Construcción

Environmental Communication 2025

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FCC Construcción

Environmental Communication 2025

Letter from the CEO

Welcome to
Environmental Communication 2025
of FCC Construcción

Dear employees, customers, and partners,

Once again, we publish our **Environmental Communication**, a document of exceptional value for our organization, since we were pioneers in its publication in 2000 and, since then, we have maintained this practice of biennial transparency uninterruptedly until 2025. This report, which is markedly environmental, invites reflection on the importance of the construction sector in the development of local communities, while highlighting its capacity to transform urban environments and the need to act to promote its sustainability.

Infrastructures are essential elements and authentic drivers of the economic and social development of communities. Its benefits are innumerable, not only facilitating access to basic services such as health and education but also strengthening the socio-economic fabric of the regions and promoting the development of other productive sectors, such as industry, commerce, logistics or tourism. Briefly, they act as vectors for promoting progress and collective well-being. However, we cannot forget that our activity also has a direct effect on the territory, it transforms the environment, and, therefore, we must act responsibly and with a long-term vision.

In the face of our potential environmental impacts, we are committed to generate a positive and lasting footprint that adds value to the environment, the economy and the communities in which we operate. FCC has existed for 125 years, and we want to continue to do so. To achieve this, we are advancing on **five strategic pillars: decarbonization**, our main climate priority, through the improvement of our carbon footprint calculation and reporting and the incorporation of low-carbon solutions in all phases of the life cycle; circular economy, optimizing the use of resources, achieving high rates of recovery of CDW, and extending the objective of "Zero Waste" to our works and fixed centers; **protection and responsible use of water**, through the calculation of the water footprint, the improvement of the control and efficiency of the use of water resources, and the conservation of water bodies; **prevention of atmospheric, soil and water pollution,** through the design and implementation of specific actions that mitigate and avoid environmental risks; and **protection of biodiversity**, a commitment that we carry beyond legal compliance, trying to generate a positive impact on the ecosystems where we operate.

The basis on which our pillars are based is our **FCC Construction Management and Sustainability System**, the result of more than 30 years of evolution, whose journey began in 1994 with the implementation and certification of the Quality System. Added to this solid framework is our System of Good Environmental Practices®, a pioneer and a benchmark in the sector, which works as a driver of innovation and internal awareness. In addition to our commitment to recognized international initiatives, such as the **Global Compact** and the **United Nations Sustainable Development Goals (SDGs)**, fostering collaboration to move towards truly sustainable development.

For all the above, FCC Construcción publishes this **Environmental Communication** as an exercise in transparency, with the aim of being accountable for its impact on the environment and, at the same time, highlighting the effort that the organization makes to anticipate, manage and mitigate the risks arising from our activity.

Finally, I would like to conclude these lines by expressing **my deepest gratitude to the team of professionals that make up FCC Construcción**. Building the future means doing it in a responsible, innovative and sustainable way, always thinking about people and the legacy we want to leave.

Let's look to 2026 with optimism and with the determination to continue leading the transformation of the sector. Our purpose is clear:

> *To create infrastructures that promote the development of communities, generating economic and social value, while systematically reducing and compensating our environmental impact.*

Pablo Colio Abril
CEO of the FCC Group

01

Who we are

1.1. FCC Construcción

FCC Construcción, the Construction area of the FCC Group, has established itself as a benchmark company in the design and execution of civil, industrial and building infrastructures, both nationally and internationally. Our **business model** is based on the following pillars:

+20
Countries FCC Construcción Presence

7,264
Employees

€6,429
Million Bussiness portfolio

66%
Civil works

100%
FCC Footprint Verified construction

€2.80
Million in R&D&I

100%
Employees covered by the OHS system

97.6%
Local suppliers

Certified Managment Systems in all our areas

1 Project Design and Execution

FCC specializes in the design and execution of a wide range of construction projects, from civil infrastructure such as roads, bridges and railways, to industrial, commercial and residential buildings.

2 Experience and Specialization

With 125 years of experience in the construction sector, FCC Construcción stands out for its ability to tackle complex and large-scale projects. In addition,the company has experience in concession projects and collaborates with companies specialized in various industrial and energy sectors.

3 Innovation and Sustainability

Constant search for innovation in its processes and the implementation of advanced technologies to improve the efficiency and quality of its projects. In addition, it is committed to environmental and social sustainability in all its operations, seeking to minimize environmental impact and contribute to the sustainable development of the communities where it operates.

4 Internationalisation

FCC Construcción has an active presence in more than 20 countries, which allows the company to access new markets and business opportunities around the world. This internationalization offers greater geographical diversification and reduces its dependence on a single market.

5 Strategic Collaborations

The company partners with specialized companies and experts in different sectors to offer comprehensive solutions adapted to the specific needs of each project. These strategic collaborations strengthen our competitive position and allow us to access new knowledge and technologies.

***Sustainability** is an essential part of FCC Construcción's business model.*

FCC Construcción stands out for its ability to develop complex projects in different areas, which reflects the company's versatility and technical expertise. Its main **lines of business** include:

Civil engineering

With work on roads, bridges, tunnels, railway, airport, maritime and hydraulic infrastructure, as well as infrastructure maintenance and water treatment plants.

Building construction

Both residential and non-residential (hospitals, stadiums, offices, shopping centres), as well as refurbishment work, always with a focus on quality, innovation and respect for the urban environment

Industrial

Ranging from distribution networks and industrial pipelines to electromechanical installations, IT systems, energy efficiency, industrial projects, prefabricated structures and corporate image solutions.

FCC Construcción organizes its activity into different business areas and has a group of subsidiary companies specialized in the industrial, energy and other complementary sectors:

FCC Construcción	Design and execution of civil, industrial and building infrastructures at national and international level, experience in concession projects and collaboration with companies specialized in various industrial and energy sectors.
FCC Industrial	Design and execution of projects in the industrial and energy sectors. Their service covers everything from the batch construction or turnkey supply of the installation to its operation and maintenance.
Matinsa	Maintenance of large infrastructures such as roads, railways, hydraulic works and execution of forestry works, as well as energy efficiency improvement services.
Prefabricados Delta	Manufacture of a wide range of prefabricated elements for industrial and civil construction.
Megaplas	Company specialized in the design, manufacture, installation and maintenance of corporate image elements for companies, operating worldwide.
áridos DE MELO	Extraction, treatment and market of aggregates for concrete, bituminous mixtures and granular layers, and artificial gravels.
Convensa	Construction company specialized in railway works, both infrastructure and superstructure. Its offer covers the maintenance and renovation of existing lines and the construction of new stations.

FCC Construcción has extensive experience in measuring, monitoring and reporting on the sustainability of its projects. Since 1998, the company has been operating under an Environmental Management System certified according to the ISO 14001 standard, which includes sustainability indicators and allows the monitoring of the environmental performance in the construction projects. This commitment has led to the development and implementation of digital tools, such as DISCON, a proprietary platform for the centralization and monitoring of information and metrics of construction works and all other projects integrated in the System.

The monitoring of sustainability indicators is complemented by the application of internationally recognized sustainability assessment certifications for projects and infrastructures, such as ENVISION, BREEAM and LEED. FCC Construcción has significant experience in these frameworks, which require continuous measurement and reporting on key sustainability indicators.

In addition, as part of the FCC Group, and adapting to current European Union regulations, FCC Construcción reports on its sustainability indicators, including the Corporate Sustainability Reporting Directive (CSRD) and the EU Taxonomy for Sustainable Activities. These frameworks improve the transparency and comparability of non-financial information, requiring greater traceability and alignment with the EU's environmental and climate related objectives.

Likewise, and on a voluntary basis, it participates in other types of reporting initiatives such as the Global Compact Progress Report (IDP), the Carbon Disclosure Project (CDP), the CEOE's Catalogue of Good Business Practices or the Yearbook of Co-Managers.

As a result of monitoring, transparency and commitment, FCC Construcción publishes different reports annually, including the Sustainability Report, the Greenhouse Gas Report, the Water Footprint Report and, since the year 2000, the Environmental Communication. All these reports are collected and available for consultation in the Sustainability section of the official FCC Construcción's website.

The sustainability report for the 2023-2024 financial year can be consulted at FCC Constuction's sustainability website: Sustainability Report 2023-2024

1.2. Main magnitudes and circularity of resources

Below, as a result of the activity carried out during 2024, some more relevant indicators of environmental performance are shown.

During 2024, there was a notable increase in production, which translates into an increase in indicators. This is due to the casuistry of construction works and the development phase in which they are, as well as having large-scale projects during this year.

Actions linked to railway works, road construction or tunnel excavation, due to their characteristics, require large volumes of earthworks, and with it the consumption of energy to carry out the project. Some of the most significant construction works are:

At the national level, the Totana-Totana railway project in Murcia and the Níjar Río Andarax section in Almeria, the Anillo Insular road infrastructure in Tenerife, the construction of the new ONCE Headquarters in Madrid, the Guillena Photovoltaic Plant in Seville or the expansion Pabellón Zero Fira in Barcelona.

On the international level, the railway works of the Lima Metro in Chile, the Meleças-Torres Vedras section in Portugal or the Lugoj-Timisoara section in Romania, road infrastructures such as the A465 in Wales, the road connection structures of Sotra in Norway and Puente Industrial in Chile or the excavation of the Neom tunnels stand out.

Los Berrocales (Spain)

Relevant works 2024

Relevant national works	Description
Totana-Totana-Railway works	Large earthworks were required to build 9.9 km of the Murcia-Almeria AVE platform, resolving the crossing with two cattle tracks by means of overpasses.
Níjar Río Andarax – Railway works	25.5 km of single track for the AVE that connects Níjar with Almeria, standing out for its efficient use of water (50% from other sources) and the construction of 16 viaducts (more than 5 km) and an 880-meter tunnel.
ONCE Headquarters - Unique buildings	The construction of the new institutional headquarters of the ONCE Social Group in Madrid, which will be carried out under the most rigorous criteria of universal accessibility, environmental sustainability and energy efficiency.
Insular Ring – Roads/Tunnels	Construction of 11.3 km of road to close the Tenerife Anillo Insular between El Tanque and Santiago del Teide, highlighting the Erjos Tunnel, the longest road tunnel in the Canary Islands, composed of two parallel tubes of 5.1 km each.
Fira – Unique buildings	The construction of a new pavilion that will increase its capacity for international fairs. The project, divided into three phases, includes the construction of a foundation, structure, roof, lobby a 75-metre-high office tower.
Guillena – Photovoltaic plant	The construction of five solar plants in Guillena (Seville), which will total 263 MW, with nearly 400,000 bifacial modules and will generate energy for more than 150,000 homes.
Relevant international works	**Description**
A465 – Roads	17.3 km extension of the A465 motorway in Wales (UK)
Neom – Tunnels	Construction of the tunnel of the new city and economic-technological area of Saudi Arabia, which stands out for its commitment to reuse excavated rock to minimize environmental impact.
Lima Metro – Railway works	Construction of the Lima Metro (Line 2 and branch of Line 4), covering 35 km of tunnels and 35 underground stations. The contract includes infrastructure, train supply and rail systems to serve more than 600,000 people a day.
Sotra – Roads	9.4 km of road to improve the connection between Bergen and the island of Sotra, including a 900-meter bridge with 145-meter towers and two twin 4.6 km tunnels, being in turn the largest "digital bridge" in the world.
Lugoj Timisoara - Railway works	Remodeling and duplication of 106 km of track, the main objective of which is to modernize the infrastructure and stations, and increase the speed of trains to 160 km/h (passengers) and 120 km/h (freight), in addition to implementing the ERTMS signaling system.
Meleças-Torres – Railway works	Modernization of the Mira Sintra - Meleças – Torres Vedras section of the West Line, Portugal.

