جامعة Université
ابن طفيل Ibn Tofaïl
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2025

# SDG13 REPORT

## MEASURES RELATING TO THE FIGHT AGAINST CLIMATE CHANGE

SUSTAINABLE DEVELOPMENT
IBN TOFAIL UNIVERSITY

# Introduction

SDG 13

*Ibn Tofail University recognizes the urgency of combating climate change and is actively committed to contributing to Sustainable Development Goal (SDG) 13: Climate Action. In 2025, the university intensified its efforts to mitigate the impacts of climate change and promote environmental sustainability. The university has established fruitful collaborations by forming strategic partnerships with highly specialized research organizations in the field of climatology. These alliances aim to enhance research efforts and foster a deeper understanding of climate change, with the ultimate goal of developing innovative and adaptive solutions to address complex environmental challenges.*

13 CLIMATE ACTION



THE GLOBAL GOALS

# Assessment of the Year

## Reduction of Greenhouse Gas Emissions

- The amount of energy generated on campus annually from renewable sources is GJ: 1346 .
- The cost of electricity consumption on the university campus was reduced by approximately 63% in 2025.
- Approximately 60% of the campus consists of green spaces, which are irrigated with treated wastewater.

## Waste Management:

- Educating members of the university community on specific waste sorting guidelines is essential to optimize the quality of collected recyclable materials.

## Sustainability Programs

- Master in Applied Chemistry, Environment, and Sustainable Development
- Bachelor's in Renewable Energy Engineering
- University Bachelor's in Renewable Energy and Energy Efficiency
- University Bachelor's in Risk Management in Health, Safety, and Sustainable Development
- University Master's in Renewable Energy

## Zero carbon Strategy

The strategy to be adopted in terms of sustainable development will be the zero-carbon strategy, with UIT becoming a carbon-neutral university by 2029:

- Develop an intelligent platform for monitoring and controlling all renewable energy installations.
- Strengthen energy efficiency measures by adopting advanced technologies and raising awareness among university members about reducing their energy consumption.
- Increase the use of renewable energy by installing more solar panels on buildings and exploring other green energy sources, such as wind energy.
- Install new photovoltaic self-consumption systems with a total capacity of approximately 150kWc.
- Add new photovoltaic benches for electric charging.
- Strengthen all UIT buildings and equipment with high energy standards (toward the Smart Building concept).
- Promote the use of sustainable, recycled, or low-impact materials.
- Implement an efficient waste management system, focusing on selective sorting, recycling, and raising awareness among the university community.
- Encourage the installation of electric vehicle charging stations in university parking lots.



## Construction of a Wastewater Treatment Plant

By using advanced technologies to allow the reuse of wastewater for irrigating the green spaces on the university campus.



## Water Treatment Station by Coupling

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



## Implementation of an automatic irrigation system.

For the green spaces of the campus, allowing for more rational water use and reducing waste.

These concrete and operational projects demonstrate Ibn Tofail University's strong commitment to environmental protection and the promotion of a sustainable approach within its campus. Through these initiatives, the university has achieved significant savings by reducing its electricity consumption by approximately 63% in 2025. This responsible approach illustrates the institution's desire to actively contribute to the preservation of natural resources and to building a more environmentally friendly future.

# Environmental Training

UIT adopts a comprehensive approach to sustainability education encompassing dedicated training programs specifically targeting environmental aspects. These are pivotal in nurturing a generation of professionals equipped to address pressing environmental challenges and drive sustainable practices across diverse sectors.

Recognizing the interconnectedness of environmental issues with social, economic, and political factors, our training programs adopt an interdisciplinary approach. This fosters holistic understanding and empowers participants to develop innovative solutions considering the interplay between environmental conservation, societal well-being, and economic prosperity. UIT offers diverse courses, workshops, and seminars meticulously designed to delve into various facets of environmental sustainability. These programs cover an extensive range of topics including but not limited to renewable energy sources, ecosystem conservation strategies, waste management techniques, and environmental policy frameworks.

At UIT, we prioritize ongoing staff development and training to ensure that our employees are equipped with the knowledge and skills necessary to contribute to our sustainability goals. We integrate sustainability principles into various training sessions and professional development opportunities throughout the year. We allocate approximately 2 to 3 hours per employee per training for sustainability-related training initiatives. These efforts show our commitment to fostering a culture of environmental stewardship and continuous improvement across our organization.



# Projects

## MEDGOAT: Goat farming systems characterization and novel strategies to sustain production in the changing climate scenario in the Mediterranean regions

MEDGOAT, a project set to run from September 1, 2023, to August 8, 2026, holds a crucial mission to equip pastoral and agro-pastoral communities in the Mediterranean region with the necessary tools to combat climate change and strengthen ecosystem resilience. The project's vision is not just a goal but a significant step towards enhancing the sustainability of agriculture and the associated value chain of species better suited to agro-pastoral systems and climate change, with a particular focus on goats.
MEDGOAT's primary goals are as follows:

- Provide agro-pastoral communities and policymakers with the necessary knowledge to refocus on local goat breeds as livestock;
- Preserve and rehabilitate the pastoral ecosystem;
- Improve landscape management;
- Boost the livelihoods of rural Mediterranean areas.

