

EUROCADRES' position on the European Commission's proposal concerning research and innovation programme Horizon 2020 [COM (2011) 808 final]

Sent to the Commissioner Geoghegan-Quinn (Research, Innovation and Science), the members of the EP Committee on Industry Research and Energy and to the Danish Presidency

✚ Towards a broader understanding of innovation

Broadly speaking, *EUROCADRES* supports the Commission's proposal on the Common Strategic Framework for EU Research and Innovation. It covers the existing Seventh Framework Programme for Research 2007–2013, and the innovation measures of the Competitiveness and Innovation Framework Programme (CIP) and the European Institute of Innovation and Technology (EIT). The strategy aims to further the creation of improved connections between research and innovation, especially within the Commission and its supportive advisory bodies, and to simplify in particular the programmes' funding and administration. These goals must be supported.

A new operating environment and severe economic and societal challenges require the adoption of a completely new approach in the programmes. It is necessary to search synergies, conduct more strategic research, and exploit every available innovation value network. In the EU the building of future preconditions for success is best secured through successful research and innovation activity.

The share of research expenditure in the EU budget should be increased considerably. At the national level, it is advisable that research expenditure reaches 4 % of GDP.

In developing the innovation system the paradigm requires taking account not only of production and technology but especially of research, knowledge and services. This is the most efficient way of responding to large-scale societal challenges related to change. Defining a broad innovation concept will also open up the innovation process to cover the whole of society.

EUROCADRES further emphasises that innovation should also be understood and defined more broadly in the practices described in the programme. In addition to research, technology and products, innovation covers social interaction, forms of organisation, and organisational procedures, for example, at the workplace. Innovation also covers public and private service processes, business models, design, brands and

production. Even though the Horizon 2020 proposal refers to innovation activity in a broad sense, this is hardly visible in the setting of objectives, planning and allocation of grants and concrete proposals. As 85% of inventions are developed by employees, a well balanced social dialogue is needed because it will enhance involvement to an innovative behaviour with more creativity on the work floor.

Targeting resources at key priorities

EUROCADRES supports the objectives of all three priorities. The preparations for the Horizon 2020 framework programme should now focus on ensuring that these three priorities work together successfully within the programme instead of diverging, as well as making sure that the topics included in the programme correspond to the excellent goals of Horizon 2020. In addition to increasing innovation cooperation among universities, research institutes and companies, Horizon 2020 participants must also be encouraged to conduct a genuine search for solutions to societal challenges.

1. Excellent science

It is necessary to increase excellence in research and education and the development of skills, ensure the development of universities and polytechnics (with other words, depending on the country, University Colleges, Fachhochschule etc) to world-class level institutes, and create open and attractive high-quality research systems. The importance of basic research and science should be underlined. The mobility of researchers and recognition of the academic degrees and professional qualifications of researchers are among the key issues, which also include comprehensive social security and appropriate salary and pension systems. The EU needs to establish an attractive and functional single labour market for researchers. While guaranteeing the best possible environment for excellence in research, its applicability in Europe must be ensured, as well as its improved exploitation for business purposes.

2. Industrial leadership

Europe is facing great societal challenges. Maintaining industrial production in Europe requires more versatile and wide-range exploitation of knowledge and research, as well as the creation of stronger links between industrial activity and service provision. The transition to using an innovation system more comprehensively based on knowledge and service provision is a precondition for being able to respond more efficiently to societal challenges, however large, and for creating a foundation for future competitiveness. Information management and service sectors, for instance, include SMEs that are creating new jobs. From a national economy perspective, the number of such SMEs is significant. Achieving the objectives of the 'Industrial leadership' priority is vital. The priority's content must therefore be amended to better match the targets set. As an example, strengthening the support for completely new types of entrepreneurship in the European industrial and service sectors will increase the

attractiveness of the programme for enterprises. This requires a clear understanding of the ownership of creative work. An active participation of the researchers and creative employees in the social dialogue is highly desirable.

