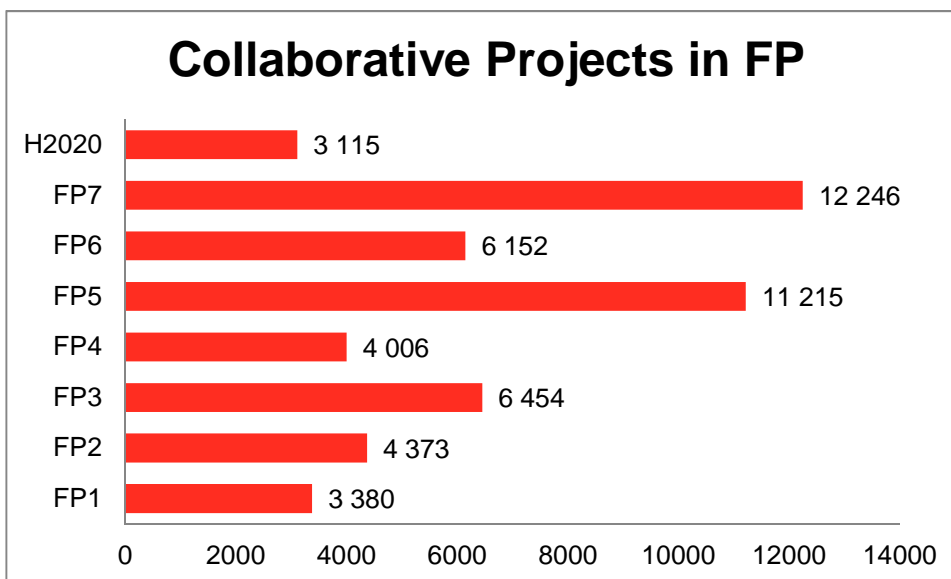


# A Plea for a Newly United Europe

Since the 1980s, the history of the European Research Framework Programmes has told us of competition and of cooperation between researchers networking between science, industry and society. From the beginning, the Framework Programme has been a networking programme. It was designed to help overcome national limitations when looking for new knowledge, and to facilitate new cooperation patterns across the continent.