MEDGOAT will also address the need for more information on local goat breeds, their resilience to climate change, the nutritional value of alternative food resources, and their potential effects on ruminal function.

Demonstration and outreach activities will be organized in Tunisia and Morocco to raise awareness and provide crucial technical support. These activities will include information on the limits of inclusion and feeding practices for new nutritional sources and guidelines for managing these new feeds, ensuring that the communities are not alone in this journey.

**Funding Partners:**

| Country | PI name | Organisation |
|---|---|---|
| FRANCE | Latifa Abdennebi-Najar* (Coordinator) | IDELE - Institut de l'Elevage |
| | Jean Joseph Minviel | INRAE - L'Institut national de la recherche agronomique |
| SPAIN | Sonia Andrés | CSIC - Consejo Superior de Investigaciones Científicas |
| Italy | Fabrizio Ceciliani | UMIL - Università degli Studi di Milano |
| Portugal | David Pereira | UPFP - University of Porto, Faculty of Pharmacy |
| Tunisia | Hanen Falfoh | LPAM - Centre de Biotechnologies de Borj Cédria |
| | Hichem Ben Salem | INRAT - National Institute of Agricultural Research of Tun |
| | Henda Hanneñi | OEP - Office de l'élevage et des Pâturages |
| | Nahla Zghonda | SBSV - Société Boudjebel S.A. VACPA |
| Morocco | Tahar Sraïri | HAVMI - Hassan II Agronomy and Veterinary Medicine In |
| | Youssef Aboussaleh | UIT - Biology and Health Laboratory, Ibn Tofail University |
| | Said Chatibi | ANOC - Association Nationale Ovine et Caprine |



Med Goat

# Projects

## Innovative Collaboration between Ibn Tofail University and the Climate-U Network

The collaborative efforts between Ibn Tofail University (UIT) and the Climate-U network, along with their international partners, underscore the importance of transcending borders to tackle the urgent challenges posed by climate change and environmental degradation. This partnership marks a significant advancement toward promoting a culture of environmental awareness and facilitating impactful research initiatives for a more sustainable future.

The Climate-U network brings together universities worldwide committed to working collaboratively to address the climate crisis. It emerged from the initial Climate-U project (Transforming Universities for a Changing Climate), which ran from February 2020 to January 2024, funded by the Global Challenges Research Fund. The network's goal is to enhance climate action within each institution and create new collaborative initiatives through dialogue and international exchange.

Education, Research, and Climate: UIT's Exemplary Collaboration with the Climate-U Network in Support of SDG 13

Ibn Tofail University, dedicated to academic excellence and community engagement, has embarked on a transformative journey to integrate environmental responsibility into its core mission.

Through its strategic collaboration with the Climate-U network, an international platform dedicated to promoting climate action and sustainable development through education and research, UIT has strengthened its commitment to global environmental initiatives. This partnership not only amplifies the university's role as a leader in sustainability-focused education but also opens a range of opportunities for students and faculty members to engage in cutting-edge research and development projects with a global impact.

The collaborative efforts between UIT and the Climate-U network have facilitated the exchange of knowledge, resources, and best practices, fostering a robust ecosystem for developing innovative solutions to climate change. By leveraging the expertise and diverse resources of its international partners, UIT has enriched its academic programs with a strong focus on sustainability and environmental studies. This integration has not only improved the quality of education but has also equipped students with the skills and perspectives necessary to become active contributors to the global sustainability agenda.

Climate-U

Transforming Universities for a Changing Climate

# Projects

## Sustainable biomass conversion into bioenergy through pyrolysis (PyroBioFuel)

**Moroccan Coordinator:** Prof. Hassan El Bari – Ibn Tofail University

**Description of the project:**
Fast pyrolysis optimisation, development of processes to convert pyrolysis' products to fuels, and model-based decision-making tools to support process development and performance validation are representing the main objectives of the project. This will be achieved through robust pyrolysis technologies delivering constant product quality, and unique catalytic units based on integrated Fischer-Tropsch synthesis (FTS) and hydrocracking reactor (HCR) microreactors (MCRs) that can be flexibly implemented for compact and efficient biofuel processing. The programme involves 5 working packages (WPs) integrated together to enhance the biomass to fuel conversion pathway using novel conversion technologies and innovative digital tools. PyroBioFuel will utilise waste biomass as feedstock for the pyrolysis process (e.g., date palm waste, cotton stalks, maize straw, olive wastes).

