Job Title: Facility Development and Utilisation Engineer

Requisition ID **11921** - Posted **07/12/2020**

EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Human and Robotic Exploration.

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
Facility Development and Utilisation Engineer

This post is for a limited duration of 4 years non-renewable and is classified A2-A4 on the Coordinated Organisations' salary scale.

Location
ECSAT, Harwell, United Kingdom

Description

As the SACF Facility Development and Utilisation Engineer, you will report directly to the Studies and Technology (ExPeRT) Team Leader of the Directorate of Human Spaceflight and Robotic Exploration.

The Sample Analogue Curation Facility (SACF) is located on the Harwell Campus in the UK.
The SACF is designed to be a focal point for simulant development (including regolith, rocks, etc.) and curation activities in Europe for space applications, particularly exploration and science. The SACF features analytical, sample preparation, development and curation capabilities, complemented by state-of-the-art analytical facilities on the Harwell campus.

The main objectives of the facility are to:

- Provide access to ESA's collection of well-characterised analogues and simulants (the ESA Exploration Sample Analogue Collection or ESA2C) representing geological materials throughout the Solar System for hardware testing, technology development, and research activities
- Develop a standardised curation and analytical process for geological materials that result from ESA's exploration programme, such as field trial activities and instrument tests;
- Characterise existing and future analogue and simulant samples in the ESA2C collection;
- Become Europe's central hub for simulant design, development, distribution, and information, including the industrial procurement of analogues (especially if in large quantities) for study, project or ESA technology development activities;
- Provide verification and validation standards for internally and externally produced analogues;
- Build a solid foundation of curation expertise and associated technology at ESA in order to prepare for a potential extraterrestrial sample-receiving facility;
- Foster collaboration across ESA Member States on analogues and sample analysis topics.

Duties

Your duties will include:

- Developing the operational concept for utilisation of the SACF facility in line with the objectives mentioned above;
- Managing and developing the curation protocols;
- Maintaining and developing the ESA2C database;
- Managing the facility's overall operation in terms of procurement, manpower resources assigned to the facility (i.e. research fellows, trainees, contractor personnel) and schedule;
- Establishing and maintaining Health and Safety procedures in line with ESA and UK standards;
- Liaising with ECSAT facility management regarding security and general logistics aspects;
- Establishing industrial contracts for the manufacturing of potentially large quantities of analogues;
- Defining the facility's relevant research orientation as well as conducting hands-on research;
- Building collaborative links with international institutions/industry related to simulant development activities and research;
- Actively following up opportunities for development and utilisation of the facility with ESA stakeholders, and research and commercial entities;

- Promoting the facility to exploration stakeholders, raising awareness of it and attracting relevant projects;
- Actively liaising with exploration research & development projects and ESA missions (e.g. Luna 27 and Mars Sample Return);
- Building up and maintaining the so-called Spaceship ECSAT, an agile, innovative environment that would allow young researchers and affiliated experts to quickly investigate novel operational concepts and technologies at low engagement costs, supported by ESA's expert engineers and an extended network of researchers.

Technical competencies

Knowledge of the ESA and global space exploration plans and programmes
Knowledge and experience in geology and mineralogy
Experience in driving R&D activities, as well as knowledge of the ESA technology programmes
Experience in managing Laboratories, including health and safety aspects
Experience in procurement, project management, reviews and milestone achievement
Experience with laboratory or field testing of relevant technical equipment

Behavioural competencies

Result Orientation
Operational Efficiency
Fostering Cooperation
Relationship Management
Continuous Improvement
Forward Thinking

Education

A Master's degree in engineering, geology or mineralogy is required.

Additional requirements

You should have demonstrable experience in R&D activities and project management with strong organisational capabilities. Curatorial experience is considered mandatory. Experience with analogue activities or relevant test campaigns is considered an asset.

Strong teamwork skills. Ability to work effectively, autonomously and cooperatively in a multidisciplinary and international team. Ability to cope with pressure and deadlines. Proactive attitude to problem-solving and interest in innovative technologies.

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 03 January 2021.

If you require support with your application due to a disability, please 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 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 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.