

Fez Smart Factory

Specifications for the call for expressions of interest for the admission of industrial companies to the Business Center of the Fez Smart Factory Ecosystem

The "Fez Smart Factory Competitions" is organized by the Fez Smart Factory (FSF) Ecosystem, led by EuroMed University of Fes (UEMF) Morocco.

1. Background

Since the announcement, in 2011, of the German industrial strategy called Industry 4.0 signifying the advent of the 4th industrial revolution, other developed countries around the world have announced their own strategy in this area setting objectives for the 2020s. -2030. Based on national strategies, companies have developed their own strategies for transforming their industrial units into smart factories which are being implemented.

Industry 4.0, the implementation of which allows a forecast gain in productivity that can exceed 25%, as well as a substantial improvement in sustainability, constitutes a challenge for the factory which does not follow this trend and which risks disappearing for lack of competitiveness. The productivity gains and improved sustainability of Industry 4.0 are due to the optimization of the consumption of human, material, energy resources, production time, and financial flows, with maximum customer satisfaction and in respecting the environment and operating safety. To do this, Factory 4.0 uses the Internet of Things to marry production machines with digital technologies, creating information flows between machines, between machines and products, and between machines, products and humans. As a result, it becomes connected, and therefore transparent internally and externally, for staff at all levels of responsibility, and for customers and suppliers.

The Fez Smart Factory project aims to contribute to improving the competitiveness of Moroccan industry by supporting manufacturers in developing their strategies for transforming their factories into smart factories and in the implementation of these strategies, on the one hand; and on the other hand, by supporting project leaders and start-ups to contribute to the enrichment of the industrial fabric through the development of new industrial units, producing innovative products with high added value and competitive using concepts from the industry 4.0.

The "Fez Smart Factory" project is the result of a partnership between the EuroMed University of Fez, as leader, the Council of the Fès-Meknes region, the Ministry of Industry and Trade, the Fès-Meknes Branch of the General Confederation of Moroccan Enterprises (CGEM), the company Alten Delivery Center-Morocco, as well as the ADD (Digital Development Agency).

The "Fez Smart Factory" project was selected to benefit from the support of the Sustainable Industrial Zones Fund (FONZID) following a competitive call for projects launched jointly by the Millennium Challenge Account-Morocco Agency (MCA-Morocco) and the Ministry of Industry and Commerce.

FONZID is part of the "Industrial Land" activity under the "Compact II" cooperation program, financed by the Millennium Challenge Corporation (MCC) and whose implementation has been entrusted to the MCA-Morocco Agency. .

The FONZID, set up jointly with the MIC and endowed with an envelope of 30 million dollars, aims to strengthen the model of sustainable industrial zones and to contribute to improving the productivity and environmental and social performance of companies in industrial areas.

FONZID will expand the supply of industrial land that meets the needs of investors in terms of location, quality of infrastructure, support services and competitive prices. It will thus contribute to increased private investment and job creation.

2. Presentation of the Fez Smart Factory Ecosystem

2.1. Objectives of the Fez Smart Factory Ecosystem

The “FSF” Ecosystem is a support zone for innovative activities, aimed at developing a competitive industry, by improving its productivity through the implementation of the principles and methods of industry 4.0. All the activities of the FSF zone will be oriented towards this objective, from raising awareness of the interest of Industry 4.0, to supporting industrialists in transforming their industrial units into smart factories, to supporting project leaders and start-ups working to create new 4.0 factories. This is the first project of its kind in Morocco for this nascent industry in the world since the concept was launched in Germany in 2011.

By creating an industry 4.0 ecosystem, the project aims to:

- Set up a core of smart factories by supporting project leaders and start-ups benefiting from FSF's engineering and R&D services, as well as a pilot model factory, to develop their 4.0 factories at the demonstration scale.
- Take advantage of the FSF ecosystem, through "FSF INDUSTRY" to support existing industrial units in the Fez-Meknes Region and Morocco to optimize their industrial, environmental and social performance by taking advantage of industry concepts 4.0.

