures in evaluating proposals



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648.

5.2. Programme's implementation

5.2.1. The impact of simplification and the new funding model

Out of the 835 respondents who did not participate in Horizon 2020, 106 explained that the main reason was that the Horizon 2020 project implementation rules were cumbersome.

The analysis of open answers confirmed this result. While some respondents (participants as well as non-participants) acknowledged that progress has been made, many mentioned that further simplification was needed. Many noted that more could be done in terms of simplification, for instance regarding cost reimbursement and further simplification of the process and acceptance of organisations' accounting practices. However, 65% (1732) of the survey respondents to a closed question noted that the acceptance of organisations' accounting practices in the programme was "good" or "very good" and 18% (475) viewed it as "poor" or "very poor".

Some respondents also noted that the rules were different from one call to the other and recommended more standardisation. Others pointed to a proliferation of funding and instruments that hampered their ability to grasp the broader picture and apply for the funding that was most tailored to their needs.

Some additional ideas that were identified during the analysis of the responses to open questions concern the need to diminish the administrative burden experienced by participants of the process and to promote more flexibility. For example, by allowing for some adjustments during the implementation of the projects (e.g. one respondent noted it was not possible to work with a third party who was not a formal project partner at the project start).

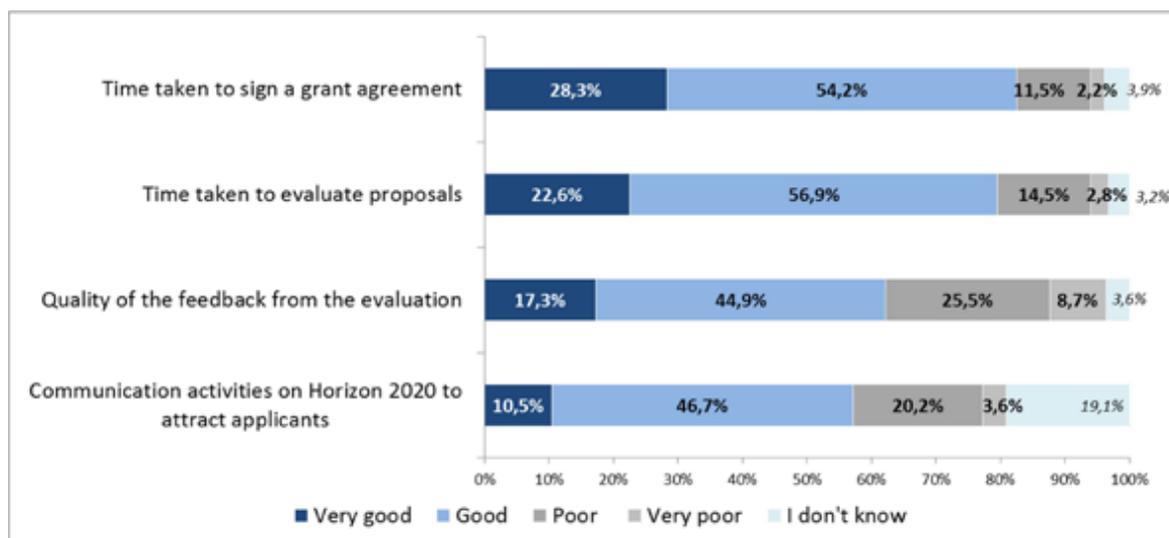
The respondents also elaborated on the imbalance between the need for control and the importance of trust. Some argued that the European Commission needed to focus on the quality of project outcomes rather than paperwork, while others proposed that past participations in the FPs or a track record at the national level should be used as a proof that participants could be trusted. Many comments dealt with the high amount of time spent on reporting. **Despite these comments, a majority of respondents found the balance between control and trust of beneficiaries (71.5%, 1894) and the mechanisms for reporting and monitoring (79%, 2091) "good" or "very good".**

5.2.2. Mobilisation of stakeholders

This topic was covered through consultation questions that related to the efficiency, transparency, clarity and flexibility of the processes to attract participants.

More than 80% of the respondents agreed that the time taken to sign a grant agreement and to evaluate the proposal was either "good" or "very good". 21% to 22% found that the communication activities to attract applicants were "poor" or "very poor". Furthermore, 62% (1647) of the respondents assessed the quality of the feedback from the evaluations as "good" or "very good", while 34% (905) judged it was "poor" or "very poor" (which was the highest score reached by the "poor" and "very poor" categories compared to the other items related to the implementation aspects of Horizon 2020 on which respondents were asked questions).

Figure 31 Please rate the following Horizon 2020 implementation aspects



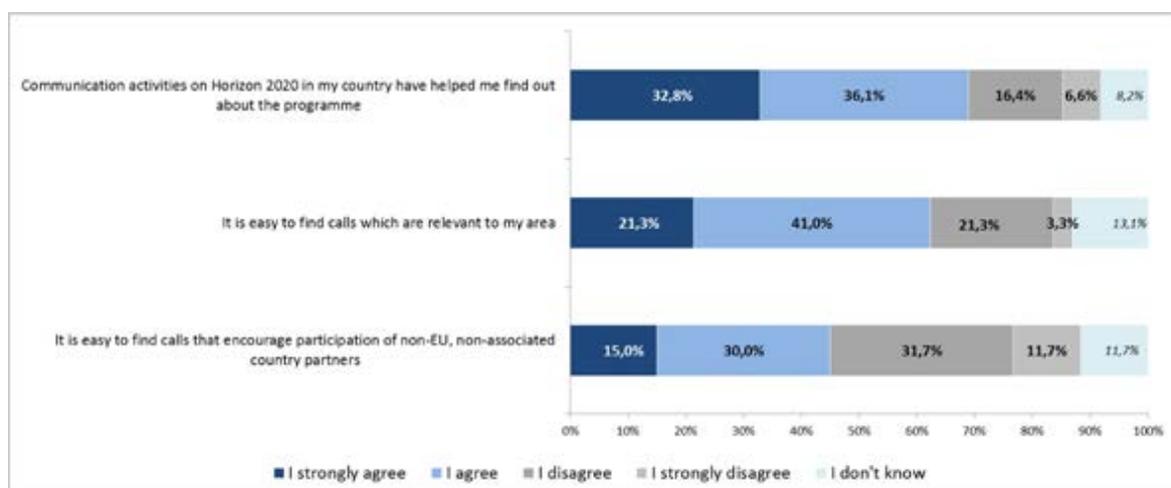
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648.

In their feedback to open questions, many respondents asked for more transparency and an improved quality in the feedback they received. Some respondents complained that not enough details were provided, that the quality of the feedback varied greatly from one evaluation panel to the other, and that discordant views could be provided to the participant. The selection of experts for proposal reviews was also questioned by a few; with some participants stressing that expertise in the field was not always available. Some mentioned that evaluations should not only take place remotely.

5.2.3. Geographical dimension

The geographical dimension was covered in the survey questions that related to the non EU-countries' and non-associated countries' participation. The figure below suggests that the majority of respondents from these countries were rather satisfied with the communication on Horizon 2020 in their countries, with 69% (42) having "agreed strongly" or "agreed" that communication activities helped them find out about the programme and that it was easy to find calls which were relevant to their area (strong agreement or agreement of 62% (38) of the respondents). 45% (27) felt that it was easy to find calls that encourage the participation of non-EU and non-associated country partners and 43.4% (26) "disagreed" or "disagreed strongly" with this statement.

