

Proposals to Horizon 2020 – analysis of Evaluation Summary Report

**What are the main challenges for
Danish applicants?**



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1. Introduction

The aim of this study is to provide information that can be useful for researchers, private companies and others applying for Horizon 2020, the EU Framework Programme on Research and Innovation, in order to write better project proposals. We have looked at the independent expert evaluations of 250 Horizon 2020 proposals and identified generic areas for improvement that can be taken into consideration by future applicants.

All Horizon 2020 proposals are evaluated by a group of independent external experts on the basis of the award criteria Excellence, Impact and Implementation. Each criterion is used to assess a corresponding section in the proposal. The assessment of each proposal is subsequently summarized in an Evaluation Summary Report (ESR) and sent to the applicants.

We have examined the ESRs of a representative number of proposals submitted under the Leadership in Enabling and Industrial Technologies (LEIT) programme as well as the Societal Challenges programme. These proposals all received good evaluations (“above threshold”) but did not get sufficiently high scores to receive EU funding due to a number of shortcomings. Our assumption is that the ESRs of these projects include valuable indications as to why good proposals are not chosen for funding. In this report, we analyse the evaluators’ feedback in order to identify any generic challenges that can be used as inspiration and focus areas for your next Horizon 2020 proposal.

2. The six main shortcomings

Based on the ESRs reviewed, six main shortcomings were identified throughout the proposals.

The six challenges are:

- 1. Lack of detail:** In general, the descriptions are too generic and lack a certain level of detail. This particularly concerns descriptions of objectives, methods, measurable effects and the work plan.
- 2. Lack of quantification:** Main objectives and impacts are not quantified and thus too general.
- 3. Unclear target groups:** Target groups, for instance for the use of results or for dissemination measures, are often not defined or described.
- 4. Imbalance:** There is an unjustified imbalance in the project, for instance between work packages, partners or resources.
- 5. Lack of coherence:** There is a lack of coherence in the proposal, for instance between the different parts of proposal, or between methods and objectives, work and budget.
- 6. Inadequate risk management:** Risk management is poorly addressed or not addressed at all.

3. Methods

We limited our attention to proposals that were not mainlisted but scored “above threshold”, as this indicates that the proposals were generally well-written but with several shortcomings. We chose a representative number of the proposals (250 out of the 2,000 submitted), which all had at least one Danish partner, and reviewed their ESRs for any critical comments made by the evaluators. We identified a total of 1,745 critical comments included in the ESRs.

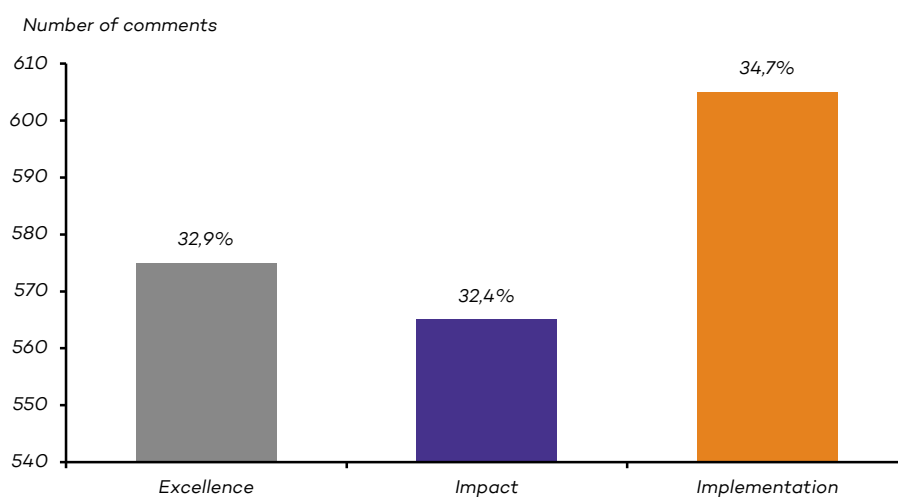
The critical comments were all made in relation to either the Excellence, Impact or Implementation award criteria. Under each of the three award criteria, evaluators were to take a number of different aspects into account. We have identified the number of critical comments that concerns each award criterion and each aspect. We have further divided the comments made under each aspect into groups and provided illustrative examples of comments from each group. Our approach made it possible to identify shortcomings that were common for a large number of the ESRs and, as we quantified them, to give an idea of how widespread they were.

4. Distribution across award criteria

Each award criterion represents between 32-34 % of the 1,745 critical comments. Thus, none of the award criteria differs considerably from the others in this respect, but Implementation (605 comments) is nevertheless the award criterion that the highest number of critical comments concerns.

Figure 1

Distribution of critical comments across award criteria, number of comments



5. Excellence

Excellence is the first section of a Horizon 2020 proposal. Here, the proposers describe progress beyond the state of the art, the specific objectives of their proposed projects, their ambitions, the concepts and methods used, and how their proposals relate to the topics in the work programme. In the evaluation of this section, evaluators assess the proposals based on the award criterion Excellence, in which the following aspects are taken into account: “clarity and pertinence of the objectives”, “soundness of the concept/credibility of the proposed methodology”, “extent that the proposed work is beyond the state of the art and demonstrates innovation potential” and “appropriate consideration of interdisciplinary approaches, and, where relevant, use of stakeholder knowledge”.

