


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

Organization (Egyptian Research Partner)	
Date of Request:	22-03-2021
Company name:	Egypt-Japan University of Science and Technology (E-JUST)
Contact person	Rewaa Esam Eldin Kamal Mahrous  PhD student at Egypt-Japan University of Science and Technology (E-JUST) and a Lecturer Assistant at the Department of Architecture, Faculty of Engineering, Assiut University, in Egypt.
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SECTION 1: Your Company Profile (Egyptian Industrial Partner)	
<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>	
Business Sector	BMC Almasrya for Advanced Industries is the leading manufacturer of BMC (Bulk Moulding Compound) manhole covers and drainage grills in the Middle East and Africa.  BMC Almasrya has been utilizing cutting edge engineering and materials of the highest standards to produce premium customized products to suit every need and budget.
Company mission or core functions	A flagship of Egyptian SMEs industrial and engineering innovation with in-house manufacturing in Alexandria. Egypt.
Date of establishment	The launch of our products in 1989
Contact person	Contact person: Abdelaziz Ghis , Position: CEO  Email: a.ghis@almasrya.com.eg  Mobile: +201000019920  Address: New Borg El-Arab City, 2nd Industrial Zone, Block 30, Plots 1 & 2, Alexandria, Egypt.
Total number of employees	-
R&D	R&D department works on continuously improving the engineering design for better performance to weight ratio and material improvements.

Key products sold or services provided	Bulk Moulding Compound (BMC) is a pre-mixed fibre reinforced composite material that cures under heat and pressure.
Company core technical competences	Almasrya BMC for Advanced Industries complies with the European Standard EN124. Internal quality testing is consistently performed to ensure the highest international quality benchmarks are met.  The products are also tested in third party labs in several countries as requested by our partners
Key R&D programs and activities	<b>National Projects with:</b>  East Suez Canal Development Tunnels, New Alamein City, New Administrative Capital City of Egypt, Galala Mountain Development and Asmarat Housing Project.  <b>International Markets:</b>  Qatar, Mexico, Jordan, USA, Syria, Saudi Arabia
Examples of accomplishments	4th 2014, Almasrya BMC signed a technology transfer agreement by which its in-house developed technology would be transferred to its American partner BMC, Inc one of Citadel Group's companies.
Company strategic orientation	Industrial and engineering innovation Manufacturing with in-house manufacturing in Alexandria. Egypt.
<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>	
Profile of ideal technology partner	Manufacturer of a new perfect facade engineered system
Core technological competencies and expertise	-
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	<a href="https://www.denvelops.com">https://www.denvelops.com</a> <a href="https://www.urbanespora.com/en/vision-team/">https://www.urbanespora.com/en/vision-team/</a> <a href="http://societatorganica.com/en/mision/">http://societatorganica.com/en/mision/</a>
If you are interested in collaboration: please specify details and other important information you want to share with a potential company	What has been found within searching in facades' innovations or applications, that almost all of them reached to be validated in Lab or building a small prototype. And there is a gap, firstly in measuring their environmental impact on thermal and visual comfort and to know their economic impact compared with their manufacturing costs and to develop it to a final product.  There are two proposed façade applications, <b>First application's material is made of glass fiber reinforced plastic (GFRP), most recently called the Flectofold in conjunction with elastomer products.</b>

	<p><b>The second proposed one, is bio-receptive concrete facades which is a surface geometry on an engineered/systematic that helps naturally growth of mosses on concrete façade panels as similar to is shown in the attached file.</b></p> <p>We plan to have a prototype and evaluate it in Egypt, similarly in Spain to assess the prototype environmental flexibility in different climate areas like Spain and Egypt. Accordingly, how to develop this prototype into a real product, will be a valuable addition in Egypt.</p> <p>More details are in <b>Appendix A</b></p>
Interested areas of collaboration	<p><b>Advanced construction technology and materials</b> and to achieve <b>Energy efficiency of residential and commercial buildings.</b></p>
Specific R&D contribution you are seeking/offering	<p>Applying in 5<sup>th</sup> EGYPTIAN-SPANISH JOINT CALL FOR R&amp;D&amp;I PROJECTS 2021</p>

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Signature   
Name: Revaa Esam Eldin  
Date: 22-03-2021

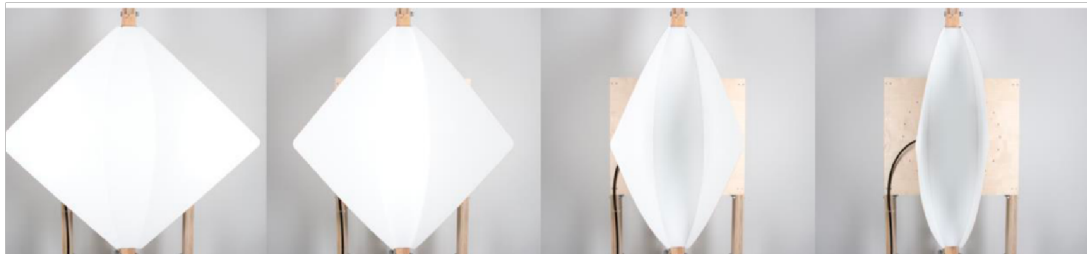
## Appendix A

### Breathing Buildings Applications

The increasing energy cost and demand for higher-quality thermo hygrometric well-being have forced researchers and designers towards new envelope concepts in general and facades in particular, speeding innovative practices with new approaches characterized by dynamism, adaptability, intelligent regulation, responsiveness, integration-hybridization, biomimicry, etc.

The down-mentioned presents the proposed applications on the responsive materials for developing active skin systems without electricity or sensors needing.

#### The First proposed application



Applications are made of glass fiber

**Kinetic Curved- reinforced plastic (GFRP)**, most recently **Line Folding** called the **Flectofold** in conjunction with **(CLF) element** elastomer products.

#### The second proposed application

The natural growth of these green layers **Geometrically Bio-s** mostly seen on old buildings, **receptive concrete** monuments, statues, sidewalks and even **facades** damp and rusted metal surfaces. From this idea, to have bio-receptive concrete facades helps naturally growth of mosses on concrete façade pa

