EUROPEAN UNION

EUROPEAN RESEARCH AREA AND INNOVATION COMMITTEE

– ERAC –
Secretariat

Brussels, 9 January 2014
(OR. en)

ERAC 1201/14

NOTE

To:	Delegations
Subject:	ERAC Opinion on European Research Area Progress Report 2013

Delegations will find attached the ERAC Opinion on the Report from the Commission on the European Research Area Progress Report 2013 as adopted by written procedure in December 2013.

ERAC Opinion on the European Research Area Progress Report 2013

KEY MESSAGES

1. Introduction: the European Research Area (ERA)

The 2012 European Research Area Communication[1] defines the ERA as a unified research area open to the world and based on the Internal Market, in which researchers, scientific knowledge and technology circulate freely and through which the Union and its Member States strengthen their scientific and technological bases, their competitiveness and their capacity to collectively address grand challenges.

The Communication defined five priorities, which were endorsed by the Competitiveness Council in December 2012[2]:

- More effective national research systems – including increased competition within national borders and sustained or greater investment in research.
- Optimal transnational co-operation and competition - defining and implementing common research agendas on grand challenges, raising quality through Europe-wide open competition, and constructing and running effectively key research infrastructures on a pan-European basis.
- An open labour market for researchers - to ensure the removal of barriers to researcher mobility, training and attractive careers.
- Gender equality and gender mainstreaming in research – to end the waste of talent which we cannot afford and to diversify views and approaches in research and foster excellence.

[1] Doc. 12848/12 of 23 July 2012.
[2] Doc. 17649/12 of 12 December 2012.

- Optimal circulation, access to, and transfer of, scientific knowledge including via the digital ERA - to guarantee access to, and uptake of, knowledge by all.

For each priority, the Communication identified actions to be taken at all levels: national, institutional and Commission level.

2. General messages on the ERA Progress Report 2013[3]

- ERAC would like to stress the diversity of national research systems between the different Member States and also within individual countries. This means that some countries (or parts of the research systems in each country) may advance more rapidly towards the ERA than others and that progress may be more rapid on some parts of the ERA agenda than on others. Nevertheless, a lot has been achieved towards building the ERA. Quite often policies are in place. However, differences in implementation between well-established main research institutions and other smaller institutes can be identified. This diversity (and the existence of national research agendas) should be taken into account when developing a roadmap.

- The ERA Progress Report 2013 is an important initial step in the future monitoring of progress on meeting the ERA priorities that will continue beyond 2014. It builds on a first analysis of the state of play of the implementation of the five ERA priorities in the Member States, including developments before and after 2011.

[3] Doc. 13812/13 of 20 September 2013.

- The methodology of the ERA Monitoring Mechanism, however, does need to be founded on a sound basis. Selection and acceptance of indicators and soundness of data collection methods are crucial factors for a reliable evidence base. ERAC reaffirms its invitation to continue developing the ERA Monitoring Mechanism in drawing for instance on work undertaken for Eurostat. In order to improve data quality it is necessary to increase ownership of the ERA Monitoring Mechanism by national delegates; it is recommended that indicators, questionnaires and data collection methods are discussed with Member States and stakeholders well before the survey is launched, and that Member States invite their constituencies to answer the survey.

- Progress in implementing the ERA is driven by the iterative process of mutual learning using diversity between countries as a strength. The use of legislation to address obstacles to the ERA is not widely supported by Member States and should occur only where a clear and significant need is agreed. The ERA Progress Report 2013 gives an initial indication of the areas where future action may be needed, but this cannot be taken as evidence on which policy conclusions should be based.

- ERAC recommends that the research-related input into National Reform Programmes include mainly new and most relevant ERA-related measures. The progress on existing ERA-related structural reforms in Member States or in Associated Countries should be reported on in the context of regular national ERA Progress Reports, also taking into account innovation-related reforms of the Innovation Union.

3. Recommendations by main policy field

ERAC stresses that the following recommendations should be worked on further in close cooperation with relevant ERA-related groups, also with a view to defining a clear owner for each of the recommendations.

- **Effectiveness of National Research Systems**: ERAC would like to repeat that the concept of an effective national research system depends on national contexts, and that the subsidiarity principle should be fully respected when considering European action. ERAC invites the Commission and the Member States to organise regular mutual learning exercises to deepen the understanding of issues such as adequate levels for competitive funding, open calls for proposals, performance-based institutional funding, international peer review, etc., complemented by suitable indicators to assess their scope. ERAC reaffirms the view expressed in the opinion on the Annual Growth Survey 2013 report that fiscal consolidation at the expense of the R&D will probably endanger future growth and job creation.

- **Optimal transnational co-operation and competition – Jointly addressing grand challenges**: ERAC would like to point out that the Framework Programme (FP) Horizon 2020 remains the main instrument to promote international research cooperation between Member States and Associate Countries. Nevertheless, national research agendas should take into consideration FP priorities when addressing societal challenges, and dedicate sufficient resources for joint programming and other types of transnational cooperation initiatives. ERAC invites Member States, Associated Countries and the Commission to discuss the level of adequate commitment for this purpose. ERAC has recommended a number of actions to further facilitate cross-border cooperation in its Opinion on this subject[4].

[4] ERAC Opinion on Cross-border Cooperation Among Research-performing Organisations for Achieving the European Research Area (doc. 1215/1/13 REV 1 of 7 November 2013.

- **Research infrastructure**: ERAC points out the need for guidelines for reporting in a more homogenous way on research infrastructures in national roadmaps. These roadmaps should cover the funding used for the development of research infrastructures and should. in particular, consider the development of e-infrastructure. Given the high costs associated with the development and operation of research infrastructures, ERAC encourages the Member States to step up their joint investments in global research infrastructures of European interest (when appropriate in conjunction with the Structural Funds).

- **An open labour market for researchers**: ERAC would like to point out that Member States should ensure that formal requirements on matters such as open recruitment must be incorporated into institutional (research funders and research performers) practices. ERAC would support the implementation by Member States and Associated Countries of the recommendations of the various reports by the Steering Group on Human Resources and Mobility (SGHRM), such as the one on access to and portability of grants, as representing a realistic way forward.

- **Gender equality and gender mainstreaming in research**: ERAC would like to invite Member States, research stakeholders and the Commission to step up their efforts to systematically implement gender mainstreaming of R&I policies, programmes, and strategies. The gender equality agenda should be integrated into the research stakeholders' administration, management and assessment practices. ERAC invites Member States jointly with the Commission to identify a set of indicators to evaluate the results of the measures and policies adopted taking into account information collected in the ERA survey (and/or other sources).

- **Optimal circulation and open access**: ERAC invites the Commission and the Member States to continue supporting open access to scientific publications as a general principle for all EU funded projects in Horizon 2020, and, with regard to research data, to develop an appropriate approach adapted to different scientific areas and business-related interests. ERAC recommends that Member States align access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners, adopt and implement national strategies for electronic identity for researchers giving them transnational access to digital research services, and implement and promote the uptake of electronic identity and digital research services.

- **Knowledge transfer**: ERAC invites Member States to ensure that public research contributes to open innovation and fosters knowledge transfer between public and private sectors in their national research and innovation strategies. Member States are invited to improve the recognition and professionalisation of knowledge transfer activities and to strengthen the role of knowledge transfer offices. ERAC calls on Member States to facilitate interaction and the development of strategic partnering and joint research agendas between academia and industry, and to maximize the use of research results, in particular addressing SMEs. ERAC also invites Member States to enhance incentives for researchers in the public sector to engage in knowledge transfer to and from the surrounding society.

- **International cooperation in ERA** : ERAC recommends that the ERA Progress Report 2014 analyse the external dimension in much more depth, both at EU level and Member State level, notably by moving towards the integration of the international cooperation monitoring system into the ERA Monitoring Mechanism.

