

ERC and the European funding landscape

**The European Research Council  
in the European Research Area**

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### Abstract

This paper presents the concept and mechanisms of the European Research Area (ERA) with particular attention to their evolution during the ten year lifetime of ERA policy. The ERA has come to embrace the internal market in research and a better coordination of national research activities and programmes with each other and those of the Community, but also the promotion of excellence in research institutions, more effective knowledge sharing and transfer, and addressing pressing societal problems of European and global dimensions. The Treaty of Lisbon mentions the ERA, which gives it a strong legal backing and so raises this policy area within the EU's mandate. In effect, the ERA stands for the whole of the Union's research policy and reflects changes occasioned by the adoption of new issues on the political agenda.

The purpose of this paper is to provide background information for the EURECIA project. Therefore it pays attention to the way in which the new European Research Council (ERC) and the programme it operates fit into the ERA concept and how it was justified in ERA documents. This paper claims that the debate on an ERC changed the ERA agenda. The ERC is in many ways a unique funding scheme which differs a great deal from other new funding instruments introduced at the same time.

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## 1. Introduction

The European Research Area (ERA) was launched in the year 2000 through a Commission Communication “Towards a European Research Area” (COM(2000) 6 final), and given a new impetus by the 2007 Green Paper on ERA (Inventing our Future together, 2007). ERA is an inclusive concept covering the whole of the EU research policy and it was launched in parallel with the Lisbon Strategy objectives. Its overall aim is to help coordinate the EU and Member State policies towards common objectives. The European research area is mentioned in the Treaty of Lisbon, which gives it a strong legal backing and raises this policy area within the mandate of the EU. The definition of what ERA stands for has evolved during the ten year period of its existence. The new Commissioner of Research, Innovation, and Science, Máire Geoghegan-Quinn, recently encapsulated it as “a single, unified research area in Europe, within which researchers and knowledge can move around freely.”<sup>1</sup>

The main focus of this paper is on the interpretations and reinterpretations of the ERA concept and agenda, as evidenced by the documentation related to it. Attention is paid to overall trends in the contents of ERA, and more specifically to the role of excellence as part of this concept. Promoting excellence has been an important justification for the adoption of the ERC, and therefore, special attention will be paid to the references made to the concept of excellence in ERA documents and the way in which these were evoked in the process of justifying the ERC.

The nature of ERA instruments introduced in the 6<sup>th</sup> and the 7<sup>th</sup> Framework Programmes will be highlighted with special attention to the specific features of the European Research Council (ERC), introduced in the 7<sup>th</sup> Framework Programme.

Edler (2003) analysed changes in the European Community research policy and the adoption of ERA by paying attention to three aspects as drivers of change, namely, to 1) new policy ideas, 2) functional interaction at different levels of different stakeholder groups, and 3) the role of the European Commission as a change agent. These processes were all invoked in the adoption of ERA. The focus of this paper will be at the level of new policy ideas, but it will also refer to functional interaction among different

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<sup>1</sup> The 2010 Guglielmo Marconi lecture at the Lisbon Council's innovation summit, 5 March 2010, see <http://europa.eu/rapid/pressReleasesAction.do?reference=SPEECH/10/68&format=HTML&aged=0&language=EN&guiLanguage=en>.

stakeholder groups in the process leading to the emergence of the ERC and the role of the Commission in it.

Here we suggest that early on the ERA agenda concentrated on factors related to restructuring the European research base and on making this work as one ‘internal market’ – that is, to factors of the nature ‘policy for science’. Towards the end of the decade, attention was increasingly devoted to solving pressing societal problems of European and global reach – ‘science for policy’ type of factors. A major import of the paper is, however, the suggestion that the ERA agenda and the debate on an ERC co-evolved. The ERC was promoted by a need to improve excellence in European science and scientific institutions and its establishment was justified by invoking the scant references to excellence and quality in the original ERA concept. While the debate was going on it transformed excellence from a marginal issue into an essential part of the ERA agenda. The establishment of the ERC also necessitated a modification in the definition of the European value-added to include, besides cross-country collaboration, competition at the European level.

The paper is mainly based on documentary analysis of the various documents handling and communicating Community policy. It also draws upon the interviews carried out for the EURECIA project on the ERC in the European research funding landscape.

## **2. The European Research Area**

### **2.1. Background**

The notion of the European Research Area (ERA) was adopted in 2000 in parallel with the adoption of the Lisbon Strategy targets and can be regarded as one of the means to achieve it. As it is discussed later, the notion of what the Lisbon Agenda stands for has changed since its adoption. At the heart of the Lisbon Strategy (or Agenda) is, nevertheless, the definition of scientific research, technological development and innovation as key factors in growth, the competitiveness of companies and employment in the knowledge-based economy<sup>2</sup>. The major target was to make European economies knowledge-based, completing the internal modernizing of the European social model, and sustaining favourable growth prospects by applying an appropriate macro-economic

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<sup>2</sup> Science and technology, the key to Europe’s future, CPM(2004)353 final.

policy mix (Rodrigues, 2002). The objective adopted by the Lisbon European Council of March 2000 was for Europe "to become the most competitive and dynamic knowledge-based economy in the world capable of sustainable economic growth with more and better jobs and greater social cohesion"<sup>3</sup>. This Lisbon objective was complemented in 2002 by the Barcelona target of 3% R&D intensity and during the 2000s further attention was paid to growth and jobs (2005) and social objectives, like those related to environment and citizens (2008). Overall, the objectives required changes which not only involved technological innovations, but also deep-going institutional transformation in knowledge production, diffusion and utilization (Rodrigues, 2002).

The most recent development is the launch of the EU 2020 Strategy which the Commission presented in March 2010 to replace the Lisbon Agenda<sup>4</sup> and to be discussed at summits in the first half of the year 2010<sup>5</sup>. It highlights a vision of Europe's social market economy: "smart, sustainable and inclusive economy delivering high levels of employment, productivity and social cohesion" (Europe 2020, 2010, p. 3). It includes policy objectives related to structural reforms in seven policy areas, called 'flagships'. Research and innovation play an important role in the flagship initiative called "Innovation Union", which poses targets for both the Union and the Member States. It includes, i.a., the completion of the ERA – though gives no specific explanation what this means - the improvement of the framework conditions for business to innovate, and the strengthening of EU instruments to support innovation, while Member States will need to reform their national and regional R&D and innovation systems, for instance, to foster excellence and 'smart specialisation' as well as to adjust their systems to better implement ERA initiatives (Europe 2020, 2010).

The reason why the ERA has been closely associated with the knowledge-based economy strategy – and now in the Innovation Union flagship - is the underlying innovation systems and evolutionary economics thinking. It pays attention to education, research, knowledge transfer, entrepreneurship and finance as important prerequisites for fostering the growth of the economic system (see, e.g., Edquist, 2005). This thinking emphasizes learning, knowledge transfers, and connectivity between the various actors, and the resulting system is

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<sup>3</sup> Lisbon European Council 23 and 24 March, 2000; [http://www.europarl.europa.eu/summits/lis1\\_en.htm](http://www.europarl.europa.eu/summits/lis1_en.htm).

<sup>4</sup> The target year of the Lisbon Agenda is this year, and the targets both in terms of R&D intensity or employment have not been achieved. The 2005 target for employment rate was set for 70%, while it was 65.9% in 2008, and has probably decreased as a consequence of the 2008-09 financial and economic crisis. The R&D intensity in the Union in 2008 was 1.9%, well below the 3% objective.