2.2. Components of the FSF Ecosystem

The FSF Ecosystem comprises the following components:

- **The 4.0 incubator:** It is a body responsible for carrying out missions related to the incubation of development projects for intelligent industrial units for high value-added and competitive products;
- **The startup accelerator 4.0:** It is a reception area for start-ups with development projects for intelligent industrial units for high value-added and competitive products;
- **Engineering services for Industry 4.0:** Ten engineering companies will be established in the spaces dedicated to the engineering services of the FSF ecosystem. They will be selected on the basis of transversal uses cases: predictive maintenance, optimal energy management, supply chain, IoT and sensors, connectivity and cloud, virtual and augmented reality, automation (robotics & cobotics), mechanical manufacturing processes and chemical and/or biological transformation processes, Data Analytics and AI.
- **R&D entities:** Five R&D entities will be established in the spaces dedicated to R&D services of the FSF ecosystem. By R&D entity is meant: an R&D company, an R&D structure of a university dedicated to industry 4.0 in the sector concerned, an R&D

center not belonging to a university. The entity can be from Morocco or abroad. A single entity will be selected per industrial sector among those covered by the FSF ecosystem: the agro-food ; chemical , para-chemical, biomedical and pharmaceutical industries; metal, metallurgical and electromechanical industries; the renewable energy industry; the digital and artificial intelligence industry; and the textile and leather industry. Each R& D will develop innovative solutions for the vertical and horizontal integration of the industrial sector concerned. It will develop a global optimization approach for industrial companies in the sector as well as digital twins for all links in the value chain and their components. Through its mastery of the value chain, it will identify the main use cases that can contribute to this overall optimization. It will develop a global architecture that can allow optimization and will define the specifications of the use cases compatible with this architecture and to be used by engineering companies for the development of these use cases.

- **The Rapid Prototyping Center (Additive Manufacturing):**including additive manufacturing machines in metallic, plastic, ceramic and concrete materials. This center, owned by the UEMF, will provide prototyping services to the project leaders of the Incubator, to the Startups of the Accelerator, to the engineering companies and to the R&D Laboratories of FSF and to companies;
- **Business Center 4.0:**These are spaces for companies wishing to invest in Morocco in the field of industry 4.0;
- **Pilot Model Factory 4.0:**This factory-school, run by the Digital Development Agency in partnership with the Ministry of Industry and Trade, the UEMF and the FSF Consortium, has as its main mission training in the technologies and concepts of industry 4.0. and contributing to supporting FSF beneficiaries in the choice and implementation of technologies for smart factories;
- **Spaces dedicated to setting up innovative industrial 4.0 units on a demonstration scale developed by start-ups.**

2.3. Governance of the "FSF" Ecosystem

The “FSF” Ecosystem has three governance and management bodies whose missions are as follows.

“FSF Foundation”:main governance body, this association's mission is to ensure the smooth running of the area, the promotion of industry 4.0 and the development of the area, support for project leaders and start-ups in the search for funding, and the overall supervision of their support by Fez Smart Factory. In addition to the members of the FSF consortium, its members include any organization or institution wishing to contribute to the development of the FSF Ecosystem and industry 4.0 in Morocco.

“FSF Association”:It brings together all the beneficiaries of the FSF zone and its purpose and mission is to develop a space conducive to work and cooperation between its members within the framework of the activities of this area.

“FSF INDUSTRY”:

“FSF INDUSTRY” is a subsidiary company of the EuroMed University of Fez. It is responsible for operating activities and asset management in the “Fez Smart Factory” (FSF) zone.

