



Innovation Fair

"ENABLING THAT STEP FORWARD"

Prof. Lotfi BAGHLI

Innovative solutions from EU-AU-Med R&I cooperation projects

23 October 2025, Brussels

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Microgrids for farms

LEAP-RE Project: MGFARM

Smart microgrids as a solution for agriculture farms electrification

(2022-2026), 11 partners, 4 countries

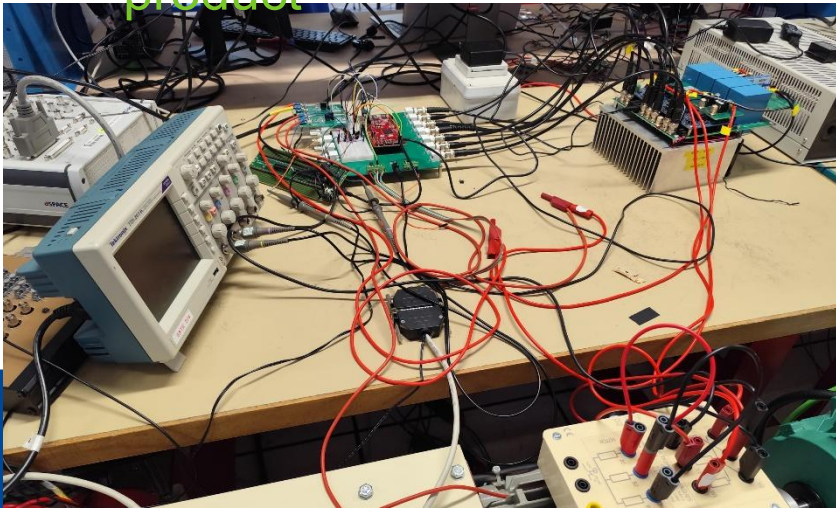
- Develop smart microgrids based on Renewable Energy System (RES)
- Support the sustainable development of energy, water and agriculture sectors
- Load profile (pumping, irrigating, cooling), storage strategies, sustainable agricultural practices
- Design and install TRL6 Digitized Microgrids with Smart Storage Solutions each on demonstration farms in Algeria and Morocco and to equip them with remote data monitoring infrastructure
- Plug&Play TRL4 concept of microgrids that can be connected or disconnected without intervention or changes to manual settings



Scale-up MGFARM project

Seeking **funding** (200-250 k€) and **partners** to transition from research to commercial deployment :

- **Developing more on-site demonstrators**: Building fully operational microgrids on several farms in **North Africa** to **showcase the technology's reliability, economic benefits**, and ease of use. This is critical for **overcoming farmer reluctance** and driving adoption
- **Streamlining equipment procurement**: **Bulk purchasing** of inverters, solar panels, batteries, and sensors to **lower costs** and avoid the procurement delays that have impacted initial prototypes
- **Pre-industrialization**: Refining the **low-cost inverter prototypes** into a **market-ready product**





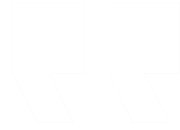
The **MG-FARM** pitch at the Innovation Fair was a standout, showcasing a market-ready solution for sustainable agriculture using novel, low-cost microgrids powered by renewables, perfectly demonstrating successful **Africa-Europe R&I cooperation** to tackle the energy-water-food nexus.

The plan for investment and strategic partnerships are critical to scaling this high-potential technology across North Africa



Prof. Lotfi BAGHLI
Professor-Researcher





Thank you!

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