

LERU STATEMENT ON DOCTORAL TRAINING AND THE BOLOGNA PROCESS

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This statement presents the views of the League of European Research Universities (LERU) with regard to doctoral training in Europe, and represents, together with a forthcoming position paper, LERU's contribution to the debate in preparation for the next biennial meeting of the European Ministers responsible for Higher Education in May 2007 in the context of the Bologna Process.

Research training at the doctoral level is an essential factor in developing a powerful research system and must form a major part of European R&D policy in the coming years.

LERU strongly supports Europe's aspiration to become the world's most dynamic and competitive knowledge society. In order to boost this continent's competitiveness and economic strength it is vital to invest in education, and in particular in higher and postgraduate education, since Europe's mostly technologically advanced knowledge economies are now crucially dependent on their ability to push the frontiers of knowledge in order to create a competitive advantage.¹

For Europe to remain competitive internationally as a knowledge-based economy, high level research and training should become more concentrated and focused.

The organisation of research and doctoral training in Europe is highly fragmented, with over one thousand universities conferring doctoral degrees. As a consequence, energy and resources are dispersed, resulting in diffuse impact. Given the soaring cost of research infrastructure and training, only highly developed scientific centres, hosting a wide range of schools and disciplines, can be the appropriate locus to support a critical mass of bright, ambitious scholars and to provide a world class research environment.

Europe should foster the emergence of a broader spectrum of higher education institutions that play to their own strengths.

Most universities in Europe aspire to a similar, research-based model so that the system as a whole has a relative lack of differentiated purpose, structure and mission. At the same time, the diversity of demands on and functions of universities in society is now so great that no one university can efficiently discharge all of them. It is imperative that a broad spectrum of institutions is allowed to develop in the European higher education system, comprising both globally competitive, leading-edge, research-intensive universities operating at the frontiers of research and education, as well as small or medium sized academic centres that are "most deeply engaged with their local communities in satisfying the local demand for graduate skills, training programmes and market-driven consultancy

¹ Aghion, P. *A primer on innovation and growth*. Breugel policy brief, 2006/6.

and advice".² The challenge for universities in educating the new generations of the 21st century rests on their being given the opportunity and freedom to define their specific role within this larger spectrum.

Europe must support and promote excellence as the primary goal of research-driven PhD training.

Universities are society's principal source of highly skilled knowledge workers, researchers and scholars, who play an important role in society as generators of new ideas and critical problem solvers. In the current setting of a global economy and knowledge society, the competition to attract the most promising talent is increasingly international. Europe's research-intensive universities provide the highest standard of excellence in research-based doctoral education, training large cohorts of excellent, ambitious and well supported researchers to form the backbone of European research well into the 21st century.

To be effective as an impetus for research, the distinctive trait of doctoral training must be excellence. The pursuit of excellence requires that:

- strong selection and evaluation of candidates are carried out both in admissions and throughout the training period;
- doctoral candidates are immersed in a fertile and rich research environment, benefiting from daily interaction with stimulating peers and supervisors engaged in ambitious projects;
- high quality administrative and programmatic support is delivered ensuring that PhD candidates receive excellent supervision, can develop strong transferable skills, and are awarded the PhD degree after a rigorous thesis defence;
- strong institutional leadership and management are provided.

The quality assurance of PhD training should be built into the existing processes and mechanisms and be part of the regular research assessment of departments and faculties, rather than be monitored by an excessively regulated bureaucratic system.

To achieve excellence in doctoral training, universities need more autonomy and flexibility to develop their own strategies, methods, commitments, and organisation of doctoral education than is presently the case in many European countries.

Interdisciplinary, international and intersectoral experiences are vital elements in preparing for a professional research career. Europe should aim for much greater levels of the different forms of mobility,

- recognising that there is no scientific milieu which does not need to look beyond its boundaries,
- supporting a genuine choice of location and country for outstanding doctoral candidates for parts of or the entire doctorate, and
- enabling better knowledge exchange processes between universities and businesses in order to increase the uptake of PhD graduates in the business world.

² League of European Research Universities (LERU). 2006. *Universities and Innovation: The Challenge for Europe*. Position paper 6.

The design of doctoral training must remain clearly distinct from that of the first and second cycles of higher education in the Bologna Process.

The processes that lead to the best outcomes in the case of doctoral training differ dramatically depending on individual, disciplinary and national contexts. Research-driven PhD training is unlikely to benefit from and may well suffer from the degree of uniformisation that the Bologna Process is successfully creating in the first and second higher education cycles in many European countries. Research-based PhD training, which requires a careful balancing of educational and research perspectives, is fundamentally different from the preceding educational cycles. It would be unwise to create uniform, top-down, regulatory processes, such as credit ranges for the research-based PhD, or to regulate the status of doctoral candidates as students or employees. European universities should not be handicapped in their global competition for the best and the brightest talent in ways that their principal competitors are not.

Healthy research funding is essential for good doctoral training, much of which is provided at national level. At the European level funding should be based on excellence and aimed at a progressive strengthening of collaboration and mobility throughout Europe.

LERU partner universities are committed to deliver the highest standards of excellence in doctoral education and to promote a strong European model of research training. LERU thus intends to make a substantive contribution to the advancement of research in Europe and to the accomplishment of the objectives laid down in the Lisbon Agenda.

The League of European Research Universities is an association of 20 leading research intensive universities sharing the values of high quality teaching within an environment of internationally competitive research.

Founded in 2002, LERU advocates education through an awareness of the frontiers of human understanding; the creation of new knowledge through basic research, which is the ultimate source of innovation in society; and the promotion of research across a broad front, in partnership with industry and society at large.

Its members include Universiteit van Amsterdam, University of Cambridge, University of Edinburgh, Albert-Ludwigs-Universität Freiburg, Université de Genève, Ruprecht-Karls-Universität Heidelberg, Helsingin yliopisto, Universiteit Leiden, Katholieke Universiteit Leuven, University College London, Lunds universitet, Università degli Studi di Milano, Ludwig-Maximilians-Universität München, University of Oxford, Université Pierre et Marie Curie, Paris 6, Université Paris-Sud 11, Karolinska Institutet, Stockholm, Université Louis Pasteur Strasbourg, Universiteit Utrecht, Universität Zürich.