

Lab of Scientific Research Center in Applied Sciences

The Lab of Scientific Research Center in Applied Sciences stands as a flagship multidisciplinary research infrastructure within the Faculty of Technical and Natural Sciences at the University "Ismail Qemali" Vlora, designed in alignment with European Research Infrastructure principles.

Our vision

To emerge as a nationally embedded and regionally interconnected reference center for applied scientific research and technological innovation, aligned with European research priorities. We aim to foster the seamless integration of natural sciences, engineering, digital technologies, and environmental systems, delivering data driven solutions that address complex societal, industrial, and environmental challenges while supporting sustainable development, technological innovation, and environmental resilience.

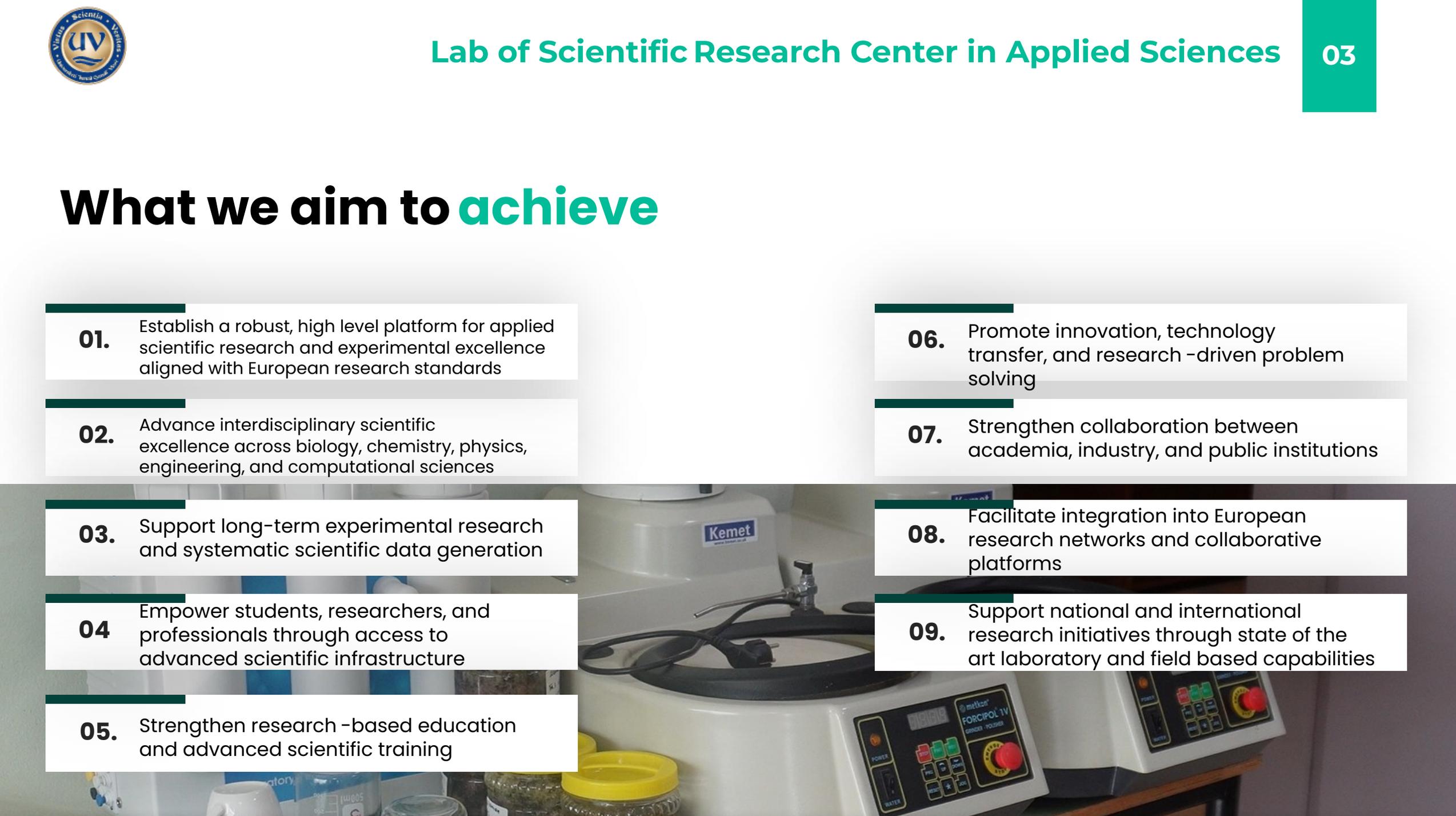
Who we are

Conceived as a hub of scientific excellence and technological advancement, the Center operates as a core institutional platform dedicated to the development, integration, and application of cutting edge experimental, analytical, and technological methodologies across the full spectrum of natural sciences, engineering, and applied research.



