

## ESA's Exo-planet roadmap advisory team (EPR-AT)

### Call for White Papers

The Exo-planet Roadmap Advisory Team (EPR-AT) has been assembled by ESA in order to draw a recommendation on the scientific and technological roadmap necessary to lead Europe toward the long-term goal of detecting biomarkers in Earth-like exo-planets in the habitable zone, and the even more ambitious goal of imaging such planets. The EPR-AT will focus on space-based applications but will also take into account current and future progress being made or likely to be made from ground-based installations and instruments.

The EPR-AT has been convened by ESA for a duration of approximately one year, with a mandate extending to June 2009. The EPR-AT has the task of consulting the broad scientific community on this issue and of preparing a recommendation to ESA on the best scientific and technological roadmap to lead Europe toward these goals.

The present "Call for White Papers" is the first step in this consultation process. The brief of the EPR-AT is to deliver a report covering the following points:

- 1) long-term scientific goal(s) toward the understanding and characterizing exo-planets (in particular rocky worlds potentially hosting life);
- 2) intermediate scientific goal(s) toward the same long-term goals;
- 3) a survey of the extant and planned facilities useful to achieve the scientific goals mentioned above, both space- and ground-based;
- 4) scientific goals among the ones mentioned above likely to be achieved with extant or planned facilities;
- 5) future facilities (not covered under point 3) needed to achieve the goals listed under points 1) and 2);
- 6) technologies needed for the establishment of the future facilities under point 5)

The roadmap should consider and include among the intermediate scientific and technological goals the relevant "milestones" where applicable, i.e. intermediate goals which must be achieved before the longer-term goals can be considered feasible.

The purpose of this "Call for White Papers" is to solicit inputs from the scientific community (as well as from any other interested party) on any of the elements which the EPR-AT will consider in its report.

The EPR-AT will use the White Papers in their deliberations and in the preparation of their final report and suggested strategy. In this process, they may or may not refer to the authors of the White Papers, as well as include sections of the White Papers verbatim. No confidentiality will be respected in this process, and the submitted White Papers will be considered public material. The EPR-AT may later decide to consult or interview some of the White Paper authors in the drafting of its final recommendations.

White Papers could describe scientific studies, ongoing technological developments, measurements with existing facilities, new instruments, new facilities or space missions, needed technological developments, considerations from theoretical modelling, or any other recommendations or information that can support the EPR-AT in its work. The EPR-AT will focus on the scientific goals that need to be addressed in a general and specific way and on the necessary techniques; it will not assemble a complete implementation plan of specific space missions. The present Call for White Papers does not replace, or in any way preempt, the normal Calls for Proposals which are issued by ESA in the context of the Cosmic Vision Plan.

White Papers should indicate why a particular approach is relevant to the brief of the EPR-AT and to the points to be addressed in its report, as well as to ESA's Cosmic Vision Plan. Each concept should be described in a separate self-explanatory paper (no reference between separate white papers except in the abstract). It will be up to the responsible author to include and make the necessary balance between text and figures. The author should also have received the necessary permissions for any art incorporated in the white paper. ESA reserves the right to use any original art in the final report of the EPR-AT with due credit to the provider of the figure.

White papers are solicited both from individual scientists and from teams. A given individual author or team is allowed to submit more than one White Paper. White papers must not exceed 10 A4 pages in length and must be written in a font not smaller than 10 pt in size. The page limit includes all figures, tables, references, and appendices. White Papers should include a cover page, containing the title, authors and an abstract of maximum 20 lines.

The white papers should be submitted electronically in PDF format using the form available at [http://sci.esa.int/eprat\\_call](http://sci.esa.int/eprat_call). The maximum file size can be 10 Mbyte. The submission form will be online from 1 June 2008.

The deadline for receipt of the white papers is 12:00 hours (noon) CEST on 30 July 2008. The EPR-AT brief and its membership, as well as future documentation pertaining to committee activities, can be found at [http://sci.esa.int/eprat\\_call](http://sci.esa.int/eprat_call)

**Further information on this Call for White Papers:**

Questions on the present Call for White Papers should be sent by electronic mail to:

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