<sup>5</sup> See <http://www.europeanvoice.com/article/imported/2020-vision/66873.aspx>.

“shifting towards a more complex ‘socially distributed’ structure of knowledge production activities, involving now a much greater diversity of organisations having as their explicit goal the production of knowledge; what can be called learning entities.” (Soete, 2002)

To promote the Lisbon Agenda the EU adopted a benchmarking tool called Open Method of Coordination (OMC)<sup>6</sup>, a procedure for ‘soft’ coordination taking place in areas which fall within the competence of the member states (Telò, 2002).<sup>7</sup> The OMC has been a heavy process where the member states have been expected to undertake reforms called National Reform Programmes (NRPs) to promote the Lisbon Agenda objectives, and the Commission has had a role to assist, monitor and assess the national level reform process, and thus be a catalyst in the coordination process (Rodrigues, 2002)<sup>8</sup>. Innovation and research policy have been part of the microeconomic guidelines in the National Reform Programmes of 2005-2008 and 2008-2010, putting these policies in context. Whether the monitoring of the new Europe 2020 Strategy will follow similar principles is to be seen. It is to be noted that research policy has had a ‘softer’ version of OMC based on the voluntary participation of Member States in the benchmarking exercises.

## 2.2. Overall ERA goals and their evolution

ERA includes ideas about coordination of policies which were quite radical at the time when ERA was adopted. Edler (2010) has defined international policy coordination as adjusting and combining activities in an area in order that they better interact and create synergies with activities of other countries in the same area. He contrasts coordination with integration which would entail a “complete merger of research capacities” (like a merger of organisations into a new virtual or real entity, or the merger of programmes into a new joint programme). Luukkonen and Nedeva (2010) define ‘integration’ as the process of forming a new entity from different parts where the result is something ‘composite’ or ‘integral’. They emphasise that integration is a dynamic process framed by a continuum from fragmentation to uniformity. In this paper, coordination of policies is understood in a way similar to Edler (2010). Alignment of policies is part of the notion

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<sup>6</sup> This can be compared with benchmarking practices in many international organisations such as the Organisation for Economic Co-operation and Development (OECD), the International Monetary Fund (IMF) and the World Bank (WB) (Boyer, 2009, p. 150).

<sup>7</sup> Other examples include employment, social protection, social inclusion, education, youth and training. An Open Method of Coordination was first applied as part of employment policy.

<sup>8</sup> See [http://europa.eu/press\\_room/press\\_packs/lisbon\\_strategy/index\\_en.htm](http://europa.eu/press_room/press_packs/lisbon_strategy/index_en.htm).

of coordination. Alignment and coordination can take place both through top-down processes and through spontaneous and self-directed activities. When referring to integration in research policy objectives and tools, it is used to denote the process of formation of a new entity which uses joint principles and procedures in its operations. Thus, a joint programme does not represent integration, but coordination, if in implementation the partners putting in money follow their own priorities and/or procedures.

Ideas of research policy coordination have a long history in the European Community. For example, Research Commissioner Ralf Dahrendorf in 1974 coined a 'European Scientific Area' as a term to describe the situation with greater cooperation and coordination among the Member States (Guzetti 2009). In fact, Dahrendorf enlisted several objectives that were not so far from the objectives later to appear within the 'European Research Area' project, though the latter is much more ambitious. There were further attempts at coordination of research policy in the European Community<sup>9</sup>, but these did not advance before the launch of ERA.

Before the adoption of ERA, the coordination that existed was mainly based on 'de facto coordination' through cooperative research programmes grouped under the umbrella of the Framework Programme, preceded first by the ESPRIT pilot phase, approved in 1982, and functioned on a regular basis since the First Framework Programme running in 1984–87<sup>10</sup>.

It is important to note that the ERA concept has evolved during its life-time of ten years. The ERA concept has been interpreted and reinterpreted several times, and each time, its targets have been expanded to some extent and regrouped in a slightly different manner. ERA was launched when Philippe Busquin was the Commissioner for research, and like the previous initiatives to change EU policy in research, it is strongly associated with the Commissioner.<sup>11</sup>

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<sup>9</sup> Research Commissioner Antonio Ruberti in 1993–94 had a vision of a "European scientific and technological space" (Banchoff, 2003). Even though research ministers adopted a stand to advance such efforts, these were thwarted by the economic situation and political crisis accompanying the ratification of the Maastricht Treaty (*ibid.*, p. 87).

<sup>10</sup> The Framework Programme emerged as an outcome of concerns about a 'technology gap' and Europe falling behind the United States and Japan in the major fields of science and technology (Caracostas, 2003). The first programmes were set up in the information and communications sciences where Japan's emerging leadership in particular raised concerns.

<sup>11</sup> E.g., Caswill (2003, p. 67) states that the original Commission paper on ERA was "the work of a single hand within or close to the Busquin Cabinet".

The original Commission paper “Towards a European Research Area” (COM(2000) 6 final) did not give a simple and neat definition of the ERA. This paper talked first about the problems, low investment in R&D by both public and private investors and the lack of a European policy for research (causal ideas), and then listed targets (normative ideas).<sup>12</sup> The launch of ERA was related to the observation (causal ideas) that public and private investment in research in Europe was too low as compared with the USA and Japan<sup>13</sup>, but that improvement was also needed in the organisation of research, especially because European research effort evidenced systemic failures: “fragmentation, isolation and compartmentalization of national research efforts and systems and disparity of regulatory and administrative systems” compounding the “impact of lower global investment in knowledge” (Towards a European Research Area, COM(2000) 6 final, p. 7).

The original ERA-related objectives (normative ideas) included a long list (in all ten, of which some had subgroups, see Appendix 1). The questions included, first, objectives related to better networking and more coherent implementation of national and European research activities to overcome the above mentioned fragmentation and compartmentalization of research efforts and to achieve a “European internal market” for research. Then there were objectives related to a wider innovation policy (patents, risk capital), which have lately been coined as being part of a broad-based innovation strategy (see, Edler, 2009)<sup>14</sup>. A third group of objectives was related to human resources (of which greater mobility was one, though it is also part of the European internal market for research; further, *inter alia*, there was the aspect of the attractiveness of Europe for the researchers from the rest of the world), and a fourth, the promotion of social and ethical values in scientific and technological matters. The above ideas of more coherent implementation of national and European research activities entailed a weak idea of coordination. As is seen in Appendix 1, the idea of virtual centres of excellence proposed the promotion of activities which entailed integration. The idea of coordination, however, gained strength over time.

A Commission Communication “The European Research Area: Providing a New Momentum” (COM(2002) 565 final) summarized the objectives of ERA in three groups

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<sup>12</sup> The distinction is based on Edler (2003, p. 102–103). Causal ideas “help define the current situation and explain what action leads to what outcome”, normative ideas “suggest where one should head and what is perceived as legitimate”.

<sup>13</sup> Later India, China, South Korea, Brazil etc have been added on the list of competitors (see, Rodrigues, 2007).

<sup>14</sup> See [http://ec.europa.eu/research/era/era-history\\_en.html](http://ec.europa.eu/research/era/era-history_en.html).

and this list has been used a lot in communicating the ERA objectives, since it is simpler and clearer. It included 1) the creation of an “internal market” in research, an area of free movement of knowledge, researchers and technology, 2) a restructuring of the European research fabric, in particular by improved co-ordination of national research activities and policies; and 3) the development of a European research policy, not just addressing funding but all relevant aspects of EU and national policies.