Figure 32 If your organisation is established in a non-EU, non-associated country, to what extent do you agree with the following statements



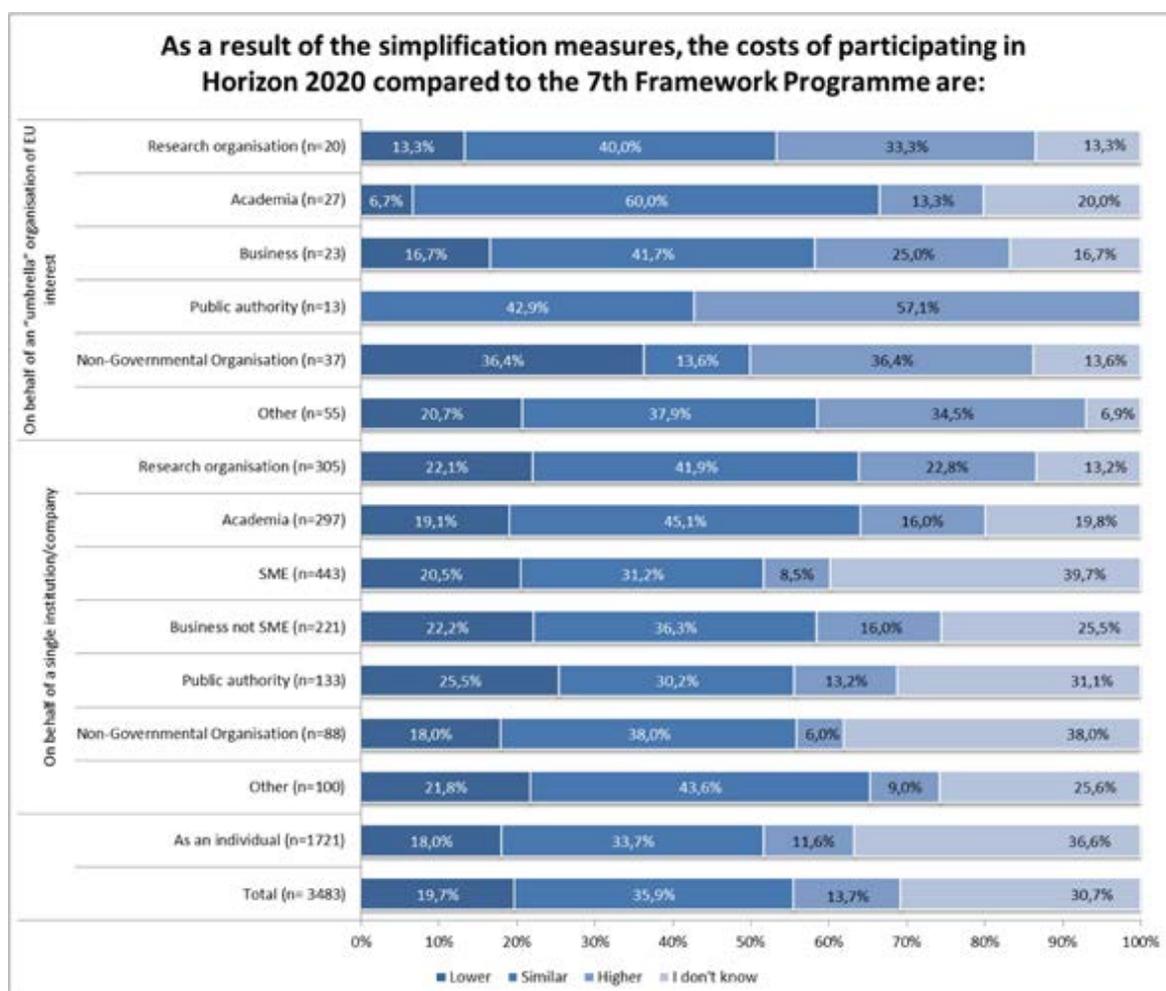
Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=61.

In their open comments on the relevance of and the issues at stake for the programme, some respondents from third countries as well as respondents from EU-countries explicitly referred to the need to increase the possibility for third countries to take part in Horizon 2020.

5.3. Cost-benefit analysis

The consultation's respondents were asked about the costs of participating in Horizon 2020 compared to previous or other international programmes. The interpretation of the results has to take into account the high percentage of respondents (over 30%) who declared they could not respond due to a lack of knowledge of previous or other programmes. This set aside, the results suggest that slightly more respondents think that the costs of participating in Horizon 2020 compared to FP7 had decreased rather than increased with the simplification measures that have been implemented by the European Commission. **20% (521) of the respondents shared the view that the costs of participating in Horizon 2020 are lower than in the previous FP7**, 14% (364) felt they are higher and 36% (950) felt they are similar. A more detailed analysis indicates that comparatively business have a slightly better opinion of the costs of Horizon 2020 than research organisations. While 20% of research organisations found the costs of Horizon 2020 higher than FP7, only 10% of the business did so (and 7% of the SME respondents).

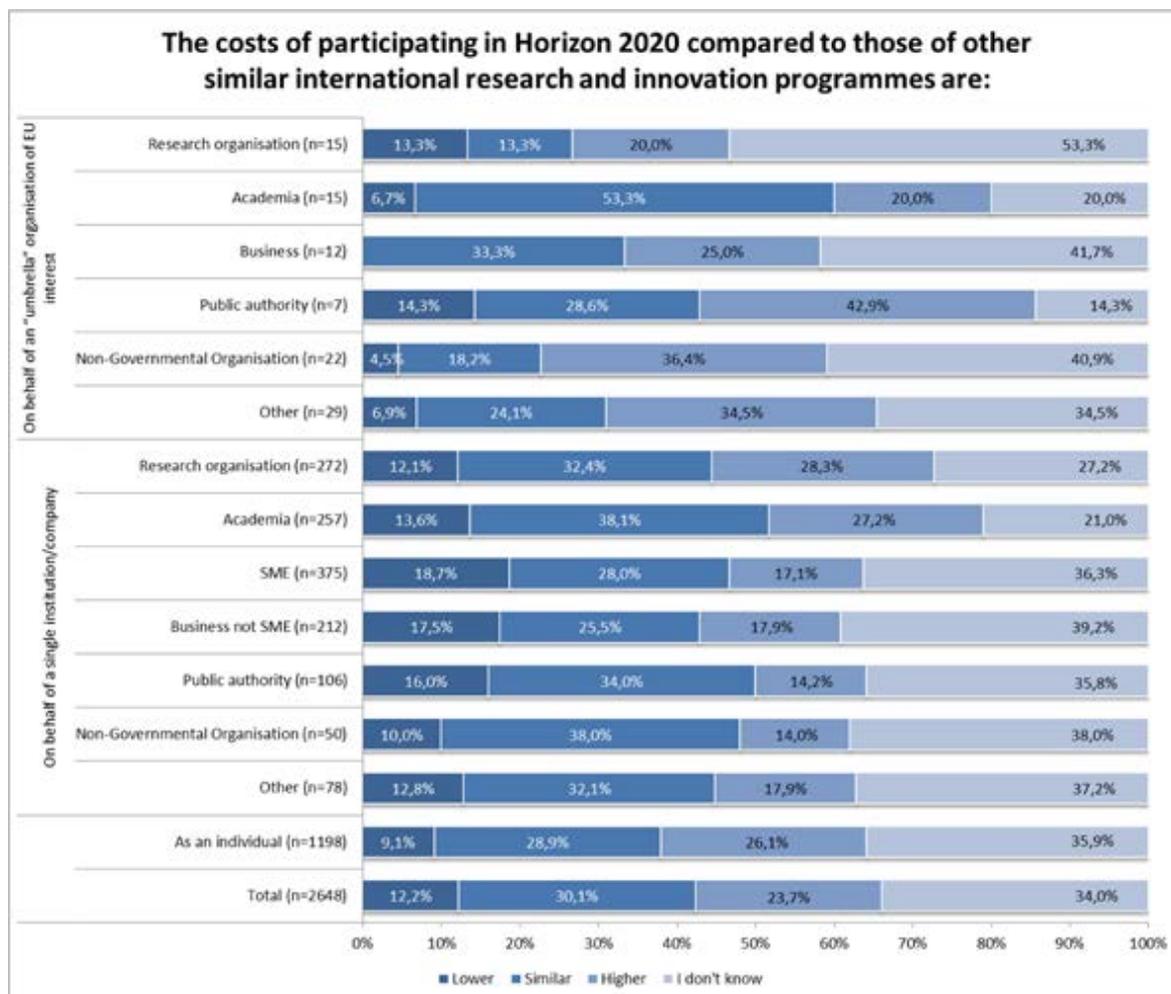
Figure 33 Level of costs of participating in Horizon 2020 compared to the 7th Framework Programme as a result of the simplification measures



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Keeping in mind that a high percentage of respondents (34%) declared they could not respond due to a lack of knowledge of other programmes, **the majority of those who responded assessed the costs of participating in Horizon 2020 as similar to other international research and innovation programmes** (see Figure 33). Going into further detail, 25% of research organisations said that the costs of Horizon 2020 were higher than for other international programmes, while only 15% of business (and 14% of the SMEs) did so. More specifically there are slightly more SMEs that, overall, find that the costs of participating to Horizon 2020 are lower than other similar international research and innovation programmes (19%) than SMEs judging these costs higher (17%). 21% of the respondents from associated countries shared the view that Horizon 2020 was more costly than international programmes. Overall, the results seem to suggest that EU-13 respondents and newcomers did not feel that the costs were higher compared to other respondents. They even seemed to have a more positive opinion about the costs of the programme (e.g. 18% of EU-15 respondents and only 11% of EU-13 respondents found the costs of Horizon 2020 higher than the costs of other international programmes).

