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The EUROHORCs and ESF Vision on a Globally Competitive ERA and their Road Map for Actions to Help Build It

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Foreword

Following the publication of the joint Science Policy Briefing "EUROHORCs and ESF's comments on the European Commission's Green Paper 'The European Research Area: New Perspectives'"¹, the Heads of European Research Councils (EUROHORCs) and the European Science Foundation (ESF) decided to create a joint Task Force to design a Road Map to excellence in science in Europe. The reason is that they wish to play an active role in shaping a European Research Area of Excellence.

The EUROHORCs Assembly and the ESF Governing Council approved in their April meetings a Vision statement on the goals to be reached in the next 5-10 years in order to build a globally competitive ERA. This Vision statement was complemented by an outline of a Road Map for concrete actions by EUROHORCs and ESF Member Organisations, as well as partners, to help build such an ERA. It is a pleasure to recommend both documents for your reading and consideration. The Task Force² is now collecting comments from the Member Organisations, which will be used in the further elaboration of the actions identified in the outline of the Road Map. Concrete action plans to be approved in coming governance meetings of ESF and EUROHORCs are currently being prepared. Following this approval, Member Organisations will be invited to sign up for the implementation of the actions.

Professor Ian Halliday President of ESF **Professor Pär Omling** President of EUROHORCs

5 - EUROHORCs - ESF Task Force Members

¹ ESF-EUROHORCs Science Policy Briefing 29, November 2007

² See page 5 for the membership of the Task Force

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Introduction

A globally competitive European Research Area is a necessity for the advancement of science and for a knowledge-based society in Europe.

Building such an ERA requires complementary actions and a variety of actors: national and European research organisations, national governments, the EU and the private sector.

The European Heads of Research Councils, EUROHORCs, the European Science Foundation, ESF and their Member Organisations, commit themselves to play a key role in shaping this ERA.

EUROHORCs and ESF Vision on a globally competitive ERA

A globally competitive ERA requires:

- 1. An effective European research policy, capitalising on cultural, geographic and scientific diversity
- 2. A stimulating education system
- 3. A single European labour market for researchers
- 4. Adequate funding for top quality curiositydriven research
- 5. Cross-national funding, benchmarking of quality and shared scientific priorities for strategic research and bottom up researcher-driven programmes
- 6. Excellent research institutions
- 7. World-class research infrastructures
- 8. Open access to the output of publicly funded research and permanent access to primary quality assured research data
- 9. Effective and trusted bridges between science, society and the private sector
- 10. Openness to the world

Road Map for actions to help construct the ERA

EUROHORCs and ESF and their Member Organisations commit themselves to developing concrete actions in 11 domains to help construct the ERA. The domains are described hereafter together with an indication of the type of actions that will be considered. The EUROHORCs Assembly and the ESF Governing Council in their April meetings approved the present Vision and outline of the Road Map. The Road Map will now be further elaborated into concrete action plans, to be approved by the October governance meetings. Organisations will then be asked to sign up for the implementation of the actions.

1. Strengthening the dialogue between research organisations and political actors at the European level

Addresses Vision point 1.

A comprehensive ERA requires research policy development at the European political level, encompassing not only EC policies, but also including national policies, in order to get the most out of public spending for science, be it national or European money. EUROHORCs and ESF Member Organisations are often linked to the national political levels. On issues of European cooperation they will aim to coordinate their briefing of ministers before these meet in the European Council. This would be in addition and in support of the EUROHORCs and ESF direct interactions with the Commissioner.

2. Promoting European research careers

Addresses Vision points 2 and 3.

Promoting research careers, by increasing attraction and retention, supports not just the life blood of the future research endeavour funded by EUROHORCs Member Organisations but is also the life blood of industry and other sectors applying and using the results of research. EUROHORCs Member Organisations are both suppliers of research careers (through direct employment, awards and grants) and users. Despite pan-European programmes such as the European Young Investigators Awards, EURYI, and the Starting Grants of the European Research Council, the development of research careers is still very much a national affair, with many opportunities for improvement and many obstacles to be overcome by cooperation. Currently, the ESF Member Organisation Forum on Research Careers, which involves the EUROHORCs Member Organisations and other stakeholders, is identifying optimum conditions and actions that EUROHORCs Member Organisations can take to promote research careers in a European context.

3. Scientific foresight as a basis for joint strategy development

Addresses Vision point 5.

Jointly charting the roads to scientific excellence to meet the scientific and societal grand challenges creates a basis for joint action of research organisations which have no hierarchical or organic link. Foresight provides a mechanism for this, starting with a clearly expressed strategic demand of a group of research organisations, followed by a foresight project to define elements of a longterm research agenda. Such a project should be characterised by the quality of the contents, of the participating scientists and policy makers, of the foresight methodologies, and providing clear recommendations about priorities. ESF and EUROHORCs will engage with other stakeholders to develop the current ESF Forward Looks into such a high quality foresight instrument and to ensure its impact.

4. Developing the ERA towards a European Grant Union

Addresses Vision points 3, 4 and 5.

Research cooperation and excellence will be enhanced by enabling researchers to form collaborative projects and networks which will compete at the highest quality level for support, free from bureaucratic constraints on personal and financial mobility. The ERC is a first – but so far quantitatively small – step in meeting this vision.

Building on the EUROHORCs Money Follows Researcher scheme, the development of Money Follows Cooperation and further work on common administrative procedures, including single peer review, closer collaboration of research funding agencies for the common good of the scientific community will be enhanced. One direction to be followed is the further development of the ESF EUROCORES scheme into a flexible mechanism for joint programming, both for researcher-initiated themes and for strategic, agency-driven topics.

