



This project (grant Number 2421), is part of the PRIMA programme, supported by the European Union.

Newsletter Edition I (ENG)

Promoting sustainable Mediterranean agriculture through innovation and cooperation

Welcome to the MORFeuS Project Newsletter

The MORFeuS project aims to strengthen the resilience of Mediterranean territories in the face of climate change and water scarcity. Through the WEF E Nexus approach (Water – Energy – Food – Ecosystems), the project develops and tests innovative solutions in collaboration with local stakeholders.

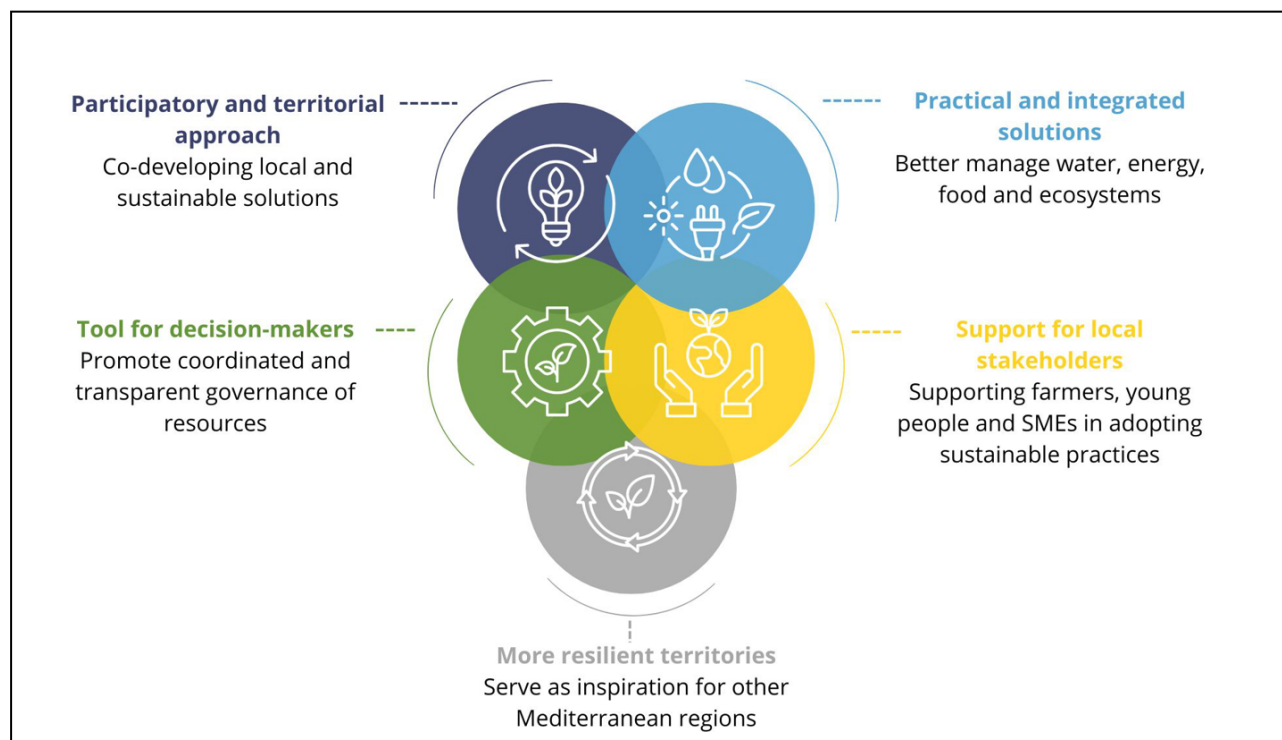


@Laure Hossard - INRAE

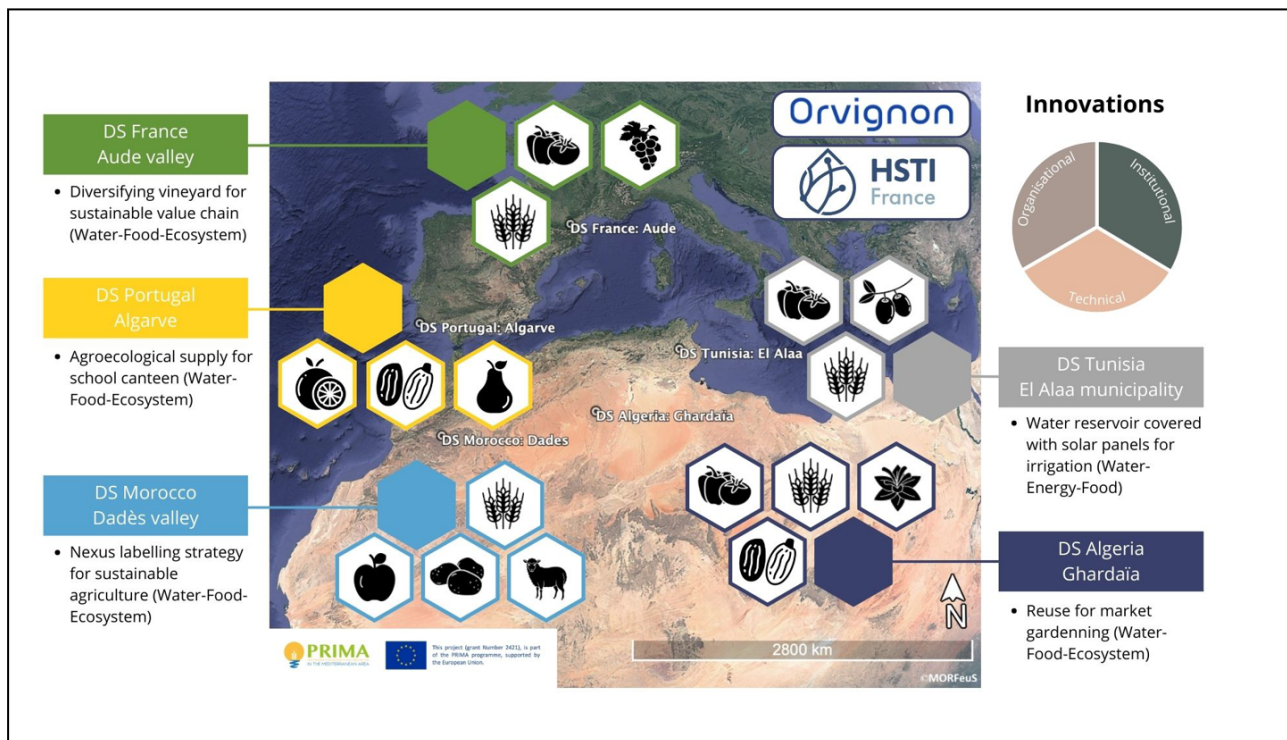
[Link to the project website](#)

MORFeuS Project's Goals

Identify existing and potential solutions to co-design and evaluate combined solutions that increase territorial resilience across the Nexus elements — Water, Energy, Food and Ecosystems. Integrate stakeholder knowledge and needs to design and evaluate technical, organisational and institutional solutions tailored to each territory. Set up demonstration sites to test solutions, share results across sites, and produce concrete recommendations for public policy. Assess the potential for scaling up the project's results across the Western Mediterranean region. Ultimately, MORFeuS supports a participatory, integrated approach that strengthens local stakeholders, improves resource governance, and builds more resilient Mediterranean territories.



Demonstration sites



Demonstration sites are at the heart of the MORFeuS project. Spread across five Mediterranean territories, they serve as open-air laboratories where innovative solutions based on the Water–Energy–Food–Ecosystems (WEFE) Nexus approach are co-designed, tested, and evaluated. Each site addresses specific local challenges while fostering the exchange of experiences, knowledge transfer between partners, and the dissemination of innovative practices, in order to strengthen the resilience of Mediterranean territories in the face of climate change and increasing water scarcity.

