



الجامعة الأورومتوسطية بفاس

EUROMED UNIVERSITY OF FES

UNIVERSITÉ EUROMED DE FÈS

SDG9 Report

Industry, innovation and infrastructure



SDG9 report: Industry, innovation and infrastructure

The objective of the UEMF is to develop close links with industry:

- in terms of training, apprenticeship and internships for the benefit of students
- at the level of Research Development (R&D) -innovation for the benefit of researchers within a contractual framework to meet the needs of socioeconomic partners.

UEMF works to create an environment conducive to innovation, the creation and transfer of knowledge and technology. It supports its laureates for their professional integration and for the creation of their own businesses.

Training of engineers for industry

The Engineering and Architecture pole of the UEMF brings together 3 major Engineering Schools, a Grande Ecole d'Architecture and a Faculty of Engineering

<https://www.ueuromed.org/offre-formation/pole-ingenierie-et-architecture>

<https://www.ueuromed.org/offre-formation/pole-biomedical-et-biotechnologie>

The Engineering Schools (INSA EM, EEIDIA, EEMGC and BiomedTech) prepare student engineers to exercise their profession in various fields of engineering: electricity, mechanics, energy, civil, IT, artificial intelligence, robotics, telecommunications, biomedical, biotechnologies, ...

Engineer training benefits from high quality human resources and cutting-edge technological platforms (practical work, projects, research)

<https://www.ueuromed.org/innovation/plateformes-technologiques>

The School of Digital Engineering and Artificial Intelligence (EIDIA).

This new school, totally dedicated to artificial intelligence, is the first engineering school of this type in Morocco and also in the Euro-Mediterranean and African space. The School is supported by a high-level research center using data generation technologies, cyber security, robotics and cobotics, big data, machine and deep learning, neural networks, block-chains, image recognition, voice and movement. These digital technologies are used for applications in the fields of mobile technologies, medicine, renewable energies, agro-industry, automotive, aeronautics, banking and finance and other sectors. industrial (industry 4.

Executive-master-building-information-modeling

The executive master's degree in BIM project management, organized in partnership with the College for Innovation, Management and the Knowledge Economy, CIMES, responds to a demanding and evolving demand in terms of modern management of construction projects. It offers appropriate training for executives and project managers to help them develop the

managerial, organizational and technical skills necessary for leading BIM projects at the level of processes and tools.

Master: Entrepreneurial Support and Technological Management

The training, provided by the EIT and its Faculty of Engineering, in partnership with the Mohammed V Foundation for Solidarity, is broken down into modules favoring an umbrella line of action around entrepreneurship and innovation in all its forms. (incremental, market, technological, radical innovation, “inside the box”, “outside the box” and “around the box”).

Students learn to manage product or service innovation projects from the idea to their marketing, but above all to help entrepreneurial structures, at all levels, to innovate in a logic of robust profitability allowing them to grow. impose durably against competitors.

Euromed Business School

The Grande Ecole Program puts into action the pillars of the “Euromed Leader” Profile - Openness to the World, Entrepreneurial Spirit, Digitalization and Responsibility - to train executives and creative, responsible and transformational entrepreneurs. The training course combining teaching, conferences, experimentation and internships gives students the keys to understanding the complex challenges of organizations and inventing new solutions to respond to them.

Specialized Master in Marketing and Business Development

This course prepares future professionals to master marketing data analysis and decision-making, mobilize marketing action levers (digitization, innovation) and design effective commercial and digital strategies.

The two years of the Master allow students to develop skills and expertise to lead and transform organizations.

Design License

The Degree in Design from EMADU (School of Architecture), is designed to train designers capable of creatively managing, beyond the object, the decision-making processes, mediation and integration of multidisciplinary contributions; thus allowing the winners to mix a very broad spectrum of sectors. This discipline aims to manage the project in all its complexity, both in terms of product innovation and services. It is a process which encompasses aesthetic, functional, material and technical aspects; but also communication and the market.

Research and innovation

<https://www.ueuromed.org/equipe-presidentielle/le-vice-president-charge-de-la-recherche-et-innovation>

The cluster is experiencing a great research dynamic, with several projects carried out in partnership with the industrial world and produced a significant number of research works in indexed and prestigious international journals.

