Comparative Assessment of Peer Review (CAPR)

EU/US workshop on peer review:
Assessing "broader impact" in research grant applications

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INTRODUCTION

Like their counterparts in North America, public science and engineering (S&E) agencies in Europe rely on peer review to guide and legitimate funding decisions. Different agencies nevertheless adopt different approaches to peer review; even within one agency there are often manifest differences in application and practice. How do such differences in peer review affect funding decisions? To what extent can commonalities be identified across different agencies, especially insofar as these agencies may be devoted to different disciplinary or interdisciplinary interests? Which approaches and practices most effectively realize agency missions, scientific goods, and public benefits?

The Comparative Assessment of Peer Review (CAPR) project is a four-year research effort funded by the Science of Science and Innovation Policy (SciSIP) program of the U.S. National Science Foundation that addresses these and related questions. Initiated in October 2008, CAPR is based in the Center for the Study of Interdisciplinarity (CSID: csid.unt.edu) at the University of North Texas (UNT).

CAPR examined the peer review practices in six public science agencies:

U.S. National Science Foundation (NSF)
U.S. National Institutes of Health (NIH)
U.S. National Oceanic and Atmospheric Administration (NOAA)
Natural Sciences and Engineering Research Council of Canada (NSERC)
Dutch Technology Foundation (STW)
European Commission 7th Framework Program (EC 7FP)

Employing both qualitative and quantitative methods (data mining, literature review, a survey, and workshops involving both academic researchers and funding agency officials), the CAPR project has sought to develop usable knowledge by constructing a digital repository of peer review related documents and data, as well as a comparative matrix and analysis of these six sets of practices, with a special focus on how the agencies are addressing concerns with the societal benefits of scientific and engineering research.

In order to both disseminate early results and to enhance its research effort, in April 2010 the

CAPR team organized a midterm workshop in Washington, DC. This workshop brought together CAPR researchers, researchers with related expertise, and individuals representing the six agencies on which CAPR is focused. Also participating were representatives from several other US agencies, including the Environmental Protection Agency, the Department of Agriculture (National Institute of Food and Agriculture), and the Department of Defense (Congressionally Directed Medical Research Program), as well as from the Research Councils UK, SRA International, SRI International, the Science and Technology Policy Institute, and the Potomac Institute. A report from the Washington, DC workshop is available here: http://csid-capr.unt.edu/research/capr-workshop-washington-dc-april-2010.

One immediate outcome of the April 2010 CAPR workshop was a proposal to organize a similar workshop in conjunction with the European Commission in Brussels. The Brussels workshop took place 13-14 December 2010 at offices of the European Commission.

BRUSSELS WORKSHOP

Since the late 1990s the US National Science Foundation (NSF) has required grant applicants to describe not only the intellectual merit of their proposed research, but also its broader impact. Broader impact is understood to include, for example, links to education, the participation of underrepresented groups (e.g., gender, ethnicity, disability, geographic, etc.), and the benefits of the proposed activity to society. This criterion continues to be viewed as a problematic feature in the grant application process, with some asserting that the concept is difficult to understand, and one that applicants and peer reviewers feel ill-equipped to address.

In the face of this, NSF continues to explore how to improve the implementation of this criterion. For example, the US National Science Board is currently conducting a thorough review of NSF's merit review criteria.

The European Commission has likewise grappled with this issue, and has strived to incorporate a meaningful assessment of societal impact in its own proposal peer review process. The approach has been revised over the years, resulting in a progressive narrowing of the notion of impact as an evaluation criterion in successive Framework Programmes. Feedback from surveys and elsewhere suggest that, while the latest approach marks an improvement, implementation problems persist.

Nonetheless, with funding agencies worldwide being called upon to demonstrate greater accountability, the challenge to successfully integrate societal impacts in the funding process remains acute. Funding agencies are searching for ways to increase both the effectiveness and the efficiency of their peer review processes. Much of the discussion of how to deal with the issue of societal impact as part of the peer review process has focused on simplification of the criteria. Although simplification of the criteria is likely to increase the efficiency of the review process, too much simplification may render the *ex ante* assessment of potential societal impacts

ineffective.