**Funding Organism:** Ministery of Higher Education and Innovation

**Project Impacts:**
Biomass pyrolysis projects, on the micro level promotes women-led small investments, job creation and rural communities' development.
The social impact assessment will include the evaluation of all impacts on humans and on all the ways in which people and communities interact with their
surroundings, focusing on benefits to women empowerment and gender equality.
PyroBioFuel will validate new biomass conversion technologies. The modular nature of the technologies will reduce capital cost and allow their scalability for small, decentralized units, easy to implement in off-grid rural and remote areas.
socio-cultural, economic, and biophysical



# Projects

## Phosphogypsum Amendments: a Promising Solution to Mitigate the Effects of Salt Stress in Citrus Orchards

**Projet Description:**

This project seeks to reduce soil salinity by replacing gypsum with phosphogypsum, a by-product of phosphoric acid production. The initiative, titled "Phosphogypsum Amendments: A Promising Solution to Mitigate Salt Stress in Citrus Orchards," focuses on leveraging phosphogypsum as an effective soil amendment to combat salinity issues in citrus orchards. This approach not only addresses the problem of soil degradation but also contributes to the sustainable management of industrial by-products, offering a more eco-friendly solution to agricultural challenges.

**Partners:**

UNIVERSITY MOHAMMED VI POLYTECHNIC (UM6P);
THE NATIONAL CENTRE FOR SCIENTIFIC AND TECHNICAL RESEARCH (NCSTR);
THE MINISTERY OF HIGHER EDUCATION, SCIENTIFIC RESEARCH AND INNOVATION (MHESRI);
IBN TOFAIL UNIVERSITY (ITU)

Scientific, Environmental, and Economic Impact:

The aim of this project is to use phosphogypsum, a by-product of the production of phosphoric acid, which is widely available in Morocco, as an alternative to gypsum to reduce soil salinity. However, such amendment can only be considered if the harmlessness of the products has been validated. To reduce the potential presence of toxic elements, bioremediation will be explored by selection of microorganisms and/or plants capable of metabolizing heavy metals in soil, tree and fruit as a result of the application of phosphogypsum.



# Projects

## Olive tree adaptation

**Project title:**
Olive tree adaptation to climate change: Using genomics and association genetics for varietal selection (ClimGenOlive)

**Aim of the project:**
Understanding the biological processes involved in flowering (induction, flowering, cold and heat requirements, flowering rate) and defining the main phenological traits involved in flowering, enabling variety characterization in terms of cold and heat requirements.

Characterizing drought adaptation mechanisms and defining the main structural and functional traits ensuring the maintenance of a water status that preserves the integrity of the tree's physiological functions and productive state.

Exploiting the new tools of genomics and association genetics to identify the genomic regions associated with the main phenotypic traits linked to cold/flowering requirements and drought tolerance in order to define a combination of genomic markers associated with adaptive traits useful for characterizing local genetic resources and selecting the genotypes best adapted to changes.

**Funding partners:**

- Ministry of Higher education, Scientific Research and Innovation
- Hassan II Scientific and Technical Academy – Rabat
- Cadi Ayyad University – Marrakech
- Ibn Tofail University – Kénitra
- National Institute for Agronomic Research – Rabat

**Scientific, environmental, and economic impact:**
In terms of research better understanding of biological processes linked to flower induction, dormancy, cold and heat requirements and flowering rate:

-Identification of genetic and environmental effects linked to flowering dates of Mediterranean varieties.
-Establishment and validation of relationships between cold and heat requirements and flowering.
-Identification of eco-physiological mechanisms explaining differential varietal behavior with respect to drought.
-Contribution to the exploration of the genomics of adaptation through the identification of genes and allelic variants involved in the adaptation of olive trees to winter cold and water deficits.
-Identification and validation of a combination of genomic markers associated with phenotypic traits related to olive adaptation to winter cold deficit and summer water deficit.

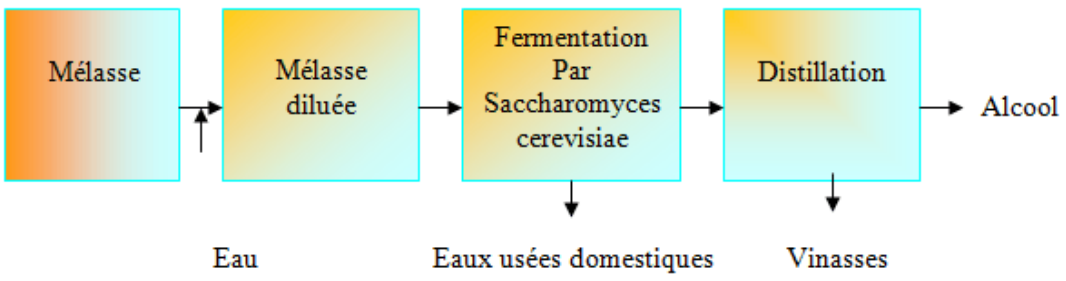
**In terms of application:**
-Classification of 200-205 Mediterranean varieties according to their flowering dates, cold requirements for flowering and drought tolerance.
-Selection of elite varieties best adapted to winter cold and summer water deficits.
-Definition of a combination of reliable genomic markers for the genetic characterization of olive tree genetic resources.
-Identification of the most decisive traits that can be used in the selection program for genotypes adapted to water deficit.
-Characterization of the phenotypic plasticity of the Moroccan Picholine variety along the north-south gradient and in correlation with bioclimatic stages, enabling the defining of adaptation maps for the olive tree.

