

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 **2023/1578/4**

Doctoral Programme in **Circular Economy**

“Perspectives and opportunities for hydrogen vehicles”

The transport sector remains heavily reliant on fossil fuels. Green hydrogen has the potential to play a key role in the decarbonisation of this sector. This research project has two main objectives.

The first objective is to identify the most promising types of vehicles for hydrogen-based propulsion. The focus will be on vehicles where battery-electric solutions are more difficult to implement, such as:

- Long-haul freight trucks
- Urban and interurban buses
- Tractors and other agricultural machinery
- Tugboats and specialized port equipment for container handling
- Ferries and various types of vessels used in maritime passenger and freight transport
- Aircraft

The second objective, aligned with the Hydrogen Valley initiative, is to define a strategic implementation plan for a regional hydrogen value chain. This includes:

- Assessing the potential for green hydrogen production
- Identifying companies interested in expanding their business to include hydrogen production, storage, and distribution
- Determining the optimal location and sizing of infrastructure needed to support hydrogen-powered vehicles

The project aims to provide a comprehensive framework for integrating green hydrogen into regional transport systems, contributing to both environmental sustainability and industrial innovation.