



EU FRAMEWORK PROGRAMME FOR RESEARCH AND INNOVATION
(2014 - 2020)

Societal Challenge 5: Climate Action, Environment, Resource Efficiency and Raw Materials

PARTNER is looking for a Project.-

1) PARTNER OFFERED

Organisation	AIMEN	Type of organisation (IND, SME, RES, HE, others)	<input type="checkbox"/> RES
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I am familiar with the European Framework Programme:

YES

I have experience as a Partner or Coordinator:

YES

If yes, in which programmes/projects?

AIMEN has participated in 18 FP projects (1 under FP6 and 17 under FP7), of which 9 are or have been coordinated by AIMEN. Additionally we have participated in more than 10 R&D&I projects under other international programmes.

We are now coordinating two projects related to WATER, SWINGS - Safeguarding Water resources in India with Green and Sustainable technologies, GA n° 308502 and HIGHWET - Performance and validation of HIGH-rate constructed WETlands, GA n° 605445.

Role in desired project	technology development: X	research: X	demonstration: X
	dissemination:	training:	other:
Topic/s in which I am interested	Topics of Climate action, environment, resource efficiency and raw materials (HORIZON 2020 – WORK PROGRAMME 2014-2015): <ul style="list-style-type: none"> - WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication: <ul style="list-style-type: none"> a) [2014] First application and market replication of near-market water solutions, addressing the thematic priorities identified in the EIP on 		

	<p>Water.</p> <p>b) [2015] Demonstration/pilot activities of new or improved innovative water solutions in a real environment, with a focus on the cross cutting priorities identified in the EIP on Water, while addressing the thematic priorities.</p> <p>- WATER-5-2014/2015: Strengthening international R&I cooperation in the field of water. a) [2014] Strategic cooperation partnerships for water research and innovation between Europe and India.</p>
<p>Expertise offered and what I would like to do</p>	<p>AIMEN Technology Centre was set up in 1967 as an initiative of the industry as a non-profit private association. The Centre is focused in developing and strengthening the competitive capacities of companies through the promotion and execution of R&D&i activities, as well as providing technological services of high added value.</p> <p>AIMEN provides industry with technological services and engages in R&D&i activities in different areas such as environmental technologies, laser processing, joint technologies, materials and manufacturing processes, engineering, industrial design, simulation and automatics or industrial organization.</p> <p>AIMEN is linked to several industrial areas that go from aeronautics to chemical and petrochemical, automotive, shipbuilding, construction, energy, metal mechanical, etc.</p> <p>AIMEN's Background in industrial and domestic wastewater treatment/valorisation</p> <p>Environmental Unit of AIMEN has been involved actively in the R&D&i activities regarding cost-effective and sustainable wastewater treatment technologies as well as organic waste treatment/valorization. Some of the recent publications most related to these topics are the following:</p> <p>- J.A. Álvarez, E. Armstrong, M. Gómez, M. Soto (2008). "Anaerobic Treatment of low-strength Municipal Wastewater by a Two-Stage Pilot Plant under Psychrophilic Conditions". <i>Bioresource technology</i>, 99, 7051-7062.</p> <p>- J.A. Álvarez, I. Ruíz, M. Soto (2008). "Anaerobic digesters as a pretreatment for constructed wetlands". <i>Ecological Engineering</i>, 33, 54-67.</p> <p>- P. Lodeiro, A. Gudiña, L. Herrero, R. Herrero, M. Sastre. (2010). Aluminium removal from wastewater by refused beach cast seaweed. Equilibrium and dynamic studies. <i>Journal Hazardous Materials</i>, 178, 861-866.</p> <p>- L. Regueiro, M. Carballa, J.A. Álvarez, J. M. Lema (2012). "Enhanced methane production from pig manure anaerobic digestion using fish and biodiesel wastes as co-substrates". <i>Bioresource Technology</i>, 123, 507–513.</p> <p>- I. Campos, J.A. Álvarez, P. Villar, A. Pascual, L. Herrero (2013). "Foundry sands as low-cost adsorbent material for Cr (VI) removal". <i>Environmental Technology</i>, 34 (10), 1267 – 1281.</p> <p>Some relevant R&D projects related to these activities are:</p> <ul style="list-style-type: none"> • SWINGS project: "Safeguarding Water Resources in India with Green and Sustainable Technologies"; FP7-ENV-2012; GA: 308502; 2012/2015. AIMEN: Coordinator. A consortium of 10 partners from Europe and 10 partners from India, is constituted by R&D, companies, SME, NGO and local body organizations. • HIGHWET project: "Performance and validation of HIGH-rate constructed WETlands"; FP7-SME-2013; GA: 605445; 2013/2015. AIMEN: Coordinator. • METALGAS project: "Valorisation of oily waste streams of

	<p>engineering sector through anaerobic co-digestion”; Xunta de Galicia (Regional Government); 2010/2012. AIMEN: Coordinator.</p> <ul style="list-style-type: none"> • PROBIOGAS project: “Development of farm-industrial biogas production sustainable systems in Spain”; Spanish Science and Education Department; GA: PSE-120000-2008-10; 2008/2011. AIMEN staff was involved. <p>AIMEN’s Expertise and Contribution in industrial and domestic wastewater treatment/valorisation</p> <p>Environmental Unit of AIMEN has carried out plenty of experiences in different areas of waste(water) treatment or valorisation. The main processes that have been worked in the last years are the following:</p> <ul style="list-style-type: none"> - Adsorption techniques, using low-cost sorbents as waste or by-products with sorption capacities similar to activated carbon, for industrial wastewater treatment. - Development of cost-effective and sustainable wastewater treatment technologies based in natural and biological process (constructed wetland, anaerobic treatment, etc). - Optimization of municipal and industrial wastewater treatment using biological (aerobic and anaerobic) and physico-chemical processes. - Valorisation of agro-industrial and food (waste)water (livestock, fish canning, slaughterhouse, dairy, biodiesel plants, etc.) using anaerobic co-digestion in order to maximise biogas production at laboratory and pilot scale. - Diagnosis of energy eco-efficiency and sustainable management of industrial processes. <p>In addition, taking into account the large technological services provided to industrial sector, AIMEN has the capacity to bring into projects companies and SMEs related to the requested expertise. In case of India, the execution of SWINGS as coordinator improves and enhances AIMEN’s knowledge and technology transfer to public and private Indian Institutions.</p>
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2) COORDINATOR / PROJECT sought after (for proposal submission only)

WP topic :	
-	WATER-1-2014/2015: Bridging the gap: from innovative water solutions to market replication: <ul style="list-style-type: none"> c) [2014] First application and market replication of near-market water solutions, addressing the thematic priorities identified in the EIP on Water. d) [2015] Demonstration/pilot activities of new or improved innovative water solutions in a real environment, with a focus on the cross cutting priorities identified in the EIP on Water, while addressing the thematic priorities.
-	WATER-5-2014/2015: Strengthening international R&I cooperation in the field of water. a) [2014] Strategic cooperation partnerships for water research and innovation between Europe and India.

Project type	Research and Innovation Action	X
	Innovation Action	
	CSA	X
	SME Instrument	

Keywords of project:	industrial and domestic wastewater treatment/valorisation
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I AGREE WITH THE PUBLICATION OF MY DATA.

PLEASE FILL IN THE PROFILE FORM AND RETURN IT TO: lydia.gonzalez@cdti.es