

Severo Ochoa (II) Guide for Applications

This document provides practical information to applicants in preparing the documentation and information for applying to the «Severo Ochoa» Program (second phase). It includes the fundamental issues it should be addressed in the electronic application form accordingly to the guidelines and evaluation criteria indicated in the «Severo Ochoa»Call (BOE 15/04/2011).

The «Severo Ochoa»Call after completion of first phase evaluation establishes that the center/unit should submit an application including:

- 1) A Research Program (2012-2015)
- 2) A Human Resources Program (2012-2015)
- 3) An Evaluation and Monitoring Plan

In addition, centers/units must include a summary of the Scientific Report submitted for evaluation (phase 1), and strictly reflecting for **2005-2009** the major achievements and relevant contributions of the center following the instructions provided in the document. This summary is needed for evaluation purposes and it will be part of the information package for external reviewers [other than Scientific Committee' Members] that will take part of the second phase evaluation as stated in the «Severo Ochoa»Call. The Scientific Report 2005-2009 Summary will be attached as a .pdf file not exceeding 1 Mb, with a document length restricted to 15 pages including references and any figures, using Arial font, not smaller than 11 points and not less than 2.5 cm margins all around.

The Severo Ochoa Centers of Excellence Program supports outstanding research outputs and practices as determined by international standards. An excellent center/unit applicant will be able to demonstrate the following key characteristics of scientific excellence:

- (a) Production of a portfolio of high-quality, original and rigorous research which contributes to the advancement of the discipline at a global level and innovatively pursues new lines of enquiry, and which includes activities that effectively build on this research to achieve an impact that extends beyond the discipline to society as a whole.
- (b) A high-quality, forward looking research environment that supports the continuous flow of excellent research and its dissemination.
- (d) Significant contributions to the sustainability and vitality of the research base.
- (e) Active engagement in the training of young researchers and the promotion and attraction of the best young researchers worldwide.

A. RESEARCH PROGRAM (2012-2015)

Title (max. 100 characters)

Abstract (no more than 750 characters)

Provide an abstract using non-technical language. If references are included they will be counted towards the word limit. Please Note: Do not include images and/or charts in the summary description. It may be used in press releases or similar material, if the center/unit is awarded.

Summary of the Research Program (max. 2.500 characters)

Provide a summary of the research activities proposed for the next 4 years, not more than 2.500 characters in length. It should not be the abstract of the proposal, but rather a self-contained description of the vision guiding the research that would be undertaken if the center/unit is awarded. The summary should be written in the third person (referring to the center) and emphasize what would be different from what is being done now, and how the proposed research activities are anchored in past achievements. . It must clearly address in separate statements: (a) the intellectual merit of the proposed activities; (b) their potential broader impacts and (c) the relevance and international context of the research program.

Research Program Description (max. 10.000 characters)

It must describe as an integral part of the narrative, the innovation and relevance of the research program, its broader impacts resulting from the proposed activities, addressing how: (a) the research program is integrated into the research environment of the center/unit and main strategic policies; (b) the research goals are related to mainstream research lines and the research units/departments/groups of the center/unit committed to each of them; (c) the research program and its potential for exceptionally significant outcomes- include new knowledge, new methods, new technology or new practices to end-users-; (d) the research program contributes to the internationalization of the center/unit and its members.

Indicate whether the lines of research are new or a continuation of existing ones. Highlight those projects underway (title, PIs, funding body and researchers involve) targeting at the same goals

Provide a brief and concise description of the research methodology and research design. Describe what is new, what is different, what is better, and what is significant about your proposed research program. Explain how it compares with the state of the art research in the field. This section must include a brief reference and bibliography indicating the estate of the art.

Briefly explain the center/unit actions to be undertaken for the social communication of research outcomes.

Strategic value (max. 2.500 characters)

Describe why the center/unit is undertaking the research, including what the problem is that you are addressing, and the anticipated value of the research to the generation of knowledge. Indicate how the research will provide strategic value in terms of new knowledge, applications or how the research will impact society, health, the environment, quality of life or public policy; how its results will strengthen the center/unit and/or enhance its international competitiveness.

Unit/departments or groups

Provide a full list of research units/departments or research groups in the Center/unit involved in the Research Program. For each group include the Principal Investigator [PI] and other senior level investigators, the number of post doctoral fellows and the number of PhD students and number of technical staff. Include the percentage of each investigator's time devoted to the work of this group. Briefly describe the major research achievements of the group to date, or the expertise it brings in for the future (max. 1.000 characters). Indicate briefly the funding from other sources currently available to the group from National Plan, European Framework Program or other sources (indicate the project's name and lead institution and amount awarded to this particular group).

Major Partnerships and collaborations (national and international) (max. 1.000 characters/group)

If appropriate, explain the significance and added value of any major collaboration for the attainment of the research program objectives emphasizing: (a) significant international collaborations and (b) emerging research units/groups with outstanding research records supported by the center/unit facilities and staff and engage in the development of the research program.