ERAC Opinion on European Research Area Progress Report 2013

1. Preamble

The first European Research Area Progress Report[5], which combines analysis, statements of planned Commission action and recommendations for action by Member State and research funding and performing organisations, reviews the year 2013 and was published on Friday 20 September 2013. The reflections below have been collected in a very short time span by the members of the Working Group on the European Semester and on Monitoring ERA in order to help ERAC formulate its opinion at the Vilnius meeting on 11 and 12 October.

The comments in this document are mainly based on the policy paper and on the ERA Facts and Figures 2013 report[6]. Further work by this group will be necessary in order to analyse all the data collected by the European Commission.

The following comments are preliminary, and additional comments may be forthcoming as discussions evolve and analyses of the existing data are developed further.

2. The European Research Area (ERA)

The 2012 European Research Area Communication defines ERA as a unified research area open to the world based on the Internal Market, in which researchers, scientific knowledge and technology circulate freely and through which the Union and its Member States strengthen their scientific and technological bases, their competitiveness and their capacity to collectively address grand challenges.

Based on analysis of the strengths and weakness of Europe's research systems and the overall objective of inducing lasting step-changes in Europe's research performance and effectiveness by 2014, the Communication defined five priorities:

- More effective national research systems – including increased competition within national borders and sustained or greater investment in research.

[5] See footnote 1.
[6] Published in book form by the Commission (ISBN 978-92-79-31201-4).

- Optimal transnational co-operation and competition - defining and implementing common research agendas on grand challenges, raising quality through Europe-wide open competition, and constructing and running effectively key research infrastructures on a pan-European basis.

- An open labour market for researchers to ensure the removal of barriers to researcher mobility, training and attractive careers.

- Gender equality and gender mainstreaming in research – to end the waste of talent which we cannot afford and to diversify views and approaches in research and foster excellence.

- Optimal circulation, access to, and transfer of, scientific knowledge including via digital ERA - to guarantee access to, and uptake of, knowledge by all.

For each priority, the Communication identified actions to be taken at all levels: national, institutional and Commission[7].

3. The challenge of measuring ERA progress: initial general conclusions

The main principles of ERA have been fully endorsed by European policymakers at both the European and Competitiveness Councils. It is also right to say that the main values (effectiveness, openness, international cooperation and mobility, gender balance, etc.) are to a large degree shared by the research community in Europe.

The Council, when endorsing the ERA communication did plead for "monitoring of ERA progress in close connection with the European Semester". The ERA Progress Report is a first result of that monitoring. The Report states that "ERA structural reforms and policy making can only be based on a robust monitoring system providing accurate information on national policies and on their implementation by research funding and research performing organisations. The ERA Monitoring Mechanism is an evolving process which is built in close collaboration with the Member States and Stakeholder Organisations. Further improvements will be made, including on methodology and the quality of data."

[7] ERA Facts and Figures Report 2013, p. 10.

ERAC recognises that the ERA Progress Report is work in progress as is also the elaboration of the ERA Monitoring Mechanism, and that the Commission faced many obstacles when elaborating the ERA Progress Report. ERAC would like to stress the existence of these obstacles, since they only can serve to highlight the value of the work that has been accomplished. These obstacles were of a conceptual nature, but also, sometimes, linked to the non-existence of reliable statistics for monitoring the progress of the ERA as well as the shortcomings in reporting on ERA-relevant policies within the National Reform Programmes.

Measuring ERA progress is hard due to a number of conceptual complexities relating to the ERA concept, such as:

- The ERA is in several respects rather descriptive and qualitative in nature and as such it is difficult to assess whether goals have been achieved or not. For example, when is a national research system effective? This is hard to quantify and is most often assessed in qualitative terms. Benchmarking is a difficult exercise and it will probably be very difficult to assess when the ERA has been achieved, although in some areas it might be much easier to assess progress as the necessary conditions have already been identified.

- A reference framework is lacking for some of the ERA actions. This is even more important in an increasingly complex policy/making context (many political goals are been pursued at the same time: R&I-goals, smart specialisation, coping with economic crisis). Baselines are not known and progress is not easy to assess. In consequence, interpretation of numbers becomes very hard: is a low number bad? a higher number good? is “more always better” ? Sometimes even “less” might be the desired direction of change, notably in terms of barriers.

- ERA seems to assume a perfect match between the logics of intervention by national administrations with those at the EU-level. This is certainly not the case. National research systems strive to achieve heterogeneous objectives, while promoting the free movement of researchers as well as scientific findings and technologies in a European area for research also remain important. All this adds to the complexity of deriving policy conclusions.

- The ERA priorities are being presented as independent of each other. But they are not entirely independent and the analyses should take better account of these linkages. For example, developing more effective national research systems has a direct impact on other ERA priorities.

Alongside the conceptual complexity of the ERA concept there are of course data issues:

- Most available official science, technology and industry (STI) statistics are national statistics; this means they were designed to measure national phenomena. Statistics regarding international cooperation, international transfer of knowledge, international money flows, international mobility of researchers, etc. are still in the development phase and are just starting to be integrated in the national surveys. There are many conceptual issues as well as financial and administrative constraints to be overcome or surveys to be improved or elaborated, before one will see reliable statistics in this field. While official statistics are internationally harmonised, administrative data are not and depend on each national context. Benchmarking, based on administrative data, is difficult.

- It takes time before a political measure translates into measurable statistical changes in the real world. This is being underlined by the report, when it states that there are differences in behaviour between top players and others in the same country. And quite often official statistics come late. Official R&D and innovation statistics are being submitted 18 months after the reference period. Other statistics sometimes have bigger time lags.

- ERA actions are quite often qualitative in nature and the outcomes of an action do not fit easily into existing statistics. A balance between qualitative and quantitative data is necessary and should be related to the type of information needed and the action to be assessed. Discussions on what the appropriate indicators are is inevitable.

Taking all these difficulties into account, the report did succeed in mobilising a lot of energy and information:

- All research stakeholders were involved in the collection of data. This is certainly a strong point. There has been feedback that research stakeholders would also like to be involved in interpretation of data (the results of the survey) as well as in the design of policies. Research organisations' role should not be limited to "responsibility for implementing", but extended to responsibility for defining policies.

- Partnerships with European stakeholder organisations as well as those from the Member States should complement the existing policy dialogue and push for ERA implementation. Moreover, the inclusion of local and regional players in the RTI dialogue is of high importance.

- This is the first attempt to measure the state of the ERA. And as such it suffers from all kind of teething problems. But it is a very rich data source that has to be further exploited.

Having said this, ERAC would like to formulate the following preliminary conclusions regarding the ERA Progress Report 2013 and the ERA Monitoring Mechanism:

Conclusion 1*: ERAC would like to stress the diversity of national research systems between the different Member States and also within individual countries. This means that some countries (or parts of the research systems in each country) may advance more rapidly towards the ERA than others, and that progress may be more rapid on some parts of the ERA agenda than others. Nevertheless, a lot has been achieved towards building the ERA. Quite often policies are in place. However, differences in implementation between well-established main research institutions and other smaller institutes can be identified. This diversity (and the existence of national research agendas) should be taken into account when developing a roadmap for each of the ERA priorities.*

***Conclusion 2**: The ERA progress Report 2013 is an important initial step in the future monitoring of progress on meeting the ERA priorities that will continue beyond 2014. It builds on a first analysis of the state of play of implementation of the five ERA initiatives in the Member States, including developments before and after 2011.*

***Conclusion 3**: At this stage, due to the lack of representative data and lack of reference frameworks, many results of the first ERA progress report are subject to interpretation. These issues will have to be addressed in debates and future exercises. ERAC encourages the Commission to give timely information on the planning and setting up of the next stakeholder survey, including the composition of the stakeholder sample and circulation of the questionnaire in ERAC. It is recommended that both (survey and content of the questionnaire) are discussed with Member States and stakeholders before the survey is launched, and that Member States take ownership of the survey and invite their constituencies to answer. This survey should concentrate on these issues which cannot be addressed through official statistics (by Eurostat and national offices).*

ERAC recommends that after 2014 the survey should follow a 2-year cycle rather than being repeated each year, since quite often changes occur gradually and thus take time before they can be observed and measured. An unnecessary burden on respondents should be avoided. The methodological and framework issues identified in respect of the 2013 and 2014 surveys should be further examined in detail through consultations with Member States and key stakeholders.

