04. Performance and sustainability contribution

04.4

## **Customer contribution**



contracting



€799 M €1,202 M €21 B

portfolio



pipeline



quality professionals



35 %

complaint reduction



Internal audits



2020 was inevitably marked by the health and economic crisis caused by COVID-19.

During the first quarter of the year, the company maintained the 2019 trend and managed to develop its business plan in line with the budget in the main financial figures. Furthermore, regarding this same period, Abengoa was awarded new projects worth approximately €300 million. At the beginning of the second quarter of 2020, the effects that the global pandemic would have on the economy and, therefore, on the evolution of Abengoa's business began to be anticipated.

Despite the strong relationships Abengoa has built with its customers over the years, the new macroeconomic context has mainly impacted interactions in two ways:

- Tenders for new projects have been delayed or cancelled, with the subsequent impact on Abengoa's portfolio of opportunities.
- Many projects under execution have been delayed, either due
  to the forced stoppage of activity or due to problems arising in
  the supply chain of materials. This has resulted in commercial
  claims, lawsuits and, where appropriate, potential arbitration
  with customers.

In any case, and despite the difficulties presented by the current health and economic crisis, Abengoa has already managed to reach important agreements with its main customers to minimize the damages caused, and hopes to continue working in this direction since, ultimately, they will benefit both parties.

## **Focus on client**

Abengoa operates in a highly competitive environment in which it is essential to have a solid **customer strategy aligned with the values** of excellence in health and safety, integrity, transparency, reliability, customer focus, innovation, respect for the environment and professional rigor, which are the hallmarks **of the company's identity**. *102-2*, *416-1* 

Abengoa offers its customers a wide range of solutions aligned with sustainable development, in four major areas of activity: energy, water, transmission and infrastructures and services.



#### Desalination

- Reverse osmosis for brackish water
- Reverse osmosis for salt water (desalination)

#### **Hydraulics**

- Water management and control
- Water transmission and distribution

#### Water treatment

- Wastewater treatment plants
- Water purification plants
- Industrial water treatment plants (residual and process)
- Integrated power and water plants
- Integrated water resources management

## Energy O&MConvention

- Conventional power plants
- Solar power plants
- Biomass/biofuel plants
- Solar thermal, PV and hybrid power plants
- General O&M services

#### Water O&M

- Desalination plants
- Wastewater treatment plants
- Water transmission & distribution infrastructures

- Development, engineering, construction and start-up of EPC turn-key water projects.
- Leading position in desalination and extensive experience in water treatment and hydraulic infrastructure (integral water cycle).
- Positive positioning for opportunities in the Middle East and South America, where
  water treatment infrastructure and water management systems are expected to
  grow exponentially.

Water

T&I

- Operation and Maintenance (O&M) services for internal clients and third parties.
- Strong experience in O&M of solar thermal plants, desalination plants and combined cycles.
- High competitive advantage by providing combined EPC and O&M services.
- Pioneers in O&M of solar-combined cycle plants.
- Highly experienced team of professionals who have provided these services for over 30 years.
- Consulting in development, improvement and optimization of O&M processes.

Trace

- International leader in the construction of electricity transmission and distribution infrastructures.
- Installations in all types of industrial plants, power generation plants and singular buildings, including the design, supply, manufacturing, assembly and testing of systems, as well as operation and maintenance.
- Design, supply, assembly, start-up and maintenance of railway electrification installations.
- Manufacture and testing of metallic structures, electrical panels and integrated electronic modules.

### Energ

Services

- Development, engineering, procurement, construction and commissioning of EPC turnkey energy projects.
- Specialised in conventional and renewable generation plants; waste and biomass recovery.
- Solar thermal market leader.
- Pioneer in solar thermal energy hybridization (CSP) with conventional generation.
- Currently developing the first waste-to-jet fuels plant in the world.
- Leaders in energy storage.