Figure 2

Distribution of critical comments across the different aspects of Excellence, number of comments

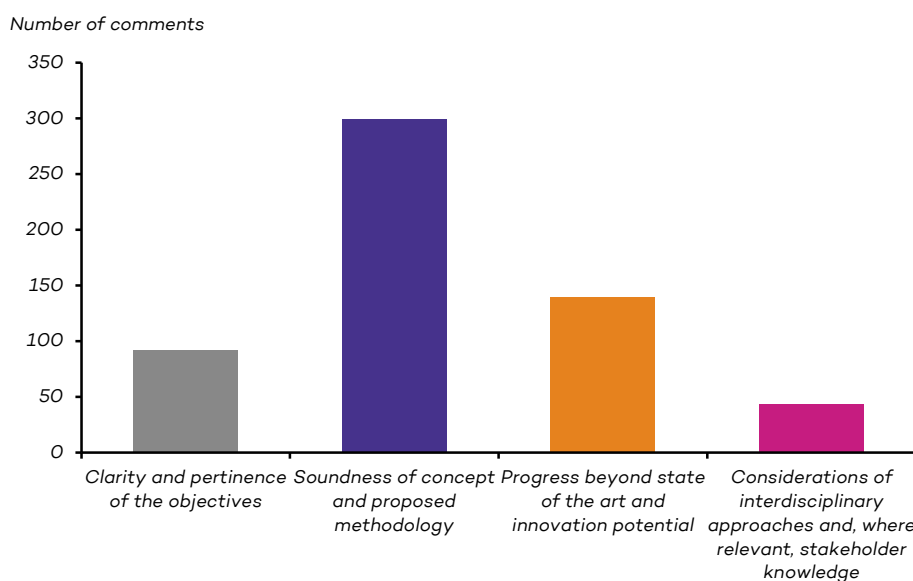
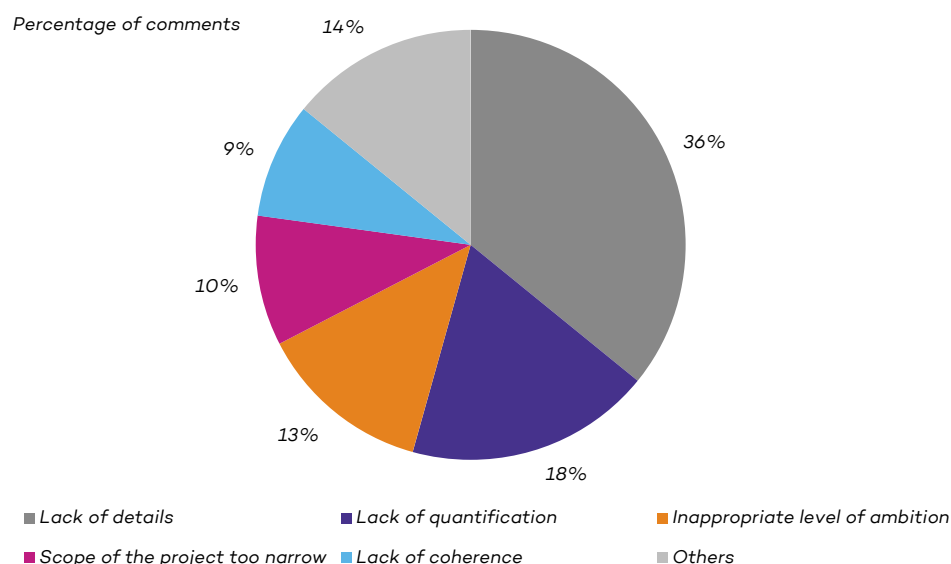


Figure 2 shows that most of the critical comments made by evaluators in relation to the Excellence criterion concern the “soundness of the concept/credibility of the proposed methodology”, with 299 comments out of 575. In comparison, the aspect with the second-highest number of remarks receives 140 comments. The first and fourth aspects both stand at less than 100 comments, with 92 and 44 comments respectively.

5.1 Clarity and pertinence of the objectives

Figure 2.1

Distribution of critical comments under Excellence, “Clarity and pertinence of the objectives”, percent



Under “Clarity and pertinence of the objectives”, we have found that the critical comments can be grouped under the following headlines:

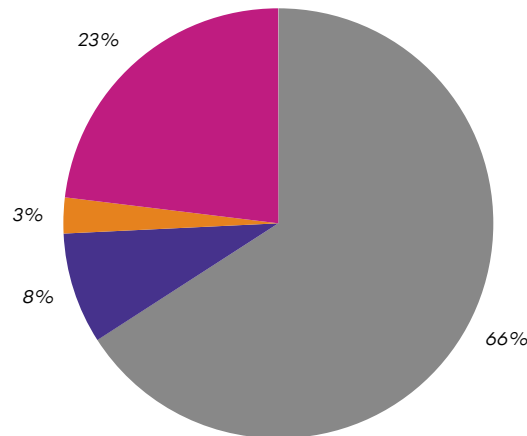
- **Lack of details:** evaluators often find that the objectives “remain too general and not very concrete”, “not specific and are vaguely discussed” or even “not clearly formulated in relation [to] the aim of this project, so the work developed fails to be well substantiated.”
- **Lack of quantification:** evaluators state, for instance, that although the objectives are clearly stated, “there are no indications on how to measure their achievement”, or “overall, the objectives are clearly outlined, at least on a qualitative level, but are not well quantified”.
- **Inappropriate level of ambition:** Some project objectives are considered “somewhat overambitious with regard to the proposed time-frame”, some are “not fully credible due to the complex range of technology proposed”, whereas others are “only moderately ambitious”.
- **Limited scope:** evaluators sometimes find that “the project only partially addresses the scope of this call” or that “the objectives are clear but only partially pertinent to the objectives as stated in the work programme”.
- **Lack of coherence:** “The connection of each of the objectives with the relevant work package(s) is not always clear” or “there is little attempt to identify interconnections between different case-study countries”.
- **Other comments** regard, for instance, “insufficient attention paid to regulatory incentives” or complementarity with another EU project mentioned in the proposal not “clearly explained and justified”.

