

EUROPEAN SPACE AGENCY

Vacancy in the Directorate of Technical and Quality Management

The European Space Agency is an equal opportunity employer
and encourages applications from women

POST

Advanced Manufacturing Engineer in the Materials Technology Section, Components Technology and Space Materials Division, Product Assurance and Safety Department, [Directorate of Technical and Quality Management](#).

This post is classified in the A2–A4 grade band on the Coordinated Organisations' salary scale.

LOCATION

ESTEC, Noordwijk (Netherlands).

DUTIES

The postholder will report to the Head of the Materials Technology Section of the Components Technology and Space Materials Division. The Section provides functional support to ESA projects and carries out technology research in the fields of metallic materials and electronic assemblies.

The main duties will involve:

- providing expertise in the field of advanced manufacturing technologies and materials, covering key disciplines which include material/process relationships, modeling, process/product verification, defect mapping, compatibility with other manufacturing processes;
- developing test methodologies for the evaluation of materials and for checking processes against application requirements;
- assessing the effect of the space environment on spacecraft hardware made using advanced manufacturing technologies;
- reviewing and assessing the advanced manufacturing technologies currently being used across the European research and technology landscape and ensuring synergy with other industrial high-end technology domains (e.g. aeronautics, nuclear, automotive or medical);
- proposing and managing the technology research and development activities in the field of advanced manufacturing technologies in line with the overall Section and Division strategy, monitoring procurement implementation, evaluating and reporting on results achieved and lessons learned to the relevant ESA directorates and key partners;
- performing tasks related to the metallurgical assessment of materials in pristine and processed conditions, including metallurgical laboratory evaluations (covering mechanical, corrosion and thermal testing, amongst others) and drafting the relevant reports;
- performing failure analysis using a variety of laboratory tools (acoustic, optical, confocal or electron microscopy, x-ray diffraction, x-ray computer tomography, non-contact 3D stress-strain measurements, etc.);
- providing specialist advice to ESA programmes in the field of metallic materials and related manufacturing processes, including participating in project meetings, reviews and audits;
- reviewing the materials, mechanical parts and processes lists of ESA programmes in the framework of the Materials and Processes Review Boards;
- participating in the definition, drafting, implementation and updating of ECSS standards relevant to the Section's field of competence;

- contributing to the dissemination of the results of activities performed and the transfer of knowledge across the Agency.

QUALIFICATIONS

Applicants for this post should have a Master's degree or equivalent qualification in materials engineering and science, materials physics/metallurgy or another related field, as well as several years' industrial experience preferably covering aerospace hardware and R&D.

Candidates should have demonstrated hands-on experience of advanced manufacturing processes such as additive layer manufacturing. They should demonstrate a sound knowledge of materials, processes, modeling and verification-related aspects for high-end technology domains (for instance, aeronautics, nuclear, automotive or medical).

Applicants should have good interpersonal and communication skills. They should be able to work effectively, autonomously and cooperatively in a diverse and international team environment, defining and implementing solutions in line with team and individual objectives, as well as project deadlines.

Candidates should also have good analytical, organisational and reporting skills, a proactive attitude to problem-solving and an interest in innovative technologies.

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.

CLOSING DATE

The closing date for applications is **30 August 2016**.

Applications from external candidates should preferably be made [online](#) from the ESA website (www.esa.int/careers). Those unable to apply online should submit their CVs to Human Resources, ESTEC, Keplerlaan 1, 2201 AZ Noordwijk ZH, The Netherlands.

ESA staff members wishing to apply should fill in the [Internal Application Form](#) and email it to [Apply2ESTEC](#).

The Agency may require applicants to undergo selection tests.

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.

Priority will first be given to internal candidates and secondly to external candidates from under-represented Member States.

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.