# Projects

## Treatment of High-Pollutant Industrial Effluents through Biomethanation

**Project Context:**
The Rabat-Salé-Kénitra (RSK) region, known for its agriculture, is experiencing continuous demographic and economic growth, and hosts numerous agro-industrial units. These industries are notorious for being major polluters. For instance, the effluents from the Société de Transformation des Mélasses du Gharb (Sotrameg) generate industrial effluents with high concentrations of Chemical Oxygen Demand (COD) and Biochemical Oxygen Demand (BOD5), around 60,000 mg/L and 40,000 mg/L respectively. When these industrial effluents are discharged into the sewer network, they mix with domestic wastewater, negatively affecting the quality of groundwater and soil.
The goal of this project is to study the treatment and valorization of industrial effluents from a food-grade alcohol production unit using molasses, a by-product of sugar refining. The project will explore the feasibility of biomethanation to produce biogas and a biofertilizer product that can be used in agriculture.
Methanation produces ethanol through mesophilic fermentation of molasses using Saccharomyces cerevisiae.
Sotrameg, the "Société de transformation des mélasses du Gharb," has been operating in the Gharb region of Morocco since 1975. It is involved in the production of industrial alcohols and liquefied gases. It is the only ethanol distillery in Morocco, producing ethanol from beet and sugarcane molasses. Sotrameg is unique in combining the production of ethyl alcohol with that of liquid carbon dioxide.
Ibn Tofail University, particularly the Separation Processes team of the Advanced Materials and Process Engineering Laboratory, is studying the anaerobic digestion process of vinasse...



# 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:**
- Università degli Studi della Basilicata
- Istituto Ricerca sulle Acque – Consiglio Nazionale delle Ricerche
- Sapienza Università di Roma
- Hellenic Agricultural Organization ELGO-DIMITRA (Institute of Plant Breeding and Genetic Resources)
- The Catalan Institute for Water Research
- Université de Montpellier
- Institut Agronomique et Vétérinaire Hassan II
- Water Researches and Technologies Center
- Lebanese Development Network
- Université Djillali Liabes
- Faculty of Sciences of Sfax
- Université Ibn Tofail

**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

## SUPREM-MILK

The SUPREM-MILK project focuses on the sustainability and resilience of the milk supply chain in the Mediterranean regions. Here is the analysis of the project in relation to the Sustainable Development Goals 2, 12, 13 and 3.

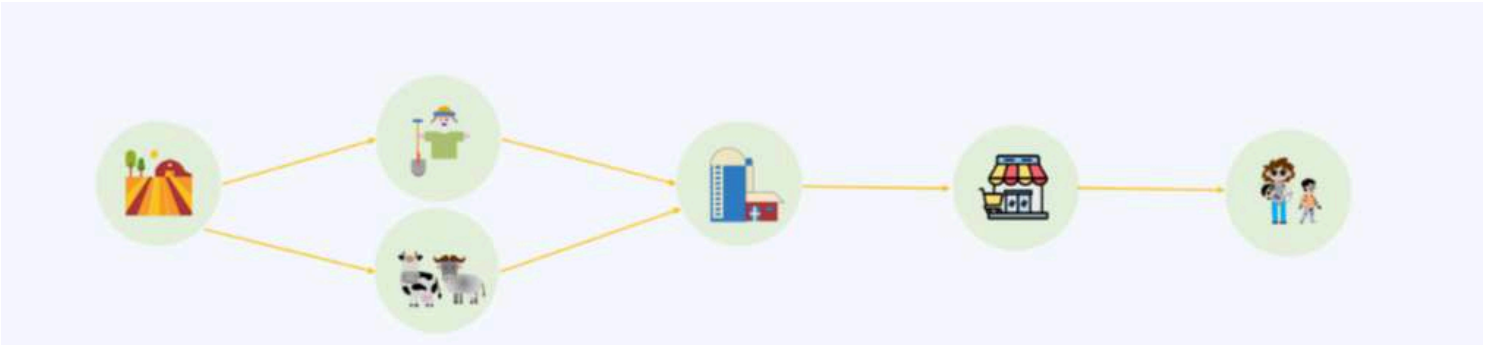



**Description:**
SUPREM-MILK aims to provide concrete tools and propose customized and targeted solutions that can help farmers in the Southern Mediterranean Countries (SMCs) to take a step towards net zero carbon and a greener and circular "agriculture" to maximize the 3 forms of sustainability and the resilience of Mediterranean milk. Three SMCs will be part of the project consortium: Egypt, Morocco and Turkey in addition to the Northern Mediterranean partners Italy, France and Spain.




