جامعة ابن طفيل
Université Ibn Tofaïl
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2025

SDG6 REPORT

WATER AND SANITATION

SUSTAINABLE DEVELOPMENT
IBN TOFAIL UNIVERSITY

Introduction

SDG 6

In 2025, Ibn Tofail University remained dedicated to advancing the Sustainable Development Goals (SDGs), with a specific emphasis on SDG 6. SDG 6 seeks to guarantee the availability and sustainable management of water and sanitation for all. Throughout the year, the university undertook actions and initiatives to showcase its commitment to preserving water resources, promoting sustainable sanitation, and increasing awareness of these vital issues. This report aims to underscore the university's noteworthy endeavors to support the objectives of SDG 6.







Assessment of the Year

Key Figures:

- 149,000 cubic meters of campus wastewater are treated and reused to water green spaces. Approximately 63% of the campus is comprised of green areas irrigated with treated wastewater.

Education Programs:

- Bachelor's Degree in Water Science and Technology in Agriculture
- Bachelor's Degree in Hydro-Agricultural Development
- Bachelor's Degree in Water Engineering
- Master's Degree in Water Engineering

Wastewater Treatment:

Two remarkable projects illustrate these initiatives:

- UIT Wastewater Treatment Plant has a daily capacity of 500 cubic meters. This facility is dedicated to treating liquid discharges from the vast UIT campus, which spans over 65 hectares and serves over 60,000 users.
- The Hybrid Technology Water Pumping and Treatment Station, combines advanced membrane techniques and utilizes renewable energy sources.
- Such as photovoltaic panels and wind energy, to provide drinking water to approximately 4,000 users, with a daily allocation of 3 liters per person.

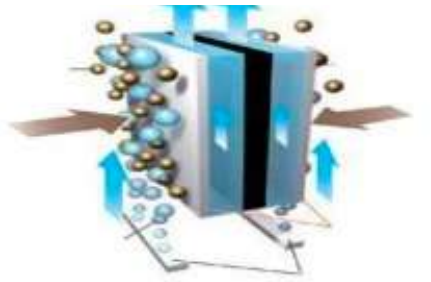
Other Initiatives

The university has taken several important actions:

- Collaborated with local authorities, environmental associations, and other stakeholders to exchange best practices and work together on water resource conservation.
- Installed water meters and set up regular consumption monitoring to identify high-consumption areas and take corrective measures if necessary.
- Promoted research and the development of innovative technologies and practices for more efficient water management within the university.
- Used appropriate filtration systems to enable the reuse of water from laboratories or research facilities.
- Installed water-efficient equipment and infrastructure, such as low-flow faucets and toilets, rainwater harvesting systems, and Smart Irrigation systems.
- Planned expansions of the UIT wastewater treatment plant to implement water collection and treatment systems for reuse in irrigating public green spaces.
- Implemented a Smart Irrigation System, which uses advanced technologies to optimize the efficiency of watering green spaces.

Water Conservation

In addition to the previously mentioned projects, Ibn Tofail University has also committed to a series of initiatives to optimize water use and promote clean alternative sources. These efforts include the implementation of projects such as:



Construction of a Wastewater Treatment Station.

Using advanced technologies to enable their reuse to irrigate the university's green spaces.



Water Treatment Station Through Coupling

Powered by photovoltaic and wind energy at Al Anouar High School in Sidi Taibi. This station improves the school's water quality while also contributing to the electricity supply.



Implementation of an Automatic Irrigation System

Promoting more efficient water usage and minimizing waste for the campus' green spaces.

These concrete and operational projects reflect Ibn Tofail University's strong commitment to environmental protection and promoting a sustainable approach on its campus. The university has achieved significant savings through these initiatives, reducing its electricity consumption by approximately 61% in 2025 This responsible approach illustrates the institution's desire to actively contribute to preserving natural resources and building a more environmentally friendly future.

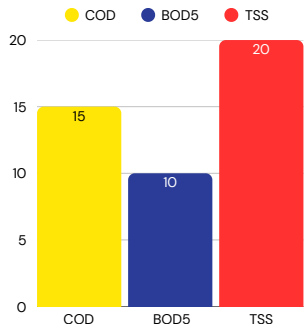
Measuring Progress

ESTABLISHMENT OF A WASTEWATER TREATMENT, PURIFICATION, AND RECYCLING STATION FOR IRRIGATING GREEN SPACES AT IBN TOFAIL UNIVERSITY

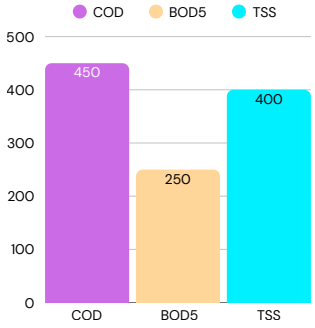
University Water: Biodegradable Wastewater.

Treatment Capacity: 500 m³/day

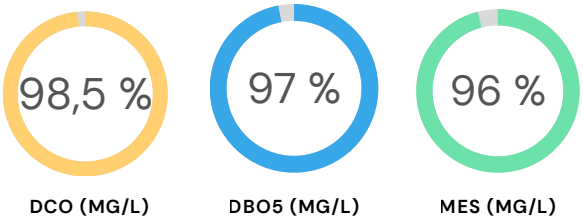
STEP Project : Treated Water



STEP Project : Raw Water



STEP Project :Yield (%)



WATER TREATMENT STATION THROUGH COUPLING: MEMBRANE TECHNOLOGY AND RENEWABLE ENERGIES

Capacity : 4000 Students

School Water: Nitrated and Relatively Saline

Capacity: 3 liters/day

Energy Consumption: 0.2 kWh/m³

Production and Storage of Photovoltaic Electricity	Measurement
Photovoltaic panels	158
Average unit power / Wp	146,96
"Installed power / kWp	24,3
Battery lifespan / Cycle	4000
Stored energy / kWh	40

Wind Production	Measurement
Power produced / kWh/year	2000 - 4000
Installed power / kW	2,2

In 2025, the Sidi Taibi station provided drinking water to approximately 4,000 students instead of 2,000.

Water Usage Monitoring and Measurement

Ibn Tofail University actively measures and monitors the total volume of water consumed across its campus to ensure sustainable water management. The water used is primarily sourced from the mains supply and is monitored through various methods to optimize efficiency and minimize waste.

Smart Metering System: Smart water meters have been implemented across key points on campus, including research laboratories, administrative buildings, and student residences. This system provides real-time data on water usage, allowing the university to track daily consumption, identify peak usage periods, and detect leaks or inefficiencies.

Sub-Metering for Specific Areas: Specific high-consumption areas, such as irrigation systems for campus green spaces, are equipped with sub-meters. This allows for targeted monitoring and the optimization of water use in these areas.

Annual Water Audits: The university conducts annual water audits to review total water consumption, helping set reduction targets and identify areas for improvement.

Rainwater Harvesting: To reduce reliance on mains water, the university collects rainwater for non-potable uses like irrigation, supporting sustainability goals.

In **2025**, the total volume of water used at the university was **138 522,53 m³**, including **149,000 m³** of treated water from the university's wastewater treatment plant, which is reused for irrigating campus green spaces. The wastewater treatment plant, treats up to 500 m³ per day using advanced membrane bioreactor technology (MBR-UF), contributing to water conservation and enhancing the university's green infrastructure.

Through these efforts, Ibn Tofail University not only tracks water consumption but also actively works towards reducing overall usage and supporting environmental sustainability initiatives.



Application of Building Standards to Minimize Water Use

Ibn Tofail University has implemented comprehensive building standards to reduce water consumption across its facilities. These measures, aligned with national laws and sustainability goals, promote the efficient use of water resources while minimizing environmental impact.