In the light of the debate on simplification, a political commitment to see research as part of the wider system for innovation, and in view of the coming debate on the future EU research and innovation funding programme, , including FP8[1], it was considered timely to take stock of current practices and to consider options for the future. The discussions at the two workshops aimed to illuminate both the differences and the similarities in approach across the various agencies and the logic behind the choices made. The Brussels workshop brought together practitioners and specialists from both US and European agencies to help frame the coming debate. In particular, workshop participants were meant to benefit from the ground work and interim findings of the CAPR study team, as well as to contribute to the CAPR study as, in some sense, co-producers of the results of CAPR.

Objectives: The workshop sought to analyse, debate and validate these findings in a European as well as an American context, and to help chart solutions for the future. In particular, the workshop aimed to develop a descriptive statement on factors determining the relative importance of broader impact in *ex ante* proposal evaluation of grant applications, to serve as a reference for policy-makers – on both sides of the Atlantic – engaged in ongoing and forthcoming reviews of peer review. This statement is produced, below, under the heading 'Discussion'.

Participation was by invitation and included the following:

National agencies & Academic Institutions

- Sally Amero, National Institutes for Health (NIH), United States
- Frank Bingen, Fonds National de la Recherche, Luxembourg
- Jonas Björk, Swedish Research Council, Sweden
- Claire Donovan, Brunel University, United Kingdom
- Robert Frodeman, University of North Texas, United States
- Michael Gorman, National Science Foundation (NSF), United States
- Edward Hackett, Arizona State University, United States
- J. Britt Holbrook, University of North Texas, United States
- Carl Mitcham, Colorado School of Mines, United States
- Simon Oso, Slovenian Research Agency, Slovenia

[1] Since named Horizon 2020

- Christian Pohl, Eidgenössische Technische Hochschule Zürich (ETH), Switzerland
- Nikolai Raffler, Deutsche Forschungsgemeinschaft (DFG), Germany
- Gillian Rendle, Research Councils UK, United Kingdom
- Joanne Tornow, National Science Foundation (NSF), United States

European Science Foundation (ESF)

- Marc Heppener
- Laura Marin

European Commission

- Alan Cross
- Clara De la Torre
- Jimmy Felthaus
- Gesa Hansen
- Brendan Hawdon
- Ugur Muldur
- Neville Reeve
- René von Schomberg

ERC Scientific Council

- Helga Nowotny

EU Executive Agencies

- Sebastiano Fumero, Research Executive Agency
- Alejandro Martin-Hobdey, ERC Executive Agency

Presentations are available either by clicking on the hyperlink in each presenter's name or by visiting http://csid-capr.unt.edu/research/capr-workshop-brussels-december-2010.

DISCUSSION

What follows is a discussion in three parts. In part 1, the summary statement of the European Commission is presented. In part 2, the summary statement of the CAPR team is presented. No effort has been made to reconcile the statements into a consensus view, but the CAPR statement does take into account and respond to the statement made by the European Commission. Part 3 contains issues for further reflection.

Part 1: EC post workshop summary statement: *evaluation of impact in FP7*

The discussions in the workshop helped to explore a conceptual framework for the assessment of broader/societal impact through peer review, while cross-checking this philosophical perspective with actual practices in the funding agencies represented.

The common aim now is to draw optimum benefit from the event by establishing guidelines and pointers for improving current practices, taking into account the specificities of different research programmes.

The European Commission's Framework Programme (FP7): *Cooperation Specific Programme*

The current approach to impact in the peer review assessment of proposals was explained at the workshop. Drawing on lessons learned from previous programmes, FP7 calls include a paragraph in the published 'work programmes' on the expected impacts for particular research areas and topics. These describe potential impacts in the mid-term, beyond the output of individual projects (papers, patents etc), but stopping short of the high level objectives set in the Treaty and the Specific Programmes. The impacts so described are those that might be expected from a body of research activities, and not necessarily from individual projects. They should be as explicit as possible, and include different types of impact, particularly those at the European level. The applicants should have some freedom to explain how their work will contribute to the impacts. Furthermore, the achievement of the impacts will normally depend on other factors external to the research itself.

Applicants of full proposals are asked to explain how their research will contribute to the expected impacts. The peer reviewers, in turn, are asked to assess this potential contribution, as well as the plans put forward by the applicants for the dissemination and/or exploitation of results.

Generally, the criteria are given equal weighting.

See appendixes for the evaluation criteria and scoring system (Appendix 1), some examples of the expected impact statements (Appendix 2), and the standard guidance for applicants (Appendix 3).

