

MIT Portugal Program (MPP)
External Review Committee

Report of Assessment

March 2010

The External Review Committee of the MIT-Portugal Program (MPP) met in Lisbon on March 11 and 12, 2010.

The following members were present:

- Prof. dr. Henk G. Sol, Professor of Business and ICT and Founding Dean Faculty of Economics and Business, Groningen University, and Founding Dean Faculty of Technology, Policy and Management, Delft University of Technology, the Netherlands (Chair)
- Prof. César Dopazo, Ph.D., Full Professor of Fluid Mechanics, University of Zaragoza, Spain
- Prof. Jonathan Dordick, PhD., Isermann Professor, Rensselaer Polytechnic Institute, USA
- Prof. Roland Clift, Ph.D., CBE, Distinguished Emeritus Professor of Environmental Technology, University of Surrey, UK.

The following members were contacted remotely:

- Prof. Nick Oliver, Ph.D., Head of School of Management and Economics, University of Edinburgh, UK
- Mr. Robert Skinner, Executive Director, Transportation Research Board, National Academy of Sciences, USA.

INTRODUCTION

The ERC noted that only a Year 5 Annual Plan was formally submitted just before the meetings. It received informally the Fall 2009 Program Report and one of the Focus Area Reports. No other documents were received before the meeting.

The ERC expressed its disappointment on the weak and untimely preparations for the meeting as well as on the inappropriate quality of the hotel accommodation. It welcomed again the warm hospitality and friendship of the people attending.

It would have appreciated receiving explicit feedback on the remarks made in earlier assessment reports.

REVISED RESEARCH PROGRAM

The ERC took note of the revised strategy for MPP formulated in July 2009 as well as of the subsequent refined one presented in November 2009. The ERC endorses the evolutionary development of the research themes according to changes in the external environment making use of the and commitments of the partners involved. It is not

convinced that the network based refinement contributes to the MPP. It is strongly advised to stay away from changes in or distractions from the current program.

It is advised to communicate the 4 new research themes as the leading themes for the rest of the duration of the program. It is understood that research networks could be developing as living communities around these themes. But developing active networks requires much more time and active orchestration.

It is advised to clarify the transition from the former focus areas and the educational programs to the new themes, especially to the researchers and students involved.

It is understood that the theme Medical Devices deserves much attention for additional development. Also the Engineering Systems stream as glue to the whole program needs appropriate attention and funding.

The ERC demands the Program Directors to re-assess the metrics for evaluation of the current program. It is suggested to involve the leadership of the new themes in outlining realistic goals and objectives for the remaining period, in addressing potential misfits with the former goals and objectives and in indicating possible actions to realize the goals set out. The leadership should be made accountable for realizing specific goals.

The alignment of research projects in the new themes, of the PhD and the (Executive) Master programs requires much attention and leadership of the PD's. A progress report is expected in due time.

The PD's are invited as well to indicate the consequences for the budget and the activities that should be phased out by the program changes. A response to the ERC is expected before April 30, 2010.

It is appreciated that current obligations will be honored, including the projects accepted in the MPP Open Call 2008 and 2009. This should be conveyed to the persons involved.

COMMUNICATION

The ERC suggested to identify more specifically the external communication objectives for the upcoming years and to outline communication policies for each of the objectives and target groups identified. The website should be used as a major communication channel adjusted to these specific goals.

With good communication support staff the PD's are well capable of outlining the major achievements in education and research in a realistic way, not in the bombastic style of the Year 5 Annual Plan.

Most of the PhD programs and Master programs are products to be proud of.

As to research, the Green Island Project and the way Stem Cell Engineering is brought into the clinic are major examples attributable to MPP.

The 4 leadership teams as well as the PD's are each invited to identify 2 highlight stories of the current MPP. A task force for communication seems to be inappropriate.

LEADERSHIP

Re-assessing the leadership roles and tasks in view of the revised research program is urgently needed, at the program level as well as at the theme level subsequently, the interaction of researchers and students within and between the educational programs and the research themes needs a lot of attention.

Commitment of (potential) supervisors, especially at MIT, has to be secured.

INNOVATION AND ENTREPRENEURSHIP

The ERC welcomed the presentation of the ICTE Audax initiative. It is a fine instrument to strengthen interaction with the industrial affiliates. It is suggested to open up the initiative to Master students and researchers as well. MIT faculty and Portuguese faculty should demonstrate their experience in assessing new ventures and innovative projects by participating in (pre) jury activities.

It is advised to look at MPP as a platform to generate and develop additional innovative services.

The ERC advises to re-assess the MPP strategy to attract industrial affiliates in light of its refined program and to set realistic objectives in terms of size of participating organizations, focus on SME's, available venture capital and cultural constraints.

Additional staff should be added at the Portugal office.

GRADUATE SCHOOL OF ENGINEERING AND DESIGN

The ERC endorses initiatives for a Graduate School for Engineering and Design.

It observes that this concept could and should resolve many logistical and operational issues in furthering education and research at the crossroads of engineering, design, applied sciences and engineering systems. Such a school could build upon the activities within the Engineering Systems Consortium. It could become an inspiring center of excellence in Europe by involving junior faculty from various backgrounds and establishing links with various universities around the world. This could be the (virtual) place to let new research networks of excellence emerge, combining various paradigms for research.

The governance structure with a strong external Steering Committee and International Academic Advisory Board needs appropriate attention.

It is advised to (re)allocate additional seed money from the Year 5 budget to develop this initiative.

OPEN CALLS

It is understood that there are no budgetary constraints for the MPP Open Call 2010 and its consequences for financing the proposals accepted in the subsequent years.

It is advised to rephrase the Terms of Reference to only accept joint projects recognizing the links with the MPP program.

A shorter and articulated format of the proposals should enable appropriate and speedy evaluation.

PHASE 2

The ERC welcomes the timely preparation for a phase 2 of the MPP program.

It suggests finalization of the programming activities before November 2010 after assessment by the ERC.

A phase 2 could harvest the many fine initiatives in the MPP, at the same time focusing on just a few themes. This phase would be excellent to explicitly evaluate the achievements of the educational programs in the global arena.

It is suggested to invite the ERC for an assessment of all educational programs according to the internationally established accreditation standards this fall in preparation of Phase 2.

The ERC envisions a great pivoting role for the graduate school in assessing Portugal's position in engineering and design and in developing new themes for research.

Its potentially unique position could be strengthened by adding the design and development of new technology enabled services.

DETAILED OBSERVATIONS

In general the ERC is not unhappy with the progress and achievements in the respective Focus Areas en Themes to say the least. More detailed remarks are made in the enclosed reports. However, the absence of good documentation is badly felt here.

On behalf of the ERC,
Henk G.Sol, chairman

Encl. Focus Area and Theme reports