**Project Objectives:**

- Objective 1: Preliminary inventory of the carbon cycle and characterization of sustainability in the ecosystems where the target dairy sectors are located.
- Objective 2: Support the adoption and implementation of sustainable technologies, new applications and best practices by local farmers.
- Objective 3: Final assessment of the carbon footprint, sustainability, self-sufficiency and competitiveness of the milk supply chains considered and its impact on consumer nutrition and health.



# Projects

## PROMEDRICE

**Description:**
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 soil and water contamination and salinization while maintaining or improving water use efficiency and productivity in rice agro ecosystems.

**Researchers involved:**
BOUABDLI Abdelhak – Geochemistry/Contamination/Pollution/ Environment – PES
SADIKI Mohamed – Geochemistry/ Hydrology/ Environment – PH
SAIDI Nadia –Microbiology/ Contamination/ Pollution – PES
CHAKIRI Said – Sedimentology/ Environment – PES

**Funding Partners:**
Ministry of Higher Education, Scientific Research and Innovation Morocco (MHESRIM)

**Methodology:**
PROMEDRICE will collect and harmonize data regarding both the quality of surface and groundwater in the vast majority of rice-producing areas in the Mediterranean, often located in river deltas and coastal wetlands. The project will directly address the challenge of reducing salinization and contamination of water and soil in rice-based agro ecosystems.

He will rely on the prior and shared knowledge of the consortium and experience to save water in rice cultivation, now focusing on optimizing water management coupled with agronomic practices that are likely to cause pollution. The specific objective is to preserve the health of rice agro ecosystems and the ecosystems with which they interact.

Depending on the regions, conditions such as salinity, nutrients, pesticides, other compounds, as well as metals like As and Cd will be studied for their impacts on soils, surface waters, and groundwater. In those areas where salinization is a major issue, the salinization of aquifers and soil will be studied in relation to agricultural practices.

**Expected Results:**
The project will identify and quantify the main pollutants affecting surface water and groundwater in relation to rice production under specific soil and environmental conditions. The implementation of efficient and sustainable agricultural practices to reduce the risks of water pollution and salinization; will be developed studied/demonstrated in seven case studies across the Mediterranean region, from Turkey and Egypt in the East, to Portugal and Spain in the West.



# Projects

## Study of Appropriate Technologies for the Conversion of Organic Waste and Biomass into Renewable Energy and Sustainable Bio-Fertilizer

**Funding Partners:** CNRST- Ibn Tofail University – Sidi Mohamed Ben Abdellah University– Hassan 1St University.

**Description:**
The university catering sector is one of the largest producers of bio-waste from food. The enormous amount of waste poses a risk to the environment and public health if it is thrown directly into the environment. Anaerobic digestion is a possible solution for the better management of this type of food waste.

**Project Objectives:**
Design of a pilot prototype for the methanization of organic waste from the university restaurant in Kenitra.

**Project beneficiaries:** Restaurants
Means necessary for the realization of the project:

**Human resources:** Biomass and Biogas Energy Team, Faculty of Sciences Kenitra-Morocco. Professors, Doctors, and PhD Students. Environmental Biotechnology Team, Biotechnology Laboratory, Sidi Mohamed Benabdellah University: Professors, PhD Students and Students.
**Material resources**: CSTR Digester and Scientific laboratory equipment.
Project Status: Prototype, Sample

**Project Assessment:**
Innovative aspect: A first university-scale digester for waste treatment
Environmental Impact: Treatment of university restaurant waste, reduction of greenhouse gases and production of renewable energy
Development prospects: Pilot scale, capacity expansion, diversification of treatment and recovery types
Sustainability prospects: Provide the university restaurant with a prototype for processing their waste.

# Projects

## Energy Recovery from Organic Waste through Methanization, Gasification, and Combustion (VLORMAC)

**Project Hosting Institution:**
Institute of Combustion, Aerothermics, Reactivity and Environment (ICARE), Orléans, France

**Project Overview:**
This project is a collaborative effort between the Institute of Combustion, Aerothermics, Reactivity and Environment (ICARE) in Orléans, France, and Ibn Tofail University in Kenitra, Morocco.

**Partners:**
. ICARE: Institute of Combustion, Aerothermics, Reactivity and Environment, Orléans, France
. Ibn Tofail University, Kenitra, Morocco

**Project Objectives:**
The scientific objectives of the VLORMAC project are as follows:

- To develop renewable energies by utilizing biomass and waste, while reducing greenhouse gas emissions;
- To decrease waste volume and reduce the pollutant load of digested waste;
- To deepen understanding of gasification and methanization systems to improve the management of bioprocesses;
- To characterize olive residues in terms of their thermo-physical properties;
- To compare energy recovery processes—gasification, methanization, and direct combustion—both energetically and economically, to select the most appropriate process;
- To characterize the combustion of the obtained products in terms of heat quantity and pollutant emissions based on the composition of the produced gases.