For the remainder of FP7, the Commission intends to further emphasise the impact-related aspects, by:

- increasing the guidance given to applicants;
- improving the drafting the expected impact statements, to better show links with broader programme objectives, including innovation, while ensuring that they are can be interpreted operationally;
- reviewing the composition of peer review panels, and including individuals more clearly attuned to impact aspects, if necessary;
- providing clear briefing to all experts.

Part 2: CAPR team post-workshop summary statement

The discussions in the workshop explored conceptual issues surrounding the *ex ante* assessment of potential broader impacts through the use of peer review of research proposals. The workshop also provided an opportunity to test this theoretical framework against the practices of the funding agencies that participated. In this way, workshop participants were involved in grounding the theoretical aspects of the CAPR project and in the co-production of our research.

The PI's of the CAPR project hope that this research will have its own broader impact on the policy process surrounding peer review. This workshop was timely, since both NSF and the EC are considering changes to their peer review processes. As mirrored by the peer review process itself today, CAPR research seeks to link the theoretical and policy dimensions of its work.

Comparing the peer review processes of NSF and the EC reveals similarities and differences that ought to be considered in any modification of a grant proposal peer review process. First, both NSF and the EC have explicit societal impacts criteria. Second, in the case of both agencies, these impacts criteria go beyond the scope of concern for education and public outreach.[2] These similarities allow the differences between the two agencies to be seen in greater relief.

The review process used by the EC as part of FP7 is outlined above, so we offer a brief account of NSF's current merit review process in order to orient readers unfamiliar with it. Since 1997, NSF has had only two generic merit review criteria for grant proposals, asking:

- "What is the intellectual merit of the proposed activity?"

[2] For a discussion of NSF's Broader Impacts Criterion and its relation to education and outreach, see Frodeman and Holbrook, 2007; Holbrook and Frodeman, 2007; and the essays contained in the 2009 special edition of *Social Epistemology*, (Holbrook, 2009). For a broad discussion of different models of peer review investigated by the CAPR team, see Holbrook, 2010a. For an extended discussion of the comparison between NSF and the EC, see Holbrook and Frodeman (2011).

- "What are the broader impacts of the proposed activity?"

For over a decade, reviewers of NSF proposals have been asked to consider not only whether the proposed activity constitutes good science, but also whether it would have an impact (presumably positive) on the larger society outside of science, as well as within the scientific community. NSF instituted its more streamlined approach to merit review (prior to FY 1998, there had been four criteria) in an effort both to simplify the process and to raise the profile of the societal benefits of public funding for basic research (Holbrook, 2005; *cf.* Rothenberg, 2010).

One difference between NSF and the EC involves their approaches to the issue of weighting their impact criteria. NSF has explicitly chosen not to assign a particular weight to its Broader Impacts Criterion. For NSF, no weighting means that the decision of how much weight to place on the Broader Impacts Criterion is left to the individual reviewer. The EC, on the other hand, explicitly assigns the same weight to the expected impacts of the proposed research as it does to the other evaluation criteria. In terms of weighting, then, the EC is more directive than NSF.

In addition to the fact that NSF does not assign a specific weight to considerations of intellectual merit or broader impacts, NSF asks reviewers to comment only on those areas of the proposal they feel competent to judge. This leads to a tendency on the part of both proposers and reviewers to emphasize the intellectual merits of a proposal and to give its broader impacts short shrift (Holbrook, 2005). This tendency not to count broader impacts points to a potential downside to what we have described elsewhere as NSF's "intentional vagueness" regarding impacts (Holbrook and Frodeman, 2011). NSF has recognized this tendency and has – without altering the Broader Impacts Criterion itself – increasingly emphasized that broader impacts must be addressed in both proposals and reviews (Holbrook, 2009). Moreover, since this workshop NSF's National Science Board (NSB) has issued proposed changes to the merit review criteria that would significantly alter the course that had been maintained since 1997 (Frodeman and Holbrook, 2011a and 2011b).

The EC has taken a different approach to impacts, as the following historical account shows. In addition to reviewers, the EC includes independent observers during review panel meetings, who offer their recommendations to the Commission regarding the peer review process itself (Cross, 2010). According to Cross (2010), it was largely due to recommendations from these independent observers that the EC's incorporation of societal impacts considerations as part of the peer review of proposals has undergone significant change over the course of successive Framework Programmes.