CONSUMPTIONS

1,693,158 GJ
Energy consumption

1,825 GJ
Renewable energy consumption

1,605,439 m³
Water consumption

4,636 m³
Recycled water

14,395,593 t
Material consumption

10,729,755 m³
Soil and debris reused on construction sites

WASTE

116,584 t
Hazardous waste

8,718,753 t
Non-Hazardous waste

8,835,337 t
Waste

3,040,187 t
Waste sent to be recovered

302,942 m³
Discharged water

50,634 m³
Purified water

EMISSIONS

902,395 tCO_2eq
Verified GHGs

11,695 t
Other emissions (SOx, NOx, particulate matter)

5,032,5 t
GHGs avoided

2,423 t
Particles avoided

1.3. Environmental Milestones 2024

January

- Double Materiality Analysis and Non-Financial Information Statement Report.

February

- First edition of the Carbon Footprint Training Course, in accordance with the ISO 14064 Greenhouse Gas standard. Course aimed at FCC Construcción employees involved in the process of calculating and verifying the Carbon Footprint.
- Second Megaplas Carbon Footprint Certification, in accordance with the ISO 14064 Greenhouse Gas standard.

May

- Development of the Zero Waste Management System Procedure, applicable to FCC Construcción construction sites and fixed centres.
- Matinsa's second Carbon Footprint Certification, in accordance with the ISO 14064 standard on Greenhouse Gases.

June

- Obtaining the AENOR Zero Waste Certificate at FCC Industrial's permanent centre in Balmes (Barcelona).
- FCC Construcción Carbon Footprint Certification, in accordance with the ISO 14064 Greenhouse Gas standard.
- Support for the CO_2 Forest Management absorption project 'La Carballeda I' in Molezuelas de la Carballeda (Zamora) to offset greenhouse gas emissions.
- Obtaining the 'Calculo, Reduzco y Compenso' Carbon Footprint Seal 2023, awarded by MITERD.

July

- Global Compact Annual Implementation Progress Report (AIPR). Annual report on the economic contribution of FCC Construcción's activities to the SDGs..
- Obtained Zero Waste Certification for the "Playa de Vías (Valladolid)" and "Urbanización Etapa 3 Fase II Berrocales (Madrid)" projects, with more than 90% of waste recovered..
- First Carbon Footprint Certification for Aridos de Melo, in accordance with ISO 14064 on Greenhouse Gases.
- First Carbon Footprint Certification for Delta Precast Products, in accordance with ISO 14064 on Greenhouse Gases.

September

- Participation in the Carbon Disclosure Project (CDP), reporting for the first time as FCC Construcción, independently.
- Compliance with RD 56/2016 by conducting energy audits at 27 construction sites and fixed centres belonging to FCC Construcción.
- Registration of the 2023 Carbon Footprint with MITERD (Ministry for Ecological Transition and Demographic Challenge of Spain) and Application for the 'Calculo, Reduzco y Compenso' Seal.

October

- First-ever calculation of the Water Footprint at national level in FCC Construcción.
- Second HC FCC Industrial Certification.

November

- Study of the alignment of FCC Construcción's construction activities with the European Environmental Taxonomy

December

- Update of FCC Construcción's climate risk analysis, from the FCC Group, considering activity and geographical location, in accordance with the different climate scenarios recognised by the TCFD methodology.

Examples of Responsible Actions carried out in 2024

Country	Aspect	Case Study Title	SDG
Spain		Protection of birdlife - East Railway Bypass of Valladolid	
Canada		Protecting the Plant Species Present on the Site - Go Rail Expansion On Corridor Ontario	
Chile		Wildlife Protection – Industrial Bridge	
Romania		Biodiversity control - Lugoj-Timisoara East	
Portugal		Ecological monitoring of the Douro Estuary - Rubí Line Metro Porto	
Portugal		Monitoring and protection of Botanical Heritage - Ruby Line Metro Porto	
Portugal		Transplantation of plant species - Monsaraz Reguengos Hydraulic Circuit	
Netherlands		Calculation of environmental economic indicators – A-9 motorway	
Netherlands		CO2 Performance Ladder Certification – A-9 Motorway	
Portugal		Photovoltaic panels for self-consumption - Parque de Maquinaria Ramalho	
Portugal		Electric vehicle fleet - Rubí Line Metro Porto	
Portugal		Water Reuse and Industrial Wastewater Treatment - Rubí Line Metro Porto	
Canada		Community Engagement - Pape Tunnel Metro Ontario	
Romania		Archaeological site - Lugoj-Timisoara East	
Canada		Dust Reduction - Go Rail Expansion On Corridor Ontario	
Canada		On-site speed control - Go Rail Expansion On Corridor Ontario	
Chile		Environmental maintenance – Industrial bridge	
Romania		Monitoring and reduction of emissions - Lugoj-Timisoara East	
Romania		Ballast Decontamination - Lugoj-Timisoara East	

Country	Aspect	Case Study Title	SDG
Portugal		Dust reduction - Pedreira do Alvito	
Spain		Dust reduction through irrigation – Nuevo Hospital Aranda del Duero	
Portugal		Waste Park – Morgavel Conduit	
Canada		Detailed classification of waste on site - Go Rail Expansion On Corridor Ontario	
Netherlands		Reuse of beams – A-9 motorway	
Chile		Landscape Restoration – Industrial Bridge	
Portugal		Ballast reuse - Mira Sintra - Meleças - Torres Vedras section	
Spain		Reuse of granite blocks - New ONCE Headquarters	
Spain		LED strips for lighting on site – Hospital de Salamanca	
Portugal		Groundwater monitoring - Rubí Line Metro Porto	
Portugal		Hydrocarbon and sediment containment barriers - Rubí Line Metro Porto	
Portugal		Noise study and installation of barriers - Rubí Line Metro Porto	
Canada		Sound Barriers - Pape Tunnel Metro Ontario	
Canada		Environmental Care - Go Rail Expansion On Corridor Ontario	
Canada		Safety Observation and Near Miss Program - Pape Tunnel Metro Ontario	
Portugal		Wastewater control - Pedreira do Alvito	
Portugal		Cleaning point - Metro Mondego	
Spain		Settling pond – Aranda del Duero Hospital	

- Relationship with society
- Atmospheric emissiones
- Noise and vibrations generation
- Water discharge
- Land occupation, contamination and loss
- Use of natural resources
- Waste generation
- Biodiversity
- Climate change
- Land use planning

02

Managing our environmental footprint

2.1. Environmental Policy

FCC Construcción believes that caring for the environment is essential to create value for society, as well as for its shareholders. It does so through infrastructures and services that improve people's quality of life, in an efficient, sustainable and safe way. To this end, it has developed an **Environmental Policy**, approved and disseminated at all levels of the organization.

FCC Construcción's Environmental Policy has the explicit approval of the Senior Management, which guarantees its integration into strategic and operational decision-making. This support is materialized through resource allocation, objective setting and the direct supervision of compliance, ensuring that each action is aligned with the 2023–2026 Sustainability Strategy.

The foundations are continuous improvement, pollution prevention, protection of biodiversity and water resources, as well as combating climate change and transitioning to a circular economy. Similarly, it highlights the importance of strategic planning to reduce the environmental footprint and promote sustainable practices in each project.

1. The compliance with regulations, laws, and other applicable commitments undertaken by the company.
2. Continuous improvement through the analysis and minimization of environmental incidents arising from the company's activities, as well as actions aimed at pollution prevention, protection and conservation of biodiversity and water resources, combating climate change, and promoting a circular economy.
3. The involvement of stakeholders (both internal and external) in evironmental management.
4. The implementation of planning aimed at reducing envioronmental impacts.

This policy reflects the corporate values: commitment, efficiency, excellence, respect for the environment, innovation, integrity, teamwork and care for people.

> *FCC Construcción aspires to lead the industry due to its ability for innovation and value creation, acting with environmental responsibility in response of new social needs.*

A9 Motorway expansion (Netherlands)

2.2. Global climate context

Climate change represents one of the greatest global challenges of our time, with increasingly visible effects on ecosystems, economies and societies. In this context, the construction sector plays a key role both in the generation of emissions and in the ability to adapt to their impacts. According to United Nations sectoral reports, the construction sector consumes 32% of global energy and represents 34% of global CO_2 emissions, with emissions from the production of construction materials such as cement, steel and glass being especially relevant[1].

FCC Construcción, as an international player in the field of civil engineering and construction, is facing multiple challenges stemming from climate change: from the increase in extreme weather events, heat waves and droughts, to regulatory pressure and the evolution of the expectations of its stakeholders. These factors directly impact on its operations, infrastructure design, supply chain, and strategic planning.

At the same time, the current context opens up new opportunities to move towards more sustainable, resilient and low-carbon construction models through innovation in materials, energy efficiency, circular economy practices and digitalization.

The construction industry

32%
of global energy consumed

34%
of global CO_2 emissions

> *FCC Construction is ahead of global environmental challenges by aligning its strategies with the 2030 Agenda and the European Green Deal, promoting sustainable construction and circular economy.*

[1] Global Status Report for Buildings and Construction 2024/2025 | UNEP - UN Environment Programme

2.3. Environmental Strategy

FCC Construcción, in its Sustainability Strategy, expresses its commitment to responsible development. The Strategy is structured around the three ESG dimensions (Environmental, Social and Governance), together with a fourth dimension, the Cross-Cutting Dimension. It establishes a roadmap with concrete and measurable objectives in the short, medium and long term (2026, 2030, 2050 respectively), which set the course towards sustainability in the industry.

> *FCC Construcción aims to lead the transformation of the construction sector through innovation, digitalization, circular economy and climate action, integrating ethical and responsible practices throughout its value chain. It also actively promotes diversity, equality, job security and respect for human rights, fostering inclusive and resilient environments.*

Line 4-5-6 Riyadh Metro (Saudi Arabia)

Sustainability Strategy 2023-2026

Environmental Dimension	Commitments are established in climate action, circular economy, and environmental impact through measures aimed at decarbonization, energy efficiency, responsible waste management, and biodiversity protection. With these initiatives, FCC Construction advances toward more sustainable and resilient construction models, aligned with the goals of the Paris Agreement and the European Green Deal.
Social Dimension	The strategy includes measures to ensure respect for human rights, generate a positive impact on local communities, foster talent development, strengthen health and safety at work, and promote diversity and equality.
Gobernance Dimension	The governance dimension focuses on fostering an ethical and compliant culture, responsibly managing the value chain, and integrating ESG (Environmental, Social, and Governance) risks into business planning.
Transversal Dimension	This dimension encompasses the previous three. It drives innovation and digitalization of processes, knowledge management, and the adoption of methodologies such as BIM, along with strengthening internal and external communication. Additionally, it promotes collaboration with industry entities and international organizations to advance sustainable practices.

FCC Construcción's Sustainability Strategy reflects a comprehensive vision of responsible development with a strong environmental component as its backbone. This approach, aligned with the Sustainable Development objectives, places FCC Construcción as an active agent in the ecological transition of the sector.

The sustainability strategy can be consulted on the FCC Construction website: ***SUSTAINABILITY STRATEGY 2023–2026.***

2.4. Climate Change Strategy

Climate Change is one of the greatest challenges faced by today's society, and it requires all sectors to be involved in the implementation of concrete measures to reduce GHG (Greenhouse Gas) emissions.