5. Peer Review of researchers and proposals at the European level *Addresses Vision point 5.*

For the benchmarking of 'national' researchers and national projects, instruments such as common international peer review are of key importance. EUROHORCs Member Organisations will build on their own experiences and that of the ESF to establish European-level benchmarks for peer review processes, set up European peer review panels and develop shared European-level peer review resources such as quality controlled shared databases of reviewers.

6. Ex-post evaluation of research projects and programmes

Addresses Vision point 5.

Getting the evaluation of research programmes 'right', to judge their excellence, efficiency, impact and achievement of both scientific and policy goals, is of crucial importance for both improving the internal operations and the external accountability of research organisations. Building on the work of the ESF Member Organisation Forum on Evaluation of Research Programmes, which is gathering best practice and exchanging experience, further work on sophisticated actual and potential impact measures and methodology will greatly strengthen and sharpen strategic decision making for both individual organisations and collective Europeanlevel decision making.

7. ERA Connect and Regional Clusters of Excellence

Addresses Vision point 6.

The ERA currently lacks strong mechanisms to launch joint European programmes between research performing organisations, including universities, in which funding is operated according to simple procedures that maintain the focus on excellence, encourage initiative and combine flexibility with accountability for the researchers involved. A new European funding scheme, ERA Connect, may be developed in which participants research-performing organisations and universities
that have developed a strategic vision of their actions or wish to come together to join forces on the basis of common foresight exercises in a specific area, can embark on a common research programme.

Another new model for bringing together institutional research players in Europe could be an extension to the European scale of the concept of 'clusters', such as those created recently in France, Germany or Spain³, regionally anchored but not confined by national borders.

The research performing organisations in EUROHORCs would like to see European Regional Clusters of Excellence in which European research-performing organisations and universities will jointly finance and organise new research topics, which are to be dealt with urgently within Europe and beyond and, where relevant, be supported by research funding organisations.

8. Shared funding and exploitation of medium-sized research infrastructure

Addresses Vision point 7.

Research excellence needs excellent research infrastructures which not only underpin research but also lead its development and create an attractive climate for world-class researchers. Operating at a level different from the EU Member States European Strategy Forum for Research Infrastructure, ESFRI, many EUROHORCs Member Organisations fund and operate research infrastructures of national and European importance. They will create a platform to discuss joint investments in networking of and access to medium-sized research infrastructures, as well as evaluation and benchmarking.

9. Common policy on Open Access and Permanent Access to research data Addresses Vision point 8.

Whilst the crucial role of peer reviewed publications in both academia and research is recognised, there is also pressure to ensure that the results of publicly funded research are available quickly and publicly. Influential national and international funding and strategy bodies are formulating their own statements and policies. EUROHORCs Member Organisations, which account among them for over 18 billion Euros research funding in Europe, will develop a joint statement on Open Access. The formulation and adoption of such a common policy would have an immediate, beneficial and unifying impact.

The collection of research data is a huge investment. Permanent access to such data, if quality controlled and in interoperable formats, allows other researchers to use them, allows re-analysis of, for example, long time series and could play a role in ensuring research integrity. EUROHORCs and ESF will address how to best promote and ensure such permanent access to data generated with their funding.

10. Strengthening the relations between science, society and the private sector

Addresses Vision point 9.

Science benefits society in a multitude of ways (societal, economic and cultural). At the same time, the political (financial) support given to science depends critically on the public perception of what science brings to society. Among the benefits, science in all its facets is an essential underpinning of future economic development. EUROHORCs and ESF will engage with others, including the private sector, to develop this aspect.

In many areas, especially in the life- and healthrelated sciences, the ethical dimension is an essential factor in public trust. Research organisations - funding agencies, research performing organisations or academies - have a key role to play. In the increasingly international context, such roles benefit from sharing experiences and approaches and from joint actions (for example in positions on such issues as animal experimentation or research integrity). Several initiatives will be taken in this area. Currently, at the request of Member Organisations, ESF is preparing science policy advice on the relation between science and society and has initiated a revisiting of the Science Policy Briefing on Animal Experiments. Following the World Conference on Research Integrity. ESF, the association of European academies of science, (ALLEA) and EUROHORCs organisations are creating a platform to address research integrity issues.

³ For example RTRA and 'pôle de compétitivité' in France, the 'Excellence Initiative' in Germany and the 'Regional clusters' in Spain.

11. Connecting European research to the world

Addresses Vision point 10.

European strengths should be embedded in global cooperative (and competitive) frames where different approaches are needed for industrialized regions (such as Australia, Japan and the USA), emerging regions (Asia) and developing regions.

With full respect for the autonomy of national research organisations, there are possibilities for streamlining the collaboration with counterpart organisations in other parts of the world. Sharing offices in non-European countries and having joint meetings in Europe with heads of non-European research organisations in order to make any visits of such heads more efficient are among the measures that will be considered.

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EUROHORCs is a European association of the heads of research funding organisations and research performing organisations. Since its establishment in 1992, EUROHORCs has become an active player in the field of European research policy by promoting and enhancing inter-council cooperation and serving, amongst others, as advisory body for the European Commission. By creating an informal platform for discussion, producing policy statements and initiating joint activities, EUROHORCs seeks to strengthen its influence on European research policy. EUROHORCs uses the European Science Foundation (ESF) as an implementation agency.



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The European Science Foundation (ESF) provides a platform for its Member Organisations to advance European research and explore new directions for research at the European level. Established in 1974 as an independent non-governmental organisation, the ESF currently serves 77 Member Organisations across 30 countries.



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