03.2

Risk management

36
risks analysed on the universal risks map

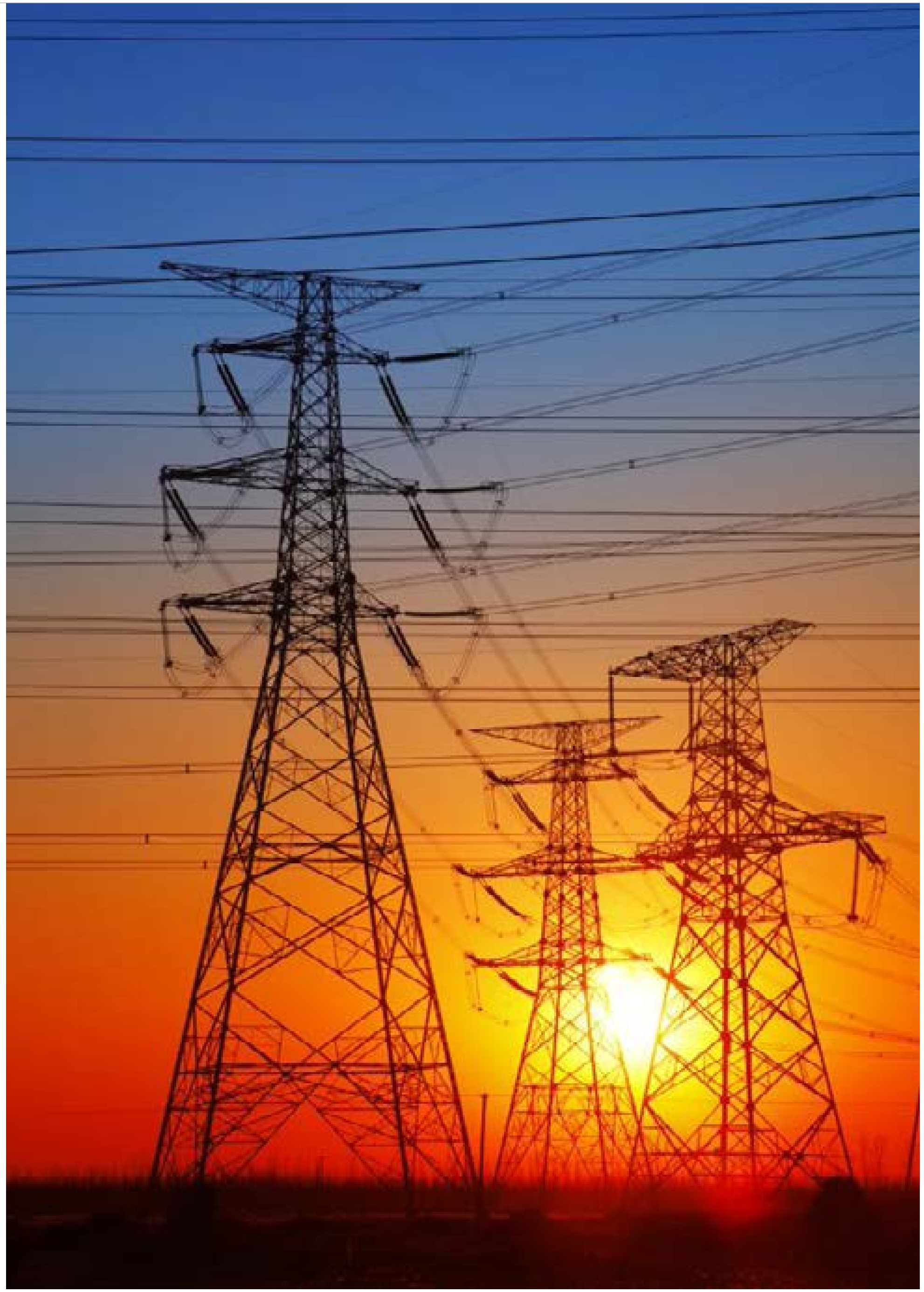
185
action plans aimed at mitigating risks

