

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

<b>Organization</b>	
<b>Date of Request:</b>	21/01/2021
<b>Company name:</b>	MAScIR
<b>Contact person and title/ designation:</b>	Dr. Nadia ZARI/ Senior Researcher
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<b>SECTION 1: Your Company Profile</b> <i>(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.)</i>	
<b>Business Sector</b>	Applied Research & development
<b>Company mission or core functions</b>	MAScIR is an applied research non-profit foundation. It has 3 cutting edge research platforms: “materials/nanomaterials”, “microelectronics” and “biotechnology”. Its main mission is to develop and provide products to the market and to provide services to industrial partners and customers, particularly in the fields of health, agriculture, electronics, water treatment, mining and energy storage.
<b>Date of establishment</b>	2007
<b>Ownership (if public and traded, add stock exchange and ticker symbol)</b>	
<b>Total number of employees</b>	125
<b>Number of employees in R&amp;D</b>	54
<b>Key products sold or services provided.</b>	COVID-19 Test

<b>Company core technical competences</b>	<ul style="list-style-type: none"> <li>- Nanotechnology</li> <li>- Biotechnology</li> <li>- Microelectronics</li> </ul>
<b>Key R&amp;D programs and activities</b>	<ul style="list-style-type: none"> <li>- Green and medical biotechnology</li> <li>- Packaging</li> <li>- Composites &amp; nanocomposites materials</li> <li>- Valorization of natural resources</li> <li>- Energy storage</li> <li>- Wastewater treatment and seawater desalination</li> </ul>
<b>Examples of accomplishments</b>	<ul style="list-style-type: none"> <li>- Development of COVID-19 Test</li> <li>- Development of biofilms for food packaging</li> <li>- Development of paver blocks</li> </ul>
<b>Company strategic orientation</b>	Research and development to meet the requirements of national and international industries

<p><b>SECTION 2: Partner of Interest</b>  <i>(Please provide a brief summary of the prospective partner company or organization. This summary may address some or all of the points below)</i></p>	
<b>Profile of ideal technology partner</b>	<ul style="list-style-type: none"> <li>- Design and manufacturing of dehumidification systems for green house</li> </ul>
<b>Core technological competencies and expertise</b>	<ul style="list-style-type: none"> <li>- Design and manufacturing of dehumidification systems for green house</li> </ul>
<b>Other essential qualifications (e.g.: ownership, track records etc.)</b>	
<b>If you have a list of companies with whom you are in contact or interested in contacting, please provide contact details.</b>	
<b>If you are interested in collaboration: please specify details and other important information you want to share with a potential company.</b>	<p>The project aims to improve the efficiency of desalination systems. For this, from the spanish side it is intended to treat the brine from the microclimatic conditions that are generated in a greenhouse, from the following sequence:</p> <ul style="list-style-type: none"> <li>- Use brine water to cool the</li> </ul>

	<p>greenhouse from evaporation panels.</p> <ul style="list-style-type: none"> <li>- Recover part of the water used to cool the greenhouse using desiccant salts.</li> </ul> <p>For this we are interested to industries who will design and manufacture a new brine system</p>
<b>Interested areas of collaboration.</b>	<ul style="list-style-type: none"> <li>- Manufacturing of dehumidification systems</li> </ul>
<b>Specific R&amp;D contribution you are seeking/offering.</b>	<p>MAScIR and Moroccan company will:</p> <ul style="list-style-type: none"> <li>- Design of a new desalination system</li> <li>- Manufacture of the new desalination system</li> </ul>
<b>Moroccan company expertise</b>	<p>NEW WATER is one of the Moroccan leaders in the design, construction and operation of urban and industrial wastewater treatment plants.</p> <p>With more than 10 years of experience in the WATER business, NEW WATER has developed great expertise in the following areas:</p> <ul style="list-style-type: none"> <li>- Wastewater treatment plants (industrial and urban)</li> <li>- Delegated management of the operation and maintenance of wastewater treatment plants</li> <li>- Pumping station (in GC and in prefabricated kits)</li> <li>- Membrane treatment units (reverse osmosis &amp; microfiltration)</li> </ul> <p>The Moroccan industry will design and manufacture the desalination system</p>

## Project summary

The general objective of the project is to improve the efficiency of desalination systems for this, from the Spanish side it is intended to treat the brine from the microclimatic conditions that are generated in a greenhouse, from the following sequence:

- Use brine water to cool the greenhouse from evaporation panels. In turn, these panels will be used to concentrate the salts and be able to collect and treat them.



- Recover part of the water used to cool the greenhouse using desiccant salts that will absorb part of that water and the water lost by the plants during transpiration.

The objective is that if a standard desalination system has an efficiency around 70% of fresh water, with this system we will reach 80%, using water from the brine to cool the greenhouse.

The Moroccan side will develop innovative desalination technique (Example: drainage water treatment of hydroponic systems) that together with the developed system, allows for improved water yields and uses in greenhouse agriculture.

Signature:   
Name: MASCOR  
Date: 21/02/2021

