



# REPORT 2

2 ZERO  
HUNGER



2025



### Ambassador of SDG 2



Pr. Lamia Mokadem

## Pr. Lamia MOKADDEM

### *The University of Tunis El Manar: Advancing Sustainability through Education and Innovation*

#### PAQ Collabora Assur Cereals Project

The overall objective of the PAQ Collabora Assur Cereals project is to contribute to reducing Tunisia's trade deficit in the cereal sector. Specific objectives include supporting agricultural risk management related to drought and strengthening the capacity to process satellite imagery for climate adaptation.

The project is implemented by a consortium of five partners, led by the National Engineering School of Tunis (ENIT), and includes CTAMA, APAD, CNCT, and the Bizerte Competitiveness Pole. It was funded to support the doctoral research of Nesrine Abid in Hydraulic Engineering, whose thesis was defended in 2018. The project contributes to developing indices that facilitate the adoption of drought insurance by cereal producers and stakeholders in Tunisia's cereal sector.

#### FIT4REUSE: Sustainable Water Solutions for Agriculture

The FIT4REUSE project will develop integrated water management and wastewater treatment systems through applied research and cogeneration technologies. By bridging the gap between agricultural water needs and treated wastewater reuse, the project will provide sustainable solutions for the agricultural sector.



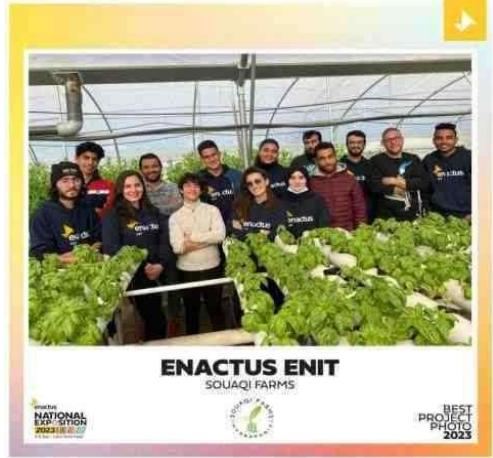
The initiative will also introduce innovative technologies and analytical tools to address challenges in water quality and agricultural water management. Methodological frameworks and assessment instruments will be specifically designed to support the project's objectives and enhance water reuse practices.

# 2 ZERO HUNGER



## Enactus: Advancing Social Innovation Through Entrepreneurship

Enactus is a global network of leaders dedicated to leveraging business principles to drive positive social and environmental change. Its mission is to educate, inspire, and empower youth to address pressing global challenges through innovation and entrepreneurship. In Tunisia, Enactus Tunisia coordinates and promotes this vision across higher education institutions, fostering a culture of impactful student-led initiative



### Enactus ENIT: Student-Led Innovation in Sustainable Agriculture

Enactus ENIT is a nonprofit student association based at the National School of Engineers of Tunis (ENIT), operating under the coordination of Enactus Tunisia. Composed entirely of ENIT students, the association focuses on developing projects that combine engineering expertise with entrepreneurial action to address local and national challenges.



### SOUAQI Project: Hydroponic Solutions for Sustainable Agriculture

The SOUAQI project, initiated by three doctoral students in biology and qualified hydroponics trainers in collaboration with Enactus ENIT, addresses critical agricultural issues such as excessive water consumption and pesticide use. By promoting soilless cultivation techniques, the project achieves a 90% reduction in water usage and eliminates the need for pesticides.

Key achievements of the SOUAQI project include:

- Establishing a distribution network for unprocessed organic agricultural products.
- Raising awareness and providing training in hydroponics for enthusiasts and aspiring agripreneurs.
- Launching nine hydroponic projects across Tunisia, showcasing the scalability of this approach.

By integrating engineering, agriculture, hydroponic technology, and digital tools, SOUAQI represents a transformative model for sustainable farming in Tunisia. It not only addresses immediate environmental challenges but also creates new opportunities for innovation and productivity in the agricultural sector.

### B-CONNECT: Protecting Beekeeping Ecosystems

B-CONNECT is dedicated to supporting beekeepers and preserving their essential role within the ecosystem. The platform facilitates optimal hive placement for beekeepers and incorporates innovative security features to prevent hive theft. This initiative contributes directly to the protection of bee populations and the promotion of biodiversity.