The 5th Framework Programme (1998-2002) used five review criteria, three of which concerned societal impacts: (a) Community added value and contribution to EU policies; (b) contribution to Community social objectives; and (c) economic development and science and technology prospects (Cross, 2010). FP5 also included additional unscored criteria that reviewers could comment on regarding ethical considerations and Community policies. Observers suggested that the FP5 criteria were too complicated: there were too many criteria, and the inclusion of both

scored and unscored criteria created confusion among reviewers, leading to the need for both scientific and "strategic" experts, the latter of which were difficult to identify (Cross, 2010).

In an effort to simplify the peer review process, FP6 (2002-2006) included only one scored 'potential impacts' criterion. All other scored criteria related to either scientific and technical merit or relevance to the specific call for proposals. FP6's 'potential impacts' criterion asked about whether the proposed research reinforced competitiveness or solved societal problems, the extent to which plans for innovation, exploitation, and dissemination of results were adequate to ensure optimal use of the research results, and the 'European added-value' of the research. FP6's 'potential impacts' criterion was in fact quite similar to NSF's Broader Impacts Criterion, both in terms of its form (one criterion with many facets) and its content (dissemination of results, benefits to society, and so forth).

Despite having followed the recommendations of the independent observers that the criteria be simplified, FP6 still included several unscored criteria that allowed reviewers to comment on ethical, safety, or gender issues, public engagement, education, and '3rd country' – non EU – involvement. Observers found the FP6 criteria an improvement over FP5, although they noted that the unscored criteria continued to produce confusion (Cross, 2010). With the transition to FP7 the meaning and scope of impact was narrowed again. As described above, as well as in the appendixes to this report, 'impact' was now restricted to the potential contribution of the proposed research to a list of 'expected impacts' outlined in the annual work programmes and calls for proposals.

The progression from FP5 to FP7 can be seen as marking the progressive limitation of the scope of societal impacts criteria as part of the EC's peer review process. This interpretation of events is favoured by Cross (2010): "This limitation of the meaning and scope of 'impact' is a reflection of the following 'lesson learned': 'Don't try to make EU policy via evaluation criteria.'" On the other hand, the progression from FP5 to FP7 can also be seen as a further specification, rather than a limitation or even phasing out of impacts considerations. Indeed, the trajectory from FP5 to FP7 heightens consideration of impacts insofar as it moves judgments about what impacts are to be considered toward the top (policymakers) and away from the scientific community.

During the same period, NSF stays the course with its Broader Impacts Criterion, which even with the proposed changes to the criterion pending, has not been modified since its introduction in 1997. In contrast with the trajectory of the EC, a case can be made that the scope of the broader impacts criterion has steadily increased since its introduction. Broader impacts at NSF has both become more central to the review process and expanded beyond its early focus on education and public outreach (Frodeman and Briggle, forthcoming). The steady increase of attention to broader impacts on the part of the scientific community has not, however, decreased policymakers' attention to NSF's Broader Impacts Criterion: the America COMPETES Reauthorization Act of 2010 includes specific suggestions by lawmakers as to how the Criterion ought to be applied (Holbrook, 2010b).

In terms of both weighting considerations of impact, and of specifying considerations of impact, the EC is more directive than NSF. As noted above, the EC is more top-down in managing the review of grants: each work programme specifies the expected impact and the weighting of impact relative to other criteria. NSF leaves both the weighting and scope of assessing broader impacts in the hands of the reviewers, using a generic impacts criterion that applies to all grant proposals and allowing consideration of impacts to be determined largely bottom-up, by members of the scientific and engineering community who serve as reviewers.

A change in this contrast between the EC (top-down) and NSF (bottom-up) approaches to impact seems imminent. The new broader impacts criteria proposed by NSB take a more top-down approach to impacts. Assuming no changes to NSB's proposed criteria, addressing broader impacts will now entail showing "which national goal (or goals) is (or are) addressed in the proposal?" The complete list of goals follows:

- Increased economic competitiveness of the United States
- Development of a globally competitive STEM workforce
- Increased participation of women, persons with disabilities, and underrepresented minorities in STEM
- Increased partnerships between academia and industry
- Improved pre-K-12 STEM education and teacher development
- Improved undergraduate STEM education
- Increased public scientific literacy and public engagement with science and technology
- Increased national security
- Enhanced infrastructure for research and education, including facilities, instrumentation, networks, and partnerships

A comparison of these goals with the national needs laid out in the America COMPETES Reauthorization Act of 2010 (PL 111–358, Sec.526.a) reveals a remarkable similarity:

(1) Increased economic competitiveness of the United States.

