

1st Call for the Greek participation to PRODEX Programme European Space Agency

Introduction

PRODEX (**PRO**gramme de **D**éveloppement d'**EX**périences Scientifiques) is an optional programme of ESA to which any of its Member States can participate. It was created in 1986 due to the need of the smaller ESA Member States to support their scientific communities in spite of their limited financial resources. Its main objectives are to provide funding for the industrial development of scientific instruments or experiments in the various fields of space research, proposed by Institutes or Universities in the Participating States, which have been selected a) by ESA or its Member States for its/their missions and programmes and b) by non – Member States that execute national scientific programmes or missions under cooperation agreements or arrangements with ESA.

The scientific instruments or experiments include hardware or software projects, the development of which should be carried out in collaboration with the industry of the Participating States which proposes the project so as to help improve cooperation between scientific and industrial partners.

The technical and financial management of the Programme is implemented by the “PRODEX Office” (Directorate of Science and Robotic Exploration - ESTEC). The Head of the PRODEX Office reports through its hierarchy to the Director of Science and Robotic Exploration and, in parallel, interacts directly with the Delegations of the Participating States on all PRODEX matters. ESA provides technical support (Directorate of Quality and Technical Management, D/TEC) according to the specific need of the individual projects and facilitates the access to the available facilities and services of the Agency.

PRODEX has been a successful programme since its very beginning. Every year an increasing number of projects has been implemented (currently 206 contracts) leading naturally to an increase in experiments having been completed and flown on space missions during the recent years. The Hellenic Republic and the Czech Republic subscribed to PRODEX at the ESA Ministerial Council at The Hague (November 2008) and thus became the 7th and 8th Participating State to the Programme, joining the group of Switzerland, Ireland, Belgium, Norway, Austria and Denmark.

Following the bilateral discussions between ESA and the Greek General Secretariat for Research & Technology – GSRT (Ministry of Education, Life-long Learning and Religious affairs), it was announced in September 2009 that a special Call for PRODEX would be issued for Greek universities and/or research institutes.

Fields of Space Research and Categories of Activities

The fields of space research covered by the PRODEX Programme are the following:

- Space Science and Exploration: participation to a scientific or a technical team for the development of a scientific instrument or element of such
- Microgravity: participation to an experiment that has already been selected for implementation on the ISS or any other project selected in the existing framework of Human Spaceflight (i.e. ELIPS, Microgravity Applications Programme, topical teams)
- Earth Observation: participation in monitoring and modeling of various Earth Observation parameters of national interest.

All the fields above include the following main categories of activities to be funded:

- a) Experiment hardware such as breadboard models, engineering models, flight and flight spare models, specific ground support equipment;
- b) Experiment software development for the participation to scientific mission operations or a flight experiment;
- c) Data Exploitation in the framework of scientific missions or programmes;
- d) Temporary Staff hired by institutes or universities of the Participating States for the purpose of the execution of the project(s), including travel cost associated with the performance of the institute's or universities' project tasks.

The Greek PRODEX Call 2010

Eligible bidders

In line with the PRODEX legal framework, the present Call for Proposals is limited to Greek Academic and Research Organizations (e.g. Universities, Research Centers/Institutes) meaning that only scientists or groups of scientists and/or researchers are eligible to submit proposals/bids. Industry may participate as subcontractor. The selection and contractual configuration of industrial partners will be decided upon through standard ESA procurement rules, after final selection of the scientific proposals.

Budget, Duration and Categorization of the proposals

The total budget earmarked for the present (2010) Greek Call is six hundred thousand Euros (€ 600,000) including ESA overhead costs of 10 %.

GSRT has established the following categorization for each of the three main research domains of the PRODEX Programme i.e. Space Science and Exploration, Microgravity and Earth Observation:

Space Science and Exploration – 2 or more activities depending on the selected proposals' budget.

(total budget for the category: 270,000 €; maximum budget for each selected proposal: 130,000 €)

- Hardware and/or software development for (a) scientific mission(s) or programme(s) ,
- Data analysis in the framework of scientific missions or programmes

Microgravity – 1 or more activity(-ies) depending on the selected proposals' budget.

(total budget for the category: 140,000 €)

Earth Observation - 1 or more activity(-ies) depending on the selected proposals' budget.

(total budget for the category: 130,000 €)

In case no proposal has been submitted or accepted after the evaluation in one category, GSRT retains the right to allocate the corresponding budget to the other categories.

The foreseen duration of the selected activities is 2 years.

Bidding Procedure

The proposals are to be submitted as an email attachment in parallel to the Head of the ESA PRODEX Office (prodexteam@esa.int) and to the General Secretariat for Research & Technology (GSRT) (vkas@gsrt.gr) as the Greek Public Organization designated for the coordination of Greece's participation to the European Space Agency (ESA). The proposal shall be written in English.

Each proposal shall not exceed 20 pages in total and include the following topics:

- Scientist proposing the project (plus the University or the Public Research Institute where he/she serves)
 - Project duration
 - Collaboration of the team with others (either national and/or international), with identification of the role of the Greek group
 - Objective of the activity
 - Work description identifying the different tasks. If it relates to hardware development also the development logic needs to be written down.
 - Deliverables – project output: documentation, hardware, software, etc.
 - Schedule
 - Financial plan
- i) estimation of the number of hours/years – broken down per year/task

- ii) identification of the persons receiving salaries via the PRODEX Programme
- iii) identification of the equipment to be bought in order to fulfill the objectives of the project (e.g. computers, etc.)
- iv) identification of the overhead

Note: Regarding the hardware procurement, all items over 5,000 Euro can be procured directly by PRODEX Office on behalf of the scientist. A list of these items, with a cost estimate per item, should be added separately in the proposal. Also a justification of the need for this equipment must be identified.

Additional material documenting the background of the proposer may however be submitted in the same e-mail but as a separate attached document.

Evaluation Procedure

The following procedure will be followed to select the activities to be funded:

1. Technical Evaluation by ESA staff according to ESA rules and practices.
2. Evaluation Report sent from ESA to GSRT containing results and recommendation of proposals to be funded (ranking list, etc.).
3. Finalisation of the proposals selected for funding by GSRT.

Basic Criteria for the Evaluation

The evaluation procedure will be based upon the following basic criteria:

- Scientific usefulness and perspective.
- Scientific expertise of the team.
- Complementarity of the team.
- Technical background and feasibility.
- Feasibility of the Schedule / Budget / Deliverables.
- Project Management capability.
- Compliance with Call/tender conditions

Special attention will be given to proposals containing collaboration with:

- entities from other Participating States in PRODEX (international aspect).
 - entities already participating in specific missions or programmes of ESA.
- and/or leading to connection to:
- activities that have been selected by ESA for its missions and/or programmes with a further priority to mandatory programmes (Science, TRP, GSP)

Deadline

The deadline for submission is the 17th of November 2010 at 13:00 hours. Proposals submitted after this deadline will be excluded.

Contact

For information / clarifications,

- ESA: Dr. Didier Martin (Acting Head of PRODEX Office, Tel: +31 71 565 4538, email: prodexteam@esa.int),
- GSRT: Mr. Vassilis Kaleridis (GSRT, Tel: +302107458190, email: vkas@gsrt.gr).