Figure 34 Level of costs of participating in Horizon 2020 compared to those of other similar international research and innovation programmes



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648

5.4. Key points / Areas for improvement

To conclude, the respondents to the stakeholder consultation generally:

- Are satisfied with the programme. The support provided by the European Commission is appreciated, although there is some criticism of the externalisation of grant management to executive agencies. Some stakeholders reported delays in getting in touch with project officers and asked for more personalised support and an improvement in the quality of evaluation feedback.
- Agreed that an increased budget was needed for financing research and innovation at EU level.
- Assessed the cost of participation to be lower than in previous programmes but noted there is room for further decreasing the costs. Simplification measures are welcomed (processes are efficient) but the administrative burden is still high for some respondents. Further simplification (in terms of cost reimbursement for instance) is an area for improvement.
- Noted that there is room for improvement in the standardisation between the different calls and the information and communication activities to attract applicants (dispersion of information, lack of explanatory documents).
- Prefer a 'real' two-stage application processes (in which proposals would be thoroughly selected at the first stage) to address the oversubscription issue.

6. COHERENCE

6.1. Internal coherence within the Framework Programme

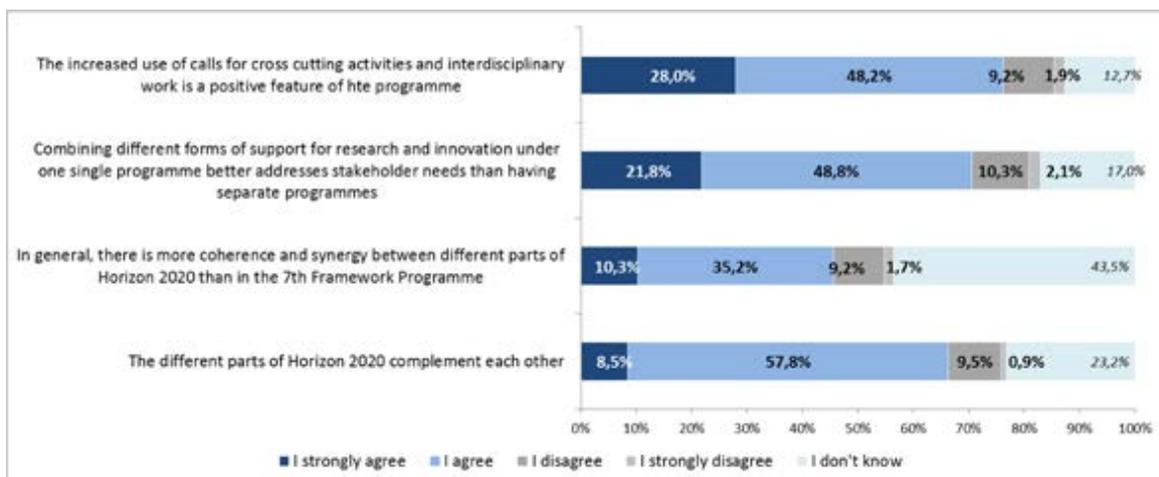
6.1.1. Coherence between the implemented actions

71% of the respondents agreed that combining different forms of support for research and innovation into one single programme better addressed stakeholder needs than having separate programmes.

6.1.2. Coherence between Horizon 2020 intervention areas

76% of the respondents agreed that the increased use of calls for cross cutting activities and interdisciplinary was a positive feature in the programme (see Figure 35). 66% found that the different parts of Horizon 2020 complement each other but only 46% agreed that there was more coherence and synergies in Horizon 2020 than in FP7 (a large share of stakeholders (44%) don't know). More academia and research organisations subscribed to these last two statements than businesses and NGOs.

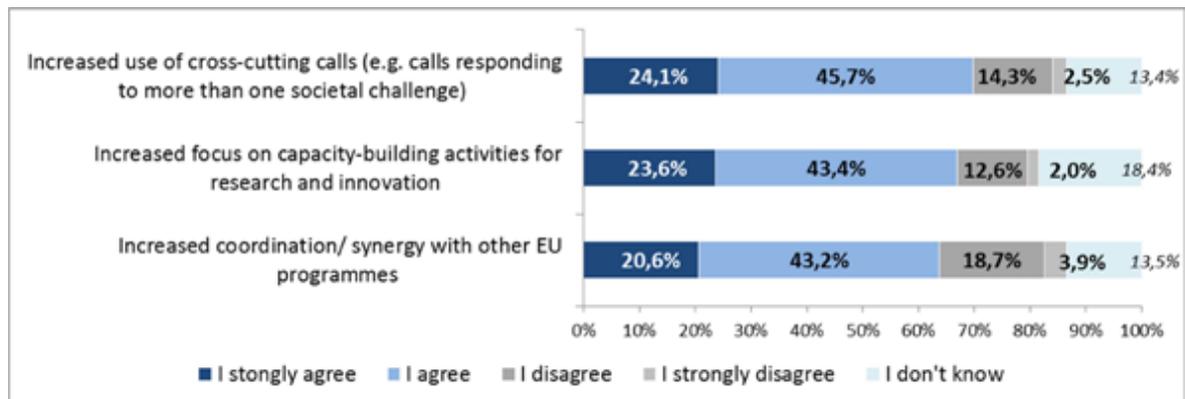
Figure 35 To what extent do you agree with the following statements regarding the internal structure of Horizon 2020?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

The majority of respondents agree that to increase the socio-economic impact of EU Framework Programmes for research and innovation, there is a need for more cross-cutting calls (16.8% disagree), more focus on capacity-building activities for R&I (15% disagree) and increased coordination/synergy with other programmes (23% disagree). More than 30% of NGOs and public authorities were in favour of more cross-cutting calls. However only 23% of research organisations, 22% of academia and 16% of business felt this is needed.

Figure 36 To what extent do you agree that the following issues are needed to further maximize the socio-economic impact of the EU framework programme for research and innovation?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

6.2. Coherence with other EU initiatives

The results of the consultation survey are difficult to interpret as most respondents felt they were unable to answer because of their lack of familiarity with other initiatives, which explains the high number of respondents having ticked the “I don’t know” box.

6.2.1. The European Structural and Investment Funds

Of the respondents who were able to provide an opinion, 15.6% found that Horizon 2020 and the European Structural and Investment Funds complemented each other and 12% judged that they worked in synergy (despite the existence of overlaps for 2.7% of the respondents) (cf. Figure 37).