To this end, it has the following missions:

- To manage Industry 4.0 development activities in the FSF area.
- Directly manage or delegate the management of the general services of this area to a management company. The management of general services common to all beneficiaries of the FSF zone, includes the management of assets, social services (restaurant, nursery, medical services and personnel transport, one-stop shop); water, electricity and telecommunications networks; the rainwater network, the waste water screening and oil removal unit and the waste water and sanitation networks; cleaning and maintenance services for spaces, security and caretaking, parking areas and roads, purchasing and accounting.
- To organize awareness campaigns on the concept of Industry 4.0 for the benefit of industrialists at regional and national level, as well as campaigns to promote FSF at international level.
- Identify the transformation needs of existing industries. It therefore establishes and carries out the corresponding support programs by involving the engineering and R&D companies and the start-ups established at FSF, as well as the pilot model plant, to which it provides services in terms of technology watch, economic intelligence and intellectual property.
- To organize competitions or calls for expressions of interest for admission to the Startup Accelerator, Engineering Services and R&D laboratories of the FSF and to establish services contracts for the selected entities.
- To ensure, by taking advantage of the components of the FSF ecosystem, support for established start-ups.
- Organize awareness campaigns to detect innovative projects for incubation within the FSF Incubator.
- For project leaders in the field of Industry 4.0:
 - To launch pre-incubation competitions
 - Organize training for the benefit of selected project leaders
 - To accompany them at the end of the pre-incubation training to compile research files for incubation funding with the appropriate donors
 - To establish incubation agreements for project leaders who have succeeded in obtaining funding for their incubation in the FSF Incubator.
 - To organize support activities for project leaders admitted to the Incubator through its network of experts that it manages.
- Organize technology watch and economic watch to identify foreign investors from the Euromed and sub-Saharan countries who may be interested in setting up a 4.0 industrial activity in Morocco.
- Carry out marketing campaigns targeting investors.
- Establish services agreements at the FSF Business Center for interested investors.
- To manage the rapid prototyping services carried out at the rapid prototyping center shared between FSF and the UEMF and placed in the premises of the latter.
- Manage communication for all FSF components.

And, more generally, all operations, of any nature whatsoever, legal, economic, financial, civil, commercial, movable, real estate or industrial, relating to the above-mentioned object or to any other similar or related objects, of such a nature as to favor, directly or indirectly,

the aim pursued by FSF INDUSTRY, its extension or its development.

Assignments related to project leaders and start-ups are carried out under an agreement with "FSF FOUNDATION", responsible for the general supervision of support for these two customer segments in the FSF zone.

3. Competition for admission of industrial companies into the Business Center

This competition is open to any industrial company, especially foreign ones, wishing to develop a smart factory in Morocco in one of the industrial sectors covered by the FSF Ecosystem and with the support of the latter, for a period of one year at maximum. The industrial sectors concerned are as follows: agri-food, Industries metallic, metallurgical and electromechanical, renewable energies, digital and artificial intelligence, the textile and leather industry, the biomedical and pharmaceutical industry, and the chemical and paracheical industry.

3.1. Objectives and framework of the competition

The Fez Smart Factory Ecosystem supports companies of all nationalities to create new competitive smart industrial units in Morocco.

To do this, FSF-INDUSTRY carries out a technological watch to identify companies in the world wishing to develop smart factories in Morocco, as well as a marketing campaign targeting these companies. It launches a call for expressions of interest to collect the interest of potential companies. The companies selected will be established at the Business Center for periods meeting their needs not exceeding one year, at competitive fees subject to a services agreement covering all the services provided by the FSF Ecosystem.

3.2. Business Center 4.0:

It offers spaces and services for companies wishing to develop smart factories in Morocco. These spaces are managed by FSF-INDUSTRY. It organizes technology watch and economic watch to identify companies likely to be interested in setting up a smart factory in Morocco. It carries out marketing campaigns targeting these companies. It organizes a call for expressions of interest for the admission of companies to the Business Center. It establishes the services agreements at the FSF Business Center for the selected companies. It provides resident companies with support services for the development of their smart factory projects as well as general services common to all FSF beneficiaries. The ability to

3.3. Stages of the call for expressions of interest for the admission of companies to the Business Center

The selection of industrial companies that will be established at the Business Center will take place in two stages, the first of which will ensure the eligibility of the candidate's file to be evaluated by the selection committee. Thus, the selection takes place in two stages: the eligibility verification stage and the admission stage.

a) Eligibility stage

This step will ensure the eligibility of the candidate's file to be evaluated by the evaluation committee. This step is based on the following criteria which must be met simultaneously:

- The project of the industrial company to be carried out within the framework of the installation must concern one of the industrial sectors covered by FSF: the agro-food, chemical and paracheical and biomedical and pharmaceutical industries; Industries

metallic, metallurgical and electromechanical; the renewable energy industry; the digital and artificial intelligence industry; and the textile and leather industry.