5.2 Soundness of the concept/credibility of the proposed methodology

Figure 2.2

Distribution of critical comments under Excellence, “Soundness of the concept/credibility of the proposed methodology”, percent

Percentage of comments



■ Lack of details ■ Lack of coherence ■ Problems with the Technology Readiness Level (TRL) ■ Others

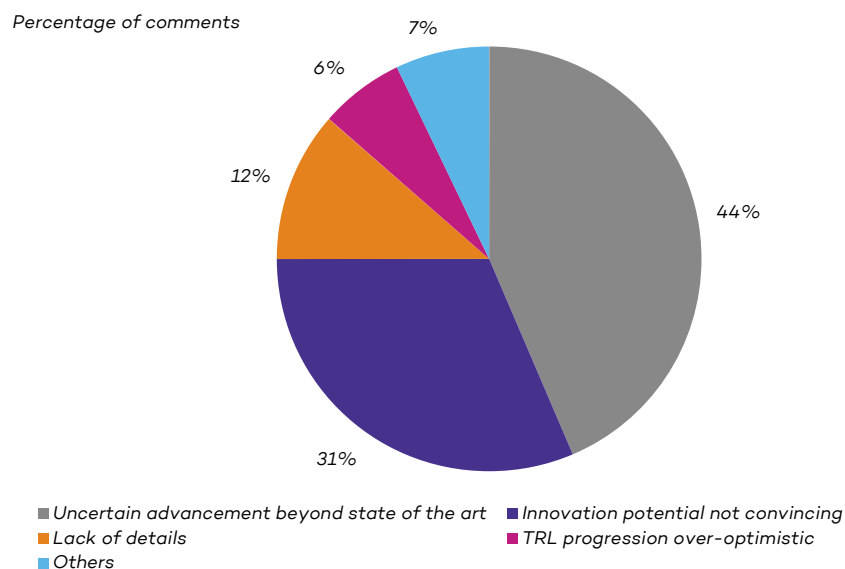
The second aspect of Excellence is “Soundness of the concept/credibility of the proposed methodology”. We have grouped the 299 evaluator comments concerning this aspect under four headlines:

- **Lack of details:** The projects are found to “[contain] too much vague and ambiguous information and [lack] details on concrete measures and measurable effects”, “details are insufficiently described” or certain measures are “not clearly justified”, “not described in sufficient detail” or “lack description”. Also, “the methodology is insufficiently detailed and not clearly designed” or “insufficient detail is provided in relation to key aspects of the methodology”. Insufficiently substantiated assumptions and lack of details sometimes “put into question the credibility of the methodology” or “undermine severely the credibility” of the measures envisaged. Lack of details also concerns the inadequate description of data, as evaluators state that “the size of this data is not explicitly described, which raises the question of how valuable the data will be”, “the datasets which will be used throughout the project are only briefly described” or “the proposal does not clearly specify what European datasets will be used in the project”.
- **Lack of coherence:** Evaluators identify shortcomings such as “fragmented concept lacking sufficient interconnection and coherence” or “a mismatch between the user requirements and offered technology solutions”.
- **Problems with the Technology Readiness Level (TRL):** the planned TRL is not considered to be “adequately addressed” or it is “not clear how these elements will achieve the targeted TRL”.
- **Other,** however minor, shortcomings concern for instance missing outlook, where other EU projects were not mentioned, or where the evaluators find that certain elements in the research design are missing.

5.3 Extent that the proposed work is beyond the state of the art and demonstrates innovation potential

Figure 2.3

Distribution of critical comments under Excellence, “Extent that the proposed work is beyond state of the art and demonstrates innovation potential”, percent



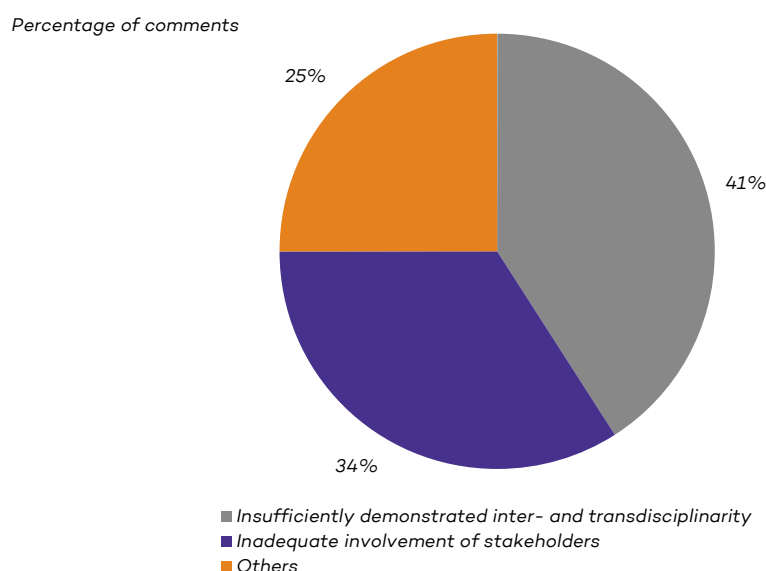
The third aspect of Excellence concerns whether the project proposal goes beyond the state of the art and demonstrates innovation potential. We have identified that comments made in relation to this aspect of Excellence can be grouped under the following five headlines:

- **Uncertain advancement beyond state of the art:** Evaluators are not fully convinced that the proposed concept is beyond the state of the art. They voice, among other things, that “the proposal does not sufficiently detail how the expected results will go beyond the state of the art”, “the description of the state of the art is not detailed and does not demonstrate clear advances” or even “while the proposed project tackles relevant issues, the work does not plan to go significantly beyond the state of the art”.
- **Innovation potential not convincing:** Often, the innovation potential is “not sufficiently demonstrated”, “not convincingly clear” or the “ground-breaking nature of the proposal is not sufficiently explained”.
- **Lack of details:** Evaluators have remarks on the lack of details with regard to, among other things, project-specific issues, patent review and data collection.
- **TRL progression over-optimistic:** here, evaluators write, for example, that the expected TRL progression “is not supported in a convincing way by a factual discussion” or “how the current technical and practical limitations and difficulties of the involved technologies will be overcome for the achievement of the proposed increase, in TRL terms, is insufficiently explained”.
- **Other shortcomings concern,** for instance, limited outlook to other research activities within the same field, either national or international, or a lack of industry involvement.

