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# **EURAB Activities Report 2005**

## **European Research Advisory Board**

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## Foreword

It is our pleasure to be able to write this Foreword to the 2005 EURAB Activities Report<sup>1</sup>. The previous report, published during 2004, covered the period 2001-2004 of the work EURAB has undertaken during its first mandate. 2004 also saw a renewal of this mandate with the constitution of EURAB 2, which continued the excellent partnership between representatives of academia and industry. The present report covers the first set of recommendations and advice of this new mandate period.

Naturally, the issues reported here and the recommendations made by EURAB address many of the issues covered in the 2001-2004 report. This is only to be expected given the complexity of the topics themselves and their continuing importance and development within the European Research Area. This has been a particularly crucial period for the European Research Area (ERA), as the period reported covers that of the development of the EU Seventh Framework Programme, especially the introduction of new instruments of which the most significant is probably that of the European Research Council (ERC). We believe that the early support for the ERC and the advice of EURAB was an important element in ensuring that this new instrument was included in FP7. We also have reason to believe that its structure and independence have been influenced by our advice. In this case, as in others, the response of the European Commission to the opinions and advice of EURAB has demonstrated that the

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<sup>1</sup> The change of the EURAB Chair in February 2006 provides a good opportunity to publish the results of the extensive work which EURAB has undertaken in 2005 and report on the current and planned activities. For this reason, the 2005 Activities Report is issued as a separate publication. All information on EURAB, including the most recent published advice can be found at the EURAB web site at:  
[http://ec.europa.eu/research/eurab/index\\_en.html](http://ec.europa.eu/research/eurab/index_en.html)

Commission does indeed listen to the opinion of its Research Advisory Board. This includes issues where EURAB has taken a critical stand. Over the years, EURAB has attempted to create and nurture an atmosphere of mutual trust with the Commission services. Good advice is often most valuable when it remains invisible.

We strongly believe that EURAB will continue to play a key advisory role in assisting the European Commission in its development of the ERA and in encouraging both the Commission and the EU Member States to ensuring that every effort is made to achieve the objectives set out in the Lisbon and Barcelona meetings of the European Council. Over the past year, EURAB has also looked at several components of the ERA and made recommendations addressed to the respective stakeholders involved. The ERA is a complex and still emerging structure. It depends on the complementary roles of many players and their interactions. EURAB has endeavoured, through its recommendations, to encourage these diverse and complex components to optimise their approaches so that each component can play its part in taking this ambitious vision forward. This will be vital for the success of the ERA.

Now, we are turning to other more general issues such as the management of research, the future of scientific publications and the contribution that regional funds can make to the ERA as well as topics such as international cooperation.

We are pleased to see a strengthening of the input and consultation with DG Research within the Commission. While not exclusively dealing with this Directorate

General, it provides the focus and entry point for our discussions with the Commission. We will make every effort to reach out also to other DGs where research meets other policies. We are especially pleased in the way in which the Commissioner, Janez Potočnik, has responded to EURAB opinions. We are now able to have an ongoing dialogue at many levels with the Commission. It is important for both sides to share a sense of what the relevant issues are, but also to probe what is practically and politically feasible. Recognizing the immediate pressures of the day, EURAB is perhaps in a unique position to go beyond and develop more long-term perspectives.

During the period reported here, EURAB has made a new effort to increase the visibility of EURAB throughout Europe, especially at the national level. The ERA will not succeed without strengthened national contributions to research, their coordination at the European level and their commitment to European activities. It is also necessary that we are open to receive the opinions of the research community in Europe, wherever it is based, and also from those involved in other aspects of research, such as policy makers, research managers in the public and private sector, the media and the public. This is an important task for the future.

In conclusion, we believe that EURAB has

continued to develop as a valuable part of the ERA process, especially in bringing leading personalities from both academia and industry together, and in formulating sound and well-founded advice that can lead to the further development and strengthening of the ERA. There is still much to be done and EURAB will continue to work for this objective.

Helga Nowotny



Horst Soboll



## **Postscript**

I wish to pay tribute to my predecessor, Helga Nowotny, who steered both the first and the second EURAB with great wisdom and good humour. The establishment of EURAB as a high level source of well-appreciated advice owes much to her guidance. Helga has decided to relinquish her function within EURAB in February 2006 in order to commit herself to the Scientific Council of the new ERC. This augurs well for its future.

At the same time that Helga withdrew from EURAB, Ragnhild Sohlberg, our erstwhile Scientific Secretary also ended her association with EURAB. I want also to thank her for her sterling work on our behalf.

Both are hard acts to follow.

Horst Soboll

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## A. I. Summary of EURAB's Recommendations 2005

### Introduction:

The EURAB Activities Report 2001-2004<sup>2</sup>, published at the end of the first phase of EURAB, illustrated the breadth of the studies undertaken by EURAB, over its first three years, dealing with many aspects of the development of the European Research Area, including the political processes behind the concept; the role of some of the various “actors” contributing to the ERA, especially the universities; the infrastructures needed for successful implementation of the ERA; the evaluation of proposals within the EU Framework Programme, the importance of the social sciences and the humanities; and the development of new instruments in the Framework Programme, especially the European Research Council and the Technology Platforms plus several other issues. These reports are listed in footnote<sup>3</sup>.

Following the appointment of EURAB 2 in 2004, a range of further studies have reached completion and have been published during 2005. The recommendations from these reports are given below.

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<sup>2</sup> [http://ec.europa.eu/research/eurab/pdf/rec\\_4\\_5600\\_eurab\\_en.pdf](http://ec.europa.eu/research/eurab/pdf/rec_4_5600_eurab_en.pdf)

<sup>3</sup>

1. Evaluation of Proposals (April 2002)
2. European Research Area – the Future (September 2002)
3. Some Issues Affecting the Future of University Research in the ERA (November 2002)
4. European Research Council (November 2002)
5. Improving Innovation (November 2002)
6. Increasing the Attractiveness of Science, Engineering and Technology Careers (November 2002)
7. Boosting Joint Investment in Research: Towards 3% of GDP (December 2002)
8. Enlargement and the ERA (January 2003)
9. Research Infrastructures (October 2003)
10. European Research Council – a possible implementation model (October 2003)
11. Bureau Recommendations following visit to Washington D.C. (December 2003)
12. ERA and the Social Sciences and Humanities (January 2004)
13. European Technology Platforms (January 2004)
14. Interdisciplinarity in Research (April 2004)
15. Evaluation: Proposals and Mid-Term Programme Evaluation (April 2004)
16. SMEs and the ERA (May 2004)
17. The Descartes Prize (May 2004)
18. Structural Funds and the Research Component (May 2004)

## 1. FP6 assessment with a focus on instruments and with a forward look to FP7 (April 2005)

EURAB made seven recommendations:

Recommendation 1: EURAB recommends that the Commission should sharpen the present FP profile in two directions. One towards more specific mission oriented strategic research (e.g. the Joint European Technology Initiatives - JETI) and another towards bottom-up frontier research (e.g. the European Research Council), maintaining room for present bottom-up initiatives such as Specific Targeted Research Projects (STREPS), and Integrated Projects.