Table 1: Number of collaborative projects in Framework Programmes

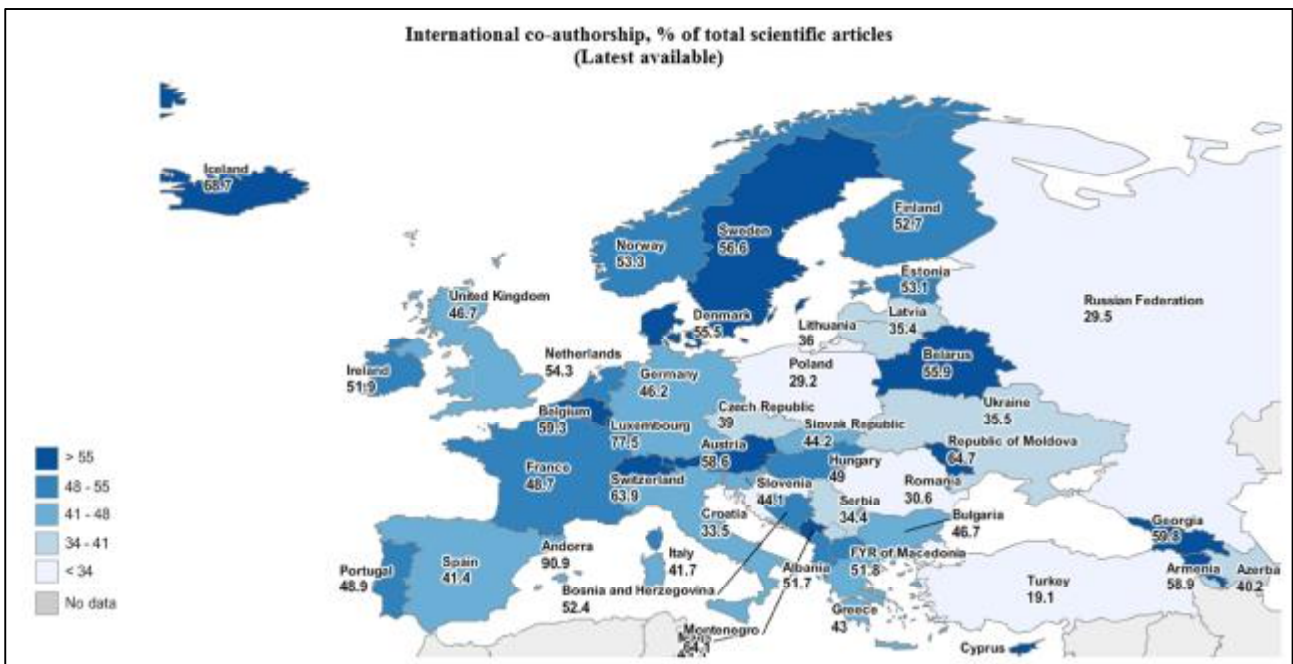
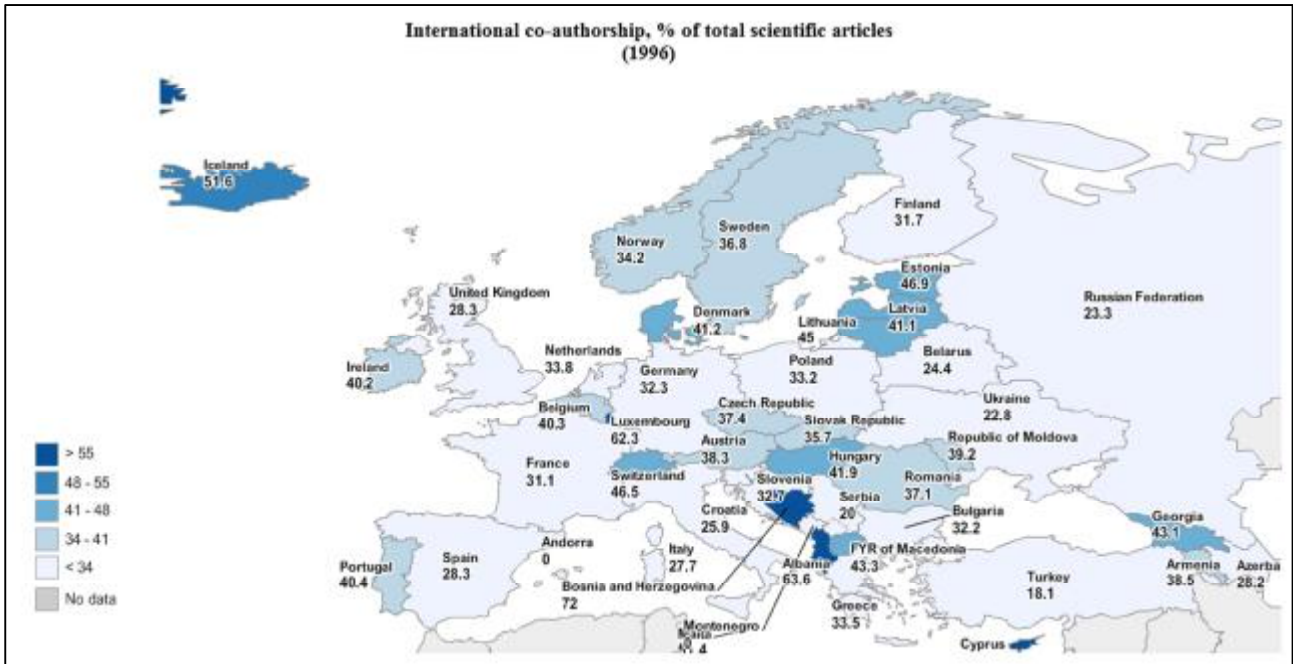