5.4 Appropriate consideration of interdisciplinary approaches, and, where relevant, use of stakeholder knowledge

Figure 2.4

Distribution of critical comments under Excellence, “Appropriate consideration of interdisciplinary approaches, and, where relevant, use of stakeholder knowledge”, percent



In the assessment of Excellence, the fourth aspect taken into account is whether the proposals include appropriate considerations of interdisciplinary approaches, and, where relevant, use of stakeholder knowledge. We have divided the 44 comments under this aspect into three groups under the headlines:

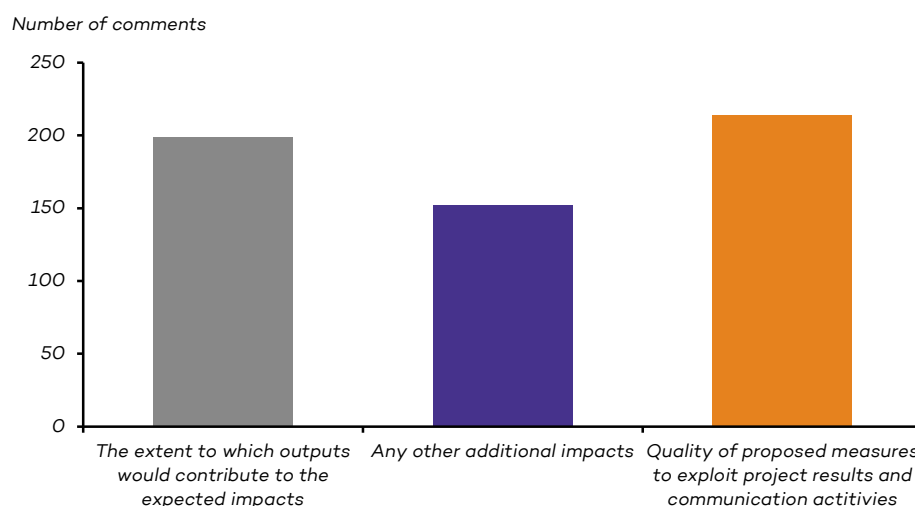
- **Insufficiently demonstrated inter- and transdisciplinarity:** Here, evaluators say that “potentially relevant transdisciplinary aspects have not been addressed appropriately,” “insufficient information is given in relation to specific interdisciplinary techniques and methods foreseen to be used. In particular, it is not fully clear how these complementary approaches will support each other” or “no clear rationale for an interdisciplinary approach is provided”.
- **Inadequate involvement of stakeholders:** “The proposal does not properly address the use of stakeholder knowledge,” “the active involvement of stakeholders in the proposal is not sufficiently considered” or, for instance, “stakeholder involvement is addressed in the proposal, but the activities foreseen are insufficiently specified in terms of parties to be involved, process design and efforts required”.
- **Remaining remarks concern:** “gender dimension not properly addressed”, “barriers not adequately addressed” or, among other things, “other technologies needed to implement the solutions are not fully described”.

6. Impact

Impact is the second section of a Horizon 2020 proposal. Here, the proposers describe the expected impacts and they ways in which they will try to maximise the impact of their projects, which include dissemination and exploitation of results, and communication activities. Under the award criterion Impact, the evaluators take the following three aspects into account: “The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the topic”, “Any substantial impacts not mentioned in the work programme that would enhance innovation capacity etc.” and “Quality of the proposed measures to exploit (including IPR management) and disseminate the project results and to manage research data where relevant. Quality of communication activities to different target audiences”.

Figure 3

Distribution of critical comments across the different aspects of Impact, number of comments

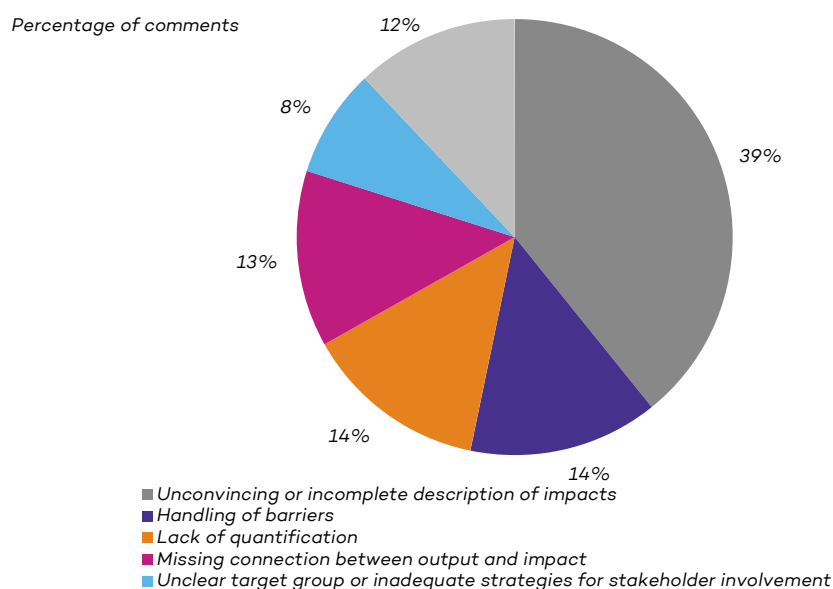


The distribution of comments across the different aspects of Impact is more even than for the Excellence criterion, as all three aspects account for more than 150 comments out of 565 in total. Most comments do, however, relate to the first and third aspects which stand at 199 and 214 comments respectively, whereas the second aspect numbers 152 comments.