Recommendation 2: As a result of the first recommendation the Commission should differentiate the various instruments used in the FP as well as the degree to which the details of the work programmes are predefined.

Recommendation 3: To respond to emerging needs and new trends the Commission should leave a specified room (i.e. 5-10%) of budgets in all programmes for new initiatives. This would supplement the current New and Emerging Science and Technology (NEST) activity.

Recommendation 4: Networks of Excellence (NoEs) should only be established in areas where there is a need to avoid fragmentation. The Commission should apply other mechanisms to decide whether NoEs in a certain area have added value.

Recommendation 5: To improve the participation of Small and Medium Enterprises (SMEs), the Commission should implement specific instrument, which are attractive to SMEs (e.g. industrial PhDs and equivalent of US Small Business Innovation Research (SBIR) instruments). Particular attention should be paid to improving the information structures (e.g. National Contact Points) in the Member States for SMEs.

Recommendation 6: The Commission should refrain from making project budget cuts across the board and use the project evaluation procedures to make stricter selections (fewer projects).

Recommendation 7: The Commission and Member States should develop instruments for better coordination with national programmes and develop mechanisms for co-funding of horizontal activities.

## 2. The Financial Perspective for Framework Programme 7 and Criteria for the Selection of Topics for the Work Programmes (May 2005)

### Recommendations:

EURAB sees a doubling of the research budget for Framework Programme 7 (FP7) as an absolute minimum target to accomplish the challenges for European Research.

The arguments for this are:

- The redefined Lisbon vision to transform the European Union into “the most competitive and dynamic knowledge based economy in the world” with the focus on growth and employment cannot be realised without a massive investment in European Research, Technology and Development (RTD).
- Research money spent on the European level by the EU has a proven leverage effect on national and private R&D investment. It stimulates both collaboration and competition and has a positive effect on the overall quality of nationally funded research. In particular it can help create a research-friendly environment, allowing achieving a critical mass in many research fields, causing the attraction of top researchers of the world and reversing the brain-drain.
- Due to a mere lack of funds the success rate of present European research programmes are so low that many high quality proposals cannot be funded. These missed opportunities for Europe need to be decreased.
- All regions of the European Union, now enlarged with new member states, must have access to and benefit from the results of research. Research and

education are important parts of a European cohesion strategy, and without further investment the differences in socio-economic conditions within the European Union will only increase.

- In many research fields inherent scientific developments have led to an increased need of medium- and large scale facilities and equipment, exceeding what can be financed on a national level and thus requiring European co-funding and international access.
- Research is key to a number of new tasks and challenges of the European Union as mentioned in the proposed Constitutional Treaty. New initiatives such as a European Research Council, Joint Technology Initiatives and an increase of research efforts in fields such as environmental protection, healthcare, security, space and social sciences and humanities are important parts of the European vision and supported by EU policies. They are highly dependent on investment and coordination on a European level.
- Globalisation and increasing competition on knowledge creation from countries with a much more favourable demographic development than many European countries with their aging populations increase the need for more investment of strategic nature in RTD on the European level. Attractive conditions for mobility and a competitive research environment on a European level are needed for attracting the world’s best researchers to Europe.
- An increased FP7 research budget has an added value on European scale which

makes it much more urgent compared to the general need for increased national investment in Research and Development (R&D). An increased investment in European RTD should however not be negatively compensated by a reduction of national research budgets, but rather be seen as an incitement for concomitant increase in national and private R&D investment.

In support of these arguments and in order to ensure the best use of resources in the coming Framework Programme, EURAB is suggesting the following general criteria for the selection of topics for the work programmes of the thematic priorities of FP.

*General criteria for the selection of topics for the work programmes of the thematic priorities in FP7.*

EURAB suggested the following criteria:

#### Building on the European research potential

For the topics within the thematic domains there should be a strong potential for excellent research and technological development and for disseminating and converting the results into social and economic benefits. Future research should, whenever possible, build on existing competences and successes in relevant areas of research and its application.

The assessment of this criterion can be done through the evaluation of European research and industrial performance, through the evaluation of past performances of members of Technology Platforms and the Strategic Research Agenda of the Technology platforms, and through general views from the research community and the industry.

#### Excellence and/or innovation potential

The topics within the thematic domains should be chosen with the knowledge that

Europe has the potential to excel in those domains, and that the innovation potential is such that it will progress the development of Europe and its citizens. The size of the projects should be such that excellence can be achieved with the means made available.

This criterion should be assessed through the review of proposals in comparison with world-wide similar efforts (benchmarking), by evaluation of the innovative character by reviewers including representatives from both the research and industrial communities; and by making sure that the entire roadmap leading to the innovation is being assessed and supported.

#### Novelty and allowing for risk taking

The research topics within the thematic domains supported by the European Union should be future-oriented and should thereby carry some risk as a result of their novelty. In the translation to a knowledge-based society the topics should be breaking new ground while capitalising on European competencies.

The assessment of this criterion should be mostly done through the analysis of vision papers and foresight exercises of the scientific world, through the analysis of the desirable profile of the European industry, through views of the research community and society.

In order to be efficient, EURAB is in favour both of topics that build on the results achieved by the Framework Programme 6 and of those in new and emerging domains (including the two new areas of space and security and of social sciences and humanities).

#### Potential for future strategic or trans-national application

The topics within the thematic domains should have a potential for future strategic or

trans-national application, which make the projects result-oriented. They should interact with other stages in the path to bringing knowledge into practice (basic research, research, prototype work and industrial launch or introduction in the society). The contribution of the outcome of the projects to industrial innovation and societal benefit should be made clear.

The assessment can be done by analysing the programmes of the European Union, and by taking into account the views of the scientific and industrial world, including the Technology Platforms.

#### European added value

European added value can be achieved whenever there is a need for an intervention at the European level which cannot be done cheaper, better and faster at the national level. This can be said when there is an aim:

- To attract increased public and private investments on a wider scale.
- To create the necessary multi-disciplinarity and critical mass of scale and scope, allowing competition on a world-wide scale.
- To overcome fragmentation and unnecessary duplication.
- To complement other intergovernmental national and private actions.

The assessment can be done through the analysis of impact of support by the European Union in comparison with other major countries and economies and through the views from the research community and the industry, more specifically in the Strategic Research Agenda, established by Technology Platforms.

#### Support and development of EU policy objectives.

The goal is to generate new knowledge which can make a contribution to European policy objectives. This definitely includes

the objective to transform Europe into a dynamic and competitive knowledge-based economy, capable of sustainable growth. The topic may be one of current importance or likely to become important in the medium to long term.

The assessment of this criterion can be done through the translation of policy commitments into action plans, through the analysis of prospects and competitive position of EU industries, through the future needs identified in technological road mapping or strategy exercises, or through views from the research community and industry. Such themes should be result oriented.

#### European and global challenges

A number of world-wide and/or European problems, where Europe can make a valuable contribution through science and technology or that demand a global approach because of the complexity of the subjects.