108
management indicators

49
Business and Risk Executive Committee (CENER) sessions

37
risk plan reviews of projects in execution

37
recommendations to the Board in project approvals

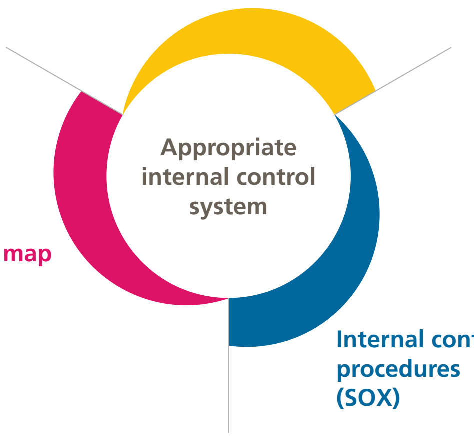


Goals set forth in the SSP 2019-2023

To conduct the annual CSR risk analysis at the company's facilities to be included in Abengoa's risk map.	15 %
To identify, through the Risk Management System, the potential environmental changes in order to prepare and adapt the company to achieve its global business goals.	100 %
To strengthen Abengoa's Risk Management Systems regarding the identification and control of CSR aspects (social, environmental, ethical and reputational order).	50 %
To create value through Abengoa's Risk Management System as a source of competitive advantage and a tool guaranteeing excellence in the decision-making process.	100 %

The situation generated by the COVID-19 pandemic has had multiple implications in corporate risk management, which should adapt to new risk scenarios not previously contemplated. In order to cover these new scenarios and likewise to achieve the goals set forth in the corporate Strategic and Viability Plan, Abengoa has implemented a **Risk Management System** based on three fundamental pillars and defined by a comprehensive and dynamic approach which allows the company to control and identify risks, to create a common culture facilitating the achievement of the corresponding objectives and to have an operational and resilient capacity. *102-11*

Fundamental pillars of the Risk Management System



The objective of this system is to obtain a comprehensive risks approach which allows designing the appropriate responses based on a common culture of awareness among all employees that risks should be duly managed at all levels, so that, at Abengoa, managing business is the equivalent to managing risks.

01 Integration in the business

All management procedures identify the risks that may affect them and establish the criteria to mitigate them.

02 Specialisation

Each procedure is assigned to a specialist (“risk owner”), who is an expert in the area and trained to establish the protection measures.

03 Ongoing measures

Software to draw up risk maps in all categories, according to the probability and impact of the risks.

04 Annual external valid

System based on ISO 31000, audited annually both at corporate level and at different business units.

05 Dynamism

The system is subject to permanent review to ensure it keeps pace with the evolution of business at all times.

Risk policy

Abengoa's risk policy, approved by the Board of Directors, **sets forth the fundamental principles and guidelines** to design the corporate Risk Management System.

This policy is based on the premise that it should be fully integrated in planning and executing the corporate strategy, in defining business objectives and in the daily operational procedures, so that, in practice, the methodology involved in applying the above mentioned system implies risk identification and management in any activity carried out and as a basic criterion for decision-making.

The functions of the Risk Management Department at Abengoa cover three specific areas: business risk management, insurance management and special risk management.

Applicable methodology of the business Risk Management System

The risk management process at Abengoa is a **continuous cycle** based on five key phases: identification, evaluation, response, monitoring and reporting. In each of the phases, a **bidirectional, fluid and periodic communication** is essential, as well as permanent feedback in order to incorporate the necessary improvements.

This process is carried out for all projects at their different stages, from the identification of the business opportunity, through the bid preparation and submission, hiring, execution and warranty period, to the operation and maintenance stage with a **precautionary and predictive approach** which allows anticipating the most appropriate mitigating measures for each type of risk and in each phase. *102-11*

Offer phase

- Risk Analysis is carried out for all significant projects before any firm commitment is made.
- Sources of risks are identified and mitigation plans are established.

