

EXCELLENCE AND EQUAL ACCESS TO THE EUROPEAN RESEARCH AREA

Position paper of ALL European Academies (ALLEA) with regard to the further development of the European Research Area after the incorporation of the Accession Countries into the European Union

This memorandum forwards some ideas on the potential tension between the principle of competition for excellence and the objective of equal development with respect to the further development of the European Research Area and the funding of European research.

The incorporation of the Accession Countries (AC) into the European Union by May 1st 2004 will have a profound impact on the further development of the European Research Area (ERA). First of all it will result in a significant increase of human research potential (to be assessed at 200.000). This increase concerns in particular younger researchers, given the substantial growth of students applying to universities in these countries in recent years. On the other hand, the general level of R&D infrastructure in the AC's is significantly lower than in the present EU countries, due to lack of resources and other urgent social and economic needs in a period of transformation. Especially the R&D expenditure in the industrial and private sector, and, consequently, the level of applied, industry related research is relatively low. A fortunate circumstance is that networks of high-level research institutions (mostly at the top universities and research institutes of those Academies that decided to retain its research part) in AC's already exist, presenting a significant potential for multilateral collaboration and world class research. Some of them have already received the status of centres of excellence from the EU and in the long run will become natural linkage points.

One particular subject in which the potential tension between the principle of competition for excellence and that of equal development may become explicit is that of the envisaged European Research Council. According to the European Research Council Expert Group (ERCEG) the establishment of a European Fund for Research Excellence and the further creation of a European Research Council (ERC) to manage the Fund is a crucially important step to be taken in order to achieve the goals set by the Lisbon Summit for Europe to become the most competitive and dynamic knowledge-based economy in the world. The first and main task of this ERC is to support investigator-driven research of the highest quality in Europe selected through a competitive process of international peer review.

In the preliminary reactions of the European Commissioner Busquin and the Director of DG Research Mitsos to the work of the ERCEG and in their further views on the European funding of fundamental research, emphasis is repeatedly placed on the idea of fostering basic research solely on the basis of competition without a requirement of collaboration or the fair distribution of funds between member states. As the sole criterion for the acceptance and funding of research proposals, open competition, international peer review, and scientific quality undeniably comprise a *sine qua non* for the promotion of top-level research in Europe.

At the same time it should be acknowledged that an exclusive emphasis on top quality and competition for excellence may not contribute to the realization of another important objective for Europe's scientific development. That objective is to assure that the growth of science and technology in the accession states (and eventually in the other Eastern European countries) is accelerated, so that in due course these countries have equitable opportunities for scientific development that are comparable to those in the Western European states. The final report of the ERCEG (The European Research Council; a Cornerstone in the European Research Area, Copenhagen, Dec. 15, 2003) also recognizes this danger in its discussion of the tension (at least in the short term) between the primary objective of the ERC, pursuing excellence in basic research, and one of the additional tasks, making better use of and developing the scientific potential of weaker regions, geographically or thematically. Due to less favourable economic conditions and sub-optimal infrastructures, many excellent scientists in Central and Eastern countries cannot compete on an equal footing with their Western colleagues.

Such a situation is objectionable not only for reasons of fairness and solidarity, but also for reasons of benefit and self-interest of European science: we need to mobilize all the scientific expertise available (cf. ALLEA's reaction on the ERC-proposal). This concern is even more pertinent in the pre-accession countries as well as other European countries that envisage joining the EU further into the future. As said, many of the Central and Eastern European countries have an increasing number of well-trained, highly motivated students. Moreover, a great deal of these students have a strong interest in science and technical subjects - an interest which is declining at an alarming rate within the student population of Western Europe.

The same concern was raised in a recent open letter to Research Ministers in the EU member states, written on behalf of the major European academic and research organizations (All European Academies (ALLEA), the European Science Foundation (ESF), the European Academy of Science and Arts, Academia Europaea, and Euroscience), and stressing the need to make the

“Constitution for Europe” more useful to the scientific community in an enlarged Europe. The letter articulates the desire of the European scientific community to alleviate the threat of creating a situation in which parts of Europe cannot participate in the envisaged acceleration of the research efforts. The scientific communities of the periphery countries and regions must be well integrated into the European mainstream of research.

The European Parliament has expressed similar concerns. This has become apparent in a recent report “On investing in research: an action plan for Europe” (com (2003) 226 2003/2148 (INI)) of the Committee on Industry, External Trade, Research and Energy. The report argues that in view of the EU’s growing global responsibility, international research cooperation should be intensified. In this connection great importance is attached, among other things, to increased cooperation between Member states and Accession countries. In an explanatory statement the report defends the claim that....even if the applicant countries were to raise their expenditure, they would still be dependent on additional help from the EU.....

