Transforming our relationship with nature is key to a sustainable future

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The University of Tunis El Manar (UTM) has undertaken several initiatives to contribute to Sustainable Development Goal 6 (SDG 6), which focuses on ensuring availability and sustainable management of water and sanitation for all. Here are some examples of how UTM is actively engaging with this goal. UTM is involved in research projects that address water scarcity and quality issues in Tunisia. This includes studies on sustainable water management practices and the development of technologies aimed at improving water efficiency and sanitation systems.The university incorporates topics related to water sustainability and sanitation into its academic programs. This equips students with the knowledge and skills necessary to tackle challenges associated with water resources, thereby fostering a generation of professionals who are well-versed in sustainable practices.UTM collaborates with local and international communities to promote awareness about water conservation and sanitation practices. These outreach efforts often include conferences, workshops and seminars.

1. Addressing Water Scarcity in Tunisia

Tunisia faces significant challenges related to water scarcity due to rising demand from population growth, urbanization and climate change. The new desalination plants are part of a strategic response to these challenges, aiming to reduce reliance on dwindling groundwater supplies and improve access to drinking water in arid regions.

The Zarat Desalination Plant, in Gabès, was Inaugurated on July 7, 2024. This facility is designed to produce 50,000 cubic meters of drinking water per day, with plans to double this capacity to 100,000 cubic meters by 2027. It aims to serve around one million residents across the Gabès, Médenine, and Tataouine governorates by 2035. The project was developed by the Indian company Va Tech Wabag and co-financed by the Tunisian government and the German development agency KfW.

Two ddditional Plants in Sfax and Sousse are under construction in Sfax and Sousse, expected to be operational by the end of 2024.

Transforming our relationship with nature is key to a sustainable future

The Sfax plant will have a capacity of 100,000 cubic meters per day, while Sousse will produce 50,000 cubic meters per day. The Tunisian government plans to launch tenders for four more desalination plants in Tozeur, Kebili, Sidi Bouzid, and Ben Guerdane.

2. Mediterranean Conference on Desalination and Water Treatment

The Tunisian Desalination Association (TDA) organizes in collaboration with the University of Tunis El Manar (UTM) and the Water Research and Technology Center (CERTE) with th support of the European Desalination Society (EDS) the 9th Mediterranean Conference on Desalination anWater Treatment *"CMTDE 2024",* Hammamet, Tunisia, 22-25 December, 2024. This 9th edition of CMTDE 2024 dedicated to the nexus "Water-Energy-Environment" benefits from the support and follow-up of the professor Moez CHAFRA, President of the University of Tunis El Manar.

3. World Water Day celebration

World Water Day 2023, celebrated on March 22, focused on the theme "Accelerating Change to Solve the Water and Sanitation Crisis".The theme for World Water Day 2024 is "Water for All: Let's Take Action." This theme emphasizes the importance of ensuring access to clean and safe water for everyone and encourages individuals, communities, and organizations to take meaningful actions toward sustainable water management. Events around Tunis El Manar University highlighted the importance of water conservation, the challenges of water scarcity, and the need for sustainable management of water resources..

Transforming our relationship with nature is key to a sustainable future

Webinars followed by a debate on water-related issues were organized and broadcast to a wide audience.

4. UTM collaboration with the Water and Technologies center

As part of the UTM's commitment to Sustainable Development Goals 6 and 17, a Framework Agreement for Scientific and Educational Cooperation was signed on 12 June 2024 between the University of Tunis El Manar represented by its President, Pr. Moez CHAFRA and the CERTE Water Research and Technology Centre represented by its Director General, Prof. Hakim GABTNI.

This collaboration concerns:

- Scientific and educational cooperation,
- Consultation and exchange of information,
- Joint research and university training activities (teaching and student guidance),
- Organization of scientific events and actions to achieve the SDG 6 targets.

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5. Partnership and cooperation agreement to promote research and innovation

Vivo Energy Tunisia and ISSBAT (UTM) join forces for innovation in water resource management. A partnership and cooperation agreement between Vivo Energy Tunisie, the company that distributes and markets Shell products in Tunisia, and the Tunis Higher Institute of Applied Biological Sciences (ISSBAT) has just been signed at the Shell Cité Ettayarane station on the western outskirts of Tunis, in the presence of the President of the Université Tunis El Manar, the Director of ISSBAT, the Managing Director and executives of Vivo Energy Tunisie, as well as several research professors.

The agreement aims to promote research and innovation in water resource management in Tunisia. Collaboration will initially focus on the StopUP project "Protecting the aquatic environment from urban runoff pollution", which will propose a global approach to the treatment of polluted drainage water that poses a threat to natural receiving environments. The two partners will be working on the implementation of integrated, sustainable technologies to improve water quality and ensure optimum reuse.

A pilot plant for the treatment of overflow and run-off water will be set up at the Shell Cité Ettayarane station, close to the Sabkhet Sejoumi, to house the implementation of integrated, nature-based technologies adapted to the Tunisian context.