Approval phase

- Decisions and approvals based on risk mitigation criteria.

Approval level	Approval limits
Internal authorisation system (Approval by two members of the COEJ)	Project amount < €20 M Guarantees > €4 M
Executive Committee	Project amount €20 M < €40 M Guarantees €4 M < €8 M
Administration Board	Project amount > €40 M Guarantees > €8 M Equity Contribution

Execution / guarantee phase

- Fortnightly monitoring of project risks in the Business and Risk Executive Committee.
- Monthly Committee of risks per project of monitoring of risks/budget and project cashflow.

For each ongoing project, a risk management plan is established, with a several phases process, as established below:

Project launch meeting

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

Transfer of risk to the market

- Insurance contracting.
- Hedging for exchange rate, raw materials, credit risk, etc.
- Transference of contract closure risks with suppliers, subcontractors and partner.

Risk monitoring

- Budget control and project deadline according to the earned value method.
- Monthly update of the project risk plan, reviewing the evolution of:
  - Risks
  - Budget
  - Margin
  - Cashflow
  - Term deviations and guaranteed benefits
  - Contingences
  - Technological risks

Risk reporting

- Fortnightly risk committees with the Chairman and the CEO.
- Fortnightly review in the business and risk executive committee.
- Monthly committee of the Chief Operation Officer with risk management and group control management.

Implementation and reception

- Settlement of contracts with suppliers and subcontractors.
- Contract closure negotiation with the client.
- Definition of the risk matrix.
- Follow up of activities to be carried out during the warranty period.

Lessons learned

- Final meeting with the project team to gather all lessons learned.

Abengoa's risk map

Abengoa has developed an internal Enterprise Risk Management (ERM) methodology, based on a series of impact and probability indicators, which **measures the level of importance of the main risks** affecting the company, in addition to providing **real-time risk maps**, to allow the design of efficient responses aligned with the business objectives.

During 2020, Abengoa reviewed the risk classification and the probability and impact indicators, in order to be adapted to a more predictive approach, replacing some KPIs with KRIs which allow an improved identification of the probability of occurrence of certain risks in advance, based on predictive indicators.

Likewise, a complete review of the indicators scope has been carried out, which allow **to measure the cyber risk probability and impact**, adapting the its assessment to the provisions set forth in ISO 27000. In particular, the probability is evaluated based on the INCIBE[1] risk classification and based on the degree of progress in three protection indicators (training, user protection solutions and infrastructure protection solutions) and the impact by average cost of attacks, according to studies carried out by Vodafone, INCIBE and other sources.

These values are compared with tolerance levels based on the overall percentage of company sales.

The risks analysed through this methodology are as follows:

1 INCIBE- National Institute of Cybersecurity.

The importance of a risk department in crisis situations

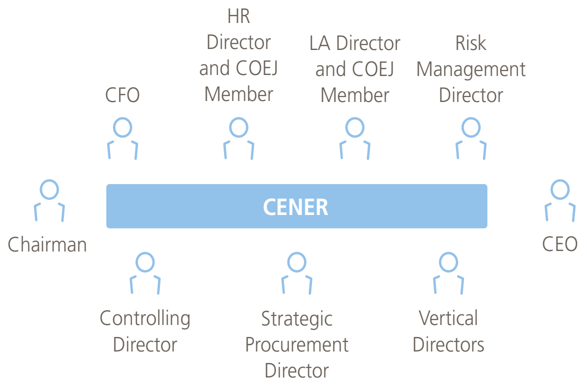
Abengoa's Risk Management has been directly involved in designing viability plans that have been managing to solve the complex restructuring processes in which the company has been immersed in recent times. This has been made possible by implementing a meticulous process to identify the risks that could affect both the company and the subsidiaries and projects, and by monitoring the risks on a daily basis. During the period, special emphasis has been placed on hedging risks which could have significantly impacted the restructuring process, as well as its viability plan.

