Regional HPC Infrastructure, Interconnection of Regional University Campuses via WB NREN to the Infrastructure and Upgraded HPC-hosting Data Centre

Project Financing

WBIF	Grant	WB23-ALB-DII-04	€ 402,000
EIB	Loan		€ 15,000,000
National Contribution	Own Contribution		€ 1,300,000
Anticipated WBIF TA Grant	External Grant		€ 3,000,000
Anticipated WBIF INV Grant	External Grant		€ 5,000,000
Total			**€ 24,702,000**
Total Grants			€ 402,000
Total Loans			€ 15,000,000

Project Description

The implementation of HPC infrastructure in Albania will help research and academic communities to enhance their capacity to participate effectively and in a solid way in the European research framework increasing the level of Metadata calculations. HPC is a research infrastructure that for years has been missing from research and academic institutions and this project can offer it to them. Actually, researchers and academics who need computation sometimes contact academic institutions in Europe individually requesting for such infrastructure as Supercomputing. Doctoral schools in public universities cannot offer this type of infrastructure to their PhD students. At the regional level, based on the actual collaboration within EOSC Framework through NI4OS project, it will become possible to collect Metadata from different countries in the fields of common interest as Environment, Seismology, Energy, Transport, Disaster and Risk management, Smart City innovations and migratory data, can be processed, analysed, calculated.

HPC infrastructure gives new opportunities to enhance the collaboration of universities and industry as well as SMEs, as it gives the universities the possibility to offer their expertise and know-how for the development of middleware for the calculation of Big Data. In Albania and the Western Balkans, there is no actual infrastructure available that allows local researchers and innovators to analyse Big Data. In this case, a local solution of HPC in our region facilitates a cross-border collaboration, centred on regional research groups. Finding solutions through other European HPC Centres such as CINECA is too expensive for them and also requires extended capacities in international Broadband.

Results and Benefits

- 50 servers as part of the HPC infrastructure

- 250 additional km of dark fibre national academic backbone in IRU and interregional connection
- connection of 30 universities and research centres to the HPC infrastructure

- **Countries:** Albania
- **Code:** PRJ-ALB-DII-022
- **Sector:** Digital infrastructure
- **Lead IFI:** EIB
- **Status:** Preparation
- **Beneficiary:**