

Training Opportunity for Belgian National Trainees

Reference	Title	Duty Station
BE-2023-EOP-S8E	Data Science: Innovative Visualisation of Earth Observation (EO) and Digital Twin Earth (DTE)	ESRIN, Frascati

Overview of the mission:

The Φ -lab in ESRIN aims to accelerate the future of Earth Observation (EO) by helping the European industry and research communities to rapidly adopt disruptive technologies. A particular interest of the lab is to promote the use of Artificial Intelligence (AI) techniques to enable users and scientists to extract maximum information from the large amount of Earth Observation (EO) data sets. Another interest is to develop new ways to interact with data and in particular through immersive technologies such as VR and AR.

The idea of this Traineeship is to foster the use of new visualisation technologies (e.g. realtime 3D rendering & time animation, AR/VR) to showcase/promote Earth Observation (EO) data and results to a wider non-technical community, and provide users with an immersive experience in Digital Twin Earth (DTE) environments, in particular with focus on Urban applications.

Overview of the field of activity proposed:

As a Belgian National Trainee, you will first familiarise yourself with a significant number of Earth observation missions, instruments and relevant data and acquire specialised knowledge of Earth observation data applications, in particular for Digital Twin Earth (DTE). You will then contribute to the definition and implementation of innovative tools and pipelines for the visualisation of EO data. In particular, your tasks will include:

 \cdot Collection and verification of a suite of EO data sets to showcase use cases with the focus on DTE applications

- · Assessment of currently available AR/VR tools for the visualisation of EO data
- · Generation of narrative with the results for policy makers and users

• Presentation of project advancement and preparation of a final report showing the main results of the activity.

Required education and skills:

- You should have just completed or be in the final year of your master's degree in a technical or scientific discipline
- Good interpersonal and communication skills
- Ability to work in a multi-cultural environment, both independently and as part of a team
- Fluency in English and/or French, the working languages of the Agency