The 2007 Green Paper on ERA (Inventing our Future together, 2007) restructured the ERA objectives into six groups. It highlighted excellence and competence with regard to researchers, research infrastructures and research institutions; emphasized coordination of programmes and priorities and knowledge-sharing between public research and industry, and introduced ‘world-class’ infrastructures and ‘excellent’ research institutions, further, putting more emphasis to opening up to the world (see the full list in Appendix 1).

In the “revival” of the ERA through the so-called ‘Ljubljana Process’, a better governance of ERA was discussed and agreed upon at the informal ministerial meeting held in Ljubljana and Brdo (Slovenia) on 14-15 April 2008. Attention was also paid to research excellence and the creation of a “researcher- and enterprise-friendly research environment”<sup>15</sup>. This process was based on the ERA Vision 2020, which discussed the concept of ‘knowledge triangle’<sup>16</sup>, the societal dimension, and tackling “grand” societal challenges, such as climate change and environmentally friendly energy technology (2020 Vision for the European Research Area, <http://ec.europa.eu/research/era>; see Appendix 1). The Lund Conference “New Worlds – New Solutions” during the Swedish presidency in July 2009 strongly endorsed a focus on the Grand Challenges.

The range of questions which the ERA concept has come to include has thus become wider. Since 2007, excellence has been in a visible position on the agenda. For instance, the Lund Declaration from July 2009 stated about excellence and its link with the achievement of other objectives as follows:

“Meeting the Grand Challenges also requires: Strengthening frontier research initiated by the research community itself. It is fundamentally important to create knowledge diversity, endowing the European Union with expertise, especially when confronted with unforeseen Grand Challenges and “shocks”. Competition among researchers will ensure that research carried out in Europe is of international excellence.”

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<sup>15</sup> See [http://www.eu2008.si/en/News\\_and\\_Documents/Press\\_Releases/April/0415MVZT\\_COMPET.html](http://www.eu2008.si/en/News_and_Documents/Press_Releases/April/0415MVZT_COMPET.html).

<sup>16</sup> This usually means interaction between education, research and innovation, and has been emphasised by EU leaders since 2006.

Towards the end of the decade, environmental and social issues gained importance. The so-called ‘Grand challenges’ represent areas such as global warming, tightening supplies of energy, water and food, ageing societies, public health, pandemics and security (Lund Declaration, 2009).

Table 1 (below) attempts to summarise the issues highlighted in the different versions of the ERA concept over the decade using the three-group classification of the 2002 document (The European Research Area: providing a Momentum; COM(2002) 565 final). As is seen in Table 1, a number of the specific objectives relates to the restructuring of the European research fabric. Co-ordination of activities plays an important role in this process, though other structural issues are important as well (such as cohesion between east and the west, promotion of women and young people’s interest in science, attraction of Europe for researchers from the rest of the world, common social and ethical values in S&T). Excellent research base is one of the prerequisites for the achievement of the objectives. However, towards the end of the decade – as is also seen in the Europe 2020 Strategy - more and more attention is devoted to the pressing societal issues. ERA is no longer important just for restructuring the European research base in an effort to make it more effective, but also for helping to solve societal problems of European and global reach. To use an old distinction, while at first more attention was devoted to ‘policy for science’, now equal attention is devoted to ‘science for policy’.

**Table 1. Issues included in the ERA concept in consecutive versions.**

	<i>Creation of 'internal market' in research</i>	<i>Restructuring the European research fabric, esp. through co-ordination of national research activities and policies</i>	<i>Addressing relevant aspects of EU and national policies</i>
Towards a European Research Area, COM(2000) 6 final	Greater mobility of researchers; European scientific careers	1) Better networking and coherent implementation of national and European research activities; 2) Promotion of women researchers + stimulation of young people's interest in careers in science; 3) Greater European cohesion in research (bringing together sc. Communities and companies from the east and west); 4) Improving attraction of Europe for researchers from the rest of the world; 5) Promotion of common social and ethical values in S&T	Better use of instruments encouraging investment in research and innovation: tools of wider innovation policy
2007 Green Paper	1) High levels of mobility of competent researchers between institutions, disciplines, sectors and countries; 2) World-class research infrastructures, integrated, networked and accessible to research teams from across Europe and the world;	1) Excellent research institutions engaged in effective public-private cooperation; forming research and innovation clusters; attracting a critical mass of resources; 2) Effective knowledge sharing between public research and industry 3) Well-coordinated research programmes and priorities, including a significant volume of jointly-programmed public research investment at a European level	A wide opening of the ERA to the world, addressing global challenges with Europe's partners
ERA Vision 2020	Fifth freedom: intra and extra-EU openness and circulation	1) Knowledge Activities: Volume and Quality: European way to excellence; 2) Knowledge triangle: education, research and innovation	1) The Societal Dimension; 2) Sustainable development and Grand challenges

It is obvious that the European Research Area has become a central concept embracing both the overall research policy goals but also all the funding tools of the Framework Programme since its adoption (in the Sixth and Seventh Framework Programmes) – the more traditional and new measures. Since the ERA has come to denote the overall EU research policies, it seems apparent that whenever new issues are adopted on the agenda, it is included in the newest definition of ERA. According to a working document by the Commission, “ERA has proven itself to be a powerful mobilising concept” (The European Research Area: New Perspectives COM(2007)161, p. 11). This highlights its role as a cognitive ‘crystallizing agent’, a cognitive integrative mechanism mobilizing support for specific policies (for the concept, see Luukkonen, Nedeva, 2010). The concept is also flexible and allows different working groups to interpret and rearrange the ERA dimensions according to their preferences.

The fact that the Treaty of Lisbon mentions the European Research Area gives it a strong legal backing and raises this policy area within the mandate of the EU. The Treaty of Lisbon defines the ERA in article 179 paying attention to the aspect of internal market in research as well as to addressing the other policy areas and needs of the Union:

“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.” (OJ/C115, 9 May, 2008)

As pointed out, the idea of coordination implied by the concept of ERA was radical at the time of its introduction. What led to its acceptance is an interesting question. Banchoff (2003) attributed the acceptance of the concept and policy of ERA to a combination of factors, e.g. to the fact that it coincided with reforms of national research policies and attempts to improve the competitiveness of their national research bases in the three scientifically leading countries, Germany, Great Britain and France, and that the Commission, which was proactive in launching it, showed political entrepreneurship in advancing its acceptance (Banchoff, 2003). We may further highlight that the ideas of the ERA initiative are strongly supportive of the Lisbon knowledge-based economy agenda, and thus the interplay between the policy ideas between these two new visions is an important explaining factor for the acceptance of ERA.

Edler (2003) analysed changes in the European Community research policy in the early 2000s and attributed the adoption of ERA to three aspects as drivers of change,

namely, to new policy ideas, causal and normative (see their definition in ref. 12), to functional interaction at different levels of different stakeholder groups, and to the role of the European Commission as a change agent (cf. Nedeva, 2010). According to his analysis, all these factors played a role in the initial acceptance of the ERA concept and policy. It is also obvious that over time different new drivers and circumstances have emerged and influenced the ERA agenda. Attention will be paid later on in this paper to the emergence of the ERC and the forces external to the Commission which influenced this process.

