



**COUNCIL OF
THE EUROPEAN UNION**

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**RECH 158
COMPET 283**

NOTE

From : General Secretariat of the Council
To : The Council

Prev. doc. 9618/09 RECH 141 COMPET 259

Subject : The first steps towards the realisation of the European Research Area Vision 2020
- Draft Council conclusions

Delegations will find attached the revised draft Council conclusions as resulted from the discussion in the Permanent Representatives Committee on 13 May 2009.

The positions of delegations are noted in footnote 13 on page 6.

Draft

Council conclusions on the first steps of the Ljubljana Process towards the realisation of the European Research Area Vision 2020¹

THE COUNCIL OF THE EUROPEAN UNION

RECALLS:

- the green paper entitled "European Research Area: New Perspectives"² adopted by the Commission on 4 April 2007, which proposed a number of priority objectives with a view to deepening and widening the ERA so that it fully contributes to the renewed Lisbon Strategy;
- its conclusions of 23 November 2007 on the Future of Science and Technology in Europe³ which recognised that specific actions were needed to ensure sufficient human resources for R&D, to give a high priority to public investment in science and research and to stimulate higher levels of private investment in R&D;
- its resolution of 30 May 2008 on the management of intellectual property in knowledge transfer activities and Code of Practice for universities and other public research organisations⁴;

¹ Changes to doc. 9618/09 are **bold underlined**.

² Doc. 8322/07 + ADD 1.

³ Doc. 14693/07.

⁴ Doc. 10323/08.

- its conclusions of 30 May 2008 on the launch of the Ljubljana Process - Towards full realisation of ERA⁵ aiming to establish an enhanced governance for the ERA based on a long-term vision on ERA developed in partnership by Member States and the Commission with broad support from stakeholders and citizens;
- its conclusions entitled "Family-Friendly Scientific Careers: towards an Integrated Model"⁶ which reaffirmed the need to develop a comprehensive set of measurable indicators, relevant statistics and comparable data in view of supporting concrete measures to promote and develop better work-life balance conditions and invited the Commission and the Member States to develop an integrated model of scientific careers based on an appropriate policy mix ensuring family-friendly environment for researchers;
- its conclusions of 26 September 2008 on better careers and more mobility: a European partnership for researchers⁷, which established a partnership between Member States, associated States and the Commission aiming at improving the professional situation of researchers in Europe and increased mobility through an approach combining complementarity and consistency between national and Community levels;
- its conclusions of 2 December 2008 on the definition of a 2020 vision for the European Research Area⁸ which is part of the first phase of the Ljubljana Process and serves as the basis for the development of the future ERA governance;

⁵ Doc. 10231/08.

⁶ Doc. 10212/08.

⁷ Doc. 13671/08

⁸ Doc. 16767/08.

- its conclusions of 2 December 2008 on "joint programming of research in Europe in response to major societal challenges"⁹ and on "a European partnership for international scientific and technological cooperation"¹⁰;
- the work of the Czech Presidency in taking forward the implementation of the ERA Vision 2020.

1. EMPHASISES that the process of implementation of the 2020 Vision for the European Research Area (ERA) is a key element for ensuring the coherent development of policies and measures at EU and national level in view of the realisation of full potential of ERA.
2. ACKNOWLEDGES that the full realisation of the ERA Vision 2020 is strongly dependent on the quick progress in the implementation of the Ljubljana Process, therefore, WELCOMES the intention of the incoming Presidencies to address the possible ways of enhancing the governance of ERA.
3. RECOGNISES the influence that R&D targets and indicators can have as part of a wider toolbox in the context of the Lisbon Strategy and their influence on stimulating policy reforms and on increasing public investments in research, development and innovation.
4. INVITES the Commission, together with the Member States:
 - to examine the options around the design of future target(s) and/or political objectives, in view of coordinating EU and Member States policy efforts for the post-2010 period while taking account of the priorities and specificities of Member States;

⁹ Doc. 16775/08.

¹⁰ Doc. 16763/08.