***Conclusion 4**: The methodology of the ERA Monitoring Mechanism needs to be founded on a sound basis. Selection and acceptance of indicators and transparency of taxonomy are crucial factors for a reliable evidence base. To ensure compliance, ERAC reaffirms its invitation to continue developing the ERA Monitoring Mechanism in close coordination with the relevant process followed by Eurostat (Council Conclusions 17649/12, 12.12.2012, pt. 26). Streamlining the various processes of data collection would also help to minimise the burden on stakeholders. A discussion in ERAC on a final list with a limited set of indicators to keep track of the ERA would be welcomed, which could be submitted to Eurostat (and national statistical offices). The Commission should also make further progress in aligning ERA related data collections with similar data collections by the OECD.*

Conclusion 5*: Progress in implementing the ERA is driven by the iterative process of mutual learning with respect to the status quo and potential of the Member States and using diversity between countries as a strength. The use of legislation to address obstacles to the ERA is not widely supported by Member States and should occur only where a clear and significant need is agreed, i.e. only as a last resort. The ERA Progress Report 2013 gives an initial indication of the areas where future action may be needed, but cannot be taken as evidence on which policy conclusions and/or legislative action should be based.*

4. Recommendations by main policy field

ERAC stresses that the following recommendations are being worked on further in close cooperation with relevant ERA-related groups with a view to defining a clear owner for each of the recommendations.

a. Effectiveness of National Research Systems

The ERA Progress Report 2013 underlines the importance of competitive research funding and performance based institutional assessments, applying the core principles of international peer review.

Effectively designed national research systems are desirable from the Member States' point of view. Nonetheless, they are not a precondition for completing the European Research Area. The effectiveness of each individual Member State's research system has to be measured in terms of its respective system's objectives. These objectives range from educating a sufficient number of knowledge workers to meet the country's own needs in science and research or cope with market failures, or successfully occupying thematic niches to contributing to locational advantages for the country's own economy in European and global competition.

For a number of reasons the objective of increasing the effectiveness of national research systems does not appear so far to be well defined in the current ERA priorities:

- There is no baseline to establish the base level departing from which the Member States should improve their effectiveness. The EU-average is not necessary the best baseline for each of the Member States.

- The effectiveness of a research system does not only depend on public institutions, but is increasingly also subject to governance by autonomous RTI players. Governments and the autonomous RTI players can have quite different ideas as to what constitutes an effective national research system (while avoiding the crowding out of private investments).

- "Competitive funding", "open calls for proposals", "international peer review", "assessment of research-performing organisations" are not ends in themselves but are means by which an effective RTI system can be achieved.

- Increasing competitive funding of research at the expense of institutional basic funding[8] as suggested by the European Commission does not sufficiently take into account the fact that there is no optimal balance of types of funding (competitive/institutional);[9] Project-based funding may have shortcomings such as "emphasis on short-term, low-risk projects and away from longer term fundamental research. It may also have negative effects on institutional capacities to invest in infrastructures and in non-priority research areas", as noted by the OECD.[10] Mutual learning exercises are probably a good way forward to cope with the issue better.

- An assessment of the effectiveness of national research systems must not be carried out without considering the effects of R&D on developments in a Member State's economy and labour market[11].

8 Which can also be performance based on the basis of peer review evaluation, in which case it is also to a certain degree competitive.

9 The European Commission recognises this fact within the framework of its Impact Assessment on the Communication "A Reinforced European Research Area Partnership for Excellence and Growth", SWD(2012) 212 final, p. 90.

10 http://www.oecd.org/innovation/policyplatform/48136600.pdf.

11 How to do this could be a subject for a mutual learning seminar on the basis of national practices.

Conclusion 6*: Notwithstanding the critical considerations above, ERAC supports an open, factually well-founded dialogue on the effective development of national research systems, complemented by suitable indicators. The recently presented ERA Progress Report provides a good starting point for this.*

Conclusion 7*: ERAC would point out that the concept of an "effective national research system" depends on the national context. ERAC recommends the regular organisation of mutual learning exercises to deepen the understanding of issues such as adequate levels for "competitive funding", "open calls for proposals", "performance-based institutional funding", "international peer review", etc. These elements are key to achieve "effective national research systems".*

Conclusion 8*: The dialogue on the effectiveness of national research systems between the European Commission, the Member States and the Associated Countries should continue, bearing in mind two important principles: (1) the principle according to which the Union shall not act in areas which do not fall within its exclusive competence if and insofar as the objectives of the proposed action cannot be sufficiently achieved by the Member States, either at central or at regional and local level (subsidiarity, Article 5of the Treaty on European Union) and (2) the effects which a national research system should have on a Member State's innovation dynamic and business location should also be considered in their partnership agreements and smart specialisation strategies.*

The effectiveness of national research systems is also influenced by the amount of public funding available for research and development. The ERA Facts and Figures Report points to a dramatic evolution: total government budget appropriations or outlays for research and development (GBAORD) as a percentage of Gross Domestic Product (GDP) have gone down since 2009 from 0.78 % in 2009 to 0.75 % in 2010 and 0.72 % in 2011.

The Facts and Figures Report points to the necessity to take into account indirect support to R&D through tax incentives. It is however not clear at the moment[12] whether these tax credits compensate for the fall in GBAORD.

Conclusion 9*: ERAC reaffirms the view expressed in the opinion on the Annual Growth Survey 2013 report that fiscal consolidation at the expense of R&D will probably endanger future growth and job creation.*

b. Optimal transnational co-operation and competition – Jointly addressing grand challenges

The ERA Progress Report acknowledges the EU Framework Programme (FP) as the most powerful instrument to support transnational cooperation. But it also calls for a better alignment of national research programmes and an improvement in interoperability between national programmes in order to facilitate further cross-border cooperation. The report states that less than 1 % of national public funding (the framework programmes and ESA excluded) is spent on transnational research.

ERAC shares the view of the Commission that cross-border research co-operation is well anchored in Europe. The EU Framework Programme (Horizon 2020) is designed to support and leverage EU-wide and international cooperation in research. It is the main instrument to promote transnational research cooperation between Member States and Associated States. All Member States show a strong commitment to implementing joint research agendas addressing grand challenges, and in participating in several Article 185 initiatives and ERA-Nets.

The FP catalyses priority setting and good practice of research policies on the European level and in turn it reflects on political strategies of Member States, some of them having streamlined their national activities with the FP. Thus, the FP serves as a blueprint for a common approach to research and innovation policies throughout Europe.

[12] The coming OECD STI-scoreboard will publish the results of the latest data collection on tax credits.

