Invited lecture from Maria da Graça Carvalho "The future European Research and Innovation Programmes"

Good morning,

Ladies and gentlemen,

0)Preamble

I should like to begin by thanking the organisers for their kind invitation. This morning, my main purpose is to give you a brief overview of how I see the future of the different EU research and innovation programmes.

However, let me say a few words about myself and my work before going further. I have been a member of the EPP group in the European Parliament since the 14th July of 2009 and am a full member of the ITRE – Industry, Research and Energy Committee – and substitute member of the Budgets Committee. In this capacity, I have been the rapporteur for the simplification of the EU research and innovation programmes and I am also the EPP permanent rapporteur for the research area in the Budget Committee.

The European budget and the European funding schemes are organized in lifecycles of 7 years (present period running from

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2007-2013). This is a particularly crucial moment for us all as the Parliament, the Council and the Commission are in the process of preparing the successor to the current FP7 scheme. The successor programme is the Horizon 2020 programme. At the same time, we have also started negotiations on the future EU budget, post-2013 (2014-2020).

Over the coming years, the EU will face a number of major challenges such as climate change, the ageing of the population, food security issues, the security of the energy supply and increasing global competition. Research and innovation lie at the heart of the EU2020 Strategy and, if successfully pursued, will enable us to overcome these difficulties whilst stimulating growth and jobs.

Against this background, I should like to speak briefly about four main areas.

- ~ Firstly, I shall highlight the main headline targets of EUROPE 2020 Strategy
 - ~ Secondly, I shall sketch in the major guidelines for Horizon

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2020.

~ Thirdly, I shall emphasise, the need for increased funding in the future budgets for EU research and innovation programmes.

~Finally, I shall outline the simplification process in broad terms.

1)EU2020

Europe 2020 is the EU's growth strategy for the coming decade. In a changing world, the EU aims to foster a smart, sustainable and inclusive economy. These three mutually reinforcing priorities should help the EU and the Member States deliver high levels of employment, productivity and social cohesion.

Concretely, the Union has set five ambitious objectives – on employment, innovation, education, social inclusion and climate/energy – to be reached by 2020. Each Member State has adopted its own national targets in each of these areas. A number of specific actions at EU and national levels underpin the strategy.

The five EU headline targets are currently measured by the following headline indicators:

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- 75 % of the population aged 20-64 should be employed
- 3% of the EU's GDP should be invested in R&D
- Reduction of the greenhouse gas emissions by 20% compared to 1990; increase in the share of renewable energy sources in final energy consumption to 20%; 20% increase in energy efficiency
- The share of early school leavers should be under 10% and at least 40% of 30-34 years old should have completed a tertiary or equivalent education
- Reduction of poverty by aiming to lift at least 20 million people out of the risk of poverty or exclusion

EU 2020 is an ambitious programme that will allow us to make measurable progress in the near future in terms of a number of "societal goals" including cleaner energy, employment, productivity and social cohesion.

2)*Horizon* 2020

Let me turn now to my second theme: the Horizon 2020 programme. As I see it, there are 5 key principles. The programme should involve:

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- ~ Firstly, a trust based funding system.
- ~ Secondly, a chain from frontier research, to technological development, demonstration, valorisation of results and innovation.
- ~ Thirdly, a simpler FP with fewer instruments alongside a radical overhaul of the administration of the FP.
- ~ Fourthly, excellence based criteria for the FP in co-ordination with the structural funds for research capacity building.
 - ~ And finally, enhanced international cooperation.

Horizon should strike a balance between bottom up and top down research.

Top down research should focus on areas related to the "great challenges" agenda. These themes include, for example:

- Environmental challenges;
- Energy Challenges and climate change;
- Demographic changes;

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- Challenges for people and society;
- New ideas about quality of life;
- and Challenges for European industry in a globalised world.

A key concern in all of this remains the constant desire to simplify, simplify. At the moment, there is a whole mass of programmes, sub-programmes and instruments. These should be drastically restructured. In fact, there should be three main pillars:

- ~ *Firstly*, a science driven pillar Raising excellence in the science base. This will cover:
 - a) The European Research Council;
 - b) Future and Emerging Technologies;
 - c) Marie Curie actions on skills, training and career development; and
 - d) European research infrastructures (including eInfrastructures).
 - ~ Secondly, an industry driven pillar: This will cover:
 - a) Creating industrial leadership in enabling technologies such as:
 - Information and Communication Technologies,
 - Nanotechnology, advanced materials, advanced

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manufacturing and processing,

- Biotechnology; and
- Space
- b) Innovation in SMEs; and
- c) Access to risk finance
- ~ *Thirdly*, a policy driven pillar covering cooperative research projects addressing the great societal challenges. This should address the challenges of:
 - a) Health, demographics changes and wellbeing;
 - b) Food security, sustainable agriculture and the bio-economy;
 - c) Secure, clean and efficient energy;
 - d) Smart, green and integrated transport;
 - e) Climate action and resource efficiency including raw materials;
 - f) Inclusive, innovative and secure societies.

The Horizon 2020 programme will be a comprehensive and carefully thought out programme. However, we need more trust, simplicity, flexibility, and excellence based criteria. This should be accompanied, in my opinion, by a reform of the mass of existing programmes and instruments into a clearly defined three pillar

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structure.