<https://www.ueuromed.org/innovation/research-project>

<https://www.ueuromed.org/innovation/scientific-production>

Industrial partnership

Among the signed agreements are:

The Euromed University of Fez (UEMF) and "Dassault Systèmes", one of the largest companies in the world in the field of 3D design software, digital engineering and the virtual universe for innovation, signed a partnership agreement aimed at creating at UEMF the largest platform for university digital engineering in Africa. This platform uses Dassault Systèmes' "3DEXPERIENCE": a teaching and research - innovation platform which is open to all students and researchers from the Kingdom and African countries. It is connected to the 3D printing platform, already set up at the University, and also to the robotics and cobotics infrastructure of the UEMF.

Research income

Industrial research income is estimated at MAD 70 million, i.e. 53.8% of the operating budget

The own budget reserved for research by the UEMF in 2019-2020 using the Frascati standard is estimated at more than 180 MDh

The investment devoted to Technology Platforms in 2019-2020 is estimated at MAD 80 million

Innovation structures

<https://www.ueuromed.org/innovation/structures-d-innovation>

The innovation structures are places of cross-fertilization bringing together UEMF researchers and companies in a collaborative logic. Their missions are to stimulate the actions of: Training, Research-Development, Transfer, and Creation of startups and innovative companies in the service of economic development, integration and wealth creation

Agro Energy TIC Valley

It is a mixed platform for testing, research and training in the fields of bioenergy and energy storage, jointly created by the EuroMed University of Fez and the Institute for Research in Solar Energy and New Energies (IRESEN).



Fez Smart Factory

This project is being developed within the framework of the “Fonds de Zones Industrielles Durables (FONZID)” program of the Millenium Challenge Account -Morocco. It aims to set up a space for the development of industrial activities with markedly improved productivity thanks to the implementation of Industry 4.0 concepts. It is being set up as part of a partnership between UEMF, CGEM Fès / Taza, the Fès Meknes regional council and the company Alten delivery center Maroc.



Agritech

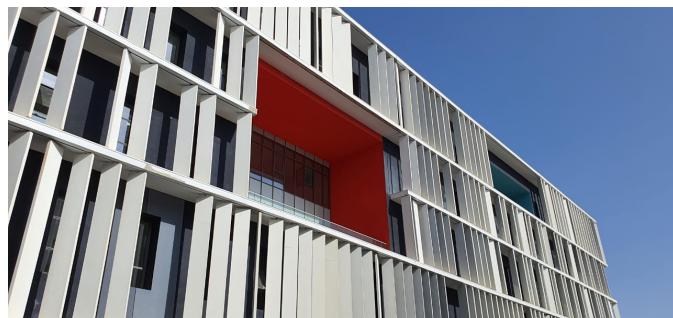
This regional innovation hub, whose feasibility study funded by the French Development Agency is underway, and with which the Region and the Wilaya of Fès-Meknes is associated, will aim to contribute to the emergence of potential, insufficiently exploited, of the Fès-Meknes region in its traditional activities (in particular agri-food) and the development of territorial growth relays that create wealth and jobs