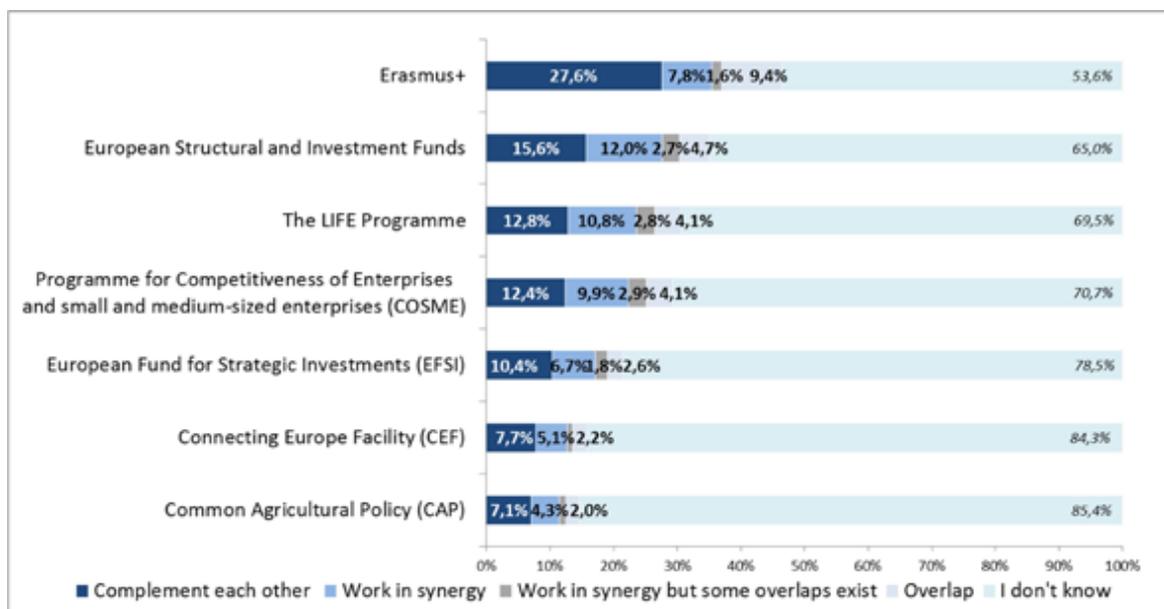
6.2.2. The European Fund for Strategic Investments (EFSI)

For respondents who were able to provide an opinion, 10.4% found that Horizon 2020 and the European Fund for Strategic Investments complement each other and 6.7% judged that they worked in synergy (despite the existence of overlaps for 1.8% of the respondents) (see Figure 37 below).

6.2.3. Other EU initiatives

Among other programmes, Erasmus+ was assessed as the most complementary to Horizon 2020 (28% of respondents assessed positively the complementarity between the two programmes) and 8% of respondents judged that they worked in synergy (despite the existence of overlaps for 2% of the respondents).

Figure 37 The European Commission implements several funding programmes. How would you describe the linkages between Horizon 2020 and the following programmes?



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Additional comments provided by the respondents suggest that **the funding architecture is seen as too complex and prevents organisations from identifying the calls and instruments that are best fitted to their needs.** Promoting synergies at project level was said to be very difficult and not always realistic, given the fact that the rules and procedures were not standardised across different EU funding programmes. Some recommendations included a joint funding of projects by different instruments or funding of cross-project networking activities.

6.3. Key points / Areas for improvement

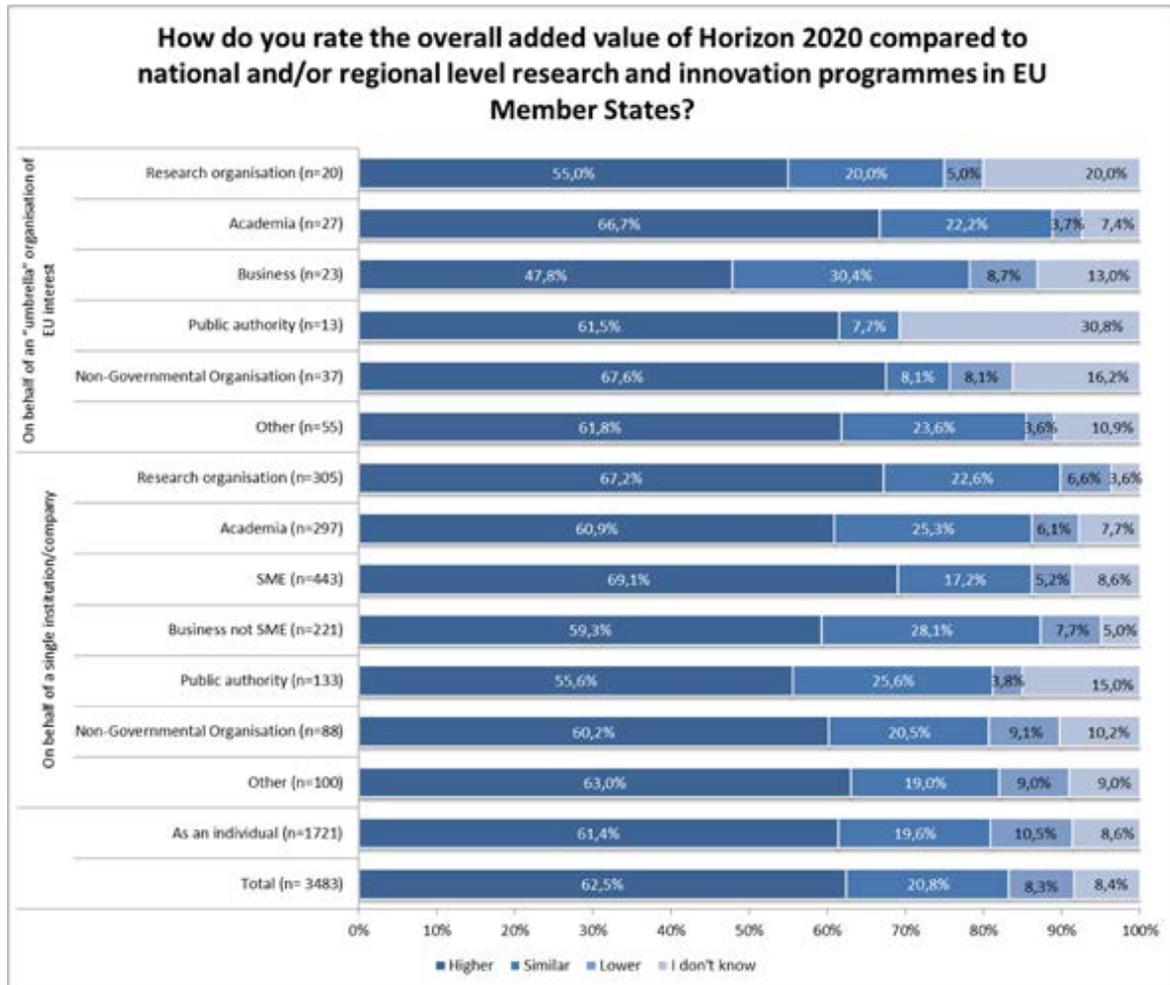
To conclude, the respondents to the stakeholder consultation generally:

- Agree that combining different forms of support for research and innovation into one single programme is better for addressing their needs than having separate programmes.
- Agree that the programme should increase the use of cross-cutting activities to further maximize its socio-economic impact.. Respondents also note that the coherence between the different parts of Horizon 2020 improved compared to the previous Framework Programme.
- Indicate that more could be done to simplify the funding landscape and make it easier for participants to identify the call(s) that best fit their needs.
- Lack knowledge of other, complementary funding opportunities at the EU level which indicates that synergies with other EU programmes could be very limited.

7. EU ADDED VALUE

For 63% (2176) of the respondents the added value of Horizon 2020 is higher than that of national and/or regional programmes for research and innovation (see Figure 38 below). Research organisations and business respondents had the highest rate of agreement (66% and 65% respectively), while the agreement rate was lowest for public authorities (56%) also because many noted that they "don't know".

Figure 38 How do you rate the overall added value of Horizon 2020 compared to national and/or regional level research and innovation programmes in EU Member States?