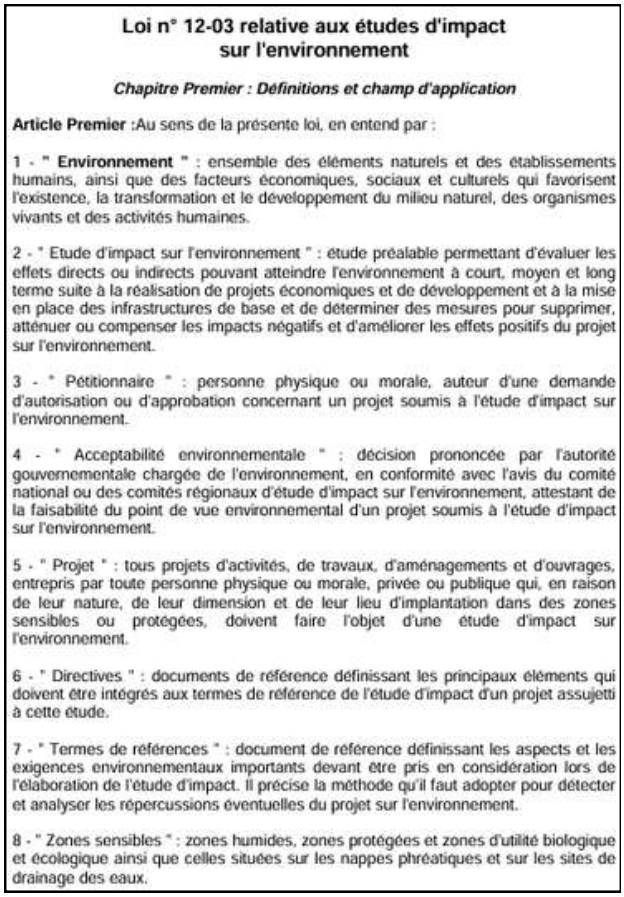
Key regulations guiding these efforts include:

Law No. 36-15 on Water: This law focuses on the rational and sustainable management of water resources, promoting integrated and participatory approaches to water usage. Ibn Tofail University has adhered to this by incorporating water-saving technologies in its new architectural plans. These include advanced irrigation systems and water-saving devices installed throughout the campus.

Law No. 12-03 on Environmental Impact Studies: This regulation requires all construction projects to meet sustainability standards, ensuring that environmental impact is minimized. As part of this, the university conducts thorough environmental assessments and integrates water-efficient systems into its building designs, such as rainwater harvesting and reduced water flow technologies.

Additionally, these efforts are aligned with the IMANOR Guide, which provides sustainable construction standards. This guide promotes the use of environmentally friendly technologies to reduce the overall water consumption and environmental footprint of building projects.

By following these regulations and standards, Ibn Tofail University is committed to minimizing water usage and contributing to broader water conservation and environmental sustainability objectives.



Loi n° 12-03 relative aux études d'impact sur l'environnement

Chapitre Premier : Définitions et champ d'application

Article Premier :Au sens de la présente loi, on entend par :

1 - " **Environnement** " : ensemble des éléments naturels et des établissements humains, ainsi que des facteurs économiques, sociaux et culturels qui favorisent l'existence, la transformation et le développement du milieu naturel, des organismes vivants et des activités humaines.

2 - " Etude d'impact sur l'environnement " : étude préalable permettant d'évaluer les effets directs ou indirects pouvant atteindre l'environnement à court, moyen et long terme suite à la réalisation de projets économiques et de développement et à la mise en place des infrastructures de base et de déterminer des mesures pour supprimer, atténuer ou compenser les impacts négatifs et d'améliorer les effets positifs du projet sur l'environnement.

3 - " Pétitionnaire " : personne physique ou morale, auteur d'une demande d'autorisation ou d'approbation concernant un projet soumis à l'étude d'impact sur l'environnement.

4 - " Acceptabilité environnementale " : décision prononcée par l'autorité gouvernementale chargée de l'environnement, en conformité avec l'avis du comité national ou des comités régionaux d'étude d'impact sur l'environnement, attestant de la faisabilité du point de vue environnemental d'un projet soumis à l'étude d'impact sur l'environnement.

5 - " Projet " : tous projets d'activités, de travaux, d'aménagements et d'ouvrages, entrepris par toute personne physique ou morale, privée ou publique qui, en raison de leur nature, de leur dimension et de leur lieu d'implantation dans des zones sensibles ou protégées, doivent faire l'objet d'une étude d'impact sur l'environnement.

6 - " Directives " : documents de référence définissant les principaux éléments qui doivent être intégrés aux termes de référence de l'étude d'impact d'un projet assujetti à cette étude.

7 - " Termes de références " : document de référence définissant les aspects et les exigences environnementaux importants devant être pris en considération lors de l'élaboration de l'étude d'impact. Il précise la méthode qu'il faut adopter pour détecter et analyser les répercussions éventuelles du projet sur l'environnement.

8 - " Zones sensibles " : zones humides, zones protégées et zones d'utilité biologique et écologique ainsi que celles situées sur les nappes phréatiques et sur les sites de drainage des eaux.



1482 BULLETIN OFFICIEL N° 6506 – 4 moharrem 1438 (6-10-2016)

Dahir n° 1-16-113 du 6 kaada 1437 (10 août 2016) portant promulgation de la loi n° 36-15 relative à l'eau

LOUANGE A DIEU SEUL !

(Grand Sceau de Sa Majesté Mohammed VI)

Que l'on sache par les présentes – puisse Dieu en élever et en fortifier la teneur !

Que Notre Majesté Chérifienne,

Vu la Constitution, notamment ses articles 42 et 50,

A DÉCIDÉ CE QUI SUIT :

Est promulguée et sera publiée au *Bulletin officiel*, à la suite du présent dahir, la loi n° 36-15 relative à l'eau, telle qu'adoptée par la Chambre des représentants et la Chambre des conseillers.

Fait à Tétouan, le 6 kaada 1437 (10 août 2016).

Pour contreseing :
Le Chef du gouvernement,
ABDEL-ILAH BENKIRAN.

* * *

Loi n° 36-15
relative à l'eau

Chapitre premier

Dispositions générales

Section première. – **Principes généraux**

ARTICLE PREMIER. – La présente loi fixe les règles d'une gestion intégrée, décentralisée et participative des ressources en eau pour garantir le droit des citoyennes et des citoyens à l'accès à l'eau et en vue d'une utilisation rationnelle et durable et une meilleure valorisation quantitative et qualitative de l'eau, des milieux aquatiques et du domaine public hydraulique en général, ainsi que les règles de prévention des risques liés à l'eau pour assurer la protection et la sécurité des personnes, des biens et de l'environnement.

Elle vise, également, la mise en place des règles et outils de planification de l'eau y compris les eaux usées, les eaux de mer dessalées et autres pour accroître le potentiel hydrique national en tenant compte des changements climatiques afin de s'y adapter.

Article 2

Les dispositions de la présente loi se basent sur les principes suivants :

- faciliter l'égal accès des citoyennes et citoyens à l'eau et à un environnement sain pour satisfaire leurs besoins fondamentaux, conformément aux dispositions de l'article 31 de la constitution ;
- la domanialité publique des eaux à l'exception de celles sur lesquelles des droits historiques ont été régulièrement reconnus ;
- le droit de toute personne physique ou morale de droit public ou de droit privé d'utiliser les ressources en eau du domaine public hydraulique dans les limites de l'intérêt général et dans le respect des obligations fixées par la présente loi et des textes pris pour son application ;
- la prise en compte des besoins en eau des populations des zones montagneuses selon une approche d'éco-développement visant la durabilité ;
- la prise en compte des besoins en eau des populations à l'aval des barrages en vue de leur assurer de continuer à profiter des eaux des cours d'eau ;
- la gestion de l'eau et du domaine public hydraulique en général selon les règles de bonne gouvernance en associant les administrations, les collectivités territoriales, les opérateurs concernés et les représentants des différents usagers de l'eau pour le traitement des questions liées à l'utilisation et à la protection des eaux et à l'aménagement hydraulique au niveau des bassins hydrauliques et à l'échelle nationale, régionale et locale ;
- la gestion intégrée, participative et décentralisée de l'eau en tenant compte du principe de l'équité et de la solidarité spatiales ;
- la protection du milieu aquatique et la promotion du développement durable des ressources en eau ;
- la prévention, à travers l'évaluation et l'appréciation des impacts des activités susceptibles d'affecter l'eau en particulier et le domaine public hydraulique en général, la définition et la mise en œuvre des mesures concrètes pour supprimer ces impacts ou réduire leurs effets négatifs ;
- l'obligation pour les responsables des dommages, causés à l'eau en particulier ou au domaine public hydraulique en général, de procéder à leur réparation ;
- l'utilisateur-payeur sauf s'il y a exonération due à des droits historiques régulièrement reconnus ;
- le pollueur-payeur ;
- l'intégration de la mobilisation des eaux non conventionnelles dans la planification de l'eau ;
- l'intégration, à tous les niveaux, de l'adaptation aux changements climatiques dans la planification et la gestion des eaux.