6.1 The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the topic

Figure 3.1

Distribution of critical comments under Impact, “The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the topic”, percent



The first aspect of the Impact criterion is “The extent to which the outputs of the project would contribute to each of the expected impacts mentioned in the topic”. For this aspect, we have identified that the comments fall into the following six groups:

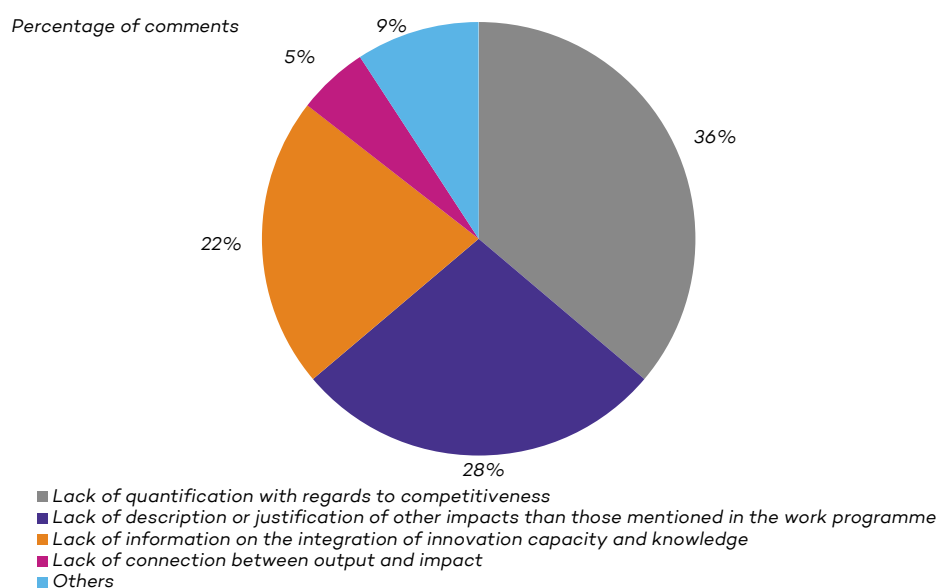
- **Unconvincing or incomplete description of impacts:** This means that the expected impacts listed “are described in a rather generic way”, “the magnitude of the potential impacts [is] not sufficiently defined” or “the potential impact is not convincingly explained”.
- **Handling of barriers:** According to the evaluators, “barriers which could negatively influence the potential impact are not properly considered” or “the overall impact is diminished due to the limited consideration of user acceptability and safety”.
- **Lack of quantification:** The evaluators are looking for “indicators that would measure the impact”, “sufficient KPIs to measure the expected impacts” or “adequate quantification criteria for impact”.
- **Missing connection between output and impact:** here, evaluators write that “the extent to which the outputs would contribute to each impact is not substantiated very well” or “very good outputs that, however, will only partly contribute to the expected impacts”.
- **Unclear target group or inadequate strategies for stakeholder involvement:** The evaluators are missing the identification of stakeholder groups or end-user groups. For instance, they write that “the proposal does not clearly address the identification of stakeholders and their participation” or “the proposal does not envisage enough engagement of end users beyond those participating in the stakeholder group”.

- The remaining comments concern a number of project-specific details including issues such as standardization or policy recommendations.

6.2 Any substantial impacts not mentioned in the work programme that would enhance innovation capacity etc.

Figure 3.2

Distribution of critical comments under Impact, “Any substantial impacts not mentioned in the work programme that would enhance innovation capacity etc.”, percent



The second aspect of Impact that proposals are evaluated on is whether there are any substantial impacts that have not been mentioned in the work programme and that would enhance the innovation capacity etc. We have grouped the comments under the following five headlines:

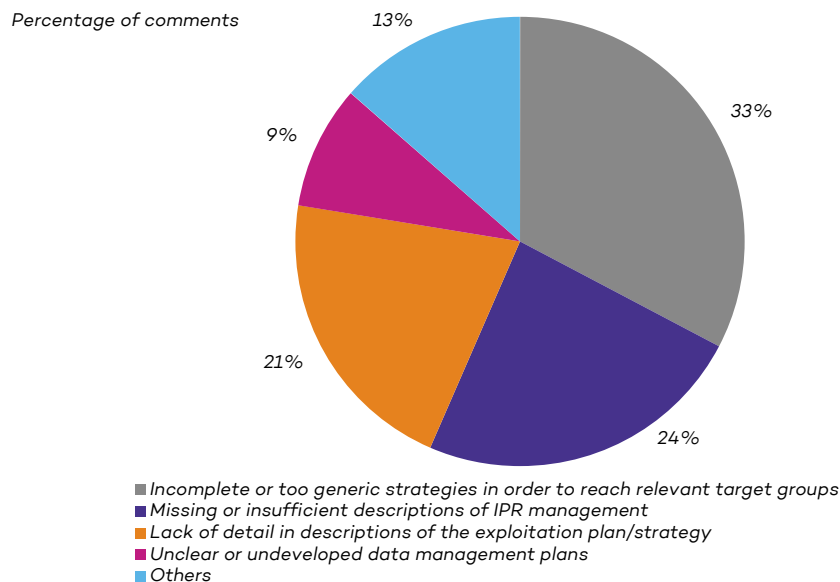
- **Lack of quantification with regard to competitiveness:** As “some positive impact on competitiveness within the EU and global market place is described, but without much quantification,” “the extent by which the competitiveness and growth of European companies will be promoted as a result of implementation of this project cannot be seriously assessed” or “is unconvincing”.
- **Lack of description or justification of other impacts than those mentioned in the work programme:** for instance, evaluators find that “other additional impacts described do not appear convincing nor particularly innovative”, “additional impacts are not considered in detail” or “other potential impacts are mentioned, but the claims are not substantiated”.
- **Lack of information on the integration of innovation capacity and knowledge:** It is “not clearly presented how companies outside the consortium can benefit from the innovation to be developed by the proposal” or “the text does not offer a clear plan for growth and scaling that could help deliver enhanced innovation capacity within and beyond the project duration”.

