



Cofinanciado por
la UNIÓN EUROPEA
Cofinancé par
l'UNION EUROPÉENNE

JOB OFFER: Contractual Researcher / Postdoctoral Fellow (M/F)

PROJECT CONTEXT: MET-SUSCOAT is a cross-border scientific cooperation project funded by the Operational Programme for Cross-Border Cooperation Spain-France-Andorra (POCTEFA). Led by the University of Pau et des Pays de l'Adour (UPPA), it brings together three academic partners and one industrial partner (two in France, two in Spain). The objective is to develop advanced and durable coatings to protect critical metal components in the transport sector against corrosion and wear challenges.

LOCATION: Institute of Analytical Sciences and Physico-Chemistry for Environment and Materials (IPREM), UPPA, Pau, France.

CONTRACT TYPE: Fixed-term contract (18 months)

START DATE: September 1, 2026

REMUNERATION Gross monthly salary €2,970 (depending on profile and experience).

MAIN RESPONSIBILITIES

Under the supervision of the Project Coordinator, Professor Sylvie Dagréou, and Professor Corinne Nardin, the successful candidate will lead the dip-coating deposition process, characterize the polymer films, and evaluate their anti-corrosion performance.

1. Process Development and Optimization

- Implementation and optimization of dip-coating parameters on metallic substrates.
- Adaptation of formulations, if necessary, to meet industrial specifications.

2. Physico-Chemical Characterization

- Rheological study of coating solutions (viscosity, Newtonian/non-Newtonian behavior) to optimize the dip-coating process.
- Morphological and topographical analysis of films (thickness, roughness) via profilometry.
- Identification of surface chemistry and film-substrate interactions using Fourier Transform Infrared Spectroscopy (FTIR).
- Evaluation of surface properties and hydrophobicity via goniometry (contact angle measurement).
- Thermal analysis and material stability assessment: Thermogravimetric Analysis (TGA) and Differential Scanning Calorimetry (DSC).

3. Performance and Durability Evaluation

- Electrochemical analyses to quantify anti-corrosion protection.
- Accelerated corrosion resistance testing: Standardized Salt Spray Testing.
- Characterization of coating mechanical properties (adhesion, hardness, abrasion resistance).

4. Dissemination and Coordination

- Critical data analysis and drafting of scientific reports for consortium partners.
- Contribution to scientific publications and presentation of results at (inter)national conferences.
- Active collaboration with French and Spanish industrial and academic partners.

- Science Outreach: Co-creation, in partnership with the Project Manager, of accessible communication materials (blog posts, short videos, public presentations) to explain the project's stakes to the general public and POCTEFA institutional stakeholders.
- Potential participation in science mediation events to promote cross-border research.

REQUIRED PROFILE

Education:

- PhD in Chemistry, Materials Physics, Surface Science, or Process Engineering.
- Specialization in organic/inorganic coatings, corrosion, or polymerization is required.

Technical Skills:

- Practical experience with the dip-coating process.
- Experience in electrochemistry and corrosion testing (Salt Spray).
- Knowledge of rheological and thermal analysis techniques.

Personal Qualities:

- Autonomy, curiosity, and initiative.
- Strong analytical and synthesis skills.
- Scientific and organizational rigor.
- Excellent team spirit and interpersonal skills for working in an international context (France/Spain).
- Fluency in scientific English (knowledge of Spanish is an asset).

HOW TO APPLY:

Application Package: CV, cover letter, and 2 references (contact details or letters).

Contact: leila.mezzasalma@univ-pau.fr

Email Subject: Application PostD-METSCUSCOAT-2026 + Surname Name

Application Deadline: July 7, 2026.

WHY JOIN US?

A Committed and Inclusive University UPPA's strategy, aligned with the France 2030 plan, aims to meet tomorrow's challenges, particularly the ecological transition. The pillars of our target university include: high-visibility, international-level specialized and interdisciplinary research addressing societal issues; intense partnerships with socio-economic and cultural stakeholders of the territory; international attractiveness and influence; a training offer designed for lifelong learning to support emerging socio-economic needs; and the capacity to foster innovation. This trajectory is supported by the European alliance UNITA, which reinforces this dynamic through specific strategic axes.

Benefits

- 45 days of annual leave + 10 days of additional paid time off (ARTT) per academic year.
- Teleworking options available.
- Sustainable mobility allowance, plus access to leisure, sports, and culture offers.
- Campus located just 1 hour from the Atlantic Ocean and the Pyrenees mountains.
- Individual support dedicated to employees with disabilities.
- Dynamic supervisors, attentive to your work-life balance, offering flexible working hours based on mutual trust.