[DS#1: ALGERIA - GHARDAÏA - MORFeuS](#)

[DS#2: FRANCE - VALLEE DE L'AUDE - MORFeuS](#)

[DS#3: MAROC - VALLEE DE DADÈS - MORFeuS](#)

[DS#4: PORTUGAL - ALGARVE - MORFeuS](#)

[DS#5: TUNISIE - EL ALAA - MORFeuS](#)

MORFeuS Project News

Launching territorial dynamics at the Mediterranean demonstration sites.

Objective: operational phase, moving from territorial diagnosis to collective action, through an integrated approach based on the WEFE Nexus, fostering multi-stakeholder dialogue and the co-construction of sustainable territorial solutions.

- Algeria – Ghardaïa: October 8 and 29, 2025



@Soumaya Younsi - INAT

- France – Grand Narbonne: November 17, 2025
- Morocco – M'Semrir–Tilmi: October 6–7, 2025
- Tunisia – El Alaa / Kairouan: October 6–7 and November 4, 2025
- Portugal – Algarve: October 1–31, 2025



@Nassreddine Maatala - IAV

Exchange sessions and strategic consolidation at the demonstration sites.

Following on from these activities, the MORFeuS project has begun a phase of scientific and strategic consolidation across its demonstration sites.

These exchange sessions made it possible to:

- Deepen territorial diagnostics
- Align action priorities
- Prepare the first Nexus experiments

- Algérie – DS Ghardaïa : 28 janvier 2026
- France – DS Grand Narbonne : 6 janvier 2026
- Maroc – DS M'Semrir–Tilmi : 11–12 novembre 2025
- Tunisie – DS El Alaa : 17–21 novembre 2025
- Portugal – DS Algarve : fin octobre 2025



@Younes Bekkar - IAV



@Elie Boillot - INRAE

Co-construction of solutions

Field activities were recently carried out in Tunisia, Morocco, Portugal, France, and Algeria, in order to conduct multi-stakeholder territorial diagnostics, jointly analyze local needs, and co-construct demonstration setups for Nexus innovations.

- Algeria – Ghardaïa: experimenting with saffron drying using renewable energy.

- France – DS Aude: planning plot monitoring and optimizing irrigation.
- Morocco – DS Dades: field school and participatory design of solutions.
- Tunisia – DS El Alaa: field exchanges, workshops, and technical meetings to co-construct sensor use.
- Portugal – Algarve: farm visits and pilot sensor experimentation.



@Housseem Braiki - ACCORD



@Younes Bekkar - IAV



@Ahmed Benmihoub - CREAD

Innovations serving sustainable water management

Several innovations are being trialed at the El Alaa pilot site in Tunisia and the Ghardaïa pilot site in Algeria.

At the Ghardaïa site (Algeria):

- Trialing the reuse of treated wastewater for irrigating forage crops (sorghum and alfalfa)
- Producing compost from olive mill wastewater to valorize agricultural by-products



@Ahmed Benmihoub - CREAD

At the El Alaa site (Tunisia):

- Installing irrigation sensors to improve water management
- Selecting 10 pilot farmers to test innovative water-saving practices
- Monitoring representative plots dominated by olive cultivation and different irrigation systems



@Saoussen Ayadi - INAT

MORFeuS Project Annual Meeting

From May 4 to 7, MORFeuS project partners gathered in Faro (Portugal) for the annual seminar dedicated to the Water-Energy-Food-Ecosystems (NEXUS) approach. This meeting provided an opportunity to review progress on the different work packages, share results obtained at the demonstration sites, and define the project's next steps in a spirit of collaboration among partners.

The program also included several field visits, notably to a citrus producer using an innovative solar pumping system combined with smart sensors, as well as to Quinta do Freixo, an inspiring example of integrated rural development. These exchanges fostered the sharing of experiences, the dissemination of best practices, and strengthened cooperation among the partner countries.



