

# EUROPEAN SPACE AGENCY

## Telecom System Engineer

**Job Req ID:** 13782

**Closing Date:** 07 April 2022

**Publication:** Internal & External

**Vacancy Type:** Fixed-Term

**Date Posted:** 10 March 2022

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 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

Telecom System Engineer in the Eagle-1 Project, within Optical and Quantum Satellites Programme Division in the Telecom Satellite Programmes Department in Directorate of Telecommunications and Integrated Applications.

The position is located at ESTEC (in the Netherlands) with potential extensive stays or residency in Luxembourg or Italy.

As a first assignment, you will work on Eagle-1 project. Eagle-1 will be implemented through a partnership between ESA and a private operator. Eagle-1 is an end-to-end satellite-based Quantum Communication System (both space and ground elements) to develop, qualify, launch and conduct extended in-orbit test campaign demonstrating Quantum Key Distribution (QKD) through pre-commercial trials for the partner operator, European Commission, ESA and its Member States.

### Duties

You will be reporting to the Project Manager and you will be responsible for monitoring the system level design and development activities of Telecom satellite projects. This includes the satellite (platform and payload), the ground elements (satellite operation; optical ground terminals) and the overall operations & QKD service concept.

Your main tasks and duties will include:

- Monitoring design & development of telecom satellite systems, including the
  - Space segment (satellite);
  - Launch Service;
  - Ground segment;
  - QKD service concept and ConOPS;
  - Extended in-orbit test campaign.

- Monitoring the interfaces between the different segments, the service concept and the ConOPS;
- Maintaining – ESA-internally – all relevant system and service related budgets;
- Monitoring definition, preparation and execution of the system and satellite level on-ground and in-orbit tests;
- Monitoring preparation of the operational procedures;
- Monitoring the system and service level schedule;
- Identifying potential risks at system and service level and proposing appropriate risk mitigation measures;
- Coordinating, together with the Product Assurance Manager, the implementation of ESA expertise to support system level activities;
- Participating to all Project reviews;
- Ensuring regular reporting to TIA management via Project manager.

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

#### **Technical competencies**

Multi-disciplinary and comprehensive knowledge of & experience with space mission design, development, verification/testing, launch and in-orbit validation; including both space and ground segment

Knowledge of industrial costs and schedule aspects

Experience in space mission operations and operations planning

Knowledge of QKD concepts and their realisation via spaceborne systems

Experience with industrial design, development and verification processes

Knowledge of & experience with Product Assurance standards and their application in space projects

Complex project risk management processes

#### **Behavioural competencies**

Result Orientation

Operational Efficiency

Fostering Cooperation

Relationship Management

Continuous Improvement

Forward Thinking

#### **Education**

A Master's degree in engineering or scientific discipline for this post is required.

#### **Additional requirements**

You should also have:

- Experience in working in a cross-functional team and in promoting innovation through a creative collaboration process;
- Strong problem-solving skills to deal with day-to-day operational challenges;
- Strong results orientation with the ability to set priorities and present practical solutions, together with demonstrated planning and organisational skills;
- The ability to summarise complex information and have good communication skills, both verbal and written;

- The ability to work and coordinate teams of people from different backgrounds and potentially different objectives (e.g. ESA and industry) and ensure their collective skills and experience are used to achieve the objectives of the project.

Experience in managing complex space programmes up to in-orbit testing is desirable, preferably in telecommunications.

Direct experience of working with a commercial telecommunications prime contractor and/or operator will be a distinct advantage. Experience with ESA's Partnership Projects would be an asset.

### **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 at [contact.human.resources@esa.int](mailto:contact.human.resources@esa.int).

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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 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.