

# **DOCUMENT**

Announcement of Opportunity for Interdisciplinary Scientists and Guest Investigators in the ExoMars 2016 mission

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#### 1 INTRODUCTION

### 1.1 Purpose and scope

The purpose of this Announcement of Opportunity (AO) is to solicit the participation of the scientific community as Interdisciplinary Scientists (IDSs) and Guest Investigators (GIs) in the ExoMars 2016 mission.

Establishing whether life ever existed, or is still active on Mars today, is one of the outstanding scientific questions of our time. The ExoMars Programme seeks to address this and other important scientific goals, and to demonstrate key flight and in-situ enabling technologies underpinning European and Russian ambitions for future exploration missions. The ExoMars Programme is a cooperative undertaking between the European Space Agency (ESA) and the Russian federal space agency, Roscosmos.

The ExoMars Programme consists of two missions, to be launched in 2016 and 2018. The 2016 mission includes the Trace Gas Orbiter (TGO) and an Entry, descent and landing Demonstrator Module (EDM), named Schiaparelli. The TGO will carry scientific instruments for remote observations, while the EDM will have a payload for in situ measurements during descent and on the Martian surface. The 2018 mission will land a Rover and a Surface platform.

ESA aims to appoint up to two IDSs and up to eight GIs for the ExoMars 2016 mission. The IDSs and the GIs will be appointed until the end of the nominal mission; the appointment may be renewed in case of mission extension. ESA will not fund the activities of the IDSs or the GIs (travel, etc.) and each proposer is responsible for securing his/her own funding from other sources.

The schedule for this AO cycle is given in Table 1.

Table 1: AO schedule and deadlines

Date	Event
8 February 2016	Release of this AO
29 February 2016 at noon (CET)	Mandatory Letter of Intent due
30 March 2016 at noon (CEST)	Proposals due
3 <sup>rd</sup> quarter 2016	Appointment of IDSs and GIs

# 1.2 Background Documentation and information

[AO-D1] ExoMars Science Management Plan; ESA/SPC(2014)7 / ESA/PB-HME(2014)2 [AO-D2] ExoMars 2016 Mission Summary



## 1.3 Mission summary and IDS and GI tasks

A mission summary is included in Section 2 of [AO-D1], and a more detailed description of the different elements and instruments is given in [AO-D2].

The ExoMars Science Management Plan (SMP) [AO-D1] defines the top-level scientific management of the mission, and describes the respective roles of the parties involved, the data products, the data products delivery scheme and the data rights. It also defines modes of participation of the scientific community in the ExoMars Programme, including IDSs and GIs.

Proposers are encouraged to contact and discuss their planned investigations with the PIs of the instrument(s) they plan to use data from.

The added value of IDSs is that their efforts are devoted to scientific cross-fertilisation. Thus, IDSs will be encouraged to take part in the analysis of data from different instruments on board one or more elements of the mission for pursuing interdisciplinary objectives not already covered by the scientific objectives of the selected instruments. The scientific objectives associated with the IDSs' tasks will not compete with the selected instruments' scientific objectives.

The IDSs, as part of their role, will have to participate in the ExoMars Science Working Team (ESWT) activities, including attending the regular SWT meetings. Individual scientists applying for an IDS position can submit proposals as individuals, possibly supported by a team.

Guest Investigators (GI) are individual scientists wishing to make use of the data collected by one or more instruments, spacecraft sensors or tracking data, in combination with results from other missions, ground-based observations, laboratory measurements, or numerical models. The purpose of GIs is to spread the use of, and complement, ExoMars data more widely in the planetary science community. The scientific objectives associated with the GIs' tasks will not compete with the selected instruments' scientific objectives.

# 2 APPOINTMENT REQUIREMENTS AND CONDITIONS

This call is open to scientists based in ESA Member States, Canada, and Russia. However, specific expertise not present in ESA Member States, Canada and Russia could be covered by scientists from other countries. Team members participating in a team supporting an IDS can be from any country. While Principal Investigators (PIs) and Co-PIs of the ExoMars instrument teams are excluded from this call, Co-Investigators are eligible for IDS and GI positions.