Creating business opportunities (and thus employment)

Basic and applied research form essential growth platforms for future innovation. It is necessary to develop and discover means to expand research to cover more effectively those actors who, not only develop and foster innovations, but master the full innovation cycle from research to market take-up. One of the problems with EU R&D funding has been the programmes' weakening attraction within the field of business, which diminishes its impact in the long term.

Moreover, the standardised procedures for the public funding of basic research cannot always be applied 'as it is' to the situation of enterprises operating in the open market. The problem is particularly challenging for SMEs specialising in a handful of products. It would be preferable to review the rules on intellectual property, competition, government support and public procurement to ensure they do not create obstacles for innovation. The public sector in turn can accelerate the innovation process by providing incentives within its own organisations and in the implementation of public services.

Stronger emphasis on social innovations

Innovations are not necessarily born as the result of a linear process, but through the networking and integration of sectors, systems and concepts as well as research teams. The most common factors underlying service-related innovations, for example, include new customer needs, societal restructuring, and the reaction of enterprises to social needs and changes. Specifically this applies to social innovations. One example is internal innovation activity at the workplace, created through cooperation among labour market organisations.

We need more innovative enterprises. This usually calls for internal and cross-sector restructuring supported by social dialogue. One of the key factors for ensuring the ability to reform is the innovation capability of enterprises, first and foremost made possible by the personnel within enterprises and organisations. In addition to the management teams of enterprises, a key role is played by the competence level, motivation for development, and ability to exploit new technology and research, of the entire staff. Participation of the key positions in the developing process and social dialogue is indispensable. Increasing innovativeness cannot be achieved without making changes to operating models and leadership practices at workplaces. The significance of continuous learning in research and creative teams and cumulative experiences is also emphasised under the context of industrial leadership.

At the corporate level, trust and collaboration among labour market parties occupies a key role, in addition to competence, motivation, commitment and the effective management of innovation activities. In this context, *EUROCADRES* would like to raise

the importance European Charter of Researchers. Its application is too lax and, thus, the Charter does not promote sufficiently the creation of a common European labour market for researchers.

3. Societal challenges

From a certain perspective it is justifiable that the 'societal challenges' priority as a whole supports the components defined as policy priorities and societal challenges under the Europe 2020 strategy. An entirely different matter is how successfully the integration of these two strategies has been implemented. As an initial reaction to the content of the third priority, it must be stated that particularly important topics can be found under the titles 'health, demographic change and well-being', 'secure, clean and efficient energy', 'climate action, resource efficiency and raw materials', 'sustainable and competitive bio-based industry' and 'food security, sustainable agriculture, marine and maritime research, and the bio-economy'. More specifically, with regard to the sixth priority 'inclusive, innovative and secure societies', *EUROCADRES* states that the topics presented under 'inclusive societies' and 'innovative societies' are important.

With regards to the latter topics, the importance of social innovations is made concrete, on the one hand, in the areas of social integration and equal opportunities, and on the other, through the conservation and expansion of the innovation capability of enterprises, organisations and society. This involves new models of behaviour and interaction, institutional arrangements and networks. Social innovations often combine technological and non-technological applications, and are connected to actions such as tightening the interactive relationship between producer and end-user, structural development and the operating models supporting it, and the introduction of technology. The ability to exploit technology (such as ICT) in a versatile manner enables the use of new types of practices in cooperation, operation and administration.

Horizon 2020 should clarify the distinction between research and innovation, while at the same time enabling increasing cooperation between the two. Different 'ground rules' concerning research and innovation are currently applied to stakeholders and work environments. The programme must seek solutions that take account of these differences and respond to them in a manner that enables support of the innovation cycle as a whole. The tackling of societal challenges will not be feasible unless there is strong interaction between scientific research and practical implementation. This interaction, as well as the user-driven approach, must be further strengthened in the programme.