- **Lack of connection between output and impact:** evaluators make comments such as “it is not immediately clear how the proposed outputs will directly improve business through innovation at the market level”.
- **Remaining comments concern details with regard to the scientific and technical content of the proposals, such as prices set too high or lack of information regarding some minor parts.**

6.3 Quality of the proposed measures to exploit (including IPR management) and disseminate the project results and to manage research data where relevant. Quality of communication activities to different target audiences

Figure 3.3

Distribution of critical comments under Impact, “Quality of the proposed measures to exploit (including IPR management) and disseminate the project results and to manage research data where relevant. Quality of communication activities to different target audiences”, percent



The third aspect of Impact that evaluators take into account regards the quality of the proposed measures to exploit, disseminate and manage project results and the quality of the proposed communication activities aimed at target audiences. We identified that most of the comments under this aspect fall into five groups that concern:

- **Incomplete or too generic strategies in order to reach relevant target groups:** concrete communication and/or dissemination strategies are lacking, “various measures are not adequately specified for the different audiences” or the “different audiences are not sufficiently identified”. Also “the results of the communication activities are insufficiently defined” or “the planned measures of dissemination are not furnished with success indicators, risking the efficiency of the social impact of the produced results”.

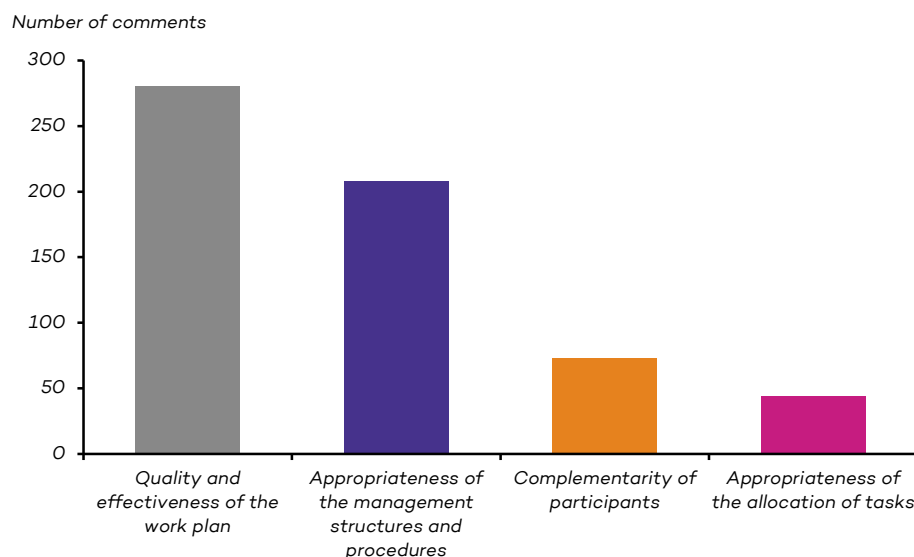
- **Missing or insufficient descriptions of IPR management:** IPR management is “not convincing”, “only broadly described” or “not adequately addressed”.
- **Lack of detail in descriptions of the exploitation plan/strategy:** According to the evaluators “there is no coherent exploitation plan at a joint or individual level”, or that the exploitation plan is “not well developed”, “insufficient” or “not sufficiently detailed to guarantee the uptake of the project results in the long run”.
- **Unclear or undeveloped data management plans:** Remarks concern “insufficient clarity with regard to ownership of the data”, “data management plans are not developed enough in relation to the large amounts of sensitive research data to be generated” or “the access to multi-national data is not adequately addressed”.
- **Remaining remarks concern a number of details that are specific to the particular proposal.**

7. Implementation

Implementation is the third and final section of a Horizon 2020 proposal. Here, the proposers describe their work plan, the proposed management structure, the members of the consortium and the resources required. Under the award criterion Implementation, the following aspects are taken into account: “Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables”, “Appropriateness of the management structures and procedures, including risk and innovation management”, “Complementarity of participants” and “Appropriateness of the allocation of tasks”.