# Transmission and distribution

- Transmission and distribution power lines
- Electric substations

## Facilities and infrastructures

- Electrical and mechanical installations
- BOP of renewable generation plants
- Maintenance and instrumentation and control
- Industrial plants and singular building
- Communications systems

#### Railways

- Electrification and catenary installations
- Traction substations
- Railway communications

# Manufacture of metallic structures and auxiliary equipment

- T&D lattice towers
- Substation structures
- Structures for solar power plants
- Telecommunication towers
- Test station
- Electrical panel manufacturing
- Manufacture of control equipment and integrated electronics

#### Renewable

#### Solar thermal technology

- Plants that integrate solar power and combined cycle or other conventional generation plants
- Thermal energy of solar origin for industrial processes
- Electrical energy from parabolic trough collectors
- Electrical energy from solar tower technology
- Parabolic trough structure

#### Photovoltaic technology

- Photovoltaic power plants
- Fixed PV structures
- Single axis PV structures

#### **Energy storage**

- Salt storageH2 storage
- BESS Storage

#### Other renewable energies

- Biomass to energy
- Geothermal power plants
- Waste to Energy
- Wind farms
- Hydropower plants
- Waste to biofuel
- Hydrogen technology

#### Conventional

- Cogeneration plants
- Combined cycle plants
- Simple cycle plants
- Plant repowering
- Urban heating
- Motors

### **Our clients**

The profile of Abengoa's clients varies depending on the type of project, varying for engineering and construction, operation and maintenance or concession-type infrastructures projects.

The difficult global situation experienced as of the second quarter of 2020 and still continuing in 2021 has had an impact on customers' plans, but Abengoa understands that it will be temporary and that, although with delays and some modifications, in general the trends that were already foreseen, will continue in the future.

#### Energy

The trend is for new clients to appear due to the high liquidity in the markets. Many investment funds are capitalizing small developers to become Independent Power Producers (IPP): and many industrial customers are reconverting or expanding their business into the world of sustainable power generation (Repsol, Cepsa, Naturgy, Ence, Total and the like).

- Large international developers: ACWA, Mitsui, Marubeni, AMEA, X-Elio.
- Private developers Enel, Iberdrola, EDP.
- Industrial companies: Cepsa, Repsol, Naturgy, Ence, Total, BP.
- Medium Developers: Capital Energy, Solaria, Soto Solar, Solar Pack.

#### Transmission and Infrastructures

Most of the company's customers (Red Eléctrica de España, Adif, RTE, CFE, Pemex, among others) operate in the field of essential services, so they have not been particularly affected by the pandemic. Nonetheless, investments have been postponed.

#### Water

There is a growing market for public-private partnership projects (hereinafter, "PPP") or under private initiative schemes (hereinafter, "IP"), both from private developers and public-private partnerships (hereinafter, "APP") in public administrations, some of which are well consolidated, such as in the Middle East, Algeria, India and some in Latin America (Mexico, Peru, etc.).

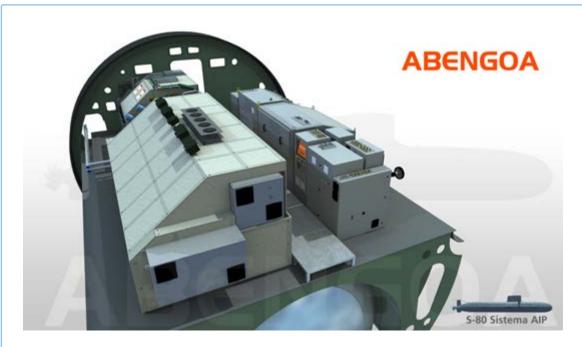
The trend in recent years and what is expected to continue in the coming years is that new financial partners will appear due to the liquidity in the markets and the fact that many investment funds are interested in water assets.

EPC bidding for projects, both privately and publicly financed, as well as multilateral financing in developing countries, should continue.



#### Services

Most of the company's customers operate in the field of essential services, so they have not been particularly affected by the pandemic. Nonetheless, investments have been postponed.