- **Human Resources:**
- SETIME Laboratory, Renewable Energies and Materials Team, Faculty of Sciences, Kenitra, Morocco: Professors, PhDs, Doctoral Candidates, and Students.
- ICARE Laboratory, CB2 team – Biomass Combustion and Biofuels
- Outlook and Future Perspectives:
- The project aims to treat olive oil waste in an integrated way by combining the biochemical recovery of margines by methanization (liquid fraction) and the thermochemical conversion of the resulting digestate and olive groats (solid fraction) by combustion and gasification. This approach respects the objectives of the circular economy, as it results in zero waste. We propose to study the possibilities of valorizing agricultural and agri-food residues, and in particular waste from olive oil production. The concept is to produce biogas and syngas from these wastes for use as biofuels in boilers, either on an industrial scale, or on the scale of small groups of dwellings (hamlets). The aim of the VALORMAC project is to determine the optimum conditions for using these residues to produce biofuels and burning them in specific boilers, in order to verify burner performance.

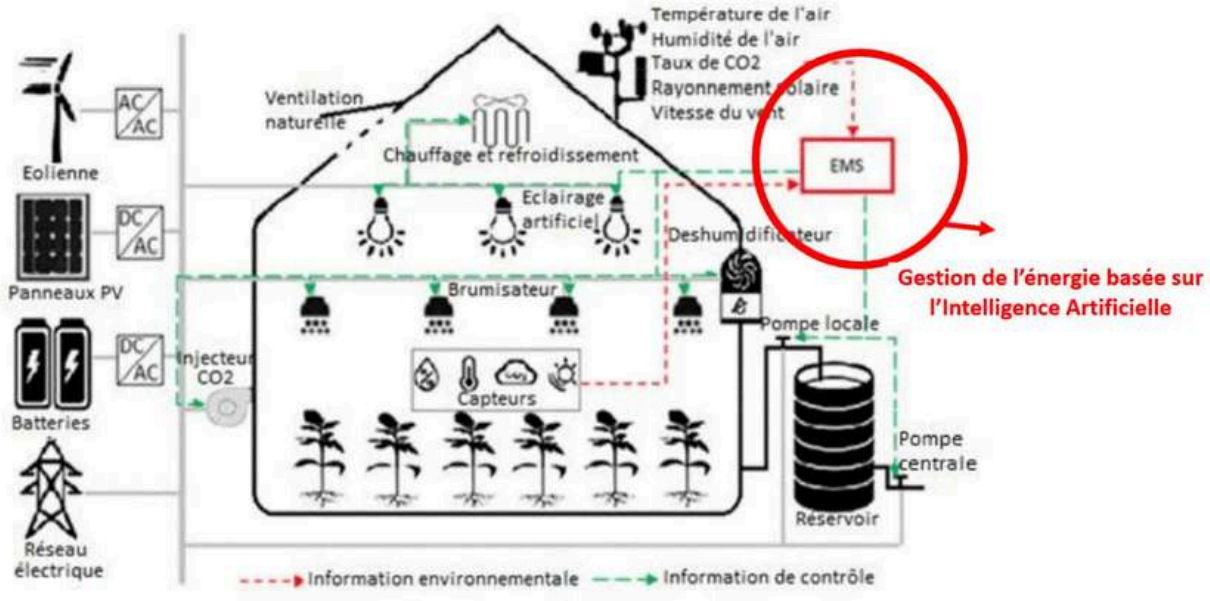
# Projects

## The Advanced Control System for Intelligent and Sustainable Operation of Connected Agricultural Greenhouses

**Project Partners:** CNRST- MESRSI- UM6P- OCP

**Description:**
Among 61 projects selected under the Multi-Thematic Research Call for Projects (APRD), jointly initiated by the Ministry of Higher Education, Scientific Research and Innovation, the OCP Foundation, Mohammed 6 Polytechnic University, and the National Center for Scientific and Technical Research, the project of the Advanced Systems Engineering Laboratory (LISA) stands out. This project, spread over the period 2021-2024, is entitled "Advanced control system for intelligent and sustainable operation of connected agricultural greenhouses connected to hybrid micro-grids."

**Project Objectives:**
This project aims to develop and validate a smart management product for a network of greenhouses connected to a hybrid micro-grid, based on an innovative centralized predictive control algorithm, taking into consideration stochastic production models and advanced prediction models based on artificial intelligence.
The entire system control platform is based on machine learning to provide real-time management of the entire system. It should enable the real-time collection and analysis of greenhouse bioclimatic indicators. The control platform includes control and decision-making modules developed and optimized for heterogeneous energy distribution systems that can accommodate a large number of renewable energy sources, smart greenhouses, energy storage devices, pumps, water tanks, smart meters, and sensors. The objective is to support the transition to precision and smart agriculture by developing integrated information and control technologies based on both consistent data analysis and high-performance control systems.



