REPORT

EVALUATION CRITERIA
FOR SOCIAL SCIENCES
R&D

November 2007
CONTENTS

INTRODUCTION

I. EVALUATION OF PUBLICATIONS
    Research publications
        • Periodicals
        • Non-periodical publications

II. EVALUATION OF DOCTORATES

III. EVALUATION OF PROJECTS

IV. EVALUATION OF RESEARCHER CURRICULUM

APPENDICES

APPENDIX I: OTHER BIBLIOMETRIC INDICES
APPENDIX II: COMMITTEES OR PANELS OF EXPERTS
INTRODUCTION

Within the framework of the knowledge society, public funding of research and development activities is one of the keys to the growth of a society. The effectiveness of the financial effort is based on the fact that the planned actions and control mechanisms established for this purpose ensure and encourage competition from innovators, and also because it ensures that innovation is incorporated into the business sector.

Spanish investment in scientific research should relate to the productivity of researchers at international level. The key thing is getting our researchers to share evaluation criteria for internationally accepted scientific production activities. In many major areas (for example, in Experimental Sciences and Health Sciences), incorporating these international standards in the scientific evaluation has managed to balance financial effort with researcher productivity. However, there are still vast areas of knowledge where the absence of tradition, the different intensity in terms of researchers' international development and knowledge, as well as the lack of commonly acceptable references, have slowed down the convergence with neighbouring countries. On several occasions this has led to huge differences between the levels of demand and success among closely allied sub-areas.

Among other things, this situation affects the broad area of Social Sciences, which encompasses many highly diverse sub-areas. This was one of the reasons why, in January 2007, ANEP set up a working group to establish the basic guidelines on which to base the evaluation of different
research activities in the field of Social Sciences. Ultimately, the group's aim was to establish guidelines towards full international competitiveness of Social Sciences researchers. This report contains the conclusions of the working group, whose recommendations are focused around four basic dimensions of research and development: a) publications, (b) doctoral programmes, (c) projects, and (d) activities related to R&D in terms of evaluating curricula.

This report draws on three main ideas. On the one hand, we have attempted to provide a general guideline to mark out the main areas that evaluation activities for Social Sciences Research should consider (on this, the standard for the way ahead is determined by the intention to develop internationally and approve publications). On the other hand, being aware of the peculiarities that exist between areas (both in terms of tradition and the existence of comparable levels of excellence), the proposed criteria lay special emphasis on flexibility. This should not however compromise the ultimate goal of international convergence for all areas. Finally, and given the convergence objective described above, the suggestions set out in this report should be seen as a first step in a dynamic context, which will require iterative updating and re-thinking during successive processes.

This is the third in a series of working groups convened by ANEP to identify evaluation criteria. Earlier, in September 2006, the conclusions were presented regarding Criteria when Evaluating Technological Merit. And in January 2007 the document prepared by the working group on the Identification of Quality Criteria in Humanities Research was presented, which was carried out in collaboration with the FECYT.
The Social Sciences working group held five meetings at ANEP's premises on the following dates: 31 January, 23 February, 13 April, 1 June, and 18 October 2007.

Members of the Working Group

Antonio Cabrales (Economy)
Salvador Carmona (Business)
Luis Fuentes (Psychology)
Josefina Gomez Mendoza (Geography)
Rodolfo Gutiérrez (Sociology)
Carmen Herrero (Economy)
Jacint Jordana (Political Science)
Jorge Olcina (Geography)
Darío Paez (Psychology)
Victoria Sánchez (Education)
I. EVALUATION OF PUBLICATIONS

Different types of scientific activities give rise to different types of publications. They are differentiated by their content, the channels used to disseminate them and the audiences that they are aimed at. Consequently, it is important to distinguish publications accurately, as this will affect the evaluation that is carried out. Similarly, the fact that in some areas it appears that the boundaries between different types of publications are not well defined means that proper classification is essential.

We can basically distinguish between R&D publications, and other types of publication, such as those that have educational content or professional reports and opinions.

When evaluating the merits of research, it is important to emphasise that only research literature should be taken into account plus, in some cases, development publications (transfer).

• Research publications

Research publications contribute innovative results within a given field of knowledge. They should therefore be available to the scientific community, should have been disseminated via a means that includes peer review, and the results of the research should be capable of being replicated and verified. Furthermore, to be considered relevant (in the sense of advancing knowledge), the publication has to have impact. All of this means that the main verifiable characteristic for a research publication is that it should have a channel of distribution that guarantees compliance with these conditions.

Transfer is defined as passing knowledge or technology generated as part of a research activity to a third party. In particular, the transfer process refers to the use of knowledge generated while solving specific technical problems, or contributing factors that help resolve it. Examples of this are:
optimising a process, improving the quality of a product, and developing a technology. Development publications (transfer) should have a channel of dissemination that is similar to research publications.