Source: CORDIS, FFG, 2016; for H2020, data up to February 2016

Opening up the nationally organised knowledge chains has been an impressive success. In the course of the different Framework Programmes, more than 50,000 collaborative projects have been carried out. In some Framework Programmes, the number of collaborative projects was limited because the focus was put on larger types of projects. At the end of HORIZON 2020, Europe will probably be able to look back on more than 60,000 collaborative projects. The number of organisations and researchers participating in these projects will exceed the one million mark. These participants are by no means always the same players meeting in the projects. Between the 6<sup>th</sup> and 7<sup>th</sup> Framework Programmes alone, it turned out that 72% of the organisations participating in the 7<sup>th</sup> Framework Programme had not participated in the 6<sup>th</sup> Framework Programme.<sup>1</sup> This success may only partly be due to the Framework Programme itself. In fact, the opening-up process was a consequence of globalising value chains, concerning not only the economic players at the end of the 20<sup>th</sup> century, but also science.

<sup>1</sup> Science-Metrix et.al., Network Analysis of the 7<sup>th</sup> Framework Programme Participation, Study commissioned by the European Commission, 2015

Graph 1: International co-publications 1996 and 2016 (latest available data)



Source: OECD, Innovation Policy Platform, Data source from SCImago Journal & Country Rank portal, <http://www.scimagojr.com/index.php>

It is justified to say: *Mission accomplished*. Networking at the level of researchers does not require particular funding any more. Yesterday's European added value has become a European, or even global, self-evident fact. Today, it is unthinkable to build a scientific career exclusively on work performed in the researcher's own country. International acknowledgement has become an essential quality seal in science.

## Networking of researchers requires networking of research systems

The increasing cooperation of researchers has laid bare structural weaknesses in Europe. Scientists complain more and more urgently about unequal framework conditions between the Member States, which lead to completely different considerations being granted in the form of salaries, equipment of laboratories, career prospects, having a say concerning future research priorities, or long-term pension rights, for the same research achievement. Paradoxically, the success of European networking in particular has made visible the fragmentation of Europe, which has grown over hundreds of years.

If Europe does not take countermeasures, networking will lead to more and more concentration of the brightest minds at the locations with the best framework conditions. Europe is running the risk of falling prey to the Matthew Effect: those who have shall receive even more. The free play of forces in a research area liberalised without restraint would convert Europe into a research landscape similar to that of the United States within one generation. Few top research locations would stand opposite vast areas of intellectual desertification.

A fundamental difference between the US and the European Union lies in the fact that the European Research Area depends on the agreement and active support of its 28 Member States. This is a burden in the negotiations for a new Framework Programme, but at the same time, it is a guarantee that the European Research Area would fail rather than change into a desert with oases, according to the American pattern.

## Framework for planning the 9<sup>th</sup> Framework Programme

These days, it is not only the failure of the European Research Area which is at stake. However, we who are responsible for this policy area after all, can contribute to Europe developing a positive, attractive radiance beyond 2020.

The European added value in research today no longer consists primarily of networking of its players. The European added value consists in the continuous further development of a European Research Area which meets the requirements of Article 179 of the EU Treaty.<sup>2</sup>

It is one of the cardinal errors of the European Commission to have declared the European Research Area to be complete, at the insistence of the European Council. Nothing is further from reality. The barriers between the innovation systems of the Member States are still enormous. The research funding rules face those who have to work under a variety of funding regimes with bureaucratic challenges of Kafkaesque dimensions. Frequently, it is simply impossible for researchers from one country to participate in research projects tendered in a different country, if only because the language barrier of the EU's 24 official languages prevents them from doing so. Enterprises still have difficulties converting knowledge from research projects into real innovation, and this is often due to framework conditions that the Member States – as opposed to contrary lip

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<sup>2</sup> The Union shall have the objective of strengthening its scientific and technological bases by achieving a European research area in which researchers, scientific knowledge and technology circulate freely, and encouraging it to become more competitive, including in its industry, while promoting all the research activities deemed necessary by virtue of other Chapters of the Treaties. (Treaty on the Functioning of the European Union, Article 179(1))

service – have set against the spirit of Open Innovation. The concepts of Open Science and Open Innovation, which are talked about so often today, have to be embedded into the conceptual framework of a European Research Area. Instead, the European Commission engages in an approach which emphasises a policy of the “three O’s”, after the alleged “completion” of the European Research Area, as the next great challenge.<sup>3</sup> However, in this context, the Commission is overlooking the fact that the “three O’s” are an integral part of the European Research Area, and therefore should be promoted in close cooperation with the Member States.

