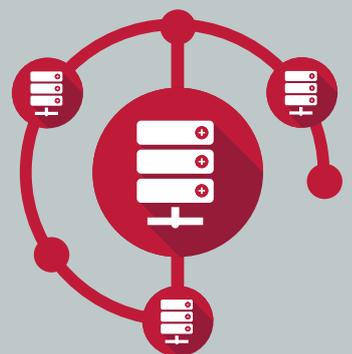
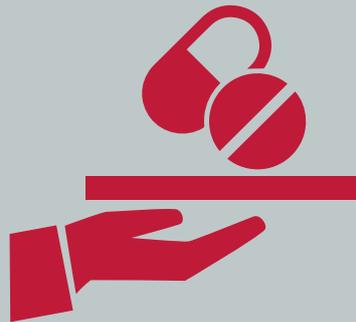


# **NFU Position Paper**

FOR THE INTERIM EVALUATION OF HORIZON 2020



## 1 Introduction

Horizon 2020 (H2020) has proven to be a very attractive programme for University Medical Centers (UMCs) and the response to the programme has been very positive right from the start. The NFU commends the European Commission for all the work it has done to make H2020 the best framework programme yet, and appreciates the importance of the programme for securing Europe's global competitiveness. With this position paper, the NFU would like to contribute its ideas on how to make the programme even stronger. It also includes an outlook on the future of health research beyond the lifetime of H2020. The NFU position paper aligns with and supports a number of strong position papers that have already been published<sup>1</sup>. In addition, it contains specific recommendations and remarks focusing on health research.

### **About the Netherlands Federation of University Medical Centres (NFU)**

The Netherlands has a worldwide reputation in (bio)medical scientific research. Nationally, the UMCs produce about one-third of the total number of scientific publications. In comparison with other countries, they publish the highest number of publications per million euros of research budget.

The University Medical Centres offer an excellent infrastructure for health-related research due to the combination of an academic hospital and the associated medical faculty. With the unique combination of education, research, patient care and valorization embedded in their structure, UMCs are very well suited to address the health related challenges Europe is facing.

The NFU is the umbrella organization representing all Dutch UMCs. It stimulates and coordinates strong collaboration between its members.

## 2 General Remarks

The first pillar of H2020 (Excellent science) has proven to be a very attractive programme for ambitious and excellent researchers that are active at the frontiers of science. In the third pillar the clear focus on societal challenges and the aim of generating societal and economic impact has been very positive. Overall, the NFU advocates the inclusion of more early stage collaborative projects, from Technology Readiness Levels (TRLs) 1-4, including a balance between clinical and pre-clinical research in all domains.

For the NFU, one of the most important issues is the heavy oversubscription of the programme and the resulting low success rates. This has resulted in a lower attractiveness of H2020 compared to Framework Programme 7 among researchers and has caused a lot of wasted effort because approximately 86% of all proposals do not reach the funding stage. The NFU calls on the European Commission to find solutions for this problem, and has included some suggestions in this document.

One of the main improvements in H2020 compared to the previous framework programmes is the administrative simplification. Many simplifications have

<sup>1</sup> Notably, LERU's Interim Evaluation of Horizon 2020 (October 2016), League of European Research Universities and VSNU's Contribution to public consultation interim evaluation Horizon 2020 (December 2016), Association of universities in the Netherlands.

proven to be very beneficial and the NFU would like to express its appreciation for this. There is still room for improvement, and this document lists a few areas where gains can be made. Some issues are currently being addressed. For example, the NFU is pleased that the European Commission plans to reintroduce actual personnel cost as eligible cost. In addition the NFU would strongly support the reintroduction of the FP7 treatment of internal invoicing to H20v20 as has been put forward by the joint statement drafted by the Helmholtz Association<sup>2</sup>.

### 3 Specific focus: Health Research

#### 3.1 Societal Challenge 1: Health, Demographic change and wellbeing

Health, demographic change and wellbeing are among the most important challenges facing the European population. The NFU is happy to see that this is reflected in the proportion of the budget allocated to Societal Challenge 1 (SC1). We would like to make the following specific recommendations:

- Many initiatives outside the regular work programme are funded from the budget of SC1 (e.g. IMI, EDCTP, AAL). The NFU is concerned that this leaves an insufficient part of the budget to properly fund the topics in the regular work programme. The current low success rates appear to confirm this impression. As a consequence, SC1 runs the risk of discouraging top class researchers from applying, leading to a loss of quality. The NFU calls for a bigger part of the budget to be devoted to the regular work programme of SC1.
- The NFU approves of the topics in the work programmes so far. It has produced a document outlining its vision on research for sustainable health and calls for continued support for topics that address prevention, personalized medicine, big data and/or regenerative medicine<sup>3</sup>.

