

# ACCIONA INFRASTRUCTURE

ACCIONA Infrastructure, which is at the cutting edge of R&D and Innovation, has more than 100 years of experience in the construction sector and applies a philosophy based on sustainability, quality, technology and experience.



The new ACCIONA Infrastructure division was created in 2014 to adapt the infrastructure business to the market situation, with the ongoing objective of profitably and sustainably driving business growth.

This new division, based on maximum specialisation in value-added business lines, encompasses all of the **construction, concessions, water, industrial and services areas**.

The new structure guarantees:

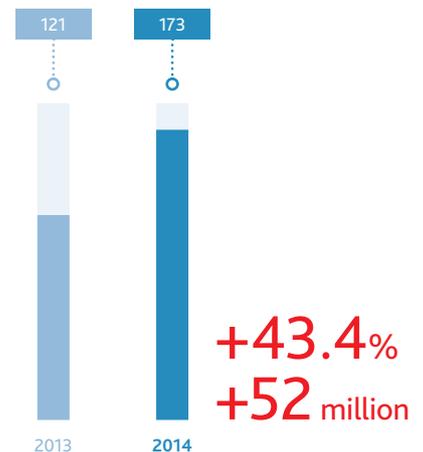
- Maximum collaboration and leveraging of synergies between the business lines, geographic areas and support functions.
- A clear focus on controlling risks and on profitability.
- Value-added solutions based on technical excellence.

With this new structure, ACCIONA Infrastructure participates in the entire value chain, putting the expertise and experience of the most qualified professionals at our clients' service, contributing innovative solutions adapted to the needs of each client and project, from development and design through to construction, operation and maintenance, offering comprehensive services and management solutions.

The synergies created by combining all infrastructure-related areas and the commitment to the highest level of specialisation has made management more efficient and clearly improved the division's results.

All actions are executed with respect for environmental, social and economic aspects, pursuing overall sustainability and constantly seeking better construction processes, innovation and environmental protection.

→ ACCIONA Infrastructure EBITDA performance (million euros)



## Specialised Units at ACCIONA Infrastructure

<h3>Construction</h3>	<p>With more than 100 years of experience, the construction area encompasses all phases of the value chain, from design and engineering to execution of all kinds of projects, as well as maintenance.</p> <p>The construction area has three highly specialised business areas which ensure optimisation of our resources and experience in applying the most innovative solutions adapted to each client. These specialised units are focused on:</p> <ul style="list-style-type: none"> <li>■ Railways and tunnels.</li> <li>■ Roads, bridges and special structures.</li> <li>■ Ports and waterworks.</li> </ul>
<h3>Concessions</h3>	<p>One of the world's leading private sector infrastructure developers, especially in transportation and social infrastructure.</p>
<h3>Industrial</h3>	<p>Comprises the civil engineering, industrial engineering and installation areas.</p> <p>The industrial area undertakes the design, supply, construction, operation and maintenance of large energy generation, distribution and transmission plants, both conventional and renewable; transportation and management of Oil &amp; Gas, and other services for mining and industry.</p> <p>ACCIONA Engineering handles the design phase and project supervision.</p>
<h3>Water</h3>	<p>ACCIONA Agua is a leader in the water treatment sector, with the capacity to manage the end-to-end water cycle and to operate in all phases: designing, building and operating plants for treating drinking water and waste water, tertiary treatment of waste water for reuse, and reverse osmosis desalination.</p>
<h3>Service</h3>	<p>ACCIONA Service provides comprehensive, customised solutions to the public and private sectors through the design, management and operation of a broad group of services.</p>

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#### INNOVATION

ACCIONA Infrastructure is at the cutting-edge of R&D and Innovation. As a result of its staunch commitment and intense activity in this area, the company is able to implement the most advanced, innovative techniques adapted to each project.

In 2014, all of ACCIONA's business areas focused on innovation:

#### Construction

The Technology Centre, created to improve ACCIONA Infrastructure's construction processes, is located in Madrid and has a team of 119 employees, facilities that span 3,500 m<sup>2</sup> and 14 well-equipped laboratories.

It also has two production workshops.

Research is conducted in four areas:

- Infrastructure
- Materials
- Energy efficiency
- ICT, Automation and 3D Visualisation

A total of 64 million euros were spent in 2014. The main actions in 2014 included:

The first lighthouse in the world made entirely of composites for the Valencia Port Authority.

This solution, which can be extrapolated to any type of lighthouse, is especially appropriate for isolated, hard-to-access areas, due to the use of light-weight materials.

This technique shortened the execution period by more than 40% for this type of project, and reduced pollution associated with the construction by one-fifth.

Moreover, composites surpass the performance of traditional materials used in marine environments.

The complete structure was produced at ACCIONA Construction's workshops in Madrid.

### Water

Innovation and the application of cutting-edge water technologies underpin ACCIONA Agua's business approach. To this end, it has an R&D and Innovation centre in Barcelona with a multidisciplinary team of over 30 highly-qualified, experienced professionals specialised in R&D applied to water and membrane technology. Work at the centre extends from basic research in the laboratories through to pilot plants and industrial applications.

In 2014, 51 innovative projects were developed, with a turnover of over 18 million euros. A clear example of this innovation was the float developed by ACCIONA Agua which will become operational in the near future as pretreatment at the desalination plant in Al Jubail (Saudi Arabia) and at the drinking water plant in Monte da Rocha, Portugal.

The European Commission has chosen several ACCIONA Agua projects for inclusion in its LIFE+ programme:

- **OFREA**, which aims to improve the quality of treated water in order to encourage its reuse in coastal areas, with the cooperation of ESAMUR.
- **RENEWAT** (also in cooperation with ESAMUR), to adapt various sources of renewable energy (such as solar panels and wind turbines) to a sewage treatment plant by incorporating them into an intelligent management system that will coordinate the plant's various tasks with those energies' availability.
- **BRAINMEM**, which aims to reduce sewage plant energy dependence by 20-50% by developing advanced control systems for the biological processes.

In addition to the LIFE+ projects, the following projects are focused on the development of efficient, sustainable technologies and processes:

- **BIOLYSIS**, financed by the European EEA Grants programme, which aims

to develop a biological pretreatment process to improve the energy efficiency and sustainability of anaerobic digestion processes.

In 2014, the number of registered trade marks and patents related to desalination technologies, membrane biological reactors and reuse increased to over 40.