More than ever, the future Framework Programme has to put itself at the service of the European Research Area. It should no longer receive its added value from the intrinsic use that results from networking between the participating players. The concept of the European added value should extend to further factors, namely facilitating excellence and capacity building, coordination of critical mass, fostering mutual learning and harmonisation in and beyond Europe, and avoiding redundancies and acting economically and effectively.<sup>4</sup> However, the European added value itself is only one of the possible reasons for political action in the European Research Area. We have to conceive Europe as an area in which regional, national and European RTI policy interrelate with each other. Staring at the European added value leads us to overlook the fact that we should also think about the regional and national added value in the European Research Area.

In this context, we have to take into consideration that with the Treaty of Lisbon, research has become a shared responsibility between the European and the national level. Both levels are allowed to do everything, but the EU must not inhibit the Member States in designing their national research policy.<sup>5</sup> In addition, the European Commission is restricted by the principle of subsidiarity, which provides that action at regional and national level shall take precedence over the European level, provided that these lower levels can achieve better results than the EU as a whole.

Essentially, the coming Framework Programme should define itself as a tool for further developing the European Research Area. It should be conceived in a tension field of four dimensions: European versus regional/national added value on one axis, and shared responsibility between EU and Members States as well as subsidiarity on the other axis.

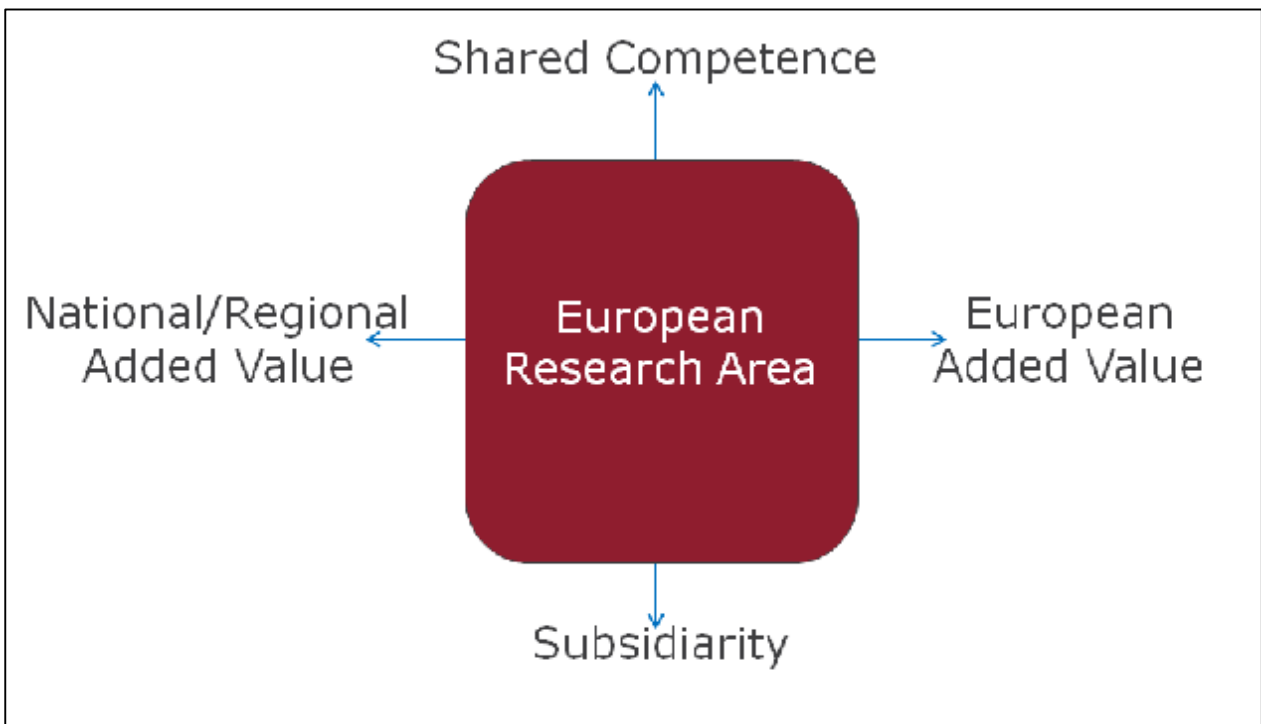
*Graph 2: Dimensions of policy framework for FP9*