The following are not eligible to participate in the competition:

- industrial companies in compulsory liquidation;
- industrial companies in receivership, except with special authorization issued by the competent judicial authority;
- industrial companies that have been the subject of a pronounced temporary or definitive exclusion;
- industrial companies in a situation of conflict of interest.

b) Admission Stage

Candidates who have passed the eligibility stage will be interviewed by the evaluation committee according to the evaluation grid below.

Criteria	Score/100
Commercial potential of the project	15
Technical, economic and legal feasibility of the project	15
Human resources	20
Technical means	10
History of industrial investments of the candidate company	10
Provisional investment budget for the project	05
Projected turnover and financial feasibility of the project	05
Sustainability and GIS* aspects of the project	20

* Gender and Social Inclusion

The scoring grid below will be used to assess eligible applications. The assessment will be based on the content of the application file and the interview. Candidates who have obtained a score greater than or equal to 70 out of 100 will be ranked according to their score. The candidates on this list will be proposed for direct debit within the limits of the places available according to their ranking.

A waiting list will be established if necessary to replace any withdrawals.

Evaluation criteria	Grading scale	Documents used for the evaluation
Commercial potential of the project (NT1) / Scored out of 15		
National	Strong: 07 pts Medium: 04 pts Low: 0pts	Market research
International	Strong: 08pts Medium: 04 pts Low: 0pts	
Technical, economic and legal feasibility of the project (NT2) / Scored out of 15		

Techno-economic feasibility	Strong: 08pts Medium: 04 pts Low: 0pts	Technical and economic feasibility study
Legal feasibility	Strong: 07 pts Medium: 04 pts Low: 0pts	Legal feasibility study
Human resources (NT3) / Scored out of 20		
Professional experience of the human resources in charge of the project	Very good: 12 pts Average: 06 pts Low: 0pts	CV and supporting documents
Quality of project management	Very good: 08 pts Average: 04 pts Low: 0pts	Description of project management
Material resources (NT4) / Noted out of 10		
Quality of the technical means available for carrying out the project	Very good: 10 pts	Description of the material means with supporting documents
	Good: 07 pts	
	Average: 03 pts	
	Low: 0pts	
History of industrial investments (NT5) / Rated out of 10		
History of industrial investments of the candidate company	Very good: 10 pts	
	Good: 07 pts	
	Medium: 03 pts	
	Low: 0pts	
Provisional investment budget (NT6) / Scored out of 05		
Importance of investment	Strong: 5pts	Provisional investment budget and financing plan
	Average: 2 pts	
	Low: 0pts	
Estimated turnover and financial feasibility (NT7) / Scored out of 05		
Importance of turnover	Strong: 5pts	Business plan
	Average: 2 pts	
	Low: 0pts	
Project sustainability and GIS (NT8) / Scored out of 20		
Economic sustainability	Strong: 10pts	Document describing the economic sustainability based on the Business Plan
	Average: 05 pts	
	Low: 0pts	
Environmental and Social Sustainability and GIS	Strong: 10pts	Document describing the environmental and social sustainability, GIS vision of the project
	Average: 05 pts	
	Low: 0pts	

* Gender and Social Inclusion

3.4. Application Process

The applications will be evaluated in a two-step process, as detailed below:

1. Initial evaluation based on the information provided in the application form of the Fez Smart Factory Competitions via the following link: <https://bit.ly/3NuCd9P>
2. Pre-selected applications will be contacted by the Fez Smart Factory team for further evaluations based on the eligibility criteria, mentioned above. Applicants may also be required to submit administrative and technical documents, mentioned below.