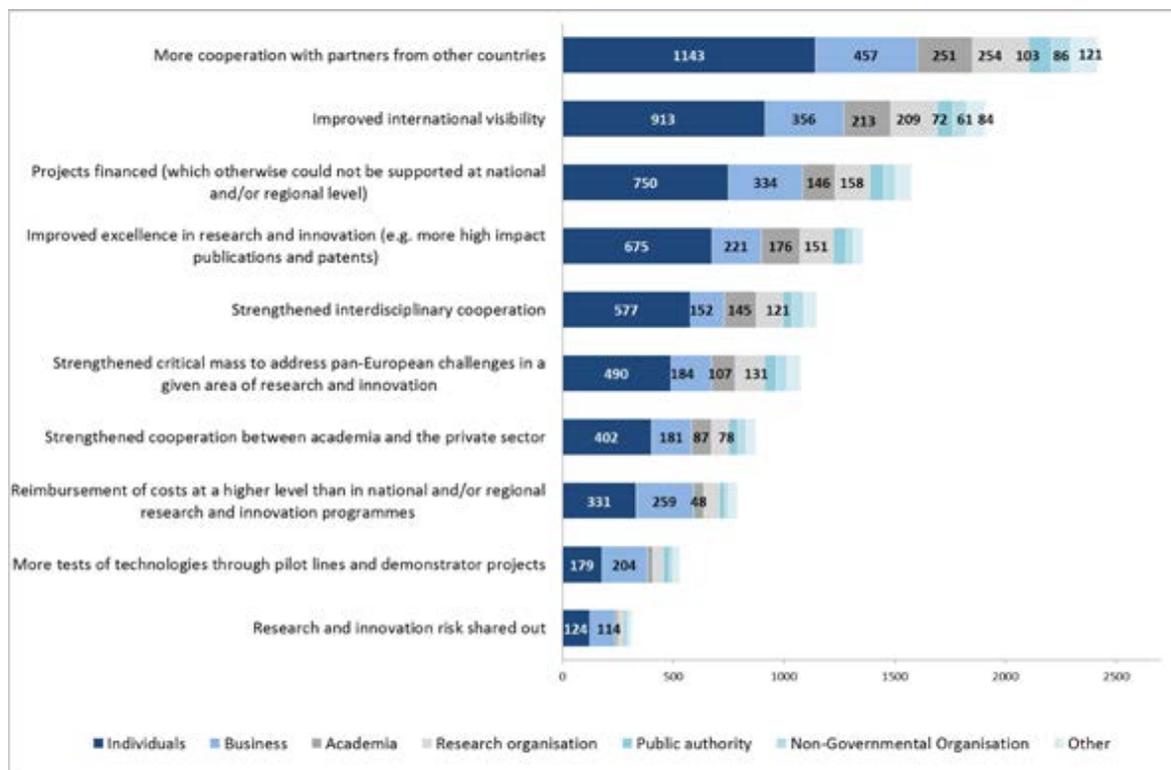


Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

Furthermore, out of the 835 respondents who did not participate in Horizon 2020, a rather low number preferred participating in other regional/ national programme (63 respondents) or in other European or international programmes (30 respondents).

For respondents, the main added value of participating in Horizon 2020 compared to national and/or regional research and innovation programmes is cooperation with partners from other countries, followed by improved international visibility and the financing of the projects that otherwise would not be supported (see below).

Figure 39 What are the main expected benefits of participating in Horizon 2020 compared to national and/or regional research and innovation programmes in EU Member States? Number of respondents per option (1-5 answers)



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=3483.

In terms of **effectiveness**, respondents strongly agreed with statements suggesting that Horizon 2020 strengthened the quality and visibility of research in the EU. For 1908 respondents, the programme contributed to improving international visibility and 1357 were confident it has improved excellence in research and innovation. In their open comments, respondents also outlined the visibility and reputation they gained from being selected for funding. Horizon 2020 was qualified as a “prestigious” programme that set high standards for research and innovation in Europe and could lead to career development or help organisations to attract top researchers.

In terms of **efficiency**, for 1076 respondents, the programme strengthened critical mass to address pan-European challenges. In their open comments, respondents went as far as saying that Horizon 2020 promoted trust between partners and a more coherent and integrated Europe through shared goals and joint work. 1574 respondents highlighted that it financed projects that otherwise could not be supported at national or regional level. 788 respondents stated that European funding is all the more important given that the reimbursement of costs is higher than in national / regional programmes. Within the open responses, some respondents also outlined that 100% cost funding for SMEs was a major incentive to participate (although it should also be noted that a few comments were against full reimbursement of costs).

In terms of **synergy**, Horizon 2020 is said to have contributed to strengthening interdisciplinary cooperation (by 1147 respondents) as well as cooperation between academia and the private sector (873 respondents). Additional comments provided by respondents suggested that the programme offered opportunities (qualified by some respondents as “unique opportunities”) to access new partners and new expertise, and to work with the best and internationalise their activities. It promoted a more integrated vision of the research and innovation system, one that linked together academia, business and SMEs. Working with different types of organisations and across different countries fostered cross-cultural experiences (to the benefit of young researchers more particularly), thus encouraging the confrontation of different points of views, stimulating ideas and fostering creativity and the emergence of disruptive ideas.

To provide a further analysis of the programme's added value and additionality, respondents were asked what would be the impact if EU support to research and innovation (Horizon 2020 and its possible successor) were to be discontinued. According to the basic analysis that was carried out, very few of the respondents judged that a discontinuation of the framework programme would only have a limited impact on their organisation and most of the ones who did were NGOs and public authorities (a few businesses, very few academia organisations). Overall, the discontinuation of the programme would be judged as "catastrophic", "devastating" "a nightmare", or a significant "drawback".

Potential negative impacts are numerous and vary based on the dependence of the organisation to Horizon 2020 funding:

- The impacts would be worst for business whose activities are very much dependent on EU funding, as a programme's discontinuation would result in a reduction in scope or even in a discontinuation of research and innovation activities, less or slower product development and it could reduce business activities and staff (one business even indicates this would mean moving its research activities outside of the EU and, for another, that it would question its viability as a business).
- For academia and research organisations, it would mean less funding for fundamental, interdisciplinary, risky and disruptive research, less drive to cooperate and less international contacts, less exposure to new knowledge and more limited capacity to anticipate new trends, less learning and exchange of ideas, less ability to carry out high level research and a withdrawal into national research capacities hence losing the ability to create critical mass at the European level. It could lead to the disappearance of existing networks since a stable framework would no longer be available to support joint work. Ultimately, this could be a drawback for research and innovation in the EU, affecting the ability of Europeans to carry out top research and to address global challenges, thus resulting in a loss of competitiveness and international visibility of the EU on the international research and innovation stage.