Specify the complementary character of the expertise brought by each research team or unit external to the center. Indicate the activities of the Research Program involved and provide the name of the partner institution, center/unit or group; the PI of such unit, and a general description of the research tasks to be carried out related to the development of the Research Program. Indicate the main expected outcomes from external collaboration.

Research infrastructure (max. 2.500 characters)

List below the most important research facilities available within the center to support the Research Program, including if appropriate other sources of funding for this research infrastructure List any critical major facilities outside the institute. Address why the infrastructure is essential and appropriated for the proposed research activity.

If the center/unit runs large research facilities used by other institutions or groups, list those (individuals, groups or institutions) conducting research at the center' research infrastructures. Indicate the center/unit plan for large research infrastructures.

Leadership and Management (max. 3.000 characters)

Outline how the project will be managed. Identify the program director and other key management staff. Describe the desired or established governance structure to manage the project; e.g. academic committee, Board of Directors, with a manager or executive director.

Describe any external advisory body and specify its role, composition and areas of expertise. Outline how the research capacity created by this program will be sustained after completion of the program. For Research Programmes that include multiple sub-projects and/or multiple research topics, describe how you plan to integrate the projects/topics. Emphasize how will the proposed structure and additional funding combine to transform the existing research base into a world-class center.

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B. HUMAN RESOURCES PROGRAM (2012-2015) [PLAN FOR TRAINING AND PERSONAL DEVELOPMENT]

Summary (max. 1.000 characters)

Briefly outline your plan for the development of the center/unit research staff and if applicable how you will use the budget from the «Severo Ochoa»Program to support it and the linkages with the proposed research goals and lines.

HRP Description (max. 3.000 characters)

Describe as an integral part of the narrative, the relevance of the human resources program. Specify its feasibility accordingly to the center/unit training resources, its broader impacts for the overall strategy of the center and the degree of correspondence between the HRP and the Research Program detailed in Section A.

Summarize in your description: (a) activities to address the need for a highly productive pool of researchers by providing support for new investigators; (b) definition of a strategy for the internationalization of the center's training capabilities and further research opportunities; (c) support to young scientists to establish their own independent research lines if applicable and specific actions to support young researchers at success rates comparable to those for established investigators submitting new research applications; (d) the center/unit strategy to attract researchers internationally and its correspondence with the main research lines and research groups from Section A.

Highly qualified training (max. 1.500 characters)

Indicate the main goals of the HRP concerning highly qualified research training (i.e. post doctoral and senior), and if applicable the characteristics and merits of the different units/departments/groups to supervise them. Indicate selection criteria if applicable. Specify the number of prospective trainees and visitors as well as the recent changes in the number of trainees (and visitors) in the corresponding department or research group (from the list of departments/research groups presented above).

Doctoral students (max. 1.500 characters)

Indicate the main goals of the HRP concerning doctoral training, and the merits of the different units/departments/groups to supervise them and the main area of research. Indicate the selection criteria if applicable. Specify the number of prospective trainees as well as the recent evolution in the number of PhDs trained. Specify how PhD students and PhD projects are allocated to different research groups or investigators.

Research staff (max. 1.500 characters):

Indicate the main activities and goals for improving research staff skills, mobility and to foster internationalization.

Technicians (max. 1.500 characters)

Indicate if applicable, specific goals and programs for training highly qualified technicians.

Additional human resources (max. 1.500 characters)

Confirm that your initial estimates in the table below are correct. Indicate the research lines and the departments/units or groups in which additional research personnel (supported by the Ministry for Science and Innovation) will be incorporated.

Salary Top Ups (max. 1.000 characters)

Are you considering salary top ups for research staff? If yes, please identify the aims; potential benefits for the center/unit and the criteria to be used in their calculation. Include the performance based indicator for monitoring salary top ups during the period 2012-2015. Provide the initial amount on annual basis:

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C. EVALUATION AND MONITORING PLAN (2012-2015)

Provide key performance indicators, milestones and deliverables related to the research program and human resources program, capacity building, research outcomes and other activities - i.e. external levered funding, internationalization, etc. These will be used to monitor the project's progress). Outline and justify the research milestones and deliverables for the program. Designate performance indicators (i.e. number of staff trained; number of research publications; distribution of research publications in top ranking journals, etc) and the means of verification. (Max. 2.500 characters).

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SCIENTIFIC REPORT (2005-2009) SUMMARY

For evaluation purposes, attach the summary of the center/unit Scientific Report (2005-2009) referring exclusively to the information requested in the application form provided. Important notice: documents exceeding 15 pages in total will not be sent to external reviewers as part of the evaluation package.

This summary report will be used as a review document. It should be well written and argued. The scientific report of the center/unit consists of three sections: Section A (including sub-sections a.1, a.2, a.3 and a.4); Section B (including sub-sections b., b.2, b.3 and b.4) and Section C (including sub-sections c.1 and c.2).

