AARHUS UNIVERSITET

Receiver(s): European Commission

Regarding: Midterm review of Horizon 2020

Preamble
Aarhus University welcomes the opportunity to contribute to the midterm evaluation of Horizon 2020.

The contribution of Aarhus University is based on a strong and fundamental acknowledgement of the significant contributions Horizon 2020 has made to European research, innovation, growth and job creation. The ambition to make Europe a leading knowledge economy is challenged by cuts in H2020 funding and in several Member States' funding of research and innovation programmes. To honour the ambition, funding should at least mirror the massive investments in science and education made by countries and regions outside Europe. Funding of research is a de facto investment in growth and boosting the European science base is paramount to ensure sustainable growth in Europe.

Aarhus University supports the current Horizon 2020 structure with the three pillars, but there is a need for adjustments. In the following Aarhus University would like to focus on 5 key recommendations. For more detailed inputs we refer to the contributions listed in chapter 6.

1. Maintaining excellence in research as governing principle in all three pillars
Leadership in the global knowledge society can only be achieved by maintaining excellence in research as the governing principle.

The Excellent Science Pillar has a strong and demonstrable impact on the support of outstanding curiosity-driven, fundamental research. The European Research Council (ERC), the Marie S. Curie Actions (MSCA), the Future and Emerging Technologies (FET) and Research Infrastructure (RI) programmes have contributed significantly to strengthening the European science base and we strongly support the continued funding of the Excellent Science Pillar.

Obviously, excellence needs be to the governing principle also for pillar 2 (Industrial Leadership) and pillar 3 (Societal Challenges), but this can only be achieved by adopting a more comprehensive understanding of the interaction between curiosity-driven, fundamental research and innovation. The current setup implies the risk that top researchers find it less attractive to get involved in pillar 2 and 3 projects, as they miss the glue connecting enabling research, which could lay the ground for innovative solutions, with the rest of the knowledge chain. Real innovation and development of new solutions to the global challenges will always result from new ideas based on fundamental research and a number of influential industrial leaders have emphasized the need for substantial investments in fundamental research at universities as a precondition for innovation. By focussing too much on "market readiness" we risk the creation of "a valley of death", where truly ground-breaking results are not integrated in the value chain leading to the creation of radical innovation. This is a serious problem that needs to be addressed by offering better opportunities for funding of excellent, enabling research in pillar 2 and 3.

If the current use of TRL is maintained we recommend better funding opportunities for lower TRL projects. However, we wish to emphasise that the current use of TRL needs to be considered and maybe supplemented by other tools based on a broader approach to the assessment of the entire value chain.

2. Impact

In general, impact statements in topic descriptions have improved, but the expected impact in the call texts need to be clearer.

Currently, different types of instruments (e.g. CSA and RIA) sometimes have the same type of impact statements, but obviously the expected impact will depend on the choice of instrument and the size of the project.

The expected impact statements for the different instruments should be realistically achievable in a project's lifetime. It is not realistic to expect a given project to deliver a very broad range of impacts as has been articulated in some calls to date.

It is important to find a better balance and to differentiate more between expected impact statements depending on the type and size of projects. Furthermore, we need to adopt a broader approach to the assessment of impact which acknowledges the strong interaction between fundamental research and its contributions to the economy and society at large.

3. High quality evaluations

A transparent, efficient and robust evaluation system is imperative for a well-functioning research framework programme. Aarhus University acknowledges the difficulties finding evaluators suited for evaluating challenge-based, interdisciplinary topics, but

currently researchers are expressing doubt about the model of collaborative research evaluation.

In order to secure consistency in the evaluation process the procedures of the selection of experts should be changed. A suggestion could be to use the ERC evaluation format or part of it and introduce standing panels by which a cohort of people will be in standing panel by rotation. Whilst this may not be possible for all members of the panel, a certain percentage could be chosen in this way. This approach would also lend itself to ensuring that evaluators, who state they have a given expertise, actually do. Further, better instructions for evaluators would also enhance the quality of the evaluation process.

For 2-stage proposals feedback should be provided to those successfully through to stage 2 before the second stage application is submitted. This feedback should be available to the reviewer reviewing the stage 2-application to ensure consistency. All evaluations should include a consensus meeting in the form of a physical (or at least through video conference) meeting.

Currently, successful proposals receive more feedback than unsuccessful ones; this should be changed and sufficient comments should be given to highly qualified proposals that are rejected, in order to improve proposals and thereby encourage more higher-level quality proposals in the future.

4. Simplification
Simplification of Horizon 2020 has been high on the agenda, and Aarhus University acknowledges the efforts EC has made especially regarding the calculation of overheads, the single funding rates and the digital project administration from application to final reporting. The new Participant Portal has a very high functionality for users.

Simplification should now focus on reducing the number of instruments. The current framework programme offers a variety of funding opportunities for innovation, but in a diversified and fragmented structure. Bringing together current innovation schemes in a more transparent and consolidated structure would ensure stronger internal coherence, and Aarhus University recommends that the European Innovation Council (EIC) – as an advisory and funding body – should be structured with focus on high quality innovation (excellence), use of bottom-up instruments to fund research-driven innovation (tech and non-tech) and use of relative generous levels of funding. Efforts should be directed at building stronger European ecosystems bringing more research-driven results to markets and to scale-up effects as well as on attracting and supporting entrepreneurial talents and their ideas. It is also important that the EIC – in close cooperation with the ERC – effectively covers the entire innovation chain - from groundbreaking basic research to markets and global scale-up of businesses, products and processes – and closing existing gaps in the chain.

Regarding the external coherence (Horizon 2020 to other EU programmes) Aarhus University acknowledges that EC has taken steps to explore synergies between Horizon 2020 and Structural Funds. Yet it is recommended that EC further explores this work by seeking a further harmonisation of management rules.

5. Interdisciplinarity and the integration of SSH

The great challenges in our society call for an interdisciplinary approach, and Horizon 2020 has been instrumental in bringing relevant stakeholders together from different scientific disciplines and sectors of society. However, although a broad range of disciplines have been brought together in interdisciplinary projects, it appears that a full integration of social sciences and humanities (SSH) has not been achieved. In many cases SSH has been an add-on service to well-defined projects, and the full potential of SSH has not been grasped. It is recommended that further efforts are made to include SSH aspects in the formulation of work programmes and topics and to allocate sufficient funding for SSH to take on more fundamental and enabling research questions of relevance to the societal challenges.

6. Other recommendations

For more detailed viewpoints and recommendations we refer to the contributions submitted by The Coimbra Group and The Guild of European Research Intensive Universities, as Aarhus University is a member of both networks and supports the contributions to the review made by these university networks.

In addition, we also support the position papers submitted by Universities Denmark (Position paper: Evaluating Horizon 2020 and designing FP9, June 2016) and The Danish Ministry of Higher Education and Science (Danish Position Paper on the Interim Evaluation of Horizon 2020, June 2016).