Aware of the urgency of the matter, FCC Construcción developed its **Climate Change Strategy**, which is part of the Environmental Dimension of the 2050 Sustainability Strategy, to address the strategic line of **Climate Action.**

In its development, a comprehensive study of the risks and opportunities of climate change has been carried out, as well as the economic repercussions that these may have on assets and investments, all under the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

This is structured in three lines of action for its actions and objectives, which are:

Mitigation
Moving towards climate neutrality.

Adaptation
Solutions for Climate Resilience in Construction.

Improving
Climate change governance.

The complete climate change strategy can be consulted on the FCC Construction website: ***CLIMATE CHANGE STRATEGY 2023–2026.***

2.5. Management and Sustainability System

In 1994, FCC Construcción became one of the pioneering companies in the industry to implement a Quality Management System in accordance with the ISO 9001 Standard. Four years later, this system evolved into an Integrated Quality and Environmental Management System, obtaining ISO 14001 certification.

Since then, the Integrated System has undergone a profound evolution and maturation within the organization, progressively incorporating new key areas such as information security, R+D+i, collaborative working relationships, information management through BIM models and occupational risk prevention, until it was consolidated as FCC Construcción's current **Management and Sustainability System.**

Through this link to the FCC Construcción corporate website, the System's certificates can be consulted: FCC Construcción: Construction Systems and CSR - FCCCO.

This Management System is based on different proprietary digital tools that allow FCC Construcción to collect and analyze large volumes of data from its construction sites and fixed centers in different geographies, which facilitates the monitoring of its indicators and objectives to study its sustainability performance and propose improvement actions.

One of the most relevant tools is DISCON, mentioned above, designed to facilitate the correct implementation of Quality and Environmental Management Systems in the organization's construction sites and fixed centers.

> *FCC Construcción has a robust environmental management system, based on the compilation of precise indicators that allow performance to be monitored, risks to be anticipated and continuous improvement to be guaranteed in all its works and centers.*

2.5.1. Environmental Aspects, Risks and Opportunities

The identification and evaluation of the Aspects, Risks and Opportunities is a requirement of the System, but it is also essential to guarantee the sustainability of FCC Construcción's activities. This process makes it possible to act on possible risks and anticipate potential impacts, both in the design phase and during the execution of the works, so that measures can be established that not only ensure regulatory compliance but also the protection of the environment.

Through the application of the DISCON System, each FCC Construcción site and fixed centre can easily identify its environmental and social aspects associated with each of its work units, and assess which of them are significant and, therefore, require priority actions. In addition, it facilitates the task of identifying environmental aspects in emergency situations and drawing up Emergency Plans to prevent phenomena such as fires, earthquakes or hurricanes from having an even greater impact on the environment.

In the same way, the risks and opportunities, as well as the possible impacts, of the projects, can also be identified in a simple way, and actions can be established aimed at reducing these risks and maximizing opportunities. In the System itself, to facilitate this task, some of these most common actions have been identified, of proven efficiency, in such a way that the projects can have a baseline.

Thanks to this methodology, FCC Construcción turns environmental management into a dynamic process that combines control, learning and commitment, ensuring that each project contributes to sustainability and the protection of the natural environment.

*FCC Construcción promotes sustainability through its **System of Good Environmental and Social Practices®**, a pioneering tool that goes beyond legal compliance. This system allows:*

- ***Identify and evaluate environmental aspects and risks** from the design to the execution of works.*
- *Apply **preventive measures** adapted to each project, promoting innovation and continuous improvement.*
- *Reducing environmental impacts through **effective voluntary actions.***
- ***Promote environmental responsibility** as an integral part of the corporate culture.*

Significant Environmental and Social Aspects

Of all the potential environmental and social aspects that the works and centers identify, not all of them need to be acted upon. Therefore, in order to focus the effort and achieve good results, it is determined which of these aspects are significant and, therefore, may have a possible impact on the environment and communities.

To determine these significant aspects, an evaluation is carried out. This evaluation, at FCC Construcción, has been carried out in such a way that, by incorporating questions related to the characteristics of the projects and the combination of two variables, the **magnitude of the impact** and the importance, the significance of the aspects can be obtained.

Magnitude

Magnitude of the environmental aspect or degree of alteration to the environment: in terms of quantity, volume, surface, duration of the impactful action, etc.

Importance

Importance or sensitivity of the medium receiving the impact. In other words, it measures the impact that appearance may have depending on the environmental and social environment of the work.

UTE FIRA BARCELONA (Spain)

The evaluation of the identified aspects is carried out at the beginning of each project and on an annual basis. In the event of significant changes happening during the execution of the work, this evaluation is reviewed more frequently.

FCC Construcción has also established strict criteria for evaluating aspects, which allow this assessment to be as objective as possible.

The Environmental Aspects groups identified by FCC Construcción in the works are:

Emissions into the atmosphere

Use of natural resources

Waste generation (hazardous, inert or urban)

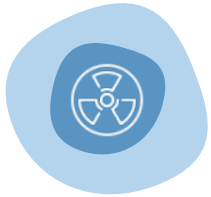
Spatial planning / urban environment / relationship with society

Environmental accidents

Noise and vibration generation

Water discharges

Occupation, pollution and soil loss



Radiation emission: Use of radioactive sources

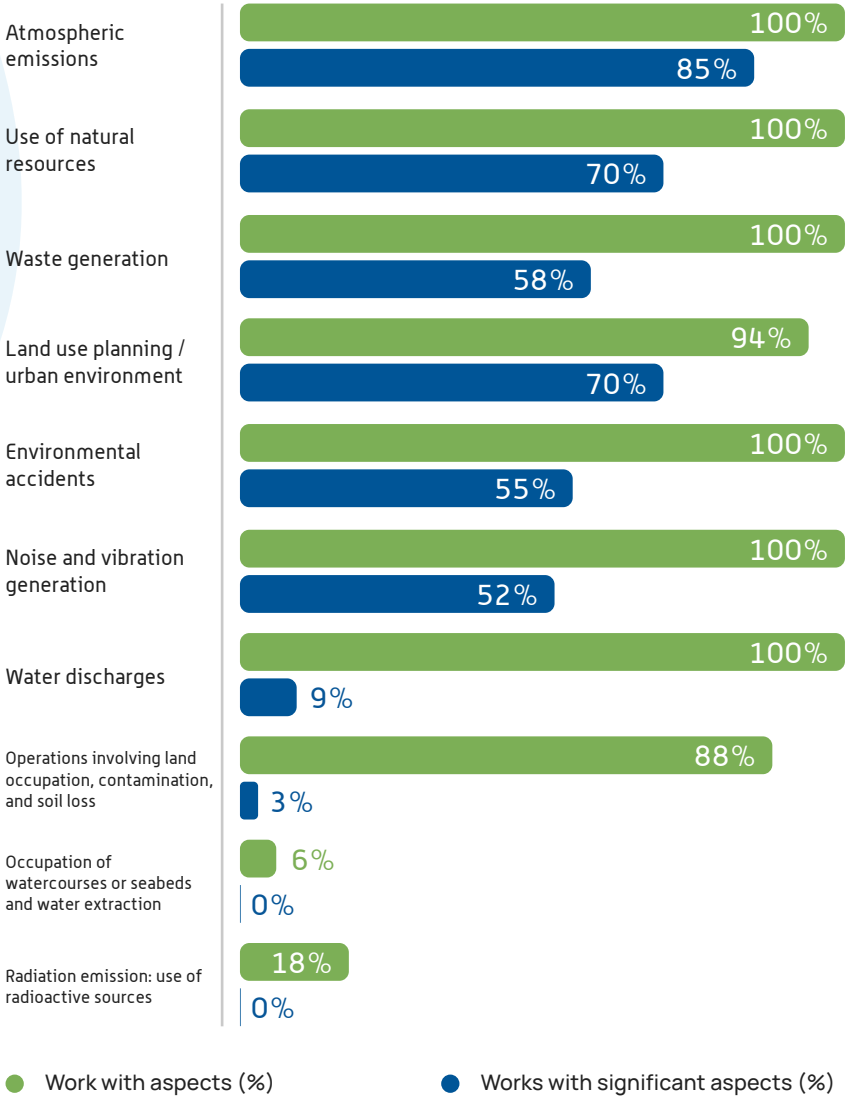
Occupation of watercourses or seabeds, and Water catchments

The most common environmental and social aspects in projects, as well as the significant aspects, will vary depending on whether it is a fixed center or a construction site. In the case of the works, they will depend on factors, among others, such as typology (civil or building), specific characteristics (linear, industrial, maritime, underground works, etc.), its location (urban area, protected areas, etc.) and the phase of the project in which it is located.

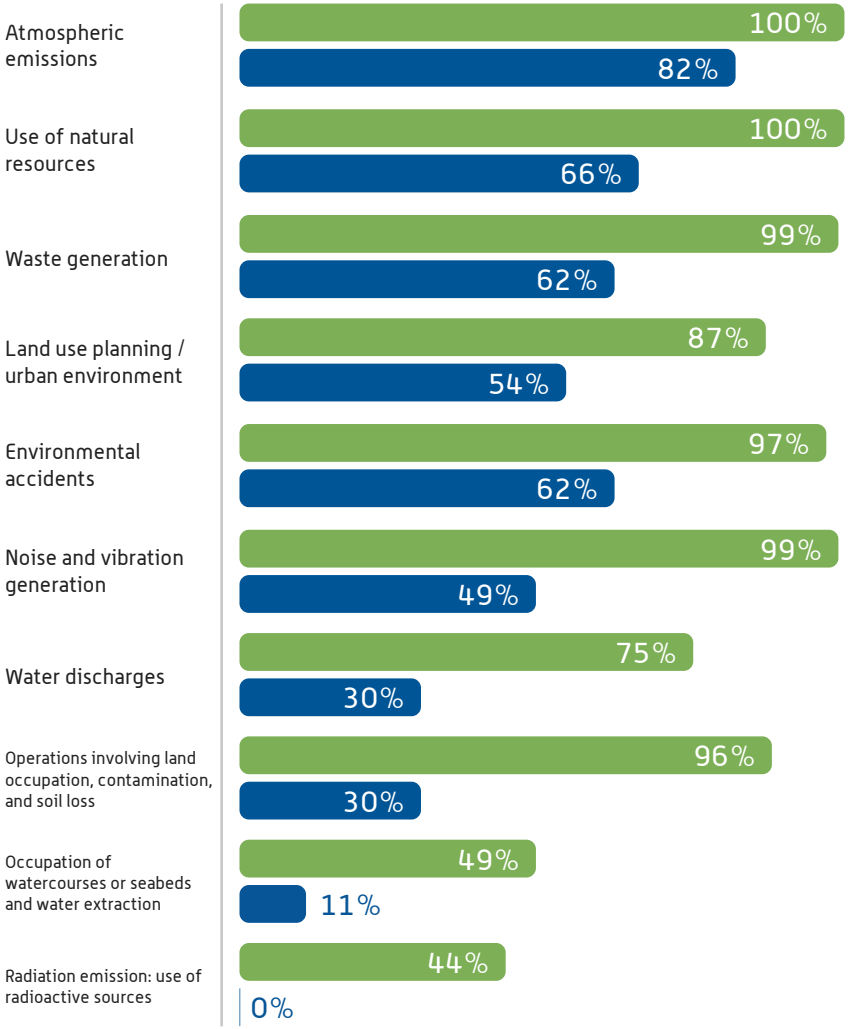
In 2024, with a total of **106 active works** covered by FCC Construcción's Environmental Management System. Based on the previously outlined typology, the following environmental aspects have been identified:

