

**Search for a Spanish Partner for a
 Bilateral R&D Project (this document will be shared with potential Spanish
 companies)**

Organization	
Date of Request:	13 Feb 2023
Company name:	SpimeSenseLabs
Contact person and title/ designation:	Bassem Boshra, CEO https://www.linkedin.com/in/bassem-boshra-9216271/
E-mail:	Bassem.Boshra@SpimeSenseLabs.com
Phone number:	+201001144013
Mobile number:	+201001144013
Website:	www.SpimeSenseLabs.com , http://FB.com/SpimeSenseLabs , http://Fb.com/MasterOfThings

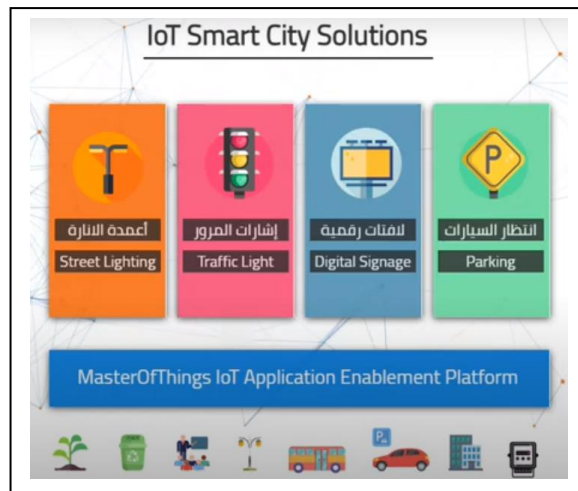
SECTION 1: Your Company Profile

(Please give brief / to the point explanations. For more explanation on any point below, you may add a short paragraph as an annexure, with this document.)

Business Sector	<p>SpimeSenseLabs (S.A.E) is an IoT solution provider company established in 2013 by expertise in software development, telecom & IT industry and relies on highly qualified professionals.</p> <p>Our expertise has more than 9 years of focused IoT experience and 25 years of leading telecom industry, certified by global telecom vendors and delivered innovative solutions to global telecom operators, water desalination companies, precision agriculture, smart city operation center and banking institutions in the Middle East.</p> <p>Our staff comprises highly qualified seniors as well as young energetic professionals who have the merits of innovation among their basic skill set.</p>
Company mission or core functions	<p>We have a focused IoT products and services portfolio to help our customers to increase their profitability, improve their operational efficiency and enhance the quality of their products. We design, build and deliver IoT solutions to fulfill our customers needs</p>
Date of establishment	September 2013
Ownership (if public and traded, add stock	Joint Stock company but not publicly traded.

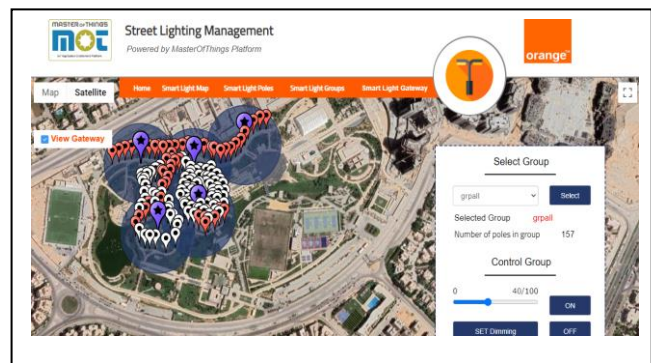
exchange and ticker symbol)	
Total number of employees	15
Number of employees in R&D	10
Key products sold or services provided	<ul style="list-style-type: none"> - MasterOfThings IoT AEP (Application Enablement Platform). - Complete Smart City solutions portfolio for cities, gated communities and central public parks or transportation stations. Our Smart city portfolio include <ul style="list-style-type: none"> - City Street lighting, - City Transportation management, - City Digital Signage, - City Parking management, - City Waste management, - City Gardens Irrigation management, - City Assets and Service Personnel Tracking inside implementation sites, service tunnels, etc. - Water Desalination production management, - City Smart Metering <p>For samples of our smart city solutions check YouTube video in the URL below https://www.youtube.com/watch?v=LgBIICp8PzM</p> - <u>Educational IoT Labs</u> IoT Educational Labs for computer science and computer engineering colleges. We deliver IoT educational labs equipped with various live IoT use cases for smart cities built on top of MasterOfThings platform to control and manage multivendor educational and commercial IoT devices in the labs. Each of these labs includes Live IoT uses cases/ applications utilizing commercial IoT devices and IoT Innovation Kits from various vendors with various IoT wireless technologies. Our offerings for IoT Educational labs include online learning curriculum, training services and shared source code to prepare students with hands-on practical experience on IoT technologies and its implementations. It also serves as a live demo/show room for Smart city and smart campus use cases. We've already delivered 10 IoT Educational labs and more are on their way. For more information on our IoT Labs, check the LinkedIn article, video tour and presentation in the link below https://www.linkedin.com/pulse/building-university-iot-labs-professional-development-bassem-boshra
Company core technical	- End-to-end Solution architecture (from devices, wireless networks, gateways, cloud/on-premise, IoT AEP and end user