7.1. Key points / Areas for improvement

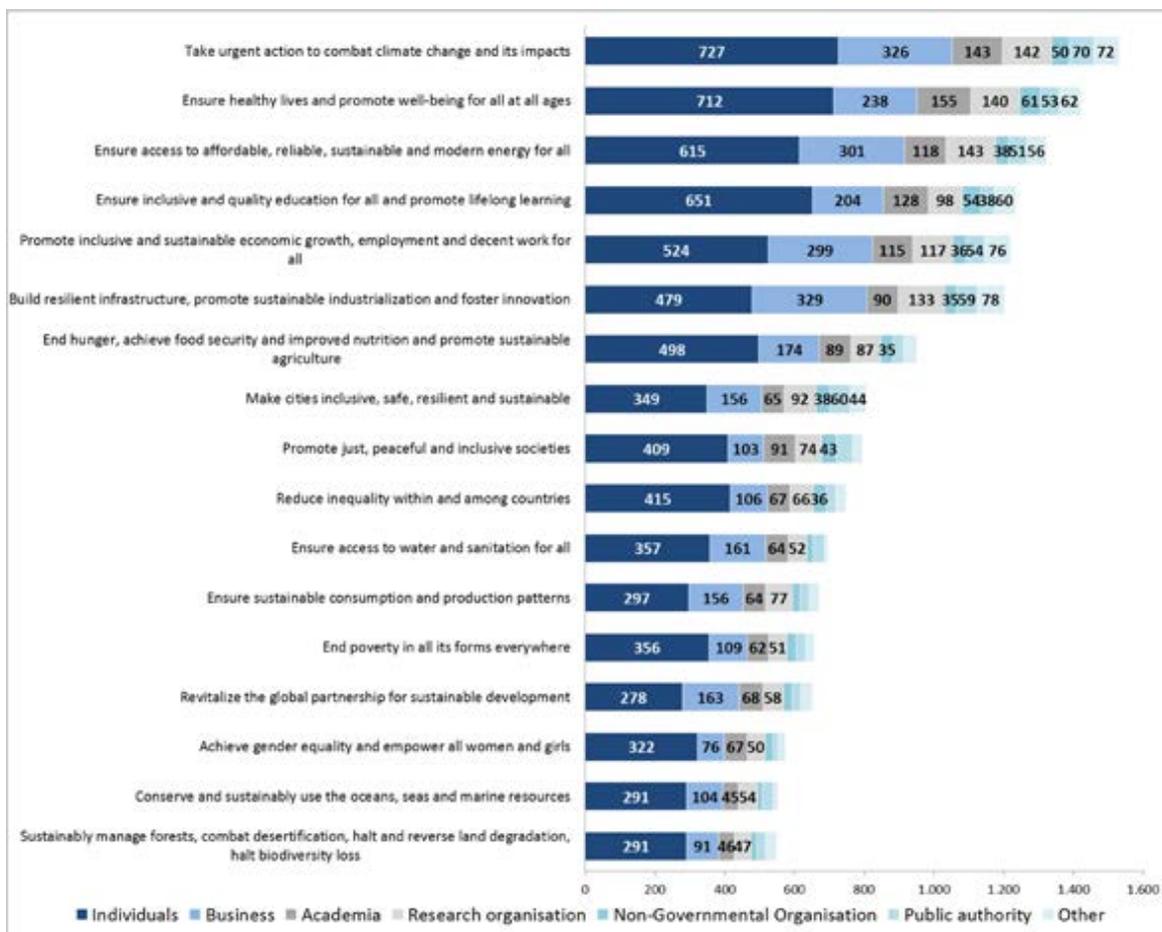
To conclude, the respondents to the stakeholder consultation generally:

- Judge the added value of Horizon 2020 to be higher than that of national and/or regional programmes for research and innovation.
- Indicate that the cooperation with international partners is a key feature of Horizon 2020's added value.
- Agree that the additionality of the programme is strong and feel that a possible discontinuation of the programme would have strong negative impacts, which would extend far beyond a simple reduction of research and innovation funding for their organisations.

8. AREAS FOR FUTURE CONSIDERATION

Stakeholders were asked to choose up to 5 Sustainable Development Goals on which the future EU framework programmes for research and innovation should focus. **Six areas top the list** where each area was selected by more than 1000 respondents: **i) Combat climate change and its impacts; ii) Healthy living and well-being at all ages; iii) Affordable, reliable, sustainable and modern energy for all; iv) Inclusive and quality education for all and lifelong learning; v) Inclusive and sustainable economic growth, employment and decent work for all; and vi) Resilient infrastructure, sustainable industrialisation and innovation.**

Figure 40 Please choose up to 5 Sustainable Development Goals on which, in your opinion, the future EU framework programmes for research and innovation should focus. Number of respondents per option



Source: Replies to stakeholder consultation questionnaire launched in the framework of the Interim Evaluation of Horizon 2020, October 2016-January 2017, N=2648.

Respondents were also asked to state what was for them the **most important area/topic to be addressed by the EU framework programmes for R&I**. The results are broadly in line with the above findings. The most frequent words quoted were climate change (190 times), health (188 times), society/ societal (139 times) and social (73 times), inclusive (100 times), growth (99 times), education (87 times), and environment (83 times). The topics of safety (69 times) and security (59 times) also emerged strongly.

Estonia and Slovenia submitted their position papers (4%, 11 position papers). 9% (27 position papers) were received from international stakeholders including Norway, Switzerland, Israel, Chile, Turkey, USA and international organisations.

The representation of the position papers according to the stakeholder group (self-reported) and country is provided in figure below.

Figure 43 Overview of stakeholder groups (left) and countries (right) represented in the selected 70 position papers



The remainder of the section summarises main views expressed in position papers with the following structure:

- The role of Horizon 2020 in policy priorities;
- Design of Horizon 2020;
- Implementation of Horizon 2020;
- EU added value;
- Views or recommendations specific to a future European Innovation Council; and
- Overall comments regarding impact, openness (3Os) or excellence.

9.2. Role of Horizon 2020 in policy priorities



Horizon 2020 is addressing policy priorities of Europe but there is room to increase programme flexibility.

The majority of stakeholders representing different stakeholder groups commented on the role of Horizon 2020 in policy priorities. More than half of those who commented depict a positive view of the contribution of Horizon 2020 to current policy priorities. For instance, stakeholders note that:

- Horizon 2020 is tackling Europe's current challenges by contributing directly to competitiveness which leads to increased jobs and growth. They wrote that Horizon 2020 is "key", "crucial" and "a step towards" the implementation of the Europe 2020 strategy.
- A few respondents highlighted the contribution of Horizon 2020 to the realisation of the European Research Area (ERA) by funding collaborative research, cross-border infrastructure and mobility.
- Businesses that addressed this point specifically highlighted that the (societal) "challenge driven" research and innovation approach of Horizon 2020 and the fact that the programme covers the whole innovation chain is crucial for a competitive European industry.
- The international stakeholders that addressed this point also mention that Horizon 2020 plays a role that and should be further strengthened in addressing challenges that are of a global nature (i.e contributing to COP21, the UN Agenda for Sustainable Development). Similarly a few research organisations noted that there is a potential for Europe to become a stronger global actor if Europe manages to properly address Sustainable Development Goals or concentrate its research efforts into few/less priorities.

A few stakeholders also commented on the programme's flexibility and stated that improvements are needed mainly regarding Horizon 2020's flexibility with respect to changing priorities. One research organisation noted that the rapid response to emerging areas such as migration, Ebola and Zika is a good practice example of the flexibility of the programme that could be applied to other parts of the programme. An NGO suggested parts of the budget could be reserved for such changing priorities.

9.3. Design of Horizon 2020



The current pillar structure improves the clarity of the programme but linkages among the pillars should be enhanced.

Almost half of the stakeholders commented on the current programme structure. Half of those commenting have a positive view of the three pillar structure. They see it as a pragmatic and easy way to clarify the goals of different programme priorities.

Others indicated that the coherence and linkages between activities and projects under the three pillars could be strengthened. In particular, they mentioned a need for better links between the excellent research supported under Pillar 1 and topics in Pillars 2 and 3. To enhance such linkages, one representative of academia, for instance, suggested to extend the principle of ERC proof of concept grants across the entire programme. It was suggested that cross-pillar innovation should be enabled and ensured by the Work Programmes by, for example, giving a preferential score for proposals that build on previous project results.



Grants should remain the primary funding instrument of Horizon 2020. Funding should not divert to loan based financing under the EFSI.

A few stakeholders including those representing academia, research organisations, public authorities, international stakeholders as well as businesses, explicitly stated that grants should remain the primary funding instruments under Horizon 2020. In their opinion:

- Horizon 2020 funding should not be used for loans under the EFSI;
- Not all R&D is profitable in the short to medium term despite high potential for long term impact. Grants are the most suitable government support instruments for risky cutting-edge projects with long-term pay back. For instance an industry representative noted that manufacturing companies participate in Horizon 2020 because of their desire to share this risk; and
- Research entities such as academia and research organisations are legally not allowed to take loans.



The programme is complex and there is a need to streamline. Several instruments under Horizon 2020 work particularly well such as the ERC and MSCA grants. Some new instruments could be further improved.

A few stakeholders expressed their concerns about the complexity of the Framework Programme. They believe that the policy mix of the overall programme should be simplified: the number of instruments should be limited, their intervention logic clearly defined, and complementary/synergies with other instruments well stated.

Public authorities that commented on the instruments mainly noted that the collaborative projects and grants were preferred over other types of projects and loans. Some of them had a positive view specifically of instruments bringing together states and regions such as the public-public partnerships, cofond schemes and ERANETS, INNOSUP and MSCA.