Outside the FP, Member States and partner countries initiated concerted actions in various thematic fields and operational settings giving credit to common objectives and stakeholder needs. In joint programming as a Member-States driven concept, participation in initiatives is voluntary and carried out according to the principles of variable geometry and open access. The Council approved framework conditions and voluntary guidelines to support the governance of joint programming initiatives which could become a standard to improve interoperability. So far, all Member States participate in at least one - many in several - of the joint programming initiatives, depending on country size and research potential. According to the ERA Progress Report, the level of alignment needed to invest in joint programming initiatives is assessed as “too low” to solve the major societal challenges that Europe has to face. The High Level Group for Joint Programming (GPC) is currently setting up working groups focused, among others, on alignment of national programmes, long-term commitment, guidelines and future initiatives. During the JPI Conference in Dublin early 2013 mutual consent was reached to step up efforts for further implementation of each JPI. In Member States' view, already much has been accomplished. ERAC invites the Commission together with the Member States to a discussion about the level of commitment deemed appropriate for this purpose.

Joint research agendas are also implemented outside the FP through bilateral or multilateral agreements and also through participation on major science and technology (S&T) EU intergovernmental organisations such as ESA,ESO, CERN, etc. Within those actions provisions for cross-border interoperability of national programmes such as cross-border cooperation models (lead agency. etc.) or mutual recognition of other Member States' evaluations are established. The programmes are defined and largely funded at national level out of budgets responsive to the national priorities. As a consequence, arrangements facilitating cross-border interoperability of programmes will be introduced whenever it serves the scope of a specific measure.

***Conclusion 10**: ERAC would like to point out that the Framework program (FP) / Horizon 2020 remains the main instrument for promoting international research cooperation between Member States and Associate Countries and that many countries have aligned their national activities with the FP. National research agendas as well as transnational joint research outside the FP are financed out of national funds. We must therefore not lose sight of the national priorities around the own research objectives that are pursued with these funds.*

***Conclusion 11**: In spite of the achievements in jointly addressing societal challenges, namely by implementing the instruments of the FP especially designed for this purpose and by fostering joint programming initiatives, in the ERA Progress Report the level of alignment is assessed as "too low" to solve the major societal challenges that Europe has to face. ERAC invites Member States and the Commission to a discussion about the level of commitment deemed appropriate for this purpose[13].*

***Conclusion 12**: From a user perspective, the interoperability of systems is crucial for an active and targeted involvement in research and innovation. In programmes and initiatives under the responsibility of Member States ERAC encourages, wherever possible, streamlining of the basic rules of participation in order to provide maximum transparency and lessen the administrative burden for participants.*

A few considerations could be added regarding data and the indicators used.

The above mentioned number of 1% of public research funding going to transnational research seems to underestimate the situation in research cooperation in Europe. The Facts and Figures Report signals a high number of funding organisations co-operating without the involvement of the EU Framework Programme.[14]

13 The GPC has started working on this issue.

14 According to pilot statistics gathered by Eurostat in 21 Member States, the 2010 R&D budget directed towards transnational coordinated research was 3.79% on average.

If one wants to measure **research agenda coordination**, meaning the trans-national cooperation resulting from policy decisions, then budget allocation decisions are a good indicator. But leaving out the FP and ESA from the calculation does not make sense. A correct calculation would indeed consider the FP, European-level intergovernmental research programmes and agencies (such as ESA, EMBO, EUREKA, COST), FP instruments of coordination (ERA-NET, ERA-NET+, JTIs, JPIs, Art. 185,), and most probably intergovernmental research infrastructures such as CERN, EMBL, ESO, ESARF, ILL, etc. This kind of calculation yields a rate of research agenda coordination in Europe somewhere in the region of 10% of European public budget allocations to research. One could also discuss what denominator to use. If one considered that institutional funding is a sort of long-term baseline funding that keeps national facilities and infrastructures running and provides research capabilities and capacities within each country, then taking project-based funding as a denominator would make more sense. Given that project-based funding is worth about one third of European budget allocations (average based on 10 Member States), then the 10% figure (excluding intergovernmental institutional funding) should be multiplied by three. This would mean that about one third of European project-based research spending is used for some form of transnational cooperation.

If the objective is **collaboration between researchers**, then the figure above is not a good indicator. In the research environment a lot of coordination goes on either before or without ad hoc funding decisions. In other words, the institutional funding mentioned above includes a great deal of everyday collaboration between labs, research teams, individual researchers. The best indicator for this kind of collaboration, regardless of whether it is fostered by coordinated funding or by spontaneous, bottom-up contacts, is given by co-authorship data. In this respect, a recent Science Europe-Elsevier report[15] estimates that in 2011, 13% of European scientific publications were the result of cross-border European institutional collaborations.

15 The OECD has also published data on international collaborations, but the source is the same as the Science Europe-Elsevier report, the Scopus database.

Conclusion 13*: ERAC would like to point out that the extent and importance of co-operation between national administrations, research institutions and individual researchers differs depending on which indicators are used. ERAC invites the Commission and Member States to come up with a set of indicators in order to monitor international collaboration at different levels: national administrations, research institutions and firms, and at the level of the individual researcher, whilst acknowledging that there are no optimal levels to be reached.*

c. Research infrastructure (RI)

The ERA Progress Report puts forward the following recommendations: the need for more transparency regarding the conditions for access to research infrastructure, the need to address financial, management and political barriers and the need to align RI roadmaps and their development.

ERAC would also like to draw the attention to a few points that are considered relevant:

- Most Member States have set up national roadmaps for research facilities in response to the ESFRI roadmap even if they are not always homogenous, which makes comparison difficult. It is essential that ESFRI remain an independent forum, but it is important that the Commission facilitates its work, not only by working together but also by funding the preparatory phase of new ESFRI projects and stimulating the operational phase for existing ESFRI projects or projects in the building phase. Synergies with the thematic work programmes addressing societal challenges will strengthen the existing and newly built infrastructures.

- National funding is not always available. Sharing the costs of a facility with other countries helps to build the facility while at the same time stimulating collaboration among the scientists. Synergy with other funds, such as the Structural Funds (partnership agreements and smart specialisation strategies), will also help Member States to construct research facilities.

- Concerning access to facilities, the Commission has drawn up a first draft of the Charter of Access. The Member States do welcome transparent and harmonised conditions for transnational access to Research Infrastructures. The Commission should continue in Horizon 2020 to stimulate the integration and opening up of existing research national infrastructures of pan-European (and regional interest) for both academia and industry.

- For scientists, policy makers and industrial users it is essential to know where and what type of research infrastructure is available and how to access it. The recent mapping exercise of the MERIL project is now being developed into a very useful database. Support in Horizon 2020 is a must for continuous update. Mapping results may be embedded in the ERA Monitoring Mechanism.

- An important step towards facilitating the appropriate partnership for setting up research infrastructures has been the European Research Infrastructure Consortium (ERIC) regulation, a legal framework to facilitate the joint establishment and operation of research infrastructures of pan-European interest. The ERIC regulation is now becoming one of the main legal entities chosen for setting up an international research infrastructure in Europe. It is a format that is equally appropriate for single-sited, distributed or virtual facilities.

- Many of the research facilities are in fact information and communication technology (ICT) based e-infrastructures and share the same fundamental ICT questions and solutions. Finding common answers is important not only to prevent duplication of work but also to learn faster from each other. E-infrastructures are becoming more and more important in science because they enable increasingly data-intensive collaborative research. However e-research infrastructures are often less visible, hence less visible in national roadmaps.

Conclusion 14*: ERAC subscribes to the recommendations in the ERA Progress Report on Research Infrastructure and would like to draw attention to the necessity of identifying guidelines for reporting on the national roadmaps in a more homogenous way, which should include funding associated with their development. National roadmaps should, in particular, consider the development of e-infrastructure. Considering the high cost of research infrastructure, ERAC encourages the Member States to step up their joint investments in global research infrastructures of European interest (when adequate in conjunction with the Structural Funds).*

d. An open labour market for researchers

The ERA progress report stresses three main recommendations regarding open merit-based recruitment, removal of barriers preventing the access to and the portability of national grants and the promotion of a wider uptake of the innovative doctoral training principles.

