

Economic Dimension:

1. TRANSPARENCY
AND PROFITABILITY

2. INNOVATION AT THE
SERVICE OF PEOPLE AND
THE ENVIRONMENT

OUR GOAL: To be leaders in innovation and technological development

2008 MILESTONES

- Total direct investment in R&D and Innovation 71.3 million euros, 83% more than in 2007.
- Ranked first among construction companies and ninth out of 21 Spanish companies in the EU Industrial R&D Investment Scoreboard.
- Made significant progress in designing and marketing Company projects:
 - Completed building at the Almería Solar Platform (PSA).
 - Completed designing the first 3MW AW wind turbine generator.
 - Begun collaborating with the United States Department of Energy (DOE).
 - Signed an agreement with Sant Cugat municipal council to develop a zero-emissions neighbourhood.
- Started up installations to develop new lines of research:
 - Inaugurated a pilot plant to produce microalgae for biodiesel production.
 - Opened two new laboratories in the Madrid Technology Centre: Robotics and Virtual Reality.
- Extended certification of the R&D and innovation management system to the UNE 166.002:2006 standard to other business lines.
- Implemented the Innova software package to manage innovation.

2009 GOALS

- Design wind turbine generators for offshore applications and test deepwater fixed and floating structures.
- Start up the first pilot plant to grow microalgae for biodiesel production.
- Certify the laboratories in the Water Technology Centre in line with the ISO 170025 standard.
- Develop innovative technology and use material from paper recycling as mulch in hydroseeding.
- Optimise technology for designing and building overpasses using composites, reducing consumption of materials.

OUR APPROACH

- We are leaders and set the standard in technological innovation so that our projects make sustainable development a reality.
- We aim to be respected for our efforts in seeking alternatives which enable us to grow through leadership, innovation and excellence in the areas of infrastructure, energy and water.

For ACCIONA, technological innovation is the central axis of its plans for the future

INNOVATIVE SOLUTIONS

ACCIONA's innovative spirit has always been a distinguishing feature, enabling it to build modern, competitive business models.

We are "pioneers in sustainable development" and that means that technological innovation is a central pillar of the Company's plans for the future. ACCIONA is at the forefront of technology and innovation, which enables its projects to improve well-being and make sustainable development a reality.

The Company's innovation efforts focus on the search for sustainable, competitive solutions in infrastructure, energy and water. ACCIONA's businesses aim to meet the challenges of climate change,

efficient water management and the need for modern infrastructure to ensure well-being worldwide. The Company's present and future lie in the answers to those challenges and ACCIONA's success will depend on its ability to provide long-term solutions.

INVESTMENT IN R&D&I TO DRIVE OUR GROWTH MODEL

Investment in R&D and Innovation, and the number of projects and research programmes implemented in 2008, were as follows:

- Investment in R&D and Innovation increased by 83% with respect to 2007, of which more than 75% is attributable to Energy and Infrastructure. Investment in the

Water division grew 39%. The Company invested in R&D and Innovation projects in the Real Estate, Logistics & Transport Services and Urban & Environmental Services divisions for the first time in 2007; those projects continued in 2008, and

