

Unidade de I&D

[Centre for Mechanics and Materials Technologies](#) [MECH-Norte-Braga-4077] visitada em 04/03/2008

Classificação: *Very Good*

Comentários do painel de avaliação

Sobre a unidade

This unit has been created from the merger of the CIICS (Centre of Interfaces and Surface Performance) and part of the CITEPE (Centre for Production and Energy Technologies). The reorganization aimed at focussing the activity on fewer strategic areas and achieving critical mass.

The unit has 26 PhD members and 46 PhD & MSc students and other researchers plus 5 technicians. It consists of 3 groups:

- Functionalized Materials and Surfaces Performance
- Dynamics of Mechanical Systems
- Energy and Environmental Technologies

Although some connections exist among the various groups, the synergy could be improved.

The production rate of journal papers over the period 2003-2006 is reasonable (1.2 journal paper / PhD / year), although the group on Functionalized Materials appears to have a higher publication rate (1.9 vs. 1.0 for the other groups).

The research topics covered by this unit are important and by-and-large practically useful. However, they appear to be somewhat scattered and not focused enough (details for the individual groups follow), and the synergies between the groups could be improved. There is a good management structure in place and an effort to create focussed areas and still respond to opportunities from industry and private enterprises.

There has been no involvement in EU funded international research projects in recent years. The mobility of the members of the team is relatively low as well for the PhD students; there is a tendency to remain in the group with the exception of some foreign graduate students. Some graduate students have been involved in international collaborations and have had the opportunity to spend time with other research groups outside Portugal, which is an important aspect of their education. The unit should try to find a "niche" where the synergy between the three groups may be exploited at an international level.

Sobre os grupos de investigação

Energy and Environmental Technologies [RG-MECH-Norte-Braga-4077-329]

Most of the topics covered by this group are very interesting and in-line with societal needs. However, too much scatter weakens their effort. The group should focus their activity on a subset of projects where they are strongest (e.g. waste as raw material?).

Functionalized Materials and Surfaces Performance [RG-MECH-Norte-Braga-4077-327]

This group appears as the most focused and the most productive of the Unit with a publication rate of 1.9 Journal paper / PhD / year. The group has great potential and should try to raise its activity and visibility to the international level by seeking to enter European networks (either research projects with complementary expertise, or networks of excellence in their field).

Mechanical Systems Dynamics [RG-MECH-Norte-Braga-4077-1400]

The research topics covered by this group are interesting and up-to-date, but they appear to be too wide-spread to achieve critical mass and recognition at the international level. The group leaders should try to find a few subtopics where they can develop an expertise and presence at the international level.