Some stakeholders from academia and research organisations also depict a very positive view of the current set of instruments fostering excellent science in particular the ERC and MSCA grants. For instance, a representative from academia wrote that "*the ERC is the single most successful EU research funding instrument ever*" due to reputational effects and the recognition of bottom-up science.

Furthermore some representatives of the business community specifically commented on the Joint Technology Initiatives (JTIs), Joint Undertaking (JUs) and the contractual Private Public Partnerships (cPPPs). They noted that Horizon 2020 provides a ring-fenced budget to PPPs, JTIs and other industry initiatives which is in particular beneficial for the industries that are represented by, or are a member of, such initiatives. Besides giving access to a reserved budget, these initiatives also enable the respective industries to be closely involved in the definition of the research and innovation priorities of the initiative through the drafting of the Strategic Research Agenda and in the definition of the call topics. The initiatives are seen as promising tools to increase the introduction of a R&D&I application in real markets. Other benefits mentioned are the fruitful collaboration possibilities between the different players in the respective industries (bringing together both SMEs and large companies) and the creation of scientific networks amongst them.

In addition, some SME and business representatives commented on and welcomed the inclusion of innovation activities in Horizon 2020. They see the introduction of the SME Instrument as a good opportunity for high-innovative and market ready SMEs. However, one research organization noted that the SME instrument should be opened up to allow for collaboration with universities.

A few international stakeholders included comments and suggestions regarding the financial instruments, on average being relatively critical and requesting improvements.

Finally, a small number of stakeholders discussed the Seal of Excellence (SoE) initiative¹. A few stakeholders praised the initiative, whereas others pinpointed the need to review its effectiveness. NCPs in particular highlighted that the SoE is difficult to put into practice. One of the major obstacles is the state-aid rules and the different funding principles within the Member States.



Horizon 2020 needs to ensure a good balance between research and innovation (in Technology Readiness Levels). Concerns are voiced over the perceived increase in the funding of higher TRL levels to the detriment of collaborative lower TRL research.

Almost half of the stakeholders commented on the balance between research and innovation. The majority of those who commented stated that the programme needs to ensure a good balance between research and innovation. By stakeholder group, the majority of stakeholders from academia, research organisations and public authorities, indicated that currently Horizon 2020 seems to be moving away from funding basic, collaborative and frontier research. They believe there is a need to close the gap in funding lower TRL levels to create the ground breaking technological foundation for innovation. Only business representatives are positive about the shift towards innovation that took place under Horizon 2020. But still, a few pointed to the current lack of projects at the level of TRLs 3 to 5 under Horizon 2020.

Research organisations that commented on these issues were critical about the emphasis on higher TRLs and the 'unbalanced' relation between basic and applied research funding. They urge the European Commission to keep the number of calls and budget allocated to basic research at the current level. Similarly, academic stakeholders unanimously denounced a shift towards innovation that they do not see as justified for two main reasons: higher TRL research is funded by companies and relies on other forms of finance; and public research grants and funding for 'high TRL' research will result in less disruptive, radical innovation.

More than half of the public authorities commented on the TRL levels. Of those who commented half noted that more support should be given to lower TRLs. Only one Swedish region advocated strongly for higher TRLs e.g. for close-to-market activities.

¹ This quality label is awarded to project proposals which were submitted for funding under Horizon 2020 and have passed stringent selection award criteria but could not be funded due to budget constraints. As such the SoE aims to highlight proposals which deserve funding from alternative sources such as public, private, national, regional, European or international.

There is also a clear message from international stakeholders that expressed an opinion that the inclusion of innovation activities in Horizon 2020 (as opposed to the previous Competitiveness and Innovation Programme, which ran from 2007 to 2013 in parallel to FP7) is in the right direction but that it should not be done at the expense of funding for basic research. Therefore, it is requested that the focus be on lower TRL levels, closer to basic research.

Half of the business respondents that expressed a view are positive about the shift towards more innovation funding that took place under Horizon 2020. Still, a few business respondents pointed out the current lack of TRL 3-5 projects under Horizon 2020.



Social science and humanities (SSH) need to be better integrated in the programme design.

Some stakeholders representing different types of organisations mentioned that social science and humanities (SSH) are currently not adequately integrated into the programme specifically in Pillar 2 and 3. Some stakeholders stressed that the SSH have an equal capacity to solve the challenges of society today as the natural sciences. In their opinion, the SSH need to be better integrated into the design of work programmes, into the description of calls and into project evaluation (i.e. ensure at least one evaluator has an SSH expertise).

None of the position papers submitted by businesses addressed this issue.



The transnational and multi-sectorial approach for excellent research and innovation is working well.

Some stakeholders including academia, research organisations, public authorities and NGOs commented on the transnational and multi-sector collaborative approach for excellent research and innovation and perceive it as an "*attractive*" and "*successful*" method and "*the backbone*" of Horizon 2020.

A few research organisations that commented on collaborative approaches depict a positive view. For some of them, the links between natural sciences and the human and social sciences seem to be very important. Others highlighted the benefits of research involvement in, for instance, risk detection and development and validation of standards. Similarly, a few public authorities that commented on the interdisciplinary approach in Horizon 2020 noted that it is welcomed and should be continued, even in the case where some participants (e.g. SMEs) may need help to deal with such an approach. Almost half of the NGOs appreciate the integration of the collaboration and several positions from academia remarked on the benefits of collaborative research.

Very few representatives from the business community commented on the topic of collaboration and their opinions differ. On the one hand a few business representatives expressed a positive opinion and the need for collaborative and interdisciplinary projects to bring solutions to societal challenges. On the other hand, few suggested that these large collaborative projects need new tools to manage and to safeguard relationships between partners that are created.

Furthermore, a few international stakeholders mention that the streamlining of international cooperation in Horizon 2020 is not effective and that the participation of third countries in the programme should be enforced.



Stakeholders have different opinions on the degree and appropriateness of their involvement in the design of Horizon 2020.

Some stakeholders commented on the degree of their involvement in the design of Horizon 2020 and its activities, but their opinions differ:

- Of those commenting, some stakeholders representing different types of stakeholder groups have a positive view on the current level of involvement and see the agenda-setting process as contributing to a comprehensive and widely-supported programme;
- Several others, however, noted that the current design of the Work Programmes is not transparent and that processes vary in different parts of the programme. In general, organisations found the involvement of stakeholders from their particular field to be lacking. For instance, among others, the following issues were highlighted:
 - Inadequate coordination with the Member States specifically mentioned by Germany and France but also from stakeholders in academia;
 - Estonia as well as one SME noted that larger players seem to have more influence on the research programme and the call topics; and
 - A few stakeholders that commented on this issue from industry and the business community noted they are not well represented in the Horizon 2020 projects, working groups, advisory groups and committees (below 20%).

9.4. Implementation of Horizon 2020



Oversubscription is one of the most commonly quoted issues of Horizon 2020.

The majority of stakeholders touch upon the issue of oversubscription in Horizon 2020. In general they consider that oversubscription discourages participation, reduces the quality of evaluations, 'wastes' too many resources and leaves a number of high quality proposals unfunded.

Stakeholders proposed a variety of solutions on how to reduce oversubscription rates:

- Increase budget specially for the bottom-up calls to better meet the demand;
- Reduce scope of calls;
- Improve and expand the two-stage proposal procedure with the success rates at the second stage reaching 30% to 50%. Increase the time between the first and the second step so that proposers receive negative feedback before preparing their submission to the second step. Make the first step lighter. Evaluators between the two stages should remain the same to ensure continuity and coherence in the evaluation process. A few respondents noted that the current introduction of a two-stage proposal procedure to manage oversubscription in certain calls is welcomed, but that the process is not selective enough in the first stage.



The quality of current evaluation process of Horizon 2020 calls should improve.