Likewise, the exceptional situation experienced during 2020 with a global coronavirus health crisis and under a state of emergency in Spain has made the Risk Management be directly involved in both the health and safety of employees as part of the COVID Committee, and regarding the business development and evolution.

Relevant New Features during 2020 Financial Year

The main actions and developments in risk management are as follows:

- A new **Business and Risks Executive Committee** (**CENER**, for its acronym in Spanish) has been set up, which is made up of:



In this collegiate decision-making body, the following matters are taken into account:

- **Significant business offers and opportunities** which may be submitted for approval by the COEJ/Council after CENER's prior approval.
- **Approval of margin modifications** at the project completion, associated orders and contracts with a variation amount exceeding €100,000.
- **Analysis of significant ongoing projects**, with the aim of analysing the associated risks and opportunities.
- **Approval of new executive and operational procedures** of the organization.
- **Approval of contractual modifications and relevant agreements** with clients, partners, etc.
- **Review of business committees** regarding geographies and verticals.
- **Review and approval of strategic matters**, such as vertical strategic plans, analysis of new products, organizational plans, etc.

During 2020, **25 face-to-face sessions and 24 extraordinary sessions** were held, **105 offers and 37 projects** were reviewed **four procedures** were approved and another **34 strategic issues** were reviewed.

- The **criteria** to establish which **minimum profitability** is required from projects for each type of activity depending on the risk country category in which it is developed. .
- The **coverage sub-limits** have been revised, as well as the incorporation of certain coverages to those already existing in the cyber-risk insurance policy, in order to enable the economic impact coverage in case of an attack on the corporate information systems and to allow the recovery of its operability as soon as possible.
- A **methodology** to determine the **maximum amount in guarantees** acceptable for a risk-based project based and a comparison of the level of guarantees determined with the expected profitability has been defined, establishing a ratio to ensure the availability of adequate guarantees to comply with the corporate strategic plan.
- A review system for the **partner viability analysis** has been implemented, which should be included to approve any business agreement at Abengoa. Prior to entering into an agreement, the financial, technical and reputational suitability is analysed, in order to mitigate the risks of the project's partner.
- The **risk management plans** have been **updated** for all projects, in order to pre-emptively allow possible events which may compromise the results of the projects, in terms of compliance with deadlines, costs or guaranteed benefits.
- The **risks of all projects** have been **analysed** as well as the relevant operations which have been determined by the Executive Committee, and/or Board of Directors.

Evolution of the Corporate Risks during 2020

The main risks faced by Abengoa in its operational activities during 2020 were as follows:

Risks	Description	Potential impact	Control measures and main actions
COVID-19 pandemic-related risks			
Suspension of ongoing projects due to COVID	In the various geographies in which Abengoa operates, there have been restrictions ordering the mandatory suspension of all non-essential activities for a specified period of time.	• Project delays. • Increases costs to alleviate planning deviations. • Decreased business earning.	• Claims related to Change of Law and Force Majeure, negotiating the term recovery and economic extra costs as a result of COVID-19. • Planning review, adapting to new circumstances.
Delays in projects execution due to COVID-19	Even in countries where the restrictions did not imply downtimes, the delay in the supply chain has been noticeable. The impossibility of supervisors, operators, subcontractors, suppliers and highly qualified personnel to access the projects at relevant times.	• Increased costs to alleviate planning deviations. • Increased costs generated from safety, health and alternatives to execute the projects. • Decreased business earning.	• Claims related to Change of Law and Force Majeure, negotiating the term recovery and economic extra costs as a result of COVID-19. • Substitutions and changes in projects in which the impact could be mitigated. • Planning review, adapting to new circumstances.
Cost deviations	As a result of this pandemic, increased prices of the components of the value chain have been registered, with a marked price increase recorded in supplies, transport of equipment and insurance premiums.	• Decreased business earning. • Increased costs to alleviate deviations.	• Implementation of contractual and legal mechanisms to mitigate these changes. • Collection of information related thereto, to be applied to potential projects and offers to clients.
Risk to employees' health	Due to the spread of the pandemic, the health of the corporate employees may be affected, in turn affecting the development of corporate activities.	• Increased costs generated from safety, health and alternatives to execute the projects. • Reputational problems. • Possible lawsuits. • Breaking the stability of the work environment.	• Review of prevention, health and safety plans to be adapted to this crisis, minimizing the risk of contagion between employees and providing all the available legal and contractual mechanisms. • Drafting of a business continuity plan, possibility of remote work and setting forth substitute roles and emergency checkpoints in essential activities that could not be interrupted (plans implemented prior to the World Health World Health Organisation (WHO) pandemic announcement). • Plans implemented prior to the date on which the World Health Organization -WHO- declared COVID a pandemic-Creation of a COVID-19 Crisis Committee to monitor the impact of the pandemic on its employees and activities on a daily basis and case by case. (Committee created prior to the date on which the WHO declared COVID-19 a pandemic).