The information to be included in each of the sections, and the maximum length of each section or sub-section, is described below. Reports should adhere strictly to maximum length parameters and must be uploaded in a .pdf form onto the Ministry of Science and Innovation website. Please note that the overall size of this file may not exceed 1 MB (15 pages).

Section A. Center/unit scientific excellence

a.1. Center/unit scientific research achievements (max. 1 page)

Describe in detail the center/unit's research trajectory over the course of the past five years (2005-2009), so that the experts and peers evaluating the proposal can readily appreciate the excellence of the research activities and the environment of international leadership provided by the applicant center.

- Where applicable: brief description of world leading research activities.
- List the top (significant) contributions of the center/unit for the last five years and provide link if possible. Max. 5 contributions. Top or significant contributions refer to research outputs that make a difference either through intellectual/academic influence, or through actual or potential use beyond the academic realm, or both. You must select the scientific outputs of the center/unit research staff that best represent the outstanding quality of their research regardless of whether citation information is available.
- Renowned scientific prizes (national and international) won by staff members.

a.2. Center/unit international scientific output and diffusion

Provide a table summarizing the total number of publications in international refereed journals for the period **2005-2009** including exclusively those publications that clearly indicate the authors' affiliation to the center/unit.

Number of articles published in Q1 Journals	Number of articles published in other than Q1 Journals	Articles with first author affiliated to the center/unit	Other scientific publications
		...	

Provide a description exclusively of the most remarkable publications (2005-2010) from research staff affiliated to the center/unit (up to max. **10 publications**).

1)

Title

Author(s) as listed in the publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) 2005-2010

Impact Factor

2)

Title

Author(s) as listed in the publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall period 2005-2010

Impact Factor

3)

Title

Author(s) as listed in the publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall period 2005-2010

Impact Factor

4)

Title

Author(s) as listed in the publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall period 2005-2010

Impact Factor

5)

Title

Author(s) as listed in the
publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall
period 2005-2010

Impact Factor

6)

Title

Author(s) as listed in the
publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall
period 2005-2010

Impact Factor

7)

Title

Author(s) as listed in the
publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall
period 2005-2010

Impact Factor

8)

Title

Author(s) as listed in the
publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall
period 2005-2010

Impact Factor

9)

Title

Author(s) as listed in the publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall period 2005-2010

Impact Factor

10)

Title

Author(s) as listed in the publication

Journal title

Year of publication

Institutional Affiliation

Citation (count) for the overall period 2005-2010

Impact Factor

a.3. Research engagement in R&D projects by the center/unit.

Summarize information referring to the center/unit competitive projects funding in the period 2005-2009. Include only projects funded under the Framework Programs of the UE or under the Plan Nacional de I+D+I.

Project Title	Funding body	Year	Principal Investigator	Total Project funding	Center' funding
...					
...					

a.4.Center/unit scientific leader

- Include a paragraph summarizing which **work has had the greatest importance and impact**.
- **List his/her top 4 contributions** in the last five years and provide link if possible. Top or significant contributions refer to research outputs that make a difference either through intellectual/academic influence, or through actual or potential use beyond the academic realm, or both.
- **Renowned scientific prizes** (national and international).
- **Management activities** and main outcomes.

Section B. Center/unit research management and human resources strategic planning

b.1. Center/unit research management

- Brief **description of the center/unit purpose(s)**. Make sure you refer to the institutional and organizational context in which research is conducted, the research culture and any supplementary information you believe shows the main characteristics of the center/unit from an international perspective.
- The **mechanisms for decision making, priority setting and research management**. Evidence that the center/unit has followed in the last five years a **plan for the development of its research activities**.
- Relation of the **research groups or sub-units** integrated in the center/unit -name, number of research staff, number of publications by type, brief statement of their relevant activities.

Department/group	PI/Director of the department or group	Research focus	Number of publications 2005-2010	Total number of researchers working in the department or group

b.2. Evolution of research staff (2005-2009)

	2005		2009	
	Male	Female	Male	Female
Total number of researchers				
Total number of PhD students receiving training at the center/ or supervised by research staff				
Total number of post-doc				
Post doc from abroad				

b.3. Center/unit training, recruiting and monitoring of research staff

- Refer to the evolution of the center/unit research personnel including a description of the scientific domains and sub-units/research groups to which human resources have been allocated.
- Indicate the home countries and institutions of trainees.
- List the main research training activities conducted by the center/unit to be a focus for international students/researchers.

Section C. Center/unit international competitiveness

c.1. Centers are strongly encouraged to pursue **collaboration with leading international researchers** and to include and attract exceptional and talented employees and visitors from abroad

-Please provide a brief description of the most salient institutions, the characteristics of collaboration and the number of joint projects, and papers co-authored by research staff of both institutions.
-Include a full description of the international conferences held or organized by the center/unit research staff.

c.2. Researchers' mobility

	Visiting or conducting research in collaboration with international research organizations
No. post-doctoral students	
Senior faculty members	

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