### **3. Implementation of ERA**

#### **3.1. ERA mechanisms**

The Sixth (2002-2006) was the first Framework Programme which could put the new ERA objectives into effect. In it three new funding instruments were launched and at first, it seemed that ERA was identified with the major two new instruments, Networks of Excellence (NoE) and Integrated Projects (IP). They both were expected to counteract the supposed fragmentation of the European research base, the NoEs through the ambitious objective of promoting *durable* integration among the partner organisations – mainly research performing organisations such as universities or research institutes - within the funding period (maximum seven years). There have been criticism of the NoEs in terms of achieving their formal objectives (Bonaccorsi et al., 2008), though the merits of the tool have also gained attention (Catalysing European Competitiveness in a Globalising World, 2010). Integrated Projects were expected to span the whole research spectrum from basic to applied research and, besides increasing Europe's competitiveness, they should be addressing major needs of society and were expected to leverage more resources from the participants and other funding sources. They were especially aimed at industrial organisations.<sup>17</sup> A recent report by the European Court of Auditors (2009) assessed that both tools had only partially achieved their specific targets, with both promoting 'good level' (NoE) or 'high quality' (IP) research collaboration, though neither the NoEs had achieved sustainable integration nor the IPs attracted additional resources (*ibid.*, p. 6).

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<sup>17</sup> The name of Integrated Project has been dropped in the 7<sup>th</sup> Framework Programme and the name of Large-scale Projects instead is used, except for the ICT Programme which still uses the name of IPs.

The third new instrument, ERA-nets, started with modest objectives and the participating funding agencies were expected to exchange information of their call launch and evaluation practices, but when continued in the Seventh Framework Programme (2007-2013), they were expected to progress to a stage of launching joint calls thus elevating collaboration to a more intensive level. Some of the FP7 ERA-Nets have an ambitious objective to help create ‘sustainable’ joint programme structures where the member state level funding agencies would jointly launch co-funded activities in specific research areas on a longer term basis. ERA-nets entail strong elements of coordination of national programmes, and the goals of sustainable programme structures have underlying ideas of integration.

The old and new research supporting tools, those for both research and for increasing coordination and alignment of research funding, were built upon the so-called Community principle (see Table 2). They are activities at the level of the EU though they are addressed to participants coming from the member states.

**Table 2. Community-based tools and mechanisms to promote ERA.**

<b>Community-based tools</b>	<i>Launched before FP6</i>	<i>Launched in or during FP6</i>	<i>Launched in FP7</i>
Collaborative research projects	STREPs	IPs, NoEs	
Mobility, training	Marie-Curie, Erasmus		
Collaboration among funding agencies		ERA-nets	
Benchmarking to promote alignment of policies towards common goals		ERAWATCH, InnoPolicy Trendchart*	
Promotion of frontier research			The European Research Council

\* The Commission has outsourced the creation and updating of two online platforms which collect data on Member States’ progress in research and innovation policy (InnoPolicy Trendchart since 2000 and ERAWATCH since 2007). ERAWATCH pays special attention to the implementation of ERA, the Lisbon Strategy, including the implementation of structural reforms.

With the adoption of the 7<sup>th</sup> Framework Programme, new tools increasingly combined features of Community-based and pure intergovernmental tools (Table 3). The Commission money or procedures act in these new tools as a catalyst, but the

continuation of the activities is dependent on the concerted action by the member state level stakeholders who commit their own resources (JTI, Art. 169<sup>18</sup> Undertakings, EIT in Table 2). In the past few years, there has also been a diversification of tools and the introduction of new ERA tools in a rapid succession. The new tools are a result of an increased ambition level in the promotion of alignment and coordination of Member State policies, mobilization of further resources for research, and engagement of both private and public actors from the Member States in the process, with these actors becoming important co-owners of the new tools. In a way, the new tools have attempted to achieve what the FP6 tools had not, but using different mechanisms, while at the same time, aiming at higher level targets. The ERC runs across a major trend in this policy by being based on the Community principle to suit the specific nature of this new funding scheme or instrument.

**Table 3. Lisbon Agenda and ERA promoting tools which are in between Community-based and inter-governmental.**

<b>Tools in between Community-based and inter-governmental</b>	<i>Launched before FP6</i>	<i>Launched in or during FP6</i>	<i>Launched in FP7</i>
Collaboration among funding agencies			ERA-Net-Plus
Agenda-building		ETPs	
Public-private partnerships for funding large-scale research and education activities			JTIs EIT, KICs
Public-public partnerships towards integration of national-level programmes into European programmes		Art. 169 (185) Joint Programmes	
Alignment of national policies towards common goals	OMC*		ERA Joint Programming and other ERA Initiatives

\*According to Rodrigues (2002) OMC is a mixture between community-based and intergovernmental tools. I have similarly classified the JTIs, Art. 169 (185) and EIT as being in-between the two extremes. OMC here refers to the OMC processes related to investment in research and as practiced by the Scientific and Technical Research Committee (CREST), which introduced its first OMC cycle in 2003.

<sup>18</sup> According to the Lisbon Treaty, the article number is 185.

Box 1 below explains what the mechanisms from Table 3 entail:

**Box 1. Mixed Community-based and intergovernmental tools in the promotion of ERA**

The Sixth Framework Programme started a new kind of research agenda setting tool, led by industry, the **European Technology Platforms (ETP)**, to define research and development priorities, timeframes and action plans on a number of strategically important issues. A new funding tool, **Joint Technology Initiatives (JTI)**, was introduced in the 7<sup>th</sup> framework Programme to implement the strategic research agendas of a limited number of European Technology Platforms, and the first proposals for JTIs were accepted in May 2007. Both the ETPs and the JTIs were strongly advocated by industry<sup>19</sup>. JTIs are long-term public-private partnerships, managed within dedicated structures –independent legal entities - based on Article 171 (187 in the consolidated Treaty of Lisbon) of the EC treaty<sup>20</sup>, supporting large-scale multinational research activities in areas defined as being of major interest to European industrial competitiveness and of high societal relevance, identified through dialogue with industry. Members of the Joint Undertaking include the European Commission, a not for profit, industry-led association, and, in the case of the two JTIs in the ICT area, Artemis and ENIAC, member states funding organisations.<sup>21</sup> **Article 169** (185 in the consolidated Treaty of Lisbon) of the EU Treaty allows for the participation of the EU, as an equal partner, in new research and development programmes undertaken together by several member states. It aims to achieve integration of national programmes into a single European programme. An example of such a public-private partnership is AAL Joint Programme (Ambient Assisted Living).<sup>22</sup> In the AAL, the European Commission provides a substantial financial support. The nationally committed funding goes to project partners from that country and national funding rules will be applied thus highlighting the intergovernmental nature of the endeavour<sup>23</sup>.

As part of the EU economic recovery plan and in an aim to launch massive co-investments in areas of socio-economic importance, new **Public Private Partnerships (PPPs)** are being launched (Energy-efficient buildings, Factories of Future, European Green cars, and Future Internet)<sup>24</sup>. These PPPs can take different forms and use various existing frameworks for such partnerships<sup>25</sup>.

The **European Institute of Innovation and Technology (EIT)**, established in 2008, is a new initiative, most specifically related to the ‘knowledge-triangle’ (and possibly a rationale for the adoption of the emphasis on the triangle). It brings together industry, higher education and research institutes and targets research, education and technology-transfer by providing ‘a world-class model for teaching and research through partnerships between academia and business’<sup>26</sup>. The EIT has an ambition to become the European counterpart to the Massachusetts Institute of Technology in the United States, though, as a European compromise it will be based on a network

<sup>19</sup> Stakeholder interview.

<sup>20</sup> Consolidated version of the treaty establishing the European Community says in Article 171: The Community may set up joint undertakings or any other structure necessary for the efficient execution of Community research, technological development and demonstration programmes. Official Journal of the European Communities, 24.12.2002; C 325/33.