### 1. Fish Living Lab (Gel Gintel - Bizerte)

Led by the LEDDRNA laboratory at the University of Tunis El Manar, this Living Lab addresses complex environmental issues in the Bizerte lagoon. It employs a novel approach for small-scale fisheries, analyzing the interplay between socio-economic factors—such as local industry and fishing communities—and natural conditions, including biodiversity loss and climate change.

1<sup>er</sup> Atelier du : **Fish Living Lab**  
**Laboratoire vivant de la pêche**  
 Projet GEL GINTEL- BIZERTE

« Analyse des problèmes et Diagnostic participatif de l'état actuel de la pêche dans la Lagune de Bizerte »

Le 11/07/2024 à partir de 9h00  
 Municipalité de Mrezel Abderrahmane  
 Bizerte

En collaboration avec :

COMITÉ d'organisation :  
 Dr. Lamine MOURIDA, Directeur de l'EDDRNA (PIEGUT/UTM)  
 M. Syrine BEN NACEY Présidente de l'OD-Bizerte  
 Dr. Mohamed BOUHARI, Dr. AYACHE, Dr. Faysal RADJOUSSI (PIEGUT/UTM)

### 2. Mar2Protect Living Lab (ISSBAT)

On May 23, 2024, ISSBAT organized a Living Lab as part of the Horizon Europe Mar2Protect project. The event convened researchers, industry representatives, public institutions, and civil society to co-create innovative solutions for Tunisia's groundwater challenges. The session focused particularly on groundwater recharge strategies for the Oued Souhil study site in Nabeul.



### **Working Workshop for Cereal Producers**

A workshop titled “Productivity Index Estimated from Satellite Information and Hydroclimatic Projections” was held on October 5, 2023, at the Bizerte Competitiveness Pole.

This event, part of the Pack-Collabora Assur Cereals project, demonstrated the partnership's progress in utilizing meteorological and satellite data to support cereal production in Tunisia. Attendees learned how these tools can monitor crop health, contextualize agricultural campaigns within climate variability, and ultimately predict harvests to optimize production costs.

### **PRIMA SWATCH Project Closing Seminar**

The concluding seminar for the PRIMA SWATCH Project took place on June 13, 2024, at the KANTRA agricultural training center in Siliana. The project focused on "Strategies for increasing the water efficiency of agro-sylvo-pastoral systems under climate change, in semi-arid watersheds of the Mediterranean."

### **Master Class: Nutrition and Cancer**

April 24 – Organized by the Faculty of Medicine of Tunis  
 This specialized session focuses on the intersection of nutrition and oncology. Participants will develop competencies in:

- Relating evidence-based dietary approaches to cancer risk reduction
- Analyzing dietary patterns associated with decreased cancer incidence
- Identifying molecular and biological mechanisms of nutrients and herbs within the hallmarks of cancer framework

La faculté de médecine de Tunis organise une masterclass sur le thème

**NUTRITION ET CANCER**

Public cible :  
 Chirurgie carcinologique  
 Chirurgie générale  
 Oncologie médicale  
 Radiothérapie  
 Endocrinologie  
 Nutrition  
 Médecine de famille

Lieu d'enseignement :  
 Institut National de Nutrition/  
 Institut Salah Azaiez

Programme :

- Samedi 12 Octobre 2024 : Module 1 : Aperçu général sur la nutrition en oncologie et retentissement des traitements systémiques des cancers sur la nutrition
- Vendredi 18 Octobre 2024 Module 2 : Effets du traitement locorégional sur les cancers sur la nutrition
- Samedi 19 Octobre 2024 : Ateliers d'évaluation de l'état nutritionnel
- Samedi 26 Octobre 2024 : Cas particuliers et nouvelles tendances nutritionnelles

Liens d'inscription :  
<https://forms.gle/EKeARrxhnJZLA99> Frais d'inscription : 200 DT



## Nutrition Focused Initiatives

### Cooperation Agreement: National Institute of Nutrition and University of Tunis El Manar

February 16, 2024

A cooperation agreement was formalized between the National Institute of Nutrition and Food Technology and the University of Tunis El Manar. The signing ceremony was attended by Mrs. Najwa Ben Amara, General Director of the Institute, and Professor Moez Chafra, President of the University.