Scientific Research Center
in Applied Sciences

What we aim to achieve

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- 01.** Establish a robust, high level platform for applied scientific research and experimental excellence aligned with European research standards
 - 02.** Advance interdisciplinary scientific excellence across biology, chemistry, physics, engineering, and computational sciences
 - 03.** Support long-term experimental research and systematic scientific data generation
 - 04.** Empower students, researchers, and professionals through access to advanced scientific infrastructure
 - 05.** Strengthen research -based education and advanced scientific training
 - 06.** Promote innovation, technology transfer, and research -driven problem solving
 - 07.** Strengthen collaboration between academia, industry, and public institutions
 - 08.** Facilitate integration into European research networks and collaborative platforms
 - 09.** Support national and international research initiatives through state of the art laboratory and field based capabilities

Our core fields of operation

01. Applied biological and ecological research

02. Engineering testing, diagnostics, and technological evaluation

03. Digital technologies, data acquisition, modeling, and three dimensional analysis

04. Remote sensing, drone -assisted monitoring, and spatial data analysis

05. Advanced and integrated laboratory and field based experimental research infrastructures

06. Physicochemical, biological, and environmental analysis

07. Applied and experimental physics, measurement science, and instrumentation

08. Analytical chemistry and advanced material characterization



Services for partners and external stakeholders

The lab delivers high level scientific services and collaborative opportunities.

01. Advanced lab analyses and field measurement capabilities

02. Environmental, physical, chemical, biological, and technological monitoring services

03. Instrumental diagnostics and experimental analytical services

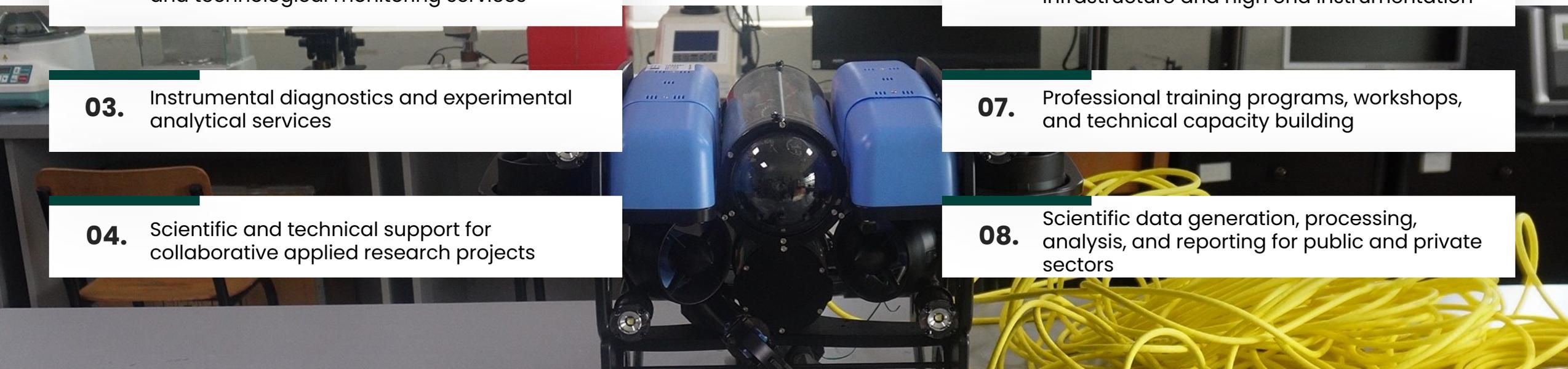
04. Scientific and technical support for collaborative applied research projects