(2) Development of a globally competitive STEM workforce.

(3) Increased participation of women and underrepresented minorities in STEM.

(4) Increased partnerships between academia and industry.

(5) Improved pre-K–12 STEM education and teacher development.

(6) Improved undergraduate STEM education.

(7) Increased public scientific literacy.

(8) Increased national security.

It is true that this list of goals from the America COMPETES Reauthorization Act of 2010 ultimately comes from NSF rather than from Congress (Holbrook, 2010b). However, if NSB's proposed new criteria are eventually put into effect, NSF will have significantly altered course, moving from a bottom-up treatment of broader impacts to a more top-down approach (Frodeman and Holbrook, 2011a and 2011b). It remains to be seen what course corrections are in the offing for the European Commission.

In conclusion, and based on our research up to this point in the CAPR project, we offer a set of summary statements on the state of the art regarding the use of peer review to render *ex ante* judgments of the potential societal impact of proposed research (Holbrook and Frodeman, 2011):

1. Science agencies around the world are placing increasing emphasis on funding research that has clearly identified potential benefits to society.

2. Many agencies use the peer review process to assess the potential societal impacts of the research they fund.

3. Agencies often encounter resistance from both proposers and reviewers to the incorporation of societal impacts considerations into the peer review process.

4. Despite the well-documented resistance on the part of the scientific community to including impacts criteria in peer review, there is little evidence to suggest that peer review is in principle any less effective at *ex ante* assessments of societal impact than it is at *ex ante* assessments of scientific, technical, or intellectual merit (Holbrook and Frodeman, 2011).

5. Agencies continue to experiment to find better ways to include societal impacts considerations in *ex ante* research evaluation.

Part 3: Issues for further reflection

Use of the term 'impact'

Definition of Impact

- Eg., "sustained powerful influence," connecting knowledge production with knowledge use.

Impact on what?

- Scientific field
- Across disciplines

- Wider still (society, economy, sustainable development, etc.)

Who can judge impact?

- "Every scientist is a citizen"
- Are there broader impacts experts?
- How could one identify such an expert?

Who ought to judge impact?

- Top-down vs. Bottom-up approaches
- Accountability vs. Autonomy
- Maximizing efficiency vs. Maximizing effectiveness

What are the best ways to maximise impact?

- Communication, public engagement, involvement of users, “Productive Interactions”
- Focus on logistics rather than predictions, e.g., "Pathways to Impact"
- How to assess this by peer review

Intellectual merit ("S/T quality") and Impact

- De-correlating the two…can we? Should we?
- "Scientific excellence is necessary but not sufficient"
- Relative importance
    - Set out weighting in advance?
    - Let reviewers judge relative weighting?
    - Let programme managers decide afterwards?

Taking a holistic approach to research impact evaluation

- Linking agency mission statement with evaluation criteria
- Linking *ex ante* proposal evaluation with *ex nunc* project monitoring
- Linking *ex ante* proposal evaluation with *ex post* impact assessment
- Questioning the linearity of the *ex ante*, *ex nunc*, and *ex post* evaluation

More intra-agency communication and coordination – the before and after folks should talk with each other and with the peer reviewers to see what's working.

Need for disambiguation of terminology, for instance:

- *Ex ante* impact assessment on the work programme level
- Peer review (instead of expert evaluation) for peer review
- *Ex post* impact evaluation on the work programme level

Should consider two additional positions/offices to help integrate:

- Impact reporting to collect relevant data
- Intended and unintended consequences branch to reflect on everything (from *ex ante*, through peer review, through *ex poste*, and long-term, in coordination with impact reporting).

