

# Postdoctoral / Engineer Position Proposal

**Duration:** 3 to 6 months (between September 2025 and June 2026)

**Location:** Civil and Geo-Environmental Engineering Laboratory (LGCgE), Cité Scientifique Campus, Villeneuve d'Ascq, France

## Project Title:

A Cooperative Tool for Data Management and Knowledge Dissemination

## Context:

This position is part of the European project **BONSAI** (*Boosting flood resilience in estuarine systems anticipating shifting climate zones*), funded by the **Interreg North-West Europe** program. The project aims to enhance the resilience of estuarine systems to flooding by anticipating the impacts of climate change.

## Objectives of the Position:

The selected postdoctoral researcher or engineer will contribute to the development of a **collaborative platform** designed to:

- **Facilitate cooperation** between multiple partners producing heterogeneous data;
- **Manage a shared and evolving database and knowledge base**, ensuring accessibility and interoperability;
- **Design and develop innovative tools** for knowledge dissemination, such as:
  - Digital **twins** for dynamic system visualization;
  - **Serious games**;
  - **Interactive storytelling tools** (digital storytelling);
  - Etc.

**Note:** The content of the third task (knowledge dissemination tools) will be adapted depending on the contract duration and the candidate's skills.

## More Information:

- Reference publication: Aljer et al., 2024 – Springer
-  <https://bonsai.nweurope.eu>
-  <https://www.smartdata2030.com>

## Candidate Profile:

The ideal candidate will have a strong technical background and the ability to work in a multidisciplinary research environment.

## Required skills:

- Solid knowledge of **Geographic Information Systems (GIS)**: QGIS, ArcGIS, etc.
- Experience with **Database Management Systems** (e.g., MySQL)
- Proficiency in **programming languages**, particularly **Python** (statistical libraries, AI, data science)
- **Web development** skills (JavaScript, Django)
- Ability to **design and implement algorithms**, and handle **graph-structures**

## Conditions:

- **Duration:** 3 to 6 months (to be determined based on availability)
- **Possible extension** depending on performance and available funding
- **Location:** LGCgE – University of Lille, Cité Scientifique Campus (Villeneuve d'Ascq, France)

Please send your **CV**, a **cover letter**, and **Master's degree transcripts** to:

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