# Events

## Organic food systems as models for sustainable food systems in Europe and North Africa

**Project Description:**
SysOrg aims to identify intervention and entry points to enable a transformation process towards resilient and sustainable food systems. It also seeks to identify how pathways to increase sustainable consumption and food production could be successfully designed. To this end, it is necessary to better understand food systems, including the multitude of actors involved, and to identify critical points within the system. The assumption is that food systems have common intervention and entry points to enable transformation processes that are transferable but need to be adapted to the regional level. Thus, the following questions will be addressed:
– What are the common intervention and entry points within the food system to enable a transformation process towards resilient and sustainable food systems?
– How can pathways for increasing sustainable consumption and food production be successfully designed throughout the system?
– What are the reasons, motivations or drivers for actors to opt for the most sustainable solution?

– What are the intervention and entry points for developing, consolidating and disseminating improved organic food and farming, reducing waste and moving towards sustainable diets?
– What are the critical points for bringing these perspectives together in a systematic approach?
This is done by mapping and analyzing five case territories (Copenhagen, Cilento, North Hesse, Warsaw, Kenitra).
Four perspectives have been adopted:
– System transition
– Evolution towards sustainable diets
– Improving organic food and farming
– Transdisciplinary waste reduction

This multiple transnational case study will involve a multi-stakeholder approach. SysOrg will result in improved and locally adapted strategies for the transformation of food systems across Europe and North Africa into sustainable, resilient and resource-efficient food systems with less environmental impact and high socio-cultural acceptance.





# Race to Zero

Ibn Tofail University has joined the "Race to Zero for Universities and Colleges." This global initiative brings together higher education institutions from around the world committed to achieving carbon neutrality and contributing to a sustainable future for the planet.

The "Race to Zero for Universities and Colleges" is a campaign launched as part of the UN's "Race to Zero" initiative, which aims to mobilize key stakeholders in the fight against climate change. By joining this initiative, we commit to taking concrete actions to reduce our carbon emissions, improve our energy efficiency, and promote sustainability at all levels of our university.

Joining this race towards carbon neutrality connects us with a global network of universities and colleges that share our vision of a carbon-free world. This collaboration will allow us to benefit from best practices, knowledge, and expertise from global leaders in sustainability. We will also be able to share our own successes and contribute to the exchange of good practices within this global community.







ur membership in the "Race to Zero for Universities and Colleges" strengthens our commitment to sustainability and our responsibility towards future generations. We will continue to develop and implement initiatives aimed at reducing our carbon footprint, promoting climate change research, and educating citizens about environmental issues.

We invite all members of our university community to join us in this endeavor and contribute to achieving our sustainability goals. Whether you are a student, teacher, staff member, or researcher, you play a crucial role in the transition towards a carbon-free future.




RACE TO Zero UNIVERSITIES & COLLEGES

eauc The Alliance for Sustainability Leadership in Education

UN environment

Second Nature

# 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

## Climate, Environment, and Health: Scientific Dialogue for Sustainable and Inclusive Territories

From November 27 to 29, 2025, the Faculty of Sciences at Ibn Tofail University hosted the 3rd edition of the Scientific Days of the Environment, an international conference held in Kenitra and at the Exotic Gardens of Rabat. Organized under the theme “Climate, Environment and Health: For Sustainable, Green and Inclusive Territorial Development,” the event brought together researchers, academics, experts, and practitioners to engage in collective reflection on the environmental and health challenges shaping contemporary societies.

The conference highlighted the growing interconnection between climate change, environmental conditions, and human health, particularly within local and regional contexts. Scientific discussions highlighted how climate variability, environmental degradation, and pollution are directly influencing ecosystems, living conditions, and public health. Through these exchanges, the event emphasized the urgent need to rethink development pathways in a way that balances environmental protection with social well-being.

Throughout the sessions, participants explored environmental challenges such as the degradation of natural resources, waste accumulation, ecosystem vulnerability, and environmental risks affecting communities. These issues were examined not only from a scientific standpoint, but also through their concrete implications for territories and populations. The discussions underscored the importance of sustainable management of water, soil, and natural ecosystems, as well as the preservation of fragile environments, including coastal and terrestrial areas.

A defining strength of this third edition was the interactive dimension of the conference. The event fostered open dialogue between researchers, professionals, and institutional actors, enabling the exchange of experiences and perspectives across disciplines. These interactions allowed participants to connect scientific research with real environmental challenges, encouraging thoughtful discussion on how knowledge can support territorial planning, environmental governance, and informed decision-making.