#### 3.2 Clinical trials

The NFU welcomes the increased opportunities for funding clinical trials in various stages. The clear focus on late stage medical research provides new possibilities to create immediate impact for patients. We have the following recommendations:

- Since legislation and regulation of clinical trials is complex, strict, and incompletely harmonized between member states, preparation of the trial before the research can start (i.e., inclusion of the first patient) requires much more time than is common for other projects. During evaluation of proposals clinical trials should be assessed only on quality and not on the duration.
- In most investigator-initiated trials, selecting recruiting centers is not a commercial affair that can be judged on 'best value for money' after a tender. Rather, it is 'best quality for a fair price' and centers are selected on the basis of an assessment of quality, patient availability, prior experience and trust within a network. The NFU calls for more autonomy for the Project Coordinator in the selection of sites, and for the possibility to add additional

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<sup>2</sup> Joint statement on Internally Invoiced Costs in H2020\_01 2016 294942, January 2016, Helmholtz Association of German Research Centres e.V., representing 410 universities and 210 organisations.

<sup>3</sup> For more information, see the NFU's 'National Plan – Research Agenda for Sustainable Health', <http://www.nfu.nl/nationalplan/NFU-National-plan.pdf>

sites not included in the Grant Agreement during the course of the project with a simple administrative procedure.

- Currently, EU rules limit the amount of prefinancing to about 18% of the total budget. The NFU would like to see a greater proportion of the total budget prefinanced in the first reporting period because most clinical trials spend about 30% of their budget in the first year.

## **4 Other potential areas for improvement**

### **4.1 Increase impact and excellence through basic research**

- To ensure the best impact and results for Europe, H2020 should produce research of the highest quality. The NFU approves of the current use of Excellence as the key selection criterion for proposals and advocates its continued use in the future.
- The focus on creating (short-term) impact has directed a large portion of EU funding towards projects close to the market. The risk is that essential funding for game-changing innovations is not available. It is necessary to reach a better balance between research and innovation to support and strengthen the role of research oriented stakeholders in Europe and to create an environment for breakthrough innovations, especially in the Health domain.

### **4.2 Reduce oversubscription**

- H2020 is a highly competitive Programme with very low success rate in some areas (e.g. FET, Societal Challenge 1). This discourages potential participants and undermines the attractiveness of the Programme. Acquisition costs of EU projects are high and cause additional strain on the financial and human capacity of stakeholders. To remain attractive for top class researchers, the programme needs a higher budget.
- The call texts are often too broad for the budget available. By either increasing the budget per topic or focusing the scope of topics, this problem could be addressed. A more specific description of the expected impact in topics will also lead to a better adherence to the topic and will result in a more realistic and concrete impact to society. It is important to note that more targeted topics also facilitate evaluation.
- In two-stage proposals, first stage selection should be stricter, ideally leading to a success rate of at least 30% in the second stage procedure.

### **4.3 Improve evaluation**

- It is essential to maintain the highest standards in the evaluation of projects in the Societal Challenges. Attracting and retaining a large diversity of expert evaluators is a challenge. While remote evaluation (individual and consensus) could facilitate the work of expert evaluators, a further quality check by an expert evaluation panel and a panel chair could enhance the evaluation process. The new evaluation process piloted for MSCA in 2016 could be used as inspiration in this regard.
- To allow researchers to improve rejected research proposals, the NFU calls for more specific and elaborate feedback in the Evaluation Summary Reports (ESRs). The NFU realizes that there are constraints on time and availability of evaluators, but sees substantial feedback as a vital part of the open scientific process. Detailed feedback will result in better research, either as

a consequence of resubmissions in H2020 or by applying the lessons learnt elsewhere.

- In particular, more detailed and more specific feedback should be provided to researchers that reached the threshold but did not reach the funding phase. Projects having succeeded stage one of a two-stage proposal should receive clear feedback in preparation for stage two. This would significantly increase the quality of projects submitted in phase two.
- The 2-step evaluation should be used whenever possible/practical. The procedure should be supportive to the goals and expected impact of the specific call. Start with a clear definition of the call, the expected impact in particular, and add to this call the most effective evaluation procedure.

#### **4.4 Continue simplification measures**

- The NFU is happy about the simplification measures that have been taken to improve the application process. However, there is also a need for simplification of instruments. There are too many, and they are too complex for many researchers. New instruments introduced in H2020 should be evaluated; underperforming instruments in specific programmes should be reconsidered.
- Financial aspects of H2020 projects should be simplified. The distinction between purchasing services and subcontracting should be made clearer.
- Costs for internal invoicing within large organizations are not facilitated in and covered by H2020 projects. A model for internal invoicing should be made available within the H2020 financial framework so these costs can be reimbursed by H2020 funding.