Risks	Description	Potential impact	Control measures and main actions
Operational Risks			
Delays in project execution	The development of the engineering and construction activities involves delays, cost overruns and technical difficulties, added to the uncertainty of the long execution term, participation of third parties (supplies, subcontracts ...).	• Increased costs to alleviate planning deviations. • Decreased business earning. • Penalties and claims for client damages.	• Management and monitoring of projects and contractual framework. • Contingency plans established to rectify unforeseen deviations. • Dialogue with the client through the established channels. • Country risk analysis and monitoring of its economic, political and social evolution. • Integrated management of various suppliers and subcontractors. • Maintenance and review of the appropriate level of risk transfer.
Risk of breach of contractual obligations and guaranteed benefits	In some projects, the client's requirements involve a potentially more complex technological development or component. It may result in non-compliance with the deadline set for work completion.	• Penalties and claims for client damages Execution of guarantees of faithful compliance. • Decreased business earning. • Deteriorated client relations.	• Management and monitoring of projects and contractual framework. • Contingency plans established to rectify unforeseen deviations. • Dialogue with the client through the established channels.
Risk related to the contracted portfolio or backlog	Some of the projects in the portfolio could be subject to some contingency, such as delays, delays by clients regarding financial closing or obtaining the necessary licenses to develop the projects, as well as possible unexpected cancellations.	• Decreased business earnings. • Deterioration of client relations. • Loss of business opportunities. • Deterioration of the financial situation.	• Adaptation of project management to the situation. • Monitoring the portfolio and review of possible deviations. • Adaptation of the business plan to possible changes.
Risk involved in choosing partners and lack of coordination	Given the complexity of the projects (usually ad hoc designed) carried out by Abengoa or, occasionally, in the interests of greater competitiveness and creation of value for the client, the participation of third parties is necessary. They carry out certain activities related to these projects, so there is a risk of potential claims between the parties, inappropriate choice of partner in terms of their viability and technical capacity, or lack of understanding.	• Decreased business earnings. • Deterioration of client relations. • Operational costs arising from inefficiencies. • Responsibility assumed with the client for the contracted works. • Lawsuits and claims.	• Analysis of partner viability, including technical capabilities, analysis of financial statements and reputational analysis. • Entering into a partner agreement to help establish responsibilities and mitigate possible risks.
Rotation risks in senior management and key employees	A large part of Abengoa's know-how is based on corporate human capital. The ability to retain and motivate top executives and key employees and to attract highly qualified employees will significantly affect the ability to successfully duly develop the business activities.	• Loss of key business knowledge affecting performance. • Information leakage harming corporate assets. • Business deterioration. • Loss of business opportunities.	

