



FIT-4-NMP

SURVEY

ON THE CHALLENGES LIMITING THE PARTICIPATION
OF TALENTED NEWCOMERS IN **EU** PROJECTS
IN NANOTECHNOLOGIES, ADVANCED MATERIALS
AND NEW MANUFACTURING PROCESSES (**NMP**)



2021

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Survey on the challenges limiting the participation of talented newcomers in EU projects in nanotechnologies, advanced materials and new manufacturing processes (NMP)



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EXECUTIVE SUMMARY

This report has been prepared in the frame of the H2020 FIT-4-NMP project funded by the European Commission, which aims to increase the participation of talented newcomers from underrepresented regions in nanotechnologies, advanced materials and new manufacturing processes (NMP) research in Horizon Europe compared to Horizon 2020. In this context, the following definitions are used:

- Talented newcomers are organisations – companies and especially SMEs, universities, research institutes or other organisations – that have not participated in the H2020 NMP projects but are considered promising innovators based on their R&D activities, projects, patents and/or innovations.
- Underrepresented regions are regions with relatively low participation in H2020 NMP projects but with untapped NMP potential.

In order to understand the reasons for the low participation of newcomers in NMP projects, FIT-4-NMP conducted an online survey to gather information from talented newcomers and national research and innovation policy experts between 26th April – 5th August 2021.

The survey was completed by 128 respondents from 26 countries (EU-13: 84 respondents; EU-15: 13 respondents; Associated Countries: 31 respondents). 93 of the survey respondents were newcomers and the remaining 35 were policy makers. The newcomers were made up of a balanced mix of respondents from universities, research organisations and SMEs. Nearly half of the newcomers had previous experience of either participating in a Horizon 2020 project or coordinating one. Also, nearly half of the newcomers had experience of participating in calls under national or international research programmes, other than Horizon 2020. Meanwhile, the policy makers were predominantly national contact points (NCPs). Overall, the survey received the highest response from organisations in central and eastern Europe.

The survey questionnaire enabled three main issues relating to low participation to be investigated: relevance to newcomers, barriers to participation, and ways to increase participation in Horizon Europe. The key findings for these three main issues are presented below.

Relevance to newcomers

- The survey respondents' number one reason to participate in Horizon 2020/Horizon Europe was to strengthen international cooperation and to improve international visibility. The second most cited reason was to develop cutting-edge technologies and to enter to new markets. Overall, there were numerous reasons why newcomers were motivated to participate in Horizon 2020/Horizon Europe programme.
- Almost half of all responses from newcomers indicated their preferred role in a Horizon 2020/Horizon Europe project is to be a Work Package leader. This contrasted with policy makers who indicated that prior experience is needed for the first project and so team membership was a good starting point for newcomers.
- Specific critical competencies were the most cited key factor required to participate in a Horizon 2020/Horizon Europe project. This was followed by scientific excellence and then technological challenges (medium and long innovation cycles).
- With respect to the best fit between technology readiness level (TRL) and newcomers, the respondents preferred low TRL numbers, indicating TRL 1-4 (technology concept formulated; experimental proof of

concept; technology validated in lab) followed by TRL 5/6 (technology validated and demonstrated in relevant environment).

- Most respondents indicated that both “Open Funding” and “Strategic Challenge” type of funding schemes would suit a newcomer’s participation in the Horizon Europe programme.
- Most respondents indicated that grants for collaborative projects were to a large extent relevant or fully relevant to the needs of newcomers. Similarly, most respondents indicated that grants for single beneficiary projects were to at least some extent relevant to the needs of newcomers.
- Most respondents indicated 3-5 partners to be the ideal number of partners to have in a consortium in order to bring new expertise and perspectives to newcomers.
- The top source of information relevant to newcomers is an explanation of the requirements of the proposal templates. This was followed by three quite closely scored sources of information: information regarding the evaluation process and IPR issues; insights into the information needed to manage Horizon Europe projects; and how to identify and integrate the relevant policy papers in the proposal.
- Newcomers only consider the provision of information from NCPs/EEN as being “Relevant” rather than “Very relevant”. This indicates an important gap in the provision of information between NCPs/EEN and newcomers which needs to be bridged.

Barriers to participation

- The barrier to participation ranked highest by newcomers was the low success rate of H2020/Horizon Europe proposals. This barrier coupled with newcomers’ comparatively easier access to national sources for funding R&D projects (third ranked barrier) act as a strong disincentive to newcomers’ participation.
- “Closed clubs” were deemed the second highest barrier to greater newcomer participation. Consortia that have been involved in EC framework programme projects for a long time tend to have a relatively closed nature about them. For research teams outside these “closed clubs”, it is difficult to break into the existing collaboration networks.

Ways to increase participation in Horizon Europe

- Most policy makers see a potential benefit to developing synergies between different national/regional programmes and Horizon Europe in order to promote the deployment and uptake of research results.
- The top-three most important elements selected by respondents for ensuring a good proposal preparation process were: detailed feedback if unsuccessful, clarity of the call requirements for the formulation of proposals, and ease of finding the right call for my proposal.
- Most policy makers indicated they have similar evaluation criteria to those used in Horizon 2020/Horizon Europe - “Excellence”, “Impact” and “Implementation” – for their national research and innovation funding schemes. This suggests a significant influence of the European Commission’s framework programme on the evaluation approach adopted at a national level by EU member states and Associated Countries.
- Only a small minority of respondents indicated that their proposal applications to regional or national funding schemes were made in English. This outcome suggests there is a relatively limited involvement of international experts in the evaluation process for national funding schemes of EU member states and Associated Countries.
- With respect to increasing participation in Horizon Europe, policy makers should consider implementing policy measures in five areas:
 - *Funding* instruments: strengthen the availability of funding for project preparation.
 - *Training*: create training programmes aimed at increasing competences and skills for the preparation of competitive projects.



- *Consultancy*: provide expert professional support for administrative issues and guidance for preparing and managing Horizon Europe projects.
- *Building networks*: support networking activities that will help to establish new contacts and links with existing collaborative networks.
- *Capacity building*: promote capacity building for participation in the Framework Programmes.

Next Steps

The FIT-4-NMP survey has helped to reveal respondents' ideas and preferences on ways to increase the participation of newcomers in Horizon Europe. However, in fact, this is not a new issue: many EU member states have already tried over the years – successfully and unsuccessfully – to implement their own policy measures to increase participation in the EU framework programmes. Thus, the logical next steps would be to investigate such measures and to identify examples of best practice, which can be recommended to policy makers responsible for the participation of NMP organisations from underrepresented regions in Horizon Europe. Indeed, these tasks have also been undertaken by the FIT-4-NMP consortium and are the subject of another FIT-4-NMP report on best practices and policy measures, which accompanies this survey report.

1. INTRODUCTION

Aim of the FIT-4-NMP survey

This survey was organized within the context of the FIT-4-NMP project, which is a support action funded by the European Commission's Horizon 2020 programme to increase the participation of talented newcomers from underrepresented regions in Horizon Europe research in nanotechnologies, advanced materials and new manufacturing processes (NMP) as compared to Horizon 2020.

Talented newcomers to NMP in Horizon Europe are promising innovation organisations – especially SMEs – which did not participate in Horizon 2020 NMBP projects. Meanwhile, underrepresented regions are regions in EU and Associated Countries to Horizon 2020, which had a low participation in Horizon 2020 NMBP.

The aim of the survey was to gather information from talented newcomers and national research and innovation policy experts, in order to understand the precise and possibly complex reasons for the low participation of newcomers in NMP projects, and to help formulate measures to tackle these problems.

Consequently, the survey was comprised of four sections:

- Section I. Identification of the respondents;
- Section II. Does Horizon 2020/Horizon Europe respond to newcomers' needs;
- Section III. Barriers to higher participation;
- Section IV. How coherent is Horizon Europe with other EU/national/regional funding initiatives.

Newcomer and policy maker categorisation and survey adaptations

Survey respondents were categorised as *newcomers* if, for the Section I question "What type of organisation do you represent?", they ticked one of the following answers: a) University, b) Public research organisation, c) SME, d) Private for profit (a business or an industry, excl. education and SMEs), or e) Non-profit organisation.

On the other hand, survey respondents were categorised as *policy makers*, if they ticked the answer f) National Contact Point (NCP), g) EU/regional/national public authority responsible for R&I policy or funding or h) Other.

The respondents were asked to provide insights in relation to their experience in EU programmes, the barriers they face regarding participation in NMP projects, as well as their experiences and/or suggestions for best practices to improve the situation regarding measures that could help to increase participation in Horizon Europe.

According to the categorisation of the respondent (newcomer or policy maker), parts of the survey were adapted. For example, policy makers were not asked questions in Section III. Barriers to higher participation. The two versions of the survey – newcomers' and policy makers' versions - can be found in the Annexes 7.1 and 7.2 respectively.

Some questions required the respondents to indicate the relevance of different types of information (very relevant, relevant, irrelevant) while other questions required the respondents to indicate the importance of different answers (unimportant, low importance, important, very important, extremely important).

Furthermore, several open-ended questions were asked to the respondents in Section IV such as:

- What could be improved in the structure of the Horizon Europe work programme and/or its calls to make it easier for applicants;
- What opinions, experiences and/or suggestions for best practices and policy measures could be provided to increase the participation of talented newcomers in NMP projects in Horizon Europe.

Implementation of the survey

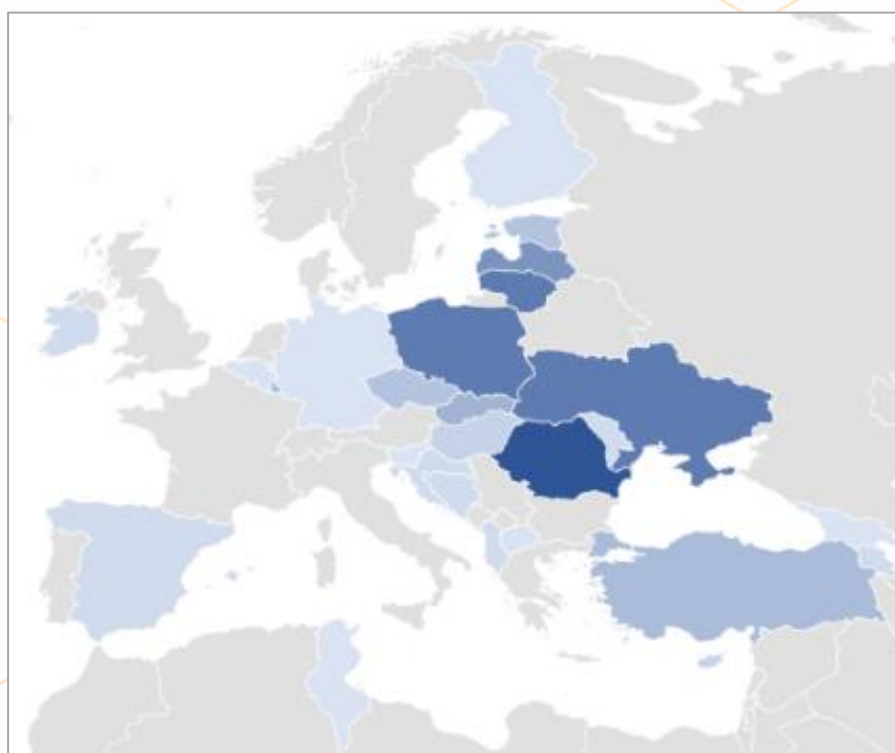
The survey was implemented by task leader MITA with the support of all the FIT-4-NMP consortium partners. It was distributed via regional and/or national authorities responsible for research and innovation policy and funding, local innovation and technology transfer nodes (clusters, umbrella organizations, etc.), and the EC. In the case of the EC, the main communication channels were NCP coordinators, NMBP NCPs and Programme Committee members. The survey was run online using [EUSurvey](#) from 26th April to 5th August 2021.

