



2019-IPR-GII7-FGIV-011348

**FG IV – Project Officer -
Exploratory Research Project:
Shared Ledger Technology for nuclear
SaFeGuards (SLT4SFG)**

<p>Position for:</p> <p>FG IV – Project Officer - Scientific / Technical Support Officer</p>	<p>As the science and knowledge service of the Commission, the mission of DG Joint Research Centre is to support EU policies with independent evidence throughout the whole policy cycle.</p> <p>The JRC is located in 5 Member States (Belgium, Germany, Italy, the Netherlands and Spain). Further information is available at: https://ec.europa.eu/jrc/</p> <p>The JRC offers a vacancy for a Contract Agent within the Exploratory Research Project SLT4SFG (Shared Ledger Technology for Nuclear SaFeGuards) in the context of blockchain and Distributed Ledger Technology for nuclear safeguards.</p> <p>The JRC Exploratory Research Programme (ER) is a strategic initiative characterised by ideas that may lead to novel results, which are going to qualitatively enrich the current scientific work at the JRC.</p> <p>The vacancy is within the Directorate Nuclear Safety and Security. The directorate supports the relevant policy DGs with independent, technical and scientific evidence in the areas of nuclear safety, security and safeguards.</p> <p>The operational scientific research will take place in the unit Nuclear Security Unit.</p> <p>Short description of activity:</p> <p>A key element in safeguards is the verification, in nuclear plants, of the presence of declared nuclear materials in order to prevent their diversion for non-peaceful applications, and to verify compliance with declared activities. It is of utmost importance that the information acquisition/collection and flow are reliable, and that they are securely transferred to EURATOM headquarters.</p> <p>In this context, the successful candidate will work within an international team to assess if Distributed Ledger Technologies can be concretely beneficial for EURATOM nuclear safeguards operations, identifying viable Nuclear Safeguard related use-cases and deploying selected proof-of-concepts in a safeguards laboratory to deeply assess their robustness, security, performance and scalability. The aim of the project is also to confirm the added value of the technology for the organisation. The successful candidate will collaborate closely with experts in the Cyber and Digital Citizens' Security Unit, located in Ispra, Italy, for the practical implementation of the selected shared ledger technology in the use cases identified.</p> <p>Qualifications:</p> <ul style="list-style-type: none">• Completed university studies of at least three years attested by a diploma and at least five years professional experience in a field relevant to the position, such as electronics, computer science, ICT, engineering, physics, nuclear sciences. Alternatively a
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	<p>doctoral diploma in the same fields.</p> <p>The successful candidate shall have:</p> <ul style="list-style-type: none"> • Capacity to analyse in detail business processes; • Knowledge of distributed systems concepts and technologies; • Knowledge of signal processing, sensors networks, IoT, data acquisition and data fusion techniques; • Knowledge of at least one of the following programming languages C, C#, Java; • Knowledge of at least one of the following scripting languages: Python, Javascript; • Excellent analytical and communication skills and proactive attitude; • Good oral and written communication skills in English (B2), knowledge of other languages is an advantage; • The ability to work in a team and in a multi-cultural environment. <p>In addition, the following elements will be considered as an advantage:</p> <ul style="list-style-type: none"> • Knowledge of the nuclear fuel cycle and of the nuclear safeguards framework and insight on nuclear safeguards inspector tasks; • Experience in deployment of distributed ledger techniques (including in other domains). • Knowledge of Solidity would be a plus.
<p>Directorate Unit</p>	<p>Nuclear Safety and Security Nuclear Security</p> <p>Exploratory Research Project: Shared Ledger Technology for Nuclear SaFeGuards (SLT4SFG)</p> <p>Further information is available at: https://ec.europa.eu/jrc/en/research-topic/nuclear-safeguards-and-security</p> <p>The Scientific Development Unit of the Strategy, Work Programme and Resources Directorate is in charge of the overall JRC Exploratory Research Programme. The operational scientific research will take place in the Nuclear Security Unit.</p>
<p>Indicative duration</p>	<p>24 months</p>
<p>JRC Site Country</p>	<p>Ispra Italy</p>
<p>Rules and eligibility</p>	<p>The candidate must be on any valid EPSO reserve list for Function Group IV contract staff.</p> <p>Applicants to the following Calls for expression of interest can also be considered:</p> <ol style="list-style-type: none"> 1. CAST Permanent - EPSO has launched in January 2017 an open-ended selection procedure to create a pool of candidates from which the institutions, bodies, offices and agencies of the European Union (EU) can recruit contract

agents. Details available at the link below:
https://epso.europa.eu/documents/2240_en

2. Call COM/1/2015/GFIV – Research – The JRC has launched in January 2015 a permanent call for researchers FG IV. Details available at the link below:
<https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers>

Auxiliary contract staff:

<https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members>

Article 3b of the Conditions of Employment of Other Servants of the European Union applies: the actual period of employment within the Commission under this type of contract, including any period under renewal, shall not exceed 6 years.

Please note that due to the high number of applications received only shortlisted candidates will be contacted.