Risks	Description	Potential impact	Control measures and main actions
Risk of changes in the energy sector	There is a potential decrease in government support to develop renewable energies, a key market for Abengoa. This fact, together with a gradual but significant reduction in rates, premiums and incentives for renewable energy cannot be ruled out. If this reduction occurs, market participants, including Abengoa, should reduce prices to continue being competitive against other alternatives.	• Decreased business earnings. • Loss of business opportunities. • Deterioration of the financial situation.	• Review of the corporate business and strategic plan. • Continuous work on cost reduction and monitoring. • Innovation in products and systems adding value.
Risk of limitation in transfers to third parties	There are increased insurance market restrictions for the transfer of insurable risks, which limits coverage, capacities and limits that, otherwise, should be assumed by the organization.	• Increased project costs. • Decreased business earnings. • Modification of the corporate risk profile.	• Study of the application of specific contingencies. • Transfer of risks to other chain components. • Study of new alternatives to mitigate these risks.
Geopolitical Risks			
Country risk and socio-economic risk	Any variation in the economic, political, security environment and social conditions in the different countries in which the organization operates can affect both economic performance matters and the security of personnel and assets abroad.	• Decreased business earning. • Lawsuits and claims. • Deterioration of client relations. • Increased costs. • Adverse impacts due to the situation in the country in which the activity takes place.	• Methodology establishing a classification of countries based on the risk level. • Setting specific requirements for each level of risk / country. • Action and compliance plan according to the level resulting from the analysis carried out, with specific measures focused on risk limit and mitigation.
Market Risks			
Risks in exchange rates and interest fluctuations	The group's activities are mainly exposed to financial risks arising from exchange rate and interest rate fluctuations, the volatility thereof when carrying out their activities in different countries and working in different currencies.	• Decreased business earnings. • Deterioration of financial situation.	• Establishment of strong currencies to the greatest possible extent. • Costs in projects minimizing risk / currency. • Transfer to financial entities. • Avoiding the accumulation of cash surpluses in other currencies. • Use of contractual mechanisms to mitigate impact.
Risk of price fluctuations in the electricity market	Despite Abengoa's divestment plan for its non-strategic assets such as certain power plants, some of the income from the operational and maintenance activities thereof partially relies on market prices for the sale of electricity, and part of the costs are affected by various factors such as the cost of raw materials.	• Decreased business earnings. • Increased project costs.	• Internal analysis on price evolution. • Disconnection of O&M rates and prices. • Use of contractual mechanisms and to mitigate these variations.

Risks	Description	Potential impact	Control measures and main actions
Risk of fluctuations in the price of raw materials	The engineering and construction activity is mainly exposed to the evolution of materials such as steel, aluminium, copper or zinc, which influence the pricing of much of the equipment purchased by Abengoa from its suppliers. The cost of the natural gas or electricity price, which is usually consumed during the execution of projects, or in the operation of plants and assets operated by Abengoa, also affects the business.	• Decreased business earnings. • Increased project costs. • Deterioration of the business plan. • Modification of the project risk profile. • Changes in the value chain.	• Use of contractual and legal mechanisms to mitigate these changes. • Internal analysis on price evolution. • Projects contingency based on the analysis carried out.
Financial restructuring-related risk			
Risk of delays to implement the restructuring plan	The availability of guarantee lines and the necessary liquidity to undertake some projects could be delayed. Additionally, the financial closing of developments under the project finance scheme may be affected.	• Decreased business earnings. • Deterioration of the financial situation. • Deterioration of the business plan. • Deterioration of client relationships. • Deterioration of relationships with suppliers and creditors. • Third parties' claims.	• Temporary or specific alliances to develop projects. • Search for alternative schemes involving different distribution of risks and responsibilities. • Contract mechanisms providing certain security and continuity to the project in the worst scenarios.
Reputational risk	Such a lengthy financial restructuring process, as well as its media repercussion, generate certain uncertainty among the different stakeholders regarding the activity.	• Suspension or extension of some awards in which the company is well positioned. • Required guarantee levels higher than those required by the market. • Decreased business earning. • Deterioration of client relationships. • Deterioration of relations with stakeholders.	• Alliances with technically and economically powerful groups. • Due compliance with contractual obligations. • More number of projects developed together with recurring partners and clients. • Adjustment of bid costs including information on ongoing projects.