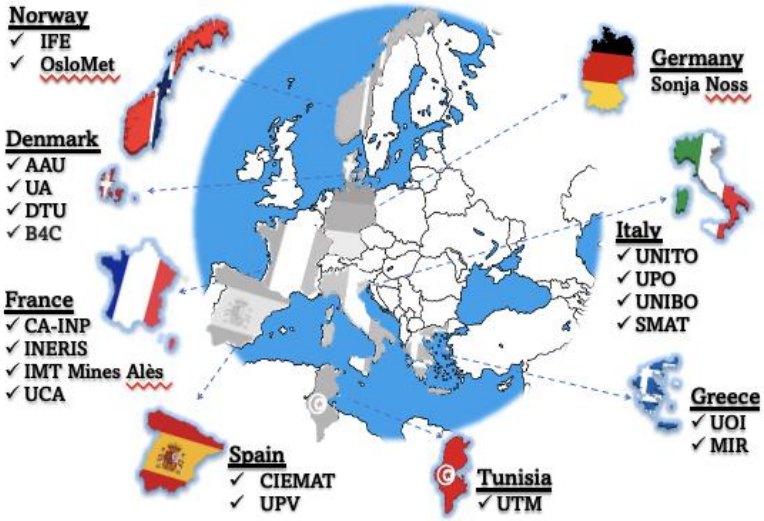
- **Horizon Europe Marie Skłodowska-Curie Actions (MSCA) Doctoral Network program**

Project INtegrated Approach TO secure water QUAlity by exploiting Sustainable processesIN2AQUAS covers the period 2023-2027.

Transforming our relationship with nature is key to a sustainable future

This project gathers experts from 10-degree awarding universities, 4 national research centers, 1 associated university (University of Tunis El Manar, *"Desalination and Water Treatment" Research Laboratory LR19ES01*) 4 companies and a highly qualified mindfulness-in-the-workplace facilitator.IN2AQUAS will train 15 doctoral candidates (DCs) for facing the complex challenge of envisaging the pollutant impact on the environment and of tailoring the proper treatments to produce safe and clean water -also in extreme environments- using green approaches through high quality research, training, management and innovation. This goal will be attained via a structured training-through-research program, consisting of original individual research projects and education on technical and transferable skills. The overall research goals will imply four main steps:

- The assessment of water quality and the prediction of its response towards arisen environmental stresses,
- Restore water quality while approaching the zero-waste discharge,
- Scale up and process integration,
- Nutrients recovery and wastewater reuse assessment.



- **Participation in the 5th Mediterranean Water Forum**

UTM took part in the 5th Mediterranean Water Forum held from February 5 to 7, 2024 in Tunisia. This forum highlights various projects related to water management, and serves as a platform for knowledge exchange and collaboration between Mediterranean players.

Transforming our relationship with nature is key to a sustainable future

- **5th MENA Desalination Projects Forum**

The 5th MENA Desalination Projects Forum, which is scheduled on 5-4 March 2024 at the United Arab Emirates, is the largest government endorsed regional desalination conference. It brings together over 400 regional and international stakeholders from the government, consulting, contracting, and technology sectors to discuss the way forward for the region's desalination industry, key upcoming mega projects, and national sustainability visions driving the region's 2030 water agendas.

- **Africa Water Forum**

Amidst the pressing water challenges confronting the African continent, the Africa Water Forum, held on October in Rabat, Morocco, emerged as a crucial gathering point for visionary leaders across the water sector. Attracting thought leaders from diverse water sectors, the forum aimed to shed light on and address key aspects of water security through the lenses of research and development, technical expertise, and commercial perspectives.

6. Africa Water Forum

Student participation in the international innovation competitionorganized by the UNESCO International Water Centre of Montpellier;
2023: 70 teams from Europe, Africa and North America (4 Tunisian teams)
2024: 74 international teams (8 Tunisian teams)

- **Forest-Water-WellBeing" Project**

UTM President Prof. Moez Chafra welcomed a Bavarian delegation on February 13, 2023 to discuss the proposals of a new project that aims to redevelop and protect university sites with the slogan "Forest-Water-WellBeing".This meeting brought together representatives of the various stakeholders at the Farhat Hached El Manar campus.

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- **Scientific and awareness conferences**

Examples of scientific and awareness-raising conferences on water given by UTM research professors to different audiences:

- Presentation of research activities in the field of water, on the occasion of the visit of an official Jordanian delegation, by Pr. AtefJAOUANI.
- Conference "How to cope with water scarcity", International symposium organized by the Research Laboratory: Maghrebian, Francophone, Comparative Studies and Cultural Mediation, July 1-3, 2023 at the Ribat of Lamta, Monastir, Pr. Béchir HAMROUNI.

Conference "Chemistry and Materials Science to cope with Water Scarcity", The 3rd edition of the International Conference on MaterialsScience and Engineering and their impact on the environment, Djillali Liabés University in Sidi Bel-Abbès, Algeria, 29-30 May 2024, Pr. BÉCHIR HAMROUNI

Transforming our relationship with nature is key to a sustainable future

+ Staistics : Publications, Views, Citations