EUROPEAN SPACE AGENCY

EO System Engineer

Job Req ID: 14862
Closing Date: 01 June 2022
Publication: Internal & External
Vacancy Type: Permanent
Date Posted: 04 May 2022

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 post 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.

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

Duties
Full or partial responsibilities will include some or all of the following duties:
Contributing to the preparation of future EO missions and technologies, including :

- defining, initiating and managing industrial activities including pre-Phase A, mission/architecture studies and phase A for future EO small missions (e.g. Scout missions) under the responsibility of EOP- ΦM, ensuring handover to the EO Project Department after mission selection and until the kick-off of the implementation phase;
- defining, initiating and managing in collaboration with other Directorates and EOP-ΦL, industrial activities for the preparation and development of small satellites under EOP responsibility devoted to in-orbit demonstration of innovative EO techniques enabled by disruptive technologies (e.g. Φ-sats);
- participating in the evaluation of the small mission proposals in the framework of the InCubed (Investing in Industrial Innovation) Earth Watch Programme Element, in collaboration with EOP-ΦL and with other Directorates; initiating and managing resulting activities for their de-risking and implementation or ensuring handover of them to the team responsible for the implementation when this is not in EOP-ΦM;
- defining, initiating and managing industrial activities including pre-Phase A and mission/architecture studies and Phase A for future EO missions not yet approved for implementation (irrespective of its financial size), ensuring hand-over to the EO 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 & Mission Science Division and the relevant Science/Mission Advisory Groups, supporting the establishment of mission requirements and identifying system requirements traceable to mission requirements and user needs;
- contributing to the evaluation of industrial and scientific proposals, including those for Earth Explorers and Missions of Opportunity;
- contributing to the preparation of scientific and technical dossiers on EO missions;
- contributing to the analysis of EO developments undertaken by other space agencies in Europe and worldwide, as well as commercial EO initiatives including “NewSpace”;
- contributing to the specification and development of mission analysis, mission performance and system- sizing tools used in EOP-ΦM;
- monitoring the evolution of EO-relevant “NewSpace” technologies in cooperation with EOP-ΦMT and proposing relevant developments;
- encouraging and supporting collaboration and exchange of information within the Agency to promote a standardised approach to small satellite mission preparation and development.

Technical competencies
Knowledge of ESA and industrial development, verification and procurement processes
Good knowledge of cubesats standards and technology trends
Experience in the implementation of small satellites, ideally in the EO domain, including hands-on experience in manufacturing/procurement and environmental/acceptance tests
Ideally candidates should have experience in preparation (Phases 0 and A) of EO missions
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
You should have a Master’s degree or PhD in engineering or physics.

Additional requirements
You will be expected to contribute to a dynamic and creative environment in preparatory phases of EO missions.
You should have good interpersonal skills and be able to work and interact within small teams as well as working autonomously.
At least seven years’ relevant experience in space missions preparation and/or development. Experience in working in 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 Framework.

The working languages of the Agency are English and French. A good knowledge of one of these is required. Knowledge of another Member State language would be an asset.

The Agency may require applicants to undergo selection tests.

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 email 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 of 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 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.