

External Review Committee Report, September 2009

The third meeting of the External Review Committee (ERC) for the collaborative program between universities in Portugal and Carnegie Mellon University in the USA – Carnegie-Mellon | Portugal Program in Information and Communication Technologies - took place over the 5 day period from 14th to 18th September 2009.

The Committee commented as follows:

*This is a visionary initiative to advance yet further the standing and standard of research and postgraduate education in Information and Communication Technology in Portugal; there has been impressive progress since our last visit in November 2008. As previously we met with a wide range of people involved: the Secretary of State for Science, Technology and Higher Education; the President of FCT and the Executive Director for International Partnerships at FCT; the two program directors (from Carnegie Mellon University and the National Director, Portugal); participants in the program (course leaders and faculty both from Portuguese universities and from Carnegie Mellon; industrial sponsors; a number of students and post-doctoral researchers) and the Board of the program. We are once again most appreciative of the positive and open way in which all involved engaged with us during our review visit. We especially commend the way in which the Board has responded positively to the recommendations we made last year.*

*The program is necessarily substantial in scale and scope. It involves professional Masters programs aimed at professionals in industry, dual degree PhD programs and collaborative research projects – all with a commendably high degree of industrial involvement and commitment. We recognized in our report last year that as the program continued to expand it would become necessary for the management structure and arrangements in Portugal to evolve to meet the challenge of increasing complexity. The new arrangements developed and put in place this year are commendable and in our view represent an appropriate, very positive response to this perceived need. They should help achieve the necessary agility and ensure that the benefits can become deeply embedded and sustained in the university system in Portugal. In this context we are particularly supportive of the way in which the academic and industrial research community in ICT in Portugal has been involved in the shaping and refinement of the Strategic Plan for the program; this pattern of strong engagement is a very positive feature that should be maintained.*

*The high caliber of the students that have been attracted to the dual degree PhD programs, from Portugal and more widely around the world, is impressive indeed. The distinctive international experience afforded by the program – with study and research in both Portugal and at Carnegie Mellon University in the USA - augers well for the development of future leading researchers for the Information and Communications Technology sector in Portugal – in industry, academia and as contributors also to public policy areas. This is the case also for the dual degree professional masters programs in which there is full and intimate connectivity to counterparts offered by Carnegie Mellon in Pittsburgh. The students benefit greatly from undertaking a substantial period of study at Carnegie Mellon; faculty movements in both directions help ensure real coherence of educational experience as well as equivalence of standards; student project work undertaken at Carnegie Mellon linked with companies in Portugal builds relationships for future collaborative research projects. And indeed, a significant set of collaborative research projects have been developed this year, each generally involving faculty/researchers from more than one university in Portugal, researchers at Carnegie Mellon and industry in Portugal. It is particularly pleasing to see the extent to which the number of companies involved with the program in this way has grown over the last year. This industrial engagement in the research projects provides a most valuable channel to enable the ready flow of the fruits of research towards economic and societal impact. And there is already clear evidence of benefits of this nature being achieved.*

*Most notable is that during this year the program has stimulated new institutional developments, linking academia and industry in Portugal with active engagement also of Carnegie Mellon. In particular the proposed Institute in Madeira relating to Human Computer Interaction (HCI) and two other centers of expertise linking industry and universities dealing with Software Engineering and with Security respectively – are important areas for the further development of the ICT sector in Portugal. These developments represent tangible valuable outcomes of the collaboration between academia and industry in Portugal, catalyzed by the relationship with Carnegie Mellon*

*Once again we express the view that faculty both at Carnegie Mellon and in Portugal are to be congratulated for the further impressive progress that has been made - to a greater extent than we would have thought could have been achieved by this time. It is clear to us that the Carnegie Mellon|Portugal Program is contributing substantially to the transformation of university research and graduate education in Portugal, ensuring that the very highest international standards of excellence are attained.*

Professor Sir John O'Reilly, Cranfield University, UK (Chair)

Professor Luigia Carlucci Aiello, Sapienza University of Roma , Italy

Professor Tariq Durrani, Strathclyde University, UK

Professor Joel Moses, MIT, USA