Environmental and Social Aspects identified in 2024

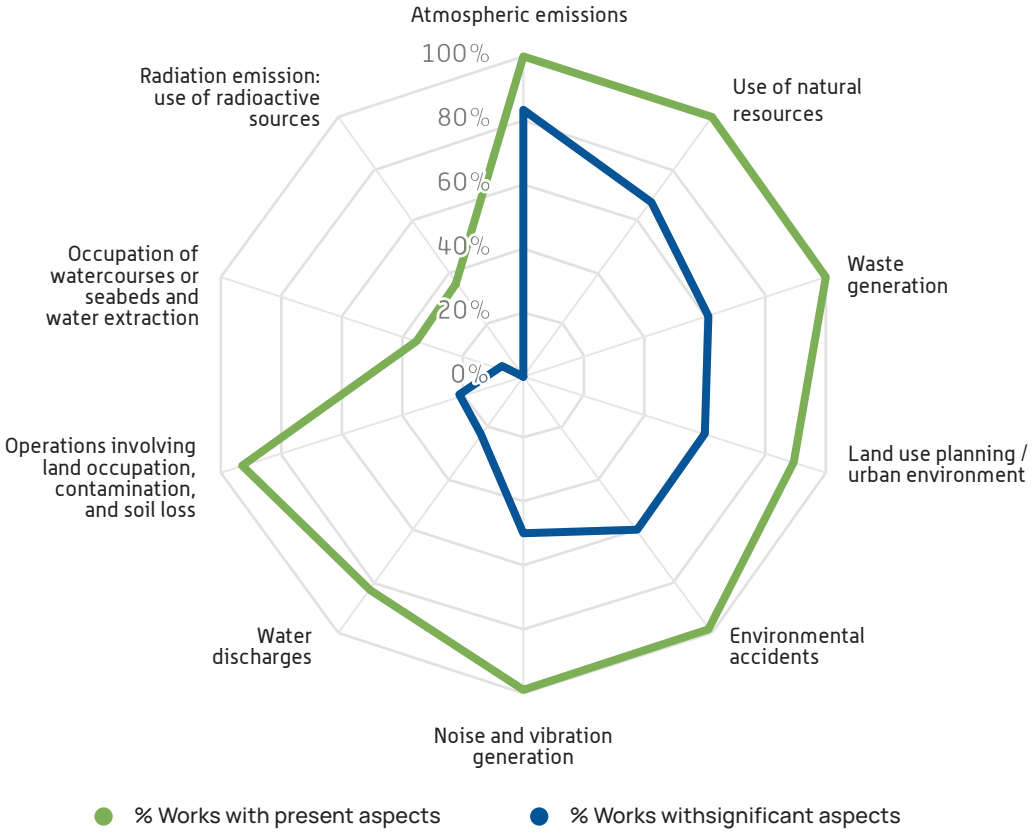
Aspects identified in building projects in 2024



Aspects identified in Civil Works projects in 2024



Percentage of works with present and significant aspects



In general, the most significant Environmental and Social Aspects, present in more than 60% of FCC Construcción's works, are the generation of emissions into the atmosphere, the use of natural resources, the generation of waste, territorial planning and environmental accidents.

For more information on the significant aspects of FCC Construcción, please refer to Annex II.

Action on Risks and Opportunities

Since 2017, FCC Construcción has had a specific procedure for the identification of risks and opportunities implemented in its data reporting tool. From this tool, the works collect their environmental and social data, determine and evaluate their aspects, establishing which are significant, and identify possible impacts, risks and opportunities.

The identification of the risks that, if they materialize, may cause impacts on the environment where the activity is carried out, helps to implement the most effective actions to avoid, minimize or mitigate the potential impact.

Similarly, opportunities are identified with the aim of taking advantage of the possible environmental and social advantages that may arise in the execution of the projects.

Based on the analysis of the risks identified, FCC Construcción draws up the action strategy associated with each risk, which will reduce the occurrence of the impact (preventive measures) or, if the impact is unavoidable, minimize its effect and negative consequences on the environment (corrective measures).

Risk identification helps put in place the best actions to avoid, minimize or mitigate potential impacts.

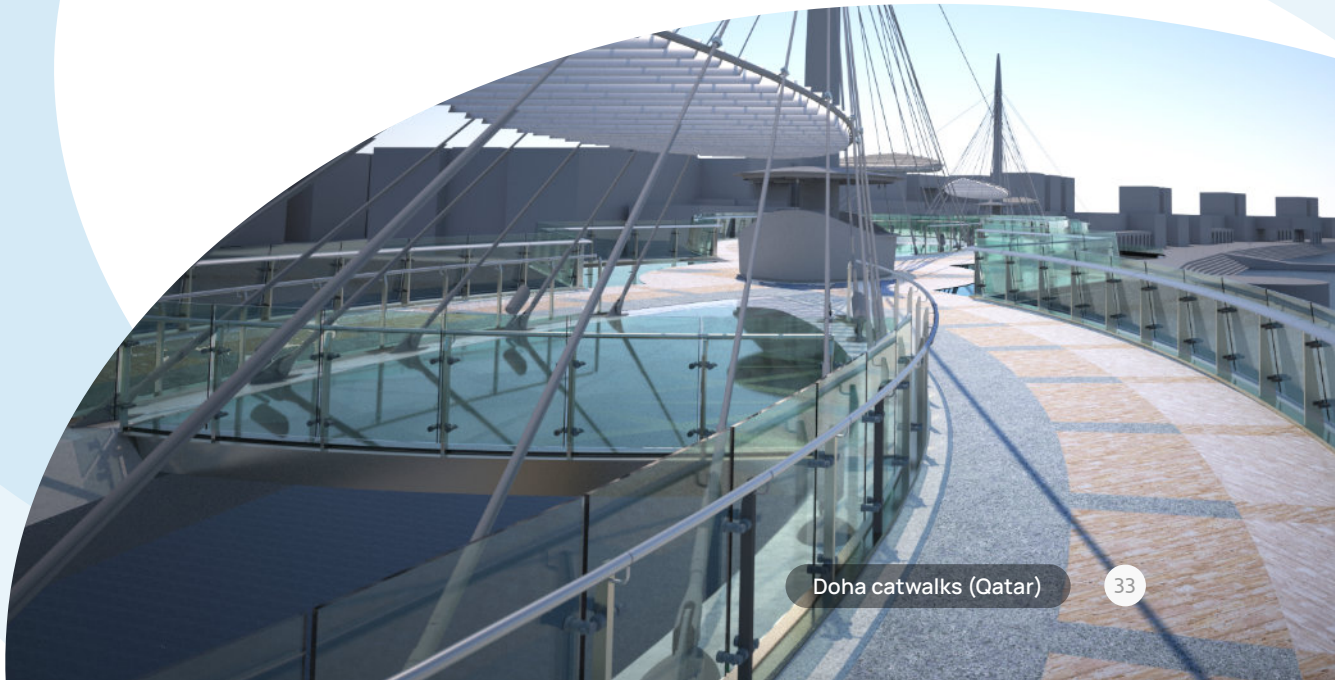
Specifically, during 2024, risks and opportunities were detected in 94 works and 35 fixed centers, which amounts to a total of 129 facilities. 8,038 risks and opportunities were identified, for which a total of 12,260 actions have been carried out, of which 3,229 have been carried out in building projects, 8,242 in civil works and 789 in fixed centers.

ONCE Corporate Building, Madrid (Spain)

General Data on Environmental and Social Risks and Opportunities

Risks and opportunities	Building	Civil works	Fixed centres	Total FCC Construction
No. of works with environmental risk-opportunity data/No. of total works	33/33 (100%)	61/73 (84%)	35/38 (92%)	129/144 (90%)
Total number of risks/opportunities identified	2,099	5,527	412	8,038
Average number of risks/opportunities identified by site/project	64	91	12	62
Total number of actions identified to address risks by site/project	3,229	8,242	789	12,260
Average number of actions identified per centre/project	98	135	23	95
Risks/opportunities without defined actions (%)	0%	0%	0%	0%

Annex III shows the actions that have been most commonly applied in FCC Construcción's works and fixed centers in 2024. In addition, the main risks and opportunities identified by environmental aspects and an extension of the information on actions to address risks and opportunities can be consulted.



Doha catwalks (Qatar)

2.5.2. FCC Construcción System of Good Environmental and Social® Practices

In 2000, FCC Construcción established, as part of its Management and Sustainability System, a System of Good Environmental and Social Practices ®[1], pioneer in the construction sector, through which construction sites and fixed centers are encouraged to implement, on a voluntary basis, actions aimed at protecting the environment.

The Good Practices System consists of a catalogue of actions with proven effectiveness and a favorable cost-benefit ratio. These practices can be implemented in common risk situations that may entail environmental or social impacts, and whose effectiveness has been demonstrated.

These actions go beyond the requirements set by the environmental legislation itself, by third parties, such as the Environmental Impact Statement, or by the client itself, and their application is voluntary.

The actions selected by the works and fixed centers become part of the environmental planning process. It should be noted that each work can select the actions it considers most suitable or applicable depending on the activities that are developed. In this way, the challenge posed by the heterogeneity of projects is overcome, which makes it unfeasible to uniformly apply the same actions across all works.

The system is also designed as a tool for sensitization and awareness that allows knowledge to be shared and to guide site managers to make decisions that contribute to reducing the impact of projects on the natural environment and communities.

In addition, thanks to the systematization and unification of the criteria for measuring the results of the System of Good Environmental and Social Practices, FCC Construcción can know and compare the degree of effectiveness of its actions, as well as learn from the undesired results that may have been caused, so as not to repeat them in the future.

The System of Good Environmental and Social Practices® provide those responsible for the works with a catalogue of actions of proven effectiveness and a good cost-benefit ratio that can be implemented, voluntarily, to minimize the risks or impacts generated.

Likewise, FCC Construcción established as an Objective of the Management System, for its continuous improvement, that 90% of its works will achieve a minimum of 60 points through the application of voluntary Good Practices, to promote the implementation of these actions and strengthen their environmental and social performance in the environment.

[1] ® FCC Construcción 2009. "Sistema de evaluación del comportamiento ambiental a través de las Buenas Prácticas".

Therefore, the Good Practices System is based on objective scoring criteria. To achieve this objective, the works must select all the Good Environmental and Social Practices that are applicable according to their characteristics, which will give them different scores depending on their selection and their final applicability.

The value obtained for each selected Good Practice will be the result of the following equation:

Importance

It is valued from 1 to 3 and is directly proportional to the scope or effort derived from its application (whether economic, technical or logistical).

X

Goal

It is valued from 1 to 3, and the higher the degree of implantation, the greater the value attributed to it.

This system means that FCC Construcción projects must implement as many Good Practices as necessary to achieve the common objective. It is important to note that in no case can they refer to external requirements, so their application will always be within the scope of voluntariness and therefore constitutes a good indicator of the company's environmental and social performance.

In addition, the effectiveness of the environmental and social actions implemented is subjected to an in-depth analysis at least **every four months**. This review allows us to assess the r**eal impact and performance** of the measures adopted. And, if necessary, pertinent **settings and adjustments** are made immediately to guarantee the optimal operability and maximum effectiveness of our practices.

