

Stage 1 - Proposal for a decision

Lock date: 16-06-2014 17:03:37

2013 Evaluation of FCT Research and Development Units

Review process - Stage 1: Final Panel consensus statement

Outcome of Stage 1

Proceeding to Stage 2?

No

Grade

Good

Proposal for funding

Annual Core Funding (€)

20000.00

Individual criteria

Grading Scale for individual criteria:

- 5 - Excellent (All relevant aspects of the assessment criteria successfully addressed. Any shortcomings are minor)
- 4 - Very Good (Assessment criteria very well addressed/met, although certain improvements are still possible)
- 3 - Good (Assessment criteria well addressed/met, although improvements would be necessary)
- 2 - Fair (Assessment criteria broadly addressed, however there are significant weaknesses)
- 1 - Poor (Assessment criteria addressed in an inadequate manner, or there are serious inherent weaknesses)

A. Productivity and contribution to the National Scientific and Technological System (NSTS)

- i.) Research outputs; knowledge and technology transfer activities, when applicable, giving particular importance to the registration and value of patents, models or other relevant innovation indicators;
- ii.) Contribution to the accumulation of knowledge and skills of the National Science and Technology System (expected effects and results); contribution to the advanced training of researchers; contribution to the promotion and dissemination of scientific and technological research; dissemination of results and actions to promote scientific culture, as well as participation in activities designed to promote public understanding of science, technology, art and culture; relationship between available past funding and output;
- iii.) Degree of multidisciplinary and of internationalization, when relevant

Score

4

Substantiating Comment

The Centre has a specialised epistemological approach, emphasizing didactics as well as ICT. It covers a wide spread of educational institutions and also focuses on teacher education, teaching more generally and formal and informal learning too. The Centre seems productive and there is a good critical mass of researchers but it is not as strong internationally (including in Europe) as it could be for the numbers of researchers and PhDs involved. There was some positive development of productivity from 2008-2012, especially in the final year but the number of international outputs per researcher is still relatively low. Outputs include a large number of journal papers (but not necessarily in high impact journals), book chapters and

books as well as conference presentations and proceedings. Other outputs include a number of significant knowledge transfer events aimed at teachers and the development of important and useful software tools for both academics and professionals. So there has been a lot of dissemination going on to academics, practitioners and the wider public.

There is evidence of excellent advanced training of PhDs (though it is not always clear exactly what is involved in this or what the balance is of subject specific and generic skills in these programmes) and there is a good throughput of doctoral completions, with a large increase in students in 2011-12.

The PhD programme is clearly critical to providing skilled researchers and potential for national and international didactical improvement.

A good level of multi-disciplinarity is evident in the work undertaken 2008-2012 and in the plans for the future, though more evidence of basic social scientific work in these disciplines would also have been helpful.

The national contribution of the Centre in relation to knowledge and skills is high.

In general, there is also some good international visibility of the Centre and in particular, evidence of a lot of collaboration and dissemination work with Portuguese speaking countries but not nearly as much with other countries.

B. Scientific and technological merit of the research team

- i.) Scientific productivity and merit of the results of the Unit's research, taking into account the relevance of both current and planned research, as well as the level of internationalization of scientific activities, including publications and citations of published works or other relevant aspects;
- ii.) Skills and composition of the research team to adequately execute the proposed program;
- iii.) Ability to successfully compete for national and international research grants and contracts, including contracts with companies.

Score

3

Substantiating Comment

There is good team productivity especially in relation to journals (though at the moment, this only extends to roughly one paper each per integrated researcher per year in international journals) books and book chapters. There is a persuasive view that maybe the direction and content of these outputs could have been more focused and could usefully be so in the future too. But everything connected with outputs is moving in the right direction.

The international linkages are growing and there are areas of high international visibility but these need to extend beyond the Portuguese speaking world and focus more on Europe and other parts of the world which shares many common education problems with Portugal and which could and should be a stronger source of funding. There is mention in the proposal of support for translation of academic papers but maybe more resource needs to be invested on supporting the wider language skills of Centre members, as this may be hampering broader international networking and collaboration.

The journal publications are not often in high impact journals (cf bibliometric analysis) and there is a low overall h index for core researchers.

Grant funding of the Centre is very good but not outstanding for the size of the centre. It has so far been much more effective in gaining national than international funding and EC funding dipped in 2012.

The team size is good but members may need more training and support if they are to achieve a higher level of international publications (this would also be a critical area for support of PhD students too).

In other respects though, the academic skills of the team seem appropriate and the high quality Phd programme is also helpful in achieving this.

There is, however, quite a high threshold to become an integrated member of the Centre and self evaluation and other monitoring of performance seems good, in theory at least. Maybe the Centre just needs to be more internationally ambitious.