Section 2. – **Définitions**

Article 3

Au sens de la présente loi, on entend par :

- eau : matière vitale composée d'oxygène et d'hydrogène sous ses trois formes liquide, solide et gazeuse. Elle constitue un bien public qui, sous réserve des dispositions de la section 2 du chapitre II de la présente loi, ne peut pas faire l'objet d'appropriation privée et de transaction par vente ou achat ;

Sustainable Landscaping Practices to Minimize Water Usage

As part of our commitment to sustainable development, Ibn Tofail University has made significant efforts to reduce water consumption across our green campus. One of the key strategies has been the adoption of drought-tolerant plants and water-efficient landscaping practices. These measures are crucial in promoting environmental sustainability and ensuring responsible water use.

To minimize water usage, the university has implemented several initiatives:

Water-Saving Landscaping:

We have prioritized planting species that are naturally adapted to drought conditions, reducing the need for excessive irrigation. These plants are incorporated across various parts of the campus, particularly in areas with high sun exposure, helping to conserve water while maintaining the beauty of the campus.

Research on Sustainable Agriculture:

As a leading research institution, the university actively engages in projects aimed at optimizing water use in agriculture. The Advanced Control System for Sustainable Connected Greenhouses is a prime example, where intelligent control systems help manage water use efficiently in agricultural greenhouses connected to hybrid micro-grids. This innovative approach aligns with our goal of developing sustainable agricultural practices that use minimal water while maintaining high productivity.

These efforts are evidence of Ibn Tofail University's commitment to sustainability, focusing on reducing water consumption while maintaining a vibrant and healthy environment.









Water Treatment Project

The Ibn Tofail University (UIT) has installed a wastewater treatment station for its liquid waste generated from its facilities on campus. The chosen purification process is an aerobic biological process coupled with a membrane process (BRM), offering a treatment capacity of 500 m3/day under a contract with WATEC, a specialist in water technologies since 1987. This station will make the university entirely self-sufficient in terms of waste treatment, allowing for their reuse in irrigating green spaces. The selection of the membrane bioreactor (BRM) is based on civil engineering considerations and compliance with standards for the reuse of treated water in irrigation.

1- **Project Benefits:**

The project has positive impacts on the University, the region, and the environment, particularly regarding:

- Limitation of surface and groundwater pollution.
- Protection of the environment and human health.
- Protection of the groundwater table.
- Irrigation of the university campus green spaces using treated water.
- Improvement of the environment.
- stablishment of a research and training platform for teachers and students.
- Raising awareness among visitors (students, industrial actors, associations…) about water treatment and environmental protection.
- Reduction of potable water consumption by irrigating with treated water (with 80% of water reused for irrigation).







Water Treatment Project

2- Project Impact:

Our innovation targets industrial stakeholders, academics, students, users, city/region representatives, and the economic fabric. Furthermore, to broaden the scope covered by this service and increase its efficiency, the idea will not be confined within the university's boundaries but will extend beyond to be implemented at various strategic points throughout the city.

2-1- Impacts already generated by the innovation

The impacts already generated by the innovation during the year 2024:

- Reduction of the pollutant load of wastewater discharged into the receiving environment **(by 91%; 93%; 97% in COD, BOD5, and TSS respectively).**
- Reuse of treated wastewater for irrigation of green spaces **(at a rate of 500m3/day).**
- Total treated volume i**s 149,000 m3/year.**
- **Production of sludge used as fertilizer in agriculture.**
- R**eduction of odors from effluents by 90%.**
- Reductions in potable water consumption **(with an 80% reduction in potable water consumption).**

The table below presents the performance of the treatment plant for the year 2026:

Parameters	Raw water quality	Treated water quality	Total volume of treated water
DCO (mg/L)	540	31	149000 m3/ans
DBO5 (mg/L)	380	23	
MES (mg/L)	500	3,9	









Water Treatment Project

2-2- Innovative Water Treatment Project at Ibn Tofail University: Sustainable Irrigation Solutions with Mipotube Technology

The implementation of the water treatment project at Ibn Tofail University has highlighted our innovative choice to adopt the underground irrigation method using the "Mipotube" system. This choice has proven to be wise for several reasons:

It allows for water savings of up to 50% of the amount typically used for irrigation, thanks to the absence of evaporation and targeted irrigation directly at the plant roots.

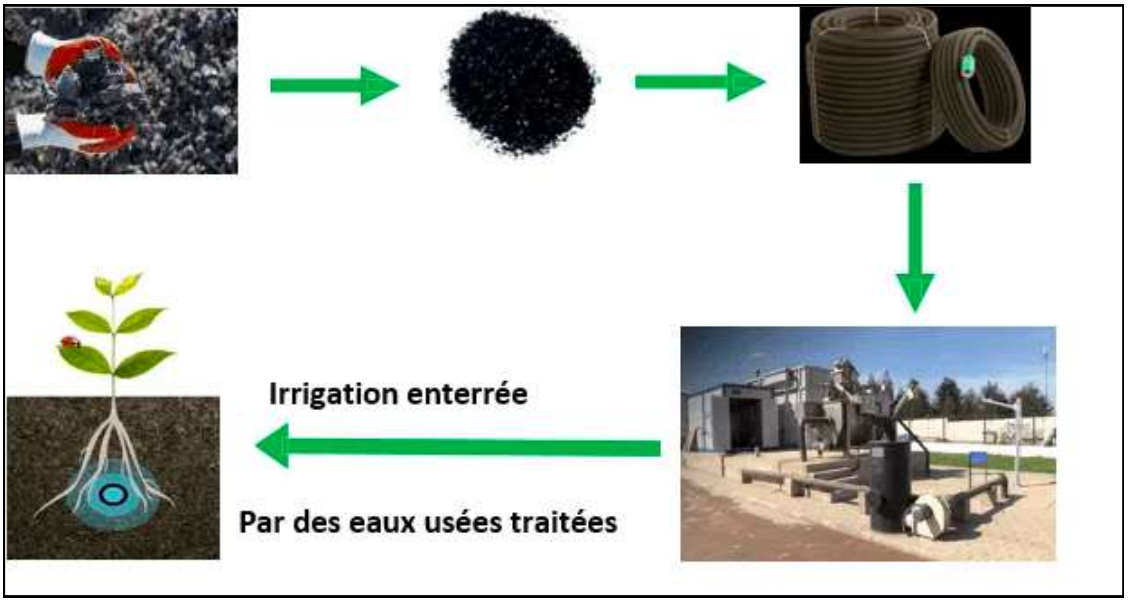
Additionally, Mipotube pipes are made from rubber waste from the automotive industry, significantly contributing to the valorization of recycled materials. This innovative approach is not only about water resource conservation but also aligns with a broader environmental agenda, promoting sustainability and ecological responsibility.

The use of this technology represents a step forward towards more environmentally-friendly practices, while also contributing to the reduction of industrial waste and the promotion of circular economy principles.











Projects

OKEANO – Supporting the All-Atlantic Ocean Research and Innovation Alliance

Funding Partners: Fisheries and Oceans Canada website, European Union, United Nations Decade of Ocean Science for Sustainable Development, Fisheries and Oceans Canada.

Project Description:
The objectives reflect the Alliance motto 'Connecting-Cooperating-Acting', OKEANO, will serve to scale and transit the Alliance to a long-term, sustainable, and highly impactful international partnership capable of delivering transformative science, innovation and concrete benefits for Atlantic communities.
The AAORIA's core operations will receive expert support from this initiative, along with guidance on legacy and long-term governance structures. Create an All-Atlantic Strategic Research and Innovation Agenda to support the coordination of marine and maritime research and innovation activities with All-Atlantic stakeholders. Consolidate and strengthen current initiatives that are in line with the priorities of the All-Atlantic Declaration. Encourage systematic dialogue and coordination between the AAORIA and All-Atlantic stakeholders at national, regional, and international levels. Design and implement inclusive capacity development initiatives for Atlantic communities.
OKEANO will also support the organization, monitoring, communication, and outreach activities of three All-Atlantic Fora.
The consortium, which consists of fifteen organizations, guarantees a thorough geographic coverage of countries that support the All-Atlantic Declaration along and across the Atlantic Ocean.
In addition, the consortium offers a well-balanced combination of special skills, expertise, and connections to pertinent citizen and stakeholder networks that are necessary to achieve the project's goals.
Project Objectives:

- Management and Coordination, and Professional Support for the AAORIA Governance
- Structured Dialogue at Local, National, International, and Multilateral Levels
- Support and Consolidation of Existing AAORIA Activities, Including Atlantic Early-Career Ocean Professional (ECOP) Communities Capacity Building
- Supporting the Coordination of Marine and Maritime Research and Innovation (R&I) Activities with Atlantic Stakeholders.

Projects

PROMEDRICE

PROMEDRICE aims to develop and promote the adoption of innovative and environmentally friendly agricultural practices and to produce evidence to support policymakers in making decisions regarding water resource management.