3.4.1. The administrative file

The administrative file consists of the following documents:

- a) A sworn statement, in a single copy, which must include the information provided for in Article 26 of Decree No. 2-12-349 in accordance with the attached model (Annex I);
- b) The document(s) justifying the powers granted to the person acting on behalf of the industrial company.

These documents vary according to the legal form of the company:

- if it is a representative, he must present, as the case may be:
 - o An extract from the company's articles of association and/or the minutes of the competent body giving it power depending on the legal form of the company, when acting on behalf of a legal entity;
 - o The act by which the authorized person delegates his power to a third party, if necessary.

3.4.2. The technical file

This folder contains the following items:

1. **Presentation of the company** carrying the project (2 pages maximum): activities, human resources, material resources, possible references; last year's turnover...
2. **Description of the project** (6 pages maximum): the project must aim at the development of a smart factory. The industrial sector concerned must be among the sectors covered by the FSF Ecosystem: agri-food industries, metal, metallurgical and electromechanical industries, renewable energy industries, digital and artificial intelligence industries, leather and textiles, the chemical and parachechemical industries, and the biomedical and pharmaceutical industries.

The project description must present:

- The product(s) of the targeted industrial unit;
- The block diagram of the production unit with a clear description of its operation;
- The use of Industry 4.0 concepts to optimize the industrial, environmental and social performance of said industrial unit;

- The scientific publication(s), patent(s) and prototype(s) of the company in relation to the project (if available).
 - The Market potential at national and international level;
 - The financing plan.
3. **Presentation of the activities** to be carried out during the establishment within the Business Center: these activities must aim at the feasibility study and the implementation of a unit on an industrial scale on an industrial site in Morocco, then, possibly, other(s) anywhere in the world.
4. **The business plan of the project** including:
- a. A presentation of the members of the team dedicated to the project: CV (according to the model in appendix 2) and diploma(s) for each member of the project team.
 - b. The market study relating to the project.
 - c. The business model of the project.
 - d. The technical-economic study of the project.
 - e. The detailed financing plan, including Forecasts of the investment budget, annual turnover and internal rate of return;
 - f. The legal feasibility study of the project
 - g. A chapter describing the economic sustainability of the project based.
 - h. A chapter describing the environmental and social sustainability, and the Gender and Social vision of the project

3.5. Services contract

The industrial companies selected for establishment within the Business Center of the FSF Ecosystem will sign a services contract with "FSF INDUSTRY" defining the commitments of each party during the installation period of a maximum of one year.

The establishment within the Business Center allows industrial companies to benefit from the following advantages:

- A 20 m² office equipped with office furniture;
- Use, upon reservation, of a meeting room, a conference room with a capacity of 250 people and an exhibition hall for 300 people;
- One-stop-shop services;
- Social services: catering and cafeteria; medical, health and safety services; nursery services;
- Support services for industrial property, Business Plan and industrial development;
- Help in putting you in contact with experts, donors, investors, manufacturers, etc.
- Services of the rapid prototyping center shared with the UEMF, subject to invoicing at preferential rates;
- Services of the Pilot Model Factory 4.0, subject to invoicing at preferential rates;

- Facilitation of access to other technological or other services subject to invoicing, which can be provided by the various components of the UEMF

These benefits making up the services offer are paid for by each industrial company up to 60,000.00 MAD (sixty thousand dirhams) per year. This amount does not include the costs of services provided by service providers external to FSF-INDUSTRY, which must be borne by the industrial company concerned.

3.6. Competition timeline

Activity	Start Date	End Date
Launch date of the competitions and end of submission of candidatures	11/10/2024	15/12/2024
Evaluation of eligibility	16/12/2024	20/12/2024
Evaluation of admission	23/12/2024	27/12/2024
Signature of services contracts	30/12/2024	03/01/2024

3.7. Submission of the application file

The applicants must send all the administrative and technical documents requested above to the following email addresses:

- t.bounahmidi@ueuromed.org.