In June 2020, Abengoa announced in that it had signed a contract as technologist and main supplier of the Anaerobic Propulsion System (AIP System) for the S-80 submarines with the Spanish public company Navantia, specialized in the design and construction of high-tech ships.

Specifically, the AIP System is integrated by several main pieces of equipment: Bioethanol Processor System (BPS), Fuel Cell System (FPS), Power Adequacy System (PAS), Fuel Cells Elimination System (FES), the SECO2 System (SECO2), and AIP Control System (SCAIP). Abengoa designs, manufactures

and validates several of these main elements (SPB, SAP and SCAIP), as well as the integration of the SPC and SECO2 to guarantee the required performance, functionality and operability.

This solution implies a paradigm shift for Navantia, as the propulsion system will allow the submarines to extend their missions due to the new battery recharging function with the submarine submerged. Until now, non-nuclear submarines used batteries in its propulsion systems that only allowed them to operate in submersion for one or two days.

Case study: collaboration with

Now, with the new AIP system, that term is extended to three weeks.

This agreement is the result of the intense collaboration between Abengoa, Navantia and the Ministry of Defense, during which Abengoa has been adapting the development of products within its hydrogen program to the challenges presented by the demanding needs of a submarine platform within the deadlines required by the S-80 Program.

Abengoa has been working for more than 15 years on its hydrogen program, and has currently developed a variety of technologies to produce, store and use hydrogen in different fields. Nonetheless, in order to meet the enormous demands required by this program, many challenges have had to be overcome, taking the technology to new levels. An example of this can be seen in the SPB, not only due to the efficiency, robustness and safety of the equipment, but also due to the fact it should meet the size and maintainability requirements for underwater applications.

Apart from the two companies involved, the development of this new submarine technology is a milestone for the Spanish brand, as evidenced by the presence of Their Majesties the King and Queen of Spain and Their Royal Highnesses the Princess of Asturias, Infanta Sofia and Princess Leonor at the launching ceremony of the S-81, the first submarine of the S-80 line, last April at the Navantia shipyard in Cartagena.

#### Control in project execution

Once customers have trusted Abengoa by awarding projects, it is the company's job to ensure the execution of these projects is successfully carried out, both in terms of the economic impact for Abengoa, as well as the possibility of consolidating relations with its customers.

When a project is awarded, it is added to the portfolio of projects under execution. The execution phase includes the construction period and the start-up and delivery of the project to the customer, but also the warranty period after start-up.

Apart from the risks identified during the tender period, some of which can be market-mitigated (insurance), the main risks during the execution period are generated by delays which, depending on their cause, can have a negative impact on the economic outcome of the project. Two-way, fluid and regular communication is essential, as well as permanent feedback in order to incorporate the necessary improvements.

For each project in execution, a project risk management plan is established, the process of which has several phases, as established as follows:





#### Project launching

- Transfer to implementation team.
- Definition of project team.
- Definition of the project risk management and mitigation plan.
- Definition of the risk matrix.



## Risk transfer to market

- Insurance contracts.
- Contracting hedges for exchange rate, commodities, credit risk and the like.
- Transfer of risks in closing of contracts with suppliers, subcontractors and partners.



### Risk monitoring

- Project budget control and schedule monitoring according to earned value method.
- Monthly update of the project risk plan, reviewing the evolution of:
- Risks
- Budget
- Margin
- Deviations in warranty period
- Technological risk contingencies



#### Risk reporting

- Bi-weekly risk committees with chairman and CEO.
- Bi-weekly business and risk committee review.

Monthly

committee
of the Chief
Operating
Officer with risk
management
and group
control
management.



## Start-up and reception

- Settlement of contracts with suppliers and subcontractors.
- Negotiation of contract closing with customer.
- Release of bank guarantees.
- Monitoring of activities to be performed during the warranty period.



#### **Lessons learned**

 Final meeting with the project team for compilation of lessons learned.