This partnership establishes a framework for scientific and research collaboration between the Institute's laboratories and the University's research structures. During the ceremony, Professor Chafra honored both Mrs. Ben Amara and Professor Jalila Al-Ati in recognition of their significant contributions to advancing scientific cooperation with the University's research institutions.

**Nutri Ambassadors** once again organized a distinguished sports-focused event. This edition, titled **NutriFit 2.0 – Conference Day**, was held on **April 26, 2025**, at the **National Center for Sports Medicine and Science**.

The program included a series of high-quality conferences addressing key topics in nutrition and sports, led by experienced and dedicated experts. The event provided participants with an enriching opportunity to enhance their knowledge and gain deeper insights into the relationship between nutrition and athletic performance.



**SÉMINAIRE**  
Projet GEL GINTEL BIZERTE

**CADRE INSTITUTIONNEL ET MÉCANISMES DE FINANCEMENT POUR LA CONSERVATION DES ZONES HUMIDES EN TUNISIE**

En collaboration avec

07 FEV 2025, 9H00  
FSEG - Salle des Thèses

Modéré par  
Dr Monia BEN SALEM (MA, FDSPT, UTM)  
Dr Nouria BELGHITH (MA, FSEG, UTM)

Lamia MOKADDEM  
Professeure d'Économie  
Directrice de l'EDDNA  
FSGT, UTM

Leila CHIKHAOUI MAHDAAUI  
Professeure en droit public  
Ancienne Ministre de l'environnement

BEN TEMESSEK Med Ali  
Directeur de l'écologie et des écosystèmes naturels. Ministère de l'Environnement

TAGHOUTI Ezzeddine  
Directeur de la Conservation des Forêts  
Ministère de l'agriculture des ressources hydrauliques et de la pêche,

A visual recap of the seminar “**Institutional Framework and Financing Mechanisms for Wetland Conservation in Tunisia**”, organized by the FSEG laboratory **Economics of Sustainable Development of Natural Resources and Agriculture (L. EDDRNA)** in collaboration with the **Ministry of Environment**, the **Ministry of Agriculture, Water Resources and Fisheries**, **UNDP**, and the **ATRIADD Association**, held on **February 7, 2025**.

This seminar is part of the **L. EDDRNA GEL-GINTEL-BIZERTE project**, under the **Bizerte Lagoon depollution program Ecopact – Lake of Bizerte**, launched by **ANPE** and co-financed by the **European Union**. Its primary objective was to examine strategies for strengthening the institutional framework and financing mechanisms supporting wetland conservation in Tunisia.



The **Laboratory of Neurophysiology, Cellular Neuropathology, and Biomolecule Valorization** had the honor of welcoming **Dr. Marco Bernasconi**, CEO of the Italian company **FLANAT Research**, as part of the **PsyCoMed MSCA project**. Dr. Bernasconi delivered a series of specialized lectures tailored for researchers and professionals in **pharmaceutical sciences, biology, agronomy, nutraceuticals, and medicine**. The sessions offered a unique opportunity for interactive discussions and hands-on insights drawn from applied research and innovation.

Key topics included:

- Research and development in nutraceuticals
- Dietary supplement compounds and their preventive roles
- Claims and regulatory frameworks in Europe
- Market perspectives for finished products
- Life cycle approach and life cycle assessment (LCA)
- Case studies from real R&D&I projects

The event took place at the **Faculty of Sciences of Tunis** on **June 2–3, 2025**.

**NUTRACEUTICALS: INNOVATION, SCIENCE AND REGULATION**

Presented by **Dr. Marco BERNASCONI**  
Chief Executive Officer  
FLANAT Research Italia

Organized by **Pr. Olfa MASMOUDI**

**PROGRAM HIGHLIGHTS**

- R&D in nutraceuticals
- Dietary supplement compounds and their preventive roles
- Claims and regulations in Europe
- Market of finished products
- Life Cycle Thinking and Life Cycle Assessment
- Case studies from real R&D&I projects
- Final Q&A discussion

**FACULTY OF SCIENCES OF TUNIS**  
DEPARTMENT OF BIOLOGY  
IBN AL JAZZAR HALL

**02-03 JUNE 2025**  
**13H30**  
lr18es03@gmail.com

**Journée Scientifique**

**Vers une Agriculture Résiliente : Biofertilisants et Stratégies Durables en Réponse au Changement Climatique**

**PROGRAMME**

Conferences : Auditorium e. Explore e

09h30-10h00 Accueil des participants

10h00-10h20 La vulnérabilité des ressources en sol face aux changements climatiques