This criterion will be assessed through the analysis of vision papers of the EU and of the scientific and industrial world; through commitments of policy deployment or political topical matters.

#### Sustainability

Sustainability is not only referring to natural resources or environmental aspects of research and technology applications, but also to social and ethical criteria for development of research.

The assessment of these criteria will take into account the European Union's policy on environment, energy and development of cleaner technologies. It will also apply to European institutions and advisory bodies on ethical and social issues, and national law and to regulation in the Member Countries of the European Union.

In addition to and in support of the before-indicated arguments for the financial perspective of the Framework 7 programme and of the criteria for selection of the topics for the work programmes EURAB wants to point out the following

Challenges for European research

- The economic challenge
- The global challenge
- The demographic challenge
- The health challenge
- The European cohesion challenge
- The European culture challenge

What will be the impact of an increased research funding in Framework Programme 7?

- Proper support needed for EU policies
- Increased dissemination of knowledge and results
- Differentiated instruments to cover the different needs e.g.: R&D Infrastructures
- The European Research Council (ERC)
- New European research activities, security and space
- Integration of new member states
- Reduction of costs and sustainable production

### 3. Stimulating the regional potential for research and innovation (November 2005)

#### Recommendations:

The capacity of Europe's regions to undertake research and innovation is a crucial factor in delivering the Lisbon Agenda. The challenge facing the Union is to unlock regional potential wherever it might be located and to harness this to support economic growth and the creation of employment. In order to achieve the Lisbon objectives, European policies should be focused on supporting all regions to achieve their potential for research and innovation. We recommend:

*1. That the EU's Financial Perspective reflects the emphasis attached to research and innovation in delivering the re-launched Lisbon strategy, and that it recognises the crucial role which stimulating regional capacity for research and innovation will play in this. Moreover, the financial guidelines adopted must ensure that less wealthy regions are not penalised in their ability to participate in actions designed to promote regional research and innovation capacity more generally.*

*2. That horizontal programmes are implemented which promote co-operation and collaboration between regions. Through co-operation and collaboration regions can build a critical mass for research and innovation, drawing on skills and knowledge developed elsewhere, whilst contributing to their own stock of knowledge and expertise. The EU has had strong success in stimulating research and innovation networks through its Framework Programmes, it must now seek to achieve similar success in developing networks of regions. We commend the good start made by the Regions of Knowledge Pilot Action*

and recommend its continuation and further development. We further recommend that building regional research and innovation capacity be a key objective of the future trans-national programmes of the Structural Funds.

*3. That DG Research supports the strengthening of knowledge, skills and expertise in policy-making for regional research and innovation. We recommend three actions that should be supported in this area:*

- To facilitate regional inventories/audits of strengths and weaknesses in research and innovation. The value of such actions in guiding future strategies has been fully demonstrated.
- To establish a strong, regionally-focused, communication mechanism aimed at facilitating the dissemination of good practice and exchange of information between regions. As a starting point it might start to bring together the myriad of initiatives currently operating at a European level.
- To support the development of a Knowledge Hub for Europe. This centre of expertise would be dedicated to providing the practical training, tools and experience required to support the development of regional innovation capacity. It should also stimulate research into regional innovation issues and help to build a community of practice in this area. The Knowledge Hub might be a single point or co-ordinate a wider linked network of expertise. The activities of the Hub should be aimed at organisations, particularly

those in the public sector, involved in stimulating research and innovation at a regional level. The facility should provide training materials as well as facilitate on-the-spot training, secondments and (virtual) mentoring arrangements.

*4. That DG Research supports the development of actions which emphasise the crucial role of education in strengthening regional potential for research and innovation.* We acknowledge that this has its foundations in national education systems but the European Commission must encourage regions to invest in talent, to promote the mobility of researchers and to develop entrepreneurial skills. Building on this base DG Research should continue to develop its mobility scheme for young and for experienced researchers. Moreover we recommend that DG Research should encourage the 'twinning' of universities, research institutes and other research centres to stimulate regular exchange of staff and students, particularly where strong reciprocal benefits to the regions involved can be demonstrated.

*5. That DG Research supports actions for developing a strong physical capacity for research and innovation within, and across, regions.* Different regions have different needs but small to mid-sized units, connected to EU knowledge networks encouraging co-operation and collaboration, provide an important capacity base for research and innovation at a regional level. Building on the GEANT network will also be critical in stimulating the regional potential for research and innovation in the future. The European Commission, through its various financial programmes has a duty to ensure that infrastructure is not only developed but can also connect to the wider European innovation system, placing the region at the heart of this system.

*6. That within the 7th Framework Programme RTD support actions are developed aimed at stimulating the engagement of regionally-based SMEs, as well as universities and larger enterprises.* These should support smaller, shorter projects which are attractive to SMEs and build on-going research and innovation capacity. Eligibility requirements in the first instance might be trans-regional rather than trans-national. To facilitate connections to wider knowledge networks, we recommend that mechanisms that promote intra-regional collaboration between SMEs and universities should be encouraged.

*7. That a sound evidence-based strategic framework should be required for all regions as part of a partnership approach to developing regional innovation capacity.* It is essential that efforts to stimulate regional research and innovation capacity are well-directed. This is best done through the development of specific regional strategies. Benchmarking exercises, foresight exercises and audits of research and innovation capacity within the region, in conjunction with wide-ranging consultation, can prove valuable in identifying regional strengths and weaknesses and help to guide strategy development.

## 4. Research and Technology Organisations (RTOS) and ERA (December 2005)

### Recommendations:

1. Action should be taken to raise the profile of RTOs so that policy makers are more aware of their role and of their important contribution, actual and potential, to ERA. Specifically, two policy conferences should be organised.

- i. A conference to illustrate the distinctive role of RTOs in European R&D and their contribution to ERA. In order to attract the necessary policy attention, it is recommended to organise this conference as an EU Presidency event.
- ii. A conference to promote closer cooperation between RTOs and universities - indispensable in a world characterised by increasingly “open innovation”, the explosion of knowledge, and rising demand for well-trained scientists and engineers.

2. ERA policies, programmes and instruments must take greater account of the potential of RTOs to contribute to the realisation of ERA. A full ERA policy review relative to RTOs is required.

Improvements to consider include the adaptation of existing and envisaged instruments in order to take better account of RTOs as holistic, mission-orientated organisations.

For example:

- the present ERA-NET scheme could be adapted, or a similar scheme introduced, such that the definition of “research activities” addresses RTOs as whole organisations and hence permits their participation.
- the new infrastructures programme

proposed for FP7 could be defined so as to encompass mission-oriented RTOs as whole organisations.

Such adaptations to ERA instruments would facilitate more effective mission orientated networking and coordination among RTOs in Europe.

3. RTO visibility must be raised inside the European Commission also. DG Research should establish an “RTO Observatory”. The Observatory would monitor the development of the RTO community in order to help ensure proper comprehension for policy purposes of RTOs’ distinctive role.

4. RTOs perform missions in the public interest, and are at least partially funded through public resources. They are thus responsible to government. But they require sufficient operational independence. This is essential for their effective and efficient operation, for the impartiality of the research and advice which they provide, and for their ability to adapt rapidly and smoothly to changing conditions and opportunities in their research fields and operating environments.