The general data of Good Practices applied in 2004 were as follows:

GENERAL DATA	Building		Civil Works		Total	
Number of works that provide data on good practices	33	33	72	73	105	106
	100%		99%		99%	
Average number of good practices applicable per work	26		27		25	
Average number of good practices applied per work	25		24		23	

Ponte Ferreirinha (Portugal)

FCC Construcción's System of Good Environmental and Social Practices ® is divided into eight main categories associated with the groups of environmental aspects and risks that are most identified on construction sites:

Relationship with society

Occupation, pollution or loss of soils

Emissions into the atmosphere

Resource utilization

Noise and vibration generation

Waste generation

Water discharges

Spatial planning

The main Good Environmental and Social Practices® applied by FCC Construcción in the 2024 financial year can be consulted in Annex IV.

Main Good Practices applied on site

The application of good practices aims to address the different significant environmental and social risks identified in each work, so that their minimization or elimination is achieved.

Below there is a summary of the main environmental aspects identified in 2024, selected for their percentage of incidence, and the Good Environmental and Social Practices ® that have been most commonly applied to prevent or minimize their occurrence:

Dust emissions and impact on the construction site environment

Most significant environmental aspects and percentage of impact on projects	
Effect on the territory or urban environment due to operations that involve dirt at the entrance and exit of the work (mud or soil materials)	49%
Effect on the territory or urban environment due to the fall of granular material during transport	41%
Dust emission due to earthworks: excavations and fills, clearings and embankments	38%
Dust emission from earth transport	39%
Dust emission from machinery circulation	41%
Dust emission from demolitions	32%
Dust emission from the supply and stockpiling of powdery materials	26%

Good Practices as a Response
Use of means to avoid dirt at the entrance and exit of the work.
Adequate speed control of vehicles on site.
Use of drilling machinery with a dust humidifier system, establishment of a wet curtain at the outlet of ventilation pipes, or other dust collection systems.
Paving construction roads to reduce dust raising.
Dust reduction by irrigation with road water and stock piles.

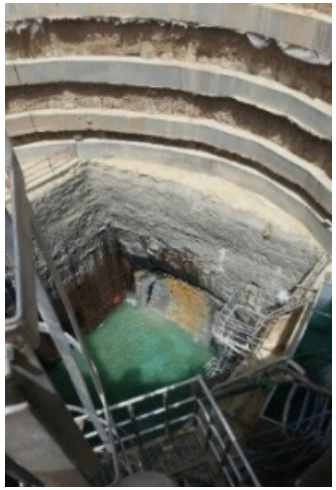
The blasting of materials in construction poses a double environmental problem: the uncontrolled projection of fragments and the intense generation of suspended dust. A preventive solution for both impacts lies in placing blasting blankets on the surface prior to detonation, thus achieving a simple action that effectively minimizes the risk of material dispersion and particulate air pollution.

Resource consumption

Most significant environmental aspects and percentage of impact on projects	
Steel consumption (structural and corrugated).	28%
Water consumption for irrigation of earthworks and pavements.	27%
Consumption of zahorras.	26%
Consumption of bricks.	23%
Consumption of diesel, gasoline, fuel oil.	20%
Electricity consumption.	18%

Good Practices as a Response
Use of materials recovered from other works.
Use of recycled aggregates instead of loan filler
Use of recycled water for irrigation, provided that it meets the necessary quality conditions.
Reduction of inert waste to landfills with respect to the volume planned in the project.
Promote the use of renewable energies.

Reusing groundwater from underground drainage, rainwater or surplus water, as long as it reaches the minimum required quality levels, to irrigate roads or stockpiles or to wash machinery reduces water consumption on construction sites.



Waste generation

Most significant environmental aspects and percentage of impact on projects	
Generation of inert or non-hazardous waste: surplus excavated land.	29%
Generation of hazardous waste: contaminated empty containers (paints, solvents, oil, glue, stripper, release agent, silicone, aerosols, explosives, etc.).	24%
Generation of urban waste from the recovery and cleaning of facilities/works.	21%
Generation of non-stone debris waste (asphalt agglomerate, plaster, scrap metal, glass, wood, fiberglass, etc.)	19%
Generation of hazardous waste: contaminated empty containers (paints, solvents, oil, glue, stripper, release agent, silicone, aerosols, explosives, etc.).	19%
Generation of stone rubble waste (mortar, bricks, prefabricated elements, terrazzo).	16%

Good Practices as a Response
Reuse of inert waste from other works and management of excavation surpluses.
Changes in the design or construction system in relation to the use of materials that generate Hazardous Waste such as fiber cement, release agents, additives, resins, varnishes, paints, etc., generating less or no hazardous waste.
Classification and separation, where appropriate, of construction and demolition waste for individual management.
Reduction of packaging waste through practices such as requesting materials with returnable packaging from the supplier, reusing contaminated packaging, receiving it with large volume or bulk elements instead of packaging, etc.

The stabilization of the land through the use of lime or cement avoids the need to empty it, so that the amount of waste generated and resources consumed is reduced, optimizing their management.

Noise and vibration generation

Most significant environmental aspects and percentage of impact on projects	
Noise generation due to demolitions.	27%
Noise generation due to earthworks: excavations and fills, clearings and embankments.	22%
Generation of vibrations due to earthworks: excavations, fillings and compaction of embankments.	20%
Circulation of machinery.	17%
Foundations.	16%
Use of auxiliary means.	14%

Good Practices as a Response
Use of modern machinery and proper maintenance of the machinery that operates on the site.
Incorporation of noise and vibration reduction devices in construction facilities or machinery, such as silencers, noise barriers, silent barriers, shock absorbers, etc.
Improvement of the levels required by legislation in parameters that are controlled (opacity of discharges, suspended particles, etc.)
Rubber lining in hoppers, screens, mills, containers and/or buckets.

When the work is carried out in areas of high acoustic sensitivity, noise and vibration reduction devices can be used to minimize the nuisance arising from the activity.

Among the measures highlighted to mitigate noise sources is the installation of temporary acoustic barriers, with the possibility of using acoustic screens, or using elements such as construction huts or earth stockpiles.

Safety on the construction site

Most significant environmental aspects and percentage of impact on projects	
Environmental accident due to fires in storage area of flammable/combustible substances (wood, paper, etc.)	38%
Environmental accidents caused by fires as a result of the handling of explosives, welding devices, generators and motors or electrical or explosion equipment.	29%
Environmental accidents due to rupture of buried pipes (electrical, telephone, water, liquid or gaseous hydrocarbons).	19%

Good Practices as a Response
Provision of duly delimited and identified areas for the storage of flammable or combustible substances, as well as external and internal infrastructures to avoid direct exposure to the sun or direct contact with the ground of waste or fuels
Separation of flammable materials from ignition sources
Preparation of Emergency Plans and preparation of personnel on fires and on the correct handling and disposal of hazardous waste and flammable substances
Prevent the accumulation of hazardous waste for prolonged periods of time on construction sites

The handling and storage of hazardous substances and waste on construction sites is one of the activities that can present significant risks to the environment. Possible accidental spills during the transport, storage and use of this type of substance must always be prevented and avoided. For this purpose, buckets are used in roofed areas.

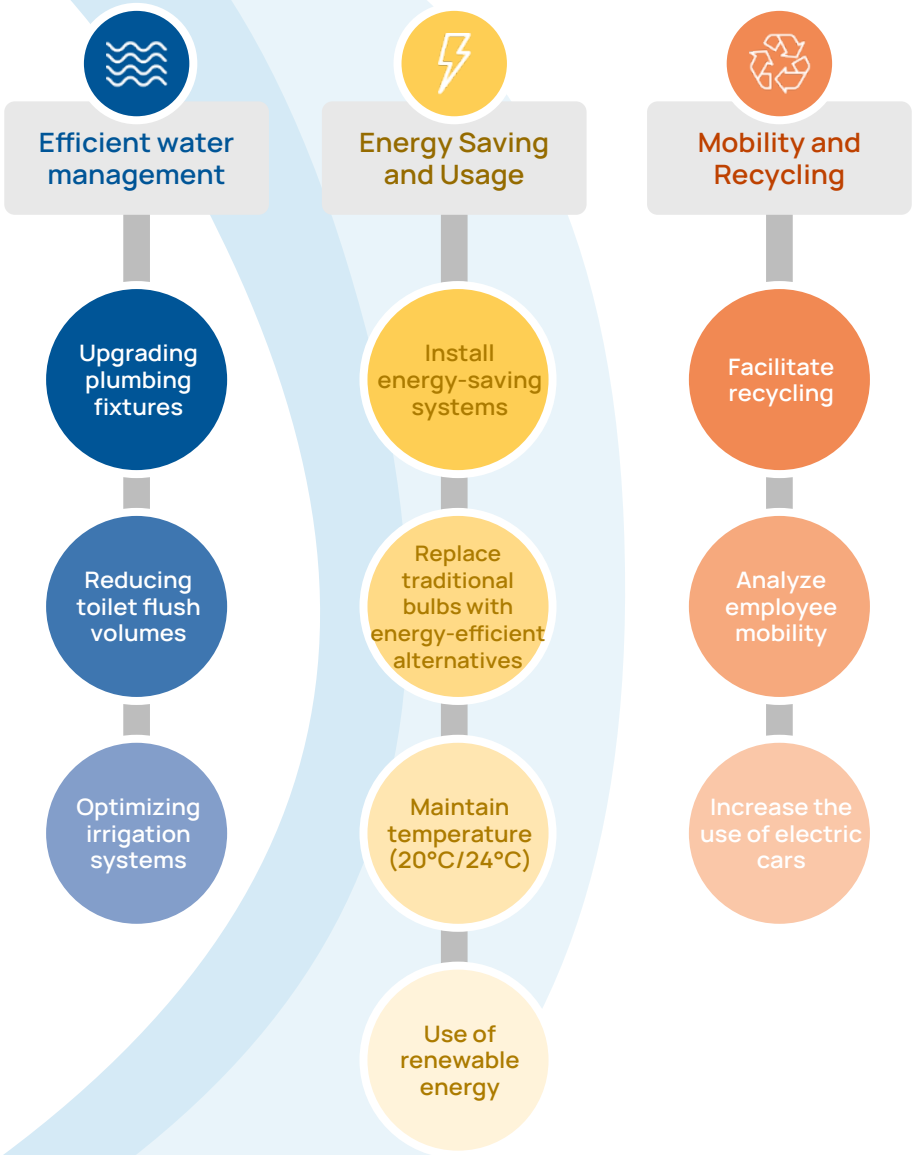
Specific Good Practices for Fixed Centers

FCC Construcción also contemplates the application of Good Environmental and Social Practices in Fixed Centers, such as offices, warehouses and machinery parks, especially in those that do not yet have associated works. In these centers, the Good Practice System is simpler and focused on continuous improvement and the constant improvement of operational standards, given that the capacity for action and the relevance of environmental aspects are more limited.

The main objective of these centers is to exceed the Good Environmental Practices® score obtained in the previous year, but without reaching a minimum score. This is achieved through two key pathways:

1. **Achievement of Pending Points:** Successfully implementing those points that were planned but were not previously achieved.
2. **Implementation of New Practices:** Incorporating new Good Environmental Practices® that arise to optimize management and operability.

Some examples of Good Practices in fixed centers are:



2.5.3. Project Monitoring and Follow-up

The Management and Sustainability System would not be efficient without proper monitoring and follow-up of its application in the works and fixed centers. This System is designed to facilitate its monitoring through its digital applications, so that the risks and opportunities that may arise from the organization's activity on the environment can be identified early, but also the effectiveness of the actions implemented, both mandatory and voluntary.