In the following sections of the report, the main results of the survey are presented together with analysis and preliminary recommendations for best practices and policy measures for policy makers to enhance participation in NMP projects in Horizon Europe.

2. RESPONDENTS TO THE SURVEY

2.1 NATIONALITY

The survey was completed by 128 respondents from 26 countries (EU-13: 84 respondents; EU-15: 13 respondents; Associated Countries: 31 respondents). In the map below, grey denotes countries with no respondents while increasing darker blue denotes countries with an increasing number of respondents. Overall, the survey received the highest response from organisations in central and eastern Europe. A full breakdown of the respondents according to country is provided in Annex 7.3.



2.2 ORGANISATION TYPE

The 128 respondents came from the following types of organisations.

Type of Organisation	Number of Respondents
University	20
Research organisations	34
SME	24
Private for profit (a business or an industry, excl. education and SMEs)	6
Non-profit organization	9
National Contact Point (NCP)	19
EU/regional/national public authority responsible for R&I policy or funding	11
Others	5
Total	128

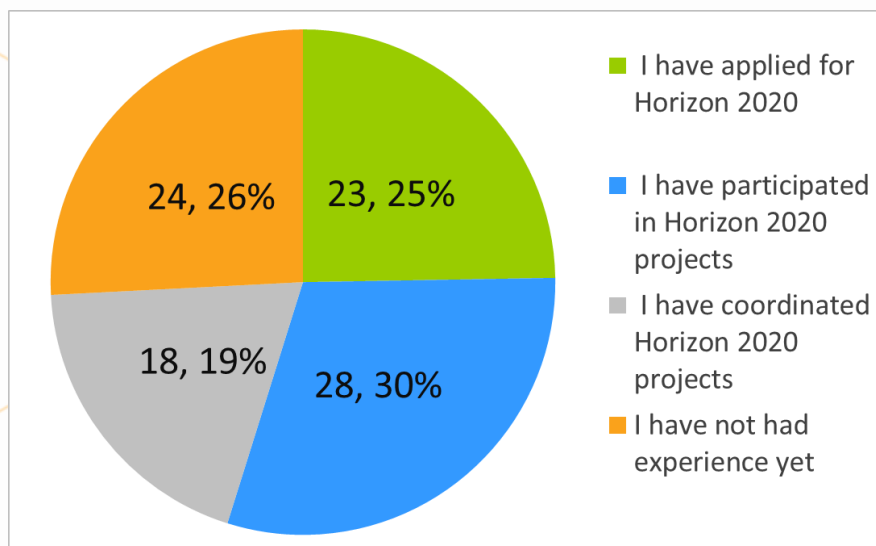
2.3 NEWCOMER OR POLICY MAKER

Nearly three-quarters of the survey respondents were newcomers with the remaining quarter policy makers.

Category of Respondent	Number of Respondents
Newcomer	93
Policy maker	35
Total	128

2.4 NEWCOMERS' PAST EXPERIENCE OF HORIZON 2020

The 93 newcomer respondents had the following range of experience of the Horizon 2020 programme. Notably, nearly half had previous experience of either participating in a Horizon 2020 project or coordinating one.



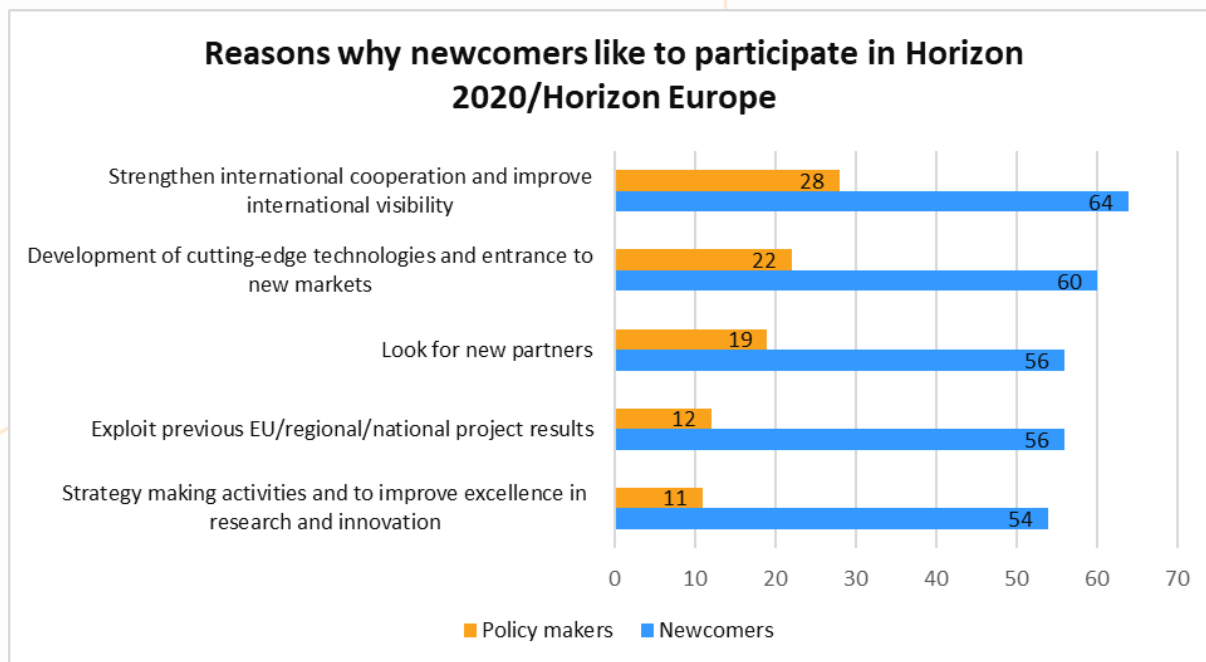
2.5 NEWCOMERS' PAST EXPERIENCE OF NATIONAL OR INTERNATIONAL RESEARCH BEYOND HORIZON 2020

According to the survey, nearly half of the newcomers had participated in calls under national or international research programmes, other than Horizon 2020. The most popular programmes were the following: national programmes increasing economic competitiveness through research, development and innovation; ESIF; COST; ERA-NETs; ERASMUS +; Interreg; EUREKA; and Eurostars.

3. RELEVANCE TO NEWCOMERS

3.1 REASONS FOR NEWCOMERS TO PARTICIPATE

The respondents were asked to choose from a list of options the reasons why newcomers participate in H2020/Horizon Europe. The survey revealed the following results:

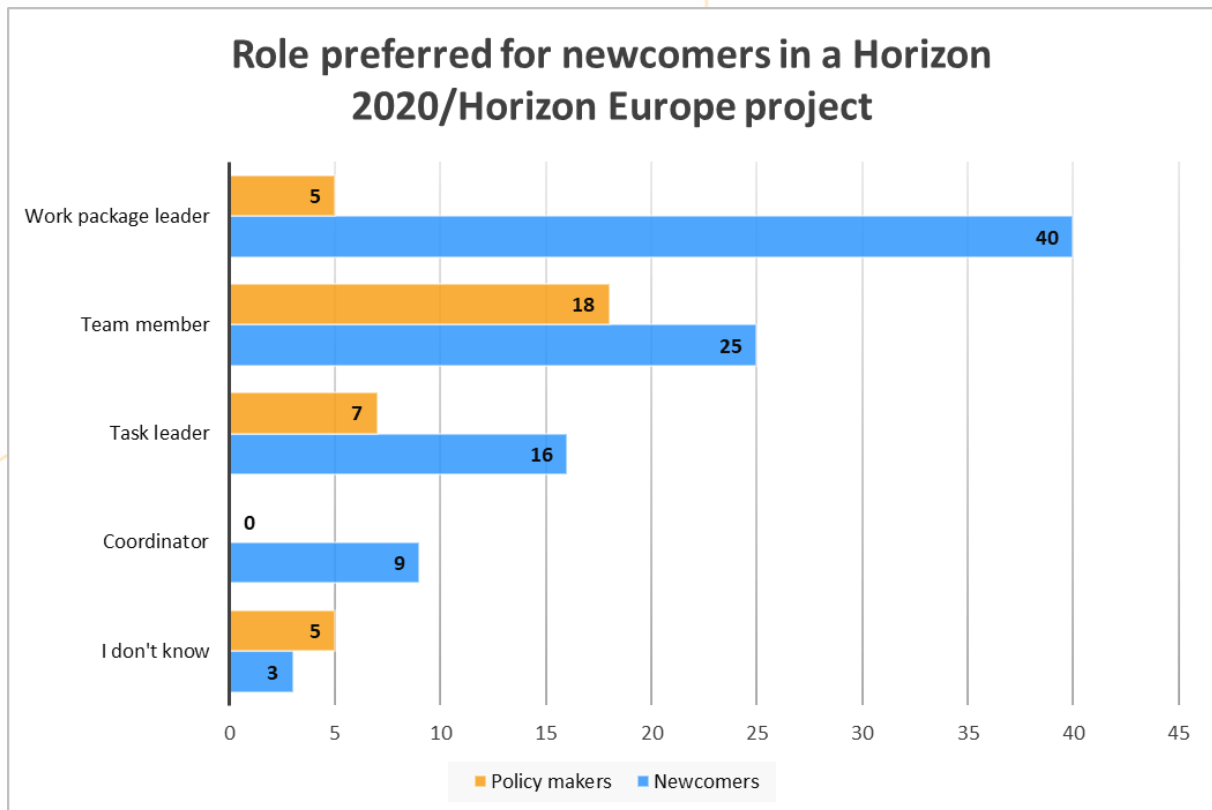


The responses of the newcomers and policy makers were found to show no significant statistical differences. Similarly, there were no significant statistical differences between the responses from EU-13, EU-15 and Associated Countries.

The respondents' number one reason to participate in Horizon 2020/Horizon Europe was to strengthen international cooperation and to improve international visibility. The second most cited reason was to develop cutting-edge technologies and to enter to new markets. Next, respondents indicated the opportunity to look for new partners followed by the exploitation of previous EU/regional/national project results and further development of technologies through pilot lines and demonstrator projects. Finally, a sizeable number of respondents indicated strategy making activities and improving excellence in research and innovation (e.g., more high impact publications and patents) to be important. Overall, there were numerous reasons why newcomers were motivated to participate in Horizon 2020/Horizon Europe programme.