The most suitable governance model for RTOs may be what might be termed an “arms-length” or “agency” model, combining clearly defined long-term missions with medium-term (e.g. five to seven years) rolling programmes and budgets. Such an arrangement can effectively balance the public responsibility of RTOs and their sufficient managerial independence. It remains the responsibility of the relevant shareholders/stakeholders to set, and to adjust when necessary, the RTO’s mission.

## 5. Boosting European Private R & D: The Foundation Stone of the New Lisbon Strategy (October 2005)

### Recommendations:

*Improve the financial environment for industrial RTD*

- Establish better financial conditions, including appropriate financial incentives and tax credits, for the performance of industrial R&D in Europe.
- Put in place targeted guarantee schemes which encourages different financial institutions, such as banks and venture capital companies, to become familiar with and be able to evaluate the intellectual capital and the growth potential of businesses.
- As a market gap is detected, establish public-private partnerships to support small enterprises' access to finance, including financial instruments which promote venture capital and business-angel investments as the appropriate tools for the performance of industrial R&D in the EU
- Develop specialised venture capital platforms, which will trade and broker the spin-off / spin-out of orphan and non-strategic products and process from large companies.
- Promote demand-side activities to increase the investment readiness of potential entrepreneurs.

*Develop a coherent European public support framework for industrial RTD*

- A major, high-level effort in the "Europeanisation" of Member States' industrial RTD programmes.
- A bottom-up, "variable geometry" support for Member States' ongoing industrial activities which wish to

join together at a European level.

- An order of magnitude increase in the finance available for ERANET.

*Integrate knowledge-intensive SMEs into the RTD infrastructure*

- Use innovation networks and technology transfer activities to link knowledge intensive SMEs into mainstream research programmes. Use Marie Curie activities to accelerate the development of RTD within SMEs.
- Ensure the minimisation of regulations / administration which affect SME access of RTD support.

*Link Global leadership in public research to industry development*

- Support Europe's public research institutions in creating world-leading Research Centres linked to industrial development. At the same time, seek opportunities for regional development of critical mass in innovation activities.
- Adjust administrative and financial regulations governing public research to ensure strong partnerships with industry.

*Develop the community aspects of European industrial research.*

- Develop a "Programme for European RTD Management & Communications".
- Emphasise the culture changing aspects of activities such as industrial research placements, joint public/private research education and

training initiatives, etc.

- Pilot and explore the support of “Open Innovation” activities.

And, finally, these actions need to take place within a long-term, strategic EU plan for the development of industrial RTD which

prioritises RTD to be kept in Europe, RTD to be attracted from outside, and RTD to be developed by ourselves for our future needs.

## 6. “Science and Society”: An agenda for a responsive and responsible European Science in FP7 (September 2005)

### Recommendations:

‘Science in Society’ in FP7 embraces a wide spectrum of issues, including questions of governance and scientific advice, ethics and science, gender aspects, communication, education and young people. Actions in FP7 should build on the momentum created by achievements of the theme ‘Science and society’ in FP6, while taking account of the lessons learned.

The combination of a dedicated theme, an effort to integrate these issues across the Framework programme, and national co-operation and co-ordination, is an effective mode of operation and it should continue into FP7. The Commission should develop mechanisms to implement these approaches in a coherent strategy. The dedicated theme should support a critical mass of activities along the lines suggested below. Adequate resources are required for this.

### Europe’s future depends on the young

1. The fundamental task for the Science in Society programme of the EU should be to bring about a strong scientific culture in Europe where research is understood as an instrument for economic growth, welfare and well-being, democracy and culture.

2. The future lies in the young people now in pre-schools, schools, various vocational training schools and universities. Building on the natural curiosity of children, an interest for science and research must be cultivated from an early age and the ability for critical thinking and reflection developed gradually in school and university. This should be given high priority both at the national and at the European level.

3. The EU should support national or local

authorities with ideas and support, based on experience in different member states, in order to improve the teaching of science in Europe. Well-informed and engaged teachers are the best means for reaching the children, but other channels for reaching the young (science centres, publications, film, TV programmes etc.) can also be used and further developed.

4. Promising national experiments by teachers and others who want to implement new methods for promoting an understanding of science and research among children and young people should be specially supported at EU level.

### Improving public engagement with research

5. The EU should support arenas for discussions and dialogues with the aim of increasing engagement with research at European level between representatives from society and science. Annual meetings, like the Science in Society Forum, the European Science Week and venues like the ESOF conference, play an important role in spreading knowledge about the broad diversity of efforts and the various initiatives in different countries. The Science in Society directorate should offer support, spread good practices, and, possibly through financial incentives, encourage new and innovative ways of public engagement with science and research.

6. The Commission can also encourage the exchange of ideas and methods between countries, and can help add a European dimension where appropriate to national events. Many forms of communication that activate and involve people in debates can be used: Science Weeks, film, theatre, art, music, dance and discussions and events in universities, museums, organisations, ecological centres, industry research facilities etc. The EU should

support national efforts by facilitating the sharing of information about on-going work, new initiatives and experiences by conferences, forums, workshops, exhibitions, debates and publications.

7. The AlphaGalileo and the Athena Web audiovisual exchange system providing service for journalists about European research should be further developed, based on best professional experiences of organisations like NASA, CERN and ESA. The needs of other categories of users should also be met with information adapted to their needs.

#### Embedding the societal dimension in science

8. EURAB wishes to underline the importance of integrating ‘Science in Society’ issues elsewhere in FP7, since this enriches the research carried out in the various themes, and enhances its value for society. It adds to the leverage effect of Community research. However, this integration (or “embedding”) must be carried out in a flexible manner, adapted to the different themes, and to individual projects. It should be seen as a stimulating and creative part of research activities, and not as another bureaucratic burden. At project level, this means that activities for public engagement, for example, should be tailored on a case-by-case basis during the negotiation phase of successfully evaluated projects. A corresponding budget needs to be earmarked in projects. ‘Science in Society’ aspects can also be addressed for clusters of related projects and at the level of ‘themes’. Issues related to the broader economic and social impact of programmes and projects should be systematically considered and the success of the projects in this aspect should be an important element of the monitoring and evaluation of the projects.

#### Institutional links between science and society

9. There is growing interest on the part of civil

society to establish more robust institutional links with research activities and institutions. Likewise, research and funding organisations as well as industry begin to realize that it is important to involve ‘society’ at an early stage of new developments. This is already well articulated and understood in domains like health and medical research, environmental issues and sustainable development, safety and risk issues as well as in newly emerging fields like converging technologies. Relevant institutional arrangements between representatives of civil society, researchers and research organizations should be established with the aim of opening up research activities progressively – beyond communication and information – towards greater involvement with society and the establishment of mutual trust.

10. Representatives of civil society in Europe should be encouraged to become actively involved in discussing future promising developments of science and technology and their social impact at an early stage.