<sup>21</sup> The JTIs and their agenda preparations are led by industry (largely large companies), and consequently, they support shorter-term research than the more traditional forms of framework programme support (including here the relatively ‘new’ FP6 instruments).

<sup>22</sup> In the field of ICT-based solutions for elderly persons with identified risk factors and/or chronic conditions.

<sup>23</sup> See <http://www.aal-europe.eu/about-aal>.

<sup>24</sup> See <http://www.europolitics.info/sectorial-policies/public-private-partnerships-to-boost-efficiency-art247288-18.html>.

<sup>25</sup> For instance, Veillard (2009) lists six European PPP forms all of which are not new: Eureka, Eurostars, European Technology Platforms, Joint Technology Initiatives, Risk Sharing Finance Facility, and Competitiveness and Innovation Framework Programme. We could add that Art. 169 Joint Undertakings provide a yet another PPP form.

<sup>26</sup> See <http://www.euractiv.com/en/science/european-institute-innovation-technology/article-164275>.

organisation. It has obtained funds from the EU to get started and for administration. It is expected to function in an entrepreneurial manner and attract funding from industry. The strategic decisions will be taken by an independent Governing Board, and concrete tools include so-called Knowledge and Innovative Communities (KICs). The EIT will provide a label of EIT degrees and diplomas for degrees obtained in the KICs.

The so-called **ERA Initiatives** aim to align and focus the efforts of individual member states in the chosen areas to promote transnational coordination of activities on a voluntary basis. The areas chosen so far include research careers and partnerships, research infrastructures, management of intellectual property rights, joint programming by national funding agencies, and international scientific and technological cooperation. ERA Initiatives are quite recent and there is yet little concrete evidence of how these activities operate in practice.

In research policy the Scientific and Technical Research Committee (CREST) has its own open method of coordination (OMC) procedures and by January 2009 (The Open Method of Coordination in Research Policy, 2009) it had completed four cycles with topics ranging from policy mixes for research policy, to internationalisation of R&D, effectiveness of fiscal measures stimulating R&D and to intellectual property rights (*ibid.*). This OMC process is different from the above-mentioned National Reform Programme reports and their annual procedures in the sense that the CREST activities are based on working groups each consisting of voluntary members from a different set of countries, thus being even more voluntarist than the NRPs. These groups have focused on exchanging information of practices and experiences for mutual learning rather than for coordination (*ibid.*).

### 3.2. Trends in ERA mechanisms

The ERA has thus prompted the introduction of a variety of mechanisms and tools. Research funding tools traditionally promoted collaboration among research performing organisations. With the advent of ERA, the mechanisms adopted increasingly had an ambition to enhance coordination or alignment of activities (both research funders and performers) and, in some cases, integration (NoEs in particular). The initiatives ranged from ‘soft’ tools such as benchmarking exercises at the level of research policy, using normative pressures to induce the adoption of joint practices, to initiatives using, often small amounts of, Community money and stakeholder or Member State funding agency money to promote the alignment and coordination of research programmes and agendas, and lastly, to the promotion of integration of efforts. The newest development entails a delegation of the definition of the strategy and implementation of research support in a specific area to new Community bodies. The new ERA tools have blurred the distinction between ‘research policy’ and ‘research funding’ instruments, since both purposes are intertwined in a set of instruments having ambitious overall objectives.

The question of how effective these initiatives will be in achieving their overall goals will be seen in the future. There are a number of problems in the implementation of some of the new initiatives, caused by the different national practices and unwillingness of national-level funding bodies to put money into ‘joint pots’ and thus to give away their

decision-making powers; that is, they resist a full integration of the funding activities in the designated areas and act in the intergovernmental mode (see, e.g., Finns in the Sixth Framework Programme, 2008; Veillard, 2009). The Commission financial regulation and practices cause further problems. Both factors have led to fundamental problems in the governance of these joint actions (Catalysing European Competitiveness in a Globalising World, 2010).<sup>27</sup> As the problems in the new mixed Community and intergovernmental mechanisms indicate, the process of the creation of an internal market for research is not easy, and there is and will continue to be a lot of tension between the theory and practice of ERA policies.

#### 4. Specific features of the ERC

The ERC is in many ways an exception to the principles traditionally or newly adopted in the Community research support, which are based on multi-partner collaboration. The Ideas programme which the ERC implements is the first European funding programme set up to support investigator-driven ‘frontier research’ in all fields of science including social sciences and the humanities, and its major aim is to stimulate scientific excellence. The foundation of this new programme also implied an important shift from targeting organisations to individuals<sup>28</sup>. The support of other than multi-partner collaboration became possible after a change in the definition of European added value in research support: from having been exclusively defined as international collaboration, the definition now includes open, European-level competition (see in section 5.2).

The ERC has been delegated a lot of autonomy in the selection of its strategy and in implementation. It has a Scientific Council, consisting of representatives of the scientific and scholarly communities, selected purely on their scientific and scholarly merits, and not representing Member States, specific organisations or interest groups. In self-management it is not an exception. Other new Community bodies have been

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<sup>27</sup> The JTI Sherpas Group report (2010) highlights the diversity of practice among the JTIs and about incompatibilities between national- and EU-level funding regulations, processes and practices. Interim Evaluation of the ICT Research in the 7<sup>th</sup> Framework Programme (Catalysing..., 2010) has paid attention to problems related to the dual management structures, the separate reporting requirements of the national and European levels, lack of coordination in the timing of funding decisions between EU and Member State levels and Member States’ unwillingness to extend their budget contributions during the life of the joint undertaking, for example if national participants win a greater-than-expected proportion of the activity in the undertaking.

<sup>28</sup> It is to be noted, however, that the funding schemes of the ERC award fairly generous grants to the recipients allowing them to build up research teams. Some of the members of such teams can, if justified, be located in other countries.

delegated powers to select strategies and to implement the activities, e.g., the JTIs, art. 169 (185) Undertakings, or the EIT. There is, however, a major difference between the ERC and the other new community bodies, namely, the fact that the ERC allocates only EU money while the other undertakings have been created in order to leverage private and Member State money for joint activities. Those other entities which invest their own money are co-owners of the programme and in this capacity exercise their powers. The Joint Undertakings have a legal personality and enjoy extensive legal capacity as contrasted with the ERC which has a less well-defined legal status.

The reason why the ERC has all these powers is related to the fact that the independence of the scientific community in the governance of this new programme was regarded as essential for the achievement of its fundamental objectives. It is a classical principal-agent situation in which the principal has interests and resources to pursue a particular policy, but not the appropriate skills or knowledge to realize these interests (Coleman, 1990). The situation is comparable to that of the national-level research councils (see, e.g., Braun, 1993; Braun, Gaston, 2003; van der Meulen, 2003).

While the ERC was debated in the early 2000s, different governance models were suggested (Gronbaek, 2003). The fact that the Ideas Programme operated by the ERC was eventually based wholly on EU money and did not become – even partially – an intergovernmental scheme is probably related to many factors. A scheme which coordinates national funding is faced with many problems related to enforcing funding decisions based on joint evaluation procedures. The ESF, an association of national-level funding organisations, is an example of this. After nearly thirty years (by the early 2000s when the debate was going on), the final decisions of the ESF still rested on separate decisions by the member organisations, which exercised their judgment and could use criteria other than just excellence in their final decisions (like national priority areas). The fact that the resources of the 7<sup>th</sup> Framework Programme grew considerably as compared with the previous Framework Programme facilitated the adoption of the funding of the ERC from the EU budget without giving rise to difficult debates and decisions on budgetary reallocations.