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<sup>3</sup> Open Innovation, Open Science, Open to the World. Speech of Carlos Moedas, Commissioner for Research, Science and Innovation at the conference ‘A new start for Europe: Opening up to an ERA of Innovation’ in Brussel, 22 June 2015

<sup>4</sup> Technopolis et.al., European Added Value of EU Science, Technology and Innovation Actions and EU-Member State Partnership in International Cooperation, study commissioned by the European Commission, 2014

<sup>5</sup> In the areas of research, technological development and space, the Union shall have competence to carry out activities, in particular to define and implement programmes; however, the exercise of that competence shall not result in Member States being prevented from exercising theirs. (Treaty on the Functioning of the European Union, Article 4(3))



### **The 9<sup>th</sup> Framework Programme as a real lever for the European Research Area**

We do not know the name of the next Framework Programme yet. Without further ado, let us call it the 9<sup>th</sup> Framework Programme for systematic reasons, although we know that this may only be its provisional name.

In the light of my explanations so far, the 9<sup>th</sup> Framework Programme will have to differ radically from its predecessors. As a logical follow-up to the argument according to which networking of researchers no longer has to be a priority principle of the Framework Programme, direct competition by bottom-up instruments, such as the European Research Council in the field of excellence, or a possible European Innovation Council to promote the relevance of innovation, will be of increased importance.

The established Public-Private Partnerships (PPPs) in their different forms will keep their significance, because they contribute decisively to strengthening the competitiveness of European industry. Their funding would have to be ensured under a separate category of the 9<sup>th</sup> Framework Programme.

The great issue of the 9<sup>th</sup> Framework Programme will have to be the Public-Public Partnerships (P2Ps). P2Ps are to be understood as meaning all long-term institutional partnerships in which Member States participate, either directly or indirectly, through their research institutions, with national funds. The bandwidth of the P2Ps ranges from von Joint Programming Initiatives and Article 185 Initiatives to Cofund Activities. Beyond the P2Ps, public contributions to other multilateral initiatives, such as the FET Flagships or the Knowledge and Innovation Communities of the EIT, could also be taken into account in the following considerations. In all these cases, the composition of consortia crucially depends on the research structures and the research potency of the Member States. We can see the Americanisation of the European Research Area, as described above, most clearly with the P2Ps. The large and research-intensive countries have a

dominant position. There are concentration effects which follow the Matthew principle. We can observe similar phenomena in the field of research infrastructures, where the large players also play an ever-greater role, at the expense of the smaller infrastructures, particularly as they are dispersed.

The radical change of the 9<sup>th</sup> Framework Programme should then consist in discontinuing classical cooperative research with calls centrally organised in Brussels, based on work programmes agreed in the programme committees. The use of these calls ensured by Brussels bureaucracy is completely disproportionate to the damage done by the fact that the research players in many Member States are increasingly becoming extras in an “internal market for research” which is unattainable for them. In future, thematic calls and the competition for collaborative projects should take place within the P2Ps.

Instead of the calls carried out by the European Commission, which essentially correspond to the third pillar of HORIZON 2020, research on the grand societal challenges should be carried out exclusively by P2Ps. These would, however, have to receive the budget they require in order to actually be able to contribute to solving the great issues of our time.

