

2nd China-Spain Innovation Partnership Development Forum. Environmental Sector



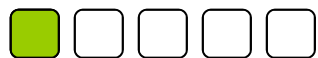
What we see

Basic data
What is Cartif?

Economic sectors
We work for

Services
Innovating in

Environmental
Division



What we see

Basic data
What is Cartif?



CARTIF IS

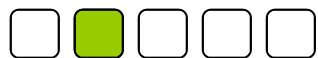


**A technology
centre**

Private

Nonprofit

Horizontal



CARTIF IS

In 2012 14 M€ bill

160 high level
researchers

115 international &
national projects

More than 100
client companies



What we see

Economic sectors
We work for



We work for

Water and Wastewater sector

Construction sector

Industrial sector

Agrofood sector

Energy sector

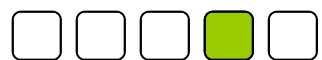
Social and Health sector

Transport sector



What we see

Services
Innovating in



Innovating in

Sustainable management

Tools (Ecodesign, carbon and water footprint, Eco-label)

Risks associated with the emission of pollutants

Water integral management

Reuse and recycling of organic and chemical waste



Innovating in

Manufacturing systems

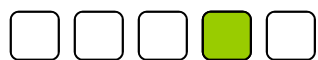
New materials

Nanotechnology

Optimization of
industrial process

Laser welding

SAGIT System



Innovating in

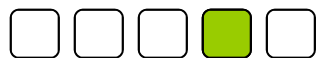
Chemical process
applied to industry

Natural medicine

Cosmetics

Functional foods

Biotechnology



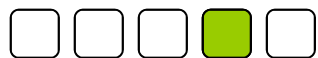
Innovating in

Energy efficiency
& biofuels

Windmills advanced
control

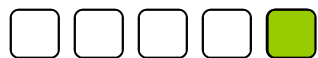
Renewable energies
integration
(refrigeration,
climatization)

TICs for energy
efficiency



What we see

Environment
Division



Environment Division

Environmental technologies Area

Advanced Treatment of effluents

Membrane processes & Advanced Oxidation Processes

Waste and sub-products valorization

Chemical recycling of plastics

Valorization of biodegradable wastes. Codigestion

Nanomaterials and Nanocoatings



Environment Division

Sustainable Management Area

Eco-design

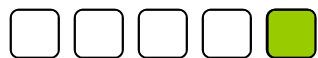
Eco-labelling

Life Cycle Assessment (LCA)

Carbon footprint

Water footprint

Environmental Risks Assessment (ERA)



Environment Division

Example Projects

Optimization of Advanced Oxidation Technologies for the Removal of Trihalomethanes (THMs) in Drinking Water Treatments Plants (TEcoAgua)

Evaluation of technologies conventional or advanced for the removal of natural organic matter (precursor of disinfection by-products as carcinogenic THM)*



Environment Division

Example Projects

Membrane bioreactors for endocrine disruptors removal in pharmaceutical wastewater treatment plants

MBR technology effective in the selective removal of 4 corticosteroids currently produced in the factory leading to removal percentages above 99%.

Treated water from the MBR could be discharged into public waterways in compliance with current regulations or reused in the pharmaceutical industry.

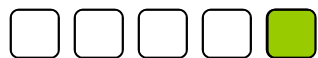


Environment Division

Example Projects

Application of membrane technologies (RO/NF) and membrane bioreactor systems (MBR) for the treatment of the wastewater from the Technological Park of Boecillo for the reuse of the final effluent

The combination of these processes leads to a high quality effluent that not only could be spilt to water channels fulfilling the national law, but could be reuse in irrigation, road cleaning, or as water process in other industries of the Technological Park



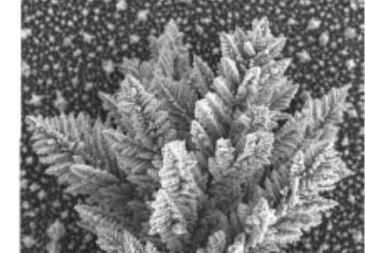
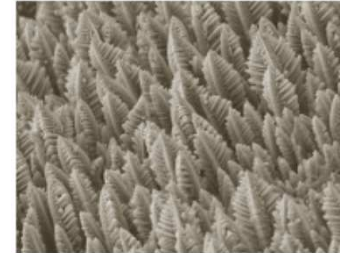
Environment Division

Example Projects



Development of new materials with self-cleaning and disinfectant properties (PROMETEO)

Development of new construction materials with self-cleaning properties, mortars, cements, glass, paints and resins.



Client: Acciona Infraestructuras
Budget: 298.000 €





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