Risk control and monitoring is not finished once the project has been completed and has been finally accepted by the customers. In the operation and maintenance stage, risk control is carried out with a preventive and predictive approach that allows anticipating the most appropriate mitigating measures for each type of risk.

The information resulting from this process is not only valuable for Abengoa, but also for its customers, who can incorporate these lessons learned to their subsequent projects.

## **Commitment to quality**

Despite the management strains generated by the difficult economic and social environment experienced throughout the year, Abengoa has firmly remained committed to the quality of its products and customer satisfaction.

The company has continued to make progress in its objective, which started in 2019, of optimizing its management systems, placing emphasis on the unification of procedures and the digitization of processes.

Progress has been made as planned in the digitalization objectives of the activity plans: tasks control and monitoring, workload, compliance indicators, etc.

Almost all the projects executed and the operation and maintenance activities carried out in 2020 have been carried out with an externally certified management system under the ISO 9001:2015 standard.

In 2020, **103** audits were carried out in accordance with the **quality and environmental management systems** and as a result thereof, 203 non-conformities were managed.

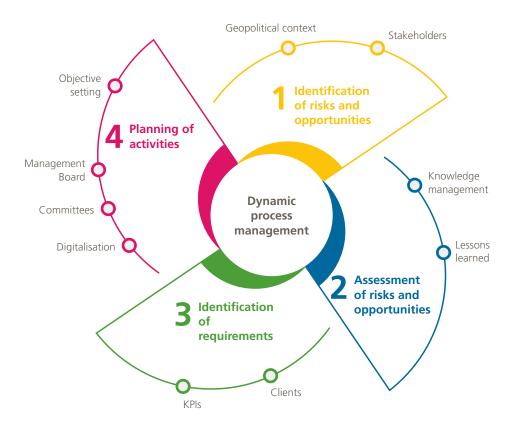
The company has dedicated 129 resources to quality management.



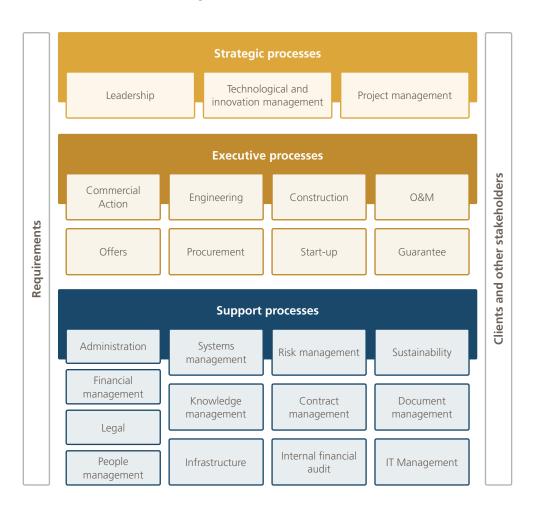
## **Quality model**

Abengoa is aware that being more effective and efficient is necessary to improve the company's competitiveness, consolidate the recovery and achieve the growth objective. That is the reason why the company continues to improve and strengthen its focus on processes.

Such optimization is based on a risk and opportunity analysis incorporating the needs and expectations of its stakeholders and the requirements that may arise, establishing a schedule of activities to **mitigate** or eliminate possible **negative impacts and enhance strengths and opportunities**.



