

Paris, 12 December 2007

## **Space Infrared telescope for Cosmology and Astrophysics (SPICA)**

### **Opportunities for involvement in the Far IR Instrument**

Dear Colleague,

As you may recall, a proposal for ESA's participation in the Space Infrared telescope for Cosmology and Astrophysics (SPICA) mission led by JAXA was recommended by the Space Science Advisory Committee (SSAC) at its October 2007 for an Assessment Study phase lasting until 2009.

The purpose of the present letter is to draw your attention to the opportunities for individuals and scientific institutions from ESA member states to participate in the Assessment Phase study activities of the Far-IR instrument foreseen on SPICA and solicit your interest in the project.

#### **Background**

The JAXA-led SPICA mission is proposed to carry 3 instruments: a Mid-IR Coronagraph, a Mid-IR Imaging Spectrometer, and a Far-IR Imaging Spectrometer.

On the ESA side, a participation to SPICA has been proposed to the Science Program in the context of the first Call for Missions of the Cosmic Vision 2015-2025 program. The foreseen ESA participation consists in the cryogenic telescope assembly, and in a contribution to the operations in the form of a European SPICA ground segment. The Assessment Studies for the proposals selected in the context of the first Call for Missions of the Cosmic Vision 2015-2025 plan are planned to last until mid 2009, and will be subject to a competitive down-selection in late 2009. The mission concepts which will pass the selection process in late 2009 will be then subject to Definition Studies in 2010-2011, and be subject to a competitive selection phase in late 2011, leading to the final choice of the missions which will fly in a 2017-2018 time-frame.

Following the recommendation of the SSAC, and consistently with the framework for the first cycle of the Cosmic Vision 2015-2025 plan, an Assessment study for the ESA contribution to SPICA has been started, and it will last until mid-2009. In parallel with the proposal for an ESA contribution to SPICA, interest has been expressed for the provision of an European SPICA Instrument (ESI, a Far-IR Imaging Spectrometer), to be provided under a funding arrangement based on dedicated contributions from the ESA member states, with the ESA Science Program providing the systems engineering and the management of the instrument, as well as a single interface to JAXA. Contributions to this instrument are also proposed to be funded by the Canadian CSA, by NASA and by JAXA itself. The present letter concerns the provision of this instrument.

#### **Solicitations of Expressions of Interest in the European SPICA Far-IR Instrument**

To prepare the creation of a candidate European SPICA Far-IR Instrument consortium, ESA will contribute to an Assessment Phase study activity of the proposed instrument, starting in the 2nd quarter of 2008, and ending in parallel with the other Assessment Phase studies for the first selection cycle of the Cosmic Vision 2015-2025 plan.

An initial ESI consortium is already in place, constituted by the institutions who prepared the response to the Call for Proposals for the first selection cycle of the Cosmic Vision 2015-2025 plan. With the present solicitation for "Statements of Interest" ESA would like to invite other institutions or individual scientists which might be interested in contributing to the Assessment Study activities for ESI to make themselves known.

Thus, if your host institution has an interest in participating to this endeavor and has a chance of securing the necessary national funding, we invite you to send us a brief "Statement of Interest" providing:

1. the name and address of your institution,
2. a brief paragraph outlining your institution's main areas of interest and expertise
3. a brief paragraph outlining the possible area(s) in which you and your institution could contribute to ESI
4. the name and e-mail address of a designated contact person.

Regarding point 3) above, possible areas of contribution to ESI range from the provision of hardware elements, to the provision of elements of the data processing, to the provision of scientific support to the instrument's development.

A copy of the response must be sent to the national SPC delegation of the respondent.

Please mail all responses to the address: [spica\\_esi@esa.int](mailto:spica_esi@esa.int) **by January 14, 2008.**

Responses must be in pdf format, not to exceed 4 A4 pages, and with a total file size of no more than 2 Mbytes.

The evaluation of the responses will be finalized at a planned meeting with the interested SPC delegations planned on February 14, 2008. Respondents will be informed soon thereafter about the status of the Statement of Interest. It is emphasized that the submission of a Statement of Interest does not guarantee participation in any of the future activities, neither in the initial Assessment Phase study activities, nor in the eventual ESI consortium for the provision of the final instrument.

Please do not hesitate to contact me with any queries about the issues raised in this letter.

Yours sincerely,

A handwritten signature in black ink, appearing to read 'Fabio Favata', written in a cursive style.

Fabio Favata  
Astronomy and Fundamental Physics Missions Coordinator

Addendum:

The proposal submitted for the European contribution to SPICA is available at the URL: [http://sci.esa.int/spica\\_proposal](http://sci.esa.int/spica_proposal). In the proposal you will find all the needed information about the Spica mission, and in particular about the proposed ESI instrument.