

EUROPEAN SPACE AGENCY

EO System Engineer

Job Req ID: 14067

Closing Date: 07 December 2021

Publication: Internal & External

Vacancy Type: Fixed-Term

Date Posted: 09 November 2021

Vacancy in the Directorate of Earth Observation Programmes.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. We therefore welcome applications from all qualified candidates irrespective of gender, sexual orientation, ethnicity, beliefs, age, disability or other characteristics. Applications from women are encouraged.

This is a non-renewable post for a limited duration of 4 years and is classified A2-A4 on the Coordinated Organisations' salary scale.

Location

ESTEC, Noordwijk, Netherlands

Description

Earth Observation System Engineer in the Mission and System Studies Section, Future Missions and Instruments Division, Future Systems Department, Directorate of Earth Observation Programmes.

You will report to the Head of the Mission and System Studies Section in the Future Missions and Instruments Division and will be involved in the end-to-end preparation of EO missions through appropriate engineering activities, working in close cooperation with staff in this and other D/EOP Divisions, notably Earth and Mission Science.

Duties

Your responsibilities will include:

Acting as a focal point for preparation of the Next-Generation Gravity Mission (NGGM) conceived as a Mission of Opportunity between ESA and NASA, including:

- managing the Phase A system studies, ensuring the technical coherence of the system design including system-level budgets, system performance analysis, definition of spacecraft and payload subsystems and the related data processing;
- following and contributing to the predevelopments on the Laser Tracking Instrument, accelerometers and electric propulsion technologies, in coordination with the Optical Instruments Section and experts from D/TEC;
- defining and updating system specifications, and determining system requirements traceable to mission requirements and user needs, in close cooperation with the Earth and Mission Science Division;
- participating in the ESA-NASA Joint Engineering Team, fostering technical exchanges i

- helping to develop EO mission concepts relying on very high pointing capabilities;
- helping to prepare future EO missions, including:
- defining, initiating and managing industrial activities to prepare future ESA EO missions ensuring the handover to the Project Department after approval;
- initiating and performing internal studies to assess the results of industrial activities;
- defining and updating system specifications throughout the preparatory phases of EO missions, in close cooperation with the Earth and Mission Science Division and the relevant Science/Mission Advisory Groups, supporting the establishment of mission requirements and determining system requirements traceable to mission requirements and user needs;
- contributing to the evaluation of industrial and scientific proposals, in particular for research missions;
- contributing to the preparation of scientific and technical dossiers on EO missions;
- supporting InCubed proposal evaluation and follow-up of activities when related to EO systems;
- contributing to the analysis of EO developments undertaken by other space agencies in Europe and worldwide, as well as commercial EO initiatives;
- contributing to the specification and development of mission analysis, mission performance and system-sizing tools used in the Future Missions and Instruments Division.

Technical competencies

Knowledge of ESA and industrial development, verification and procurement processes
 Familiarity with Earth gravity field measurement techniques and equipment, including accelerometers, laser tracking and drag compensation systems
 Background in space engineering with systems orientation and end-to-end view of EO

Behavioural competencies

Result Orientation
 Operational Efficiency
 Fostering Cooperation
 Relationship Management
 Continuous Improvement
 Forward Thinking

Education

A PhD or Master's degree in engineering or physics is required for this post.

Additional requirements

You will be expected to contribute to a dynamic and creative environment during the preparatory phases of EO missions.

You should have good interpersonal skills and be able to work and interact within small teams as well as autonomously.

At least seven years' relevant experience in space mission preparation and/or development.

Experience in working in a team/project environment is desirable.

Familiarity with various EO techniques and experience of hardware development and system performance evaluation are desirable.

Other information

For behavioural competencies expected from ESA staff in general, please refer to the [ESA Competency](#)

At the Agency we value diversity and we welcome people with disabilities. Whenever possible, we seek to accommodate individuals with disabilities by providing the necessary support at the workplace. The Human Resources Department can also provide assistance during the recruitment process. If you would like to discuss this further please contact us at contact.human.resources@esa.int.

Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada, Latvia, Lithuania and Slovenia.

According to the ESA Convention, the recruitment of staff must take into account an adequate distribution posts among nationals of the ESA Member States*. When short-listing for an interview, priority will first be given to internal candidates and secondly to external candidates from under-represented or balanced Member States*. (<https://esamultimedia.esa.int/docs/careers/NationalityTargets.pdf>)
In view of the limited duration of this post, internal candidates are strongly advised to contact their HR advisor before applying.

In accordance with the European Space Agency's security procedures and as part of the selection process successful candidates will be required to undergo basic screening before appointment.

Recruitment will normally be at the first grade in the band (A2); however, if the candidate selected has little or no experience, the position may be filled at A1 level.

*Member States, Associate Members or Cooperating States.