ACCIONA increased R&D&I investment in 2008 by 83% compared to 2007

75%
ENERGY & INFRASTRUCTURE

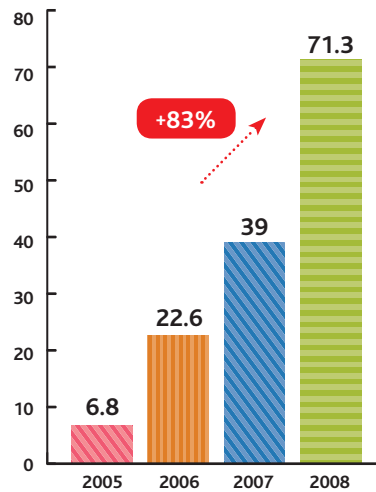
39%
WATER

70%
LOGISTICS & TRANSPORT SERVICES

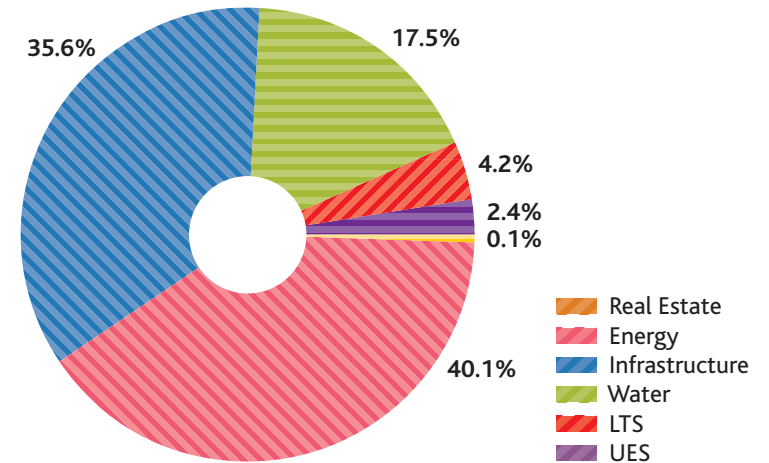
investment expanded significantly in the latter two divisions (by 70% and 150%, respectively).

- There was substantial growth in the number of research projects (91 in 2008, compared with 67 in 2007), and the team of R&D specialists went from 289 members in 2007 to 367 in 2009).
- The system for managing industrial property, implemented in 2008, continues to bear fruit: ACCIONA has obtained 17 patents and has another 31 applications pending.

Investment in R&D



Distribution of investment



We continue to strengthen our leadership

- ACCIONA is one of Spain's top ten companies (in any sector) in terms of R&D and Innovation expenditure, according to the EU Industrial R&D Investment Scorecard. It is ranked ninth, behind companies in sectors that traditionally invest heavily in R&D and innovation, such as pharmaceuticals, biotechnology and ITC. The same source ranks ACCIONA as the leading company in the "Construction and Materials" sector.
- ACCIONA strengthened its participation in R&D programmes;

it is the Spanish company with the most CENIT projects (9) and ranks third among Spanish companies in terms of participation in projects under the European Union's 7th Framework Programme (a total 17 projects).

- ACCIONA continues to set an example in European research, leading and participating in key European initiatives in construction, energy efficiency, renewable energies and water. In particular: ACCIONA is a member of the European Construction

Technology Platform's High Level Group, and is a co-leader of the E2B association's Energy Efficient Buildings Joint Technology Initiative (E2B JTI). The Company is also an active participant in the Artemisia JTI in Embedded Systems, with a special focus on technology and applications in energy-efficient buildings; a participant in the Hydrogen and Fuel Cell JTI and in the European Solar Thermal Technology Platform; and is a leading member of the International Desalination Association.

ADVANCING THE STRATEGIC PLAN

ACCIONA continues to advance the R&D&I Strategic Plan, drafted in 2007. In 2008, the Company obtained its first tangible results from pilot projects and demos.

Our research activities in the energy sector

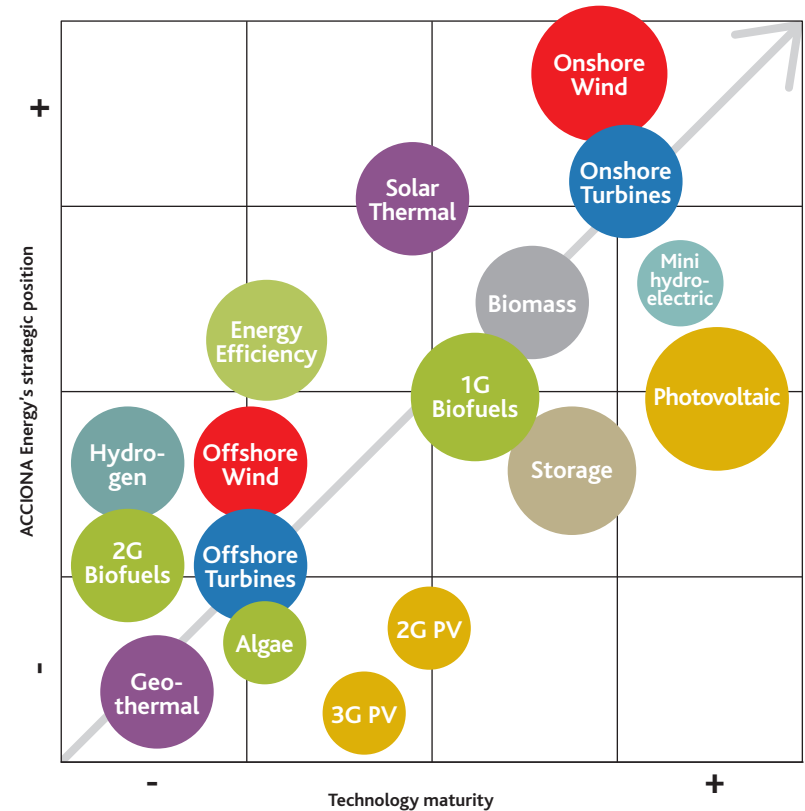
In energy generation, ACCIONA's strategy consists of planning ahead, developing and validating strong technology portfolios to drive forward its sustainable energy model. In 2008, the Company worked in accordance with the priority research lines defined in the Strategic Plan:

- Technology for developing onshore and offshore wind farms with a special emphasis on manufacturing wind turbine generators, blades and towers;
- Solar photovoltaic and thermal concentration technologies and their architectural integration;

- Biomass technologies for biofuel production and energy crops for combustion and power generation;
- Hydrogen production using renewable energies;
- Development of horizontal technologies with an impact on energy development (materials, nanotechnology, biotechnology, information and communications, among others);
- Study of emerging technologies such as geothermal.

In 2008, ACCIONA made substantial progress in these lines of research, and in some cases built initial prototypes and pilot plants. Examples include the first 3MW wind turbine generator built by Windpower, and a collaborative project with the United States Department of Energy (DOE) to conduct solar thermal energy research.

ACCIONA Energy's' strategic position v. maturity of available technologies



2008

"LAUNCH" OF THE FIRST 3 MW WIND TURBINE GENERATOR BUILT BY ACCIONA

Inauguration of the new AW-3000 3 MW wind turbine generator

- ACCIONA's first 3MW wind turbine generator (WTG), to be installed at the Peñablanca wind farm in the Guerinda Mountains, was inaugurated symbolically in September 2008. This WTG is the result of years of work by ACCIONA Windpower researchers and engineers.
- The turbine accommodates different types of wind and will be manufactured with three different diameter rotors to suit the location: 100, 109 and 116 metres, creating the largest sweep area (up to 10,568 m²) of any rotor on the market at that capacity. Its 1.5 MW predecessor is one of the most efficient and reliable WTGs on the market.

Expanding our horizons, collaborating with the United States Department of Energy

ACCIONA was selected by the US Department of Energy (DOE) to develop two R&D projects in the area of solar thermal energy, totalling 23.19 million dollars.

One of the projects, "Indirect, Dual-Media, Phase Change Material Thermal Energy Storage Module", calls for the design and validation of thermal storage using phase change materials; this will eliminate heat exchangers, impacting both energy and cost efficiency (budget: \$22.5 million). This project will be conducted at ACCIONA's 64 MW Nevada Solar One plant, and it includes design, evaluation and materials selection, prototype construction and demonstration of an 800 MW four-hour storage system using phase change material.

The other project involves the design and validation, at the prototype level, of a heat storage model in which the heat transfer fluid flows through a solid storage medium (budget: \$690,000).

The Nevada Solar One plant, inaugurated in 2007, uses cylindrical-parabolic concentrators to harness solar energy. It is one of three plants of its kind in the world, making ACCIONA the first company to exploit this technology commercially and confirming its commitment to sustainability through renewable and alternative energies.

DOE RESEARCH

- The US Department of Energy's 2008-2012 Solar Energy Technology Programme comprises activities, projects, agreements and contracts which aim to enhance the cost competitiveness of solar thermoelectric energy over fossil fuel technology by 2020. Funding opportunities are available under the programme, which allocated 35 million dollars in 2008 to finance 15 projects at 7 companies and 6 universities, whose total budget was 67.6 million dollars.

Commitment to cutting-edge 'Cleantech'

- ACCIONA invested 10 million dollars in Nth Power Fund IV, a venture capital fund managed by the company Nth Power which focuses exclusively on global technology projects that use clean energy.
- ACCIONA, specifically ACCIONA Energy's Innovation and Strategy department, collaborates with Nth Power to identify and analyse interesting investment opportunities; seven projects were under review at the end of 2008.

Since inception in 1997, Nth Power has invested in more than 45 companies, and currently has 425 million dollars under management in four funds.

- It focuses on start-ups which have not yet brought a product to market and have strong potential for growth, especially in energy management, distributed generation, energy storage, advanced materials, solar technologies, biofuels and services.

- **In infrastructures, ACCIONA is oriented to productivity, efficiency and cost reduction**
- **New constructive processes to improve productivity parameters**
- **Sustainable buildings, through bioclimatic architecture and renewable energies**

The prospect of commercialising new applications for composite and other advanced materials in civil engineering and buildings took a large step forward in 2008

Our infrastructure research activities

ACCIONA's strategy aims to increase productivity and energy efficiency and reduce the life-cycle costs of the Company's projects.

