

# **New Science, New Industry and New Institutions? Second Thoughts on Innovation and Europe's Universities<sup>1</sup>**

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## **1. Introduction**

When discussing the goals and strategies for enhancing the European region's international economic competitiveness - specifically those announced at the Meeting of EU Council of Ministers in Lisbon - several are the themes that can be analyzed. For example the relationship between fundamental advances in scientific understanding and technological innovation that is complicated and multivalent, and probabilistic; the incentives for discovery and invention, entrepreneurship and finance, the formation of managerial expertise and workforce skills, the diffusion of new processes and products, and a multiplicity of expectational effects and dynamic feedbacks that interconnect all of the foregoing processes. There is also to be considered the roles played by public institutions involved in training and research, particularly the universities.

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<sup>1</sup> This essay has been developed from my presentation to the Conference organized by the Accademia Nazionale dei Lincei and the Fondazione Edison on New Science, New Industry held in Rome, Italy on 13-14 October 2004. It draws upon material in "Innovation in the Past and Future of Europe's Universities," presented to the Coimbra General Assembly of the Historical European Universities, convened in Siena, Italy, 14-16th April 2004, and my "Lectio Magistralis" delivered at the University of Torino, 12th May 2003. I wish to express my gratitude to each of the institutions that have invited me to speak on this important subject, and to the participants in those events from whose comments and suggestions this work has benefited.

I intend to limit my focus to the nexus of issues raised by the Commission of the European Communities' *Communication* (of February 2003) on "the role of the universities in the Europe of knowledge".<sup>2</sup> That document assessed Europe's critical needs in the epoch of "knowledge-driven economic growth" and the means to meeting those needs. Beyond its specifics, I regard the general thrust of that text to be both influential and emblematic of the wider stream of thinking that has been shaping the policies of both EU agencies and the ministries of national governments on science, technology and innovation in recent years.

The EC's *Communication* identifies the university as the institution uniquely suited to meeting Europe's needs to become more effective in generating and exploiting science-based innovation, and it goes on to call for debate on the means by which the conditions prevailing among the region's universities can be changed in order to better satisfy the requirements of the new societal role for which the Commission those institutions to be destined. Underlying that belief about Europe's path to a brighter economic future, as far as I can discern, is the arresting assessment that the leading institutions of higher education in the EU possess the potential to be more effective at commercially successful technological innovation than are the mass of business firms comprising the economy's private sector. At the same time, along with other recent pronouncements by representatives of the governments of the member states, the Commission finds fault with the universities' researchers and administrators for failing to make the realization of their "innovation-potential" an institutional priority. From this it follows that what is needed is a program of institutional reform and reorientation that would mobilize of that latent capability in order to meet a two key requirements for faster productivity growth and greater competitiveness: paying for the cost of expanding public education and training at the tertiary level, and raising the share of EU gross domestic product invested in R&D – a 50% increase, from the 2 percentage point to the 3 percentage point level, being a major strategic "target" announced by the Lisbon Meeting.

I am persuaded that university adaptations and institutional innovation are both possible and desirable as steps towards reinvigorating the performance of the so-called European Research Area. Nevertheless, the premises upon which the EC's proposed programs of university redirection and reform are grounded, and the basic economic logic of this aspect of the innovation strategy for Europe should be re-submitted for a more careful, indeed, more sceptical examination that they have generally been receiving. I want approach that argument a little indirectly – envisaging the dawning of a new, innovative epoch in the development of higher education institutions for Europe.

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<sup>2</sup> European Commission, *Communication from the Commission: The role of the university in the Europe of knowledge*, COM(2003) 58 final. Brussels: Commission of the European Communities (5 February), 2003.