In addition to the P2Ps, it would be worth considering also bringing those research infrastructures into a common context which contribute significantly to solving the grand societal challenges. Of course, the added value of an infrastructure exceeds its immediate importance for a societal issue, however important this issue is. Having said that, partial consideration of the research infrastructures would justify providing a solid foundation for their sustainable financing.

Considered as a whole, the P2P area could receive about a third of the budget. Measured against a total budget of an assumed € 80 billion, this would correspond to more than € 25 billion. A considerable part of these funds would be reserved for national funding of P2Ps in the 9<sup>th</sup> Framework Programme.

In concrete terms, this means that between € 15 billion and € 20 billion of the 9<sup>th</sup> Framework Programme would be set aside according to the schedule of contributions of the Member States to the EU budget. Once a year, the European Commission would call upon each of the 28 Member States to allocate their *pro rata* share of funds to the available P2Ps. In accordance with the subsidiarity principle, each Member State would follow its own priorities in the allocation of funds, and would design its national innovation system, helped by European funds. Following the allocation of funds by the 28 Member States, the European Commission would then provide a top-up for individual P2Ps with the remaining € 5 billion to € 10 billion. The European Commission should be free to choose with regard to this top-up, in order to strengthen some P2Ps additionally from an overall European perspective, or to support others whose funding on the Member State basis is not sufficient.

When allocating the funds to P2Ps, the Member States could supplement these in addition, and with greater coherence than up to now, from innovation-relevant funds from the Structural Funds, so that in the end, P2Ps would be provided with portfolio funding which does justice to their content-related claims.

On various occasions, it has been argued that the true added value of P2Ps lies in jointly developing and matching research and innovation agendas, not in funding concrete research and innovation. I think that P2Ps should do one without disregarding the other. The new orientation outlined here with regard to research on the grand societal challenges leads to an alignment of



national research policy, not in general, but exactly where we desire it in the European Research Area: concerning the great issues of our time, where the funds and knowledge of even the largest Member States are limited.

One important added value of this reorientation is obvious: It counteracts the fragmentation in the European Research Area, it has an including effect, not an excluding one. It guides the energy of the Member States away from bureaucratic participation in programme committees whose room for manoeuvre is becoming ever narrower anyway; instead, the national level gains a new freedom of design, not in a narrow national-egoistic sense, but against the background of joint approaches in Europe.

Competition and networking between researchers in Europe as mentioned at the beginning would still happen in future, but instead of taking place centrally in Brussels, they would happen through decentralised calls within the P2Ps. In this competition, excellence would have to be the core selection criterion. Europe cannot afford second-rate research. Therefore, there must not be a *juste retour* for the Member States any longer. While as a first step, Member States weight the budget of the P2Ps in accordance with national priorities, it remains part of the competition of the brightest minds and best institutions, as a second step, to apply for the funds available. This requires setting up *common pots*.

Questions remain such as the question of the operational handling of P2Ps under a decentralised research management, instead of within the framework of the executive agencies of the European Commission. Independent of the continuing great importance of the European Commission for the political development of the European Research Area, the function of the European Commission would change from management to quality control in the field of the P2Ps. Overall, the 9<sup>th</sup> Framework Programme would approach the concept of a “Common Science, Technology and Innovation Policy”, as recommended in the ex-post evaluation of the 7<sup>th</sup> Framework Programme.<sup>6</sup>

Special attention would be given in future to defining joint, binding standards for designing, planning and managing P2Ps. Here, amongst other issues, those recommendations would have to be considered which are drawn up within the framework of the ERA-specific groups and contribute to a more permeable European Research Area. Thus, the structural reform proposals, for instance within the framework of the ERA Roadmap, would form a meaningful alliance with research funding under the 9<sup>th</sup> Framework Programme.

Europe has to be re-thought. With the 9<sup>th</sup> Framework Programme, we can contribute to Europe growing more closely together again. Europe has to be re-unified. It would be irresponsible if we were not up to this task.

Christian Naczinsky  
April 2016

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<sup>6</sup> Commitment and Coherence, Ex-Post-Evaluation of the 7<sup>th</sup> EU Framework Programme (2007-2013), commissioned by the European Commission, 2015