#### Policy and advice

11. Preparations must be made to give advice when needed and requested. This is especially the case when member states have to respond quickly and adequately in situations of crisis and conflicts involving scientific issues. The causes of such challenges (epidemics, natural or man-made disasters, energy policies, environmental impact, security etc) are often global or regional while their forms may be specific to a particular nation or area.

12. The SINAPSE database (<http://europa.eu.int/sinapse/sinapse/index.cfm>), recently initiated, will help stakeholders to identify expertise and to facilitate the involvement of actors who are currently hard to consult and should be evaluated on a regular basis and further developed. NGOs and other associations should have easy access to relevant scientific advice on different issues of concern.

The dynamics of society and science relations

13. The relationships between society and science continue to evolve, sometimes in a turbulent way. Research on these topics, placed in the wider context of the transformation that both, 'science' and 'society' currently undergo, should become the core of a small, but innovative research programme. This should be built on what is already available in STS (science and technology studies or studies in science, technology and society). The outcome of the new research programme could be the focus of a series of workshops and conferences, with the aim of involving members of the

scientific community, research organizations and universities in order to deepen their knowledge and understanding of the ongoing dynamics of society and science relations.

## 7. EURAB recommendation on the proposed European Institute of Technology (EIT) (April 2005)

The objectives behind the initiative to launch a European Institute of Technology (EIT) are well known. Europe has to offer world-class education, if it wants to attract the best students. Only as a world-class centre of research can it attract the best young researchers. Research management and quality have to be improved throughout Europe and, above all, research and innovation have to move closer together.

We share these objectives and see the need for firm and concentrated efforts to achieve them in the near future. However, we do not believe that it is possible to short-cut this arduous and sustained process through the start-up of a new institution before the other necessary conditions are in place. MIT's reputation has grown over decades before counting 59 Nobel Prize winners. Its current annual budget is \$1,8 billion. Its close connections with the most advanced industries, including service industries, are well known and for the first time among the highly ranked technical universities a woman president, neurobiologist Susan Hockfield, has been appointed.

European universities are increasingly and often painfully made aware that deep changes are necessary if they are to become major players in a knowledge-based society. They recognize that their function includes both provision of a broad and solid base of higher education and excellence in the high performance end. If knowledge for growth is to be attained, it must be assured that society has access to both education and work. Society must actively participate in the collective bet on the future, which is innovation.

Innovation, as Schumpeter recognized

almost one century ago, does not only need original ideas. It also takes the appropriate social organization and financial capital. It takes a mind-set and the motivation that he saw embodied in the figure of the entrepreneur. Innovation today is increasingly knowledge- and research-based. There is no lack of new ideas and discoveries in Europe. What is lacking are (1) forms of social organizations that are capable of transforming these ideas into innovation and to compete in a globalising world, (2) access to increasing amounts of financial capital (investment in research is a precondition, as is competition between universities and research institutions), and (3) research- and innovation-friendly conditions in and around the sites where new knowledge is produced. Following Schumpeter's lead and given the blurring of boundaries between basic and applied research, a new type of cooperation between research-entrepreneurs is needed to bridge the academic and the industrial world. These persons must also know how to integrate the societal dimension into their work.

It is our firm conviction that a European Research Council (ERC) is the best way forward towards achieving this end. Frontier research on a truly competitive basis at EU level as proposed within FP7 is also backed by European industry. Experience shows that 'excellence' cannot be granted as a monopoly through administrative-political means. Excellence is the outcome of competitive pressures. It is recognized when you encounter it.

Much as we would like to see an EIT come into existence in Europe, we are weary that it cannot be created top-down. An EIT must grow bottom-up from existing research

communities and through the incentives provided by environments that push for both research and innovation. The only realistic way forward we see is to turn an ERC into a European success story.

The *direct* impact of an ERC should be to stimulate genuine competition for excellence throughout Europe. Its *indirect* desired impact is at least as important. It is to improve the overall conditions under which universities and other research institutions can compete. This includes incentives to diversify and develop their own profile, including novel ways of cooperating with industry. Research management must be strengthened. A competitive climate must prevail, and rules and regulations that now stifle competition must change. Recruitment must be opened up, where it is too narrowly constrained. The attractiveness of the working conditions, especially for young researchers, must be enhanced. They must be given more independence much early in their career and career development must be carefully nurtured. Leadership qualities at the top and flat hierarchies throughout have to become the norm. In all this, public and private investment, with a clear aim to stimulate world-class research, is indispensable, but no factor taken alone is sufficient.

We therefore recommend that all efforts should be concentrated on creating the conditions that will allow an ERC to have the desired impact. Frontier research can only emerge from conditions that favour it. An ideal MIT-like institution cannot be

created top-down (and experience with the JRC indicates the difficulties in establishing really creative organizations from the top down). Already existing networks between the best universities and the creation of new ones should be strengthened. But we see the risk of an EIT-like institution to distract from the objectives of an ERC, including a reduction of funds. While we share the ideal and vision behind the EIT initiative, we believe it is much more realistic to achieve them by using the opportunities that an ERC offers in a concentrated and determined way.

*It should be noted that, following this opinion, the European Commission has extensively revised its proposal for the EIT, which EURAB is pleased to see has addressed the issues in the above critique. EURAB is now engaged on a second opinion to consider the latest Commission communication in order “shape” the further proposals which will be developed later in 2006.*