As compared with the other new ERA mechanisms and tools the Ideas Programme run by the ERC evidences features of a fully integrated supranational scheme. The resources come from a supranational source and one set of funding and selection criteria are applied in the allocations.

## **5. The ERC and ERA agenda – interactive relationship**

### **5.1. The debate on excellence**

The Lisbon Strategy objective about ‘the most competitive and dynamic knowledge-based economy in the world’ had from the start an underlying assumption that European organisations, involved in knowledge production and transfer, needed to be excellent and of high quality. This was referred to in, e.g., “The role of the universities in the Europe of knowledge” (COM(2003) 58 final). However, the first listing of ERA objectives did not specifically mention ‘excellence’, except in the connection of existing (virtual) centres of excellence in Europe, paying special attention to their networking with each other in an effort to overcome fragmentation (Towards a European Research Area COM(2000) 6 final, p. 7). Thus, though excellence was highlighted in the name of one of the major ERA instruments (Network of Excellence) in the Sixth Framework Programme, it did not figure prominently on the agenda.

The 2002 Barcelona Council, which presented the target of raising R&D intensity to 3% by 2010, set the objective of making the European “education and training systems a world quality reference by 2010” (The role of universities in the Europe of knowledge, COM(2003) 58 final, p. 18). Further, the action plan “Investing in research” (COM(2003) 226 final/2), intended to summarize the policies to implement the Lisbon Agenda and ERA objectives, maintained that “abundant and excellent researchers and research personnel and a vibrant, world-class public research base” were among the factors that firms considered when deciding whether and where to invest in research (COM(2003) 226 final/2; p. 11). It also referred to excellence and integration of research as some of the central principles which the Sixth research framework programme needed to foster and referred a few times to the new instrument ‘networks of excellence’ (p. 14).

It was the Communication from the Commission on “The role of the universities in the Europe of knowledge” from 5 February, 2003 (COM(2003) 58 final) that put the issue of excellence and world class universities explicitly on to the agenda. It invoked the Lisbon Strategy and the above-mentioned Barcelona Council reference to high quality education and training systems as a justification for devoting attention to these matters. Subsequently, on the initiative of the French Presidency, the Competitiveness Council in September 2003 adopted a resolution on “Investing in Research for European Growth and Competitiveness” recognizing that “basic research and scholarship are crucial for the sustainable development” and asked the European Commission to bring forward a

Communication covering the entire issue of basic research and the role of the European Union in this area (Preface, Europe's Search for Excellence in Basic Research, 2004). The outcome was the Communication "Europe and Basic Research" (COM(2004) 9 final, 14.1.2004). This communication recognized the discussion that had been going on about a need for a "Basic Research Fund" and a "European Research Council" (*ibid.* p. 3).

The discussion of an ERC had begun earlier within the scientific community, and especially the life scientists were active in its promotion (van Dyck, Peerenboom, 2003; Nedeva, 2010). The project on the ERC was related to the broader concern about the reconstruction of European science and science institutions after the Second World War<sup>29</sup>. There was a concern about funding being too low for basic research and about quality of science and its institutions in Europe and, as in European research policy in general, the USA provided a benchmark with which comparisons were made, in this instance, especially with the National Science Foundation, but also with foundations like the US Howard Hughes Institutes (Gronbaek, 2003; van Dyck, Peerenboom, 2003; Nedeva, 2010). Several meetings were organised by the scientific community to promote the idea, among others, a meeting in February 2003 in Paris, organised by ELSF, EMBO, FEBS<sup>30</sup>, and UNESCO.

This discussion was put on the European Union agenda during the Swedish EU Presidency in 2001 (Gronbaek, 2003). It gained momentum during the Danish Presidency in the second half of 2002, when an ERC Expert Group (ERCEG) was set up in November 2002 under the chair of Professor Frederico Mayor, former Director-General of UNESCO. This group submitted its report in December 2003 (ERCEG, 2003)<sup>31</sup>.

The debate on a European Research Council prompted the before-mentioned Commission communications and the communication on "Europe and Basic research" (COM(2004) 9 final, 14.1.2004) was a direct justification for the establishment of the Council. Thus, it ended up recognizing "a need to introduce a European level support mechanism for individual teams' research projects, modelled on the 'individual grants' given by the NSF" (*ibid.*, p. 12). Further, the Communication saw this initiative to be "quite natural in the context of the European Research Area", and perceived its importance "to combat the effects produced by the compartmentalised nature of the

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<sup>29</sup> Based on a stakeholder interview.

<sup>30</sup> ELSF is The European Life Sciences Forum; EMBO is The European Molecular Biology Organization; FEBS is the Federation of Biochemical Societies.

<sup>31</sup> There were other reports from the scientists' organisation, such as the ESF (2003), ELSF (2003), and EUROHORCS (2004, together with the European Commission), which discussed and detailed the justification and basic principles of a European Research Council.

national systems”, and *stimulating “creativity, excellence and innovation by exploiting a form of European value added other than that produced by cooperation and networking: the added value which comes from competition at EU level.”* (*ibid.*, p.13; italics mine). There had been a complete change within short period of time in the Commission on the matter of a European Research Council and its justification, which is illustrated by the fact that still at the meeting on an ERC, organised by the leading life sciences organisations in Paris in February 2003, a Commission representative Peter Kind expressed reservations with regard to the ERC project (van Dyck, Peerenboom, 2003). Why this change in the Commission views took place is a matter to be further explored and one which goes beyond the purpose of this paper. It is assumed here that the change was largely related to the wide support of an ERC among the stakeholder groups, a matter which was an outcome of the successful promotion of the idea by the scientific and scholarly communities.

In February 2004, the Irish presidency organised a symposium in Dublin entitled “Europe’s Search for Excellence in Basic Research”, with participants representing “the highest levels of Member States, Acceding States and Associated Countries, senior industrialists, leading academics, representatives of national funding organisations and other representative bodies” to discuss the importance of investment in basic research. The participant list highlights the importance of enlisting the support of all major stakeholder groups<sup>32</sup> for the ERC endeavour. The meeting reached a consensus on “a need to enhance the excellence of European research” and agreed that “industry needs excellent research, and excellent people,...including implementation of the knowledge generated through basic research, as a basis for competitiveness”. The consensus statement further maintained that the national initiatives were not sufficient for enhancing the excellence of European research, but that a European initiative was required. “The objectives of this European initiative would be to promote excellence in basic research by promoting international competition among individual research teams. The sole criterion should be excellence, identified by international peer review.” (Europe’s Search for Excellence in Basic Research, 2004, p.3). Commissioner for Research Philippe Busquin

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<sup>32</sup> EURAB, European Research Advisory Board in 2001–2004, twice took a positive stand concerning the ERC: the first issued in November 2002 was about the guiding principles of the new funding body, the second, issued in October 2003 was about its possible implementation model (EURAB, 2004). EURAB is a high-level, independent, advisory committee created by the Commission to provide advice on the design and implementation of EU research policy and whose members are nominated in a personal capacity and come from a wide range of academic and industrial backgrounds, as well as representing other societal interests.

attended the Conference and strongly endorsed the suggested “support mechanism for research projects by individual research teams competing at European level, particularly in the field of basic research, along the lines of the US National Science Foundation” and promising detailed measures before the summer (*ibid.*, 2004, p. 33). He had been supportive of the idea as early as October 2002, but had made its foundation conditional on the strong commitment of the national research organisations, including “pooling a certain amount of national resources” (Gronbaek, 2003). The considerable growth of funds in the Seventh Framework Programme eventually enabled the setting up of the new body fully on the basis of European money.