Dr. Ines Driss, Membre de Conference, IFT

10h20-10h40 Optimisation de la gestion de l'irrigation : stratégies et innovations face aux défis du changement climatique

Dr. Hafsa Laryeb, Directrice de l'Institut National de l'Environnement (ISAE)

10h40-11h00 Amélioration et Gestion des impacts du lessivage des fertilisants chimiques sur la qualité des eaux du barrage Sidi Salem et substitution par des biofertilisants

Dr. Dorsaf Ben Othman, Docteur en Géologie et Géochimie des Eaux, Membre de Conference, Centre de Recherche STEP Chottoum, ONAS.

11h00-11h20 Vulnérabilité et résilience des systèmes céréaliers face aux changements climatiques

Pr. Faysal Ben Jelid, INAT.

11h20-11h40 Expertise de l'Association Tunisienne de l'Agriculture environnementale concernant les diverses cultures sur champs

Mme. May Granier, Consultant Senior, ITC

11h40-12h00 Pause-café

12h00-12h20 Micro-Organismes du Sol et Résilience des Cultures : Un Équilibre Essentiel pour une Agriculture Résiliente

Dr. Sonia Labidi et Dr. Samia Dlala, INAT

12h20-12h30 Discussion et clôture des conférences

Ateliers : Laboratoire de Biologie Moléculaire ADN pour tous

13h00-15h30 Workshop 1 : Caractérisation moléculaire des bactéries rhizobiales

- Extraction d'ADN des bactéries rhizobiales ;
- PCR à 16S ;
- Visualisation des amplicons et interprétation des résultats.

Mme. Samia Ben Letaïfi, Responsable du Laboratoire de Biologie Moléculaire-ADN pour Tous, CST

Dr. Samia Ben Letaïfi, Membre-Assesteure, INAT.

Ateliers : Salle de PCR

15h30-17h00 Workshop 2 : Bio-informatique appliquée au rhizobium

- Identification des séquences à l'aide de BLAST ;
- Application du logiciel MAGA : Alignement des séquences et tracage de l'arbre phylogénétique ;
- Interprétation des résultats obtenus.

Mme. Samia Ben Letaïfi, Responsable du Laboratoire de Biologie Moléculaire-ADN pour Tous, CST

Dr. Khaled Marnari, Laboratoire de Bactériologie, IRYT.

**Mercredi 26 février 2025**  
à la Cité des Sciences à Tunis

**www.cst.rnu.tn**  
Rue Cité des Sciences - 1082 - Tunis / Tel : 00 216 71 766 000/Fax : 00 216 71 767 777

**ENTRÉE LIBRE ET GRATUITE**  
Entrée libre et gratuite

The **Faculty of Sciences of Tunis** is organizing a **Scientific Day on Soil Biofertilizers in the Context of Climate Change** on **Wednesday, February 26, 2025**. The event will be held under the theme: *"Towards Resilient Agriculture: Biofertilizers and Sustainable Strategies in Response to Climate Change"*, in collaboration with the **Horticultural Sciences Laboratory of the National Agronomic Institute of Tunisia (INAT)**.

This awareness day is part of the Faculty's annual scientific program and is designed to engage students, farmers, and the general public. Led by experts from multiple disciplines, the event aims to share the latest research on soil biofertilizers as an ecological strategy to ensure sustainable and resilient agriculture in the face of climate change.

The initiative also addresses key challenges, including the adaptation of biofertilizer applications to diverse soil types, the efficient use of irrigation water, and the enhancement of agricultural productivity under evolving climatic conditions. The day's program will feature **public conferences** and **interactive workshops for students**, providing a platform for learning and practical engagement.



## The INNOV'FOOD Talks



Under this framework, students developed tangible projects focused on food security, sustainable agriculture, and nutritious food solutions. The outcomes demonstrated how problem-based learning within the university can foster practical, locally-grounded responses to global challenges, aligning academic work with Tunisia's development priorities and the broader UTM mission.

The INNOV'FOOD Talks event served as a platform to directly advance SDG 2 (Zero Hunger) through academic innovation at the University of Tunis El Manar. As part of the university's commitment to social responsibility and sustainable development, the initiative embedded this goal into the curriculum.