FCC Construcción carries out exhaustive monitoring of its works through the System. This analysis is not limited to environmental aspects but also considers the contribution of the sector and the company to employment and the economy. To this end, the System incorporates numerous indicators that vary from those related to the characteristics of the projects, their location and their interaction with the environment, their production and managed volumes of materials used, to the more strictly environmental, and that allow the different footprints of the activity to be calculated.

This monitoring and follow-up of projects is carried out at up to three levels within the organization:

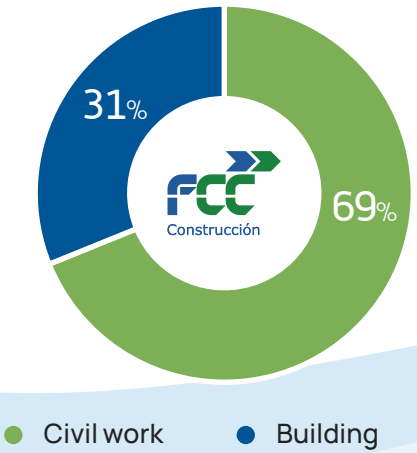
- **At the project level:** Approximately every four months, coinciding with the closure periods, the technicians in charge, or those in charge of the System, must complete, review and send to the Quality and Environment Department of Central Services the environmental and social data and results collected in the System.
- **At the Central Services level:** With the same periodicity, the data and results of the projects are reviewed and reports, both voluntary and mandatory, are prepared, including the System Review Report.
- **At the Senior Management level:** They are in charge of reviewing the Review Report and validating the conclusions.

This entire monitoring process is complemented by internal and external audits at all levels, with the aim of guaranteeing rigor and objectivity in the data, also providing transparency to the entire process.

The results of the follow-up and the monitoring of the system are reflected in the indicators presented in the following sections, calculated on average values for civil and building works, and for all the 106 projects executed during 2024.

*In **2024**, a total of **106** works were carried out under FCC Construcción's Management and Sustainability System, including civil works and building projects.*

Distribution by work type 2024



Project characteristics

Civil infrastructure works are environmentally complex due to factors such as the extension of the area, the intensive use of machinery, the variability of personnel and the dynamics of the activities. This requires rigorous planning, with continuous measurement of indicators and application of good practices to minimize impacts and optimize environmental performance. In 2024, FCC's Works have reached the following average values:

Main average values associated with the characteristics of the works

Main average values associated with the characteristics of the works			
1.7 Auxiliary facilities on site (plants, workshops, quarries, landfills, etc.)	14.8 14,8 Vehicles or machinery with combustion engines	3.5 Generators present on site for more than 5 days	2.6 Road closures

For more information on the data associated with the characteristics of our works, see Annex I.

≈ 305,000 m²
Construction site area

16,310 m²
Built-ip area

502 m²
Space allocated for offices

3,254 m²
Space allocated for workshops

76 people
per project

Project Location and Interaction

One of the key aspects when tackling construction projects and assessing their environmental and social impact is the location of the work and its interaction with the environment. These factors are decisive not only in assessing the **impact on the nearby environment**, but also in optimizing the logistics of materials and waste management.

Efficient planning in this regard allows for a reduction in travel, which entails significant benefits such as boosting local economies, saving costs and time, and reducing emissions associated with transport. To this end, specific indicators such as proximity to population centers, essential services, bodies of water or waste destinations, as well as the presence of hazardous substances or the impact on riverbeds and water tables, are analyzed.

Main average values associated with project location and interaction				
448m distance to the nearest population	**10km** Average distance to essential community services (firefighters, hospitals, etc.)	**+440m** of distance to residential areas or industrial activities	**+3,500m** of distance to water bodies	**< 21m** of distance to the final destination of construction waste

For more information on the data associated with the location and interaction of the projects, see Annex I.

Line 4-5-6 Riyadh Metro (Saudi Arabia)

Production and use of materials

The materials used in construction projects have differentiated environmental impacts throughout their life cycle, from their extraction and production to their commissioning. At FCC Construcción, the systematic collection of data on the origin, quantity and use of materials – such as concrete, asphalt agglomerate, aggregates, steel or glass – allows their use to be appropriately dimensioned, resources optimized and progress towards more efficient and responsible construction.

Main average values associated with the production and use of materials						
21,830 m³ Concrete plant production	**7,672 t** Plant production and **3,748 t** On-site production of asphalt concrete	**41,492 t** Aggregate plant production	**11,889 t** Start-up of concrete	**41,665 t** Steel used in construction	**86 t** Non-ferrous metals used in construction	**67 %** Nighttime electricity consumption

For more information on the data associated with the production and use of materials, see Annex I.

Pape Tunnel Underground Stations (PTUS)

Managed volumes

Controlling and measuring the volumes of material managed on construction sites is essential to effectively manage their impacts and associated risks. In addition, this practice allows us to identify opportunities to recycle and reuse materials, and to make more efficient management of the work.

Valores medios principales asociados a la producción y empleo de materiales							
32 m^3 Storage of flammable/ combustible substances.	23 m^3 Storage of harmful or hazardous substances.	11,646 m^3 Aggregates and other stockpiled materials that can cause water turbidity.	3,551 m^3/year River water extracted and 6,068 m^3/year Water extracted from wells.	2,080 m^3 Demolitions	143,719 m^3 Earthmoving operations	51,886 m^3 Planned construction landfill	8,329 m^3 containment sludge

For more information on managed volume data, see Annex I.

Port of Callao (Peru

03

Environmental Performance 2024

3.1. Climate Change Mitigation and Adaptation

FCC Construcción has made the fight against climate change a strategic axis of its activity, with the firm intention of **achieving climate neutrality by 2050**. Since 2010, the company has led pioneering initiatives in the sector, such as the external verification of its emissions and voluntary adherence to the MITERD Carbon Footprint Registry, consolidating a robust and transparent management framework in the fight against climate change.

Over the years, this framework has been strengthened through actions aimed at improving the accuracy and transparency **of the calculation of the carbon footprint**, promoting **training and awareness** throughout the value chain, promoting adherence to **voluntary initiatives** and integrating **specific measures** into its strategy to mitigate climate change.

Among the **most relevant milestones** developed by FCC Construcción are:

2010 Preparation of the first protocol for the quantification of GHG emissions in construction, becoming the first Spanish company in the sector to submit its emissions to external verification.

2012 Obtained the Carbon Footprint certificate "Verified CO2 Environment" and awarded a second prize in the category "Management for sustainable development" of the European Environment Awards, granted by the Entorno Foundation.

2016 Expansion of the scope of the management system under the ISO 14064-1 standard and adhesion to the Community #PorElClima initiative.

2017 Preparation and approval of the first Strategy against Climate Change (2017-2020), aimed at neutralising the carbon footprint on site.

2018 Extension of the verification of emissions to international projects in Panama, Peru and Portugal.

2019 Participation in COP25, reinforcing its global commitment.

2020 Verification of 100% of FCC Construcción's activity, aligning the strategy with SDG 13 (Climate Action).

2023 Approval and implementation of the second Climate Change Strategy, which sets ambitious short-, medium- and long-term targets (2026, 2030 and 2050).

2024 Independent participation in the Carbon Disclosure Project (CDP, hereinafter) and verification of 100% of the infrastructure area.

Currently, the **Climate Change Strategy 2023-2026** is the key instrument to guide FCC Construcción's future steps towards climate neutrality and is based on an exhaustive analysis of climate risks, guided by the recommendations of the TCFD (Task Force on Climate-related Financial Disclosures) for the identification and assessment of risks and opportunities. This analysis allowed the company to analyze the environmental and financial impact of its operations under different climate scenarios, ranging from neutrality to high-emission contexts.

This **proactive approach** to the fight against climate change allows FCC Construcción to:

Detect risks and opportunities in each project, through the collection and monitoring of data on site.

Design strategic plans that minimize risks, reduce impacts, and leverage opportunities for innovation and green financing.

Prioritize actions according to their relevance and time horizon (short, medium, long term), adapting to the specific conditions of each region.

Among the **most significant risks** identified for the organization are extreme weather events, regulatory pressure, and price volatility. On the other hand, **key opportunities** such as access to clean technologies, sustainable finance and new climate-resilient business models emerge.

For more information on the risks and opportunities arising from climate change and FCC Construcción's main response actions, see the Climate Change Strategy: Climate Change Strategy 2023-2026

3.1.1. Greenhouse Gas Emissions

Key impacts, risks and opportunities

FCC Construcción, committed to operational excellence and sustainability, proactively identifies and manages its aspects related to Greenhouse Gas (GHG) emissions in projects. This vision makes it possible to transform environmental challenges into opportunities for innovation and continuous improvement.

The main source of direct GHG emissions at FCC Construcción comes from the use of its equipment and machinery on its construction sites. For this reason, the company recognises the importance of keeping this equipment in optimal conditions to guarantee compliance with the established emission parameters, in addition to committing to technological updating and preventive maintenance to avoid deviations and guarantee continuous improvement in energy efficiency.

In terms of indirect emissions, more than 80% of FCC Construcción's carbon footprint is associated with the production and transport of materials, so the reduction of these emissions depends largely on the sustainable progress of these sectors. For this reason, and in line with the best available technologies and materials, the organization promotes specific initiatives such as optimizing the use of resources, incorporating more sustainable materials and means of transport, and promoting awareness throughout its value chain.

In general terms, FCC Construcción identifies multiple opportunities to move towards construction with fewer emissions:

Reduction of greenhouse gas (GHG) emissions through the optimization of fuel consumption and improvement of process efficiency.

Raise awareness across the subcontracting chain, promoting responsible and sustainable practices among all stakeholders involved in the work development.

Optimization of waste management, contributing to the reduction of indirect emissions and the utilization of resources.

Economic and environmental improvement of the supply chain, integrating sustainability criteria into operational decision-making.

Innovation in the use of clean technologies, enabling progress toward low-carbon construction.

> *FCC Construcción has worked to define its strategic lines to achieve carbon neutrality by 2050, which are developed in its Sustainability and Climate Change Strategy.*

Some of our actions

Actions to address risks	**Equipment maintenance:** Adequate maintenance programs for boilers and heating systems, along with advanced control systems (filters, cyclones, precipitators) that keep emission levels below legal limits.
	Efficient lighting: Reprogramming of nighttime lighting, minimizing disturbances to the population and optimizing energy consumption.
	Temperature control in climate-controlled spaces, promoting efficient comfort.
	Responsible use of resources: Ensuring that engines are not running during idle times.
Actions to leverage opportunities	**Green fuels:** Reduction of greenhouse gas (GHG) emissions through the use of biofuels, low-sulfur fuels, and efficient vehicles and machinery.
	Awareness-raising: Training sessions to promote efficient driving, the use of higher gears, and route optimization.
	Sustainable procurement: Sustainable purchasing specifications that require subcontractors to use the best available technologies.
	Waste management: Prior estimation of waste to plan transportation efficiently and reduce indirect emissions.
	Use of local materials: Utilization of locally sourced materials, such as those from nearby quarries, which reduces the carbon footprint associated with transportation.
	Preventive maintenance of machinery and vehicles.
	Use of sustainable materials: Prioritize reused, recycled, or recyclable materials, as well as those with a more environmentally friendly composition.

For more information on the actions developed to address the risks and opportunities identified in the works, see *Annex III.*

Another of the most relevant actions developed by FCC Construcción to address climate change mitigation is the **Calculation and Verification of its Carbon Footprint**. This footprint has been recognised as one of the most complete and detailed in the sector, which makes it possible to identify the main sources of emissions more precisely and to define specific measures to reduce them.

