

SAGA System Engineer

Job Req ID: 13942

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Vacancy Type: Permanent

Date Posted: 17 November 2021

Vacancy in the Directorate of Telecommunications and Integrated Applications.

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

SAGA System Engineer reporting to the 4S Strategic Programme Line Manager in the Telecom Technologies, Products and Systems Department, Directorate of Telecommunications and Integrated Applications.

You will report hierarchically to the 4S Strategic Programme Line Manager and functionally support the SAGA Implementation Manager. You will be responsible for system-related activities to support the SAGA project, a component of the ESA ARTES Secure Satcom for Safety & Security (4S) programme supporting the European Commission's EuroQCI initiative.

Duties

You will be responsible for defining all mission- and system-level requirements and for coordinating all system-related activities during the development, integration and testing of the space, ground and user segments of the SAGA System.

Furthermore, you will support the utilisation and early operations phase, which might include service integration in the Commission's EuroQCI system and terrestrial element.

Your main tasks and responsibilities will include:

- leading the definition of all mission and system requirements, including interface requirements, and allocating segment requirements;
- supporting the Commission's process for defining user/service requirements;
- monitoring the traceability of requirements from user/service, to mission, to system, to segment and down to equipment/payload level;
- managing the overall system architecture definition, trade-offs and design in close co-operation with industry;
- managing the space, ground and user segment definition, trade-offs and design in close co-operation with industry;
- monitoring the payload and ground equipment definition, trade-offs and design in close co-operation with industry;

- defining the system operational concept of the System and of the space, ground and user segments;
- managing performance models to estimate system-level performances of the System and of the space, ground and user segments;
- monitoring and maintaining the system level and segment budgets during the Design, Development and Demonstration phases;
- leading implementation of the SAGA studies;
- supporting coordination with the European Commission;
- coordinating the announcement of flight opportunities for space segment assets;
- managing the definition of the on-ground test plan and the in-orbit validation plan of all system-level and segment-level requirements;
- providing System-level support during the development, assembly, integration and testing of all elements of the space, ground and user segments as part of the Development phase;
- supporting the testing and verification of all requirements at end-to-end system level and space, ground and user segment level during the Development phase;
- managing the verification and validation of all System activities (including external interfaces validation) during the Demonstration phase in co-operation with industrial partners;
- evaluating the acceptability of the industrial activities related to all system-level aspects by participating in major technical reviews and preparing relevant inputs for the decision-making process;
- identifying and tracing potential risks and proposing risk mitigation measures;
- supporting the preparation and execution of SAGA-related procurement tasks (ESA and European Commission);

You will be working in a cross-functional team comprising staff from across the Directorate's departments, and which is supported by technical experts from within the matrix structure. You will also interface closely with the various project teams as well as with related industrial teams.

Technical competencies

Multi-disciplinary knowledge of area of responsibility

Proven experience in defining mission/system and user/service requirements of complex satellite systems

Proven experience in defining, designing and analysing complex system architectures for satellite communications as well as experience in defining the related operations concept

Knowledge of industrial costs and schedule aspects, space system development and PA standards

Complex project risk management processes

Knowledge of ESA and industrial development, verification and procurement processes

Behavioural competencies

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Improvement

Forward Thinking

Education

A Master's degree in a scientific or engineering discipline is required.

Additional requirements

Knowledge of quantum physics will be an asset.

Engineering experience in complex space programmes (preferably in telecommunications) and up to launch and in-orbit testing is desirable.

You should have experience in working in a cross-functional team and in promoting innovation through a creative collaboration process.

Direct experience of working with the European Commission or a commercial telecommunications industry and operator will be a distinct advantage.

You should be eligible for security clearance from the relevant national authorities.

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 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.