3.2 NEWCOMERS' PREFERRED ROLE IN A HORIZON 2020/HORIZON EUROPE PROJECT

The respondents were asked to select from a list of options for the preferred role of a newcomer in a Horizon 2020 / Horizon Europe project. This is clearly an important factor contributing to the success or failure of a newcomer when submitting a proposal. The survey revealed the following results:



Almost half of all responses from newcomers indicated they preferred to be a Work Package leader. In terms of popularity, this was followed by the roles of team member and then task leader. Surprisingly, the results revealed that some newcomers even preferred to have the role of coordinator in a project.

On the other hand, policy makers indicated that prior experience is needed for the first project and so team membership is a good starting point for newcomers. In general, they considered it beneficial to first gain experience as a partner in a project before attempting to become a coordinator.

3.3 KEY FACTORS REQUIRED TO PARTICIPATE IN A HORIZON 2020/HORIZON EUROPE PROJECT

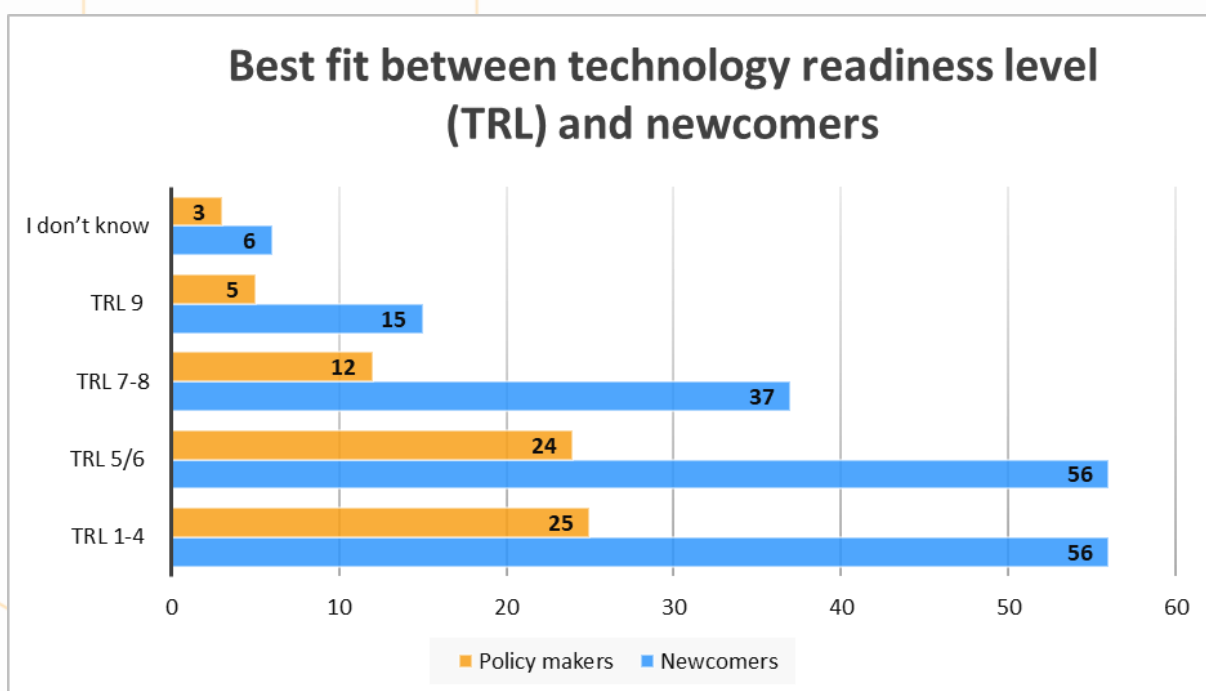
Policy makers were asked to select from a list of key factors required by newcomers when they would like to participate in a H2020/Horizon Europe project. The results of the survey question were as follows:



Specific critical competencies were the most cited key factor followed by scientific excellence and then technological challenges (medium and long innovation cycles). Nevertheless, financial strategy and history of financing (grants, equity, venture capital, business angel, etc.) as well as leadership skills were also considered important factors for newcomers to successfully participate in H2020/Horizon Europe projects.

3.4 BEST FIT BETWEEN TECHNOLOGY READINESS LEVEL AND NEWCOMERS

The respondents were asked to select from a list of options for the best fit between the technology readiness level (TRL) of a proposal and newcomers. The results of the survey question were as follows:

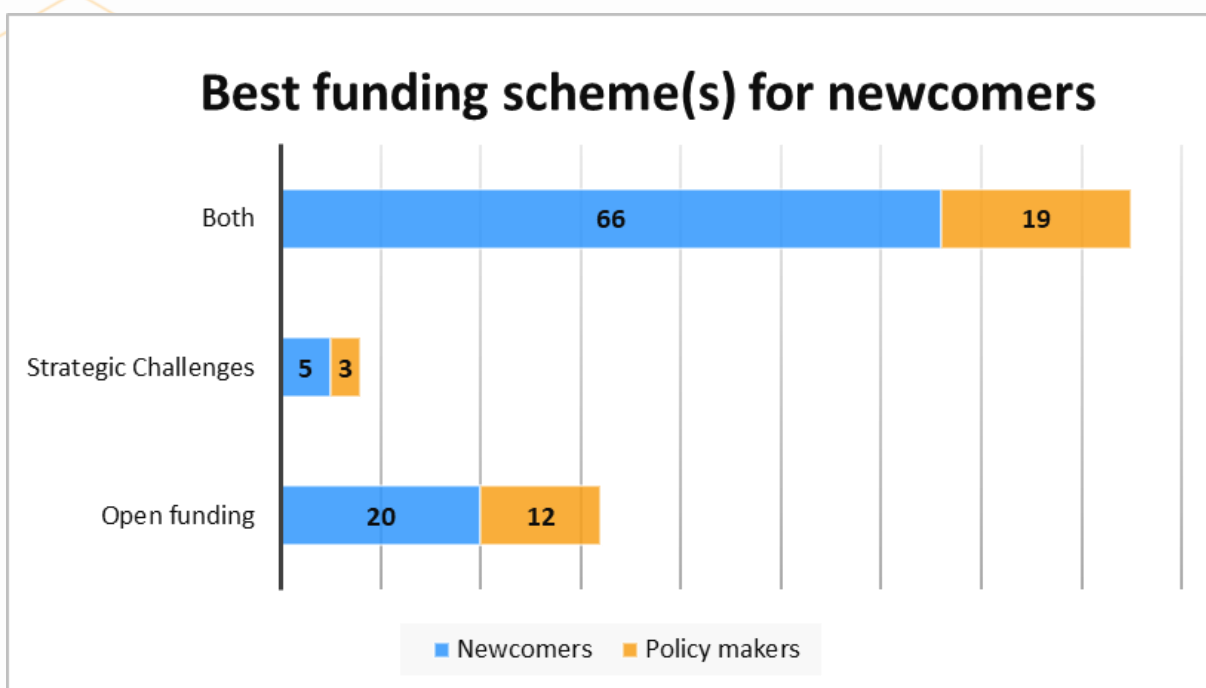


The responses of the newcomers and policy makers were found to show no significant statistical differences. Similarly, there were no significant statistical differences between the responses from EU-13, EU-15 and Associated Countries.

In most cases, respondents preferred low TRL numbers, indicating TRL 1-4 (technology concept formulated; experimental proof of concept; technology validated in lab) and TRL 5/6 (technology validated and demonstrated in relevant environment) to be the best fit. This outcome may possibly reflect a bias towards the preferences of universities and research organisations, who responded in greater number to the survey than SMEs and large companies.

3.5 BEST FUNDING SCHEME(S) FOR NEWCOMERS

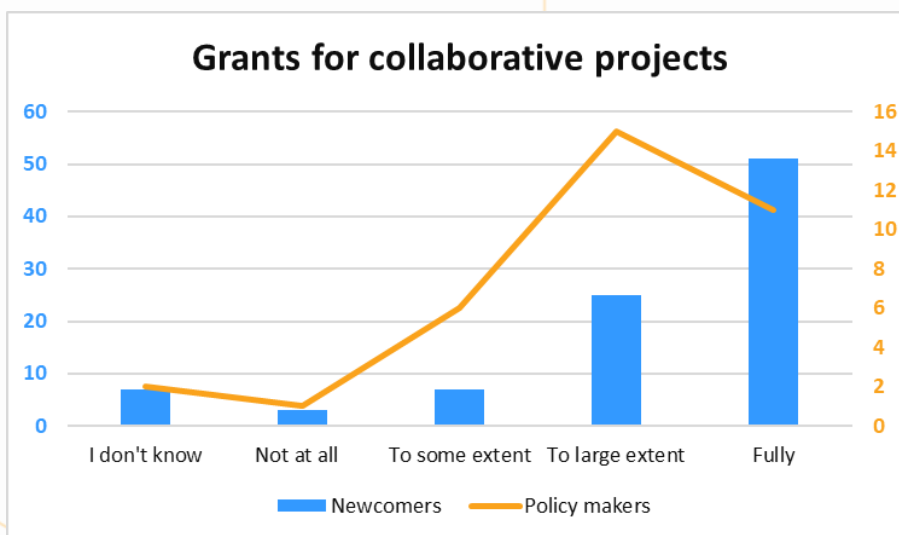
The respondents were asked which was the best funding scheme for newcomers and allowed to choose between Open Funding (i.e. research topics are “bottom-up” chosen by the applicants), Strategic Challenges (i.e. research topics are “top-down” chosen by the EC) or both. The survey revealed the following results:



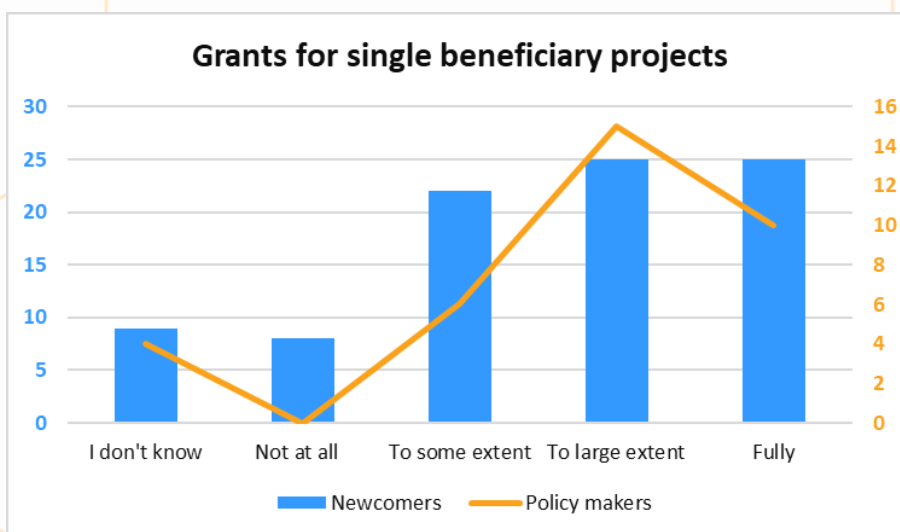
Most respondents indicated that both funding schemes (“Open Funding” and “Strategic Challenges”) would suit best a newcomer’s participation in the Horizon Europe programme. Of those respondents who only indicated one funding scheme, most preferred Open Funding to Strategic Challenges. In general, “bottom-up” research topics would probably be easier for newcomers to apply to.