competences	applications) - IoT Software Applications Development
Key R&D programs and activities	<p>Participated in various R&D projects for IoT product development where we cooperate with our customers and partners to develop IoT products (i.e. Agriculture Irrigation control for precision agriculture, Connected Cows to increase dairy business ROI, Connected Cows to increase meat production ROI, Transportation management including tire pressure and tire temperatures monitoring, etc.). We are contracted in these projects to provide consultancy for the product features & functions, end-to-end solution architecture as well as developing the SW application components or parts of the firmware for sensors/devices used in these projects/products.</p>
Examples of accomplishments	<p>Highlights of some of our projects and achievements</p> <p>Our main product, MasterOfThings IoT AEP is internationally recognized by specialized IoT firms (MachNation, SigFox, Orange, IDC).</p> <p>We have successfully delivered multiple projects and below we highlight some of those that show what type of solution and competences we are offering.</p> <p>Smart Central Transportation Station, we are contracted to deliver all software applications for end-to-end management of the 1st smart central station in Egypt. We are delivering a solution to manage and operate the new smart public transportation central station of Fayoum city where we enable the station management to centrally manage and control the station street lighting, station car entrance & exit gates, station schedule announcement screens, station digital signage screens, station automatic toll, etc. The solution is developed on top of MasterOfThings IoT AEP and includes multiple IoT devices (Sensors, actuators and digital signage players) from various vendors.</p> <p>More info available at: https://www.youtube.com/watch?v=f1r1j1bEB34 https://www.youtube.com/watch?v=gEVuCaXJg80</p> <p>Horizontal IoT Platform for Orange Egypt. Our horizontal platform MasterOfThings IoT AEP is used in Orange Egypt mobile operator to offer IoT solutions for Orange corporate customers based on MasterOfThings including smart street Lighting management, Smart Parking management, Digital Signage management, Gardening and Irrigation management, Smart Waste management and many more where customers would not be tied to specific vendor for HW devices and can also customized their own IoT solution by themselves if needed.</p>



For samples of our smart city solutions check YouTube video <https://www.youtube.com/watch?v=LgBIICp8PzM>

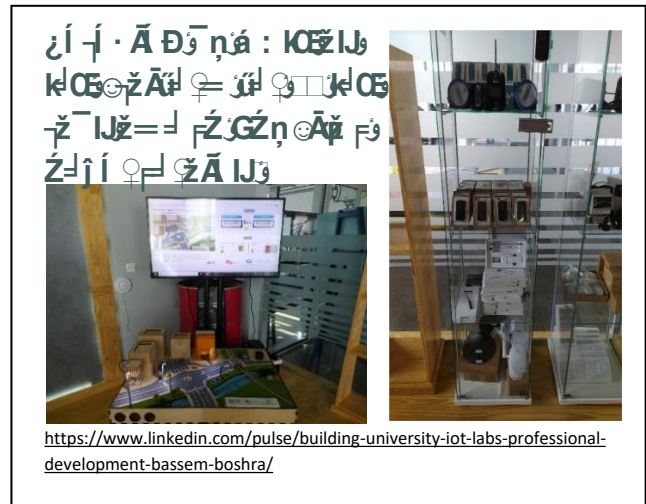
Park Smart lighting solution for ZED Park (entertainment park) to enable ZED operation team to dynamically control the lighting of the park depending on the park utilization and location of current events in the park. The solution allows control of dimming level and timing for each pole or group of poles and provides status information on the lamp or faults of each pole.



Smart Waste Management solution for a business park. We are contracted to deliver a smart waste management solution based on MasterOfThings where both the park management and waste collector can monitor the waste level in all the park bins in real time to offer the best service level to the park visitors.

