EURADIA
Alliance for European Diabetes Research

House of Lords European Union Committee

SELECT COMMITTEE ON THE EUROPEAN UNION
Sub-Committee B, Internal Market, Infrastructure and Employment
CALL FOR EVIDENCE: Effectiveness of EU research and innovation proposals

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On behalf of EURADIA, the Alliance for European Diabetes Research
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Questions

1. What are the essential elements of an effective proposal relating to research and innovation?

1.1 Proposals maybe in response to a specific request for funding applications 'specific call' by a grant awarding body (e.g. EU), or they may be submitted on topics that have not specifically been requested by the grant awarding body. Proposals are submitted by individual scientists or a group who may work in an academic or an industry setting. The essential elements of any proposal will vary initially according to the specific interests of the person/group drafting. In all cases, to be considered as viable, the proposal should satisfy the area defined in the call for research applications, which may not always be what the investigator believes to be crucial or achievable with the resources being made available within the confines of the call.

1.2 In any case there is a distinction between what is considered 'research' and what is 'innovation': research does not necessarily guarantee that anything will be 'discovered' even if it advances knowledge in the field. Most grant funders will recognize that it may not be possible to find anything given the resources available. 'Research' looks at something to which there is no known answer, in this case the research question may be very novel with a large risk that nothing will be found and a questionable return on investment for the funding body depending on expectations.

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1.3 'Innovation' on the other hand usually takes a concept that has already undergone the scrutiny of the initial research process; it is an established concept but the investigator (the innovator) wishes to develop it further for a particular purpose, which may have commercial implications. Innovation moves in a stepwise direction towards a more defined conclusion.

1.4 Within the confines of a research proposal a compromise may be needed, a trade off, between research novelty and a novel application of methodology for which there may be a more likely return on the initial investment.

1.5 In all cases, an effective proposal should obey the rules set by the grant giving body:

- The proposal must have a hypothesis based on a foundation of either a pilot study, or a literature search
- The proposal must be ethical and obey all ethical rules that apply in that environment.
- The proposal must be realistic and achievable in the given timeframe
- The research must be carried out by appropriately qualified individuals

2. **Do you feel that stakeholders at all levels are properly consulted in the development of EU proposals on research and innovation? Are stakeholder concerns properly taken into consideration; how could consultation be improved; and to what extent does consultation affect policy formulation?**

2.1 With regard to the EU consultations in Research and Innovation, it is probably impossible to fully inform/consult/ and take into account the opinions and wishes of all the possible groups of stakeholders at all levels in a Europe-wide manner. That being said, the Commission and DG Research in particular have not been particularly successful in this regard and the process for selecting topics for future calls for applications is far from transparent or equitable. Rather than relying on input from groups of experts, the process is guided by national representatives to the Programme Committee that are themselves not necessarily well informed, and frequently influenced by individual academics lobbying in their own personal interests.

2.2 To be fair to all stakeholders, but in order not to complicate the process, the EU should ensure that there is sufficient information available about the consultation, the background to the issue, and a justification for the consultation to take place. It would be important to bring the consultation to the attention of the stakeholder groups who could provide a meaningful and knowledgeable contribution. The EU could make more concerted effort to understand the stakeholder groups in different areas. The consultation should be targeted at the relevant groups or individuals within a narrow band and their participation should be actively encouraged.

2.3 If contributions are sought from too many groups this may have the undesirable effect of encouraging responses to consultation from individuals who may find the process discouraging because they do not have the level of expertise and understanding required (and their input may be ignored) and worse they could be discouraged from future activities where their knowledge and input would be of great value.

2.4 As an example from the field of diabetes research, the organization **EURADIA, the Alliance for European Diabetes Research**, has access to all the relevant stakeholders that have an interest in diabetes research especially at the European level. It would be possible to use an entity such as EURADIA to coordinate a multi-stakeholder response, as was the response of EURADIA to the initial consultation on Horizon 2020 [1]. This response was based on the **DIAMAP Road Map for Diabetes Research in Europe** [2], which itself was a multi-stakeholder collaborative project.

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2.5 To apply this successful approach more generally, in the field of health research, expert groups should be created in the major areas of research to be supported by a research Framework Programme such as Horizon 2020. These groups should be comprised of academics and health professionals, researchers from industry as well as representatives of patients and should help the Commission draw up more relevant calls for research funding. They could serve as advisory panels to the Research Programme Committee with its national representatives.

3. The EU facilitates Member State cooperation on research and innovation through the open method of coordination, the creation of high-level groups, associations, networks, and councils? Are these modes of cooperation effective, and could other methods be used?