The list of six societal challenges included in the Commission proposal for the Horizon 2020 programme could be complemented with the theme of 'strengthening the innovation capability of society and enterprises'. The proposal could also define in more detail the key research themes of social sciences and humanities in order to help identify, develop and implement the most important social innovations of the millennium. Innovations are often based on creativity. Creativity, in turn, is based on diversity.

Consequently, a sufficiently strong role for the humanistic and social sciences, for instance, is needed.

Regardless of the suggestion to amend the list of challenges, *EUROCADRES* acknowledges that the Horizon 2020 programme has such a wide range of topics that attempting to invest equal amounts of effort in all of them is unlikely to be feasible. Prioritisation will be necessary. However, the suggestion does not mean there should be a restriction in the freedom of enterprise and work, research institutes and universities to choose the specific objectives for their own activities.

Innovation partnerships deserve support, provided that their administration is clearly defined, they are compatible with existing processes and tools or at least based on them, and that they are not in conflict with the streamlining and simplification of administrative procedures. The innovation partnership concerning active ageing acts as an excellent pilot project for gathering experiences. It also provides an excellent example of collaboration between social innovations and innovations based on science and technology.

EUROCADRES would like to emphasize that ethical responsibility of research is also collective and individualization in this context should not be stressed.

Simplification

The problem with EU R&D funding is the programmes' weakening attraction within the field of business, which diminishes its impact in the long term. Horizon 2020 must pay special attention to avoiding unnecessary administrative burden that might hinder the exploitation of inventions, research and innovations for business purposes or for creative employees.

The Horizon 2020 programme needs to be able to provide feasible funding and cooperation models for enterprises and research institutes. It is essential to improve the economic and social impact of new knowledge: the growth of competitiveness, employment reforms, increases in the number and quality of jobs, and achieving the sustainability of service systems. *EUROCADRES* supports the goal of clarifying, simplifying and accelerating project-related processes. A balance should be achieved between trust and control. Horizon programme should be carefully evaluated at the end of next programme period.

Grants and funding instruments

The Horizon 2020 programme should improve the attractiveness, flexibility and impact of the funding instruments for research and innovation. Support measures, financial support and evaluation criteria need to be adapted as follows: 1) for slowly progressing innovations that react to existing market forces, changes in society, and the change needs of enterprises and organisations; and 2) for more revolutionary innovations that

mould the market forces and create new social needs, but which often first need to survive a particularly difficult non-profitable initial phase.

It is also advisable to take account of SMEs in the planning of the target areas and instruments of funding. Suggesting a support programme for small business innovations is justified, as well as the funding model and risk finance model for research-intensive SMEs. In addition, adopting a user-driven approach and taking account of the targets of all three priorities are measures that should be rewarded.

Sustainable development is mentioned as one of the primary targets of Horizon 2020. Sustainable development comprises social, economic and environmental sustainability. The programme, however, mainly targets funds at climate and resource-related efficiency. Thirty-five per cent of the total budget for the programme is allocated to tackling climate-related concerns. In the opinion of *EUROCADRES* there should be greater focus on social sustainability in the programme.

The European Regional Development Fund and Structural Funds should be used in developing research and innovation capacity. The guiding principle for the development of regional strategies could be smart specialisation. Funding provided by the European Social Fund could be targeted at supporting social innovations, increasing it incrementally. The financial support from the European Regional Development Fund could be used for supporting the activities of regional cross-border clusters, research institutes and enterprises to foster innovation, such as the complementary and mutual networking of specialised enterprises. Thus they should create employment and welfare.

EU-funded programmes should focus on the type of cooperation between states that provides significant European added value. A functioning connection between the strategic frameworks of Horizon 2020 and the reformed cohesion policy plays a key role in ensuring that the whole system works. Building competence and the ability to innovate using only cohesion policy instruments is not enough – achieving the targets requires special effort from the Member States.

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