Some stakeholders from academia, research organisations as well as public authorities and business commented on the evaluation process and noted that the quality of the current process should be improved. A variety of issues was highlighted, in particular:

- The Evaluation Summary Reports are reportedly too short and provide generic and not tailored feedback. In particular, applicants would like to receive better feedback in between steps in two-stage procedures. Some stakeholders suggested that a lack of feedback partially caused the oversubscription issue of the programme.
- Evaluation committees should have a balanced representation of stakeholders including industry, business participants and SHH experts. A few business representatives further noted that the selection rules of expert panels should be clarified and made transparent.



Excellence should remain the main driver of Horizon 2020 and subsequent programmes.

Some stakeholders representing different stakeholder groups underlined that excellence should remain the highest priority and the driving principle of Horizon 2020.



Widening participation is crucial, but should not come at expense of excellence.

Some stakeholders representing different stakeholder groups commented on the need for a more balanced participation of different stakeholders in the Horizon 2020 programme and in general welcomed the "Spreading excellence and widening participation" activities of the programme.

Most commonly, stakeholders mentioned low participation rates of EU-13 countries due to their lower research and innovation capacities. However, there seems to be an agreement that this issue should not be addressed by changing the nature of the current research funding which is based on excellence. Some other solutions were proposed such as:

- Greater use of structural funds (ESIF) for capacity building in research and innovation or for financial incentives to catch up with research systems;
- Follow-up and opening of the twinning and teaming mechanisms;
- Introduction of a milestone prize mechanism;
- Extension of the ERA Chairs to early stage researchers; and
- Introduction of a bottom-up networking instrument for experienced researchers across Europe.

Furthermore, a few representatives of research organisations and public authorities noted that more could be done to attract SMEs and newcomers to the programme.

In addition, almost all business respondents stating their opinion on the topic of participation believe that industry is under-represented in Horizon 2020 projects, although they see their participation as essential for turning ideas into value in the market. Furthermore, they noted that among the top-100 beneficiaries of Horizon 2020 funding, few are from the private sector.



Sharp decline in the participation of international partner countries is worrying.

A few organisations from different stakeholder groups are worried about the observed drop in international partners' participation in Horizon 2020 and noted the issue should be addressed strategically.

Some recommended that rules for participation and the regulatory framework should be simplified, for instance through a standard contract with global acceptance and guarantee of IP rights. Others noted that the programme should introduce topics that explicitly flag international collaboration, have a ring-fenced budget or a separate pillar for international collaboration.

In a White Paper² submitted to the public consultation, the USA offered some lessons learned to facilitate international cooperation, based on their own experience. For instance, they note that the programme should further reduce the procedural burden and administrative and bureaucratic requirements for participants, permit a greater range of options for governing law and choice of courts in agreements, limit liability for third

² United States Feedback on Horizon 2020 and Suggestions for Framework Programme 9, January 19 2017

parties and allow for secondary recipients of funds to negotiate the terms of their cooperation directly with their European partners.



Information exchange between National Contact Points (NCPs) and the European Commission could improve.

A few stakeholders representing different stakeholder groups noted that information exchange processes between National Contact Points (NCPs)³ and the European Commission should be strengthened.

According to a few representatives of research organisation, the current quality of NCP services differs. One business representative noted that NCPs need to be better briefed to avoid the submission of irrelevant proposals. This view was also shared by a representative from academia who noted that the quality of communication varies depending on the thematic programme and the Commission Directorate-General. One NCP network made the same observation in its position paper and added that some struggle to get adequate and timely programme information, specifically in relation to externalised programmes such as JTIs.



There needs to be a balance between small, medium and large projects.

Some stakeholders commented on the current project size in Horizon 2020. The majority of those commenting noted that a better balance between small, medium and large projects should be achieved within the programme. However, stakeholders do not seem to agree on what such a balance should look like. For instance, it was noted that the effectiveness of very large size consortia in some projects should be reviewed. At the same time, a few stakeholders noted that larger projects are more efficient. A few others stated that smaller projects allow for higher participation of SMEs and newcomers into the programme and can be as effective as large projects.



Simplification is welcomed but further steps are needed.

Some stakeholders that commented on the simplification measures under Horizon 2020 have a positive view. In particular, they see the Research Participant Portal and shorter time to grant as important improvements.

However, they also noted that further simplification efforts are needed for instance related to preparation and submission of proposals, reimbursement rules, cost declarations and recognition of nationally accepted and audited accounting practices.

9.5. EU added value



Horizon 2020 brings an EU added value.

Many different types of stakeholders make comments reflecting the EU added value and the majority of the views depict that Horizon 2020 brings an EU added value through:

- Collaborative cross-sectorial, interdisciplinary and international projects and associated networking effects;
- Faster and large scale implementation which is not possible on national or bilateral level; and
- Scientific excellence.

Business respondents specifically mentioned the following areas of EU added value:

³ The network of NCPs is the main structure to provide guidance, practical information and assistance on all aspects of participation in Horizon 2020.

- Opportunity to leverage financial investment;
- Opportunities for SMEs to globalize through their cooperation with large companies; and
- Access to international/ European supply chain.

9.6. EIC specific views or recommendations



The current approach to building up the EIC seems to address the key challenges in innovation support to SMEs.

Some stakeholders from different types of organisations except the NGOs, expressed specific views related to a future European Innovation Council (EIC), an initiative in the making that could encourage breakthrough, market-creating innovation that helps European start-ups grow into world-beating companies.

The majority of those who commented support for the current approach to build up the EIC. In particular, they highlighted:

- An EIC will seem to address the key challenges in innovation support to the best SMEs: bottom-up calls, market creating innovations, face-to-face interviews, access to mentoring and coaching and access to scale-up money;
- A few representatives of the business community noted that the industry should be in the steering board of the EIC to integrate the market and industry vision in the selection of start-ups and to facilitate their future partnership with the manufacturing industry;
- The financial allocation for the EIC should not be detrimental for fundamental research and it should not come from Horizon 2020;
- Both stakeholders from business community and research organisations noted that the EIC should not contribute to a rigorous split between research and innovation. Collaboration among different stakeholders should be encouraged;
- The EIC could function as a 'trademark' similar to ERC; and
- Coherence and complementarity of the EIC with the existing instruments needs to be ensured.

9.7. Other comments



More sophisticated measures are needed to monitor impact.

Some stakeholders from different types of organisations commented on the monitoring system and, for the most part, noted that it needs to improve. Most of those commenting believe the current interpretation of programme impact is narrow and too short-term focused and a more "*sophisticated*" approach should be adopted. Some other stakeholders call for better monitoring of downstream impacts.

A few NGOs in particular stressed a need for better measurement of impact. Similarly, one public authority stressed that the interpretation of impact specifically related to societal challenges should be broader in scope to account for a wide range of effects including social, economic, environmental and cultural.

One business respondent stated that Horizon 2020 and the future Framework Programme should be at the forefront of practice in monitoring, evaluation and impact assessment.



Views on the Open Data initiative diverge.

Some stakeholders commented on the Open Data initiative, on which views diverge:

- Some stakeholders in particular NGOs, research organisations and academia welcome the Open Data initiative and call for greater transparency and open access;

Yet others including representatives of businesses and industry, but also academia, underline that the new emerging 3Os policy (Open Science, Open Innovation, Open to the World) will need to be flexible to allow industry participation rather than being a disincentive. In particular, open access should not apply by default to research data from private-sector research, nor from public-sector research performed in collaboration with industry.

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Horizon 2020 is the biggest EU research and innovation programme ever. €77 billion of funding is available over seven years (2014 – 2020) – in addition to the private and national public funding that the EU investment will leverage.

Three years into the programme implementation, the European Commission launched an interim evaluation to assess the progress made so far on the basis of five evaluation criteria: relevance, efficiency, effectiveness, coherence and EU added value. As an integral part of this interim evaluation, a public stakeholder consultation was open from October 2016 until January 2017. Stakeholders (including non-participants) submitted nearly 3500 replies to the online questionnaire and more than 300 position papers.

This publication presents a detailed analysis of the results of the stakeholder consultation. It includes revealing findings for example on the flexibility of the programme, on the simplification of rules, or the European added value. It also contains a set of key messages and areas of improvements as suggested by stakeholders.

Studies and reports