The process culminated in the summer of 2004 in the conclusion of the Spring Council in seeing “merit in enhanced support for basic research of highest quality” and the informal Competitiveness Council of 1-3 July 2004, which welcomed the creation of “a mechanism to support research conducted by individual teams in a competition at European level and expressed its will to conclude before the end of 2004 on the principles for such a funding mechanism” (Interim Working Document..., 2004).

It is obvious that, first, in the debate on a European Research Council support of basic research became legitimate for the EU by reference to the underlying assumptions about the need to build up excellent research organisations, which were part of the ERA vision and entailed in the broader knowledge-based society objectives. At the same time, however, this debate changed the way European research policy was framed. It put forward the question of basic research and excellence of European research on the EU research and innovation policy agenda. While this debate continued, it highlighted the importance of excellence for the whole ERA initiative. It thus got fuel from the ERA but also changed the way in which the ERA and the achievement of its targets were perceived. A lack of excellence became part of the way in which both the ‘causal’ and ‘normative’ ideas were framed (see Edler, 2003).

Henceforward, promotion of excellence has featured as an important target among the ERA objectives. For example, the before-mentioned Green Paper on ERA (Inventing our Future Together, 2007) highlighted excellence of researchers and research institutions as well as world-class infrastructures as ERA targets. Further, as exemplified by the earlier quote from the Lund Declaration (2009) about the fact that meeting the Grand Challenges requires, among other things, “strengthening frontier research initiated by the research community itself” and “excellence and well-networked knowledge institutions”. A recent report by the European Research Area Board of 2009, entitled “Preparing

Europe for a new Renaissance”, advocated “an ERA to deliver excellence ... where risk-taking in research, regardless of its public or private origin, will be the guiding principle for ERA policy” as one of the six areas of action the Board outlined (Preparing Europe for a New Renaissance, 2009). These quotes seem directly to point to the principles of the ERC to promote excellence, frontier research and risk-taking<sup>33</sup>.

It is to be noted, nevertheless, that the ERC is not the only inspiration of this concern on excellence. An interest in the ERC and excellence reflects an acknowledgement of the importance of excellence for the construction of a knowledge-based society and a concern over the quality of research performing organisations and research in general in Europe. In the Framework Programme traditionally, projects have been selected on the basis of evaluation using S&T quality as one of the criteria. However, it is not the only criterion and attention to potential impacts and the consortium composition have played an equally important role. Thus, the ERC is the only part of the EU funding tools regarding excellence as the sole criterion of selection, though there are other EU programmes, such as Marie Curie, infrastructure programme and in the FET (Future Emerging Technologies) which support basic research.

‘Frontier research’ is another concept which is used to characterize the nature of the research supported by the new agency as distinct from excellence. The concept of frontier research was suggested by an expert group which had a task to provide a convincing argument that ERC-funded research can at the same time support both fundamental research and useful knowledge (Frontier Research, 2005, p. 18). The concept was adopted to highlight that emerging research areas embrace substantial elements of both basic and applied research. The ERC has used the report’s claims and on its webpage it “expects that its grants will help to bring about new and unpredictable scientific and technological discoveries - the kind that can form the basis of new industries, markets, and broader social innovations of the future,”<sup>34</sup> thus providing a strong argument that the ERC is justified from the point of view of technological and economic competitiveness, not just of scientific competitiveness. The term frontier research has also found its way to ERA declarations and debates as exemplified by the Lund Declaration (2009) as well as the aforementioned EURAB report (Preparing Europe for a New Renaissance, 2009).

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<sup>33</sup> See <http://erc.europa.eu/index.cfm?fuseaction=page.display&topicID=12>.

<sup>34</sup> See <http://erc.europa.eu/index.cfm?fuseaction=page.display&topicID=12>.

It is also to be noted that the debate on a European Research Council put forward, not just excellence and basic research, but also – to some extent – the universities. The initiative concerning the European Research Council does not, however, directly concern university institutions, though it may create competition among them: being able to attract ERC grant recipients is becoming a new benchmark. The majority of the grant recipients are active in European universities, and very few in other types of research organisations. Nevertheless, because universities are the major seat for basic research, the question of what could and should be European research and innovation policies with regard to the universities was raised in the Communication from the Commission on “The role of the universities in the Europe of knowledge” from 5 February, 2003 (COM(2003) 58 final). The European Institute of Technology is the first ERA initiative which is directly addressed to the universities.

## **5.2. A new definition of European value added**

As referred to, the foundation of the ERC required a change in necessitating a new interpretation of European value added. The European Community has adopted a general principle of subsidiarity which is expressed in the consolidated Treaty of Lisbon (art. 5) as follows:

“Under the principle of subsidiarity, in areas which do not fall within its exclusive competence, the Union shall act only if and in so far as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central level or at regional and local level, but can rather, by reason of the scale or effects of the proposed action, be better achieved at Union level.”

In research policy, this principle has traditionally been interpreted to justify the funding of research collaboration through transnational consortia (Muldur et al., 2006, p. 186). The Communication from the Commission “Europe and Basic Research” (COM(2004)9 final, 14.1.2004) already expressed a new definition of European added value justifying the establishment of the ERC, namely “the added value which comes from competition at EU level” (*ibid.*, p. 13). At the Dublin Conference on the ERC entitled “Europe’s Search for Excellence in Basic Research” on 16-17 February, 2004, Dr. Achilles Mitsos, the then Director-General for Science, Research and Development, presented this new interpretation of European value added, and referred to the fact that “competition is to be on a European scale, drawing on an enlarged pool of researchers” (p. 36).

The momentum of the ERC emergence thus influenced the re-interpretation of an important principle of action. The book on the 7<sup>th</sup> Framework Programme by Muldur et al. (2006) enlists several further objectives “giving rise to European added value” including better integration of European R&D and dealing with pan-European policy challenges (*ibid.*, 2006). This exemplifies that the concept of value added has become flexible and has further developed to encompass the various dimensions of the ERA concept.

## **6. Conclusions**

This paper has described the policy of the European Research Area (ERA), which has become to denote the European Union’s research policy and is part of a broader Lisbon Agenda promoting the overall competitiveness of the EU economies. Attention has been paid to the interpretation and reinterpretation of the concept of ERA and its expansion to embrace new issues adopted on the political agenda over the ten year period since its acceptance. ERA has become to embrace, besides the ‘internal market’ in research and better coordination of national research activities and programmes with each other and those of the Community, the promotion of excellence in the research institutions, more effective knowledge sharing and transfer, and addressing pressing societal problems. The Treaty of Lisbon mentions the European Research Area, which gives it a strong legal backing and raises this policy area within the mandate of the EU. In effect, ERA stands for the whole of the Union research policy and reflects changes occasioned by the adoption of new issues on the political agenda. We can see some trends in the overall understanding of what ERA stands for. While at first, more attention was devoted to restructuring the European research base (‘policy for science’), towards the end of the decade attention has increasingly been devoted also to solving pressing societal problems of European and global reach (‘science for policy’).

The Sixth Framework Programme was the first in which the new ERA objectives could be implemented. It introduced new large-scale restructuring research instruments (NoE, IP) and promoted the coordination of member state-level programmed funding through ERA-nets. The Seventh Framework Programme introduced ambitious new instruments the purpose of which was to promote the coordination and alignment of member state research funding and policies and to engage private and public stakeholders in the process. One of the aims has also been to leverage more investments in R&D. The

new funding tools by their nature increasingly became combined Community- and intergovernmental tools and in the implementation became legal Community entities. There was also delegation in the selection and implementation of strategy. The degree to which these policies will succeed in achieving their targets - both in terms of specific substance- or research area-related objectives and policy coordination - is an important question. Early observations indicate that there are a lot of tensions and difficulties in the practical implementation of these policies both because of the Community Financial Regulation and the Member States' persistence in operating in an intergovernmental mode, which cause further complexities in the operations.

