

El Presidente de la Real Academia de Ingeniería
tiene el honor de invitarle al acto solemne de
Imposición de Medalla como Académico Correspondiente a

Dr. Manuel Heitor

quien pronunciará una conferencia magistral sobre

***What has changed in Europe after the European Research Area
and times of increased uncertainty?
Challenges and opportunities for science, technology and education policy***

el próximo día 23 de septiembre de 2014, a las 18.30 horas.

El Excmo. Sr. D. César Dopazo pronunciará la *Laudatio* del nuevo académico

Abstract

In a decade hit by recession and economic and budgetary problems, which public policies for science, technology and education are necessary in the near future, both for individual member states as well as the EU as a whole?

This question has driven the creation of “step4EU – Science, Technology, Education and Policy for Europe” (<http://www.step4eu.org/>), a European wide network aimed to foster the systematic observation of issues in science and technology, higher education and public policy in Europe based on in-depth research. Its rationale derived from the observation that the quasi stagnation of R&D public investment in Europe over the last decade, which now accounts for about 2.0% of EU’s GDP (for comparison, GERD in the US is about 2.8% GDP), hides a major trend of internal divergence inside Europe itself. For example, in the year 2000, Germany and France presented similar national R&D budgets; today, Germany outpaces France by 50%. Italy budgets have declined since 2007, and in real terms are 15% lower than in 2000. And, most of small countries have slowed down, or cancelled, previous increases in R&D budgets.

Overall, the average investment in R&D per citizen has decreased comparatively with that in USA and the accumulation of R&D investment over the last 30 years is 50% lower in Europe than in the USA by 2012. Undoubtedly there was progress in Science, Technology and Higher Education throughout Europe, but as a whole, Europe has met neither its goals nor its promises in this area.

The challenges for Europe are immense, independently if they are global, national or local in nature, as most are to all effects transversal (e.g., global warming). An adequate policy framework not only helps mediating the interface between science, education and society, but also contributes to shaping systems, strategies and development patterns. Ultimately, the question is how to avoid the surprising estimates of UNESCO (2012), that warns about the possibility to have a “lost generation” of 200 million of young people – the bulk of which are expected to possess some kind of higher education qualification.

These issues, among many others that could have been listed, recall similar debates in the eighties, as associated with overcrowding among students, lack of resources, increased costs of the school places, maladjustment between the educational and productive systems and the slow speed of response to labour market demands in the educational response.

In that occasion, it was clear that investments in education were important drivers of economic and social development. Indeed, investing in education in Europe, and elsewhere, contributed to develop new capacities and skills, together with professional competencies that mitigated negative effects of cyclic crisis. The flexibility in addressing economic and societal dynamics has been facilitated and stimulated through science and education, although many authors have argued that in the absence of a coherent policy framework (including collaborative arrangements, quality assurance procedures and other feedback mechanisms, among other issues) science and education are necessary conditions but not sufficient for wealth generation. In addition, analysis has also shown that budgetary cuts in science and (higher) education over time have exacerbated economic inequality and social exclusion.

In this context, scientific and higher education institutions are critical agents given their privileged locus as repositories of knowledge, skills and competencies, as well as their effective contributions to the economy. Thus, the current economic situation presents a strategic opportunity for revisiting the role and mission of advanced training, knowledge and innovation in a post-financial crisis in Europe. This requires the adequate and systematic observation of policies and budgets across Europe in a way to report, publicly and periodically, relevant information and early warnings on the state of policies and budgets in each country and at EU level.

Manuel Heitor

Center for Innovation, Technology and Policy Research, IN+, <http://in3.dem.ist.utl.pt/>
Instituto Superior Tecnico, University of Lisbon, Portugal