# Job Title: Head of the Propulsion, Aerothermodynamics & Flight Vehicles Engineering Division

Req ID 8933 - Posted 15/09/2020



# EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Technology, Engineering and Quality.

ESA is an equal opportunity employer, committed to achieving diversity within the workforce and creating an inclusive working environment. Applications from women are encouraged.

# Post

Head of the Propulsion, Aerothermodynamics & Flight Vehicles Engineering Division This post is classified A5 on the Coordinated Organisations' salary scale.

#### Location

ESTEC, Noordwijk, The Netherlands

#### Description

Head of the Propulsion, Aerothermodynamics & Flight Vehicles Engineering Division, Mechanical Department, Directorate of Technology, Engineering and Quality.

Reporting to the Head of the Mechanical Department, the Head of the Propulsion, Aerothermodynamics & Flight Vehicles Engineering Division is responsible for the management of the Division, its resources and activities.

# **Duties**

Duties include:

- ensuring a positive and motivating working environment for the Division;
- establishing and maintaining good working relationships and technical networks with users, project groups and other
  organisational bodies both inside and outside the Agency;
- contributing to the continuous improvement of working procedures and to the reflection on the evolution of the Division's role and activities;
- managing the workforce of the Division with accountability for all resources and activities delegated to the Division;
- managing the resources of the Division;
- supporting the activities of the relevant Competence Domains;
- supporting the Section Heads in anticipating and resolving sensitive or difficult situations, liaising with HR as required.

The Head of Division is responsible for the technical and strategic management of the Division and all of its activities, covering:

- Technical support to projects and definition/execution of technology programs in the areas of: chemical propulsion (systems utilizing liquid, solid, hybrid and gaseous propellants for spacecraft and launch vehicles);
- electric propulsion (electrostatic, electromagnetic, and electrothermal systems);
- advanced new propulsion systems (e.g. air breathing engines for advanced launch vehicles, and potential future applications of nuclear propulsion to space missions);
- external and internal aerothermodynamics of relevance to propulsion systems;
- Aerothermodynamics aspects of ascent, cruise and re-entry of space vehicles through the Earth's or planetary atmospheres;
- Architecture and technology assessment of new space transportation vehicles for sub-orbital, orbital and exploration
  application, including upper stages, (re-)entry, expendable and re-usable vehicles in the areas covered by the Division,
  and coordination of the support for the other areas;
- Exploitation of flight data from flight experiments, specially involving propulsion, aerothermodynamics and re-entry;
- Development of components for propulsion systems (valves, regulators, tanks, GSE, etc.);
- Definition, maintenance and operation of the necessary computing and internal/external laboratory facilities in support of above activities;
- Establishing and implementing standards within the areas of competence of the Division;

The Head of Division is supported in these activities by Heads of Section who each manage a team of technical experts.

# **Technical competencies**

General background and specific experience in the technical domains covered by the position

Resource management experience Knowledge of relevant strategic and technological trends and developments, both inside and outside the space domain, and their

potential impact on the activities of the Division/Section Knowledge of ESA technology programmes and the organisation of R&D activities

Knowledge of the technical and programmatic requirements of ESA programmes/projects

Developing, implementing and maintaining expertise and standards in the technical domains covered by the Division/Section Participation in ESA reviews and panel leadership

# Leadership competencies

Developing & motivating people Fostering cooperation & effective team-working Strategic vision & business context Driving performance

# **Behavioural competencies**

Communication Problem Solving Planning & Organisation Responsible Decision-Making Relationship Management

# Education

Applicants for this post should have a Master's degree or equivalent qualification in a relevant engineering discipline.

# Additional requirements

In addition, candidates should have:

- extensive experience in one or more of the technical domains covered by the Division;
- proven experience of leading, motivating and developing a team of experts in a project or R&D environment;
- the ability to provide strategic direction to the individuals and teams within the Division and relate team objectives to the overall and evolving organisational goals and context;
- the ability to drive performance and foster cooperation within and across teams throughout the organisation;
- · demonstrated excellent leadership, relationship management and communication skills, both oral and written;
- a proven track record of representing the Agency's interests to external interfaces;
- · excellent cognitive, analytical, delegation, planning and organisational skills;
- the ability to anticipate problems, solve complex issues and relate situations to their context;
- the ability to reach solution-oriented, pragmatic and timely decisions of high standard and integrity as well as to support others (team members, upper management, other stakeholders) in this process.

Previous experience of managing managers and multiple teams is an asset, as is international experience, i.e. outside the candidate's home country, as well as experience in diverse functional areas relevant to the activities of ESA.

# **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.

#### The closing date for applications is 13 October 2020.

If you require support with your application due to a disability, please email 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 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. (http://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.