Opportunity management

Since the financial restructuring closed in March 2017, the company has operated as a third-party contractor, focusing on known geographies with more recurring clients and on projects with greater size diversification. This fact has generated the following opportunities:

- **Projects with positive cashflow and not requiring cash contribution**, which helps to reduce and control the corporate leverage level.
- Abengoa's long experience and track record makes it possible to focus the business on known geographies, with greater legal certainty and a risk/country with a controlled level of geopolitical tension. This reduces the risk associated with **socio-political and legislative conditions** of an unknown geography.
- Focusing the activity on executing projects for third parties, with income determined according to contractual milestones, **reduces the dependence of cash flows on the evolution or modification of the regulation** set forth by governing bodies of non-traditional countries.
- Certain strategic agreements with developers and other construction companies have allowed focusing Abengoa's participation in **activities with a greater technological component and greater added value**, allowing increased profitability.
- An increase in raw materials, whilst posing a potential risk due to increased costs in some activities, may likewise result in **increased business opportunities in countries where GDP is closely linked to its fluctuation**, as could be the case in the Middle East, with crude oil prices, or in countries like Chile or Peru, with copper prices.

Integration of risk management into the organisation's strategy

Abengoa's risk management policy approach involves the total **integration of risk management objectives with the corporate strategy**.

The criteria supporting Abengoa's Strategic and Viability Plan have been the **determination of the activity and target markets**, based on the risk profile assumed by the organization, prioritizing known markets, recurring clients and anchor countries with a lower risk level, and an activity based on medium-sized third-party projects, not requiring any investment in capex, with a lower level of assumed risks and less exposure to regulatory risks, leveraging on Abengoa's own know-how and on potential partners covering scopes in local countries and in activities in which Abengoa has less experience.

In turn, Abengoa's internal approval system implies that the strategic decisions made by senior management and the Board of Directors are supported by the conclusions of the various assessments of the risks to which the company is exposed.

In 2020, a further step has been taken in this integration, through the creation of the Executive and Risk Committee, in which the most relevant strategic decisions for Abengoa's business are made. In this committee, risk management plays an essential role since it is the department in charge of defining the agenda and determining the relevant matters to be discussed.

Due diligence of the highest governance body on risk management

Senior management is **fully committed** and involved in risk management.

The **Administration Board** approves Abengoa's Risk Management Policy and tolerance levels with respect to company risks.

The **Audit Commission** supervises the internal risk control and management function exercised by the Risk Management Department to ensure the proper functioning of the Risk Management System and to ensure that the Risk Management System adequately identifies and mitigates risks within the framework of the policy set out by the Board of Directors.

The **Risk Management Department**, which reports directly to the Chairman of the Board of Directors, is the internal function of the organisation that adapts it to potential changes in the environment and prepares it so that these changes do not prevent business objectives from being met.

Risk plans are implemented and developed by verticals and geographies, in perfect coordination with the Risk Management Department.

The Risk Management Department **reports directly to the Chief Executive** of Abengoa's Board of Directors, a fact which allows monitoring the effectiveness of risk management procedures through a series of periodic fortnightly meetings between the Executive and the Risk Management Director. *102-30*

Likewise, the Risk Management Department holds **fortnightly risk meetings** with the CEO of the company.

The **Executive Business and Risk Meetings** are held every two months, with the participation of the rest of the members of the Executive Committee, the directors of the business verticals, and the Management Control and Corporate Procurement Department, apart from the Chairman. These committees make the main decisions regarding the approval of bids, modification of margins, monitoring of projects and approval of the new operating procedures.

On a monthly basis, **a meeting is held with the Executive Committee for each of the business units**, with the participation of the Risk Management Department. The purpose of these meetings is to identify and analyse the evolution of the main risks affecting each of these units, the assessment of whether the expected financial, environmental, social and health and safety results are being achieved or not, as well as the potential impacts on this unit and on Abengoa as a whole. *102-30, 102-31*