The desired message to communicate to the Social Sciences scientific community is that the evaluation criteria should encourage our researchers to improve the quality and visibility of their scientific contributions. The publication of research and development results should therefore be promoted in the forums, which are guaranteed for their quality and dissemination; and ensure that these results have the greatest possible impact within and outside Spain. The acceptance of an article into a prestigious journal, or a paper that meets international quality and visibility requirements \textit{a priori} provides the guarantee that the work has been reviewed by selected experts according to quality criteria and/or by an editorial team of recognised scientific soundness.

\textit{Periodicals}

For work that is published in periodicals, the reference list would be drawn up by the ISI for each of the areas. In the case of multidisciplinary work, the listings produced by the ISI for the relevant disciplines will also be a reference. Failing that, articles published in magazines that meet quality criteria similar to those of the listings magazine produced by the ISI will also be taken into consideration. For more on these, please see Appendix I.

The evaluation criteria should primarily include the impact factor of the magazine and the citations that the article has received, all normalised, taking into account average productivity worldwide, in different areas and scientific specialities. \textit{On this matter, it is urgent that the Administration conduct productivity studies for the different areas, so that an evidence-based standard is available for evaluation work.}

In any case, in potentially appropriate areas, the implementation and/or strengthening of publishing quality criteria similar to those of the ISI is to be encouraged.
**Non-periodic publications**

Non-periodic research publications are usually presented in two formats: papers and book chapters.

The evaluation of these publications will take into account the quality of the publishing house, bearing in mind its manuscript evaluation and selection processes and, crucially, through indications about its impact, by way of number of citations in relevant publications, articles in ISI or similar magazines, other similar quality papers.

The relative importance of the various formats will be adjusted in line with the traditions of different areas.

**Note 1:** In relation to publications the content of which relates to development (transfer), the same evaluation criteria will be applied as for research publications. *Educational publications, reports, opinions or consulting projects are not transfer publications, and therefore should not be considered as such.*

**Note 2:** For both periodicals and non-periodical publications, the criteria for citations are sometimes an unreliable indicator in the short term, especially in certain areas. *The proper evaluation of recent publications may require a panel of experts who are able to gauge their quality. The same can occur in areas where there is no tradition of evaluation. For more on this, please see Appendix II.*
II. EVALUATION OF DOCTORATES

One of the pillars of any R&D system is the training of researchers. In Social Sciences there is a clear tradition of internationally regulated doctorates. With certain exceptions, however, this tradition has not been sufficiently established in Spain.

Many departments hold doctoral programmes of dubious quality and with a token number of students. The ultimate reason for organiser departments is to offer assistants and/or scholarship-holders the option of studying for a PhD, with the expectation of being offered a steady position with them. Other departments (as also is the case in the Humanities) maintain doctoral programmes aimed mostly at students from outside the university, professionals who complete their training through them. The introduction of official Masters programmes provides an opportunity to respond to this latest demand for training, separating out postgraduate training that has some career guidance from research-oriented training that is strictly represented by doctoral programmes. University funding of official Masters programmes can help support advanced training courses aimed more at professionals.

Partly due to these reasons, we see a huge variances in the quality and systematic approach of Spain's current Social Sciences doctorates. In this context, the quality-award programme has helped provide initial indications of the minimum characteristics that should be expected to be fulfilled by those programmes that it is intended to maintain and stabilise.

To be more strongly established and recognised internationally, however, the regulated PhD programmes with verified quality need an additional and stable funding route, primarily in support of students when they are preparing their PhD thesis (different to grants and loans for taking Masters course).

Given the positive nature of the quality award hallmark, we suggest that the Department of Education maintains this programme, but adapting the requirements to a new framework, covering aspects that ensure the soundness of the programme, and providing the necessary resources for them to be sustained.

There are three crucial elements to be able to ensure the soundness
of a doctoral programme: (1) the scientific competence of the team behind it, (2) student commitment, and (3) the mechanisms for integrating students into the scientific world of the department during their training, monitoring their progress, and mechanisms for internal debate and discussion. From our point of view, a positive evaluation of the team's quality should be a prerequisite for the doctorate to qualify for any "approval or quality award".

Aspects of doctorates to evaluate:

1. Background of the team (department, institution, group of departments) running the programme.
   - On this point, it is especially important to differentiate between regular teaching staff and outside teachers who work occasionally on the programme as visiting professors or seminar guests.
   - An assessment must be made to see if the group behind the programme has sufficient critical mass of competent and active researchers, with active research projects and recent publications.
   - For established programmes, previous results also need to be taken into account: read theses, publications from these theses, joint publications between students, doctors and researchers in the group.

2. Students' background
   - Process selection and control of students (ratio of applicants/selected/enrolled).
   - Where students have come from and external funding (grants provided).
• Success (time they take to complete the programme, publications as a result of the thesis, professional status of graduates)

• Financing systems. Students' commitment to the programme. On this point, it is particularly important to note the need for full-time commitment as a standard requirement, in order to guarantee training and success over a reasonable period of time.

