

EVALUATION REPORT ON RESEARCH LINE – “ENERGY”

LAETA – Associated Laboratory for Energy, Transport and Aeronautics

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Background

The undersigned Prof. Roman Weber visited the LAETA group on 23rd and 24th September 2009 to evaluate the performance of the Energy Line.

The activities within the Energy line were presented by:

at IST of Lisbon	Prof. P. Coelho and Prof. L. Gato (23 rd of September),
at University of Coimbra	Prof. M.G. Silva (24 th of September),
at University of Oporto	Prof. O. Fernandes (24 th of September).

The evaluation was carried out for year 2008.

The evaluation was carried out on the basis of both the visit and RL-MECH-750022-57 report.

Objectives of the Energy Line

Provision of energy is certainly one of the most important factors for sustainable development of modern societies. It is imperative that within each country there exist a sufficiently large number of experts in the energy field who secure an efficient energy conversion, supply and usage. General objectives of the Energy line can be summarize as follows:

- (a) improvement of efficiency of fossil fuel combustion and simultaneous reduction of pollutant emissions,
- (b) promotion of research on renewable and new energy technologies,
- (c) enhance interaction with other research groups active in the energy field,
- (d) knowledge and technology transfer to the industry,
- (e) development of advanced R&D tools needed in the development of new energy conversion systems.

Energy Line

The following research groups were evaluated within the Energy Line of Laeta:	
Renewable and Sustainable Energy Systems	IST
Energy, Environment and Comfort	University of Coimbra
Advanced Studies on Energy in the Built Environment	University of Oporto

The above groups participated to the Energy Line with a varying degree of involvement.

Research Activities

The overall budget of the Energy line was around 3,199 kEuro for the 2008 year with 47% being industrial&public institutions funding and 29% of European Community financing.

The Energy line has an intensive collaboration with many research institutions and industry not only in Europe but also world wide.

Productivity of the Energy Line

One of the indicators of productivity is a number (list) of publications, patents and degrees awarded. The table below summarises the productivity:

	2003-2007	2008
Books	22	1
Chapters in books	3	3
Papers in Int. Journals	167	34
Papers in National Journals	17	8
Presentations at Int. Conferences	384	80
Presentations at national Conferences	108	20
International Projects	73	34
National Projects	41	45
Organization of Conferences	15	6
Organization of Symposiums	10	2
Ph.D. thesis completed	31	5
M.Sc. thesis completed	47	55
Membership of Edit. Boards of Journals	6	9

Evaluation and Recommendations

The Energy line of Laeta has a very impressive publication record. Laeta members are being seen at International and National Conferences. Their work has been published in journals of very good and good scientific ranking. A number of Laeta members serve on Editorial Boards of major journals in the energy field. This is an outstanding record of accomplishments.

I would recommend putting more efforts into upgrading the Laeta research laboratories with modern measurement equipment. Furthermore, there seems to be not enough technicians to assist in the experimental work.



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