3.6 RELEVANCE OF FUNDING SCHEMES TO NEWCOMERS

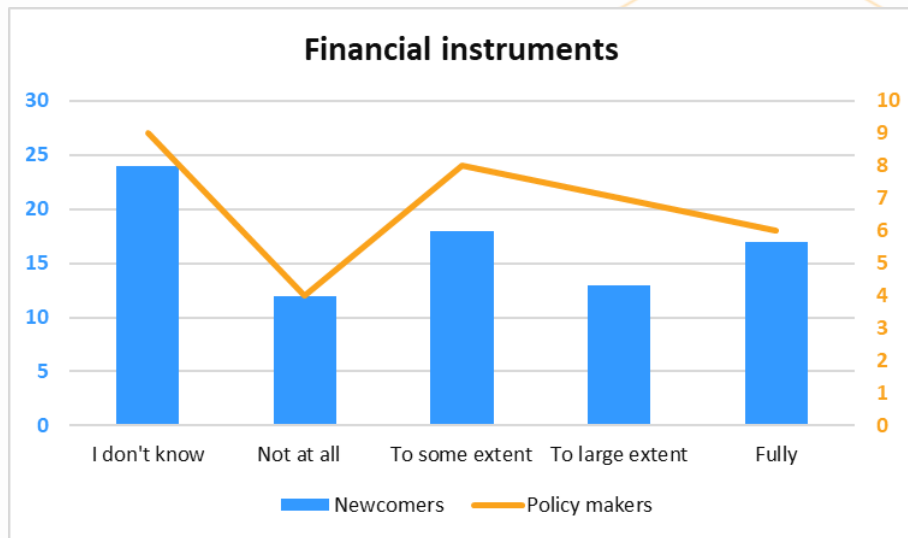
The respondents were asked to consider the relevance of different forms of funding to the needs of newcomers. The survey revealed the following results:



Most respondents (newcomers and policy makers) indicated that grants for collaborative projects were to a large extent relevant or fully relevant to the needs of newcomers.



Most respondents (newcomers and policy makers) indicated that grants for single beneficiary projects were to at least some extent relevant to the needs of newcomers.

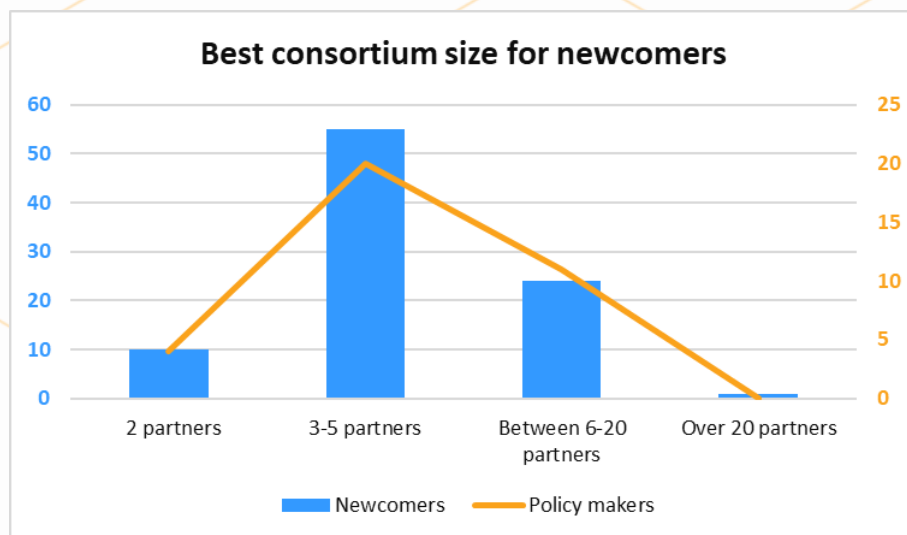


A significant number of the respondents (newcomers and policy makers) were unfamiliar with financial instruments.

On balance, grants for collaborative projects were considered the most relevant to newcomers' needs by the respondents.

3.7 IDEAL CONSORTIUM SIZE FOR NEWCOMERS

A vital factor contributing to the success of a project is the establishment of a project consortium. Thus, the respondents were asked to consider the best consortium size for newcomers. The survey revealed the following results:



The responses of the newcomers and policy makers were found to show no significant statistical differences. Similarly, there were no significant statistical differences between the responses from EU-13, EU-15 and Associated Countries.

Most respondents – both newcomers and policy makers – indicated 3-5 partners to be the ideal number of partners to have in a consortium in order to bring new expertise and perspectives to newcomers. Neither very small nor large consortia were deemed particularly suited to the participation of newcomers in the Horizon Europe programme.

3.8 INFORMATION RELEVANT TO NEWCOMERS


The newcomers were asked to indicate the importance of different sources of information to the preparation of Horizon Europe proposals. The results for all the newcomers who responded are ranked in the table below: starting with the source of information that received the highest number of votes for “Very relevant” and running down to the source of information that received the least number of votes for “Very relevant”.

Ranking	Sources of information before preparing first proposal	No of newcomer responses		
		Irrelevant	Relevant	Very relevant
1	Explanation of the requirements of the proposal templates	1	26	63
2	Information regarding the evaluation process and IPR issues	3	39	47
3	Insights into the information needed to manage Horizon Europe projects	9	35	45
4	How to identify and integrate the relevant policy papers in the proposal	4	41	44
5	Information on available support services from NCPs	8	47	35
6	Information on available support services from EEN	6	48	33

The results showed that the top source of information is an explanation of the requirements of the proposal templates. This was followed by three quite closely scored sources of information: information regarding the evaluation process and IPR issues; insights into the information needed to manage Horizon Europe projects; and how to identify and integrate the relevant policy papers in the proposal.

Clearly, there are advantages for newcomers to work with a coordinator regarding the collection of information: the newcomer does not have sole responsibility for finding all the information and the coordinator has previous experience and insights into the information needed to manage Horizon Europe projects. Additionally, a coordinator often has contacts with NCPs, EEN and other networks.

Notably, according to the survey, newcomers mainly consider the provision of information on available support services from NCPs and/or EEN as being “Relevant” as opposed to “Very relevant”. This observation suggests there is a gap in the provision of information between NCPs and/or EEN and newcomers which still needs to be bridged. Certainly, the NCPs and/or EENs have knowledge and experience which could benefit the newcomers. Also, they can provide official guidance on all the critical elements and, in the case of NCPs, they have direct



interaction channels with the European Commission. Therefore, it is paramount to raise awareness among the applicants about how the official support services can respond to their needs. In parallel, an effort is needed to ensure that the support offered in different countries is up to the same minimum quality standards, in order to respond to newcomers' expectations.

4. BARRIERS TO PARTICIPATION

4.1 NEWCOMERS ANALYSED ALTOGETHER

The newcomers were asked to indicate the importance of different barriers to higher participation in Horizon 2020/Horizon Europe. The results for all the newcomers who responded are ranked in the table below: starting with the barrier that received the highest number of votes for “Extremely important” and running down to the barrier that received the least number of votes for “Extremely important”.

Ranking	Barriers to higher participation	No of newcomer responses				
		Unimportant	Low importance	Important	Very important	Extremely important
1	Success rates in Horizon 2020 are too low to make applying worthwhile	4	10	22	24	31
2	“Closed clubs” (e.g. EU public-private partnerships)	7	10	22	18	31
3	Easier access to national resources for funding R&D projects	12	15	18	20	26
4	Limited financial resources to prepare a proposal	7	16	20	27	21
5	Inability to get co-funding for Horizon 2020/Horizon Europe projects	10	14	19	27	20
6	Newcomers seeking funding without well-developed networks	11	10	21	26	20
7	Limited in-house internal skills on drafting proposals or project management	10	20	21	21	19
8	Long time between proposal submission to contract signing	12	19	24	18	16
9	Lack of awareness about the EU research and innovation framework programme	9	18	27	24	11
10	Irrelevance of programme topics and goals to own research agenda	13	19	26	21	10
11	Preference to participate in other European or international programmes	19	20	26	16	9
12	Negative experiences gained from previous unsuccessful project proposals	26	22	16	21	6
13	Imbalance between control and trust of beneficiaries	20	27	28	9	6
14	Imbalance between the small and large indicative project sizes in the calls for proposals	11	19	36	20	5
15	Concerns about sharing valuable knowledge with consortium partners	22	21	29	12	5

High Ranked Barriers

Six barriers appear within this group based on their received votes being within the upper range (i.e. 20 or more votes for “Extremely important”).

The barrier ranked highest by newcomers was the low success rate of H2020/Horizon Europe proposals. This outcome is fully in line with the results of previous surveys carried out among EU-13 countries (e.g. *Overcoming innovation gaps in the EU-13 Member States*, European Parliamentary Research Services, March 2018). Without increased funding for the framework programme, this is a difficult barrier to overcome. Furthermore, this barrier coupled with newcomers’ comparatively easier access to national sources for funding R&D projects (third ranked barrier) act as a strong disincentive to newcomers participating in H2020/Horizon Europe.

“Closed clubs” were deemed among the highest barriers to greater newcomer participation. Consortia that have been involved in EC framework programme projects for a long time tend to have a relatively closed nature about them. For research teams outside these “closed clubs”, it is difficult to break into the existing collaboration networks. This barrier is perceived as significant by all types of organisations with at least some experience with Horizon 2020/Horizon Europe. If the “closed clubs” perception extends as well to European Technology Platforms, it is a shame as they are an important weapon in the EC’s competitiveness arsenal and were set up to chart the strategic R&D path ahead for key European industries. In fact, many of these public-private partnerships are open to membership of organisations from EU-13 countries as well as EU-15 countries, so possibly the underlying issue is more one of perception than reality.

Limited financial resources to prepare a proposal (fourth ranked barrier) highlights the fact that to write a competitive proposal requires substantial time and resources, which many newcomers feel they are lacking. This can be a barrier - especially for SMEs - with limited or no experienced of European funding programmes. At the same time, the lack of resources to fund the preparation of project proposals limits the potential for project coordination.

The rate of co-financing for private companies in H2020/Horizon Europe “innovation actions” can be between 50 – 70%. The inability to get co-funding for the remaining amount (fifth ranked barrier) also discourages a significant number of newcomers from participating in the EC’s R&D framework programme.

Lastly, many newcomers feel they lack contacts with partners experienced in H2020/Horizon Europe and so they flagged seeking funding without well-developed networks as the sixth ranked barrier.

Medium Ranked Barriers

Four barriers appear within this group based on their received votes being within the mid-range (i.e. between 10-19 votes for “Extremely important”).

It is a little surprising to see limited in-house internal skills on drafting proposals or project management ranked seventh barrier and not more highly, since proposal writing and project management for H2020/Horizon Europe require experience and specialised skills.

The duration between proposal deadline and grant agreement signing – for the successful proposals – can take up to 8 months and this time is clearly a deterrent for some newcomers, hence the eighth most voted barrier was the long time between proposal submission to contract signing.

Lack of awareness about the EU research and innovation framework programme (ninth ranked barrier) suggests there is never room for complacency in the need to promote H2020/Horizon Europe to new audiences.