The Facts and Figures Report also deals with attractive careers, mobility of researchers (intra-sectoral and international), social security issues, etc.

ERAC is satisfied with the analyses proposed in the ERA Progress Report and the focus on a limited number of areas where there may be scope for quick progress:

- It is not apparent that the statement that "around 40% of EU researchers indicated that they were "dissatisfied" with open recruitment practices at their institution" is a meaningful statistic. This is a median figure drawn from the MORE2 survey and the range of respondents expressing dissatisfaction varies considerably between Member States. The Facts and Figures Report does however provide some indication of how "good" practice on recruitment could be defined in formal terms which might usefully have been noted in the Report, even if they obviously cannot be seen as exhaustive and individual institutions may adopt rather different approaches which obtain satisfactory outcomes within the context of the recommendation (which is in itself unproblematic);

- The very "strong" recommendation on grant access and portability goes well beyond the brief and rather muted coverage of this issue in the Facts and Figures Report (page 24). It is also very surprising that neither the Working Document nor the Report references the Report on Access to and Portability of Grants adopted by the SGHRM in May 2012, which itself makes a series of recommendations[16]. These are based on action by funding agencies to open schemes to applications from non-residents and to work towards implementing general principles on grant portability as defined in the "money follows researcher" principles while accepting that implementation may be gradual and incremental. They also provide for identification of remaining barriers, on-going monitoring of schemes allowing for grant portability and consideration of grant portability and access in conjunction with other ERA measures, notably open recruitment These are much less radical (and considerably more realistic) than a simple recommendation that Member States should allow open ended accessibility to and portability of national grants overnight.

- The recommendation on promoting the uptake of innovative doctoral training principles is useful and acceptable.

- In terms of mobility, the report focuses on transnational and intersectoral mobility. It is important to recognise that there are other forms of mobility which may also stimulate excellence such as short-term stays, virtual mobility and combined academic/industry positions.

[16] "Access to and portability of grants", Report adopted by the ERA Steering Group on Human Resources and Mobility, Brussels, 23 May 2012 (published by European Commission). Reference could also be made to the ongoing work undertaken under the EURAXESS umbrella, according to the SGHRM. The SGHRM also pointed to a series of recommendations in their report entitled "Human Resources issues, including the HRS4R and other examples of good practice not directly linked to the Charter & Code (2012)" and also the report of the ERA-SGHRM WG entitled "Professional Development of Researchers – Provisions for the Future (2012)".

Conclusion 15*: ERAC would like to express general satisfaction with the focus on a few recommendations with scope for quick progress. ERAC would like to acknowledge that there is a lot of good practice already being implemented as stated in the Facts and Figures Report. ERAC considers that this needs to be generalised more widely. ERAC would like to point out that the biggest issue in the medium term may be less ensuring that formal legal texts are in line with key ERA objectives as set out in key documents such as the Charter and Code (important though that is) but rather ensuring that formal requirements on matters such as open recruitment are absorbed in institutional mentalities. This might be a topic for a future mutual learning exercise.*

Conclusion 16*: Regarding access to and portability of grants, ERAC would support the implementation of the recommendations of the Steering Group on Human Resources and Mobility's report as representing a realistic way forward.*

e. Gender equality and gender mainstreaming in research

The ERA Progress Report and the Facts and Figures Report state that the ERA still suffers from a substantial loss and inefficient incorporation of highly skilled women, and from a lack of a gender dimension in research content and innovative domains. Even if strategies, incentives and specific measures to promote gender equality are in place in at least 18 Member States to various degrees, specific targets for gender balance or specific legislation for gender equality in research are not broadly implemented. Room for actions remains also at the level of research-performing organisations, including universities, to facilitate flexible careers, to apply recruitment and promotion policies and to provide support to leadership development for female researchers. Very few performing or funding organisations include a gender dimension in research and innovation content of programmes, projects and studies.

The FP7 Science in Society work programme provides support to universities and research organisations to set up and implement gender equality plans. Up to now, 11 projects are funded involving around seventy research organisations and universities.

In the Commission proposal for Horizon 2020, the Commission is committed to promoting effectively gender equality and the gender dimension in research content, including them in its programmes.

Conclusion 17*: ERAC would like to invite Member States, research stakeholders and the Commission to step up their efforts, based amongst others on the recommendations of the Helsinki Group. In particular, Member States and the Commission should systematically implement gender mainstreaming of R&I policies, programmes and strategies, through gender equality plans. Gender equality agenda should be integrated into the research stakeholders' administration, management and assessment practices (see Annex 2[17]).*

Conclusion 18*: ERAC invites Member States jointly with the Commission and the stakeholders to identify a set of indicators to evaluate the results of adopted measures and policies taking into account information collected in the ERA survey (and/or other sources).*

Conclusion 19*: ERAC invites Member States jointly with the Commission to use the best practices to foster policy learning in this area and to serve as potential future standards. Any collection of best practice examples should build on existing knowledge, e.g. Helsinki Group and EU funded projects and the newly launched ERA Net Gendernet. All results should be disseminated widely in all EU Member States to encourage individual action at national levels.*

17 Additional comments by the Helsinki Group (HG) were also attached in the annex. In these the HG calls upon the Commission to propose a recommendation to Member States with common guidelines on institutional change to promote gender equality in universities and research institutions.

f. Optimal circulation and open access

Open Access

The ERA Progress Report and the Facts and Figures Report point to the success of open access in Member States. Open access to scientific publications and research data is envisaged as a way to improve the efficiency and impact of research and innovation investment. It has gained significant ground among the research community and research administrators throughout Europe and the rest of the world. At least 25 Member States have established the legal and administrative framework in support of open access. At least eight Member States have measures in place which foster open access to both publications and data. Most funding organisations support open access to publications and data. Green open access seems to be the preferred approach supported by funding organisations. Research-performing organisations report that a large share of their researchers' publications is open access available.

ERAC notes that open access policies stem from national governments, regional governments, research-funding organisations or research-performing organisations. The scope of the open access mandate therefore depends on the level of implementation and it addresses different stakeholders, so the number of mandates is not appropriate for judging compliance with open access goals. In addition, the linkage between promoting open access and the use of national merit and evaluation procedures in researchers' promotion has to be considered.

ERAC notes that open access to research data is not an easy mandate to implement. There are several scientific areas, especially health, biomedicine and those areas close to competitive industrial sectors, where intellectual property rights (IPR) rules prevent data sharing and protect strong economic interests. Thus, the implementation of open access measures has to break not only international frontiers but also strong inter-sectoral barriers.

Conclusion 20*: ERAC invites the Commission and the Member States to continue supporting open access to scientific publications as a general principle for all EU funded projects in Horizon 2020, and, with regard to research data, to develop an approach that takes into account different scientific areas and business-related interests.*

***Conclusion 21** : ERAC recommends that barriers and inertias are removed in order to achieve a full transformation of the scientific market business model into a free open access one. A major consensus is required among all players and processes involved in the current scientific information system and its merit allocation processes.*

Current trends and digital ERA

The ERA Progress report calls for seamless online access to digital research services, for the federation of electronic identities for researchers and for harmonised access and usage policies for e-infrastructures and digital research services.

Despite the difficult economic climate in Europe, companies in all industries and public sector continue to invest in digitisation, and the speed of digitisation has not slowed down. Nevertheless, in Europe, the Networked Readiness Index (NRI) reveals the deep digital divide between the most advanced Nordic economies and countries in Southern, Central and Eastern Europe. As most knowledge creation and transfer today uses digital means, digital readiness and e-infrastructure are crucial for research and innovation. Today, the digital dimension of the ERA, as a seamless online space for efficient digital cross-border collaboration, and for the creation, access and sharing of scientific knowledge, is a pre-requisite for future research and innovation in Europe.