The main objective of PROMEDRICE is to develop and promote the adoption of site-specific agricultural practices that reduce contamination and salinization of soils and water bodies while maintaining or improving water use efficiency and productivity in rice agroecosystems.

The project will identify and quantify the primary pollutants affecting surface water and groundwater concerning rice production under specific pedological and environmental conditions. Effective and sustainable agricultural practices will be developed and demonstrated to reduce water pollution risks and salinization in seven case studies across the Mediterranean region, from Turkey and Egypt in the East to Portugal and Spain in the West.

Detailed studies on soil salinity management will be conducted in cases where it is a significant issue for rice cultivation (namely, Spain, Egypt, and Morocco).
The trade-offs between salts and nitrates leached with vertical water flows, salt accumulation, and the reuse of nitrates through recirculation concerning surface drainage.
The ultimate goal is to identify on-farm management solutions to minimize the effects of nitrate leaching and salinization of water and its pollution while also addressing rice productivity.

The consideration of on-site water treatment methods, such as chemical or electromagnetic techniques, will be assessed when restoring water quality. Economic sustainability and social acceptability will be evaluated to ensure the profitability of rice production.



Projects

FUNZYbio

FUNZYbio, an innovative project that explores the Fungal and enzymatic degradation of antibiotics, is a collaborative effort involving partners from Morocco, Tunisia, Italy, and France. The project, set to unfold between 2023 and 2026, aims to introduce groundbreaking biotechnological solutions for treating livestock residues, manure, and anaerobic digestates. These solutions are designed to:

1. Allowing safe reuse of water and organic matter for agriculture;
2. Exploiting this potential for soil health and durability;
3. Limiting their adverse environmental effect as potential sources of salinization and pollution, such as from antibiotics (ABs).

The FUNZYbio Consortium proposes technical solutions that could significantly impact "land and water sustainability" and "smart and sustainable farming." By addressing the issue of AB pollution, which leads to the rise of AB-resistant bacteria (ARB) and AB resistance genes (ARGs), FUNZYbio could play a crucial role in preventing and limiting a significant threat to human and animal health worldwide: AB resistance.

Scientifically speaking, FUNZYbio could lead to the following impacts:

1) Direct contamination reduction of ABs by livestock waste reuse

2) Indirect reduction of water salinization by wastewater reuse

3) Development of green biotechnologies with near-zero costs to improve the two major existing and widespread processes for manure treatment: composting and anaerobic digestion.

4) Provide the proof of concept for obtaining safe (AB-free) water, liquid or solid fertilizers, and compost for safe use in the agri-food sector.

These impacts would be felt at the farm level, with downstream effects on the whole water basin area, considering the different sources of water contamination related to the agri-food activities.

PRIMA
PARTNERSHIP FOR RESEARCH AND INNOVATION
IN THE MEDITERRANEAN AREA

Projects

PRIMA: Safe- Sustainable Water reuse practices improving safety in agriculture, food and Environment"

Project Description:

The project aims to improve water resource management and wastewater treatment to support sustainable agriculture in the face of growing global food security challenges. Due to pressures from population growth, climate change, and water scarcity, the goal is to find affordable and efficient solutions to preserve water resources while minimizing negative impacts on soil and agricultural production.

Partners:

- University of Basilicata
- Water Research Institute – National Research Council
- Sapienza University of Rome
- Hellenic Agricultural Organization ELGO-DIMITRA (Institute of Plant Breeding and Genetic Resources)
- The Catalan Institute for Water Research
- University of Montpellier
- Hassan II Institute of Agronomy and Veterinary Medicine
- Water Research and Technologies Center
- Lebanese Development Network
- Djillali Liabes University
- Faculty of Sciences of Sfax
- Ibn Tofail University

Scientific, Environmental, and Economic Impacts:

- The project addresses water scarcity, climate change, and land degradation. Its goal is to optimize water use in agriculture while minimizing environmental impact. This includes reducing micropollutants, managing soil salinity, and improving the quality of irrigation water. These efforts aim to enhance food security, protect soil biodiversity, and support microorganisms essential for sustainable agricultural production. The project will also help reduce the costs associated with wastewater management systems, benefiting farmers and local communities.
-

Projects

Expertise on Scaling Issue

"This collaborative project, conducted in partnership with the National Office of Electricity and Drinking Water (ONEE), focuses on the critical scaling issue. To this end, the project plans to establish a pilot treatment process and identify and assist in implementing preventive and corrective measures."

The project revolves around two essential components. First, the preventive component aims to adapt drinking water supply systems, their operations, and equipment to the characteristics of the water, particularly those with high scaling potential. Second, the corrective component identifies and implements various intervention techniques for descaling and regenerating clogged facilities.

In a broader perspective, the project aims to develop specific treatments tailored to water quality and the national context.

This project will generate significant impacts at several levels from 2021 to 2025. It will enable the mastery of innovative drinking water treatment technologies through a rigorous assessment of their qualitative, quantitative, and energy performance.

The design of a pilot scaling treatment unit tailored to the centers under ONEE and the Moroccan context represents a significant advancement.



Projects

Treatment of Industrial Effluents With High Pollutant Loads Through Biomethanation

The Rabat Salé Kénitra (RSK) region, due to its prominent position as an agricultural area, is characterized by sustained demographic and economic growth, hosting numerous agri-food industries. However, this industrial expansion has consequences, as these industries are often criticized for being significant polluters.

An example that highlights this issue is the effluents produced by the Gharb Molasses Processing Company (Sotrameg). These effluents are known for their high levels of COD (Chemical Oxygen Demand) and BOD5 (Biochemical Oxygen Demand over five days), reaching levels of approximately 60,000 mg/L and 40,000 mg/L, respectively. When these industrial effluents are discharged into the sewage system, they combine with domestic wastewater, leading to a significant adverse impact on groundwater and soil quality.

The fundamental objective of this project is to conduct a comprehensive study on the treatment and valorization of industrial effluents from a food alcohol production unit that uses molasses as a raw material, a by-product of the sugar industry.
This innovative initiative aims to evaluate the feasibility of biomethanation as a treatment method, targeting biogas production while generating a valuable by-product in the form of a biofertilizer that can be used in agriculture.
The biomethanation process relies on Saccharomyces cerevisiae's mesophilic fermentation of molasses, resulting in the production of biogas and the formation of ethanol as a by-product. By implementing this integrated approach, the project aims to provide a holistic and sustainable solution, thereby contributing to the mitigation of environmental issues while exploring innovative opportunities for local agriculture.



Projects

Safe and Sustainable Water Reuse Practices Enhance Agriculture, Food, and Environmental Security

Due to the growth of the global population, farmers face increasing pressure to boost their productivity and ensure food security. However, climate variability, climate change, water scarcity, and land degradation complicate agriculture.

Practical and affordable management of wastewater use and treatment is crucial for addressing water scarcity and reducing the operational costs of sanitation systems. However, this management can lead to the introduction of organic micropollutants, high nutrient content, and salinity in wastewater, which can have a negative impact on agricultural production, product quality, and soil health.

Thus, improving irrigation water quality is crucial for ensuring food security, preserving biodiversity and soil microorganisms, and increasing the crop yields of small farmers.

SAFE addresses these challenges by examining decentralized wastewater treatment through natural solutions (NBS), assessing water reuse for crop irrigation, promoting environmentally friendly practices, and evaluating local biodiversity and co-benefits.

The major challenge is to support farmers in improving yields through high-quality wastewater effluents for irrigation, soil and pest management, and access to better-quality salt-resistant plants with enhanced agricultural practices.

