

Developing the European Research Area:

Note to the European Commissioner for Research

December 2009

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The League of European Research Universities (LERU) is an association of top-level research-intensive universities in Europe, chosen on the criterion of research strength. It forms the dominant group of European institutions in the top 100 of the latest global ranking of universities. Its mission has been to advocate, in the European context, the values of high-quality education in an environment of internationally competitive research and the creation of new knowledge through basic research. It stresses the internationally competitive role that comprehensive, research-intensive universities play as part of the spectrum of European universities and as leading players in the European Research Area (ERA), whilst recognising the value of other university roles. It does not lobby or make proposals for the direct benefit of its members, but plays a leadership role on behalf of the research-intensive function through its publications and public advocacy.

The European Research Area

LERU is a strong supporter of the concept of a powerful ERA and endorses the perspectives of the European Research Area Board (ERAB) in its first report "Preparing Europe for a New Renaissance: A Strategic View of the ERA". In broad terms, LERU sees the primary functions of the ERA as creating the processes and infrastructure that stimulate and enable creativity in research, rather than a primary one of pushing towards commercialisation and social adoption from the research base. The latter are best done where the Commission and Member States send long-term signals that give business and public bodies the confidence to invest in the long term, and thereby the incentive to pull strongly on the research base, although open innovation platforms are potentially valuable mechanisms with which we are engaging.

The ERA's priorities should be to:

- **Attract some of the best talents of each generation into research.**

The vital product of a research base is talent rather than technology. New ideas are generated globally. Talent captures and exploits them locally. A new LERU report identifies priorities for research careers.

- **Stimulate excellence.**

We advocate a decisive shift of Framework Programme resources towards the ERC and the processes it has created, which show the potential to create the dynamism that has long been sought at European level. Recognise success, and exploit it!

- **Create a barrier-free space for European researchers.**

If the incipient dynamism demonstrated by ERC processes is to be exploited, barriers to mobility (portability of grants, social security, pensions) must be resolved. Mobility should however be purposive.

- **Ensure major, state-of-the-art facilities.**

It is a priority to exploit economies of scale by Euro-pooling of expensive facilities so that all with the talent to exploit them have effective access. It has the potential to maximise support for European researchers, with major advantages for global competitiveness.

- **Orchestrate collaboration in globally significant research programmes.**

The greatest challenges of the day such as global climate and environment change, energy, food and population would benefit greatly from networking or focussing of national programmes at a European level. They should influence the political stances of the European Union on these global issues. A European Chief Scientific Advisor should play a key role at this interface.

An ERA that has a distinctive series of well-performed roles defined in this way would permit it to articulate better with national programmes and would add greatly to its power to attract the best global talents.

A European Knowledge Area: the ERA and the European Higher Education Area (EHEA)

The creation of an effective ERA is not merely a matter of creating structures and processes. Talented people and strong institutions must be its bedrock. Almost all European researchers have their attitudes and perceptions formed at university. Most European researchers are trained in universities, and most fundamental research, the seed corn for the whole research base, is undertaken in them. Universities' research productivity has been prodigious, assisted by their access to the best talents of the rising generation and the creative influence of the irreverent young. The peace and quiet of a research institute in contrast, may be a mixed blessing. It is crucial therefore that there is a concerted development of the EHEA and the ERA, as part of a European Knowledge Area. An ERA that is divorced in concept from higher education will be an ERA that is weaker than it could be. And the EHEA must not just be the Bologna process. The European Science Foundation and Heads of European Research Councils have recently produced a paper in which universities are characterised merely as "other actors". Their approach is, understandably, a top-down one, that concentrates on managed structures and processes. But it is creative people and the powerful institutions in which they work that will determine the success of the ERA. Concepts of a networked European Research Area in which the universities are merely research hotels offer dismal managerial perspectives that ignore their successes as institutions in creating and exploiting powerful new research areas, responding to major challenges, or finding novel

ways to engage with users of research. Although electronic networks are of great value, and offer novel ways of using and sharing data, they are no substitute for powerful communities of place.

The role of the comprehensive research-intensive universities

The unique property of comprehensive universities, that they encompass the whole range of human knowledge, endows them with the unique capacity to fulfil three vital roles:

- To reconfigure both their research and educational efforts to address many of the major cross-disciplinary challenges that society and the economy face, and to pursue, because of their inherent flexibility, the research agenda wherever it goes.
- They have the capacity, which they must increasingly exploit, to develop deep understanding in a broad setting. That setting is provided not only by science and technology, but also by the humanities and social sciences. Many of the current global challenges are not merely about how we change our behaviour towards nature and each other, but how we think about it: about identity, about relationships and about the sort of society we want to live in.
- Science has, is and will continue to change the way we live. But societal acceptance will be vital if Europe is to exploit its science base effectively. A large part of the necessary science-society dialogue can and should take place in universities through which increasing proportions of citizens pass. The breadth of comprehensive research universities fits them well to lead in this task.

International competitiveness

The powerful role of research and higher education in catalysing economic and social dynamism in modern society has stimulated major investments by many countries in their national research bases. For example, China's systematic investments, concentrated in a handful of top universities, has produced an explosive rise in the output of research and talent, with the imminent prospect that it will emerge as a research giant to surpass Europe and rival the USA. Its consequence is to attract investment in the creation of research-based high value goods and services in addition to China's domination of lower value manufacturing.

The leading edge of such competitiveness is represented by institutions that currently compete on the international stage. Europe has failed to recognise the self-evident, that its great research-intensive universities, which still perform extraordinarily well in global rankings, represent one of the few cards in its hand in the fierce global competition for leading edge research and the best talents. Their research efforts have been impoverished in recent decades in comparison with other systems because of marginal-cost funding of research, the focus on specialised laboratories, the allocation of research funding on criteria other than excellence, and an obsession with bureaucratic even-handedness. Finally, there must be a recognition that concentration of effort to create or build on critical mass in internationally excellent institutions, which also have the "critical diversity" needed to pursue major cross-disciplinary challenges, is the only available strategy, particularly in a continent that has shown itself unwilling to match the scales of investment being made elsewhere.

LERU Facts and Figures

- Together LERU member universities account for more than 450,000 students and more than 50,000 PhD students.
- Each year about 50,000 master degrees and 11,000 doctorates are awarded at LERU universities.
- The total research budget of LERU's members exceeds € 5 billion.
- About € 1 billion is granted by research councils, while approximately € 1.25 billion comes from contract research.
- The total sum of research grants from EU projects to LERU universities is approximately € 260 million.
- Approximately 20% of ERC grants have been awarded to researchers at LERU universities.
- More than 225 Nobel Prize and Field Medal winners have studied or worked at LERU universities.
- 50,000 academic staff and 52,000 non-academic staff work at the member institutions (hospital-only staff not included).

LERU has published the following position papers:

- How research can inform policy (*November 2009*)
- What are universities for? (*September 2008, Geoffrey Boulton and Colin Lucas*)
- The future of the European Research Area (*September 2007*)
- Doctoral studies in Europe: excellence in researcher training (*May 2007*)
- Universities and innovation: the challenge for Europe (*November 2006*)
- Commentary on the purpose, structure and functions of a European Institute of Technology (*May 2006*)
- Competitiveness, research and the concept of a European Institute of Technology (*November 2005*)
- Growth, research-intensive universities and the European Research Council (*March 2005*)
- Unlocking Europe's intellectual potential - universities and a European common market for research (*April 2004*)
- Research-intensive universities as engines for the "Europe of Knowledge" (*May 2003*)
- The European Higher Education and Research Areas and the role of research-intensive universities (*August 2002*)

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