The ERC and the Ideas Programme which it runs, introduced in the Seventh Framework Programme, is in many ways unique. It is the only new funding instrument in the 7<sup>th</sup> Framework Programme which is by its nature Community-based. As compared with the other new ERA mechanisms and tools the ERC evidences features of a fully integrated, supranational R&D funding scheme. The ERC has wide delegated powers in the adoption and implementation of its agenda and the management of its programmes in a way similar to the new mixed instruments. While the Framework Programme has traditionally and even recently in the other funding instruments promoted research cooperation and the coordination of activities of organisations, the ERC is addressed to individual investigators.

The idea of coordination of research policies entailed in the ERA concept was quite radical at its inception. The adoption of this policy has attracted interest among researchers in European research policy. They have attributed the success in the adoption of the policy to a number of factors, among which the proactive role of the Commission has been highlighted. Over the ten years, there have, however, been changes in the emphasis given to the various dimensions, and new dimensions have been included in the ERA concept. Why this has happened has not been addressed in research, and attempting to answer it goes beyond the resources of this review. There is, however, one aspect which has been commented upon in this paper, namely, the acceptance of the ERC.

The idea of an ERC emerged outside the Commission as a project of the scientific community<sup>35</sup>, and the life scientists were especially active in this process, probably because they had quite early formed European-level organisations (EMBO, EMBL, FEBS), which helped them formulate joint goals and provided them with more resources

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<sup>35</sup> Cf., that the ETPs and JTIs emerged as projects of European industries.

and influence (Nedeva, 2010). The process of the adoption of the ERC included a lot of networking, conferences, and debates organised by the members of the scientific community and their associations. While the scientists succeeded in convincing the Member State and European policy makers and industry of the justification of their project, the Commission papers addressing ERA policies underwent a change in which the question of excellence gained more prominence. The ERC was justified by invoking the scant references to excellence and quality in the original ERA concept. As it turned out, during the project to establish an ERC, the scant references to excellence gained force and became an important part of the whole ERA notion. These references were directly related to the debate on an ERC, but also reflected overall concerns about the quality of science and scientific institutions in Europe, especially as compared with the USA. The emergence of the ERC thus influenced the ERA agenda and reinforced the weight of the question of excellence. The establishment of the ERC also necessitated the transformation of the definition of the European value-added to include, besides cross-country collaboration, competition at the European level.

While the EU Commission acted proactively as both a champion and an agent of change<sup>36</sup> in the promotion of the initiative concerning the ERA, the situation was different in the process of initiating and promoting the ERC. In this case, the scientific community, its associations, and bodies acted as a champion of change (Nedeva, 2010). The Commission was originally not at all enthusiastic about the idea, but changed its views, presumably because the idea of an ERC in the end gained a wide support among the Member States and the different stakeholder groups. After the idea of a European Research Council was accepted, the Commission swiftly put the ideas in action, but its role as an agent of change can to some extent be questioned. Because of the active input by the scientific community, it could be regarded as a co-partner of the Commission in the role of an agent of change: the scientific community was delegated many functions in implementation of the change process. The scientific community participated in the working groups defining the basic principles of the new programme and its operating principles,<sup>37</sup> it made up the Identification Committee which selected the members of the governing body, the Scientific Council of the ERC, and finally that body itself. Furthermore, the Scientific Council was given a broad mandate to select the strategy of

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<sup>36</sup> The two roles draw on Nedeva (2010).

<sup>37</sup> The principles according to which the ERC was eventually set up followed the recommendations of the Mayor Group (ERCEG, 2003).

the new programme. As said, this took place because in order to achieve the objectives of the new body, the delegation of implementation was deemed necessary.

The ‘marriage’ of a project of the scientific community and a scheme within the Framework Programme inevitably creates tensions and poses great challenges for implementation. This was highlighted by the recent review which drew attention to the fact that “there is an incompatibility between the current governance philosophy, administrative rules and practices and the stated goals of the ERC” (Towards a World Class Frontier Research Organisation, 2009). The way in which this incompatibility will be solved will fundamentally influence the success of the ERC.

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## Appendix 1:

### *a) Towards a European Research Area (COM(2000) 6 final, p. 7, p. 8)*

This document contained a long list of dimensions to which attention should be paid in the new ERA policy:

- **Networking of existing centres of excellence** in Europe and the creation of virtual centres through the use of new interactive communication tools.
- **A common approach** to the needs and means of financing large research facilities in Europe.
- **More coherent implementation** of national and European research activities and closer relations between the various organisations of scientific and technological cooperation in Europe.
- **Better use of instruments and resources** to encourage investment in research and innovation: systems of indirect aid (within the Community rules on State aid), patents, risk capital.
- **Establishment of a common system** of scientific and technical reference for the implementation of policies.
- **More abundant and more mobile** human resources:
  - Greater mobility of researchers and introduction of a European dimension to scientific careers.
  - More prominence to the place and role of women in research.
  - Stimulating young people's taste for research and careers in science.
- **Greater European cohesion in research** based on the best experiences of knowledge transfer at regional and local levels and on the role of the regions in the European research efforts.
- **Bringing together** the scientific communities, companies and researchers of Western and Eastern Europe.
- **Improving the attraction of Europe** for researchers from the rest of the world.
- **Promotion of common social and ethical values** in scientific and technological matters.

### *b) Green Paper (Inventing our Future Together: The European Research Area: New Perspectives, Green Paper 04.04.2007)*

This document summarized the features of the ERA as follows:

- **An adequate flow of competent researchers** with high levels of mobility between institutions, disciplines, sectors and countries;
- **World-class research infrastructures**, integrated, networked and accessible to research teams from across Europe and the world, notably thanks to new generations of electronic communication infrastructures;
- **Excellent research institutions** engaged in effective public-private cooperation and partnerships, forming the core of research and innovation 'clusters' including 'virtual research communities', mostly specialised in interdisciplinary areas and attracting a critical mass of human and financial resources;
- **Effective knowledge-sharing** notably between public research and industry, as well as with the public at large;

- **Well-coordinated research programmes and priorities**, including a significant volume of jointly-programmed public research investment at European level involving common priorities, coordinated implementation and joint evaluation; and
- **A wide opening of the European Research Area to the world** with special emphasis on neighbouring countries and a strong commitment to addressing global challenges with Europe's partners.

*c) ERA Indicators and ERA Monitoring (2009)*

This document grouped the views of the recent ERA Vision 2020 into five components:

- **Component 1, Knowledge activities: Volume and quality**  
“The ERA defines the European way to *excellence* in research and is a major driver of EU competitiveness in a globalised world”
- **Component 2 – Knowledge triangle: Flows and dynamics**  
“Strong interactions within the “knowledge triangle” (education, research and innovation) are promoted at all levels”
- **Component 3, Fifth freedom: Intra and extra-EU openness and circulation**  
“The ERA provides a seamless area of freedom and opportunities for dialogue, exchange and interaction, open to the world”
- **Component 4, The societal dimension**  
“The ERA is firmly rooted in society and responsive to its needs and ambitions”
- **Component 5, Sustainable development and grand challenges**  
“The ERA is firmly rooted in society in pursuit of sustainable development”