Member States have divergent approaches on taking advantage of ICT networks, tools and e-infrastructures for research. As recognised in the ERA progress report, only seven Member States support a wide range of actions and another 14 Member States some necessary measures to promote digital research services and e-infrastructures. However, to reap the benefits of the potential of ICT-enabled new means and forms for scientific collaboration, open access to research results and data, better exchange between science and society and accelerated take-up of research results in industry, full attention must be paid to the digital dimension of the ERA in all Member States. To maximise the potential and benefits of digital science in Europe, e-infrastructure and associated digital services must be seamlessly available throughout the ERA - and even beyond, both for public and private research partners.

ERAC notes that the way forward for strengthening the digital ERA demands further investment in enabling e-infrastructures for research and innovation, increased ICT innovation in all fields of research and a paradigm shift towards collaborative and open R&D practices enabled by ICT networks and platforms. These contribute to brain gain, innovation, better science, improved competitiveness and hi-tech job creation. At the same time the EU needs big international projects where researchers and research partners collaborate on addressing common challenges, through the facilities provided by e-infrastructures and digital research services.

Conclusion 22: *ERAC recommends that Member States align access and usage policies for research and education-related public e-infrastructures and for associated digital research services enabling consortia of different types of public and private partners, adopt and implement strategies for electronic identity for researchers giving them transnational access to digital research services and implement and promote the uptake of electronic identity and digital research services.*

g. Knowledge transfer and open innovation

The ERA Progress Report and the Facts and Figures Report do note that Member States are very active in this area. The vast majority of countries (90 %) have policies in place for the management of intellectual property from public funding, according to a Commission financed study on knowledge transfer. But the report also notices that procedures in Europe are very diverse. Knowledge transfer systems vary greatly.

The Facts and Figures Report found that intensive knowledge transfer policies go hand in hand with national innovativeness, and the ERA Progress Report argues in favour of "further defined, implemented, and assessed national knowledge transfer strategies".

ERAC notes that improving access to new technologies is not enough; creating better conditions for entrepreneurship and innovation is also crucial. Research investments are falling further behind our competitors. Having made progress on the EU-wide patent system, policymakers' attention should be directed towards an integrated EU approach to digital rights, copyright and data privacy policies.

Conclusion 23*: ERAC invites Member States to ensure that public research contributes to open innovation and fosters knowledge transfer between public and private sectors through national knowledge transfer strategies. ERAC invites Member States to investigate whether procedures can be aligned throughout Europe.*

Conclusion 24*: ERAC suggests ensuring optimal interaction and linkages and strategic partnering between academia and industry and defining joint collaborative research agendas to maximize the use of research results, in particular addressing SMEs, and recalls the essential role of Horizon 2020 in achieving this goal. ERAC also suggests improving recognition and professionalisation of knowledge transfer activities and strengthening the role of knowledge transfer offices. ERAC also proposes enhancing incentives for researchers in the public sector to engage in knowledge transfer to and from the surrounding society, by means of merit or funding structures.*

h. International cooperation in ERA

The ERA Progress Report has a short paragraph on international cooperation which concludes that the realisation of the ERA will "facilitate international cooperation in research and innovation" and " create a global level playing field".

As underlined in the Council Conclusions on international cooperation from May 2013, the international dimension remains an important part of the ERA. This should be reflected in the on-going process. ERAC considers that the international dimension is not dealt with in a satisfactory way in the ERA Progress Report.

It is not clear from the report/supporting documents how international cooperation is being monitored and assessed at a country or EU level. It is therefore difficult to use the ERA Progress Report as a baseline for assessing the external component of the ERA.

In this context it is also important to distinguish between the integration of international cooperation in the five priorities on one hand and the external dimension of ERA on the other hand.

Finally, ERAC recalls the importance of Horizon 2020 as the most important instrument at EU level to support and leverage R&I cooperation with third countries and the external dimension of the ERA. It should be used in a proactive manner to support these areas.

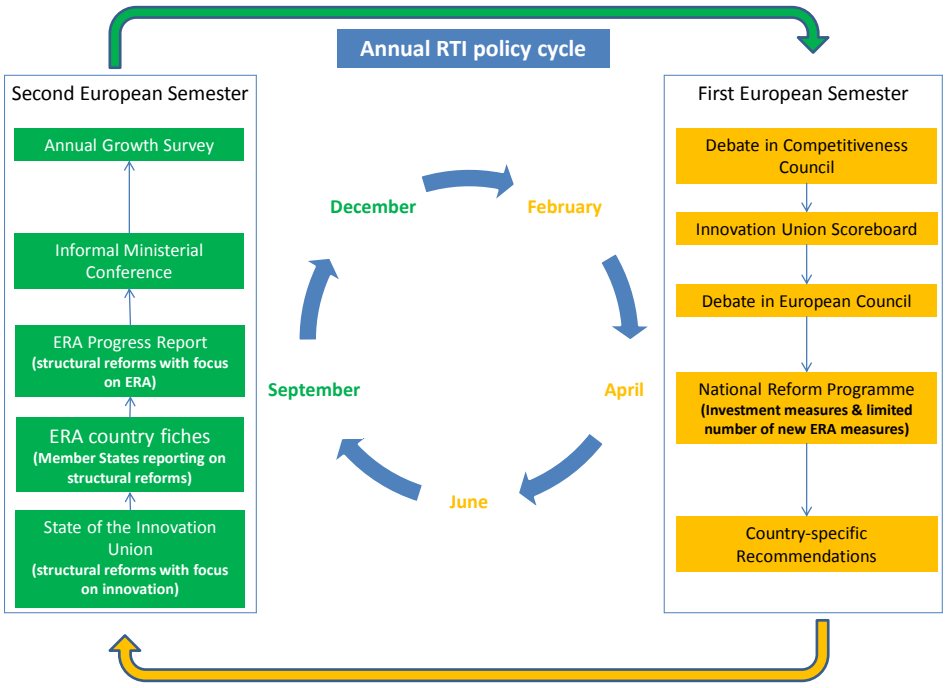
Conclusion 25*: ERAC recommends that the external dimension should be analysed in much more depth in the ERA Progress Report 2014 – both at EU level and Member State level, notably by moving towards the integration of the "international cooperation monitoring system" into the ERA Monitoring Mechanism.*

5. The governance of ERA-related structural reforms

In line with the Council Conclusion of 11 December 2012, Member States must identify the national reforms needed for achieving the ERA in the context of the Innovation Union. An ERA monitoring mechanism is to be established that is closely connected to the European Semester. The question is how to implement this connection in a pragmatic, efficient and effective way?

The European Semester is dedicated to the consultation, preparation and implementation of National Reform Programmes of the Member States, with a view to achieving a national R&D quota by the year 2020. Activities for implementing the R&D quota are, as a rule, investment measures, while ERA mainly deals with structural measures.

The most important new initiatives regarding ERA could be listed in the National Reform Programmes next to the investment measures dedicated to achieving the target put forward in the headline indicator. However, a more comprehensive overview of ERA-related reforms should be given in the context of the Innovation Union and the annual ERA Progress Report.Member States should therefore report comprehensively on ERA-related structural reforms. Thus, the European Semester could be completed within a full annual RTI policy cycle (see graph below).



The policy cycle kicks off at the end of the year with the European Commission's Annual Growth Survey, based on which the Competitiveness Council and the European Council conduct debates in February / March, taking into account the Innovation Union Scoreboard.