Finally, the irrelevance of programme topics and goals to own research agenda (tenth ranked barrier) was also considered a discouraging reason for a moderate number of newcomers.

Low Ranked Barriers

Five barriers appear within this group based on their number of votes being within the low range (i.e. between 1-9 votes for “Extremely important”).

A modest number of newcomers prefer to participate in other European or international programmes (eleventh ranked barrier) rather than H2020/Horizon Europe. The reason is possibly linked to higher success rates in the other programmes.

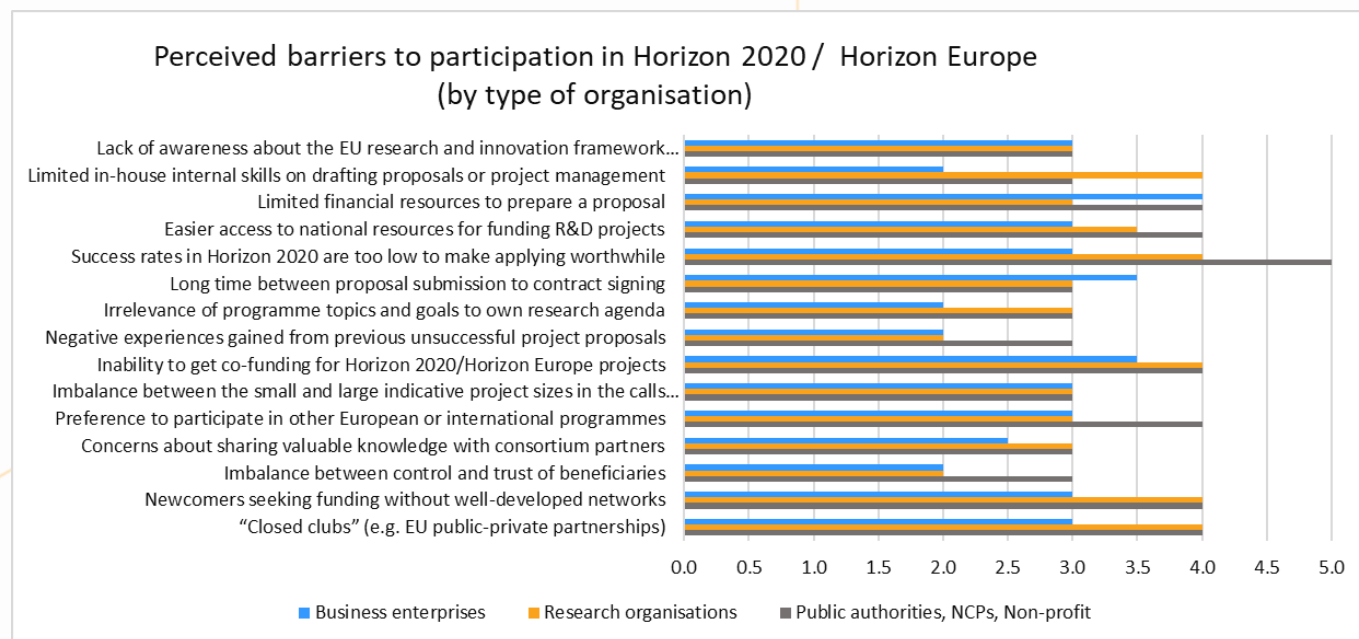
On a positive note, the negative experiences gained from previous unsuccessful project proposals (twelfth ranked barrier) was only deemed a major deterrent by a quite small number of newcomers. Indeed, the number of newcomers who considered this aspect to be unimportant or of low importance represented a sizeable majority.

Trust issues lay behind the reticence of a small number of newcomers to participate more in H2020/Horizon Europe and hence they flagged imbalance between control and trust of beneficiaries (thirteenth ranked barrier) and concerns about sharing valuable knowledge with consortium partners (fifteenth ranked barrier).

Lastly, a few newcomers indicated as an issue the imbalance between the small and large indicative project sizes in the calls for proposals (fourteenth ranked barrier). Given newcomers had previously indicated a preference for consortia with 3-5 partners (see Section 3.8), it would suggest that some newcomers are consequently discouraged by calls targeting larger project sizes.

4.2 NEWCOMERS ANALYSED ACCORDING TO TYPE OF ORGANISATION

In order to compare the three main groups of newcomers (business enterprises, research organisations, public authorities/NCPs/non-profits), their five possible responses for each barrier were numbered (Unimportant – 1, Low importance – 2, Important – 3, Very important – 4, Extremely important – 5) so that the median responses (values between 1-5) could be calculated and compared. The results are shown in the following bar chart.



The chart shows that for most of the barriers the three different groups of organisations (business enterprises, research organisations, public authorities/NCPs/non-profits) obtained similar median scores, which differed by no more than one unit from each other. In other words, the groups tended to perceive to a similar level the importance of each barrier.

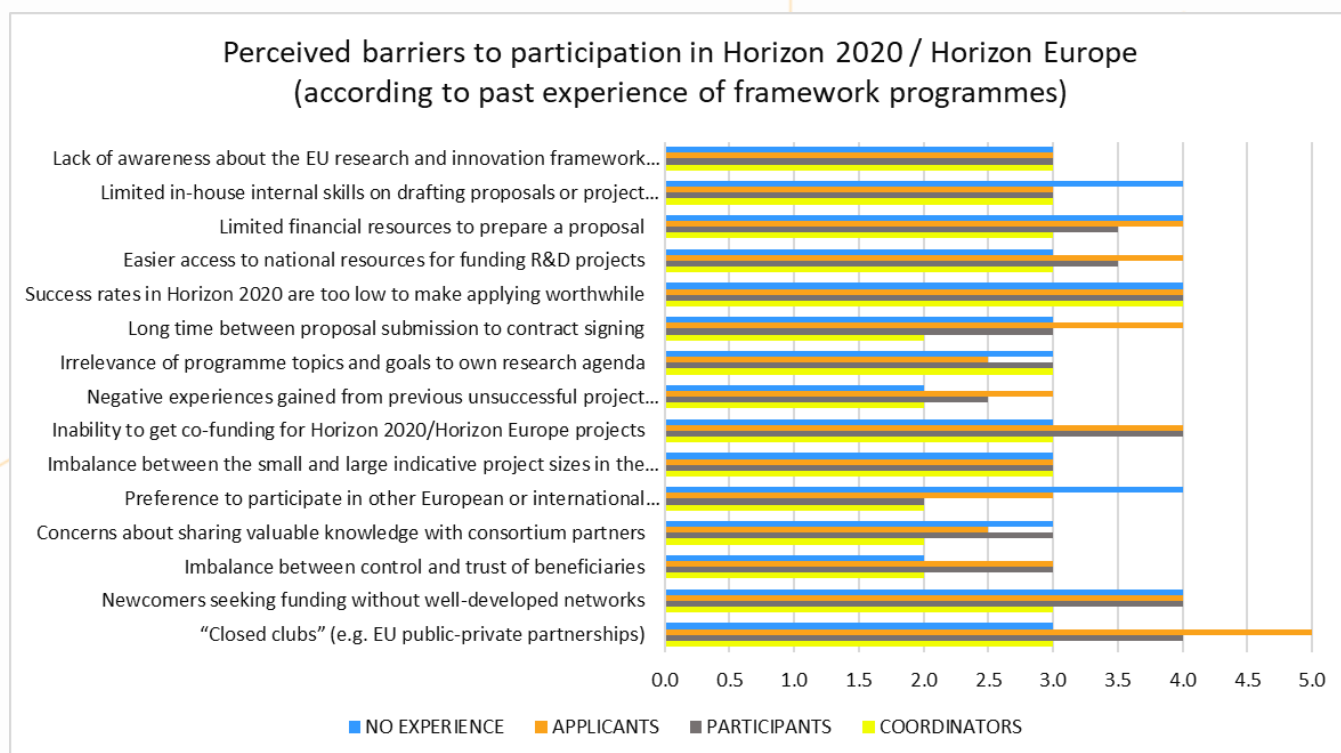
However, two barriers were notable exceptions with diverged responses: success rates in Horizon 2020 are too low to make applying worthwhile (public authorities/NCPs/non-profits perceived this to be a higher barrier than the other organisations) and limited in-house internal skills on drafting proposals or project management (research organisations perceived this to be a higher barrier than the other organisations).

In general, public authorities/NCPs/non-profits perceive barriers to participation in the Horizon 2020/Horizon Europe to be more significant than business enterprises and research organisations. An example is their perception of easier access to alternative national sources for funding R&D projects.

From the point of view of business enterprises (especially SMEs), the most significant perceived barrier was the limited financial resources to prepare a proposal. Combined with the low success rates in the EC's framework programmes, this may considerably limit the interest of such newcomers to participate in Horizon Europe projects.

4.3 NEWCOMERS ANALYSED ACCORDING TO PAST EXPERIENCE WITH THE FRAMEWORK PROGRAMME

As with the analysis made in Section 4.2, the population of survey respondents was divided into four groups according to their past experience of the EC’s framework programme (no experience, applicants, participants, coordinators) to allow for a comparison of the median responses (values between 1-5). The results are shown in the following bar chart.



The chart shows that for most of the barriers the four different groups (no experience, applicants, participants, coordinators) obtained similar median scores, which differed by no more than one unit from each other. In other words, the groups tended to perceive to a similar level the importance of each barrier.

However, two barriers were notable exceptions with diverged responses: “Closed clubs” e.g. EU public-private partnerships (applicants perceived this to be a higher barrier than the other organisations) and preference to participate in other European or international programmes (organisations with no experience perceived this to be a higher barrier than the other organisations).

All respondents indicated equally highly that the low success rate of H2020/Horizon Europe proposals was an important barrier to their participation.

Applicants, participants and respondents with no experience all perceived a lack of well-developed networks as an important barrier to their participation. This is an important consideration that needs to be considered when attempting to design policies to improve participation in Horizon Europe.

Taking account of the respondents' experience with Horizon 2020/Horizon Europe, on average, coordinators perceived the assessed barriers to participation to be the least significant. However, both coordinators and respondents with no experience perceive their participation is constrained due to limited in-house skills for drafting proposals or project management. In the case of coordinators, they acknowledge that high-quality professional capacities for proposal preparation are an essential prerequisite – but no guarantee - of success in Horizon Europe.

5. WAYS TO INCREASE PARTICIPATION IN HORIZON EUROPE

5.1 SYNERGIES BETWEEN NATIONAL/REGIONAL PROGRAMMES AND HORIZON EUROPE

The policy makers were asked whether they agreed or not synergies between different national/regional programmes and Horizon Europe could be useful to promote the deployment and uptake of research results. Among the survey's 23 policy makers, 17 agreed, 1 disagreed and five gave no answer. Thus, most policy makers see a potential benefit to adopting such an approach during the period of Horizon Europe (2021-2027).

5.2 ELEMENTS OF A GOOD PROPOSAL PREPARATION PROCESS FOR HORIZON EUROPE

The newcomers were asked to indicate the importance of different elements for the preparation of a good Horizon Europe proposal. The results for all the newcomers who responded are ranked in the table below: starting with the element that received the highest number of votes as "Extremely important" and running down to the element that received the least number of votes as "Extremely important".

