

## 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**

Materials and Processes Engineer in the Materials Space Evaluation and Radiation Effects 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 Space Evaluation and Radiation Effects Section and is responsible for providing technical support to ESA projects involving use of non-metallic materials in space applications. This includes evaluation of the general properties of materials, as well as assessment of the various environmental effects on materials used in manned and unmanned space applications. In addition, the incumbent will be required to manage R&D contracts in their area of competence.

Specific duties of the post will include:

- ensuring materials and processes and sub-assemblies are compatible with mission requirements in terms of ground and space environmental effects (vacuum, temperature, radiation, contamination, synergistic effects, etc.), as well as with storage and launcher requirements;
- developing and implementing new laboratory test methods and materials analysis techniques for the above, focusing on composite materials and manufacturing and on related non-destructive investigation (NDI) methods;
- assessing novel non-metallic materials (carbon fibre reinforced composites (CFRP), ceramic, optical coatings, glasses, etc.), processes and technologies (joining and bonding, etc.) for future space applications. This includes analysing future mission requirements and preparing appropriate evaluation techniques;
- reviewing project documentation on non-metallic mechanical parts, materials and processes and participating in project meetings (reviews, Non-Conformance Review Boards (NRB), etc.). This includes coordinating failure analysis and resolution with the support of the laboratory;
- establishing specifications and procedures for the qualification of materials in compliance with ECSS and ISO 17025;
- coordinating and defining future technology requirements with ESA and industrial stakeholders;

- defining and managing technical activities for tasks to be performed by industry, e.g. in the framework of the various ESA technology programmes;
- contributing to circulation of the results of the 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/chemistry, applied physics, or a related field, as well as several years of industrial hands-on experience in aerospace hardware and R&D. A strong background in advanced materials manufacturing and engineering in high-end technology domains (such as aerospace, automotive, nuclear and medical) is required. Familiarity with ESA Product Assurance (PA) requirements, as well as relevant national and international standards for materials and processes, would be an asset.

Candidates should have good interpersonal and communication skills. They should have the ability to work effectively, autonomously and cooperatively in a diverse and international team environment and to define and implement solutions in line with team and individual objectives and project deadlines.

In addition, applicants should have good analytical, organisational and reporting skills, a proactive attitude to solving problems and an interest in innovative technologies.

The working languages of the Agency are English and French. A good knowledge of one of these languages is required. Knowledge of another Member State language would be an asset.

## CLOSING DATE

The closing date for applications is **9 July 2015**.

Applications from external candidates for this post should preferably be made [online](#) from the ESA website ([www.esa.int/careers](http://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.

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**Under ESA Regulations, the age limit for recruitment is 55. Please note that applications are only considered from nationals of one of the following States: Austria, Belgium, the Czech Republic, Denmark, Finland, France, Germany, Greece, Ireland, Italy, Luxembourg, the Netherlands, Norway, Poland, Portugal, Romania, Spain, Sweden, Switzerland, the United Kingdom and Canada.**

**Priority will be given first 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.**