- to further develop its work to identify a limited and consistent set of indicators which will serve as an operational tool consistent with the Council political objectives and strategies to monitor progress towards full realisation of the ERA, taking into account the ERA Vision 2020 and broader framework conditions.
5. ENCOURAGES the Member States and the Commission to develop steps leading to an evaluation culture covering all key relevant research policy measures in the ERA in order to use research results for an efficient and effective use of resources at regional, national and European level;
 6. STRESSES that the knowledge triangle provides an appropriate framework in the context of the Lisbon strategy to define and coordinate in a more consistent and comprehensive way knowledge related policies and measures at regional, national and EU levels with the aim of promoting Europe's competitiveness and addressing the major societal and technological challenges.
 7. In this context, CALLS on the Member States and the Commission to further engage in ensuring enhanced complementarity and synergies between Community policies and instruments¹¹ as well as between regional, national and intergovernmental initiatives¹² and programmes and all other relevant stakeholders in Europe related to the knowledge triangle.

¹¹ Such as Framework Programmes, the Competitiveness and Innovation Framework Programme, Structural Funds, the ERA Ljubljana Process, the common framework on Education and Training and the Bologna Process.

¹² Such as EUREKA and COST.

8. RECOGNISES the efforts made in the past years to improve research careers, conditions for work – life balance and adequate circulation of European research talents. NOTES, however, that actions at both national and European levels need to be stepped up around common objectives, including mutual learning activities, in order to accelerate progress in making research careers in Europe more attractive and to attract the world's best brains to European research institutes and universities.
9. CALLS AGAIN, therefore, on the Member States, together with the associated countries and the Commission, to concretely engage in the European Partnership for Researchers and to step up their efforts to define national objectives and specific actions as agreed in September 2008.

In this context, WELCOMES the proposed priority actions concerning the European partnership to improve attractiveness of RTD careers and the conditions for mobility of researchers in Europe, prepared by Ministers Biltgen and Gago in response to the French Presidency request¹³, and ENCOURAGES the Member States to step up their efforts aiming at effective and timely implementation of National Action Plans in this area.

In addition, INVITES future Presidencies, in cooperation with the Commission, to promote a more coordinated approach related to the research, education and social policies at European level and to consider the possibility to organise joint meetings of relevant Council formations.

10. HIGHLIGHTS the importance of the development of joint visions for research infrastructures at European level, and ACKNOWLEDGES the fact that the ESFRI Roadmap has acted as a catalyst for national roadmaps and/or programmes, in many cases. In this context, STRESSES the need to analyse the level of financing of networking activities and access to the research infrastructures at European level and to reflect on their potential strengthening.

¹³ **Doc. 10003/09.**
FR/LU/PT: scrutiny reservation.

11. TAKES NOTE of the attached Presidency Status Report on the implementation of the ERA Vision 2020 highlighting the progress achieved in the most advanced areas, and INVITES the future Presidencies, in cooperation with CREST, to establish and regularly update a Roadmap for the implementation of the ERA Vision 2020, based on the work done by the current Trio Presidencies.
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"EUROPEAN RESEARCH AREA VISION 2020" – PRESIDENCY STATUS REPORT

The attached document has been prepared by the Czech Presidency in order to contribute to the Ljubljana Process, with support from the Trios of Presidencies, the European Commission and the Council Secretariat. It is based upon the discussions held by the 27 Member States, associated countries and the European Commission at the seminar organised on 9 March 2009 with the delegates of CREST and the Council's Research Working Party. A shared ambition of the Trio Member States is to keep the momentum given in 2008 to the Ljubljana process; therefore, a systematic approach to the implementation of the ERA Vision 2020 was proposed for 2009.

The Trio supports the Czech Presidency in its decision to focus on parts of the Vision 2020 which are most relevant at this point in time. A special attention is thus given in this document to the proper evaluation of the efficiency and effectiveness of investments into research and development, the articulation between research and development, education and innovation policies (so called "Triangle of knowledge"), research infrastructures and capacity building throughout Europe, and human resources development.