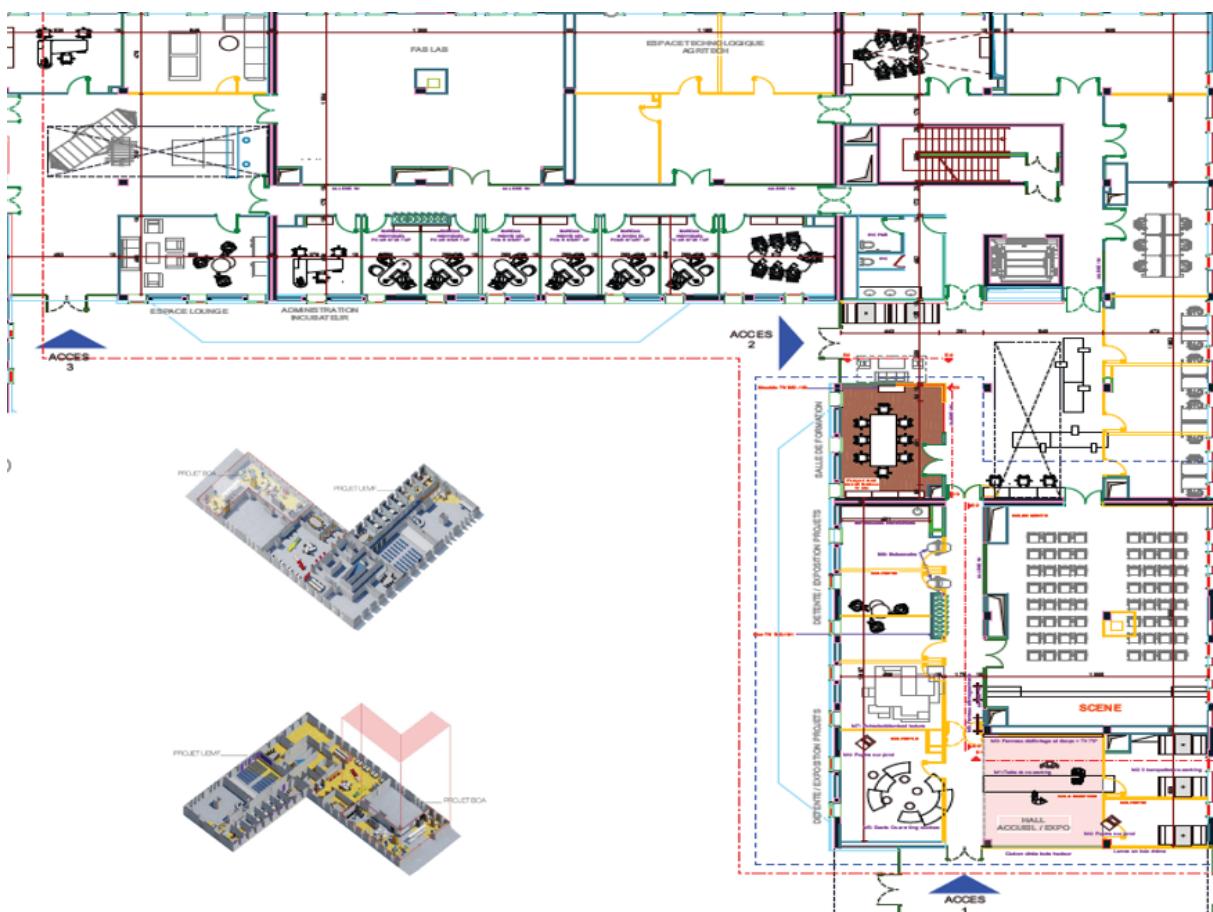
UEMF incubator

The UEMF Startup Incubator aims to support the academic community and other carriers of potential innovative projects, whether from UEMF or elsewhere, to transform their projects into successful innovations on the market.

CVTIP (Center for Promotion, Transfer and Professional Integration)

The CVTIP is dedicated to supporting students and research professors in the protection of intellectual property and the promotion of their research and inventions.





Innovation activities

UEMF instills the spirit of innovation and creativity in its students and researchers by having them participate in national and international competitions and calls for tenders (hackathons, innovation competitions, innovation prizes, ...)

Workshop: Management of technology, innovation and digital transformation in the University

Initiated by the Euromed University of Fez (UEMF) and its partner Koblenz Landau University (Germany), this workshop is intended to mutually study the innovation and digitization processes of the University.

At UEMF, cultures of innovation and technology constitute one of the major pillars on which the University is based. This workshop is therefore an opportunity to set up more new digital projects, concrete and with high added value, and introduce an in-depth digital transformation with the objective of strengthening the position that UEMF occupies from the outset (1st university platform digital and 1st university to have created the School of Digital Engineering and Artificial Intelligence (EIDIA) in Morocco and Africa). The collaboration with the Koblenz Landau University (Germany) will allow the UEMF to align perfectly with concepts in the era of time and to establish new mechanisms such as:

- The dematerialization of procedures;
- The digitization of learning platforms;
- Design thinking;
- The innovation of the university model (orientation towards a more efficient model);
- Optimization of resources

