

2013 External Review Committee Meeting January 2013

External Review Committee:

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

External Review Committee Note from January 2013 Review Meeting

The committee convened in Lisbon during 20-22 January to review progress achieved during phase one (2007-2013) and consider and comment on plans and prospective actions for a second phase of activity. As previously the Committee observes:

"This is a visionary initiative having a very positive impact, advancing yet further the standing and standard of research and postgraduate education in Information and Communication Technology in Portugal. The programme has now been in operation for some five+ years; the progress and achievements of this first phase are very impressive indeed."

During this visit period the ERC was pleased to have the opportunity to meet with a wide set of those involved with the programme, within Portugal and from Carnegie Mellon University. These included in particular: faculty members, students and representatives from industry participating in the programme, the Programme Directors and Board, the President of FCT and both the Secretary of State for Science and the Secretary of State for Entrepreneurship, Commercialisation and Innovation.

These interactions were very helpful to the committee in gaining an appreciation of achievements and outcomes from phase one and of the aspirations and emphasis for the second phase of the programme. We give below in this note some observations arising from our meetings and discussion which we hope will be helpful to those Involved in sponsorship, leadership and execution of this imaginative initiative for the furtherance of the research and innovation environment for ICT and the important part it plays in the economy of Portugal.

Some Observations on Progress and Achievements of Phase 1

The aspiration for this initiative was to make a positive, transformational, contribution to the advancement in relation to ICT research and associated postgraduate education in universities in Portugal, further raising the ambitions and achievements measured against the highest international levels of excellence.

In earlier reports we have commented positively on the activities and highlighted impressive progress being made. This is very encouraging for the future. We believe this needs to be followed through and momentum maintained for the potential benefits fully to be realised in terms of academic

achievements, the enhanced culture of mutually beneficial engagement between academia and industry and the associated positive impact for the economy of Portugal.

Entrepreneurial Research and Innovation

There are some good examples from the first phase of the programme, from which to develop further. These include:

Advanced capability in established companies, such as:

- Security Lab at Portugal Telecom;
- Software Engineering Group at Novabase;
- Machine Learning research at Priberam;
- Logica creating a research and development centre in Madeira;

and start-up activity, namely:

- VENIAM in relationship with the DRIVE-IN project;
- Feedzai in correspondence with research in Software Engineering;
- and Mambu in connection with the Professional Master in Human-Computer Interaction.

Improved products or services in established companies

An example here is the security component for the Enterprise Application Platform of Outsystems.

Institutional development

An example here is the creation of a new innovation institute in Madeira (M-ITI)

Observations on aspirations for Phase II

We recognise the intent for a greater emphasis in phase II on entrepreneurship and commercialisation. In our discussions with the Secretary of State for Entrepreneurship, Commercialisation and Innovation it was common ground that entrepreneurship should not be interpreted narrowly but should, importantly, embrace 'intrapreneurship' - developing entrepreneurial behaviours and culture within existing enterprises as well as new ventures. To that end we see it as important for the development of entrepreneurial attitudes to be fostered within the ICTI degree programmes. It is our observation that the Professional Masters programmes have been particularly important in securing the substantial industry engagement that has been a notable successful feature of phase I. It is very much to be hoped that it will be possible for this to continue in phase II, which we see as critical if the aspirations in relation to acceleration towards greater entrepreneurship and commercialisation are to be realised.

It is, of course, much to be regretted that the financial crisis has necessitated a scaling back of the financial envelope for phase II compared with phase I. It is important to seek to avoid this being perceived by the industry as a lack of commitment or failure by government to recognise the importance of the ICT sector. Indeed, we were greatly impressed and encouraged by the explicit support for continuation of the programme expressed by both Secretaries of State.