The proposals should demonstrate the candidate's expertise in one or more of the ExoMars 2016 core science fields [AO-D1, AO-D2] and the expected contribution to the mission. The instrument data sets needed to carry out their research programme should be indicated. The proposals should also include an explicit mention of the time commitment to the proposed activities (the expected commitment should be not less than 0.2 FTE) and the endorsement and support from the head of the applicant's institution and/or the respective



funding agency to their application. IDS applicants shall guarantee participation in the SWT meetings (on average 2 meetings per year are expected) and in any other activity associated to the IDS appointment.

The successful candidates will be appointed by the ESA Director of Science. The IDS and GI appointment is *ad personam*.

Each selected IDS and GI will be required to submit short annual reports of his/her ExoMars related activities to ESA.

#### 3 LETTER OF INTENT

Prospective proposers must submit a mandatory Letter of Intent (LoI) by the deadline indicated in Table 1. Proposals not preceded by a corresponding LoI will not be considered. LoIs are limited in length to 2 A4 pages (minimum font size 11 pt), and their purpose is to allow ESA to prepare for the evaluation process.

Letters of intent must be structured to contain the following information:

- Proposal title (with clear indication if the proposal is for an IDS or GI position);
- Name and contact information of proposer;
- Synthetic description of the scientific objectives;

It is understood that the proposal's content may evolve between submission of the LoI and submission of the actual proposal.

#### 4 CONTENTS OF THE PROPOSAL

Proposals submitted in response to the AO are limited in length to 14 A4 pages (minimum font size 11 pt), and must contain the following information:

- A cover letter stating the proposal title (with clear indication if the proposal is for an IDS or GI position), proposer's name and affiliation and explicitly mentioning the proposer's title, position, institute, address, telephone number and e-mail address (max. 1 page).
- A brief curriculum vitae also including the 10 most relevant publications (max. 2 pages).
- A description of the scientific expertise relevant to the ExoMars 2016 science objectives described in [Ao-D1] (max. 2 pages).
- A description of the proposed scientific investigation and a statement concerning the time availability (max. 8 pages).
- A Letter of Endorsement, signed by the proposer's Head of Institute, with the endorsement to the proposer's application and the explicit support with respect to the proposed activities and the availability of facilities and infrastructure, as needed to the proposer for the accomplishment of the IDS tasks (max. 1 page).



#### **EVALUATION CRITERIA** 5

The following criteria will be used (in no particular order) in assessing and evaluating individual proposals:

- Candidate's competence and experience relative to the ExoMars science objectives;
- The scientific value of the proposal and the level to which the proposal identifies specific competences and its relevance to the exploitation of the ExoMars 2016 data;
- Adequacy of the time that the candidate intends to devote to activities related to the IDS respective GI role;
- Adequacy of resources available to the candidate to carry out activities related to the IDS respective GI role.

#### 6 LETTERS OF INTENT AND PROPOSALS SUBMISSION

Letters of Intent and Proposals must be submitted electronically in PDF format (file size cannot exceed 5 MB) to the following e-mail address:

exomars-ids-gi-ao@cosmos.esa.int

according to the deadlines listed in Table 1.

Proposers will receive confirmation upon successful receipt of their Letters of Intent and Proposals.

Further queries should be addressed to:

Dr. Rolf de Groot – Exploration Programme Coordinator ESA/ESTEC Noordwijk The Netherlands E-mail: rolf.de.groot@esa.int

and

Dr. Luigi Colangeli – Scientific Programme Coordinator ESA/ESTEC Noordwijk The Netherlands e-mail: luigi.colangeli@esa.int



# **ACRONYMS**

AO	Announcement of Opportunity
CET	Central European Time
Co-I	Co-Investigator
Co-PI	Co-Principal Investigator
ESA	European Space Agency
FTE	Full Time Equivalent
GI	Guest Investigator
IDS	Interdisciplinary Scientist
LoI	Letter of Intent
MEX	Mars Express
PI	Principal Investigator
SMP	Science Management Plan
SPC	Science Programme Committee
SWT	Science Working Team