In 2008, the Company worked in accordance with research priorities defined in the Strategic Plan to:

- Develop new construction processes to enhance productivity, sustainability, quality and safety;
- Explore new functionalities and applications in traditional materials such as concrete;
- Develop nanotechnology and new materials such as aerogels, synthetic polymers and composites for designing and strengthening structures;

- Promote a sustainable living space through bioclimatic architecture and integration of renewable energies into buildings;
- Reuse and recycle construction materials, optimise their life cycle and develop new soil and atmosphere regeneration technologies.

In 2008, ACCIONA Infrastructure advanced the projects in each of its lines of action. Of special note are the activities aimed at the future commercialisation of new applications for composites and other advanced materials in civil engineering and building.

The Company also made significant progress in full-scale implementation of new solutions in sustainable building and bioclimatic architecture for reducing

the environmental and visual impact of ACCIONA projects. Specifically, the Company incorporated new factors in the design and construction of new buildings, such as orientation, shape, and the use of new materials to reduce energy consumption.

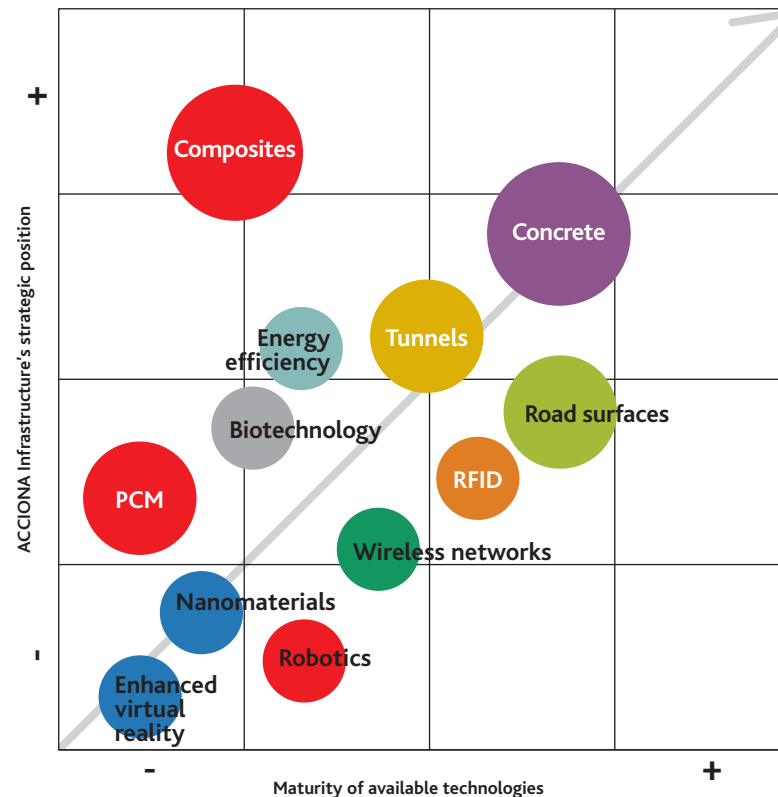
Zero CO₂ zones

- ACCIONA signed an agreement with the Sant Cugat municipal council and Catalonia's Institute for Advanced Architecture to look at the possibility of developing the first zero-emissions residential complex in Spain. The complex would comprise 150 state-sponsored homes for rent. This residential development would be the first zero-emissions project of its type; it would be self-sufficient in energy thanks to a combination of energy savings and efficiency measures plus generation of clean energy, thus avoiding CO₂ emissions.

Almería Solar Platform's eco-efficient building

- The construction of Almería Solar Platform's (PSA) building was completed in 2008, rising to new challenges in building by combining energy efficiency with a comfortable interior design.
- The building's design and facilities conform to energy efficiency principles by: reducing energy demand and atmospheric CO₂ emissions; using renewable energies to meet a part of the energy needs; and installing highly-efficient heating, cooling, ventilation and lighting. The project aims at cutting traditional energy consumption by 80-90% and the results obtained will be monitored by ACCIONA from 2009 onwards.

ACCIONA Infrastructure's strategic position v. maturity of available technologies



Our water management research activities

ACCIONA's strategy in the water sector is to be a leader in water treatment, purification and reuse technology, in line with energy-efficient and environmentally-sustainable parameters.