## 8. The Social Sciences and the Humanities in the 7th Framework Programme (December 2005)

<p><b><u>Recommendations:</u></b></p> <p>EURAB's recommendations are summarised below alongside the relevant arguments.</p> <p>The Recommendations in this Report build on those in the previous report (<a href="http://ec.europa.eu/research/eurab/pdf/recommendations_en.pdf">http://ec.europa.eu/research/eurab/pdf/recommendations_en.pdf</a>)</p> <p><i>SSH &amp; technology</i></p> <ol style="list-style-type: none"> <li>1. Framework Programme 7 (FP7) should support the ambitious Converging Technologies for the Society (CTEKS) agenda, including the recommendations in this report.</li> <li>2. In parallel with this, Constructive Technology Applications should be explored by the Commission as a potential area for engagement between scientists and technologists as well as within Technology Platforms as well as within S&amp;T Themes in FP7.</li> <li>3. The Commission should urgently pursue the promotion and implementation of a broader concept of 'technological innovation', where actions, values and choices play an integral part. This should then be embedded within internal and external FP7 Themes.</li> </ol> <p><i>The Humanities in FP7</i></p> <ol style="list-style-type: none"> <li>4. The Commission should adopt a common understanding of the scope of the Humanities, and address these questions in its dialogue with the Humanities.</li> <li>5. For Theme 8, there is a pressing need to identify and support centres for high quality research in the Humanities in FP7, so as to achieve a good balance between Science and Humanities content, and attract contributions from leading researchers.</li> <li>6. The Commission should review and improve its support for European researchers in the Humanities and prioritise funding about the Humanities content in Theme 8. At the European and national level, Humanities associations, academies and research networks should also prioritise giving advice on the content of FP7 Programmes.</li> </ol> <p><i>The Social Sciences</i></p> <ol style="list-style-type: none"> <li>7. Consistent and inclusive terminology for the Social Sciences should be adopted within DG Research, distinguishing explicitly between research in these fields and more general consideration of the social dimension(s) and impact.</li> </ol>	<p>8. Qualitative analysis should be commissioned of the progress of the integration of Social Science research in FP6 is claimed to be positive examples and lessons, in addition to forming a view on the nature of integration.</p> <p>9. Care is needed to ensure those Social Science contributions planned in S&amp;T led Themes, are properly resourced and supported. Additionally the development of FP7 Work Programmes and activities should include analysis (and inclusion) of the areas where understanding of human behaviour and choices will contribute to the effective translation of S&amp;T research into social and economic benefits. This should be a joint effort between the Commission and leading social scientists.</p> <p><i>The Social Sciences and Humanities</i></p> <ol style="list-style-type: none"> <li>10. In any revision of the budget for FP7, care must be taken to ensure sufficient funds for the significant contributions needed from the Humanities for the effective delivery of the Programme's goals.</li> <li>11. Within Theme 8, incentives for research which crosses disciplinary boundaries, should be built into the Work Programme and evaluation criteria.</li> <li>12. Within the 'People' part of FP7, the 'Lifelong Training and Career Development' Work Programme should ensure the participation of leading Institutes of Advanced study, and of the leading European researchers who are invited there.</li> <li>13. The FP7 Science in Society programme should explicitly support a programme of research in STS (Science and Technology Studies) to expand knowledge about the interfaces between scientific research and societal institutions, giving priority to research which engages with policy makers, scientists and other stakeholders.</li> <li>14. To strengthen the impact of the investment in Science and Society activities, dialogue workshops should be built in to the activities of the FP7 Themes.</li> </ol> <p><i>Institutional creativity</i></p> <ol style="list-style-type: none"> <li>15. The Commission should as a matter of priority collect and disseminate information on the key recommendations and arguments in the report (<a href="ftp://ftp.cordis.europa.eu/pub/citizens/docs/sed_report_final_en.pdf">ftp://ftp.cordis.europa.eu/pub/citizens/docs/sed_report_final_en.pdf</a>) and the antecedent documents to which it refers, and</li> </ol>
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reflections and responses.

16. A process should be instituted for more systematic of reports commissioned by DG Research and actions taken, to be published.

17. Ways need to be found of reducing the barriers to integration of SSH in other Framework Programme areas. An annual meeting should be held for SSH evaluators from across the whole Programme, to compare

experiences and make recommendations.

18. The effective integration of SSH research should be leadership support, and to be a clear responsibility at both Directorate levels.

## **9a. EURAB recommendations on cooperation with third countries (i.e. non-EU member states or states not associated with the FPs) (June 2005)**

International S&T cooperation is of mutual benefit for both the EU and its cooperating partners from third countries. It should be an integral part of FP7. Cooperation with third countries is not an aid but must be viewed as a good investment. The activities planned with different countries and regions should, however, be differentiated according to their thematic and instrumental aspects, and depend on the comparative advantage or need.

### **Recommendations:**

1. Management responsibility for targeted INCO actions should be clear. Best use should be made of the competencies accrued in the INCO Directorate in cooperation with the directorates responsible for the thematic areas. Participation should be eased and matching capacities built up wherever needed.
2. Better coordination of national programmes with those of other EU countries, i.e. bi-laterally, and with EU programmes (common/coordinated strategy setting, ERA-Net, OMC, etc.) is needed to achieve stronger synergies. The potentials of the EU (e.g. in setting standards, IPR, etc.) should be more efficiently utilized to optimize European added value. International cooperation must contribute to these goals, therefore in the FP third countries should be

treated as equal partners.

3. Mobility should be widely encouraged, seeking to make Europe an attractive destination for researchers from all over the world. It should be two way and without any restriction on the duration of the stay, etc. The full use of the possibilities offered under the “People” chapter in FP7 is recommended.
4. The concentrated and efficient management of international cooperation is crucial for its efficiency, meaning that strategic visions, political goals and the actual implementation must go together.
5. In order to assure efficient and optimal management in line with the strategic goals, the budget for INCO in FP7 should be under a separate budget line, increased and allocated across the thematic areas. Budgetary allocations should not be made on a pro rate basic, since some thematic areas offer more options than others for meaningful international cooperation.

## 9b. International Research Cooperation (June 2006)

### Recommendations:

1. During the last two decades, a new competitive international system of science and technology has emerged. To promote its goals, the EC needs a new proactive international policy in science and technology. This policy should both strengthen its scientific, technological and economic position, help to solve global environmental, health and other problems, and give opportunities to EU researchers to develop strong international partnerships. The EC has to develop large, visible projects that would attract attention especially in the emerging centres of economic power.
2. The EC should clearly spell out its priorities on and establish a long-term policy framework to promote international cooperation in S&T. High among these priorities is to make Europe attractive for the best researchers in the world and for investment in scientific infrastructures, including global large-scale facilities. In particular, this goal requires that the EC should revitalise the European R&D system by investing new resources in and lowering barriers to cross-border mobility as well as between the public and private sectors at national, intergovernmental and EU level.
3. The EC should differentiate clearly between target countries – e.g. advanced industrial countries, emerging economies and developing countries – to define its own interests and select the right kinds of instruments to promote international cooperation. The EC has to develop a proper mix of research and technology, business relations, and aid to properly address the interests of different partners. Moreover, the instruments of

cooperation are quite different in areas that require large-scale scientific infrastructures compared, for instance, with fieldwork.

4. A working division of labour and cooperation among the Commission services is crucial for the effective implementation of the EC's international strategy on science and technology. The Commission should establish an efficient management structure to initiate and coordinate international actions across administrative boundaries. This would require the establishment of a strong focal point in DG Research to deal with partner countries and have the capacity to organise coordination with other EU agencies, Directorate Generals, and – where appropriate – with Europe's intergovernmental research organisations.
5. DG Research as a whole and particularly the thematic areas should see to that international cooperation becomes an integral part of the Framework Programmes and that it receives adequate funding. In addition, each theme should have a single horizontal budget line for international cooperation to ensure participation of EU and non-EU research communities in research actions. This budget should be reallocated to the themes on the work programme level and adjusted in regular updates according to the needs and capacity to utilise resources.

## A. II. EURAB letter on FP7 budget increase (June 2005)

3 June, 2005

Dear Colleagues,

I write in my capacity as Chair of the European Research Advisory Board (EURAB), an independent body advising the European Commission. Its 45 members coming from academia and industry, consider it of utmost importance at this crucial moment in time to raise public and political awareness in the EU member states for the need to actively support the proposal of the European Commission for a significant increase in the budget for the 7th Framework Programme.

In a recent recommendation<sup>4</sup> EURAB articulated the arguments that underpin the necessity for a substantial budgetary increase for research. If Europe seeks to be an effective player in world class science and seeks to realize the benefits of new discoveries for innovation and the well-being of European societies, a significant budgetary increase is required.