Ranking	Elements for the preparation of a good Horizon Europe proposal	No of newcomer responses (Rating scale: unimportant (1) – extremely important (5))				
		1	2	3	4	5
1	Detailed feedback if unsuccessful	0	6	9	28	44
2	Clarity of the call requirements for the formulation of proposals	3	2	7	29	43
3	Ease of finding the right call for my proposal	0	6	12	28	40
4	Work programmes which are multiannual	4	5	13	36	29
5	Relevant measures that might include networking activities to motivate collaboration between newcomers and established participants, for instance through mobility grants or a 'marketplace' where project partners could be recruited	3	3	17	34	27
6	Multiannual topics which offer the possibility of submission to more than one deadline	1	6	15	40	25
7	Two-stage procedure to reduce initial burden	6	7	22	33	19
8	Run a pilot scheme allowing applicants to react to preliminary evaluation comments, before they are finalised	3	7	29	29	18

Similarly, the policy makers were asked the same question and their ranked results appear in the following table.

Ranking	Elements for the preparation of a good Horizon Europe proposal	No of policy maker responses (Rating scale: unimportant (1) – extremely important (5))				
		1	2	3	4	5
1	Clarity of the call requirements for the formulation of proposals	0	0	2	8	25
2	Ease of finding the right call for my proposal	0	0	3	11	21
3	Detailed feedback if unsuccessful	0	1	4	9	21
4	Relevant measures that might include networking activities to motivate collaboration between newcomers and established participants, for instance through mobility grants or a 'marketplace' where project partners could be recruited	0	0	6	14	14
5	Multiannual topics which offer the possibility of submission to more than one deadline	0	2	5	14	14
6	Work programmes which are multiannual	0	0	6	17	12
7	Run a pilot scheme allowing applicants to react to preliminary evaluation comments, before they are finalised	1	3	8	11	12
8	Two-stage procedure to reduce initial burden	1	2	7	14	11

Notably, both newcomers and policy makers selected the same three elements in their top-three, although in a different order. Furthermore, the top-three elements were scored considerably higher than the fourth and subsequent ranked elements, thereby signifying their particular importance.

Two reasons could plausibly explain why respondents ranked highly the element “Detailed feedback if unsuccessful”. On the one hand, some applicants may experience considerable disappointment at being unsuccessful and struggle to accept or comprehend why they have been unsuccessful. On the other hand, some applicants may recognise that successful proposal writing is an expert skill that can require continuous learning from past mistakes.

The text for each call in a Horizon 2020 or Horizon Europe work programme typically passes through several rounds of revisions. The revisions may be reflective of changing priorities and policy considerations. This can pose challenges for ensuring a finalised call text that is clear and coherent. Lacking an awareness of the history of evolution of a call text, newcomer applicants may feel at a disadvantage. This possibly explains respondents’ repeated selection of the element “Clarity of the call requirements for the formulation of proposals”.

It is not easy to find a call relevant to a specific interest. Both Horizon 2020 and Horizon Europe contain(ed) a multitude of work programmes with individual work programmes sometimes running to hundreds of pages in length. It is this issue which is thought to lie behind respondents’ frequent choice of the element “Ease of finding the right call for my proposal”.

5.3 SUGGESTIONS ON HOW TO IMPROVE HORIZON EUROPE

The survey respondents – newcomers and policy makers - were asked what they thought could be improved in terms of the work programmes and calls of Horizon Europe, in order to make the application process easier for newcomers. In the following table, their comments have been grouped together under common themes.

Work programme structure related comments
<i>The structure of manifold opportunities should be strongly reduced and made more simple.</i>
<i>Split extra-large clusters (like Climate, Energy and Mobility; Food, Bioeconomy, Natural Resources, Agriculture and Environment) into several smaller ones.</i>
<i>Less calls but with more successful applicants per call (like in FP7).</i>
<i>From SMEs point of view - the amount of different calls should be reduced drastically. It needs special skill to find the fitting call and the amount of work wasted for applying in "wrong" calls is high.</i>
<i>Work programmes should be multiannual, instead of biannual</i>
<i>Using the so-called 'hop on' funding scheme as a horizontal tool in order to increase the widening participation.</i>
<i>Implementation of the 'hop-on' mechanism to running projects.</i>
Call requirement related comments
<i>The necessity is that all projects include at least one newcomer to improve their abilities in applications and management of projects.</i>
<i>Encouraged inclusion of entities from countries which are under participating in Horizon Europe. Lack of experience and long-lasting partnerships is an issue for newcomers to start participating.</i>
<i>Somehow if there were partnership building topics that could encourage the growth and sustainability of newcomer consortia in specific pilot areas of the programme where emerging technologies are called for.</i>
<i>Adding a requirement for formal SME participation with large companies in projects.</i>
<i>Two stage procedure for all calls in order to avoid spending too much resources on projects that result as unsuccessful as in the case of single stage call.</i>
Call text related comments
<i>The call summary should be more informative giving an intended project purpose, main conditions and eligibility.</i>
<i>The name of the Calls should be more specific. For example, Calls for materials are under RESILIENCE.</i>
<i>The clarity of the text: Wording and construction of the text is too academic. Most SMEs or newcomers are struggling to read through the work programme documents.</i>
<i>The descriptions of the calls tend to differ a lot between destinations - some are very detailed and some quite general. It would be good if the general outlines of the call descriptions would be more similar.</i>
<i>Calls in specific areas should be easier to find using simple search words e.g. battery calls, hydrogen calls etc.</i>
Proposal related comments
<i>Explain clearly the different steps, reduce the size of the documents to complete, simplify the procedures. Get support for external advisors. Reduce the number of partners.</i>
<i>Short and clear guides and instructions.</i>
<i>Drastically reduce the "non-scientific" sub-sections in the proposal.</i>
Funding and Tender Portal related comments
<i>To make the funding and tenders portal more user friendly in order to find the right call.</i>
<i>Better search tool to find relevant topics and to have a clear overview on upcoming calls and topics. Better indication of the synergies between topics or programmes.</i>
Other related comments
<i>The registration of the newcomers should be shared automatically with the NCPs involved.</i>
<i>Maybe to reinforce the way in which potential applicants can be in contact each other, to get in contact and eventually jointly apply.</i>
<i>Support for creating networks, simplifying the scheme - specially from the industry (medium size) many EU founding instruments are too complicated to handle.</i>

5.4 EVALUATION PRINCIPLES AND STANDARDS

Both newcomers and policy makers were asked if their countries use international evaluation principles and standards to assess proposals submitted to their research and innovation funding schemes. 80% of the respondents – both newcomers and policy makers – indicated that their countries do.

Furthermore, policy makers were asked if they had competitive research and innovation funding schemes where proposal assessment was based on three evaluation criteria - “Excellence”, “Impact” and “Implementation” – similar to Horizon Europe. Among the respondents, 74% indicated that they used such evaluation criteria. This outcome suggests a significant influence of the European Commission’s framework programme on the evaluation approach adopted at a national level by EU member states and Associated Countries.

Additionally, both newcomers and policy makers were asked if their proposal applications to regional or national funding schemes were made in English or their local/national language. Only a minority of respondents (17% of policy makers and 39% of newcomers) indicated that their applications were in English. This outcome suggests there is a relatively limited involvement of international experts in the evaluation process for national funding schemes of EU member states and Associated Countries. Also, it suggests a lack of opportunity for newcomers to practise writing proposals in English for their national funding schemes and then using this experience as a stepping-stone towards applying in English to Horizon 2020/Horizon Europe.

5.5 LUMP SUM PROJECT FUNDING

Both newcomers and policy makers were asked if lump sum funding would make Horizon Europe more accessible to new participants, experienced participants or both types of participants. 63% of the respondents indicated that it would benefit both types of respondents, 19% that it would benefit experienced participants, 16% that it would benefit new participants, and the rest were undecided. The response suggests that lump sum project funding is perceived by a sizeable majority to be beneficial to all participants.

5.6 POTENTIAL POLICY MEASURES TO INCREASE PARTICIPATION IN HORIZON EUROPE

5.6.1 Rating possible measures

Policy makers were asked to indicate the importance of different potential policy measures to increase participation in Horizon Europe, which were grouped in five main areas: funding instruments, training, consultancy, building networks, and capacity building. The policy makers could choose between five possible importance values (Unimportant – 1, Low importance – 2, Important – 3, Very important – 4, Extremely important – 5), which allowed the median responses and standard deviations for each policy measure to be calculated and then compared. The ranked results for each group of policy measures are presented below.

Ranking	Policy Measures	Average Score	Standard Deviation
	FUNDING INSTRUMENTS		
1	Grants for project preparations (kick start grants)	4,4	0,8
2	Hop-on mechanism enabling new partners to join already running Horizon Europe projects (with a top-up funding)	4,2	1,0

Ranking	Policy Measures	Average Score	Standard Deviation
3	Proof of Concept grants for Horizon 2020 and Horizon Europe projects results	4,1	0,8
4	Top-up funding for organisations participating in Horizon Europe for the first time	4,0	1,0
5	Seal of Excellence labels facilitating access to alternative funding for high-quality projects that did not get Horizon Europe funding due to budget limits	4,0	1,0
6	Coordination of national research funding resources in Joint Programming Initiatives	3,8	0,7
7	Specific Horizon Europe calls targeted on priority topics identified within national or regional research and innovation strategies for smart specialization	3,8	0,9
8	Cascade funding through which grant beneficiaries can distribute funds via sub-grants to third parties outside the consortium	3,6	1,0
	TRAINING		
1	Targeted training programmes for writing competitive proposals	4,4	0,8
2	Mutual-learning communities for exchange of good practices related to Horizon Europe projects	4,1	0,8
3	E-learning platforms on specific issues related to management and administration of Horizon Europe projects	3,9	1,0
	CONSULTANCY		
1	Administrative support and guidance for preparing and managing Horizon Europe projects	4,5	0,7
2	Quality check of proposals by experienced experts and/or National Contact Points	4,3	0,8
3	Professionalizing grant offices and research administration at organisational level	4,3	0,8
	BUILDING NETWORKS		
1	Brokerage events organised to meet potential cooperation partners and make new contacts	4,3	0,8
2	Strategic partnerships at organisational level with excellent research and innovation partners	4,1	0,7
3	Awareness platforms and materials demonstrating impact of Horizon 2020 and Horizon Europe projects	3,8	0,9
4	Leveraging cluster initiatives	3,7	0,8
	CAPACITY BUILDING		
1	Secondment of national experts to Horizon Europe	4,3	0,7
2	Systematic mapping and increasing visibility of organisations with potential and capacities for participation in Horizon Europe	4,1	0,8
3	Developing common national/regional/institutional strategies towards Horizon Europe participation	4,1	0,9

The survey results show that it is worthwhile focusing the attention of policy makers on implementing measures in all five areas (funding instruments, training, consultancy, building networks and capacity building).

In the area of funding instruments, it is advisable to focus on strengthening the availability of funding for project preparation. Instruments such as kick start grants/innovation vouchers can be particularly helpful for SMEs, who perceive the lack of financial resources for project preparation as a key barrier to their participation.