05. Scientific consulting for innovation, sustainability, and technology driven initiatives

06. Access to specialized research infrastructure and high end instrumentation

07. Professional training programs, workshops, and technical capacity building

08. Scientific data generation, processing, analysis, and reporting for public and private sectors



Research focus areas

01. Long-term multiparametric environmental and technological monitoring

02. Applied biological and ecological research across natural and engineered systems

03. Physicochemical characterization of materials and environmental matrices

04. Experimental physics, acoustics, vibration, and electromagnetic field analysis

05. Air quality monitoring and particulate matter characterization

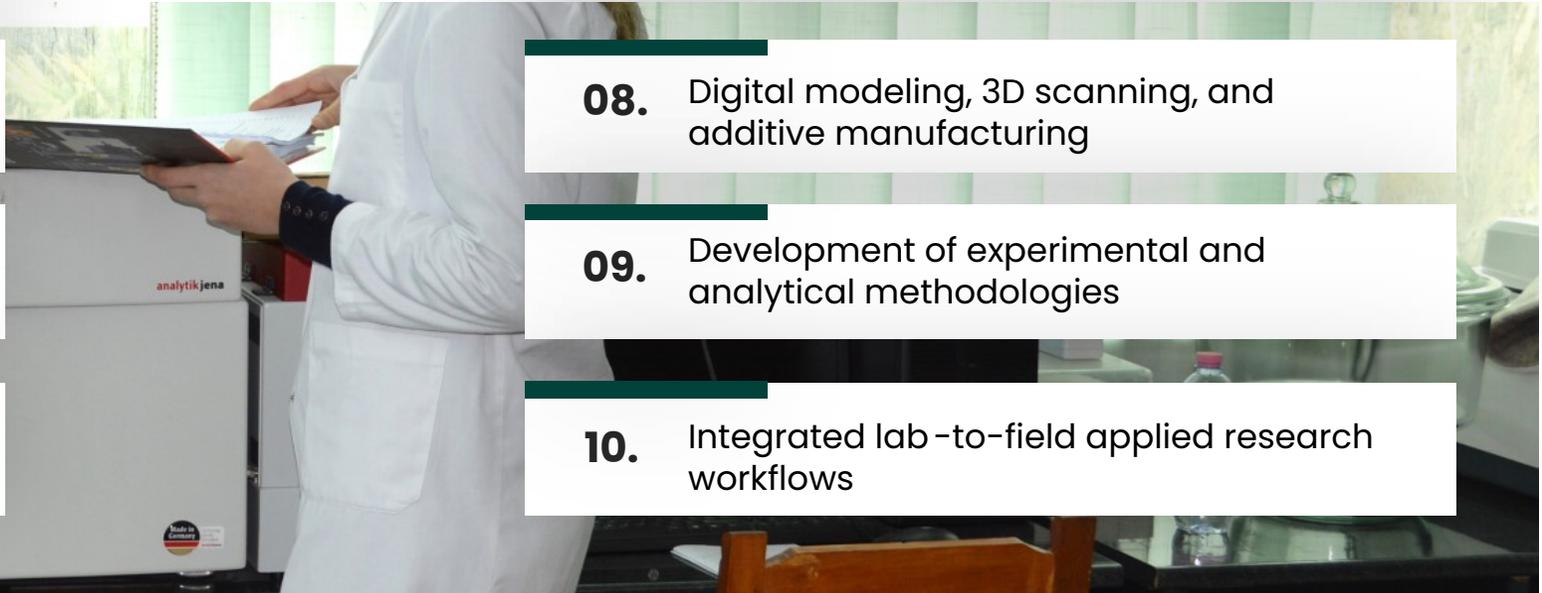
06. Structural analysis, hardness testing, and material performance evaluation

07. Remote sensing technologies and drone-assisted scientific observation

08. Digital modeling, 3D scanning, and additive manufacturing

09. Development of experimental and analytical methodologies

10. Integrated lab-to-field applied research workflows





Institutional **integration** and departmental **support**

The Lab of Scientific Research Center in Applied Sciences functions as a unifying research platform for the Faculty of Technical and Natural Sciences, providing experimental, and technological support to all departments.

Through this integrative framework, the lab enables shared use of advanced infrastructure, cross-departmental collaboration, and the development of interdisciplinary research initiatives that transcend traditional academic boundaries and align with European research ecosystem models.



Our impact

By consolidating advanced scientific infrastructure, multidisciplinary expertise, and a strong culture of experimental and analytical excellence, the Lab of Scientific Research Center in Applied Sciences delivers a transformative impact by:

- 01.** Elevating institutional and national applied research and innovation capacity
- 02.** Enabling high quality, reproducible, and data driven scientific output
- 03.** Supporting interdisciplinary education and research based learning
- 04.** Providing reliable scientific evidence for environmental management, technological development, and policy formulation
- 05.** Enabling effective integration into European research infrastructures and collaborative scientific networks