In times of economic recession all resources are to be invested wisely and the evaluation of R&D programmes and policies is one of the tools helping decision makers to take the right decisions. For the same reason, the articulation between the three sides of the knowledge triangle was discussed, as knowledge has to be produced and used in an effective and efficient way. In addition to this, the Community and Member States have to reflect on the targets and indicators for ERA, to drive the knowledge economy through the next decade and further. Difficulties concerning the careers, working conditions and mobility of human resources in science and technology have to be tackled in order to fulfil all the visionary goals the EU is setting for 2020. Finally, the discussion on research infrastructures and capacity building confirmed that the implementation of the ESFRI list of research infrastructures and the timely use of structural funds are crucial for the competitiveness of Europe.

The number of themes to be discussed was limited for several reasons. In particular, activities on European level are just starting on joint programming and on international S&T cooperation in the framework of newly created specific configurations of CREST, as well as on IPR and transfer of technologies in the framework of a new CREST working group. Discussions on these topics would thus not have been based on a solid basis at this point in time. The same applies to ERC which is undergoing its first evaluation. The Trio welcomes these activities and will include them into the Implementation Plan in due time.

ERA VISION 2020:

By 2020, all actors fully benefit from the “Fifth Freedom” across the ERA: free circulation of researchers, knowledge and technology. The ERA provides attractive conditions and effective and efficient governance for doing research and investing in R&D intensive sectors in Europe. It creates strong added value by fostering a healthy Europe-wide scientific competition whilst ensuring the appropriate level of cooperation and coordination. It is responsive to the needs and ambitions of citizens and effectively contributes to the sustainable development and competitiveness of Europe.

THE EUROPEAN RESEARCH AREA (ERA) IS FIRMLY ROOTED IN SOCIETY AND RESPONSIVE TO ITS NEEDS AND AMBITIONS IN PURSUIT OF SUSTAINABLE DEVELOPMENT

The European publicly supported science and technology base plays a key role in responding to the needs of citizens and business, through world class cutting edge research.

Existing measures:

- *Public R&D programmes at all levels and their mechanisms of evaluation, also in relation to the assessment of its expected social and competitiveness impacts;*
- *Strategy in place to reach EU 3% of GDP objective for R&D intensity (1% public share);*
- *Short term: importance of maintaining R&D investment in EU at all levels in ERA, following the example of the EU recovery plan;*
- *Ex – post evaluation of the FPs;*

The Competitiveness Council of March 2009 gave a very strong signal on the importance of **R&D evaluations of results and impact assessment**. Whilst there is a long tradition of work of this type, in the past attention has tended to focus more on implementation and participation issues, rather than assessing impacts. However, there are experiences from impact of national programmes where lessons could be drawn on EU-level. A few countries have completed evaluations of the impact of the Framework Programme on their research systems but several countries have started or are about to start so the situation should soon ‘improve’. In this context it could also be useful to look at impact evaluations of R&D through the Structural Funds.

There are some examples of studies which have attempted to develop understanding of impacts over the longer-term. One such is the recent Swedish study of FP4-6. The situation will be helped overall by the positive changes made under FP7 for collecting data and results. The move from monitoring exercises using independent experts and replacing this with a system based on indicators is a step forward.

Evaluations should play an important role when planning new programmes at the EU-level and in implementing the ERA Vision 2020 as well as being a useful tool on national/regional levels. However, evaluations have to be designed in order to play that role.

For this purpose Member States should work together with the European Commission on the development of **common methodologies** according to what was already achieved and the future targets. In addition to this, a **core set of indicators** has to be established in order to simplify the comparison between Member States. These common methodologies, need to be supported with carefully chosen indicators with built in flexibility to cope with unforeseen crises, and should help to develop a stronger **evaluation culture** and a capacity to use the results from these evaluations.

The EU should aim at more joint actions such as EUFORDIA (European Forum for Research and Development Impact Assessment, held in February 2009 in Prague), and in this context delegations support the conclusions from that conference.

As the number Community actions is growing, the new activities like joint programming and the use of structural funds should be also a part of the European evaluation system.

