



2020-IPR-C4-FGIV-013831

FG IV - Scientific Project Officer – Light Duty Vehicle energy consumption and CO₂ emissions performance evaluation and modelling

<p>Position for:</p> <p>FGIV – Scientific Project 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 Sustainable Transport Unit (STU) of the Directorate for Energy, Transport and Climate, is responsible for a series of activities aiming to characterize the energy performance and carbon emissions of light-duty road vehicles (including the so-called Eco-Innovations) and monitor the progress in meeting the established CO₂ emission targets.</p> <p>Within this framework the STU is providing research for policy support to DG Climate Action on developing regulations aiming to reshape and extend the framework governing light-duty vehicle fuel consumption and greenhouse gas emissions. In parallel, the STU focuses on a series of activities that monitor the implementation of existing regulations, and the vehicular CO₂ emissions certification process inside the EU. For this purpose the STU is conducting experimental tests and develops internally ad-hoc vehicle simulation and data collection/analysis software (CO2MPAS, DICE3 and the GreenDriving tool). The combination of testing, vehicle simulation, and data collection allows for a comprehensive assessment of the energy consumption at vehicle and fleet level. With new powertrains and vehicle automation systems in place, the JRC-developed tools and methods will need substantial updates in order to incorporate the most advanced vehicle technologies expected to appear on the market in the years to come.</p> <p>The STU is therefore looking for a researcher with the capacity to steer and coordinate both experimental test campaigns and development of vehicle simulation tools.</p> <p>The candidate will be responsible for setting up a comprehensive framework for the energy efficiency characterization of light duty vehicles, participate in the monitoring and revision of post 2020 CO₂ emissions targets for light duty vehicles, and the introduction of real world fuel consumption monitoring systems in the EU regulatory framework.</p> <p>The activity will include vehicle testing, development and extension of computer models (CO2MPAS, the GreenDriving tool), modelling of advanced powertrain technologies, characterization of hybrid-electric and electric components, evaluation of driving assistance and automation systems, for what concerns in particular the assessment of their energy consumption and CO₂ emissions.</p>
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The researcher will design and follow test campaigns of innovative vehicle systems in the VELA labs of the JRC, in real-world conditions or third party labs and proving grounds, with the objective to gather sufficient data to support the development and validation of the respective policy.

The work will be carried out in close collaboration with colleagues within the Directorate, other Directorates of the JRC and Directorates General of the European Commission.

The tasks of the successful candidate will be to:

- Follow the developments in EU policy in the field of light duty CO₂ emissions and fuel consumption, and contribute in the respective activities of the STU;
- Design, support, and steer the execution of ad-hoc test campaigns;
- Develop, calibrate and validate computer simulation models for advanced light-duty vehicle powertrains, hybrid-electric and electric components, and driving assistance and automation systems;
- Collect, analyse data from the test campaigns, on-line sources, or data retrieved from the EU vehicle certification process;
- Contribute to activities related to data collection from vehicle on-board diagnostics and monitoring systems;
- Writing software code to support the development of the aforementioned tasks, and extend existing tools.

Qualifications:

We look for a person with strong interest and understanding of new vehicle technologies, who will have a good aptitude of taking initiative, developing new concepts and being a strong team player. The candidate shall have completed university studies of at least three years attested by a diploma in Science or Engineering and at least five years of professional experience in a field relevant to the position, or alternatively shall have acquired a doctoral degree in Mechanical, Automotive, Energy, Vehicle or similar Engineering fields relevant to the position offered.

In addition, the following qualifications are considered as an asset:

- Good knowledge of Python or other computer language for data collection, handling, and analysis;
- Good knowledge of vehicle powertrain systems, vehicle dynamics, or vehicle diagnostic systems
- Knowledge of modelling and vehicle simulation tools
- Solid record of research activities relevant for the post including scientific publications and reports;
- Proven ability to work in a team and in a multi-cultural environment;

Very good oral and written communication skills in English (B2) are essential.

The Joint Research Centre is an equal opportunity employer and is committed to increasing the diversity of its staff. It welcomes applications from women and minority groups.

Directorate Unit	Energy, Transport and Climate Sustainable Transport Unit Further information: https://ec.europa.eu/jrc/
Indicative duration	36 months initial contract with possible renewals up to maximum 6 years
JRC Site Country	Ispra Italy
Rules and eligibility	<p>The candidate must be on a valid EPSO reserve list for Function Group IV contract staff.</p> <p>If you are not in any valid EPSO reserve list for Function Group IV contract staff, you can still apply by following these steps.</p> <p>You express your interest by applying to the CAST Permanent or to the permanent JRC Call for researchers.</p> <p>1. CAST Permanent: 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. https://epso.europa.eu/documents/2240_en</p> <p>2. JRC Call COM/1/2015/GFIV – Research: open-ended selection procedure to create a pool of candidates from which mainly the JRC can recruit contract agents FGIV as researchers. Details available at the link below: https://ec.europa.eu/jrc/en/working-with-us/jobs/vacancies/function-group-IV-researchers</p> <p>Only then you can apply for this specific position, through http://recruitment.jrc.ec.europa.eu/?type=AX</p> <p>Auxiliary contract staff: https://ec.europa.eu/jrc/en/working-with-us/jobs/temporary-positions/contract-staff-members</p> <p>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.</p> <p><i>Please note that in case a high number of applications is received only shortlisted candidates will be contacted.</i></p>