Last year, it worked in line with the research priorities defined in the Strategic Plan:

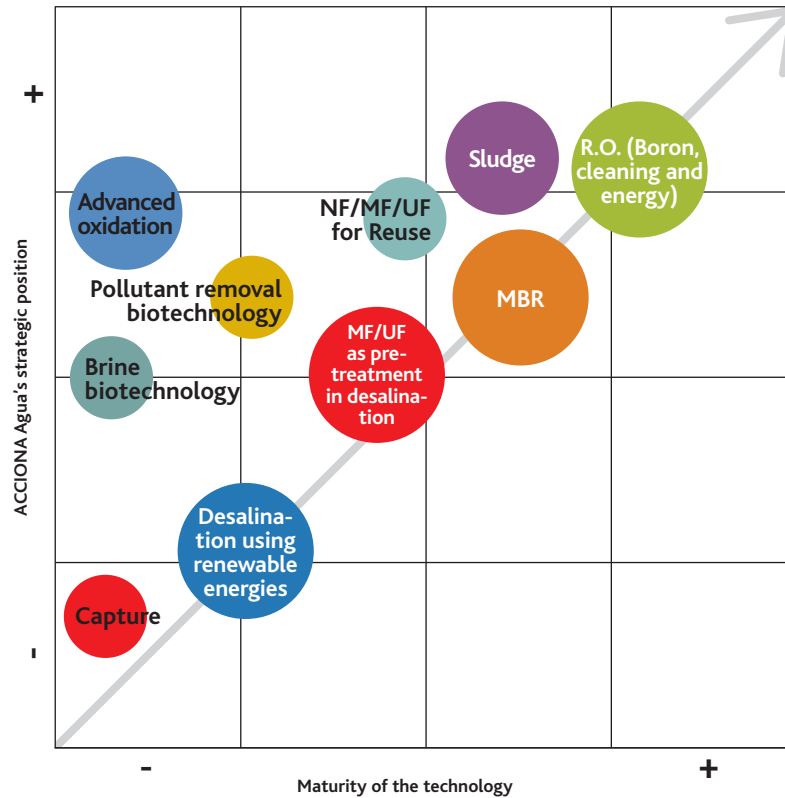
- Optimisation and improvement of desalination efficiency.
- Renewable energy technologies and applications in desalination.
- Deep water desalination.
- Waste water reuse based on membrane technology.

ACCIONA Agua made significant headway in implementing these applications at real plants in 2008. This enabled ACCIONA to strengthen its position as a leader in technological development and advanced water management worldwide. The Company was awarded the contract to build a desalination plant in Adelaide (Australia), where state-of-the-art technology and environmental efficiency were determining factors.

Leading-edge solutions: water reuse based on membrane treatment

- **ACCIONA is working to develop new technology for biological treatment of waste water to enable it to be reused for irrigation and other applications: a Membrane Bioreactor (MBR).**
- **The latest developments in leading-edge ultra-filtration and micro-filtration membranes have led to a new approach that offers several advantages over conventional processes: greater effectiveness, lower costs, and better quality of the treated water.**
- **This enables ACCIONA to offer leading-edge technology solutions for society's water problems.**

ACCIONA Agua's strategic position v. maturity of available technologies



Cutting-edge desalination solutions

- In 2008, ACCIONA was awarded the contract to build a desal plant in Adelaide, Australia, enabling ACCIONA to contribute its advanced technology and experience in desalination. State-of-the-art technology and environmental efficiency were determining factors in obtaining the contract.
- The Adelaide plant will incorporate ACCIONA research from recent years:
 - water pre-treatment to ensure compliance with the highest standards of reliability, energy savings and reduction of chemical treatments;
 - reverse osmosis technology, which will use seawater more efficiently, save energy and reduce the carbon footprint;
 - An innovative brine diffuser to ensure an appropriate mix and which respects marine balance and strict environmental criteria.

ACCIONA is the leader in new markets and in developing new production techniques

RESEARCH CENTRES, THE SOUL OF INNOVATION AT ACCIONA

ACCIONA is a pioneering company, and a leader in new markets and in the development of new production techniques. Its three Technology Centres play a vital role in maintaining its competitive edge: the Madrid Centre focuses on infrastructure, real estate, environment and transport; the Pamplona Centre specialises in renewable energy; and the Barcelona Centre addresses water technology.

Inaugurated in March 2007, the **Madrid Technology Centre** aims to lead the Company's technological development by focusing on innovation, excellence and sustainability in infrastructure, real estate, transport and the environment. Research conducted at the Centre aims to: reduce natural resource and energy consumption, limit CO₂ emissions and mitigate the life-cycle costs of the Company's products and projects.