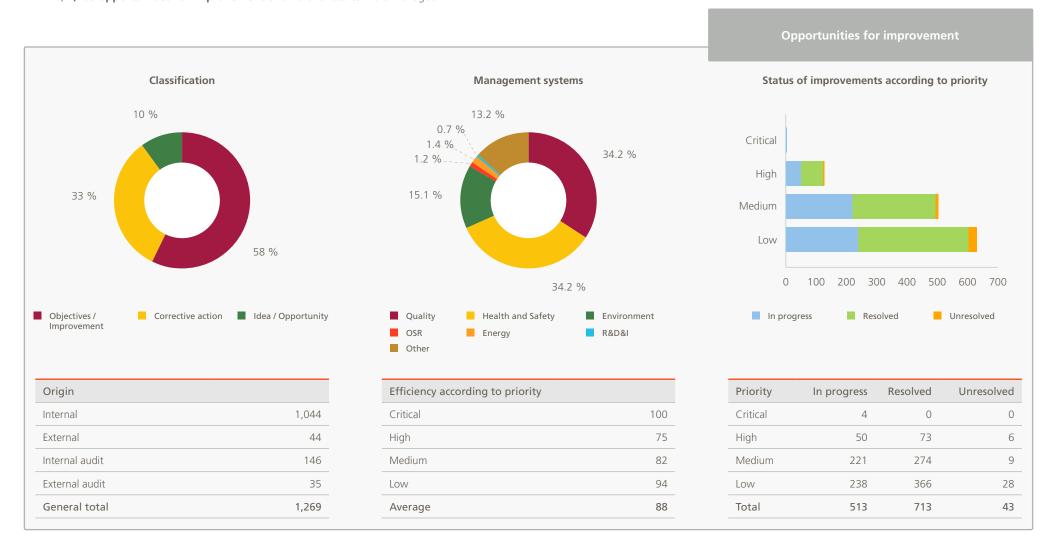
At the end of the year, there are 125 defined process indicators that cover the entire process map and are monitored in some of the regular committees.



## **Commitment to continuous improvement**

Abengoa is aware that management systems should contribute to reducing costs and promoting innovation. In this sense, they constitute the main tool for identifying and supporting all improvement initiatives identified in any area of the business.

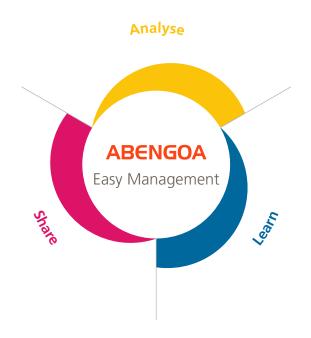
In 2020, 1,269 opportunities for improvement of different natures were managed.



Likewise, the company has developed a **lessons learned management procedure in all its processes**, since it believes that learning based on experience is fundamental in an environment of advanced and innovative technological projects.

All proposals presented are assessed by teams of experts, who analyse the causes and results. If the lesson learned is assessed as positive, it is transmitted to all applicable projects and activities. Abengoa Easy Management acts as an integrated database and an element that facilitates the dynamics of all process stages.

In 2020 ,157 proposed lessons learned from interviews with project work teams, as well as from the analysis of significant incidents recorded in the year were incorporated into the system.





## **Customer Satisfaction**

For Abengoa, meeting the quality requirements of its customers is a priority. Therefore, the company has a **unified satisfaction measurement system** duly and fully **adapted to the particularities of their products and services**, which analyzes aspects such as their quality, communication with customers, management of nonconformities, complaints and claims, management of environmental aspects and impacts related to the product or service, management of social aspects and management of occupational risks.