We are convinced that national governments need to maintain their commitment to research and innovation at national level, and that public policies must continue to create a favourable environment for private research investment. In addition, however, it is vitally important that sufficient financial resources are made available at the EU level to meet the ambitious and important goals of the 7th Framework Program. The contradiction between what governments say in favour of research and how they act, must

be confronted. Research and innovation in Europe will only be able to contribute to meet the global challenges ahead, if research and innovation is seen as investment into Europe's future. Towards this end, we need strong national systems and a strong EU-level system, which reinforce each other.

The current process of negotiations between member states on the Financial Perspectives for 2007-2013, for which a drastic cut in the research budget is currently proposed, gives reasons for concern that adequate financial support for the 7th Framework Program may fail to appear. This would be a severe blow to the goal of sustainable knowledge-based growth, hamper the desperately needed improvement in employment and engender dismal consequences for research and innovation in Europe.

EURAB therefore urges you to take immediate action. The research community in Europe, whether in academia or industry, needs to join forces with national and European research organisations, academies of sciences, associations of universities and national and European industrial organisations. We urge all of you to take appropriate action – by writing and approaching your respective Prime Ministers, Ministers responsible for science, research, trade and industry and Ministers of Finance - with the strongest possible plea that, whatever the outcome of the discussions on the total budget for the European Union may be, the budget for research and innovation as proposed in the 7th Framework Program, should be maintained as being of vital importance for the future of Europe.

The media needs to be fully informed and to become engaged in helping to secure the future of Europe and to meet the common

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<sup>4</sup> EURAB 05.015 The Financial Perspective for Framework Programme 7 and Criteria for the Selection of Topics for the Work Programmes (May 2005)  
([http://ec.europa.eu/research/eurab/pdf/eurab\\_05\\_015\\_wg2\\_final\\_report\\_en.pdf](http://ec.europa.eu/research/eurab/pdf/eurab_05_015_wg2_final_report_en.pdf))

global challenges through research and innovation.

The Heads of State and Governments (European Council) will meet in Brussels on 16-17 June. It is time to act together and to take a firm public stand on the tremendous potential of science in Europe and the importance we see for the Commission's 7<sup>th</sup> Framework Program proposals.

Yours sincerely,

Helga Nowotny  
Chair of EURAB

## B. Current EURAB Activities

EURAB has continued to develop many of the issues reported above, in the light of changing circumstances and the evolution of the ERA and its components. For example, the work on the EIT has to keep pace with the changing aims and objectives of this particular initiative and so a further EURAB opinion is being developed, which is expected to be published during July 2006.

New topics are also under consideration and are expected to lead to further EURAB advice and opinion. Priorities include consideration of the recommendations from the recent European Commission publication, which examined the scientific publication system in Europe, given the changing nature of scientific publications leading to a new “market” both in Europe and worldwide<sup>5</sup>. Another priority is to address specific aspects of research management, which includes addressing the criteria used to assess research management, the differing practices operating within the variety of research organisations which exist and, also, to see if there are particularities in the management of research which differ from other types of management practice. EURAB will also conduct a study into new trends in knowledge diffusion for innovation. Other activities will address the follow up to earlier opinions. With respect to the opinion and advice of structural and regional funds, EURAB will address how to motivate national, regional and local authorities to invest more in R & D, where appropriate making use of regional and structural funds for such investment. It will conduct a further study into the societal dimension of research with special reference to the impact and use of research and technology on, other policies within the

Union. EURAB will also look at the future of the advice provision to the Commission, including its own future role. Finally, as we move into the approval and implementation phase of the Seventh Framework Programme with its new instruments, EURAB will need to maintain an ongoing monitoring of its development and the development of the new instruments proposed for this Programme.

EURAB is pleased to see that its earlier opinion and report, on universities in Europe, has been taken into account by the European Commission in its Communication of 10 May 2006. EURAB recognises that the university sector is deeply involved in all the topics being addressed and will pay special attention to the university aspect of each of these topics within these enquiries and discussions.

<sup>5</sup> The report is available at [http://ec.europa.eu/research/science-society/pdf/pr\\_scientific\\_publication\\_study\\_en.pdf](http://ec.europa.eu/research/science-society/pdf/pr_scientific_publication_study_en.pdf)

## C. EURAB 2 and its Bureau: Membership

<b>BUREAU</b>	
Prof. Bertil ANDERSSON (Vice-Chair)	Ms. Elisabeth JASKULKÉ
Mr. Jan DEKKER (Vice-Chair)	Prof. Zita Aušrelė KUČINSKIENĖ
Dr. Kari-Pekka ESTOLA	Dr. Horst SOBOLL (Chair)
Prof. Ian HALLIDAY	Prof. Raimo VÄYRYNEN
<b>EURAB</b>	
Prof. Enric BANDA	Dr. David MELODY
Dr. Orna BERRY	Ms. Mirka MIKES-LINDBÄCK
Prof. Jean-Luc BREDAS	Prof. Jean-François MINSTER
Prof. Charles H.C.M. BUYS	Prof. Gretty MIRDAL
Mr. Luís CABRA	Prof. Erwin NEHER
Dr. Catherine CESARSKY	Dr. Rainer NEUMANN
Dr. Ellen DE BRABANDER-VAN DEN BERG	Prof. Gunnar ÖQUIST
Prof. Jüri ENGELBRECHT	Dr. Enrico OTTOLINI
Prof. Ulrike FELT (*)	Dr. Maria Teresa PATRÍCIO (***)
Mr. István FODOR	Prof. Helga RÜBSAMEN-WAIGMANN
Dr. Luc GELLENS	Ms. Brigitte SERREAULT
Prof. Jane GRIMSON	Dr. Ioannis V. TZAVARAS
Prof. Miltiades HATZOPOULOS	Prof. Renato UGO
Dr. Helena ILLNEROVÁ	Prof. Christine VAN BROECKHOVEN
Dr. Maria Kristina JEPSEN	Prof. Georg WINCKLER
Dr. Jeff KIPLING	
Dr. Leif KJAERGAARD (**)	<u>Scientific Secretary:</u>
Dr. Tomasz KOŚMIDER	Mr. Tony MAYER
Prof. Norbert KROÓ	
Prof. Jerzy LANGER	<u>European Commission Liaison:</u>
Prof. Helmut LIST	Dr. Isidoros KARATZAS
Dr. Pedro MATIAS DE ALMEIDA	