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Appendix 1: FP7 evaluation of "impact"

Standard evaluation criteria, FP7 Cooperation Specific Programme

1. Scientific and/or technological excellence (relevant to the topics addressed by the call)
*Note: when a proposal only **partially addresses the topics,** this condition will be reflected in the scoring of this criterion.*

- Soundness of concept, and quality of objectives
- Progress beyond the state-of-the-art
- Quality and effectiveness of the S/T methodology and associated work plan

2. Quality and efficiency of the implementation and the management

- Appropriateness of the management structure and procedures
- Quality and relevant experience of the individual participants
- Quality of the consortium as a whole (including complementarity, balance)
- Appropriateness of the allocation and justification of the resources to be committed (staff, equipment, ..)

3. Potential impact through the development, dissemination and use of project results

- Contribution, at the European and/or international level, to the expected impacts listed in the work programme under relevant topic/activity
- Appropriateness of measures for the dissemination and/or exploitation of project results, and management of intellectual property.

Each criterion marked out of 5 (half marks permitted). Threshold of 3 for each criterion. Overall threshold of 10.

Meaning of the scores

0 - The proposal fails to address the criterion under examination or cannot be judged due to missing or incomplete information

1 - Poor. The criterion is addressed in an inadequate manner, or there are serious inherent weaknesses.

2 - Fair. While the proposal broadly addresses the criterion, there are significant weaknesses.

3 - Good. The proposal addresses the criterion well, although improvements would be necessary.

4 - Very good. The proposal addresses the criterion very well, although certain improvements are still possible.

5 - Excellent. The proposal successfully addresses all relevant aspects of the criterion in question. Any shortcomings are minor.

Appendix 2: Examples of expected impact statements

Expected Impact: Smart and multifunctional packaging concepts capable of enhancing environmental sustainability of packaging business and contributing to low-carbon economy. In particular, to meet the demands on packaging recyclability and raw material based on renewable sources. To promote the creation of markets for products and processes utilising smart and multifunctional packaging concepts, thus boosting the competitiveness of the European packaging industry and contributing to growth and jobs. Provide tangible benefits to consumers in terms of improved performance, safety and security of products and management of domestic waste.

Expected Impact: Improvement of mechanisms for knowledge transfer from science to application. Increase societal awareness and resilience to natural hazards. The participation of SMEs in the coordinating action contributes to increased capacities of SMEs in risk communication.

Expected Impact: Design of effective abatement strategies for non UNFCCC gases and aerosols to mitigate climate change and to protect the quality of air. Support to the implementation of the EU air quality and climate change policies.

Expected impact: The work should aim at providing European small-size aircraft industry with substantial improved ability to develop and use affordable and environmentally acceptable propulsion units and reliable aircraft systems, minimizing operating costs, while increasing the level of safety.

Expected impact: Through research and networking projects will advance the knowledge base that underpins the formulation and implementation of relevant policies in Europe as regards the provision of public services. They will achieve a critical mass of resources and involve relevant communities, stakeholders, and practitioners in the research, with a view to assessing the potential for innovations in public services and the likely changes brought by such innovations in the organisation and size of public services.

Appendix 3: Instructions for applicants with regard to impact

(Extract from Guide for Applicants)

3. Impact

3.1 Expected impacts listed in the work programme

Describe how your project will contribute towards the expected impacts listed in the work programme in relation to the topic or topics in question. Mention the steps that will be needed to bring about these impacts. Explain why this contribution requires a European (rather than a national or local) approach. Indicate how account is taken of other national or international research activities. Mention any assumptions and external factors that may determine whether the impacts will be achieved.

When appropriate (relevant for the topic):
With regard to the innovation dimension, describe the potential areas and markets of application of the project results and the potential advantages of the resulting technologies/ solutions compared to those that are available today.

3.2 Dissemination and/or exploitation of project results, and management of intellectual property

Describe the measures you propose for the dissemination and/or exploitation of project results, and how these will increase the impact of the project. In designing these measures, you should take into account a variety of communication means and target groups as appropriate (e.g. policy-makers, interest groups, media and the public at large).

For more information on communication guidance, see http://ec.europa.eu/research/science-society/science-communication/index_en.htm.

Describe also your plans for the management of knowledge (intellectual property) acquired in the course of the project.

When appropriate (relevant for the topic):
With regard to the innovation dimension, describe the measures you propose to increase the likelihood of market uptake of project results, such as: verification, testing, and prototyping; supporting the development of technical standards; identifying and

collaborating with potential users; identifying potential partners and sources of finance for commercialisation.

(Maximum length for the whole of Section 3 – ten pages)