

EUROPEAN SPACE AGENCY

Cryogenic Propulsion Subsystems and Components Engineer

Job Req ID: 14962

Closing Date: 07 April 2022

Publication: Internal & External

Vacancy Type: Permanent

Date Posted: 17 March 2022

Vacancy in the Directorate of Space Transportation.

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

ESRIN, Frascati, Italy

Description

Vega and Space Rider Liquid Propulsion Engineer in the Vega and Space Rider Mechanical & Propulsion Engineering, Vega Programmes, Flight Programmes Department, Directorate of Space Transportation.

Under the authority of the Vega and Space Rider Mechanical & Propulsion Engineering Manager, you will be involved in the development of the new cryogenic engines for future evolution of VEGA.

Duties

The range of activities encompasses the development of the new VEGA High Thrust LOX-CH₄ engine and support to the other cryogenic propulsion systems under development for future VEGA evolutions.

Specific responsibilities will include:

- supporting the VEGA High Thrust Engine acting as main subsystem and component focal point (power pack and feeding system equipment, in particular) and managing technical activities related to their design, development, assembly, integration and testing;
- supporting the on-going development of other cryogenic propulsion systems (notably VEGA-E upper stage and experimental demonstrators) as discipline expert, ensuring coherence with the High Thrust Engine activities.

Main tasks include the following contributions to:

- supporting trade-off analysis, in particular regarding subsystems/equipment layout and including recurrent and non-recurrent cost aspects;
- apportioning technical requirements from system level to engine subsystems;
- ensuring coherence of subsystem technical specifications with the higher level products;
- drafting statements of work;
- evaluating industrial offers, negotiating industrial contracts and evaluating industry deliverables;
- preparing and implementing the main project milestones, including specific project reviews at subsystem levels, in the area of responsibility;
- monitoring the manufacture, acceptance and testing of the hardware under direct responsibility, ensuring compliance with the relevant requirements;
- assessing/resolving anomalies/non-conformances and requests for waivers/deviations;
- assessing the impacts of the evolving definition of the product under direct responsibility;
- following up the technical activities related to dealing with components/materials obsolescence and actions aimed at reducing recurrent costs during the exploitation phase.

Technical competencies

Strong background in the design, development, assembly, integration, testing and acceptance of cryogenic propulsion systems for space transportation applications

Knowledge of cost and schedule aspects related to area of responsibility

Knowledge of other technical domains with interfaces to own area of responsibility

Knowledge of Space system development and PA standards

Knowledge of project risk management

Knowledge of ESA's 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 relevant engineering field is required for this post.

Additional requirements

The following are considered assets:

- Direct experience in the development of VEGA-related products.
- Direct experience in the development of engine powerpack subsystems (turbopumps, gas generators).

Other information

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

For further information please visit: [Professionals](#), [What we offer](#) and [FAQ](#)

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 conducted by an external background screening service.

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.