3. Programme structure

• Consistency of courses and learning paths

• Suitability and competence of the teaching staff

• Regulated activities within the process of training, such as seminars, visits to other institutions and mechanisms for regular monitoring of students' progress.

• The programme's quality control mechanisms - such as, for example, membership of international networks, peer review of theses' contents, presentation of results at seminars and scientific meetings.

• Level of internationalisation - for example: the use of English, where students have come from and are going, membership of networks, regular foreign visitors.

A good way for the Department of Education to contribute to a change of culture within doctoral programmes is to apply international standards to the way that doctorates are evaluated, and limit (and concentrate) funding that is intended for pre-doctoral education in Spain - FPI (research staff training) and FPU (university staff training) grants.
III. EVALUATION OF PROJECTS

The new R&D system (at both Spanish and European levels) provides a new culture for evaluating projects. In this new framework, certain aspects are worth highlighting:

• **Funding of groups based on previous results and confidence.** This working group sees this idea as very positive: ex ante commitments/ex post evaluation for basic funding of consolidated groups. The evaluation of groups would essentially need the quality of the components to be verified, in line with the criteria set out in this document. This evaluation should be based on two principles: an assessment of the group's research career and flexibility in terms of its size.

• **Funding based on the evaluation of projects.** In this case, in addition to researchers' curricula, greater emphasis must be placed on the project's relevance, novelty, coherence and feasibility. Also, when evaluating projects, commitments to risk should predominate, with greater importance being placed on projects that aim for truly innovative proposals.

• The project presentation should generally be in English in order to extend the framework of reference and ensure access to foreign reviewers.
IV. EVALUATION OF RESEARCHER CURRICULUM

The assessment of researchers' backgrounds should be limited to considering the results from research productivity - and, crucially, considering recent production (in the last 10 years). The following should be assessed:

- Scientific publications, following the assessment systems for previously established publications.
- External indications of the research work being recognised. For example, editorial work in ISI journals or similar; regular activities as reviewer in ISI journals or similar, guest speaker at regular scientific meetings; guest speakers at seminars; being on scientific R&D committees; being on evaluation committees; and research management activities.
- Research training activities - such as supervising PhD theses under quality programmes (or equivalent), with special attention to the quality of scientific output resulting from the thesis.
- Participation in competitive research projects, with special attention to the published results.
- Development activities (transfer), in line with previously established assessment systems.
APPENDIX I: OTHER BIBLIOMETRIC INDICES

In recent years there has been a trend towards classifying Spanish magazines using bibliometric indices in the style of the ISI. The effort made in this respect is commendable and of interest for making an assessment of the scientific standing of certain disciplines in Spain. However, we understand that there are significant problems related to the use and dissemination of these indices for the evaluation practices set out in this report. On this matter, we are concerned that unwanted incentives may be generated in order to drive the quality and internationalisation of social sciences at national level.

One listing that is gaining significance in some areas is the In-RECS, which "replicates" the ISI's methodology in the world of Spanish magazines. We are concerned about the possible use of this list within research evaluation tasks, for a number of reasons. On the one hand, there is some confusion in terms of the institutional acceptability of the list (justified simply on the basis that it has been produced through financial support from the Department of Education via a research project). On the other hand, being as it is based only on Spanish journals, the results are questionable in areas where there is a reasonable degree of internationalisation, and also in areas that are emerging in the international arena. An element to note is that, when considering only the national context, Spanish journals included in the ISI are not generally well classified in these national bibliometric indices, given that their articles should be considered in the much more competitive and open international context. For this reason, we believe that these classifications should not be accepted as a quality criterion in evaluations that involve some kind of institutional result - especially for evaluating researchers' individual activities.

From our perspective, institutional support should be aimed at encouraging Spanish journals to be included within international listings, rather than encouraging the creation of Spanish listings.
APPENDIX II: COMMITTEES OR PANELS OF EXPERTS

Expert panels are necessary because bibliometric indicators and peer reviews are not always sufficient when assessing the scientific career and the potential of a group or researcher.

We believe that experts should be high-quality, active researchers. That is, they must be recognised in their field, at international and national level, and this must be accredited through the impact of their publications. They should also have a certain track record, sufficient to enable rather more sophisticated indices to be applied. These include, for example, the h-index (above the median for their area), research projects and, if applicable, hold six-year periods of outside assessment obtained from recent calls for applications (in the last 7 years).

It would be advisable for evaluation panel members' CVs to be made public.

Experts should sign an ethics, confidentiality and no conflict of interest agreement. They should evaluate on the basis of the results and/or quality and risk of the proposals, without looking at schools or other personal or private conditions.

The committees should, wherever possible, include international experts who have the same characteristics. Similarly, a comprehensive database of national and international external consultants who can evaluate both projects and curricula should be available. The opinions of these external consultants can be very helpful to the panels.