In the area of training, respondents indicated the most important measure to be the creation and implementation of training programmes specifically aimed at increasing competences and skills for the preparation of competitive projects. Also, mutual-learning communities for the exchange of good practices was considered an important measure by respondents. Together such measures can help to build up the internal skills and capacities of research organisations and companies to engage in Horizon Europe.

In the area of consultancy, respondents indicated that expert professional support is indispensable for administrative issues and guidance for preparing and managing Horizon Europe projects. Also, quality checking of proposals by experienced experts and/or NCPs can help improve the conditions for participating in Horizon Europe. Collectively, these services can help to improve the quality of project proposals and thus reduce the risk of failure and wasted preparation costs.

In relation to building networks to address insufficient links of newcomers to existing collaborative networks, it is vital to promote networking activities that will help to establish new contacts and collaborative links. A proven tool that has the potential for wider use in the future are various brokerage events organised during exhibitions, trade fairs or professional conferences. On an institutional level, it is advisable to cultivate established collaborative links and develop them into long-term strategic partnerships.

Finally, in the area of capacity building, respondents stressed the importance of capacity building activities for participation in the Framework Programmes. One such activity that helps to understand the context and focus of Horizon Europe interventions is the secondment of national experts to this programme, or other expert activities related to Horizon Europe management. A good knowledge of the context of these interventions is of great help for the correct targeting of proposed projects and their link to the expected objectives of particular NMP calls. In addition, it is also useful to systematically map national and regional capacities to engage with specific Horizon Europe themes in the NMP area.

5.6.2 Proposing possible measures

The policy makers were asked to provide their suggestions for best practices and policy measures to increase the participation of talented newcomers in NMP projects in Horizon Europe. In the following table, their comments have been collected under the same group headings as used in Section 5.6.1.

FUNDING INSTRUMENTS
<i>The evaluation process should be modified/improved. The so-called "consensus" meetings in H 2020- NMBP were very short and superficial (only a short discussion and the rapporteur had to write later on the report based on what he remembers), the "experts" from consultancy companies should not be used anymore - they have no technical experience in the proposal field and used to "kill" the proposal for invented or minor shortcomings.</i>
<i>Run the Widening "Hop-On" facility every year throughout Horizon Europe.</i>
<i>Hop-on mechanism would be beneficial.</i>
<i>Introduce more small scale projects such as peer learning actions; introduce more 2 stage Calls</i>
<i>Increase success rate and funding</i>
<i>Increase funding and thus success rate. Huge efforts are wasted with success rate <10%.</i>
<i>In order to increase the participation of newcomers in NMP Projects in Horizon Europe, a very important first step and also a necessity is that all projects should be required to include at least one newcomer.</i>
<i>Financial support from national authorities for applicants depending on the results of EU evaluation process.</i>
<i>Make sure that the language used is clear and understandable. EU has problems with clarity of documents. Everything reads like legal documents and alienates the reader. Just open up NASA documents and ESA documents and compare please. You would see the difference. Make sure that who prepares the documents uses an understandable language.</i>
<ol style="list-style-type: none"> 1) Continuation of smaller-scale project schemes (ERA-NETs) 2) Implementation of Seal of Excellence combined with support at national level 3) Developing widening instruments
TRAINING
<i>Targeted and specific awareness raising of the NMP projects at National and Regional level</i>
<i>Talented newcomers should be targeted with specific trainings/brokerage events/support schemes.</i>
<i>Some guidance and training about how to make newcomers visible, attractive and reliable.</i>
<i>Continuous and professionalised proposal writing trainings, raise awareness promotion campaigns, well established NCP network.</i>
CONSULTANCY
-
BUILDING NETWORKS
<i>National funding is needed for: a) travel grants for newcomers to EU events to establish some contacts with potential partners; b) support for proposal preparation; c) more national information events.</i>
<i>Organisation of targeted newcomer events through the NCP networks. More EU and National brokerage events with 1 to 1 meetings.</i>
<i>Mutual-learning communities for exchange of good practices related to Horizon Europe projects will increase the participation of newcomers.</i>
<i>I suggest organising more networking and introducing possible partnerships.</i>
<i>Dissemination actions; Brokerage events; More active NCPs, training events</i>
CAPACITY BUILDING
<i>Increase of NCP assistance in finding a suitable call, in project preparation, detailed feedback from evaluators, financial preparation in project preparation</i>
<i>A successful beneficiary from Slovenia has an internal practice to bring a new partner from Slovenia every time into a new project. Like a mentoring model.</i>

6. CONCLUSIONS AND NEXT STEPS

The FIT-4-NMP survey gathered information from talented newcomers and national research and innovation policy experts, in order to understand the reasons for the low participation of newcomers in NMP projects in Horizon 2020. The survey questionnaire enabled three main issues relating to low participation to be investigated: relevance to newcomers, barriers to participation, and ways to increase participation in Horizon Europe. The key findings for these three main issues are presented below.

Relevance to newcomers

- The survey respondents' number one reason to participate in Horizon 2020/Horizon Europe was to strengthen international cooperation and to improve international visibility. The second most cited reason was to develop cutting-edge technologies and to enter to new markets. Overall, there were numerous reasons why newcomers were motivated to participate in Horizon 2020/Horizon Europe programme.
- Almost half of all responses from newcomers indicated their preferred role in a Horizon 2020/Horizon Europe project is to be a Work Package leader. This contrasted with policy makers who indicated that prior experience is needed for the first project and so team membership was a good starting point for newcomers.
- Specific critical competencies were the most cited key factor required to participate in a Horizon 2020/Horizon Europe project. This was followed by scientific excellence and then technological challenges (medium and long innovation cycles).
- With respect to the best fit between technology readiness level (TRL) and newcomers, the respondents preferred low TRL numbers, indicating TRL 1-4 (technology concept formulated; experimental proof of concept; technology validated in lab) followed by TRL 5/6 (technology validated and demonstrated in relevant environment).
- Most respondents indicated that both "Open Funding" and "Strategic Challenge" type of funding schemes would suit a newcomer's participation in the Horizon Europe programme.
- Most respondents indicated that grants for collaborative projects were to a large extent relevant or fully relevant to the needs of newcomers. Similarly, most respondents indicated that grants for single beneficiary projects were to at least some extent relevant to the needs of newcomers.
- Most respondents indicated 3-5 partners to be the ideal number of partners to have in a consortium in order to bring new expertise and perspectives to newcomers.
- The top source of information relevant to newcomers is an explanation of the requirements of the proposal templates. This was followed by three quite closely scored sources of information: information regarding the evaluation process and IPR issues; insights into the information needed to manage Horizon Europe projects; and how to identify and integrate the relevant policy papers in the proposal.
- Newcomers only consider the provision of information from NCPs/EEN as being "Relevant" rather than "Very relevant". This indicates an important gap in the provision of information between NCPs/EEN and newcomers which needs to be bridged.

Barriers to participation

- The barrier to participation ranked highest by newcomers was the low success rate of H2020/Horizon Europe proposals. This barrier coupled with newcomers' comparatively easier access to national sources for funding R&D projects (third ranked barrier) act as a strong disincentive to newcomers' participation.

- “Closed clubs” were deemed the second highest barrier to greater newcomer participation. Consortia that have been involved in EC framework programme projects for a long time tend to have a relatively closed nature about them. For research teams outside these “closed clubs”, it is difficult to break into the existing collaboration networks.

Ways to increase participation in Horizon Europe

- Most policy makers see a potential benefit to developing synergies between different national/regional programmes and Horizon Europe in order to promote the deployment and uptake of research results.
- The top-three most important elements selected by respondents for ensuring a good proposal preparation process were: detailed feedback if unsuccessful, clarity of the call requirements for the formulation of proposals, and ease of finding the right call for my proposal.
- Most policy makers indicated they have similar evaluation criteria to those used in Horizon 2020/Horizon Europe - “Excellence”, “Impact” and “Implementation” – for their national research and innovation funding schemes. This suggests a significant influence of the European Commission’s framework programme on the evaluation approach adopted at a national level by EU member states and Associated Countries.
- Only a small minority of respondents indicated that their proposal applications to regional or national funding schemes were made in English. This outcome suggests there is a relatively limited involvement of international experts in the evaluation process for national funding schemes of EU member states and Associated Countries.
- With respect to increasing participation in Horizon Europe, policy makers should consider implementing policy measures in five areas:
 - *Funding instruments*: strengthen the availability of funding for project preparation.
 - *Training*: create training programmes aimed at increasing competences and skills for the preparation of competitive projects.
 - *Consultancy*: provide expert professional support for administrative issues and guidance for preparing and managing Horizon Europe projects.
 - *Building networks*: support networking activities that will help to establish new contacts and links with existing collaborative networks.
 - *Capacity building*: promote capacity building for participation in the Framework Programmes.

Next steps

The FIT-4-NMP survey has helped to reveal respondents’ ideas and preferences on ways to increase the participation of newcomers in Horizon Europe. However, in fact, this is not a new issue: many EU member states have already tried over the years – successfully and unsuccessfully – to implement their own policy measures to increase participation in the EU framework programmes. Thus, the logical next steps would be to investigate such measures and to identify examples of best practice, which can be recommended to policy makers responsible for the participation of NMP organisations from underrepresented regions in Horizon Europe. Indeed, these tasks have also been undertaken by the FIT-4-NMP consortium and are the subject of another FIT-4-NMP report on best practices and policy measures, which accompanies this survey report.

7. ANNEXES

7.1 QUESTIONNAIRE FOR NEWCOMERS

I. Identification of the respondent

1. Which country do you represent?
2. You are responding/representing:
 - a) University/Research organisations
 - b) SME
 - c) Private for profit (a business or an industry, excl. education and SMEs)
 - d) Non-profit organization
 - e) National Contact Point (NCP)
 - f) EU/regional/national public authority responsible for R&I policy or funding
 - g) Others
3. Please tell us about your level of experience in Horizon 2020:
 - a) I have applied for Horizon 2020
 - b) I have participated in Horizon 2020 projects
 - c) I have coordinated Horizon 2020 projects
 - d) I have not had experience yet
4. Have you been involved as newcomer in the fields of nanotechnologies, advanced materials and new manufacturing processes Horizon 2020 NMBP (*did not participate in a Horizon 2020 NMBP project and was not involved in an NMBP grant agreement for the first time*).
 - a) Yes
 - b) No
5. Did you or your organization participate in calls under national or international research programme (other than Horizon 2020)?
 - a) Yes (please specify the programme name)
 - b) No

II. Does Horizon 2020/Horizon Europe respond to newcomers' needs?

6. For which purpose(s) do you prefer to participate/would prefer to participate in Horizon 2020/Horizon Europe?
(multiple answers possible)
- a) Strategy making activities and to improve excellence in research and innovation (e.g., more high impact publications and patents)
 - b) Look for new partners
 - c) Exploit at previous EU/regional/national project results and further development of technologies through pilot lines and demonstrator projects
 - d) Strengthen international cooperation and improve international visibility
 - e) Development of cutting-edge technologies and entrance to new markets
 - f) Other purposes (please specify)
7. What is/would be a typical role for your organisation in a Horizon 2020/Horizon Europe projects based on which factor do you feel almost ready to participate?
- Single choice:
- a) Coordinator
 - b) Work package leader
 - c) Task leader
 - d) Team member
 - e) I don't know
8. What would your target technology readiness level (TRL) be in your first participation to Horizon Europe
(multiple answers possible)
- a) TRL 1-4 (technology concept formulated; experimental proof of concept; technology validated in lab)
 - b) TRL 5/6 (technology validated and demonstrated in relevant environment)
 - c) TRL 7-8 (system prototype demonstration in operational environment; system complete and qualified)
 - d) TRL 9 (actual system proven in operational environment)
 - e) I don't know
9. On your first participation in Horizon Europe, would you go for:
- a) Open funding (bottom-up)
 - b) Strategic Challenges (top-down)
 - c) Both
 - d) Other (please specify)
10. Are the following forms of funding provided through Horizon 2020/Horizon Europe relevant to your needs?