IoT Educational Labs for Egypt MCIT (Ministry of Communication and Information Technology). We delivered the 1st

Educational IoT lab back in Dec 2019 and by 2021 we have delivered 10 IoT Labs all over Egypt where we deliver IoT educational labs equipped with various live IoT use cases for smart cities built on top of MasterOfThings



platform to control and manage multivendor commercial IoT devices in the labs relying on various wireless technologies including SigFox, 2G/3G/4G, LoRaWan, BLE & WiFi. Each IoT Lab includes Live IoT uses cases/ applications utilizing commercial of the shelf IoT devices (Parking sensors, waste sensors, lighting controllers, temperature sensors, motion & vibration sensors, light intensity sensors, accelerometer sensors, Digital Signage players, etc.) as well as ready to use IoT Innovation Kits from various vendors. Our IoT Labs also come with **step-by-step online courses**. For more details on our IoT Labs check the LinkedIn Article, live video tour and recorded presentation available at the URL below <https://www.linkedin.com/pulse/building-university-iot-labs-professional-development-bassem-boshra/> .

IoT Labs Online courses are available at:

<https://maharatech.gov.eg/course/view.php?id=993>

More about the Egypt IoT Labs project is available on public news web sites. <https://see.news/ict-muni-academy-of-scientific-research-open-iot-lab-smart-village/>

Water Desalination operation management based on IoT. One of our customers have more than 48 operational sites for water desalination with hundreds of machines to operate involving thousands of sensors to monitor and follow their readings on a 24/7 bases to monitor the daily production and operations. In this project, we provide consultancy services for the operation optimization as well as the development of the whole sensors monitoring and data visualization and reporting system utilizing MasterOfThings platform.

A huge Smart City trial project (PoC) where city street lighting solution, parking management solution and waste management solutions were developed by MasterOfThings Visual IDE and

	<p>running on top of MasterOfThings IoT AEP. In this project MasterOfThings is also collecting various sensors data from the city, visualizing the data, orchestrating the data among other systems in real time.</p> <p>R&D projects for IoT product development where we cooperate with our customers and partners to develop IoT products (i.e. Agriculture Irrigation control for precision agriculture, Connected Cows to increase dairy business ROI, Connected Cows to increase meat production ROI, Transportation management including tire pressure and tire temperatures monitoring, etc.). We are contracted in these projects to provide consultancy for the product features & functions, end-to-end solution architecture as well as developing the SW application components or parts of the firmware for sensors/devices used in these projects/products.</p> <p>Hands-on IoT and Telecom post graduate training curriculum for Information Technology institutions and universities in Egypt, Saudi Arabia, Kuwait and South Africa where students and startups utilize MasterOfThings IoT platform to implement their IoT projects. Here we provide consultancy for the content of the studies for the students, consultancy for the project development, project output as well as providing a license for MasterOfThings to the institutions and universities for their students to use. We also delivered multiple online and class based as well as online training courses to hundreds of software developers in multiple countries. You can find more on our IoT online training courses available on Mahara-Tech learning portal at https://maharatech.gov.eg/course/index.php?categoryid=8</p>
Company strategic orientation	Strategically, we will continue focusing on smart city solutions, transportation management and smart/precision agriculture solutions as well as educational IoT labs and training services.

SECTION 2: Partner of Interest

(Please provide a brief summary of the prospective partner company or organization. This summary may address some or all of the points below)

Profile of ideal technology partner	We are looking for a partner who is designing/building fertigation machinery, green houses that wants to upgrade and take his products to a next level of automation.
Core technological competencies and expertise	We are not looking for classical control based on PLC (programable logic control) but more looking for companies whose machinery contains devices that runs on micro controllers and can communicate with

	MQTT, BLE, LoRaWan or NB-IoT.
Other essential qualifications (e.g.: ownership, track records etc.)	
If you have a list of companies with whom you are in contact or interested in contacting, please provide contact details	<p>We have not been in contact with such companies in Spain but we would be interested in cooperation with companies including, similar or competing with the list of companies below.</p> <p>https://www.novagric.com/ https://siapspain.es/ https://www.maherelectronica.com/ https://www.jhuate.com/ https://www.artal.net/en/</p>
If you are interested in collaboration: please specify details and other important information you want to share with a potential company	We are interested in building an IoT EDGE deployment solution for managing and controlling greenhouse climate, irrigation and fertigation systems based on inputs from the sensors (soil moisture, salinity, weather station, light intensity, co2 level, etc.).
Interested areas of collaboration	Building IoT automation solutions for agriculture and precision farming.
Specific R&D contribution you are seeking/offering	We will be offering end-to-end solution architecture as well as the software to manage all the sub systems or hardware devices (sensors, actuators). Sensor and actuators and communication equipment's (i.e. gateways or modems) will be acquired/bought from the publicly available market components)

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