A more proactive role in the EU evaluation activities would be most welcomed.

During the recent years the progress of the **Lisbon agenda** was focused specifically on boosting jobs and economic growth. This endeavour is expressed by the **Lisbon target of investing 3% GDP** in research and development. On the level of Member States national targets were set at the ministerial or even governmental level. Many times the national targets were consulted with main stakeholders of the research and development process. The 3% target is recognized by the Member States as a driver for policy change and as a stimulus for investments in research and development. There is a relative consensus on the fact that the “public 1%” part of the target has been a relative success, but in many Member states hidden by the high growth of GDP. Yet, in the changing landscape of European economy, the need for a more structured and multifaceted strategy arises. In addition to this, the Lisbon target did not show as effective enough to mobilize the private sector. Furthermore, the 3% objective has progressively lost its power of mobilization, especially when everybody has taken conscience that it would not be reached. For these reasons a smarter and more diversified approach to the target setting would be useful. The criteria to translate the 3% target to national level were not clear enough and the EC is to facilitate the task of the Member States in this respect.

For the future work, especially concerning the setting of the post 2010 targets, it will be necessary to find the right balance between ambitions and credibility, keeping in mind that clear goals are necessary to mobilise political leaders and operational actors. A differentiation between the setting of targets, which is of political nature and the development of indicators, which are an operational tool to set strategies and monitoring progress, will be of special importance. The development of indicators should take into account actual facts like the ERA Vision 2020, broader framework conditions such as the development of the knowledge triangle, productivity, competition and structural change. These indicators could be used both at Community and MS levels taking into account national and sectoral specificities to facilitate the development of national strategies.

Concerning the new targets for investment, a more structured approach would be beneficial. A good option can be to accompany the major investment target by additional targets including the expected outputs and framework conditions. Finally, it is obvious that the overall context of 2009/2010 is completely different of the one observed in 2000/2002. Emerging powers must also be taken into account, and not only the traditional competitors, e.g. USA and Japan.

ERA VISION 2020:

THE ERA DEFINES THE EUROPEAN WAY TO EXCELLENCE IN RESEARCH AND IT IS A MAJOR DRIVER OF EUROPEAN COMPETITIVENESS IN THE GLOBALISED WORLD

THE MODERNISATION OF RESEARCH, EDUCATION AND INNOVATION SYSTEMS GO HAND IN HAND

Strong interactions within the “knowledge triangle” (education, research and innovation) are promoted at all levels, from individual researchers, funding organisations, universities and research institutions, to SMEs and multinational companies and supported by appropriate European mechanisms.

ERA VISION 2020:

Research, education and innovation policies and programmes are jointly designed among public authorities at all levels with appropriate involvement of relevant stakeholders, whenever this is necessary to optimise their effectiveness, efficiency and value to society and the economy.

Existing measures:

- *European Institute of Innovation and Technology / KICs;
Coordination with education and innovation policies at EU and national levels, including the call of the Dec. 08 European Council for "a European plan for innovation, combined with the development of the European Research Area and with reflection on the future of the Lisbon Strategy beyond 2010"(to be developed)*
- *Open method of coordination;*
- *European Technology Platforms;*
- *Joint programming (to be developed – cf. ongoing ERA initiative);*
- *Joint technology initiatives, SET Plan "industrial initiatives";*
- *Art. 169 initiatives;*
- *ERA-Net / ERA-Net+*

The need to better coordinate activities within the **knowledge triangle (education – research – innovation)** both at national and at European level has been spelled out repeatedly in various documents, but the implementation is slow. A wide range of initiatives are taking place within individual parts of this triangle without systematic consideration of interactions with the remaining two, which leads to non systematic policies.

To make the triangle fully functional smooth flow of information and knowledge has to be guaranteed thus leading to complementary activities and policies resulting in a rising spiral effect. This way every financial contribution or policy initiative in one area will have a leverage effect on the remaining two.

In the times we are facing with the economic crisis we can expect less private investment in research, development and innovation. This should be compensated by striving for maximum efficiency in spending and higher allocations by public sector. The knowledge triangle should be practiced on concrete topics and be perceived as a tool for tackling social and competitiveness issues.