@Laure Hossard - INRAE



@Lucie Maillet - INRAE



@Laure Hossard - INRAE

We're in the News

Research: how MORFeuS thinks water, energy, agriculture and ecosystems together in the Mediterranean

Humidity sensors to guide irrigation, water reuse, nature-based solutions, a sustainability assessment application, shared diagnosis followed by co-construction with farmers, local authorities and decision-makers: the MORFeuS project, deployed across five pilot sites in Algeria, France, Morocco, Portugal and Tunisia (including the Dadès Valley), illustrates an integrated approach to the Mediterranean water crisis. Funded by the PRIMA program from 2025 to 2028 and coordinated by INRAE, it relies on the Water-Energy-Food-Ecosystems nexus to build development pathways designed together with local stakeholders.

INRAE tells you more, read it here: [How to reconcile agriculture, water management, energy production and ecosystem preservation in Mediterranean territories?](#)

Research: how Morocco is reconciling science and the field in its oases

Water-saving sensors, an application to measure oasis resilience, direct dialogue with farmers and administrations from the very design stage of the solutions: the MORFeuS project, deployed in the Dadès Valley, illustrates a new way of doing applied research in Morocco. Carried out as part of the Euro-Mediterranean PRIMA program, it tackles a well-known challenge: moving from the lab to the field.

Médias24 tells you more, read it here: [PRIMA: €28 million invested, Moroccan research gains ground](#)

Project Resources

Publication :

Sawadogo, M., & Ben-Ari, T. (2026). An open-access dataset of global experimental yields in organic, diversified and conventional agricultural systems. *Data in Brief*, 112903.

[An open-access dataset of global experimental yields in organic, diversified and conventional agricultural systems - ScienceDirect](#)

Conference :

- participation to the 16th International Farming System Association International conference (<https://ifsa2026.sciencesconf.org/>). Nina Graveline (INRAE) chaired a special session on, and presented ; Laure Hossard (INRAE) presented the MORFeuS in the special WEFE session.

Opportunities / Events related to the project

Event: join CrossMED 2026, the international conference on Mediterranean landscapes

Researchers, academics, policymakers and practitioners coming together around interdisciplinary approaches to the sustainable management of Mediterranean landscapes: the 3rd International Conference on Landscapes Across the Mediterranean (CrossMED) will take place from 25–27 November 2026 in Alexandria, Egypt. Good news for MedECC members: the abstract submission deadline has been extended, giving you more time to submit your work.

For more information on the themes, submission guidelines and registration, visit the conference website: crossmed-bos.org

Did you know? Understanding the WEFE Nexus approach

WEFE stands for Water – Energy – Food – Ecosystems. The "Nexus" approach starts from a simple observation: these four resources are deeply interconnected, and acting on one always has consequences for the others.

A concrete example within MORFeuS:

At the Ghardaïa site (Algeria), the project is trialing saffron drying using solar energy. This choice perfectly illustrates the Nexus:

- Water: fewer losses compared to more resource-intensive traditional drying methods
- Energy: use of local, renewable energy, without relying on the electricity grid
- Food: a high-value crop, better valorized
- Ecosystems: reduced pressure on local natural resources



Copyright (C) 2026 INRAE. All rights reserved.

You are receiving this email because you signed up via our website.

Our mailing address is:

INRAE, 147 rue de l'Université, 75338 Paris Cedex 07, France



This project (grant Number 2421), is part of the PRIMA programme, supported by the European Union.

This newsletter was carried out within the framework of the MORFeuS project, grant n°2421. The MORFeuS project is part of the PRIMA program supported by the European Union.

The views and opinions expressed are, however, those of the author(s) alone and do not necessarily reflect those of PRIMA, the European Union or the European Research Executive Agency (REA). Neither PRIMA, the European Union, nor the REA can be held responsible for them.

Contact us : contact-morfeus@inrae.fr

[Facebook](#) · [LinkedIn](#)

See you at the next edition to continue this wonderful adventure together!