Figure 4

Distribution of critical comments across the different aspects of Implementation, number of comments

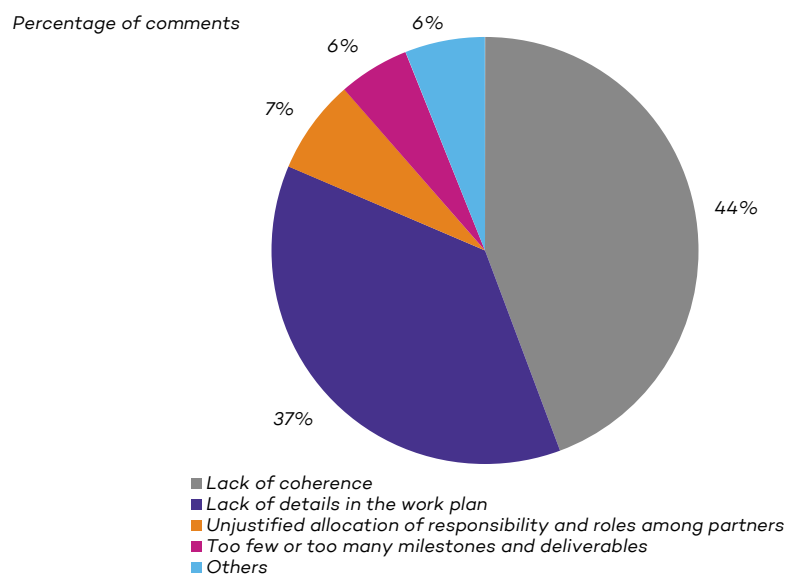


The evaluators included more comments in the ESRs on the Implementation sections of the proposals than on the other sections on Excellence and Impact. Most of these comments, however, relate to two aspects of the Implementation criterion: 280 comments concern the quality and effectiveness of the work plan, and 208 comments are about the appropriateness of the management structures. Meanwhile, “Complementarity of the participants” and “Appropriateness of the allocation of tasks” only number 73 and 44 comments respectively.

7.1 Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables

Figure 4.1

Distribution of critical comments under Implementation, “Quality and effectiveness of the work plan, including extent to which the resources assigned to work packages are in line with their objectives and deliverables”, percent



The first aspect of Impact that proposals are evaluated on concerns the quality and effectiveness of the work plan. We have grouped the comments relating to this aspect under the following headlines:

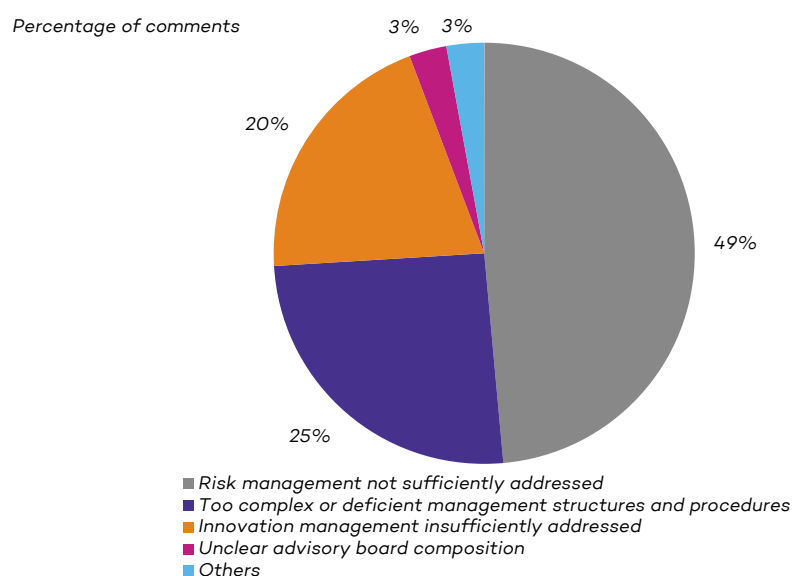
- **Lack of coherence:** The imbalances concern, for instance, “work package activities and the planned efforts”, resources allocated to certain work packages “in comparison with the tasks described, the duration and the complexity of the proposal” or “the scheduling of some tasks and deliverables” in comparison with other tasks. There could also be “an imbalance in the allocation of resources, which are mostly allocated to the academic partners” or an imbalance between resources allocated and proposed work. Here, the amount of resources could both be “too high”, “excessive” or “too low”, “underestimated”.
- **Lack of details in the work plan:** According to the evaluators the work plans could be “vague in parts” or lack details within certain work packages, “several tasks are insufficiently detailed”, or it is “not clear how the deliverables will contribute to the overall objectives”.
- **Unjustified allocation of responsibility and roles among partners:** Here, proposals lack explanations or justifications on why specific “WP leaders were selected”, on “who is going to be in charge of” some of the measures proposed or “lack details on partner roles at task level”.
- **Too few or too many milestones and deliverables:** Depending on the complexity of the projects, evaluators find that the number of deliverables and/or milestones is set too high and “might make the project execution more difficult” or too low “to allow effective assessment of the progress”.

- Remaining remarks concern the distribution of roles, for example concerning “insufficient quality control” and gender issues.

7.2 Appropriateness of the management structures and procedures, including risk and innovation management

Figure 4.2

Distribution of critical comments under Implementation, “Appropriateness of the management structures and procedures, including risk and innovation management”, percent



Appropriateness of the management structures and procedures is the second aspect of Implementation that is taken into consideration by evaluators. We have identified that the comments under this aspect fall into the following five groups:

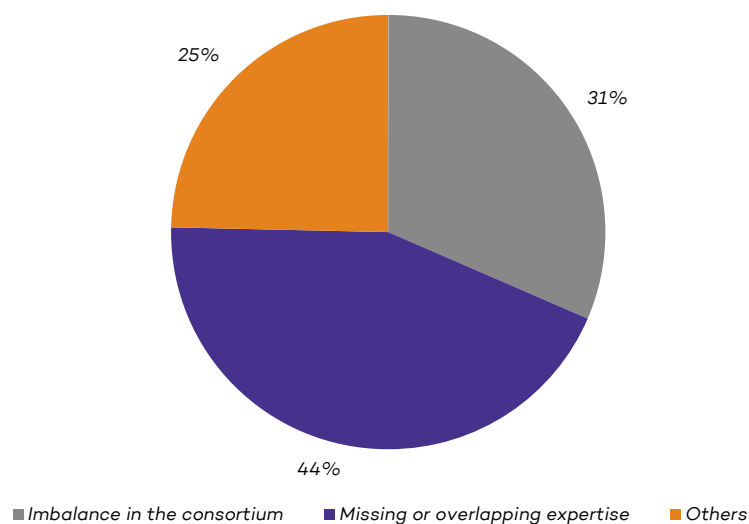
- **Risk management not sufficiently addressed:** Evaluators find that “the risks are underestimated,” “risk management fails to properly specify the likelihood of risks occurring,” or that “information on risk management is insufficient”. Also, “mitigation actions are not described to a sufficient level” or the “contingency plan is missing”.
- **Too complex or deficient management structures and procedures:** Evaluators comment on “overly complicated management structures with overlapping rules,” “insufficient detail in the governance structure,” “poorly addressed conflict resolution procedures” or “decision-making procedures”.
- **Innovation management insufficiently addressed:** Innovation management could be found to be, among other things, “only briefly described,” “not described in sufficient detail,” “very generic”, “only partially addressed” or “not mentioned”.
- **Unclear advisory board composition:** Evaluators find that “the external advisory board is not clearly specified,” that is “not clear how the Advisory Board and the Stakeholder Group would provide input to the research process,” the “governance of the Advisory Board is not clearly described”.

- Other shortcomings include, among other things, ethics that “remain insufficiently addressed” in the management procedures.

7.3 Complementarity of participants

Figure 4.3

Distribution of critical comments under Implementation, “Complementarity of participants”, percent



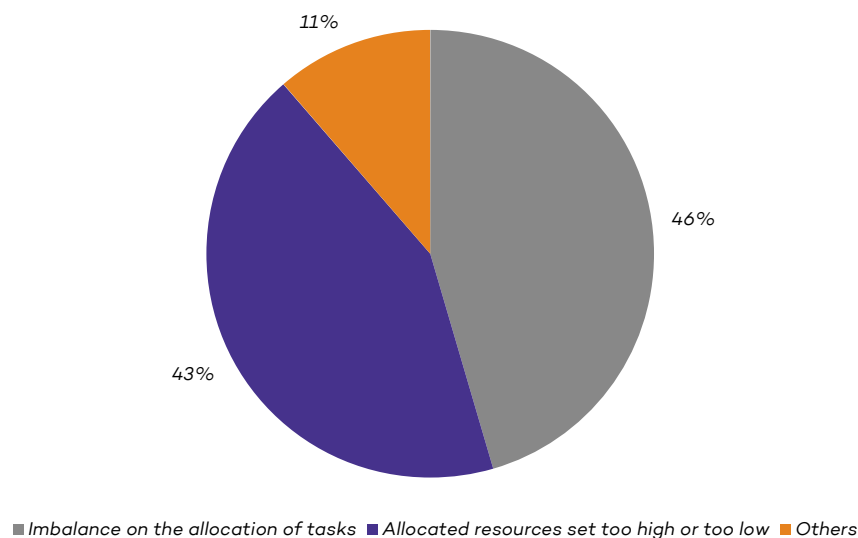
“Complementarity of the participants” is the third aspect of the Implementation criterion. The comments have been divided into three groups with the following headlines:

- **Imbalance in the consortium:** This refers to comments such as “the consortium is predominately made up of research institutions: there is a relative lack of participants from industry,” or “active participation of end-users is not sufficiently demonstrated”. Evaluators comment relatively often on the fact that “industrial participation is underrepresented”.
- **Missing or overlapping expertise:** When looking at the complementarity of participants, evaluators find that there could be “overlapping expertise”, “a particular part of the project is missing”, or even that “other aspects of the consortium’s expertise are extremely weak undermining its interdisciplinarity”.
- The remaining comments concern, among other things, weak gender balance, a relatively high number of subcontractors, or partners from geographical areas missing that are part of the research.

7.4 Appropriateness of the allocation of tasks

Figure 4.3

Distribution of critical comments under Implementation, “Appropriateness of the allocation of tasks”, percent



The last aspect of Implementation is “Appropriateness of the allocation of tasks”. The critical comments under this aspect are similar to the ones in section 7.1, in particular comments concerning imbalances and unjustified allocations. Here, the comments are divided under the headlines:

- **Imbalance in the allocation of tasks:** Evaluators write that “reviewers felt that the allocation of the tasks [is] uneven, for example one partner is bearing 30% of the tasks,” or that “the resources allocated to the individual tasks are not sufficiently presented”.
- **Allocated resources set too high or too low:** Evaluators comment both that “the resources dedicated to work package 1 (management) may be a little too modest given the size and organization of the consortium” or “additional resources for this particular task could have been beneficial”. Also, that “the proposal has too high a person month allocation given the tasks to be undertaken” or even very specific comments such as: “under the costs for ‘other goods and services’ this partner receives a total of 100,602 euros, which is an outsized amount for the respective deliverables”.
- **Remaining remarks concern** “unnecessarily large numbers of reports to be delivered,” “not enough information on the role and specific actions of each partner involved,” but also: “the allocation of resources cannot be evaluated due to the fact that the proposal is not respecting the limit for the maximum number of pages”.

8. Cross-cutting issues

All Horizon 2020 applicants are expected to address issues relating to gender, ethics and open access to research data in their project proposals. These issues are taken into consideration by the evaluators, where relevant. Critical comments on gender, ethics and open access only constitute a minor part of the total number of critical comments that we have identified, but they do point to some shortcomings in these areas. When mentioning these issues, evaluators criticise that gender aspects, ethical issues and open access are not sufficiently addressed in the proposals; they find, for example, that “there is not enough detail on how gender will shape the dissemination strategy” or that “risks concerning regulatory and ethical barriers are not sufficiently addressed”.

Critical comments on gender also focus on the gender balance of the management of the project.