C. Scientific merit and innovative nature of the strategic programme

- i.) Relevance, originality and impact of the proposed strategic programme;
- ii.) Contribution of the scientific, technological, artistic or cultural activities of the proposed programme for a smart specialization strategy of the region in which the R&D Unit is incorporated;

iii.) Degree of multidisciplinary and of internationalization, when relevant.

Score

3

Substantiating Comment

The plans for the next period are ambitious and wide ranging, and the emphasis on didactics and information technology help to make the plans distinctive and relevant both nationally and internationally with a strong emphasis on the application of research. The six strategic principles will be helpful for assessing the projects to be undertaken as will the research action axes. However, it is nevertheless the case that the overall CIDTFF goals and those of the four Research Groups (with the possible exception of RG1) are far too broad e.g in relation to life long learning or increasing scientific literacy , which are worthy but rather unspecific aims; this may lead to lack of focus overall. Centre and RG goals need to be very specific so that actual year by year progress can be assessed and there needs to be more emphasis on how the RGs will interact with each other. The specifics tend to get lost in the generalities and long lists of what the RGs hope to achieve. Both basic and applied elements of research are addressed but the balance is towards the latter. The communication, media and digital and virtual environments RG has a very ambitious agenda but may not have the critical mass to achieve it. There is a lot of multi-disciplinary but this too could be more focused.

It is quite hard to track from the complexities of the RGs and the themes what exactly will emerge at the end of the funding period. It should also be noted that the themes are not evenly spread across the RGs.

Good use of research technicians will enhance the future regional impact of the Centre's work and there is clear attention to enhancing practitioner skills and knowledge, achieving benefits for a wide range of Portuguese learners and raising the quality and leadership of educational institutions regionally. It is not clear how far this knowledge will travel internationally.

D. Feasibility of the work plan and reasonability of the requested budget

i.) Organisation of the programme in terms of the proposed objectives and resources (budget, duration, infrastructures); organisation and work environment, with special focus on the adequacy of the research team's critical mass to perform the proposed objectives and on the management of resources directed to research activities, which includes supervision of postgraduate students and post-doctoral involvement in R&D activities;

ii.) Adequacy of proposed budget to accomplish the proposed strategic programme;

iii.) Institutional resources (technical, scientific, organisational and managerial) of the participating entities. The commitment of the host institution in providing the manpower and material resources to implement the proposed programme is especially valued.

Score

3

Substantiating Comment

There is a sound organisational model for running the centre, which given its size is reassuring.

There is an open question about the match between the budget and the Centre's very broad goals. It is hard to assess if the budget is adequate as, like the proposed programme, the indicative amounts are general and lack specific reference to actual planned projects and activities. The support for further internationalisation, which is much needed, may not be adequate.

The unit running costs are unclear from the budget provided and similarly it is not evident how much infrastructure needs to be financed outwith the budget. There are plans for modest team growth and the annual cost rise seems justified.

It would have been helpful to cost some major individual projects separately.

There is evidence of a very good University infrastructure and other support from the University of Aveiro. There seems to be an excellent partnership between the Centre and the University.

Additional questions

1. Laboratory intensity level

Do you agree with the laboratory intensity level suggested in the application?

Yes

If you recommend a different level, please substantiate

2. Suggested basic and applied research/experimental development share

Do you agree with the suggested basic and applied research/experimental development share suggested in the application?

Yes

If you recommend a different basic/applied research share, please substantiate

Comments

Overall Comment

Overall, the Centre has significant multi disciplinary and other academic strengths through its focus on Didactics and ICT, improving practice, raising organisational quality, the emphasis on formal as well as informal education and its breadth of coverage of a wide range of issues and phases in education. Dissemination to a wide variety of audiences is already in place and set to continue. There is both a regional and an international contribution. The Centre has already achieved much and is very productive as well as running successful and high quality PhD training. There is good critical mass over most of the planned areas of specialisation for the next period. The success in obtaining funding at national level is praiseworthy and noted. But to succeed in the next phase of its work, the Centre will need to be much more focused (maybe having 4 RGs is a hostage to fortune and could usefully be reappraised?). It is hard to ascertain what exactly each RG is aiming to achieve in specific rather than broad terms. There are also a number of issues about how the level of internationalisation which needs to be achieved will be operationalised. So far, the achievements in national contexts and in Portuguese speaking countries are very strong but the Centre needs to think hard about how to achieve greater international visibility, including in Europe and other non-Portuguese speaking countries. There needs to be a much greater emphasis on achieving international funding and a wider range of international collaborations. The number of papers in international high impact journals also needs to significantly rise and the team will need support to do this. It is unclear whether this has been costed and included in the budget.

Questions and comments

To be raised by the Panel to the Research Unit if the latter proceeds to the second stage of the evaluation (on site visits by Panel)