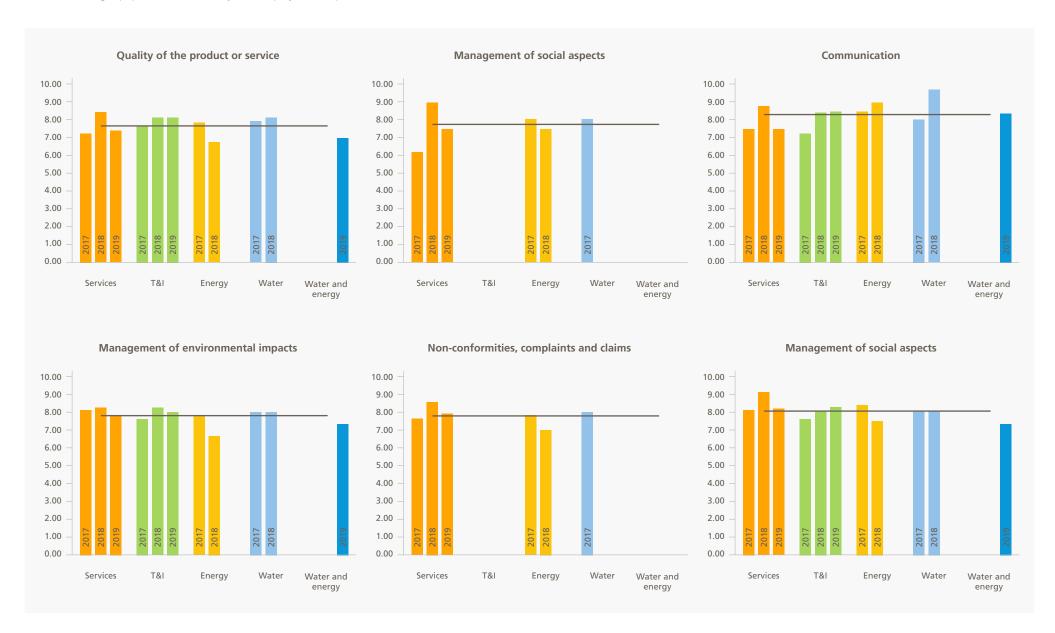
This measurement system ensures that consistent data is obtained through different metrics by which all conclusions are duly analyzed and addressed. It is unique for all verticals and regions and its methodology is based on questionnaires designed ad hoc for the type of product or service being assessed. The questions are selected after a detailed analysis of the projects and of the operation and maintenance activities.

For each response obtained, an individual analysis is performed at different levels, starting with the project team and extending to the corresponding quality committees.

Finally, all received data is **analysed in aggregated form** in order to obtain information and **compare satisfaction on six generic dimensions**:

- product or service quality;
- communication with the client;
- management of nonconformities, claims and complaints;
- management of the environmental aspects and impacts associated with the product or service;
- management of social aspects; and
- occupational risk management.

In 2020, the target population of the study was 47 projects and plants. Data has been obtained from 22.



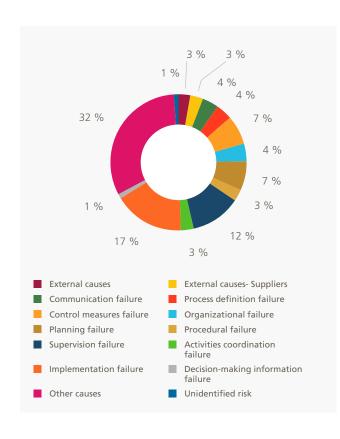
## Management of claims and complaints

Abengoa has kept open communication channels with its clients at all times, proactively trying to understand their needs, expectations and complaints, whenever they pop up.

All claims are registered and carefully analysed. A supervisor, work team and observers are assigned to each complaint. The aim is to **guarantee a satisfactory solution** for both parties, with the application of corrective measures that prevent the incident from repeating in the future as much as possible.

To achieve the above mentioned, the Abengoa Easy Management tool is available. In 2020, **63 complaints or claims** were managed, compared to 29 in the previous year and 45 in 2018. 102-44

Typology	%
External causes	3
External causes - Suppliers	3
Communication failure	4
Process definition failure	4
Measure control failure	7
Organizational failure	4
Planning failure	7
Procedural failure	3
Supervisory failure	12
Failure to coordinate activities	3
Execution errors	17
Decision-making information failure	1
Other causes	32
Unidentified risk	1



## **Future Challenges**

The quality function, along with Abengoa's other areas have **digitalization** in its broadest sense as a goal and challenge for the future, not only in terms of incorporating new technologies and automating processes, but with a deeper transformation of the business, making the company more adaptable to changes and more focused on the client

The main lines of work will be:

- Resource optimization: digitization of activity plans, their control and monitoring, workload or compliance indicators.
- Quality culture: including risk identification and assessment, checklists for processes and activities, and recording of deviations.
- Knowledge management: focused on the recording and visibility of learning, lessons learned and improvement objectives.