3.1 Different Member States are at different stages in their research, health, and scientific development and have different priorities for their national budgets. This is especially evident in relation to research and more so health research. However, it is necessary for the EU to investigate fully the research areas intended to be funded, and to develop strategies for research that have the potential to create pan-European collaborative projects. The EU then needs to translate such strategies into coordinated calls for funding that result in effective Europe-wide research. It will also be most important to put in place an umbrella organization to coordinate health research across Europe in order to ensure that regional and national efforts are synergistic and effective, not redundant or duplicative. For example the Alliance for Biomedical Research in Europe has proposed a European Council for Health Research for this purpose [3].

3.2 Such strategies could make use of the example of research road maps such as the EURADIA coordinated DIAMAP Road Map for Diabetes Research in Europe, which is a good example of a framework that has been used to identify priorities from which calls for research funding applications have been developed.

3.3 DIAMAP is a European Commission funded project (FP7 Health 200701) with the mission to undertake a wide survey of the current European diabetes research landscape, from which expert opinion can identify gaps and highlight strengths, to guide a Road Map strategy for diabetes research in Europe [2].

3.4 High-level expert groups are effective, but only up to a point as they contribute much to the discussion in the field by preparing a 'menu' of ideas but not a procedure for implementing these ideas. If there is no key research infrastructure in place there is the risk that the ideas not achieve fruition.

3.5 An example may be the proposed European Platform for Clinical Research in Diabetes (EPCRD) "The EU-funded Seventh Framework Programme (FP7) project DIAMAP, charted road maps for successful innovation strategies to tackle the growing problem of diabetes, and clearly identified the need for registries patients, networks of specialist researchers, access to biobanks and human biological material, and the need for more standardised evidence-based treatment guidelines. This project provides an important example of a first step towards a sustainable effort to promote a healthier population in Europe, but it requires a foundation structure to convert research into innovation. Diabetes illustrates the need for a European Platform for Clinical Research. Such an initiative could, for example, support the provision of a centralised infrastructure to ensure quality assurance and educational back-up for diabetes research, and facilitate access to data and biological samples by providing a uniformly agreed and ethically approved infrastructure to permit sample and data-sharing. [3]

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3.6 Because there are too many differences across the Member States, lack of conformity is inhibiting progress. Although total harmonization may not always be necessary or indeed desirable, at the very least agreements are needed (for example: professional recognition, taxation) to ensure effective cooperation.

4. Has the EU been successful in engaging private sector support for projects with a strong research and innovation dimension? Are there ways in which this could be improved?

4.1 The EU does recognize the importance of research and innovation in the private sector. However, there is a limited understanding of how venture capital works in this research sector and very limited understanding of contractual variability between the Member States.

4.2 There are also problems of transferring intellectual property between countries, and registration of Intellectual Property. Likewise, there are huge differences in the way that tax liability operates in different countries for example methods of claiming for work travel and expenses differ widely. Because of such differences this makes it difficult to engage the private sector in the same way in different countries and to encourage a collaborative environment.

4.3 It will be critical under horizon 2020, the next European Research Framework Programme to ensure that the private sector is fully integrated into research projects without compromising these projects as can on occasion be the case today. Under FP7, there was a formal commitment to invest a fixed percentage of the overall budget in SMEs. This has led to calls for applications for research funding under FP7 imposing rigid requirements for involvement of SMEs. This is misguided and creates a situation that is ultimately unhelpful to investigators, stifling creativity and research effectiveness. SMEs often find themselves "parachuted" into projects for the wrong reasons, with little impact aside from public funds that may increase employment albeit in a non-sustainable fashion.

4.4 As this area is so complex it is unlikely to ever be addressed sufficiently comprehensively to enable increased effectiveness.

5. Do EU proposals clearly state their desired outputs, outcomes, impacts, and 'European added-value'? Do you think the European Commission's Impact Assessment Board helps to ensure the production of useful and accurate impact assessments?

5.1 Such a question is extremely difficult to evaluate without recourse to, and evaluation of, at least a large selection of funded EU proposals. In itself such an examination would not prove any benefit without a parallel examination of the ultimate outcome of those same projects.

5.2 While some of the requests for research funding (the call) clearly define the outputs that are required and provide examples of what may be expected, others do not, and indeed cannot because of the nature of the call. At the time of the proposal it may be impossible to predict the outcome of 'research' oriented proposals, rather than 'innovation' proposals (see response to question 1).