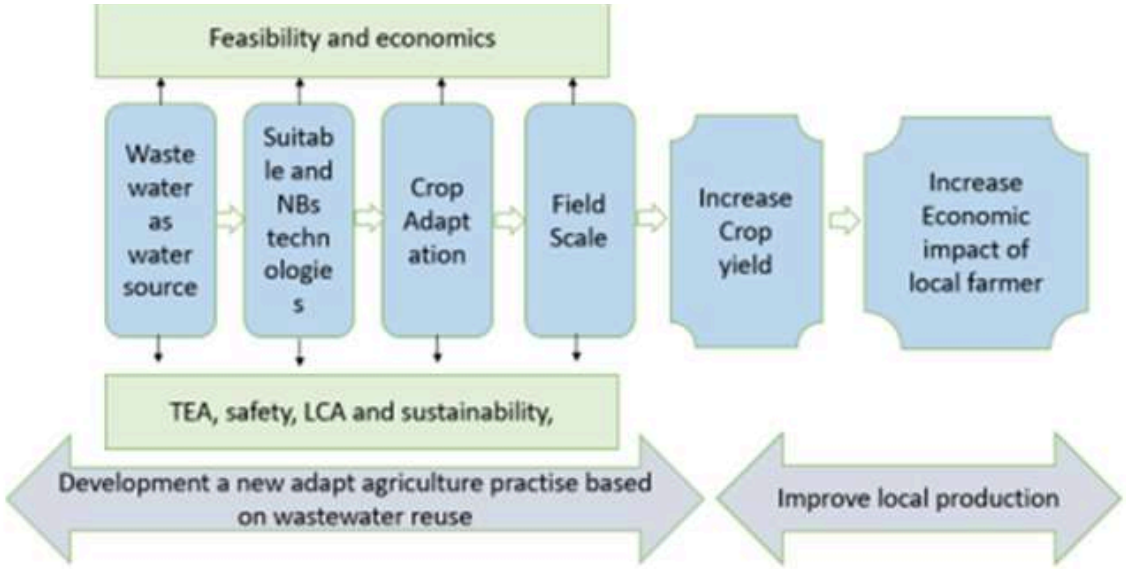


Figure 1 *Overall Methodology of the SAFE project*

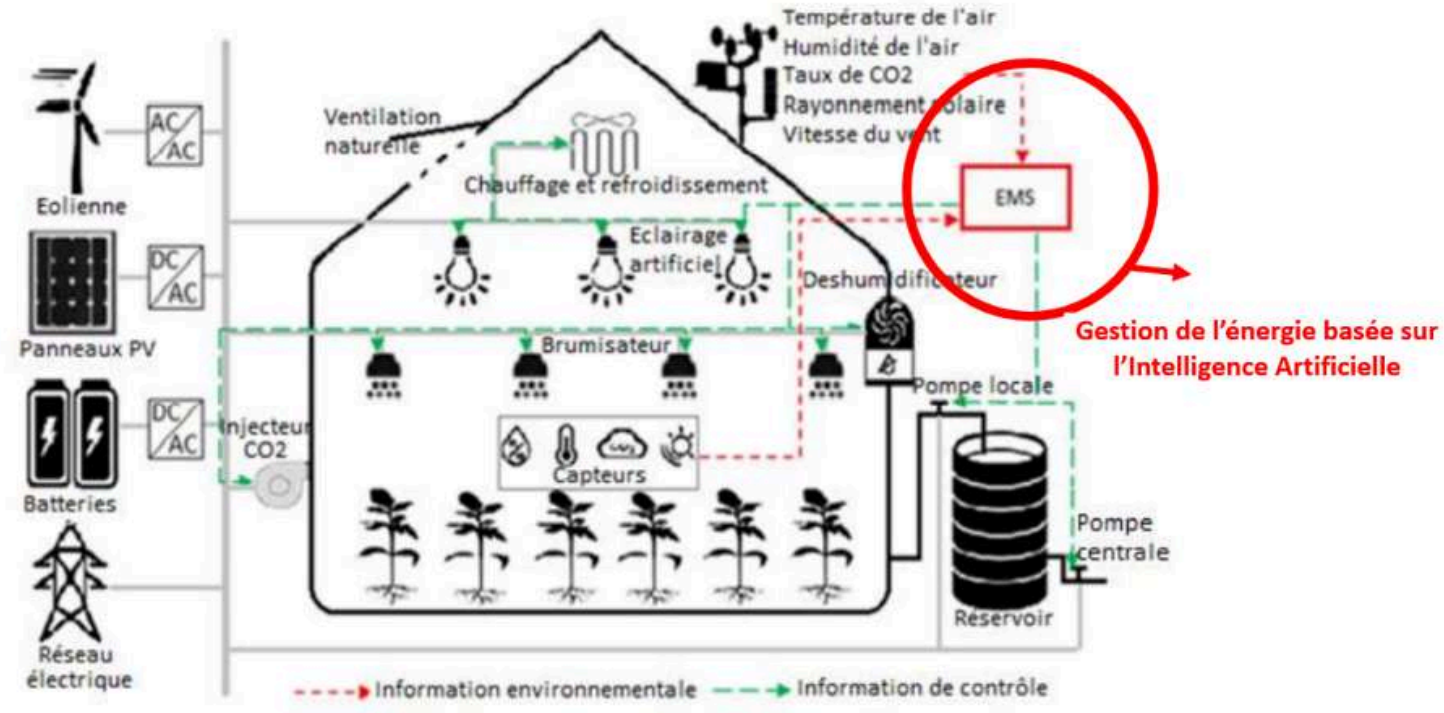
Projects

Advanced Control System for intelligent and Sustainable Management of Connected Agricultural Greenhouses Linked to Hybrid Microgrids

Among the 61 projects selected as part of the Multidisciplinary Research Project Call (APRD), jointly initiated by the Ministry of Higher Education, Scientific Research and Innovation, the OCP Foundation, Mohammed VI Polytechnic University, and the National Center for Scientific and Technical Research, stands out the project from the Advanced Systems Engineering Laboratory (LISA). From 2022 to 2025, this project is titled 'Advanced Control System for Intelligent and Sustainable Management of Connected Agricultural Greenhouses Linked to Hybrid Microgrids.

The main objective of this project is to design and validate an intelligent management product for a network of greenhouses connected to a hybrid microgrid. This objective will be achieved by implementing an innovative centralized predictive control algorithm that considers stochastic production models and advanced predictions based on artificial intelligence.

A management platform for the system, utilizing Machine Learning, will enable real-time monitoring of the greenhouses' bioclimatic indicators.
The system will be equipped with optimized control and decision-making modules for heterogeneous energy systems that host various renewable energy sources, smart greenhouses, energy storage devices, pumps, water tanks, smart meters, and sensors. The main objective is to facilitate the transition to precision and smart agriculture by developing integrated information and control technologies based on consistent data analysis and high-performance control systems.



Projects

Biological Agri-Food Systems as Models for Sustainable Food Systems in Europe and North Africa

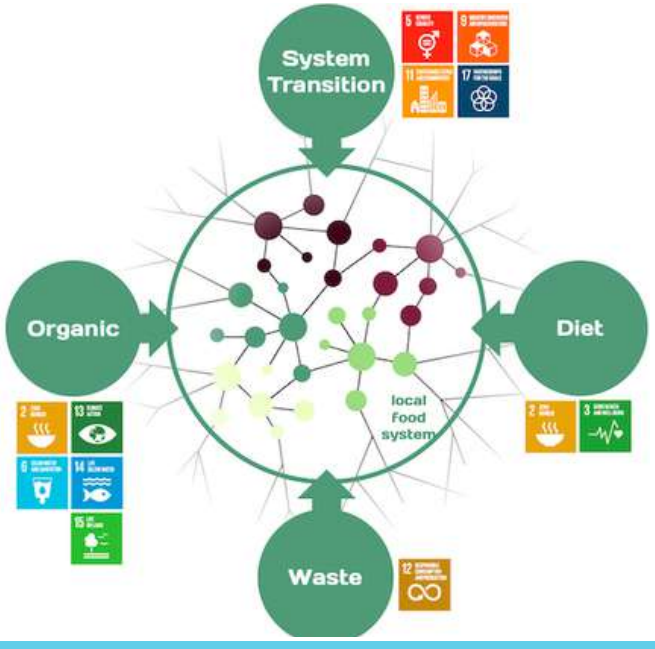
Current food systems are neither ecologically nor socio-economically sustainable. We face significant health issues related to food, including hunger on one side and overweight and obesity on the other.

Intensive agricultural production is one of the leading causes of biodiversity loss and is one of the largest consumers of freshwater in the world. According to the FAO, one-third of our food is now wasted throughout the value chain.

The primary cause-and-effect relationships are well understood, but there is a need to enhance the motivation of stakeholders in food systems to promote more sustainable production and consumption. We believe that there are common starting points for transitions, despite significant variations in food systems across regions. Identifying these points is crucial for developing recommendations to enhance their sustainability. Organic food systems can provide a useful model in this regard.

The project addresses the following questions from four perspectives: transition, food, organic food and agriculture, and food waste.

- What understanding of sustainability is needed to drive the transition to sustainable food systems?
- How can we successfully design pathways to increase sustainable food production and consumption across the system?
- What are the reasons, motivations, incentives, or barriers that encourage stakeholders to adopt more sustainable solutions?
- What are the promising entry points to develop, strengthen, and promote organic food and agriculture, reduce waste, and shift towards sustainable diets?
- What are the critical points for integrating these perspectives into a systemic approach?