The conference also served as a space for proposing practical orientations and solutions. Participants stressed the importance of preventive approaches to environmental and health risks, the adoption of responsible and sustainable practices adapted to local realities, and the integration of scientific expertise into public and environmental policies. Collaboration between universities, institutions, and civil society was repeatedly highlighted as a key factor for ensuring long-term and inclusive environmental solutions.

Health remained a central concern throughout the discussions, reinforcing the idea that environmental protection and human well-being are inseparable. The exchanges emphasized that sustainable development must place people at its core, recognizing that environmental policies are effective only when they contribute to improved living conditions while safeguarding ecosystems for future generations.













# Events

## Cinema Meets Environmental Awareness at Ibn Tofail University



**Event: 14 April 2025**

In a creative and impactful initiative, the Center of Excellence in Design and Applied Arts at Ibn Tofail University, in collaboration with the British Council, organized a series of special screening sessions featuring short films focused on climate change and environmental challenges.

These events aimed to engage and inspire students by using the power of cinema to raise awareness about pressing ecological issues. The curated selection included international films from the UK, Canada, and the Philippines, each telling unique and thought-provoking stories about the human and planetary dimensions of the climate crisis.

Students actively participated in these screenings, which combined artistic expression with environmental education, creating a stimulating atmosphere for dialogue and reflection. The initiative reflects Ibn Tofail University's commitment to fostering environmental consciousness and encouraging youth involvement in sustainable solutions. This collaboration with the British Council represents a meaningful step toward employing innovative cultural tools to tackle global challenges and cultivate socially responsible leadership among the younger generation.



# Events

## A Call for Climate Courage : Ibn Tofail University at the Online COP30 Global Summit

On 12 November 2025, Ibn Tofail University proudly represented Morocco during an online global webinar for COP30 Education Day, dedicated to Net Zero & Climate Action. Co-hosted by the Environmental Association for Universities and Colleges (EAUC) and the International Universities Climate Alliance (IUCA), the event gathered climate leaders worldwide. As one of the two global winners in the 2030 Climate Action category, alongside the University of Tasmania, UIT participated in a forward-looking exchange demonstrating how universities can reshape the climate landscape through innovation and collective action. Held entirely online, the webinar created a global platform for collaboration and sector-wide learning. Discussions explored how universities can embed net zero across governance, operations, curricula, research, and community engagement, reinforcing the idea that higher education institutions must act as central agents of climate transformation.

UIT opened the panel with a concise presentation of its net-zero trajectory, aligned with Morocco's national climate strategy. The university highlighted key milestones, including expanded solar installations, campus-wide LED retrofits, improved energy management systems, and strengthened governance structures. Despite its modest size, UIT demonstrated a strong commitment to responsible energy transition and operational sustainability. A central highlight was the Sidi Taïbi Hybrid Water & Energy Station, which produces potable water for thousands of students using renewable solar-wind energy. The project addresses climate-induced water stress while reducing reliance on fossil fuels. Alongside smart-building technologies and growing solar capacity, this initiative reflects UIT's integrated approach to climate adaptation and mitigation.

Responding to panel discussions, UIT emphasized that climate action must generate social benefits. The Sidi Taïbi station improves water access in a historically vulnerable area, reduces financial pressure on communities, and strengthens resilience. Energy savings across campus have also enabled reinvestment into student services and community-oriented projects, reinforcing the link between sustainability and social progress.
Student engagement was presented as a cornerstone of UIT's climate strategy. Through green clubs, applied research, field-based learning, and volunteering initiatives, students actively lead climate projects. Sustained motivation is ensured through mentorship, flexibility, and opportunities for real-world impact, fostering a culture of student climate ambassadors. The dialogue was enriched by contributions from the University of Tasmania and Borders College. Tasmania highlighted the importance of aligning institutional finance with climate goals, while Borders College showcased collaborative sustainability partnerships. These exchanges underscored the value of global cooperation, particularly for smaller institutions seeking to expand their impact.

The webinar concluded with a collective call for deeper and more inclusive climate action. Ibn Tofail University reaffirmed its commitment to advancing its net-zero roadmap and expanding community-based, research-driven climate solutions. As a small institution achieving global recognition, UIT exemplifies how determination, innovation, and social responsibility can generate meaningful climate impact on a global stage.



# 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.



# Clubs

## People 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 13

*SDG 13 represents an urgent call for collective action against climate change. Although the global community is making progress in implementing mitigation and adaptation strategies, persistent challenges remain. The need to reduce greenhouse gas emissions, promote environmental sustainability, and strengthen community resilience in the face of urgent climate impacts is crucial. Awareness, education, and innovation will continue to play a central role in the global response to climate change. By joining forces, we can build a more sustainable, resilient, and balanced future for generations to come.*




THE GLOBAL GOALS

TOGETHER, LET'S FIGHT CLIMATE CHANGE

SUSTAINABLE
DEVELOPMENT
IBN TOFAIL UNIVERSITY