(\*) Replacement for EURAB Member Helga NOWOTNY

(\*\*) Replacement for EURAB Member Jens ROSTRUP-NIELSEN

(\*\*\*) Replacement for EURAB Member Maria CARMO-FONSECA

## D. List of Working Groups and Workshop Groups

Working Group	Working Group Members (Chair)		Date of adoption of report
<b>WG 1</b> <b>FP6 assessment with a focus on instruments, and with a forward look to FP7</b>	Charles H.C.M. BUYS Luis CABRA Elisabeth JASKULKÉ Tomasz KOŚMIDER Pedro MATIAS Mirka MIKES-LINDBÄCK	Erwin NEHER Rainer NEUMANN Enrico OTTOLINI (Jens ROSTRUP-NIELSEN) Brigitte SERRAULT Horst SOBOLL	April 2005 EURAB 05.014
	DG RTD contact point: Colette RENIER		
<b>WG 2</b> <b>The Financial Perspective for Framework Programme 7 and Criteria for the Selection of Topics for the Work Programmes</b>	Bertil ANDERSSON Orna BERRY (Charles H.C.M. BUYS) Catherine CESARSKY Luc GELLENS Helena ILLNEROVÁ Norbert KROÓ Pedro MATIAS	Mirka MIKES-LINDBÄCK Erwin NEHER Brigitte SERREAULT Horst SOBOLL Christine VAN BROECKHOVEN Raimo VÄYRYNEN Georg WINCKLER	May 2005 EURAB 05.015
	DG RTD contact point: Cristos ANGELOPOULOS		
<b>WG 3</b> <b>Stimulating the regional potential for research and innovation</b>	(Enric BANDA) Jüri ENGELBRECHT István FODOR Helena ILLNEROVÁ Tomasz KOŚMIDER Norbert KROÓ	Zita Aušrelė KUČINSKIENĖ Helmut LIST David MELODY Enrico OTTOLINI Ioannis V. TZAVARAS	November 2005 EURAB 05.041
	DG RTD contact point: Dimitri CORPAKIS		
<b>WG 4</b> <b>Research and Technology Organisations (RTOs) and ERA</b>	Catherine CESARSKY Jan DEKKER Helena ILLNEROVÁ Tomasz KOŚMIDER	Norbert KROÓ Pedro MATIAS (Jean-François MINSTER) Renato UGO	December 2005 EURAB 05.037
	DG RTD contact point: Isidoros KARATZAS		
<b>WG 5</b> <b>Boosting European Private R&amp;D: The Foundation Stone of the New Lisbon Strategy</b>	Jan DEKKER Kari-Pekka ESTOLA István FODOR Luc GELLENS Ian HALLIDAY Jeff KIPPLING Tomasz KOŚMIDER	David MELODY Mirka MIKES-LINDBÄCK Rainer NEUMANN Brigitte SERREAULT (Horst SOBOLL) Ioannis V. TZAVARAS	October 2005 EURAB 05.036
	DG RTD contact point: Jose TISCAR RAMIREZ		
<b>WG 6</b> <b>“Science and Society”: An agenda for a responsive and responsible European Science in FP7</b>	Jean-Luc BREDAS Jüri ENGELBRECHT István FODOR Ian HALLIDAY Miltiades HATZOPOULOS	Maria Kristina JEPSEN Gretty MIRDAL (Gunnar ÖQUIST) Ragnhild SOHLBERG Raimo VÄYRYNEN	September 2005 EURAB 05.035
	DG RTD contact point: Alan CROSS		

<b>Working Group</b>	<b>Working Group Members (Chair)</b>	<b>Date of adoption of report</b>
<b>WG 7 Universities</b>	Enric BANDA Jean-Luc BREDAS Jane GRIMSON (Ian HALLIDAY) Zita Aušrelė KUČINSKIENĖ Georg WINCKLER  DG RTD contact point: Manuel GODINHO DE MATOS	No report produced. The activities of this Working Group will be transferred to the 2006 EURAB Work Programme.
<b>WG 8 The Social Sciences and the Humanities in the 7<sup>th</sup> Framework Programme</b>	Bertil ANDERSSON Enric BANDA Jean-Luc BREDAS Jane GRIMSON Miltiades HATZOPOULOS Maria Kristina JEPSEN  DG RTD contact point: Gilles LEQUEUX	Tomasz KOŚMIDER Zita Aušrelė KUČINSKIENĖ Gretty MIRDAL (Ragnhild SOHLBERG) Raimo VÄYRYNEN
<b>WG 9 International Research Cooperation</b>	Orna BERRY Jean-Luc BREDAS Charles H.C.M. BUYS Kari-Pekka ESTOLA István FODOR Luc GELLENS  DG RTD contact point: Anna KARAOGLOU	Elisabeth JASKULKĖ Norbert KROÓ Helga NOWOTNY Horst SOBOLL (Raimo VÄYRYNEN)
		Working Group 9 has provided two sets of recommendations: First set in June 2005 EURAB 05.032  Second set in June 2006 EURAB 05.032

<b>Workshop Group</b>	<b>Workshop Group Members (Chair)</b>
Joint Workshop European Commission DG Research Services and EURAB	Bertil ANDERSSON Charles H.C.M. BUYS Jan A. DEKKER István FODOR Ian HALLIDAY Elisabeth JASKULKE Jeff KIPLING Tomasz KOŚMIDER Norbert KROÓ Mirka MIKES-LINDBÄCK Erwin NEHER Rainer NEUMANN (Helga NOWOTNY) Enrico OTTOLINI Brigitte SERREAULT Horst SOBOLL Raimo VÄYRYNEN Georg WINCKLER

## E. Meetings in 2005

During 2005, **EURAB and its Bureau** held the following meetings:

4th Meeting of the Bureau:	19 January
4th Meeting of EURAB:	20 January
5th Meeting of the Bureau:	13 April
5th Meeting of EURAB:	14 April
6th Meeting of the Bureau:	13 June
6th Meeting of EURAB:	14 June
7th Meeting of the Bureau:	6 October
7th Meeting of EURAB:	7 October
8th Meeting of the Bureau:	28 November
8th Meeting of EURAB:	29 November

During 2005, **EURAB Working Groups** held the following meetings:

<b>WG1 FP6 assessment with a focus on instruments, and with a forward look to FP7</b>	13 January
	19 January
	14 February
	13 April
<b>WG2 The Financial Perspective for Framework Programme 7 and Criteria for the Selection of Topics for the Work Programmes</b>	19 January
	8 March
<b>WG3 Stimulating the regional potential for research and innovation</b>	19 January
	13 April
	13 June
<b>WG4 Research and Technology Organisations (RTOs) and ERA</b>	30 March 05
	31 May 05
	08 July 05
<b>WG5 Boosting European Private R&amp;D: The Foundation Stone of the New Lisbon Strategy</b>	20 January
	14 April
	14 June
	7 July
<b>WG6 “Science and Society”: An agenda for a responsive and responsible European Science in FP7</b>	19 January
	14 April
	31 May
<b>WG8 The Social Sciences and the Humanities in the 7<sup>th</sup> Framework Programme</b>	13 June
	6 October
<b>WG9 International Scientific Cooperation</b>	19 May
	6 October
	29 November
	And two meetings in 2006: (23 January 2006) (16 February 2006)

On 15 June 2005, EURAB held a **Workshop with the Commission Services** on FP7 preparation.

The European Research Advisory Board was established in 2001 to advise the Commission on the design and implementation of Community RTD policy. Its 45 members include some of Europe's best-known scientists and industrialists.

During 2005, EURAB has produced a series of recommendations on topics ranging from the European Institute of Technology to the role of Research and Technology Organizations in ERA. These recommendations are presented in this publication.

Further information on EURAB, its members and its activities can be found on the EURAB website:  
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