Projects

UNIMED Food and Water

Food and water are critical issues in the Mediterranean, particularly in agricultural production facing climate change. Sustainable water management, monitoring of degraded areas, and integrating bioenergy and agro-industrial sectors are major concerns. These issues impact rural development, the fight against desertification, and socio-economic challenges.

The University of Evora, through UNIMED, has established a sub-network on food and water, bringing together research centers and academics. The aim is to promote scientific cooperation, the exchange of experiences, and the establishment of collaborations. The relevant disciplines include agricultural, environmental, natural, and soil sciences, hydrology, geology, biotechnology, economics, geography, demography, sociology, anthropology, spatial analysis, remote sensing, and land management.

The sub-network supports Euro-Mediterranean economic and social cohesion, encouraging cross-border cooperation and local sustainable development.

Objectives of the sub-network:

- Collaborate with initiatives such as the PRIMA program for research and innovation
- Gather information and best practices, contributing to a dedicated database;
- Conduct studies on water management, rural development, and sustainable agriculture
- Encourage dialogue among universities, businesses, social actors, and policymakers
- Organize international events and promote student and faculty mobility.

Projects

The Climate-U network, a one-of-a-kind international platform, plays a crucial role in promoting climate action and sustainable development through education and research. It brings together committed universities from around the world to combat the climate crisis.

Since its inception in February 2020, the network has experienced significant growth, expanding from its origins in the original Climate-U project, Transforming Universities for a Changing Climate. This expansion was made possible by the support of the Global Challenges Research Fund.

The Climate-U network is guided by the following objectives:

- To assess existing coverage of climate change in the curricula, research, and community engagement activities of universities in the four countries;
- To contribute to theory and understanding of the impact of higher education on climate change and sustainable development;
- To build and strengthen national, regional, and global university networks and knowledge exchange on climate change.

The network aims to strengthen climate action within each institution and create new collaborative ventures through international dialogue and exchange.

It also aims to benefit communities in four low—and middle-income countries by enhancing universities' contributions to addressing climate change. Collaborating with other networks, it coordinates events with international stakeholders and policy-makers.

The collaborative efforts between UIT and the Climate-U network have significantly impacted the university's academic programs and research. This partnership has facilitated the exchange of knowledge, resources, and best practices, fostering a robust ecosystem for developing innovative solutions to combat climate change. By leveraging its international partners' diverse expertise and resources, UIT has enriched its academic programs with a strong emphasis on sustainability and environmental studies. This integration has enhanced the quality of education and equipped students with the necessary skills and perspectives to become active contributors to the global sustainability agenda.

UIT's partnership with this network is a testament to its global significance in the fight against climate change.

Climate-U
Transforming Universities
for a Changing Climate

Projects

Hybrid Biochemical and Thermochemical Conversion of Slaughterhouse Biowaste for Renewable Energy Production

The BIOTHEREP Circular is a project that aims to create novel and economically viable integrated processes that will help convert slaughterhouse activities into environmentally friendly sustainable practices and reduce the risk of soil, climate, and water pollution.

The project, set to unfold between 2022 and 2025, aims to develop an integrated strategy to produce bioenergy from slaughterhouse wastes and implement solutions that respond concretely to the global and regional sustainable development objectives from a circular economic perspective.

Context: Why is this action necessary?
Slaughterhouses produce large amounts of solid and liquid waste containing a high organic load, which threatens ecosystems and risks human health. Slaughterhouse management is becoming more challenging as population growth drives up local demand for food and energy resources. This negatively impacts ecosystems due to waste accumulation and greenhouse gas emissions. In addition, the overconsumption of water complicates the overall negative impacts.

What concrete actions will be implemented?
The project will be executed by implementing a fully circular process of converting waste streams into energy and other valuable by-products.

What is the expected impact of the project?
One of the project's main results will be the development of an optimal integrated system of waste management and energy production adapted to slaughterhouses. This system could be implemented directly in slaughterhouses in Africa or transferred to other slaughterhouses that face similar problems related to SHW disposal or inefficient energy supply, mainly in rural areas.

Overall, in BIOTHEREP, several sustainable development goals are targeted. The project has an environmental and social impact on the African continent and responds to population needs.

By implementing this integrated approach, the regional slaughterhouse sector can strengthen its competitiveness and growth by becoming more energy efficient.

The results obtained could be used beyond this project for investigation in further R&D or international development projects.

LEAP-RE

Events

The Atlantic in Focus: A National Gathering to Rethink Research, Innovation, and Cross-Border Cooperation

Ibn Tofaïl University hosted a national workshop on July 3, 2025, under the theme: "Research and Innovation for the Atlantic Ocean: Catalyzing National Synergies for Enhanced Scientific Cooperation." This timely gathering, organized in partnership with the European Union, within the Horizon Europe programme and the OKEANO project, became a stage for scientists, researchers, activists, and institutions to come together, not only to reflect but to act.

Throughout the day, the university's conference hall transformed into a vibrant center of thought and purpose. The opening session brought forward the voices of institutional leaders, including representatives from the Ministry of Higher Education and Ibn Tofaïl University's presidency. These opening remarks set the tone: saving the ocean is not a technical topic; it's a national mission that demands commitment at all levels.

What followed was a sequence of insightful presentations and open discussions. Experts such as Dr. Laura Mcdonagh from the Marine Institute in Ireland presented the broader framework of AAORIA, the All-Atlantic Ocean Research and Innovation Alliance. Then, Prof. Zebakh Sanaa, coordinator of the event, gave an overview of the OKEANO project and Morocco's active participation within it. The conversation turned to national perspectives with Dr. Zina El Malki from INRH (National Institute for Fisheries Research), who highlighted national marine priorities and research programs. Each speaker helped weave together a broader picture of Morocco's efforts in oceanic research and its strategic role in Atlantic cooperation.

A particularly engaging moment came with presentations on real case studies and institutional experiences. Prof. Benmohammadi from FS-UIT explored the role of ocean research at Ibn Tofaïl University, while representatives from the IOI Ocean Academy and ECOP Morocco stressed the importance of youth engagement and the need to build a strong ocean culture across sectors. The final scientific talk by Prof. Leila Alem from the University of Technology of Sydney tackled the challenge of transdisciplinary research and how intellectual property and technology adoption can either accelerate or limit ocean preservation efforts.

A key theme that emerged throughout the day was the need to involve ordinary citizens, especially those directly affected by marine policies, such as coastal communities, youth, and small-scale fishermen. Several experts raised the importance of creating innovative ways to integrate non-specialists into the scientific and conservation process. Because without public understanding and inclusion, even the most advanced research risks falling short. This inclusive approach was framed not just as a civic gesture but as a cornerstone of academic progress and long-term resilience.

By the time the closing session arrived, the energy in the room had evolved from analysis to responsibility. The final messages emphasized the urgency of collective action, the importance of building lasting institutional bridges, and the necessity of moving from words to results. This event was more than a dialogue; it was a joint commitment, a reminder that the Atlantic's fate depends on what we choose to do now, together.

The OKEANO project (2024–2027), backed by 15 institutions from Europe, Africa, and Latin America, is a living example of this commitment. Through transatlantic collaboration, it aims to strengthen marine science ecosystems, promote innovation, and offer practical tools for tackling the world's most urgent ocean-related challenges. Morocco's leadership within this initiative is strategic, and its academic institutions, especially Ibn Tofaïl University, are rising to the occasion.



Events

Global Excellence and Water Sovereignty: Ibn Tofail University's Leadership in Scientific Research and Climate Action

Event : 3 December 2025

A Convergence of Innovation

Morocco's higher education and scientific research landscape is witnessing a transformative era, marked by international accolades and the hosting of high-level global policy forums. At the heart of this evolution is Ibn Tofail University (UIT), which recently achieved historic success on the global stage. This academic momentum coincides with the upcoming XIX World Water Congress, set to take place in Marrakech from December 1–5, 2025. Both milestones, held under the High Patronage of His Majesty King Mohammed VI, underscore Morocco's commitment to a "knowledge-based society" and its role as a global leader in addressing the challenges of a changing world.

Ibn Tofail University has solidified its reputation for world-class research through the outstanding performance of its students at the Early Career Lightning Talk and Global Networking Event. Zakaria Dahbi, an elite researcher from the M2IA (Master in Artificial Intelligence) program, secured the Golden Award in a highly competitive poster competition.

Competing against 71 prestigious international entries, Dahbi's work earned UIT a shared #1 global ranking with institutions from the United States. The success was further amplified by a collective sweep of the podium:

- Golden Award awarded to **Shamali Rewari** and to **Zakaria Dahbi** from Ibn Tofail university
- Silver Award awarded to **Jihane Briji** and **Sabir Oussaoui**

These honors demonstrate the effectiveness of the Moroccan university system in fostering innovation, particularly in the realm of Artificial Intelligence and digital discourse. By achieving parity with the world's leading scientific powerhouses, UIT has provided a powerful motivation for the entire academic community and enhanced the visibility of Moroccan scholars internationally.