- h.elkadiri@ueuromed.org

3.8. Requirements for the contracting phase with Fez Smart Factory

3.8.1 Specific requirements for foreign companies

Before signing the contract with Fez Smart Factory, foreign companies without a legal presence in Morocco must create a legal entity in the country. Fez Smart Factory will provide support to assist companies in establishing their legal entity in Morocco.

3.8.2 Legal, technical and financial requirements

The candidate industrial company must meet the following requirements, which will be examined on the basis of the presentation of the required documents, specified in section 3.8.3:

- justify the required legal, technical and financial capacities;
- be in regular tax status, for having subscribed his declarations and paid the duly final sums due or, in the absence of payment, provided guarantees deemed sufficient by the accountant responsible for collection, and this in accordance with the legislation in force in terms of collection;
- be affiliated with the National Social Security Fund or a special social security scheme, and regularly submit their salary declarations and be in a regular situation with these organizations.

3.8.3 Required documents

Once the application is approved, the following documents will be required, before the contracting phase with Fez Smart Factory:

- A certificate (or its certified true copy of the original) issued less than one year ago from the tax authority confirming regular tax status. This certificate must mention the activity for which the competitor is taxed;
- A certificate (or its certified true copy of the original) issued less than one year ago from the national social security fund, verifying good standing with the organization.
- A certificate of registration (or its certified true copy of the original) in the commercial register.

APPENDIX I

SWORN STATEMENT

**Call for expressions of interest for the admission of industrial companies
into the Fez Smart Factory Ecosystem Business Center**

I, the undersigned, (surname, first name and position within the industrial company)

Telephone number.....fax
number..... email
address.....

acting in the name and on behalf of (corporate name and legal form of the industrial company) with a capital of.

address of the registered office of the industrial enterprise
.....

address of the elected residence

affiliated to the CNSS (or social security scheme) under the number(1)

registered in the commercial register (locality) under
no..... (1) license number(1)

By virtue of the powers conferred on me; - Solemnly declare :

- 1) undertake to cover with an insurance policy the risks arising from my professional activity within the Fez Smart Factory Ecosystem;
- 2) Being in receivership, I certify that I am authorized by the competent judicial authority to continue the exercise of my activity (2);
- 3) certify that I am not in a situation of conflict of interest with respect to the Fez Smart Factory Ecosystem;
- 4) I certify the accuracy of the information contained in this declaration on honor and in the documents provided in my application file;
- 5) I acknowledge that I have read the penalties provided for in Articles 138 and 159 of the aforementioned Decree No. 2-12-349, relating to the inaccuracy of the sworn statement.

Done at, on

Signature and stamp of the industrial company

(1) for industrial companies not established in Morocco, specify the reference to equivalent documents when these documents are not issued by their country of origin or provenance.

(2) to be deleted if necessary.

APPENDIX II

SAMPLE CURRICULUM VITAE (CV) **AS A MEMBER OF THE PROJECT TEAM**

Job :

Engineering company name:

Employee name :

Occupation :

Date of birth :

Number of years of employment by the industrial company:

Nationality :

Affiliation to professional associations/groups:

Specific attributions:

Main qualifications

(In half a page, provide an overview of the aspects of the employee's training and experience most relevant to his responsibilities within the framework of the mission. Indicate the level of responsibilities exercised by him/her during missions earlier, specifying the date and place)

Training

(In a quarter of a page, summarize the university studies and other specialized studies of the employee, indicating the names and addresses of the schools or universities attended, with the dates of attendance, as well as the diplomas obtained)

Professional experience

(List the tasks carried out by the employee since the end of his studies in reverse chronological order, starting with his current position. For each intervention, indicate the dates, name of the employer, title of the position held and places of work.

LANGUAGES

(Indicate, for each, the level of knowledge: mediocre/average/good/excellent, with regard to the level of language proficiency: read/written/spoken)

Legal link with the industrial company