3) The Budget

Turning now to the budget: at the moment, we, in the European Parliament, are struggling to achieve a doubling of the Budget for the next European Programme for Research and Innovation as compared with the present programme. Hopefully, this will represent an increase from €50 billion to €100 billion. This figure was included in an amendment that I introduced and has recently been adopted by the European Parliament.

Since then, the European Commission has advanced an alternative figure of €80 billion as part of the post- 2013 7-year budget package. The next step will involve tough negotiations between the main three European Institutions, Parliament, Council and the Commission. A number of European countries, with Germany to the fore, support a figure at the higher end of this spectrum. It is to be hoped that other Governments will follow this lead especially those countries with an acquired reputation for academic excellence. In research. As in other domains in life, you only get out what you put in!

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But it is not only about doubling the budget directly attributed to the Framework Programme. To this end, it is also necessary to increase the share of the funding that is attributed to research and innovation within the overall EU budget. This can be done in a combination of an increase in funding *for the framework programme and* increasing the share devoted to research and innovation *within the structural funds*.

The new challenges are of increasing complexity and call for a more strategic mix of Community, national and regional policies. By ensuring they work together harmoniously, these instruments can help to mobilise research and technological development potential at regional, national and European level. This will contribute to regional economic and social development much more effectively than if they were employed separately.

Therefore, in order to increase the effectiveness of European policies, it is important to coordinate the use of the Structural Funds and the Framework Programme for Research, enhancing synergy between these instruments.

A larger budget will enable us to promote excellence at a European level, something that can only enhance the effectiveness of the

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future programme. What is more, the sheer volume that working at European level entails actively promotes excellence in and by itself. This is because a whole series of proposals and results are evaluated across the EU and not only nationally or regionally.

If it is important to encourage synergy between the two, it is equally as important to maintain a clear distinction *between* the Framework Programme FP *and* the Structural Funds.

In this respect, <u>on the one hand</u>, *the Framework Programme FP* should above all be concerned with:

* **Excellence.** Fortunately, there are a number of outstanding and well-established research institutes across Europe.

At the same time, it is also important that we encourage **the first sprouts of excellence** within the new programme. This involves the:

* **Stairway to excellence.** This entails encouraging the participation of small units of embryonic excellence, such as small research groups and highly innovative start ups.

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On the other hand, the Structural Funds SP should be above all devoted to:

* Capacity building. This supposes creating the necessary infrastructure and human resources required by research and innovation across Europe as a whole.

This requires proper design alongside a simple, flexible structure and an adequate budget.

So, in so far as the budget is concerned, to sum up briefly, it is necessary to double, I believe, the existing budget provisions and to reform the relations between the Framework Programme and the Structural Funds

4) Simplification

To finish with, let me say a few words about the simplification process. Simplification, is at the basis of our reforms and will supply the foundations upon which we can build better future programmes. To this end, in my report, I proposed a two-pronged approach:

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- ~ On the one hand, I set out to reinforce the technical and scientific assessment process. This meant a process of peer review and, with it, the application of excellence-based criteria for assessment.
- ~ On the other hand, I set out to simplify the administrative and the financial aspects of funded projects.

The financing scheme has a fundamental role in promoting excellence in research and innovation at a European level. However, it is certainly necessary to simplify the mechanisms involved in the Framework Programmes for Research, Technological Development and Demonstration Activities and all the European Commission Science and Innovation programmes.

The research community has repeatedly called for a harmonization of the rules and procedures and a general simplification of the financial accountability requirements. Recently, 13.000 researchers put their name to a petition requiring more simplification and trust in EU research funding. This is a very generalized feeling amongst researchers, academics and industry members.

The reduction of the complexity and simplification of the EU

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research funding landscape should have a positive impact mainly on the stakeholders. In furthering this goal, the current system should be replaced by a system that places greater trust in the applicants, providing greater stability and legal certainty.

It is also necessary to develop Administrative and Financial simplification, to improve quality, accessibility and transparency and to enhance synergy between programmes and instruments.

It was gratifying to see that the report was adopted with the support of all the political groups without exception. However, this development is only the beginning of a long and difficult road ahead. Now we must make sure that our recommendations are properly implemented. At the moment, we are actively monitoring 72 different aspects of the process and we are optimistic that at the outset of Horizon 2020, all 72 aspects will have been implemented.

5) Conclusion

This brings me to the end but let me conclude by summing up the main points of what I have said and the actions that I believe that we should take:

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- 1) Firstly, EU 2020 is an ambitious programme that will allow us to make measurable progress in the near future in terms of a number of "societal goals" including cleaner energy, employment, productivity and social cohesion.
- 2) Secondly, if Horizon 2020 is a comprehensive and well thought out programme, we need more trust, simplicity, flexibility, and excellence based criteria. This should be accompanied, in my opinion, by a reform of the mass of existing programmes and instruments into a clearly defined three pillar structure.
- 3) Thirdly, we cannot but admit that European research is chronically underfunded and that, in my opinion at least, funding in Horizon 2020 should be doubled and synergies between the Framework Programme and the Structural Funds should be improved.
- 4) Finally, considerable progress has been made in the task of simplifying access to EU funds and cutting unnecessary red tape. However, the recent simplification report is only the beginning of a long and difficult road ahead. The task is now to see that these reforms are actually implemented. Success in this domain will, moreover, provide a solid foundation on which the future programmes must be built.

Thank you very much for your kind attention.