Manuel Heitor

Manuel Heitor was appointed in March 2005 Secretary of State for Science, Technology and Higher Education in Portugal. He was the founding director of the Center for Innovation, Technology and Policy Research at the Instituto Superior Técnico (IST), the engineering school of the Technical University of Lisbon, which named in 2005 one of the top 50 global centers for research on "Management of Technology" by the International Association of Management of Technology, IAMOT. After completing in 1985 a PhD at the Imperial College, London, and a post-doctoral training in 1986 at the University of California San Diego, both focused on combustion research, he has served as a Professor at IST, as well as its Deputy-President (1993-1998). He is also a Research Fellow of the University of Texas at Austin's Innovation, Creativity, and Capital (IC2) Institute. His research work includes publications initially in the area of combustion, but since the mid 90s he has focused on the management of technical change and the development of science, technology and innovation policies. He chaired during the period 1996-2005 the Organizing Committee of the series of International Conferences on "Technology Policy and Innovation", and his co-editor of a related book series through Purdue University Press. He was co-founder in 2002 of "Globelics - the global network for the economics of learning, innovation, and competence building systems". He is a member of the Science and Technology Council of the "International Risk Governance Council", IRGC.

In your view, what is the most probable or desirable future scenario for government's role in higher education?

Strengthening the knowledge dimension and external societal links (i.e., "system linkages") are critical in making the institutional changes required for tertiary education institutions, TEIs, to meet the needs of global competition and the knowledge economy. In public policy terms, by focusing governmental and political actions on the growing appropriation of scientific and technological culture by society and on the external dimension of knowledge institutions, we require tertiary education institutions to strengthen their capacity to make the critical internal changes for modernising their systems of teaching and research within a path of diversity and specialisation, without compromising quality. Furthermore, by strengthening their institutional integrity together with enhancing their external links with society, tertiary education institutions are asked to carefully improve their relationships with economic, social and political actors, thereby creating "new" reinforced institutions that have gained societal trust. And this must be achieved in a way that will promote new leaderships for our institutions.

In your opinion, what is or should be the most important objective for higher education in the future? Why?

I would like to follow Charles Vest , former MIT´s President, in his most recent book in that "…what is best about American higher education – we create opportunity. That is our mission. That is our business. That is first and foremost what society expects of us."

My underlined assumption is that "students matter" and that it should be clear that the main reason for governments to increase funding for tertiary education is to increase participation rates and extend the recruitment base and the number of students in tertiary education . At the same time, it

is also clear that new opportunities are required to give students more flexible pathways across different types and levels of educational qualification, including through recognition of prior learning and credit transfer, in order to reduce repetition of learning. As a result, increased diversified systems are required

What do you consider to be the main future challenge(s) for higher education systems? Why?

I suggest four selected and interrelated issues, which are considered to be central to understanding the knowledge dimension and external societal links of tertiary education institutions, namely: i) improved funding and equity for enlarged participation rates; ii) strengthening knowledge production and internalization for improved knowledge networks; iii) fostering diversified systems for improved knowledge transmission and learning; and iv) strengthening institutional integrity together with systems linkages.

In your opinion, what would be the worst, but possible, way to tackle these future challenges? Why?

Limiting institutional autonomy and focusing governmental and political actions on the internal dimension of tertiary education institutions: it would reduce the capacity of institutions to make the critical internal changes for modernising their systems of teaching and research within a path of diversity and specialisation. Ultimately, it would compromise quality.

What do you consider to be the best possible way to tackle the above mentioned future challenges? Why?

The need, and the opportunity, to accelerate reform of TEIs in order not only to stimulate progress across the whole tertiary education system, but also to foster the emergence and strengthening of our institutions which can demonstrate their excellence at international level. But accelerating reform requires the need to concentrate tertiary education reform on a myriad of issues that will ultimately open the "Black Box" associated with all type of institutions, preserving autonomy while building-up a new set of relationships with society at large and introducing an "intelligent accountability" associated with a renewed structure of incentives.

To cope with such a variety of demands and with a continuously changing environment, we all know that the tertiary education systems, in particular, needs to be diversified. But the challenge of establishing modern tertiary education systems requires effective networks and a platform of research institutions, notably for stimulating the political debate among the various stakeholders and for assisting in the networking of national constituencies promoting the positioning of our institutions in the emerging paths of brain circulation worldwide.

And this must be achieved in a way that will promote new leaderships for our institutions.

By focusing governmental and political actions on the external dimension, tertiary education institutions are asked to strengthen their capacity to make the critical internal changes for modernising their systems of teaching and research within a path of diversity and specialisation, without compromising quality. Furthermore, by enhancing their external links with society at large, higher education institutions are asked to carefully improve their relationships with economic, social and political actors, thereby creating "new" reinforced institutions that have gained societal trust.