

European Social Fund Plus 2021/2027

FSE+

PPO 2023 S.P. 22/23

Support for higher education within the regional university

With Decree No. 17895/GRFVG of April 19, 2023, the Friuli Venezia Giulia Region published the Notice regarding the submission of operations for Specific Program No. 22/23, which aims to support higher education within the regional university system.

Line A – PhD Programmes

Specific Programme 22/23, through the funding of doctoral scholarships, contributes to the achievement of the objectives of the Sustainable Smart Specialisation Strategy (S4). It supports the development or strengthening of integration with the regional production system and/or research organisations, through coordination and collaboration mechanisms with regional enterprises or research bodies, or by leveraging the potential for technology transfer of processes, products, applications, or, more broadly, research outcomes.

- Notice **2023**
- **39th cycle**
- Unique Project Code (CUP) **J93C23001490008**
- Project **2023/1578/7**

Doctoral Programme in **Nanotechnology**

“Surface-enhanced Raman spectroscopy for the analysis of active ingredients in wastewater”

The project, in collaboration with Fabbrica Italiana Sintetici (FIS), aims to assess whether and how surface-enhanced Raman spectroscopy (SERS)—a spectroscopic technique based on the use of nanostructured metallic surfaces—can be used to analyze traces of active pharmaceutical ingredients in wastewater from industrial drug synthesis processes.

The research activities will primarily be conducted at the Raman Spectroscopy Laboratory of the Department of Engineering and Architecture at the University of Trieste. The main research phase will be followed by a testing phase carried out at the production facilities.

The method developed could be used by FIS in an industrial setting to monitor the quality of wastewater, with the goal of minimizing the environmental impact of industrial activities.