Panel: "the university, breeding ground for aspiring entrepreneurs

<https://www.ueuromed.org/actualites/ateliers-workshops/3e-edition-du-sommet-empower-21-luniversite-pepiniere-daspirants>

Awards and Recognition

The President of the University is a world-renowned researcher who has obtained, among others, several prizes: Prizes and Distinctions:

- The Grand Prize for Innovation in 2009 awarded by the Ministry of National Education, Higher Education, Management Training and Scientific Research of Morocco
- The Prestigious Steacie Fellowship in 2004 which is considered the highest honor in research in Canada
- The Top20-Canada Prize in 2002 awarded by the Canadian Institute for Advanced Research for the top 20 researchers in Canada;
- The International Morand Lambla Award in 2000 awarded by the International Society (Polymer Processing Society) to the best researcher on a global scale in the field of polymers
- The Research Innovation Prize in 2009 awarded by the Quebec-Canada Ministry of Industry;
- The Louis Pasteur Prize in 1992.

Responsible innovation label obtained by the university for its "sustainable UEMF" project

The label responds to several challenges:

- Identify responsible innovations generated by French-speaking universities in order to promote them, and develop them;
- Strengthen the capacities and skills in SDGs / SSE of the Francophonie network;
- Organize support for French-speaking universities wishing to innovate responsibly;
- Train and support researchers, staff, students and teachers at French-speaking universities in responsible innovation and its social and environmental impact;
- Generate new partnerships and new resources around responsible innovation within the network of French-speaking universities
- Participate in and develop the emerging SDG / SSE dynamic in academia.

Agreements with Industry

<https://www.ueuromed.org/partenariats-socioeconomique>

UEMF has signed several partnership agreements with national and international industrial circles

Research themes and publications on innovation

- Materials and bio-composites for Design
- DD: Driven Design for Moroccan Crafts
- Arti-Sign: Artisanal Heritage and Design
- Design in the Age of Industry 4.0

<https://www.medias24.com/chronique/autonomie-responsabilisation-et-innovation-trois-ingredients-necessaires-pour-une-croissance-robuste/>

Information and Communication Technologies

The ISD, Information Systems Department, is a common service of the UEMF. He is responsible for the administration of the information system and the management of the digital operations of the University as well as the management and maintenance of the IT, network and multimedia infrastructure. It offers access to the following services:

- Digital Work Environment (ENT): All UEMF staff and students have an ENT. This portal is intended to facilitate access to information relating to student life within the UEMF (timetables, notes, requests for administrative documents, access to the library, the sports center, the restaurant and other UEMF services);
- Office 365-based collaborative platform including:
 - a university e-mail address: All UEMF staff as well as students and teacher-researchers have an e-mail address in the form of 'initial firstname.lastname@ueuromed.org' thus promoting internal and external communication ,
 - collaboration tools,
 - the Microsoft Office suite (Word, Excel, PowerPoint) made available to all university students;
- Multi-service card allowing the UEMF community access to the various services made available to them and in particular for:
 - access the university through access controls,
 - use printers made available in self-service,
 - pay for drinks at the university canteen,
 - pay for purchases at the UEMF shop level,
 - reserve books, textbooks, magazines and other materials from the library,
 - book reading rooms,
 - book sports halls at the sports center, etc;
- Self-service rooms equipped with latest generation PCs with all the software required for the training provided;
- Rooms equipped with CAD and CAD workstations;
- Rooms equipped with workstations and curved screens for artificial intelligence courses;
- Rooms equipped with virtual reality headsets (VR) for multimedia lessons;

- High speed Internet with a synchronous 1GB link available to all university users (Students, Professors, Staff and Guests);
- Very wide and complete WiFi coverage with more than 400 access points deployed throughout the UEMF campus;
- Digital tools for teaching:
 - e-learning platform,
 - MOOC course,
 - virtual library;
- Educational rooms equipped with video projection and sound systems;
- New generation interactive screens;
- Rooms equipped with professional videoconferencing systems;
- Live streaming system for live broadcasting of local events;
- Centralized management system for internal and external displays.
- Simulation software for teaching and research applications
- ERP for the overall management of the UEMF (education, research, finances, assets, human resources, etc.)