Various initiatives are already in place in several Member States under different names, and in fact result in the realization of the knowledge triangle (for example the industrial doctorates). In addition to this, the on-going research and higher education reforms in Member States are contributing to the principles of the knowledge triangle.

At the policy level, **better coordination and interaction of activities on European level is needed** (Lisbon Process, ERA, Ljubljana process, Framework programmes, CIP, forthcoming innovation plan, Bologna Process, etc.) , so that these initiatives speak in “one voice”. The Competitiveness Council covers two sides of the knowledge triangle while education is dealt with in a different formation. The agenda of social security and pension schemes is again under different formations. This configuration results in inflexible and long-lasting negotiations.

At a more operational level, structures as the European Institute of Technology and Innovation (EIT), technology and innovation platforms, clusters, spin-offs, research infrastructures and similar organizations are cornerstones of the knowledge triangle and should be well coordinated (including the issues of governance) so that they complement each other.

Among other benefits, strengthening the relationships in the knowledge triangle will help to foster mobility of researchers (specifically intersectoral mobility) and stimulate private investments. Moreover, a better functioning knowledge triangle has the potential to reduce bureaucracy and increase transparency in transforming knowledge into innovative products and services.

ERA VISION 2020:

The supply of human resources in science and technology is in line with the demand by public and private research actors, and the ERA contributes to the development of appropriate structures for the training and balanced circulation of research talents as well as for favourable work-life balance.

ERA VISION 2020:

Public funding leaves a large margin for bottom-up creativity and a healthy diversity of approaches in the ways challenges are addressed. This includes fully open, non-oriented research, funded via the European Research Council and National Funding Organisations, which are open to direct applications within and across national borders in the EU from individual scientists or teams.

ERA VISION 2020:

THE ERA PROVIDES A SEAMLESS AREA OF FREEDOM AND OPPORTUNITIES FOR DIALOGUE, EXCHANGE AND INTERACTION OPEN TO THE WORLD

European research institutions provide attractive working conditions for researchers from all parts of the world, both men and women, in the framework of a single labour market which enables mobility between countries and sectors with minimal financial or administrative obstacles.

Existing measures:

- *Partnership for researchers (to be developed – cf. ongoing ERA initiative);*
- *Charter and Code for Researchers and implementation mechanism launched at the Rennes Conference (Nov 08);*
- *EURAXESS services;*
- *ERA-LINK initiatives with US, Japan, China and national schemes;*
- *Marie Curie fellowships and bilateral mobility schemes;*
- *"Visa" directive and recommendations (Council directive 2005/71/EC ...)*
- *European Research Council*
- *Mutual opening of national programmes (basic research)*

The focus on improving **research careers**, work – life balance and adequate circulation of European scientific talents is and has been strong within the last years and a wide range of supporting initiatives has been implemented both at European and national levels (Marie Curie activities, ERC, Charter and Code, “Scientific visas directive and recommendation”, network of mobility centres, Researchers’ Portal, ERA-Links, etc.). The existing initiatives and tools have been well chosen and established and should be exploited to their full potential.

Never the less, not even these initiatives had the anticipated effect on attracting the world’s best brains to European research institutes and universities. A strong flow of talents out of Europe is still a serious problem and with reinforced science and technology position of a growing number of Asian countries, this problem could become even more dramatic.

Stepping up and focussing national and European level action, as proposed in the ERA-initiative on researchers "Better careers and more mobility; A European Partnership for Researchers", endorsed by the Council in 2008, is a valuable framework to reverse this tendency. Articulation of Member States Action plans (as suggested by the Partnership Communication) and bringing them into life without unnecessary delay (in close correlation with the on-going university and RD reforms) is to accelerate the improvement of the situation of researchers across the European Research Area.