The issue being addressed in this memorandum was discussed by a number of representatives from Research Councils and Academies of Science at the recent general assembly meeting of the ESF, Nov. 27-28 2003, in Strasbourg. There the following views and suggestions were brought to the fore:

1. With respect to the envisaged funding of fundamental research within the scope of the ERC no compromise or concession should be allowed as far as the requirement of scientific excellence is concerned. Grants and subsidies should be given only to the best proposals and the best researchers or research groups in an open competition and based on reviews by international panels.
2. The same uncompromised criterion of quality should be applied to the granting of scholarships for the promotion of talent (Curie type programmes).
3. The disadvantaged position of scientists from a number of accession and pre-accession states with a less favourable economic status is, however, cause for concern. The general view was that *specific measures* should be taken to ensure that these countries are able to gain on Western European countries. It was also argued that such measures should be temporary ones, since there is no reason to assume that these countries will not draw level with the rest of Europe in due time. In line with these views, the following recommendations were made:

4. In order to make the environment for research more equal throughout Europe a part (say 10%) of the *structural funds* (in particular the European Regional Development Fund) should be reserved for research infrastructure in the accession countries. At present such funds are largely used by the receiving countries for purposes of building physical infrastructures, such as railways, roads, etc. Earmarking for the benefit of research facilities could also improve “roads for Europe” - but this time roads for brains rather than for cars. Means should be explored to intend (as a strategic demand or by agreement) an appropriate share of the structural funds for research, higher education and innovative infrastructures. It will also be clear that the matching condition for these funds would mean a disproportional encroachment on the already very modest AC R&D budgets, and that exemption of this requirement should be considered.
5. A share of the *coordination funds* (coordination of national research priorities) should be reserved for collaborative agreements with (pre-) accession countries.
6. Part of the *social funds* should be used to make up arrears with respect to the quality of secondary school education in science in accession countries. This could be accomplished by means of a programme for upgrading of science teachers, and particularly for those based in rural areas.
7. In order to counteract the danger of brain drain, which, on a large scale, is detrimental for many (pre-)accession countries, some of the scholarships for young researchers should be awarded *within* the country of residence. Such scholarships should include support for infrastructure, so as to make the research environment “at home” more attractive. Alternatively, scholarships that enable researchers to spend a number of years in a laboratory in another country, should provide support for their return (including employment for a specific period of time, as well as support for infrastructure and facilities). Some remedy instruments created within the FP6, including the centres of excellence programme, return grants, and bilateral research grants (with at least one partner from the current 15 EC members and one from the 10 AC’s) should be continued. What really would help both for retaining and attracting excellent researchers in the AC's is the availability of some large experimental facilities built with EC funds in the CEE region, comparable to for instance the laser centre that was built in Crete some years ago.

8. With an eye on specific needs and potential contributions of accession countries, participation of experts from these countries in European planning-, advisory-, and review-committees should be warranted and encouraged. They are the persons par excellence who can bring in the necessary information and insight with respect to these countries. In this connection it may be noteworthy that EUROHORCS have started an initiative to map out the status of review systems in various accession countries, and to offer assistance when desired.
9. An over-emphasis on young researchers (Curie fellowships and others) in accession countries could have negative consequences for the necessary support of the older middle-range researchers - who are often lagging behind, but who are still responsible for managing and monitoring the research of younger staff members. In terms of the age of grantees leniency could be prudent.
10. The goal of preparing and upgrading pre-accession states may be best served by using Central European states as intermediaries. Scholarships and grants, as well as support for collaboration between those countries and the stronger and larger states like Poland, Hungary and the Czech Republic could create a good intermediary stage on the road towards equality within the greater Europe.
11. Let high profile research institutions in accession countries, including the national Academies of Sciences that have successfully made the transition to a new definition of tasks and different financial ruling, be involved in internal European Union grant procedures (for both students and researchers) as well as in the monitoring of the process. They know best how these programmes and grants could best fit the needs of the country.

We express the hope that (some of) the measures suggested above will prove feasible, and that their acceptance and implementation will contribute to the alleviation of the fear of a European science divide after May the 1st and in later years.

Amsterdam, January, 2004,
Prof. Dr. Pieter J.D.Drenth,
President ALLEA.