The Centre has 3,500 m² of offices and laboratories, and a 1,200 m² workshop to manufacture and test full-scale prototypes. The Centre has a total of 12 laboratories outfitted with cutting-edge equipment which work on developing advanced materials, improving industrial processes and researching areas such as eco-efficient construction and biotechnology. It is staffed by more than 160 highly-qualified professionals from over ten countries.

In 2008, the Centre added two new laboratories, specialised in robotics and virtual reality, areas in which ACCIONA has already started research.

3D Visualisation and Modelling Laboratory

Works and infrastructures are simulated virtually by generating their components on a computer. These technologies are used primarily for visualising project execution processes and how they will look when they are finished, enabling

engineers to assess options virtually before making a final decision. These tools allow engineers to validate a project in a realistic, interactive and effective manner, improving energy efficiency and ensuring sustainable construction.

WHAT ARE MICROALGAE?

• Microalgae are photosynthetic organisms. They are generally the most efficient converters of solar energy owing to their simple cell structure. Suspension in water gives them better access to CO₂ and other nutrients. They can adapt to an extensive range of conditions and are therefore found widely throughout the biosphere.

The **Pamplona Technology Centre** is the core of ACCIONA's R&D and innovation activities in the field of renewable energies; most of the strategic research in this area takes place there. The Company also has facilities that specialise in wind turbine generator development (Barasoain), biofuels (Caparroso), biomass (Sangüesa), engineering maintenance (Mutilva), as well as experimental facilities at wind farms in Aizkibel, Aibar, Peñablanca, Codés, Moncayuelo and Vedadillo (Navarre).

Pilot microalgae plant at the Pamplona Technology Centre

- In 2009, ACCIONA plans to commission its first pilot plant, at its Caparroso facility, to develop, optimise and increase the productive efficiency of microalgae for biofuel production.
- This project aims to prove that biomass for biodiesel can be produced on a continuous, large-scale and economically competitive basis using microalgae.
- Certain species of microalgae accumulate large amounts of lipids, which can be used in place of conventional oils such as canola, soy, palm and sunflower to produce biodiesel.
- Research to date indicates that cultivating algae offers the following advantages:
 - greater productivity than other oilseed crops;
 - less land needed, since cultures can be expanded vertically;
 - greater CO₂ fixation and storage;
- Using algae to produce biodiesel will avoid competition with agriculture since it does not need farmland or divert raw materials from the food chain.

ACCIONA pursues its innovative vocation through dynamic organisation and a dynamic management system

The **Barcelona Technology Centre** focuses on R&D&I in the field of water technology. It has central laboratories in Prat de Llobregat and a number of pilot plants, of which the La Tordera (Barcelona) plant, where field tests are conducted, is the prime example. The Centre is a leader in membrane technology research, boasting the very latest analytical methods and equipment. Certification of the laboratories to the ISO 17025 standard will begin in 2009.

EXCELLENCE IN INNOVATION MANAGEMENT

In keeping with its focus on innovation, ACCIONA has equipped the organisation with a management system to drive and catalyse innovation across the entire Company.

In 2008, the Spanish Association for Standardisation and Certification (AENOR) renewed certification of the R&D and Innovation management system, to the UNE 166.002:2006 standard, for the entire Company and individually for its main business

units. This is testament to ACCIONA's extraordinary research efforts and the extensive range of those projects, setting it apart from other companies in the sector.

In 2008, Innova, the Company's R&D&I management IT application, was implemented. This software, which was still in the design and testing phase in 2007, allows managers to monitor projects better and standardizes information from very different areas. It is also used as a tool for reporting to management.

What is ISO 17025?

- ISO 17025 is a standard created by the International Organization for Standardization to ensure best practices in the lab. It defines the requirements with which a lab must comply to demonstrate its competence and its ability to produce technically valid results.
- ACCIONA will be able to issue certified results bulletins for the tests carried out under this standard. Preparing for the certification will require special efforts during more than a year, the end goal being certification by ENAC (Spain's national accreditation entity).

R&D training, a cornerstone of our activity

- As part of its **Corporate University**, ACCIONA signed a collaboration agreement with the **EOI Business School** to organise the first **ACCIONA Masters degree in Industrial Innovation and Management**.
- ACCIONA will also collaborate in the innovation technology specialisation, participate in teaching and is committed to developing a training plan for interns. The programme will be officially accredited by the **Menéndez Pelayo International University**.