#### **4.5 Use the full TRL spectrum**

- H2020 has created a divide between the basic research funded by the European Research Council (ERC) and the later stage innovation funded in Societal Challenges and Industrial Leadership. This results in a gap in the knowledge value chain. The NFU is happy with the opportunities for basic research in the ERC, and warmly welcomes the return of the ERC Synergy Grant. However, the NFU emphasizes that there should be a role for collaborative research in the low to mid TRLs in the Societal Challenges as well. In medical research, breakthroughs often originate from strong collaborations.
- Medical research does not always lend itself very well to a TRL based approach. Shortcomings are that the TRL approach can only be used to describe the maturity of one technology, whereas medical research often combines several, as well as the fact that the TRL approach focuses on the development of products, and is less useful to describe changes in processes or organizations. Therefore, the use of TRLs should be strictly reserved to topics where they are of clear added value.

#### **4.6 Fine-tune the Model Grant Agreement**

- The NFU welcomes the improvements that have been introduced to the H2020 Model Grant Agreement (MGA) and the Annotated Model Grant Agreement (AGA). Adding new clauses to the MGA, keeping it a 'living' document, is understandable, and sometimes necessary. This should, however, never result in the introduction of completely new requirements. An

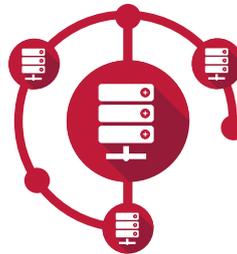
example of where this happened are the prohibitive restrictions on internally invoiced costs which were added in the AGA and which have negative implications for all NFU members.

#### 4.7 Further develop Open Access to Research Data

- Open Science is a priority for the NFU. The guiding principle for H2020 should be 'as open as possible, as closed as necessary'.
- NFU has acquired a high level of expertise in the use of Big Data, Open Access and large research infrastructures. It is willing to share its expertise in these fields with the European Commission.

#### 4.8 Establish more synergies between funds

- By creating more coherence and synergy with other European funds (like ESFI, ESIF, etc.) a better distribution of funds can be reached between geographical areas in Europe. Funds like ESIF that aim to reduce inequality in and between member states should be used more intensively to create synergies with H2020. At least 20% of the European Structural & Investment Funds should be directed towards bridging the innovation divide through dedicated capacity building in research and innovation in new as well as old member states.
- The NFU welcomes the development and implementation of the Seal of Excellence as a useful tool to spread excellence and widen participation and calls on the European Commission to continue its work to link the Seal to structural funds.



## 5 Looking forward

To ensure that the Framework programme remains an attractive and effective tool to stimulate excellent research and innovation, further budget cuts in the H2020 programme should be prevented. To remain competitive with the rest of the world, the budget for the next Framework Programme should be increased. This will also result in higher success rates, signifying a higher cost-effectiveness of the application procedure. The NFU calls on the European Commission, the European Parliament and the European Council to strengthen its commitment to research and innovation. As was recognized at the start of H2020, investments in research and innovation are vital in generating the scientific and technological breakthroughs which can help maintain high standards of living, deal with pressing societal challenges and deliver jobs, prosperity and global public goods.

The NFU offers to support the European Commission in getting an understanding of the medical and health-related developments and challenges of the future. Its members are very well placed to identify and even predict developments in this rapidly changing field. It has important lessons to share, in particular on sharing and connecting big data and large-scale research infrastructures. All Dutch UMCs work together in the Data4lifesciences programme. One of the objectives of this programme is to ensure that data is archived according to the FAIR principles (Findable, Accessible, Interoperable and Reusable). Moreover, all Dutch UMCs participate in the Health Research Infrastructures (Health-RI) initiative, which aims to stimulate and facilitate collaboration through sharing of data and biomaterials among researchers, medical practitioners, patients and healthy citizens at a national and (through the European Open Science Cloud) at a European level.

Health, demographic change and wellbeing will remain among the most important issues in human lives for the foreseeable future, and among the areas where research can make the biggest impact. Therefore, it should take a central role in the next framework programme. Developments will be driven by societal, scientific and technological forces. Major impact is expected from the fields of personalized medicine and regenerative medicine, as well as from increased attention for prevention and the role of big data and biobanks<sup>4</sup>. The NFU is very willing to serve the European Commission as a conversation partner in identifying and shaping the priorities that will determine our future wellbeing and health.

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<sup>4</sup> For more information, see the NFU's 'National Plan – Research Agenda for Sustainable Health', <http://www.nfu.nl/nationalplan/NFU-National-plan.pdf>.