Guaranteeing open, competitive recruitment and make a reality of the portability of grants (based on the “money follows researchers” principle) on both national and European level would be advantageous. The shortcomings in providing social security and pension schemes should be tackled in order to provide favourable working conditions to all researchers in all stages of their careers. A joint EPSSCO and Competitiveness Council on these matters should be considered by one of the upcoming EU Presidencies. The progressive implementation of the principles contained in the European Charter for Researchers and Code of Conduct for their Recruitment, assisted by the HR Strategy for researchers at institutional level, should help to further ameliorate the working conditions of researchers. Moreover, additional life-long education of researchers in line with their career needs and specifics is needed to be enabled. Better articulation of the needs of the economy and society could be provided by strengthening mobility between academia and industry. The European Partnership for Researchers, in addition to further raising investments in research and setting up top class centres of excellence (including Pan-European research infrastructures) by the Member States would create attractive conditions for research, and thus attract the best brains to the European Research Area.

ERA VISION 2020:

AT THE SAME TIME, S&T CAPACITY BUILDING IS PROMOTED ACROSS THE EU

Utilising fully their research potential, all European countries and regions are building on their strengths while maintaining or gaining access to complementary specialised knowledge and S&T capacities in the rest of Europe. This is achieved with significant support of the Cohesion Policy and appropriate transnational coordination to ensure optimal deployment across Europe.

As part of diversified and rich landscape of top level scientific institutions the major research infrastructures in the ERA promote excellence in science on a globally competitive basis and are co-funded at EU level where appropriate, with rapid development of new distributed infrastructures. They offer equitable access to world class modern research facilities and technology demonstrators.

Existing measures:

- *Cohesion policy / structural funds*
- *Transnational coordination in priority-setting, notably for infrastructures and clusters*
- *Existing international research infrastructures (CERN, EMBL, ...)*
- *ESFRI*
- *Legal framework for European Research Infrastructures (to be adopted)*
- *Access to infrastructures (notably through FP scheme)*
- *Possible contribution of FP and structural funds to the construction of infrastructures*

National Roadmaps for **research infrastructures development** are of most importance since they help clarifying national visions. The ESFRI Roadmap acted as a key catalyst for the development of national ones. However, the current approach is that research infrastructures are constructed under the principle of variable geometry. This implies that at this stage a common European prioritisation is not needed. As no Community money is involved for the construction phase itself, the important issues about the facility are to be decided by the funding Member States.

There is a shortcoming in this approach: on which institutional basis and how to decide on the setting-up of a new research infrastructure when several countries are involved. The delays caused by this shortcoming cause loss of resources and time, which results in the European research, technology and innovation delays behind other big players in the global landscape. The need to develop a specific process for decision making is crucial.

Concerning methodology, the complexity of the environment for decision-making should be highlighted. Clearly a legal framework is needed for multilateral agreements. In addition to this, RIs are not working in isolation and the e-science dimension is important.

The ERA Vision 2020 is broader than the ESFRI Roadmap. Never the less, the work of ESFRI is much appreciated and should continue.

The existing situation, i.e. current geographical unbalance in distribution of research infrastructures throughout the ERA, has to be considered. The e-infrastructures and Regional Partner Facilities are interesting tools to help tackling the current situation and develop better geographical balance in capacities. Structural funds (as well as EIB funds) should be used wisely. The bottom up approach could work in an ideal world, but we do not live in an ideal world. We need to invent a new approach to the distribution of research infrastructures in the ERA.

The relationship between the new EU tools and research infrastructures is to be examined. During the next year GPC should look for the synergies between joint programming and research infrastructures.

Funding is clearly the issue! For smaller Member States there is the problem of access to large infrastructures. Many times they do not have money to enter it. Strengthening and reinventing open access to large infrastructures is a needed instrument for European researchers. In addition to this, there are time effects to be considered, not only for decision, but also for operation of RIs during several 10s of years. In this context, the catalyzing and leveraging role of the EC within FP7 should be increased, and of course for FP8.

It was suggested to investigate the possibilities to create a fund for European research infrastructures. Why not reflecting on the basis of an existing research fund, like the Coal and Steel one created at the end of the CECA Treaty? Then, European policy for research infrastructures might have a more robust financial basis.