By the end of April, all Member States submit their RTI measures as part of their National Reform Programmes to the European Commission. RTI measures in the National Reform Programmes focus on achieving the investment target of 3% and on highlighting the new and most relevant structural reforms regarding ERA.

In May, the European Commission presents the country-specific recommendations. Then, Member States turn to the implementation phase during the second half of the year. During this second European Semester (July to December), there should be room for policy learning and policy debates on the State of the Innovation Union as well as on ERA structural reforms. Member States, in partnership with the European Commission, update their ERA country files.

The desirable dialogue on such issues should take place through exchange and learning processes. A regular ERA ministerial conference could provide important ideas on the political level regarding this dialogue.

ERAC, ERA-related groups, stakeholder and ERA expert groups should actively contribute during the entire annual RTI policy cycle.

Conclusion 26*: ERAC recommends streamlining the role of ERA-related measures in the National Reform Programme to the new and most relevant initiatives. Within the context of the European Semester, Member States should formulate which of the ERA objectives they consider as priority at national level and the way to address them.*

The progress on Member States' existing ERA-related structural reforms should be reported on, analysed and debated in the context of the regular ERA Progress Report, also taking into account innovation-related reforms of the Innovation Union.

ANNEX 1

Contribution of the Helsinki Group on Gender in Research and Innovation to Monitoring the Progress and Implementation of ERA

Presentation by LT representative, Co-chair of the HG during Lithuanian presidency

The Helsinki Group on Gender in Research and Innovation (the HG) welcomes the European Research Area Progress Report 2013 adopted on 20. 9. 2013 and the continued development of a robust monitoring mechanism to report on the achievement of the ERA. The HG fully supports the Report's conclusion that "*Member States should implement comprehensive strategies of structural change to overcome gender gaps in research institutions and programmes"* (p. 7). In line with the conclusions and next steps contained in the ERA Progress Report 2013 and based on discussions at its 28th meeting on 9 July 2013, the HG proposes concrete recommendations to Members States and research performing and funding organizations as well as to the European Commission. These are deemed necessary to make further advances in the achievement of Priority 4 gender equality and gender mainstreaming in the ERA. The following recommendations relate to the key issues of data collection, monitoring and evaluation; use of funding and incentives; and governance and regulation.

Recommendations to Member States

1. **Member States should continue to ensure the availability and harmonization of sex-disaggregated statistics in research and innovation with a view to designing appropriate gender equality policies** particularly, where time series data are available. While gender equality cannot be reduced to quantitative data alone, statistical information is a major indicator of social realities.

2. **Member States should seek to systematically implement gender mainstreaming of R&I policies, programmes, and strategies, in cooperation with relevant external experts and stakeholders.** They should adopt a dedicated **national gender equality strategy in R&I, including a national reporting mechanism on gender in R&I**. To this end, Member States need to *build capacities* by providing gender training for the staff responsible.

3. **Member States should implement and/or continue a dedicated structural change programme at national level for all relevant stakeholders (RPO, RFO),** ideally in cooperation with the European Structural and Investment Funds aimed at institutional, tailor-made projects to accelerate the change process.

4. **Gender balance in research teams and gender content (where relevant) should be included as criteria for funding in performance agreements with RPOs and RFOs or where member states provide institutional funding on a competitive basis** (e.g. relevant indicators would include, inter alia: 40 % representation in evaluation and decision-making positions; the percentage of women Grade A professors; and measures to promote institutional and cultural change etc.).

5. **Initiatives aimed at cultural and institutional change should not be focused solely on STEM (Science, Technology, Engineering and Mathematics) disciplines**. While the situation in STEM is particularly dire in terms of gender equality, the position of women in the *social sciences and humanities*, particularly at full professorial grades and decision-making positions, is equally poor.

Recommendations to Research Performing Organizations and Research Funding Organizations

6. **The gender equality agenda must be integrated into the RFO and RPO administration and management practices**. For successful equality work, RFOs and RPOs need to build capacities. Gender training should be provided to management as well as the HR and administrative staff responsible.

7. **Particular attention needs to be assigned to the elimination of gender bias from the research assessment of individuals at RPOs and RFOs**. Multifaceted action and transparency are needed, spanning gender balance on evaluation committees, clearly defined evaluation criteria, reconsideration of evaluation criteria (especially in relation to mobility requirements, publication lists and career breaks) and gender training for evaluators to recognize the risk of gender bias in the different ways women and men are attributed merit.

8. **The gender dimension should be integrated into research and innovation and the higher education curricula** in order to ensure research quality, long-term sustainability and social robustness of research and innovation, as well as to avoid economic losses. To achieve this, training of research staff and peers at RPOs and RFOs is necessary.

Recommendations to the European Commission

To assist Member States and Research Funding and Performing Organizations in the achievement of these goals, the HG also invites the European Commission to continue its efforts to advance gender equality and gender mainstreaming.

9. **It is vital to ensure systematic gender mainstreaming of research and innovation policies in the ERA and maintenance of dedicated gender-specific policies, funding and structures, involving the Gender and Ethics Unit.**

10. **The Commission should continue to act as a platform for exchange and sharing of best practices and experience**, including through the work of the HG.

11. **The Commission should actively encourage the integration of gender dimension throughout "Horizon 2020" Framework programme specific objectives.**

12. **The Commission should continue to cooperate with the Stakeholder Platform and other relevant European stakeholders** in order to address the current gender inequality in research and innovation.

13. **The gender indicator of the share of Women Researchers in Grade A positions should be included in the Innovation Scoreboard**.

14. **The Commission should continue to improve its own monitoring of the Framework Programme with regard to female participation. Annual, midterm and final reports on Horizon 2020 should provide disaggregated data on the share of women and men in all areas, and devise means for adequate monitoring, when relevant, of the integration of sex and gender analysis in funded research projects.**

30 October 2013

Comments of the Helsinki Group on Gender in Research and Innovation to

ERAC Opinion on European Research Area Progress Report 2013

(drafted by the ad-hoc group ES and ERA)

Drafted by LT representative, Co-chair of the HG during Lithuanian Presidency, based on input from HG members

1. The Helsinki Group on Gender in Research and Innovation (HG) acknowledges the draft ERAC Opinion, and welcomes ERAC's continued commitment to gender equality. The HG also appreciates the reinforced integration of gender equality in Horizon 2020 compared to FP7.

2. While the HG recognizes the importance of the conclusions contained in the draft opinion, the HG feels that they fully reflect neither the contribution of the HG nor the ERA Communication of 17 July 2012. The Council should recall the Commission to propose a Recommendation to Member States with common guidelines on institutional change to promote gender equality in universities and research institutions. In this respect, the HG also recalls the vital role of financial commitments to be made at national level for the advancement of gender equality through dedicated programmes. Gender equality should also be part of performance agreements with RPOs, including Universities. Lastly, the HG recalls the critical importance of the integration of gender in research and innovation content, as a prerequisite for outstanding and socially robust knowledge production and technology design.

3. As regards *Conclusion 17: ERAC would like to invite Member States, Research Stakeholders and the Commission to step up its efforts, based amongst other on the recommendations of the Helsinki Group. In particular, Member States and the Commission should systematically implement gender mainstreaming of R&I policies, programmes, and strategies, and the gender equality agenda should be integrated into the Research Stakeholders' administration, management and assessment practices (see Annex 2)*, on page 11:

The HG wishes to underscore the concept of ‘cultural and institutional change’ cited in numerous Commission documents, including the ERA Communication, as the overarching instrument to implement gender mainstreaming at the national R&D&I level as well as in RPOs and RFOs. This can be done for example through Gender Equality Plans at RPOs and RFOs levels, which would also foster increased homogeneity in Member States’ approach to implementing gender equality. Furthermore, the HG wishes to stress that financial commitment is necessary if the gender equality agenda is to be taken a step further. Thus, RPOs and RFOs should be required to make clear financial commitments to support measures for gender equality.