The calculation methodology is based on the ISO 14064-1 Standard and the GHG Protocol standard, internationally recognized for their rigor in the quantification of emissions. This methodology is defined and integrated to be applied to all works and fixed centers, regardless of their geographical location, and allows their emissions to be obtained practically in real time.

FCC Construcción uses its own digital tools that facilitate the collection and analysis of the data that make it up, guarantee the objectivity and representativeness of the information, and reinforce transparency in the communication of results. Likewise, the emission factors used are specific to each country where the works and fixed centers are located, which facilitates obtaining certifications and participation in national voluntary initiatives, such as the Carbon Footprint Registry, Compensation and CO_2 Absorption Projects of MITERD in Spain, in which, for the second consecutive year, the "**Calculo, Reduzco, Compenso**" seal has been obtained.

All this also allows for the project to take on initiatives to reduce its own emissions that contribute to FCC Construcción's ultimate goal of achieving climate neutrality by 2050. This is the case, for example, of the VeenIX A9 BAHO project, which has reached Level 5, the highest, of the "CO2 Performance Ladder" certification, which means that the project, in addition to measure its footprint, setting reduction targets and communicating its results, contributes to the decarbonisation of the value chain and the sector. Likewise, the A9 is a benchmark for sustainability, incorporating indicators based on the Life Cycle Assessment (LCA) of materials among its actions for decarbonisation.

> ***FCC Construcción's Carbon Footprint*** *is a* ***key indicator*** *to know the volume of CO_2eq emissions generated directly or indirectly in the organisation's activities. Currently, FCC Construcción's footprint covers the following countries:* ***Australia, Saudi Arabia, Belgium, Bulgaria, Canada, Qatar, Chile, Colombia, Costa Rica, El Salvador, Spain, the United States, Ireland, Mexico, the Netherlands, Nicaragua, Norway, Panama, Peru, Portugal, the United Kingdom and Romania.***

Scope 1

Category 1

Direct GHG emissions.

- Associated with fuel consumption in stationary sources.
- Associated with fuel consumption in mobile sources.

Scope 2

Category 2

Indirect GHG emissions.

Scope 3

Other indirect emissions

Category 3: Indirect GHG emissions caused by transportation.

- Associated with business travel by company personnel..
- Associated with commuting to the workplace (in itinere).
- Associated with the transportation of consumed materials.

Category 4: Indirect emissions caused by products used by the organization.

- Associated with the production of consumed materials.
- Associated with the execution of subcontracted construction units.
- Associated with activities related to purchased energy.
- Associated with the transportation and management of waste and surplus materials.
- Associated with the consumption of water from the supply network.

Other biogenic emissions.

Avoided emissions.

For more information on FCC Construction's Carbon Footprint, see the GHG Emissions Reports: ***Carbon footprint - FCCCO***

Remodeling of the Santiago Bernabéu Stadium (Spain)

Life Cycle Analysis of Materials

Project: VeenIX A9 BAHO
Client: Rijkswaterstaat
Location: Amsterdam (Netherlands)

Description of the work

The VeenIX A9 BaHo project is one of the largest road infrastructure improvement initiatives in the Netherlands. Its objective is to increase mobility and safety on the A9 motorway through actions in an 11.4 km section that include the widening of three to four lanes in each direction, the renovation of 11 existing structures and the construction of a 1.7 km deep cut to optimize the route and reduce the visual and acoustic impact.

This project is part of the Schiphol-Amsterdam-Almere (SAA) road widening program, promoted by Rijkswaterstaat, where FCC Construcción acts as main contractor.

Challenge

The project faced a crucial challenge: meeting the **strict sustainability requirements** set by the Dutch Ministry of Infrastructure and Water, which focused on reducing the environmental impact of building materials and thus their carbon footprint.

To assess environmental performance, the Ministry uses the **Environmental Cost Indicator** (*Milieukostenindicator,* ***MKI***), which translates the environmental impact of materials into monetary terms based on its **Life Cycle Assessment (LCA)**. The better the sustainability performance of a material, the lower its MKI value.

The real challenge was in the calculation of these indicators for the materials of the work, in integrating the sustainability of the materials **from the acquisition phase**, requesting preliminary information on the environmental impact of each of the materials, and in **carrying out the detailed LCAs** after the purchase to **calculate their MKI.**

Solution

To overcome this challenge, the project implemented an **integrated sustainability approach** that starts from the supply chain. From the initial phase of selecting suppliers, detailed information on the environmental impact of their materials is requested, becoming a **key criterion in the purchase decision.**

In addition, **Life Cycle Assessments (LCAs)** focus on the materials that contribute the most to the overall environmental impact of the project, ensuring that efforts to reduce the ecological footprint are directed where the greatest benefit is generated. Among the most relevant materials were: **sand and gravel, concrete (in situ and prefabricated), sheet piles, anchors, corrugated steel, asphalt mixtures and EPS**, among others.

This approach makes it possible to **prioritize actions that really contribute to the reduction of the indicator,** such as buying more sustainable materials that have an **Environmental Product Declaration (EPD), optimizing resources** and implementing reuse practices of **different materials** of the project, in such a way as to ensure compliance with **the demanding sustainability requirements**, reinforcing transparency and accountability throughout the project lifecycle.

Likewise, the results of LCAs will be independently verified by certified experts, ensuring that the evaluation is correct and transparent.

Life Cycle Analysis of Materials

Project: VeenIX A9 BAHO
Client: Rijkswaterstaat
Location: Amsterdam (Netherlands)

Description of the work

The VeenIX A9 BaHo project is one of the largest road infrastructure improvement initiatives in the Netherlands. Its objective is to increase mobility and safety on the A9 motorway through actions in an 11.4 km section that include the widening of three to four lanes in each direction, the renovation of 11 existing structures and the construction of a 1.7 km deep cut to optimize the route and reduce the visual and acoustic impact.

This project is part of the Schiphol-Amsterdam-Almere (SAA) road widening program, promoted by Rijkswaterstaat, where FCC Construcción acts as main contractor.

Result

This methodology produces significant benefits in three dimensions:

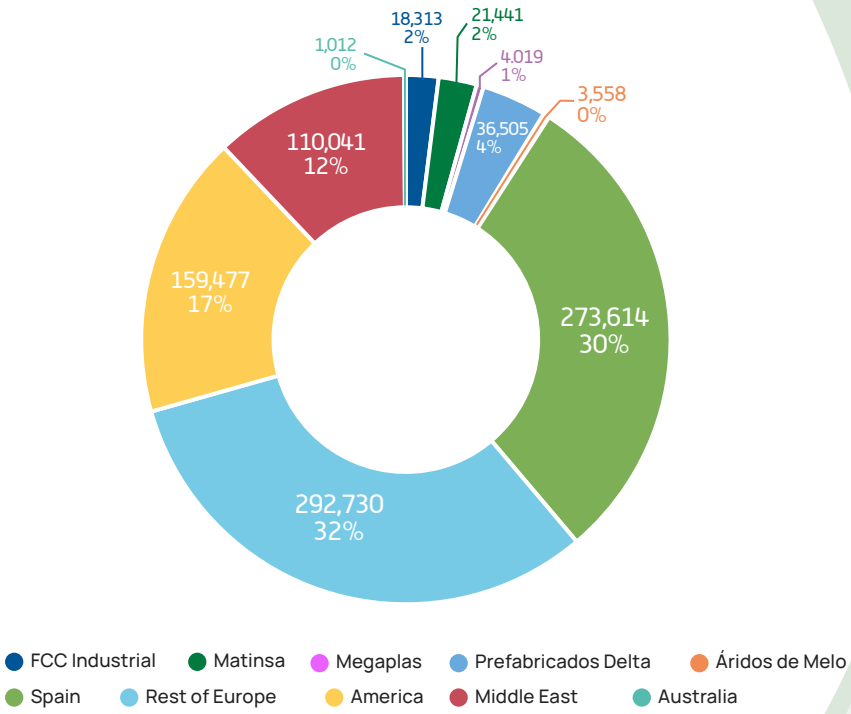
- **At the operational level:** Informed decision-making is achieved to minimize the **ecological footprint of the infrastructure throughout its life cycle**, concentrating efforts on the materials with the greatest environmental impact.
- **At a strategic level**: Carrying out verified **Life Cycle Assessments (LCAs) for the selected materials represents a key opportunity for FCC Construcción**, which demonstrates its ability to accurately quantify the environmental impact of its activity and **reaffirms its commitment to high-level sustainable performance.**
- **On an environmental level:** Choosing materials with a lower ecological footprint from the purchasing process not only reduces MKI values, but also **significantly decreases the overall environmental footprint of the project.**

Indicators

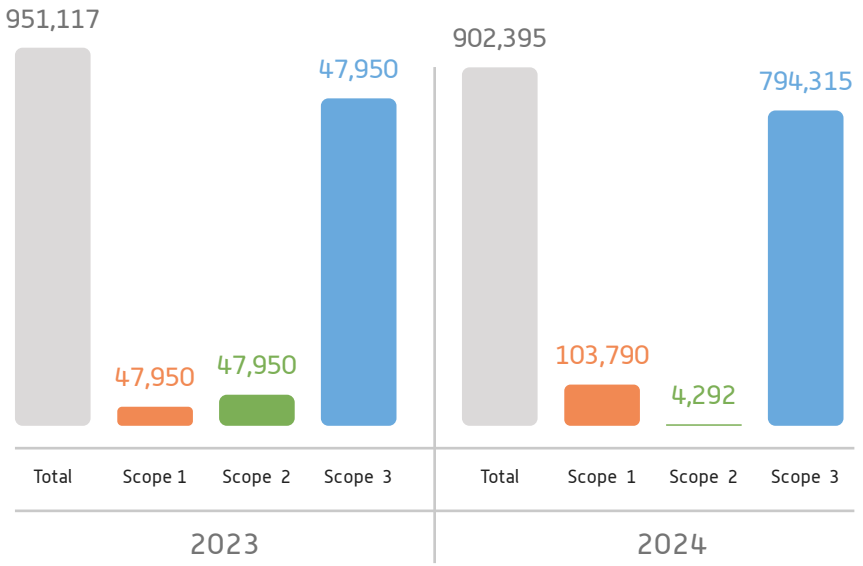
FCC Construcción currently calculates and verifies its carbon footprint in all the countries in which it operates: Spain, Portugal, Bulgaria, Romania, the United Kingdom, Ireland, Belgium, Norway, the Netherlands, Nicaragua, Costa Rica, Panama, El Salvador, Mexico, Colombia, Chile, Peru, the United States, Canada, Australia, Qatar and Saudi Arabia.
Below is the detail of the emissions verified by type of scope, for the years 2023 and 2024[2]:

↓5%
total emissions in 2024

Verified GHG emissions for 2024 (tCO2e)



Verified GHG emissions (tCO2e) 2023 and 2024



[2] The Carbon Footprint of FCC Industrial, S.A. is verified annually in October. For this reason, as of the date of publication of this Report, the company did not yet have the data for the financial year 2024.