While UIT leads in digital innovation, Morocco is also preparing to serve as the "world's water capital." Co-hosted by the International Water Resources Association (IWRA) and the Ministry of Equipment and Water, the XIX World Water Congress will convene under the theme "Water in a Changing World: Innovation and Adaptation."

The Congress aims to address the dynamic interconnections between natural ecosystems, energy, agriculture, and human activities. In the face of climate change and political upheavals, the event highlights the necessity of resilient infrastructure and smart governance. The discussions will be organized around seven critical thematic pillars:

1. Governance & Financing: Planning during periods of uncertainty.
2. The WEFE Nexus: The vital link between Water, Energy, Food, and Ecosystems.
3. Security & Risk: Managing water-related hazards.
4. Smart Future: Driving innovation through technology.
5. Groundwater: Navigating challenges and opportunities.
6. Sustainable Development: Water as a driver for the 2030 Agenda.
7. One Health: Integrating water quality and public health.







Events

International Cooperation in Water Treatment with the Canadian Institution Cégep de Saint-Laurent

Partner: UIT – The Canadian institution Cégep de Saint-Laurent

Ibn Tofail University welcomed a delegation from the Canadian institution Cégep de Saint-Laurent as part of strengthening international cooperation in the field of water treatment.

The president of Ibn Tofail University, Mr. Mohamed Larbi , consistently strives to establish new partnerships and collaborations, emphasizing sustainability as a core value. These initiatives not only align with the university's mission to address global challenges but also reinforce its position as a leader in sustainable development. By fostering international and interdisciplinary collaborations, Ibn Tofail University continues to expand its contributions to innovative research and practical solutions, ensuring a positive and lasting impact on both local and global communities.

Cégep de Saint-Laurent is a publicly funded post-secondary institution located in Montreal, Quebec, Canada. Established in 1968, it is part of Quebec's unique CEGEP system, which stands for College of General and Vocational Education. These institutions provide pre-university and technical programs that bridge secondary education and university or career entry.
Ibn Tofail University recently hosted a delegation from the Canadian institution Cégep de Saint-Laurent to further enhance their collaborative efforts in international academic and scientific cooperation. The visit focused on exchanging expertise, fostering joint research initiatives, and developing innovative solutions in the critical field of water treatment.
This partnership aims to address global challenges related to water management and sustainability by combining the academic strengths and technical expertise of both institutions. Additionally, the collaboration is expected to facilitate student and faculty exchanges, workshops, and the implementation of advanced water treatment technologies.

Events

From Dialogue to Action: Ibn Tofail University as a Case Study at the Erasmus+ National Seminar on SDGs

The Erasmus+ National Office Morocco, in collaboration with the Ministry of Higher Education, Scientific Research and Innovation, organized the national seminar "Sustainable Development Goals and Climate Change: What Role for Higher Education?" on 9–10 October 2025. Bringing together Moroccan and European experts, the event examined how universities can contribute to building a sustainable and climate-resilient future.

Held within the framework of Morocco's ongoing reforms, aligned with the New Model of Development and the Strategic Vision for Education 2015–2030, the seminar positioned universities as central actors in promoting inclusion, innovation, and environmental responsibility. Over two days and 14 thematic panels, more than 220 participants discussed SDG integration into university missions, sustainable campus development, governance models, research and innovation for climate action, and tools for measuring institutional impact. The diversity of participants including university leaders, ministry officials, sustainability experts, Erasmus+ coordinators, researchers, and doctoral students enriched the dialogue and reinforced the need for coordinated, long-term commitment in higher education.

Ibn Tofail University, Kenitra, contributed through a case study presented by Professor Saida El Mendili, illustrating its integrated approach to sustainability across education, research, campus life, and governance. Initiatives in water management, waste reduction, energy efficiency, and inclusive education reflected a holistic model grounded in coordination, monitoring, and evidence-based assessment.

The seminar ultimately emphasized the transition from strategic alignment to practical implementation, encouraging universities to embed sustainability into curricula, research agendas, governance structures, and measurable indicators. It reaffirmed the decisive role of higher education in addressing climate challenges and advancing inclusive, resilient development.





Events

Hackathon 2nd Edition : Nexus Water Energy

Date : 7-8 November 2024
Funding Partners : IRESEN – Credit Agricole du Maroc

Ibn Tofail University organised Hackathon Hack@UIT second edition but this time the purpose is diffrent than the first edition. The hackathon focused on creative water solutions projects that used renewable energy sources. Candidates were supposed to prepare new projects targetting sustainable development in green energies to address the water scarcity crisis. This event targeted a large population of participants at a national level.
The second edition of Ibn Tofail University's hackathon was distinguished by the quality of innovative student projects in the field of water resource management.
The president of Ibn Tofail University alongside with the vice-president of the univeristy, the general secretary of the university and other prominent personalities participated in he final of the second edition of the hackathon. The final took place on Friday, November 8, 2024 at 3 PM, in the conference room at Code 212 Center.
The funding partners for events like hackathons play a crucial role in supporting the initiatives and ensuring their success. In the case of the Second Edition of the Hackathon at Ibn Tofail University, the involvement of major companies like Crédit Agricole du Maroc and Eresen would be essential for both financial backing and providing expertise or resources.
Crédit Agricole du Maroc is a prominent banking institution in Morocco, and it is part of the Crédit Agricole Group — one of the largest financial institutions in the world. Crédit Agricole du Maroc focuses on providing a wide range of financial services, including retail banking, corporate banking, investment solutions, and financing for agricultural and rural development.
ERESEN is a company specializing in renewable energy and sustainable development solutions. The company provides services related to the design, construction, and management of projects focused on solar energy, wind power, energy efficiency, and other environmentally-friendly technologies. ERESEN's work is aligned with Morocco's goal to be a leader in renewable energy in Africa and globally.
Crédit Agricole du Maroc and ERESEN represent two key sectors of Morocco's economy — finance and renewable energy. Their partnership with the Ibn Tofail University Hackathon is a strong demonstration of the country's growing support for innovation, technology, and sustainability. By funding and sponsoring this event, they help foster a culture of entrepreneurship and technological development, while encouraging students to develop solutions that can have a real-world impact.





Events

Morocco Showcases Circular Water Resilience at World Water Week 2025

At World Water Week 2025 in Stockholm, Morocco presented a bold vision to address this crisis through circular water solutions. The event, themed "Water for Climate Action," served as a platform for the country to share its integrated approach to water resilience, grounded in national strategy and driven by local innovation

Leading Morocco's presence was the Urban Circular Water Resilience Initiative (UCWRI), coordinated by ICLEI and supported by GIZ with funding from the German Federal Ministry for Economic Cooperation and Development. This initiative complements Morocco's National Water Plan 2020–2050 and its forthcoming National Circular Economy Roadmap, both of which prioritize reuse, ecosystem restoration, and decentralized water systems. A central highlight of the event was the launch of the UCWRI Compendium of Good Practices, featuring 12 global case studies; three of them from Morocco.

While cities such as Zenata and Safi illustrated urban and industrial applications of circular water systems, the focus was placed on Ibn Tofail University in Kenitra, which emerged as a national model for academic and community-led water innovation. The university's Living Lab, spearheaded by Professor Sakina Belhamidi, is a full-scale demonstration site that bridges technology, education, and sustainability.From an educational perspective, the Living Lab is an open training site. More than 500 students, technicians, local government representatives, and partners have participated in training programs and technical visits. The lab supports Morocco's goals to localize and scale circular water practices and to connect academic research with municipal operations. Rather than presenting itself as a singular success, Ibn Tofail's initiative stands in solidarity with broader national efforts, sharing technical knowledge and capacity with peer institutions and municipalities. It contributes to the UCWRI's objective to enable Moroccan cities to act as learning hubs in a regional circular water network.

The impact of UIT's work extends beyond the university walls. Through the Sidi Taïbi Hybrid Water and Energy Station, over 4,000 rural students now receive 12 cubic meters of clean drinking water daily, replacing polluted wells with renewable-powered purity. This initiative doesn't just provide water; it restores dignity, health, and opportunity. By transforming local challenges into replicable models, UIT helps shape Morocco's path toward equitable and climate-resilient communities.







