Massachusetts Institute of Technology

ASSESSMENT OF AN MIT-PORTUGAL COLLABORATION
MASSACHUSETTS INSTITUTE OF TECHNOLOGY

FINAL REPORT
AUGUST 29, 2006

CONDUCTED FEBRUARY 15 - JULY 15, 2006

PROGRAM DIRECTOR: DANIEL ROOS, PROFESSOR AND FOUNDING DIRECTOR, MIT
ENGINEERING SYSTEMS DIVISION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY
77 MASSACHUSETTS AVENUE
CAMBRIDGE, MA 02139

evaluations of research centers carried out in previous years by the Portuguese Government, through the Portuguese Science and Technology Foundation (FCT). This allowed us to identify existing research skills in Portugal and to confirm the level of excellence of those Portuguese groups previously identified on the basis of existing collaborations with MIT faculty. Any of the original Focus Areas would have been dropped if there had been a lack of interest on the part of MIT faculty or our faculty partners in Portugal.

Most MIT international collaborations have utilized a diffusion strategy where we work initially with a single university in the host country. Over time, the results of that collaboration are transferred to other universities in the country. However, in the particular case of Portugal, we have understood the requirement imposed by the Portuguese Government in terms of the need to involve various institutions and research centers in any potential collaboration with MIT. Consequently, we have agreed to follow a different approach in Portugal where we will work with national consortia in each of the focus areas. Since Portugal is a relatively small country, many university research groups in the focus areas are below critical size. By forming Portuguese consortia, we can bring together the best researchers and research groups from the universities and research institutes throughout the country. However, we need to recognize that it will be more complex for MIT to interact with a consortium than with a single university. The consortia that have been formulated for the assessment may be restructured once the work plan has been finalized to reflect the initiatives that will be pursued. We must ensure that the best Portuguese organization, or combination of organizations, is selected for each initiative. Therefore, for potential future projects to be considered in addition to the initial launching areas of collaboration, it might be advisable to invite several Portuguese organizations to submit proposals which will be evaluated for technical excellence to determine which organization is selected.

Many faculty members in Portugal and at MIT have expressed interest in participating in this collaboration and have suggested additional research projects and focus areas. An example of such proposals is a preliminary tentative project on "e-planning." The start-up strategy to limit the number of initial focus areas has precluded including additional projects or focus areas during the first year. We anticipate that new initiatives can be proposed in the annual plans submitted in subsequent years. Those new initiatives can occur at several different levels. Seed research and planning studies can be utilized to study the feasibility of a new project that does not relate to an existing focus area. Some of these planning studies will evolve into new projects, whereas others will not go beyond the planning stage. In addition, new focus areas can also be implemented by the Governing Committee (See Section 1.F). Therefore, the overall relationship consists of a spectrum of initiatives ranging from seed research to individual projects to focus areas to anchor programs.

Although we have received suggestions about many potential projects and focus areas, we mention "e-planning" initiatives in particular because we have received many expressions of interest from faculty in Portugal and MIT. We suggest that the "e-planning" initiatives should be the subject of further analyses during the coming year after the launching of the initial program.