4. The HG underlines the role of the European Commission (EC) in setting up common guidelines on institutional changes in collaboration with Member States, Associated Countries and Stakeholders. These guidelines should encompass common means to monitor and evaluate the progress. Otherwise, further improvement of the situation is unlikely. The HG also believes that the EC must further discuss with Member States about the possible consequences of no progress or slow progress and the possibilities for more proactive actions from the EU.

5. As regards *Conclusion 19: ERAC invites Member States jointly with the Commission to elaborate a document on best practices to foster policy learning in this area in strong cooperation with other EU initiatives on gender issues in R&I*, on page 11 the HG would like to call attention to the following:

The EC has already provided a set of tools, including best practices; for instance: the Benchmarking Report[1], released in 2008, provides an overview of action in the MS and AC, the Structural Change Report[2] of 2012 contains clear examples of best practices and the Gendered Innovation Report of 2013 gives methods for sex and gender analysis leading to new ideas and innovation. To move on, it is necessary to build on what has already been achieved. The HG holds that it would be more efficient to recommend that Member States and Associated Countries need to make efforts in the area of Gender Equality. They should engage in advancing institutional changes on the basis of the common guidelines defined with the EC.

---

1 http://ec.europa.eu/research/science-society/document_library/pdf_06/benchmarking-policy-measures_en.pdf.

2 http://ec.europa.eu/research/science-society/document_library/pdf_06/structural-changes-final-report_en.pdf.

ANNEX 2

CONTRIBUTION FROM THE GPC TO THE 2013 ERA PROGRESS REPORT

Following the input given by the Commission in the 24th GPC meeting of 25 June 2013, the GPC would like to confirm its interest in addressing the subject of cross-border collaboration which is one of the topics addressed in the ERA Progress Report to be adopted by the Commission in autumn 2013.

Recalling that the GPC regularly explores the relationship between JPIs and Horizon 2020 identifying synergies and complementarities, we take this opportunity to let you know that the GPC is now launching Working Groups which could be of interest for assessing progress in development of the European Research Area:

i. The GPC will continue analysing and fostering the support of Member States to JPIs. It will in particular examine how to maintain long-term commitment of JPIs and how to build sustainability and trust in Joint Programming and in the JPIs.

ii. From 2009 onward, the ten JPIs have done considerable work in developing common visions, establishing governance structures and starting discussions on strategic research agendas and joint activities. The GPC will reflect on ways of aligning national and European strategies/research programmes with the Strategic Research Agendas of the JPIs to promote their alignment, with a view to facilitate Joint Programming Initiatives.

iii. The GPC will continue monitoring the progress of JPIs and of Joint Programming in general. It will in particular contribute to the general philosophy and main criteria for evaluating JPIs as requested by the Council and foreseen by the Commission and JPIs themselves in their Coordination and Support Actions.

iv. The GPC will continue to work on the Framework conditions for Joint Programming with a view to further facilitate cross border cooperation in the field of research on societal challenges in the ERA.

ANNEX 3

Input ERAC WG on KT for the ERA progress report

In the 2012 Commission Communication 'A Reinforced European Research Area Partnership for Excellence and Growth', Member States are invited to:

'Ensure that public research contributes to Open Innovation and foster knowledge transfer between public and private sectors through national knowledge transfer strategies'.

1. Identification of priorities

Framework/taxonomy - Definitions of knowledge transfer and of (best practice) principles of knowledge transfer management. Open innovation and knowledge transfer are key elements and key challenges in contributing to economic growth and development (knowledge economy).

Selected priorities – Member States should (i) develop/re-assess (ii) implement, and (iii) monitor national knowledge transfer strategies in order to ensure open innovation and knowledge transfer between public and private sectors always taking into account that there is no one-size fits all approach especially at the level of the institutions themselves.

Rationale – (political weight, economic impact and feasibility) Knowledge transfer between universities and industry should be made a permanent political and operational priority. National strategies and their implementation are important in this process. In order for this process to succeed, monitoring of the impact of implementation of strategies is crucial.

It is widely recognised in the economic literature that the performance of a (national) economy in terms of innovation and productivity is not only the result of public and private investments. The interactions among producers, users, suppliers and public authorities strongly influence innovation and productivity. Moreover, theoretical and empirical work in innovation economics provides support for the use of scientific knowledge by creating and maintaining industry-science relations to positively affect innovation performance.

Finally, empirical research indicates that correlating knowledge transfer policy activity with selected national characteristics, high knowledge transfer policy intensity tends to go together with high national innovativeness (as measured by the European Innovation Scoreboard) and competitiveness (as measured by the Global Competitive Index).

No missing priorities at this stage

2. Main steps and actions to implement priorities

Granularity

a) Develop and implement national knowledge strategies through support for professionalisation of national knowledge transfer actions.

b) Establish and develop a network of national contact points in order to support the work on national knowledge transfer strategies (cf. Commission Recommendation (2008) on knowledge transfer).

c) Introduce a structured peer review approach to development of national knowledge transfer strategies.

Rationale –Strategies need to be developed, implemented and followed up. Support for professionalisation of knowledge transfer offices and personnel would be a key measure for the follow-up.

The establishment of a network of national contact points, already set up in the context of the Commission Recommendation on knowledge transfer (2008), would be a valuable complement to peer reviews. This network would introduce a permanent dedicated point of contact between Member States (incl. Associated Countries) on national knowledge transfer strategies.

The Innovation Union Communication underlined the role of peer reviews in support for reforming national research and innovation systems. ERAC peer reviews (with Expert Group support) have been conducted on the national research and innovation systems of Belgium, Estonia and Denmark.

Introduction of peer reviews specifically on national knowledge strategies would be valuable in the development and further reform of these strategies. Structured peer reviews need to include proposals for effective follow-up and actions at national level.

The context of national strategies for open innovation and knowledge transfer may increasingly be influenced by the national smart specialisation strategies which are being developed by national authorities and regions as a mandatory element of the use of structural funds in the coming period.

Key stages

- Develop framework for national knowledge transfer strategies
- Implement framework for national knowledge transfer strategies
- Monitor and (re)-assess framework for national knowledge transfer strategies
- Pilot international peer review in a specific initiative, followed by more general roll out.

Milestones

- Establishment of a national knowledge transfer strategy
- (initial) monitoring result(s) and assessment of national knowledge transfer strategy
- System or arrangement with international agencies or other Member States to identify best reviewers
- First national knowledge strategy being assessed through peer review

3. Assessment of operational feasibility and measurability

Proposed indicators

- Number of Member States/Associated Countries with national knowledge strategies. The knowledge transfer study on the implementation of the IP Recommendation could be used with different elements.

- Number of Member States/Associated countries with monitoring-system of knowledge transfer in terms of (process) indicators and/or economic impact. Refer to indicators in *Expert group report on indicators* on knowledge transfer (autumn 2011).

- Number of countries being assessed through structured peer review (as share of total number of Member States/Associated Countries)

Recommend study to develop better taxonomy of systems and means of measurement.

4. Good practice examples

On the basis of the work of the Working Group on Knowledge Transfer, the following examples will illustrate different options for development chosen by the Member States.

5. Recommendations on further fields of work

- Develop national and transnational strategies and encourage their implantation

- Peer learning, dissemination and sharing of good practices in Europe, especially through mobility schemes for all stakeholders (also taking the new science business model of open access into account)

- Guidelines and training materials taking into account the special needs of applied science and industrial partners to foster knowledge transfer between public and private sectors

- Improve recognition and professionalisation of knowledge transfer activities and strengthen the role of knowledge transfer offices