Events

3rd International Congress on Corrosion Inhibitors and the Environment

Partners : CNRST – Servichim – BioLogic – Hassan II Academy of Sciences and Techniques – ENSAK – ESTK – LABO TEST – ENSCK- AMACOPE

The 3rd International Congress on Corrosion Inhibitors and the Environment was set to take place at Ibn Tofail University in Kenitra, Morocco, on December 11-12, 2024. This prestigious event was organised by the Laboratory of Organic Chemistry Catalysis and Environment (LCOCE) in collaboration with various partners from within and outside Ibn Tofail University. The event brought together leading researchers, scientists, engineers, and industry professionals to explore the latest advancements in corrosion inhibitors and their significant role in environmental sustainability.

Themes of the Congress

The congress addressed a variety of critical topics that intersect with environmental challenges, renewable energy, and material science. The key themes include:

- Corrosion Inhibitors: Formulation, Cooling Circulation, and Modeling

Experts delved into the formulation and application of corrosion inhibitors in industrial settings, particularly in cooling systems, and explore new modeling techniques for their effectiveness.

- Renewable Energy

In line with the global shift towards sustainable energy sources, discussions focused on the role of corrosion inhibitors in enhancing the efficiency and longevity of renewable energy systems, such as solar and wind energy.

- Materials and Their Applications

Advances in materials science and the development of innovative, corrosion-resistant materials were highlighted.

- Organic Compounds for Photonic and Optoelectronic Applications

The congress explored the emerging field of organic compounds and their potential in photonics and optoelectronics, with implications for the development of advanced technologies in communication and energy.

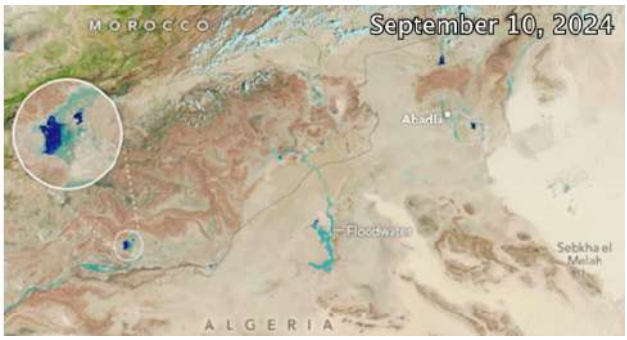
- Environment and Water Treatment

With a focus on environmental protection, the congress addressed the latest techniques in water treatment and management, particularly in relation to corrosion and its impact on water quality.



Events

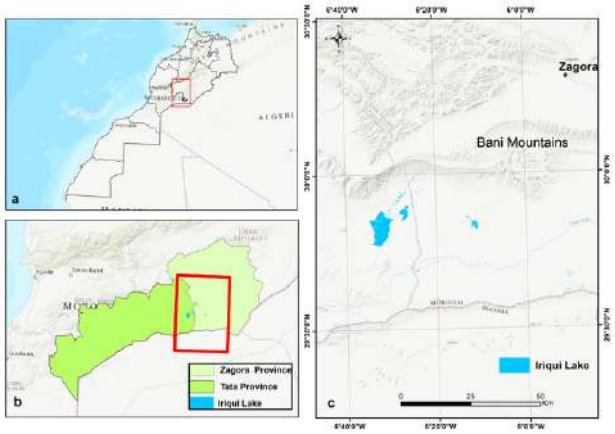
Ibn Tofail University – National Aeronautics and Space Administration (NASA)



For over fifty years, **Lake Iriki** remained hidden under the relentless desert, a forgotten memory of when water filled its basin. Now, against all odds, it has returned. This remarkable event, discovered by a research team from Ibn Tofail University, has not only changed local ecological understandings but has also attracted the attention of the global scientific community, with NASA confirming the findings using satellite images. The revival of Lake Iriki is more than just water returning to a dry lakebed, it's a story of resilience, adaptation, and the incredible potential of scientific exploration. In a time when climate change is a global concern, this phenomenon offers hope, proving that nature can still surprise us even in the harshest environments.

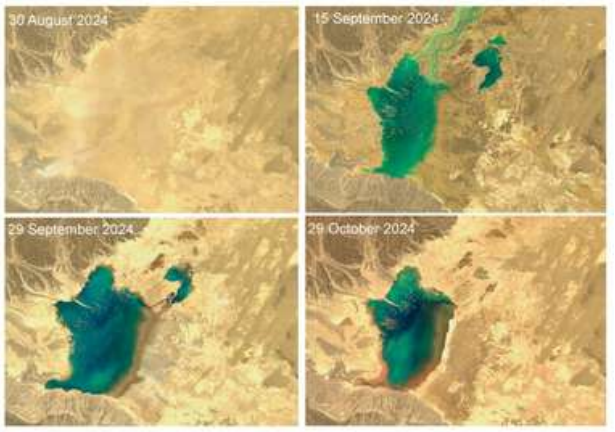
A Discovery Built on Scientific Dedication and Passion

The road to confirming the return of Lake Iriki began long before the team stepped into the desert. Researchers from Ibn Tofail University; Adil Moumen, Tarek Bahouk, Rahmoun El Ghafiri, and Mohamed Yassine; carefully analyzed satellite images, especially from the Sentinel satellite, which showed large amounts of water collecting in the lakebed. This data led them to launch a challenging expedition to confirm their findings. The journey wasn't easy. The team crossed tough desert landscapes, navigated through waterlogged valleys, and endured difficult conditions to reach the lake. Their commitment to scientific discovery reflects the values of Ibn Tofail University, an institution known for its pioneering research in Morocco and beyond.



NASA's Recognition : A Global Scientific Achievement

The discovery reached far beyond Morocco. NASA, using images from its Terra satellite, confirmed the presence of water in Lake Iriki, matching the research done by the Ibn Tofail team. The satellite analysis showed that rainfall in the region had exceeded 200 millimeters, far more than the typical yearly amount leading to the lake's unexpected revival. NASA's recognition highlights the importance of this research. It shows that Moroccan scientists are making valuable contributions to global scientific progress.



More Than Just a Lake: A Symbol of Life and Possibility

The return of Lake Iriki isn't just an environmental event; it's a reminder that where there's water, there's life. In areas once considered impossible for life to thrive, this revival opens new opportunities for studying ecosystems, restoring biodiversity, and exploring sustainable development.

This discovery also supports the United Nations' Sustainable Development Goal, which focuses on monitoring and restoring water bodies around the world. The data collected by the research team is crucial for understanding water changes in dry regions and can lead to further studies on desert water systems, climate patterns, and water conservation.



Events

IPeople Who Care Make Change: 1.5 Tonnes Collected in a Student-Led Clean-Up

On October 19, 2025, a well-organized environmental field operation took place at Mehdia Beach, led by the GreenInvest Club of ENSA Kenitra. The initiative went beyond a symbolic activity and was structured as a results-driven intervention centered on waste removal, site restoration, and active student participation in environmental stewardship. Volunteers were deployed across mapped sections of the coastline, working in coordinated groups with clear roles and collection methods. This structured approach ensured efficiency, safety, and measurable outcomes while transforming student engagement into concrete ecological service.

Throughout the operation, teams systematically collected scattered litter, sorted recyclable materials, and cleared the most polluted zones of the shore. Plastic waste, mixed debris, and abandoned items were removed through a step-by-step process that combined field discipline with teamwork. The campaign led to the extraction of more than 1.5 tonnes of waste, producing an immediate and visible improvement in the area. The shoreline became cleaner and more secure, pollution risks to marine life were reduced, and the quality of the public space was significantly enhanced. The intervention delivered direct environmental relief while restoring the visual and ecological value of the site.

Beyond the physical results, the initiative generated strong educational and social impact. Participants gained hands-on experience in environmental action, collaborative work, and responsible field practices. They learned how planning, coordination, and shared accountability lead to tangible outcomes. Support from partners strengthened logistics and volunteer morale, showing how cooperation between student groups and community actors increases effectiveness. Such experiences build long-term environmental awareness and encourage continued participation in future sustainability actions.







Conclusion

SDG 6

In conclusion, the activities carried out by Ibn Tofail University in 2025 in support of SDG 6 demonstrate our steadfast commitment to sustainable water and sanitation management. Research projects, awareness initiatives, and concrete actions have enhanced environmental consciousness within the university community and beyond. By continuing on this path, our university aims not only to preserve water resources but also to educate citizens and professionals on the importance of water for life and to promote responsible use of this vital resource.

6 CLEAN WATER AND SANITATION



THE GLOBAL GOALS

SAFE DRINKING WATER FOR HEALTHY COMMUNITIES



SUSTAINABLE
DEVELOPMENT
IBN TOFAIL UNIVERSITY