	Not at all	To some extent	To large extent	Fully	I don't know
Grants for collaborative projects					
Grants for single beneficiary projects					
Financial instruments					

11. Which consortium size would be your ideal for your first participation?

(Single choice)

- a) 2 partners
- b) 3-5 partners
- c) Between 6-20 partners
- d) Over 20 partners
- e) Other (please specify: Mono-Beneficiary, etc.)

12. Are the following information relevant for your first participation to a proposal preparation?

	Very relevant	Relevant	Irrelevant
Explanation of the requirements of the proposal templates			
Information on available support services from NCPs			
Information on available support services from EEN			
Information regarding the evaluation process and IPR issues			
Insights into the information needed to manage Horizon Europe projects			
How to identify and integrate the relevant policy papers in the proposal			

III. Barriers to higher participation

13. Please, assess the following barriers to your participation in Horizon 2020/Horizon Europe projects according to their significance:

Rating scale: unimportant (1) – extremely important (5)

	1	2	3	4	5
Lack of awareness about the EU research and innovation framework programme					
Limited in-house internal skills on drafting proposals or project management					
Limited financial resources to prepare a proposal					
Easier access to national resources for funding R&D projects					
Success rates in Horizon 2020 are too low to make applying worthwhile					
Long time between proposal submission to contract signing					
Irrelevance of programme topics and goals to own research agenda					
Negative experiences gained from previous unsuccessful project proposals					
Inability to get co-funding for Horizon 2020/Horizon Europe projects					
Imbalance between the small and large indicative project sizes in the calls for proposals					
Preference to participate in other European or international programmes					
Concerns about sharing valuable knowledge with consortium partners					
Imbalance between control and trust of beneficiaries					
Newcomers seeking funding without well-developed networks					
“Closed clubs” (e.g. EU public-private partnerships)					

IV. How coherent is Horizon Europe with other EU/national/regional funding initiatives

14. In your view, how important are the following elements to the preparation of a good Horizon Europe proposal?

Rating scale: unimportant (1) – extremely important (5)

	1	2	3	4	5
Work programmes which are multiannual					
Multiannual topics which offer the possibility of submission to more than one deadline					
Clarity of the call requirements for the formulation of proposals					
Ease of finding the right call for my proposal					
Two-stage procedure to reduce initial burden					
Run a pilot scheme allowing applicants to react to preliminary evaluation comments, before they are finalised					
Detailed feedback if unsuccessful					
Relevant measures that might include networking activities to motivate collaboration between newcomers and established participants, for instance through mobility grants or a 'marketplace' where project partners could be recruited					

15. What could be improved in the structure of the Horizon Europe work programme and/or its calls to make it easier for applicants?

500-character(s) maximum

16. Does your country have the international evaluation principles and standards?

- a) Yes
- b) No

17. What language you are applying for national/regional funding:

- a) In the local/national language
- b) In English language

18. Do you think lump sum project funding will make Horizon Europe more accessible to:

- a) New participants
- b) Experienced participants
- c) Both

19. Please provide your opinion, experience and/or suggestions for best practices and policy measures to increase the participation of talented newcomers in NMP projects in Horizon Europe.

7.2 QUESTIONNAIRE FOR POLICY MAKERS

I. Identification of the respondent

1. Which country do you represent?
2. You are responding/representing:
 - a) University/Research organisations
 - b) SME
 - c) Private for profit (a business or an industry, excl. education and SMEs)
 - d) Non-profit organization
 - e) National Contact Point (NCP)
 - f) EU/regional/national public authority responsible for R&I policy or funding
 - g) Others

II. Does Horizon 2020/Horizon Europe respond to newcomers' needs?

3. For which purpose(s) do you prefer to participate/would prefer to participate in Horizon 2020/Horizon Europe?
(multiple answers possible)
 - a) Strategy making activities and to improve excellence in research and innovation (e.g., more high impact publications and patents)
 - b) Look for new partners
 - c) Exploit at previous EU/regional/national project results and further development of technologies through pilot lines and demonstrator projects
 - d) Strengthen international cooperation and improve international visibility
 - e) Development of cutting-edge technologies and entrance to new markets
 - f) Other purposes (please specify)
4. What is/would be a typical role for organisation in a Horizon 2020/Horizon Europe projects as a newcomer?
Single choice:
 - a) Coordinator
 - b) Work package leader
 - c) Task leader
 - d) Team member
 - e) I don't know
5. What are the key factors common to newcomer ready to participate in Horizon 2020/Horizon Europe projects?
(multiple answers possible)
 - a) Specific critical competencies
 - b) Leadership team skills and capability

- c) Scientific excellence
- d) Technological challenges (medium and long innovation cycles)
- e) Financial strategy and historical type of finance (grants, equity, venture capital, business angel, etc.)
- f) Other purposes (please specify)

6. What stage of technology readiness level (TRL) fits best for newcomers within the Horizon Europe? (multiple answers possible)

- a) TRL 1-4 (technology concept formulated; experimental proof of concept; technology validated in lab)
- b) TRL 5/6 (technology validated and demonstrated in relevant environment)
- c) TRL 7-8 (system prototype demonstration in operational environment; system complete and qualified)
- d) TRL 9 (actual system proven in operational environment)
- e) I don't know

7. Which funding approach fits best for newcomers to Horizon Europe?

- a) Open funding (bottom-up)
- b) Strategic Challenges (top-down)
- c) Both
- d) Other (please specify)

8. Are the following forms of funding provided through Horizon 2020/Horizon Europe relevant to your needs?

	Not at all	To some extent	To large extent	Fully	I don't know
Grants for collaborative projects					
Grants for single beneficiary projects					
Financial instruments					

9. What size of consortium fits best for newcomers within the Horizon 2020/Horizon Europe?

(Single choice)

- a) 2 partners
- b) 3-5 partners
- c) 6-20 partners
- d) Over 20 partners
- e) Other (please specify: Mono-Beneficiary, etc.)

III. Barriers to higher participation.

No questions.

IV. How coherent is Horizon Europe with other EU/national/regional funding initiatives

10. Would you consider that synergies between different national/region programmes and Horizon Europe could be useful to promote the deployment and uptake of research results?
- a) Yes
 - b) No

11. In your view, how important are the following elements to the preparation of a good Horizon Europe proposal?
 Rating scale: unimportant (1) – extremely important (5)

	1	2	3	4	5
Work programmes which are multiannual					
Multiannual topics which offer the possibility of submission to more than one deadline					
Clarity of the call requirements for the formulation of proposals					
Ease of finding the right call for my proposal					
Two-stage procedure to reduce initial burden					
Run a pilot scheme allowing applicants to react to preliminary evaluation comments, before they are finalised					
Detailed feedback if unsuccessful					
Relevant measures that might include networking activities to motivate collaboration between newcomers and established participants, for instance through mobility grants or a 'marketplace' where project partners could be recruited					

12. What could be improved in the structure of the Horizon Europe work programme and/or its calls to make it easier for applicants?
 500 character(s) maximum

13. Does your country have any competitive research and innovation funding initiatives similar to Horizon Europe in terms of their evaluation process (Experts evaluate on the basis of the criteria “Excellence”, “Impact”, and “Implementation”)?
- a) Yes
 - b) No

14. Does your country have the international evaluation principles and standards?
- a) Yes
 - b) No

15. What language you are applying for national/regional funding:
- a) In the local/national language
 - b) In English language

16. Do you think lump sum project funding will make Horizon Europe more accessible to:

- a) New participants
- b) Experienced participants
- c) Both

17. Which of the following measures would help increase participation in Horizon Europe? Please indicate relevance of the particular measures.

Rating scale: unimportant (1) – extremely important (5)

	1	2	3	4	5	No opinion
FUNDING INSTRUMENTS						
Grants for project preparations (kick start grants)						
Proof of Concept grants for Horizon 2020 and Horizon Europe projects results						
Top-up funding for organisations participating in Horizon Europe for the first time						
Hop-on mechanism enabling new partners to join already running Horizon Europe projects (with a top-up funding)						
Specific Horizon Europe calls targeted on priority topics identified within national or regional research and innovation strategies for smart specialization						
Seal of Excellence labels facilitating access to alternative funding for high-quality projects that did not get Horizon Europe funding due to budget limits						
Cascade funding through which grant beneficiaries can distribute funds via sub-grants to third parties outside the consortium						
Coordination of national research funding resources in Joint Programming Initiatives						
TRAINING						
E-learning platforms on specific issues related to management and administration of Horizon Europe projects						
Targeted training programmes for writing competitive proposals						
Mutual-learning communities for exchange of good practices related to Horizon Europe projects						
CONSULTANCY						
Professionalizing grant offices and research administration at organisational level						
Quality check of proposals by experienced experts and/or National Contact Points						
Administrative support and guidance for preparing and managing Horizon Europe projects						
BUILDING NETWORKS						
Awareness platforms and materials demonstrating impact of Horizon 2020 and Horizon Europe projects						
Brokerage events organised to meet potential cooperation partners and make new contacts						
Leveraging cluster initiatives						
Strategic partnerships at organisational level with excellent research and innovation partners						
CAPACITY BUILDING						
Systematic mapping and increasing visibility of organisations with potential and						

capacities for participation in Horizon Europe										
Secondment of national experts to Horizon Europe										
Developing common national/regional/institutional strategies towards Horizon Europe participation										

18. Please provide your opinion, experience and/or suggestions for best practices and policy measures to increase the participation of talented newcomers in NMP projects in Horizon Europe.

7.3 COUNTRY BREAKDOWN OF RESPONDENTS

The country breakdown for the 128 survey respondents was as follows.

Country	Number of Respondents
Albania	2
Armenia	2
Belgium	1
Bosnia and Herzegovina	2
Cyprus	3
Croatia	2
Czech Republic	5
Estonia	5
Finland	1
Georgia	1
Germany	1
Hungary	3
Ireland	2
Latvia	11
Lithuania	14
Luxembourg	6
Moldova	2
Poland	14
Republic of North Macedonia	1
Romania	19
Slovakia	7
Slovenia	1
Spain	2
Tunisia	1
Turkey	6
Ukraine	14
Total	128



CONTACT DETAILS

PROJECT COORDINATOR:

MR. GILES BRANDON

INTELLIGENTSIA CONSULTANTS, LUXEMBOURG

GILES.BRANDON@INTELLIGENTSIA-CONSULTANTS.COM

FIND US IN WEB AND SOCIAL MEDIA:

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