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5.3 The impact and European added value cannot always be evaluated in one step at the end of the initial research investigation, because it may take a number of years for the impact to be seen. This is particularly the case in highly complex research areas such as genetics, where only now is the impact is resulting in a potential benefit whereas the initial research was undertaken around 20 years ago and in the meantime many different investigations have been required to reach the intermediate milestones leading to the ultimate goal; which may still be far off.

5.4 Another example is the field of obesity research and its potential impact on the diabetes epidemic; because there are generational issues and because of the time taken for changing lifestyles to take effect, at lest 20 years would be needed and this far exceeds the lifespan of the average research grant. The period of time needed for impact may not be known and could not be estimated at the time of the initial research proposal and the impact could come in an entirely different field. Thus, the added value cannot be accurately assessed and can often only be speculated upon at the time of the initial research.

5.5 As for previous questions, a framework such as the DIAMAP Road Map for Diabetes Research in Europe would be an extremely helpful template here as it shows how experts and non-experts can work together to make progress towards research goals.

5.6 That being said, projects such as DIAMAP can only be useful for this purpose if supported in the longer term. Sustained support that is currently not offered by the EC would be essential for evaluation of the impact of research on the health and wellbeing of European citizens, and the contribution of the EC and of national research efforts to this end.

6. **Do the EU and its institutions provide sufficient information about the monitoring and evaluation of their projects and strategies?**

6.1 The EU provides considerable information on the monitoring and evaluation process but little attempt to justify the reasoning. As mentioned above, evaluation must be considered in the long term and requires sustained investment currently not provided by the EU. The process in place today is therefore not as effective as it could be.

7. In terms of informing public policy and generating economic growth, does the EU use the outputs of research and innovation effectively in comparison with other countries, for example, USA, Australia, Singapore, etc?

7.1 To respond to such a question there should be direct comparators available for analysis otherwise this is almost impossible to answer. What is known is that some other countries (outside of the EU) borrow the research outputs from EU-funded programmes. They then use their own commercialization opportunities to exploit the research because labour is cheaper and the ethos is towards translation rather than basic research.

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8. How have the economic crisis and the atmosphere of austerity in many EU Member States impacted the research and innovation environment at the national and EU levels? Are the proposed levels of spending in EU projects appropriate in the current situation?

8.1 Research is very often one of the first areas to suffer in commercial and national budget cutbacks at times of austerity. However, when the economy does eventually pick up there will be a lag time between the generation of research outputs and their translation into new innovations and products. A longer-term approach to funding would pay greater dividends especially because of the long-term nature of research and innovation (see question 5 above).

8.2 Health is a good example of where continued EU and national funding should be maintained as the cost of health care, especially in the growing and expensive epidemic of chronic conditions far outweighs the cost of the initial research. The chronic disease epidemic shows no sign of decreasing and requires a higher level of investment in both research and innovation.

8.3 Likewise a reduction in spending on research projects also contributes to a 'brain drain', where researchers are more likely to see a better environment elsewhere and they then take their skills with them. This again contributes to a lag in research development and a lack of trained professionals when the economy picks up at a later stage.

9. What suggestions could the UK make to the EU institutions to maximise the effectiveness of legislative and project proposals with a strong research and innovation dimension?

9.1 More effort to provide background and rationale to the different requests for research funding applications would be welcome. An explanation of why certain information is required would be helpful in both the proposal and for a greater depth of knowledge at national level to encourage more applicants to view EU funding as practicable and relevant.

9.2 Most specifically, the UK could most usefully support the creation of a European Council for Health Research [3], perhaps offering to house the Council. The UK is uniquely well placed to take the lead in this enterprise, with its distinguished history in the field that continues to this day.

9.3 More information should be available on current and past proposals and project outcomes would be helpful to be able to evaluate what is expected especially in terms of eventual outcome. This would also act as an inspiration for researchers and a hub for collaborative partnerships. (We acknowledge that there is some information available on EU funded projects, but this is limited especially when it relates to previous research framework funding programmes).

9.4 The use of templates such as research road maps would be welcome and also provide a useful indicator of the situation of research progress. As with any large bureaucracy the guidelines should be:

- As simple as possible
- Made as generic as possible for all Member States
- The Framework for undertaking the research should be harmonized

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About EURADIA

As a unique alliance of NGOs and healthcare companies, EURADIA's mission is to improve the lives of people affected by diabetes both now and in the future, through advocacy of diabetes research in Europe at the highest political and societal levels of influence, by improving coordination of European diabetes research and by shaping the allocation of resources for such research through increased awareness.

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