↓95%

Scope 2 emissions

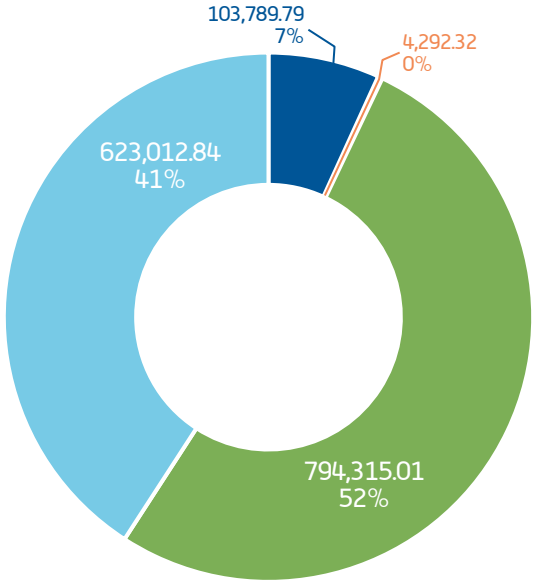
↓5.329

emissions avoided in 2024

On the other hand, in 2024, FCC Construcción's verified avoided emissions reached a total of **5,033 t CO_2e**, without considering FCC Industrial, S.A.'s avoided emissions, which correspond to the 2023 financial year:

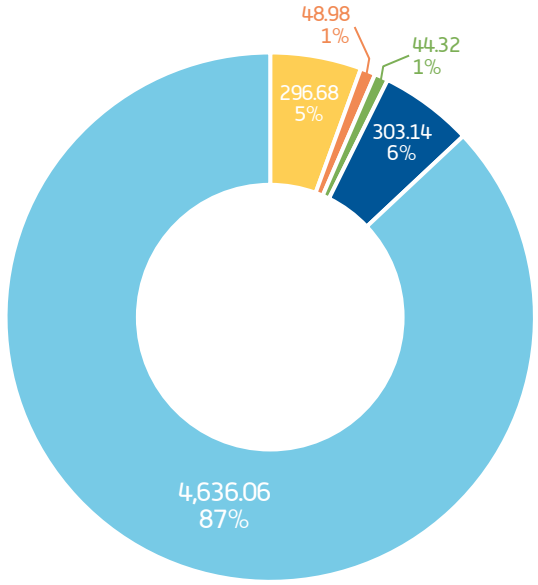
Verified emissions, classified by scopes (tCO_2e)

(UNE-EN-ISO 14064-1:2019)



- Category 1: Direct GHG emissions
- Category 2: Indirect GHG emissions
- Category 3: Indirect GHG emissions caused by transport
- Category 4: Indirect emissions caused by products used by the organization

Avoided greenhouse gas emissions 2024 (tCO_2e)



- FCC Industrial
- Matinsa
- Megaplas
- Áridos de Melo
- FCC Construcción

For more information , see Annex V.

3.1.2. Energy

Key impacts, risks and opportunities

Energy consumption, especially fossil origin, from machinery, transport and construction processes, has a direct and significant impact on the organization's carbon footprint. For this reason, **efficient energy management**, the transition to **renewable sources and continuous improvement** in processes are key elements to move towards more sustainable construction.

Although FCC Construcción manages its energy resources efficiently, there are certain challenges that require continuous attention, such as the possible shortage of fossil fuels necessary for the development of the works, or the appearance of new legal and contractual requirements, which increasingly limit their use, which may affect the planning and execution of the works.

Through efficient energy management, the company generates environmental, economic and social benefits that translate into:

- **Reduction in energy consumption**, both in electricity and fossil fuels.
- **Reduction of GHG** emissions through the use of cleaner and more efficient technologies.
- **Optimization of waste management**, reducing transportation-related consumption.
- **Awareness-raising across the subcontracting chain**, promoting sustainable practices among collaborators.

Terrer electrical substation (Spain)

Some of our actions

2025 Goal

100%

emission-neutral fleet

In its goal of achieving carbon neutrality, FCC Construcción is firmly committed to eliminate the consumption of gasoline and diesel A, and the exclusive use of renewable electricity by 2050.

Actions to address risks	Use of biofuels in vehicles and machinery, whenever possible, as an alternative to fossil fuels.
	Speed control on site
Actions to leverage opportunities	**Starting machinery and vehicles only for the essential time**, avoiding unnecessary consumption.
	Additional preventive maintenance of machinery, beyond what is required by law.
	Optimization of machinery movements, adjusting loads to the vehicle's capacity.
	Route adjustment, reducing transportation times and distances.
	Modernization of the machinery fleet, incorporating equipment with better performance in consumption and emissions.
	Promotion of subcontractors with efficient machinery, through sustainable procurement specifications.
	Use of construction materials extracted from nearby quarries, reducing the energy associated with transportation.
	Installation of motion sensors for lighting in common areas, reducing electrical consumption.
	Assembly of site cabins oriented toward natural light, leveraging passive resources.
	Lighting studies for temporary lighting, adjusting illumination levels to actual needs.
	Replacement of halogen lamps with LED fixtures, improving energy efficiency.

For more information on the actions developed to address the risks and opportunities identified in the works, see Annex III.

Sustainable lighting on site

Project: Salamanca Hospital Complex
Client: Regional Health Management (SACYL)
Location: Salamanca (Spain)

Description of the work

The Salamanca Hospital Complex is a project that is made up of three phases, including the construction of new infrastructures and the demolition of the old hospital:

- **Phase I**: Focused on the construction of the new Industrial Building, the Vega car park and the medium voltage line.
- **Phase II**: focused on the execution of the connection gallery, the conditioning of the infrastructures, the adaptation of the accesses and the execution of the new hospital: hospitalization blocks and technical blocks.
- **Phase III**: Demolition of the old Clinical Hospital and execution of the outpatient consultation blocks.

Challenge

In the field of construction, temporary lighting on site is an essential element to guarantee the safety and efficiency of work. Traditionally, and specifically in the previous phases of the work, fluorescent screens have been used, which generate a significant amount of waste at the end of their useful life, and a higher energy consumption and, therefore, higher emissions into the atmosphere.

Solución

As a more efficient and sustainable alternative, it was considered to replace fluorescent screens with LED strips that offer multiple environmental advantages as well as economic, among others, the reduction of waste and emissions, as well as the optimization of operating costs using more efficient and durable lighting systems.

The replacement was proposed for all the temporary lighting areas on site, based on the following plan:

- **Initial Diagnosis:** Identification of lighting needs, determining the levels of lighting required in each area according to regulations (for example, UNE-EN 12464-2).
- **LED Technology Selection:** Choice of LED strips with energy certification A or higher, resistant to dust and humidity (IP65 protection degree or higher), with a minimum lifespan of 30,000 hours and low consumption (between 5 and 15 W/m). In addition, models with quick-connect systems were installed to facilitate assembly on site.
- **Economic Analysis, Installation and Replacement:** Prior to procurement, the costs of purchasing, installation and maintenance of the LED strips versus the fluorescent screens were evaluated. The contract included the purchase, installation, maintenance of LED strips, training of operators to ensure correct identification of faults, safe replacement and proper waste management.

Sustainable lighting on site

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Client: Regional Health Management (SACYL)
Location: Salamanca (Spain)

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- **Phase III**: Demolition of the old Clinical Hospital and execution of the outpatient consultation blocks.

Result

Environmental benefits:

- Reduced waste generation: LED strips have a significantly longer lifespan than fluorescent lamps (up to five times longer), which reduces the frequency of replacement and therefore the amount of waste generated.
- Reduction of hazardous waste: Fluorescent lamps contain mercury, a hazardous waste that requires special management. LED strips do not contain any toxic components or substances.
- Lower waste volume: LED strips are more compact and lighter, making them easier to transport and store, and reducing the volume of waste at the end of their useful life.
- Greater energy efficiency: The lower energy consumption of LED strips (80% less energy) contributes to reducing indirect greenhouse gas (GHG) emissions, and therefore reducing the carbon footprint of the work.

Economic Benefits:

- Savings in electricity consumption: The energy efficiency of LED strips translates into a significant reduction in the electricity bill during the execution of the work.
- Lower maintenance costs: By having a longer service life, the need for frequent replacements and associated labor is reduced.
- Reduction in long-term acquisition costs: Although the initial cost may be slightly higher, durability and low consumption more than compensate for the investment.
- Lower logistics costs: Being lighter and more compact, the cost of transport and storage is reduced.

This success story also contributes to the achievement of the objective of FCC Construction's Climate Change Strategy regarding the replacement of luminaires.

Indicators

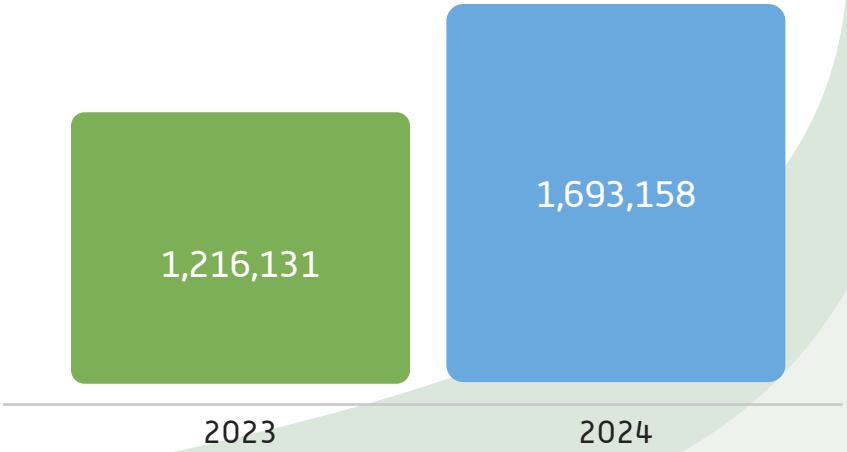
In 2024, FCC Construcción's energy consumption increased by 39%, mainly due to the increase in production. It is important to note that, during this same period, energy consumption f**rom renewable sources** also grew, reaching a total of **1,825 GJ.**

As for indirect energy consumption, this decreased during the 2024 financial year, mainly due to the completion of the works on the Riyadh metro.

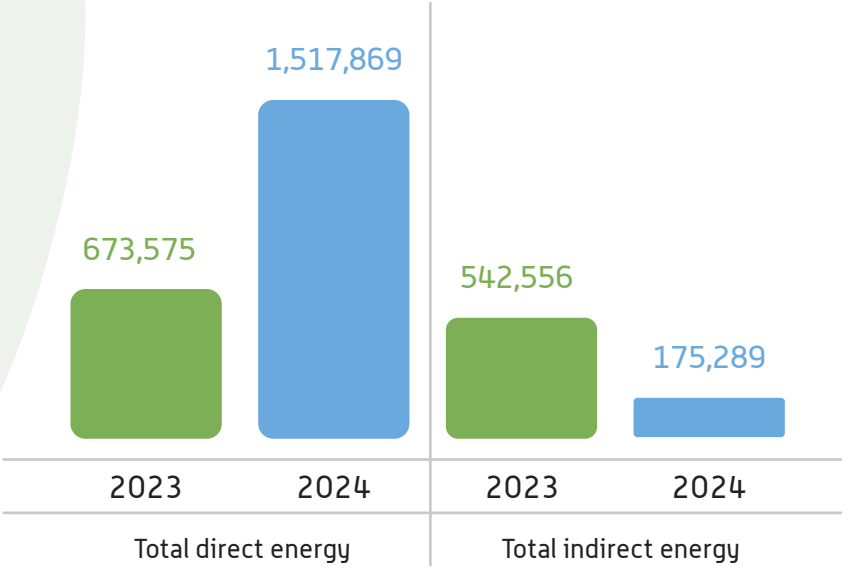
↓68%
indirect energy consumption

↑49%
Energy from renewable sources

Energy consumption (GJ)



Direct and Indirect energy consumption (GJ)

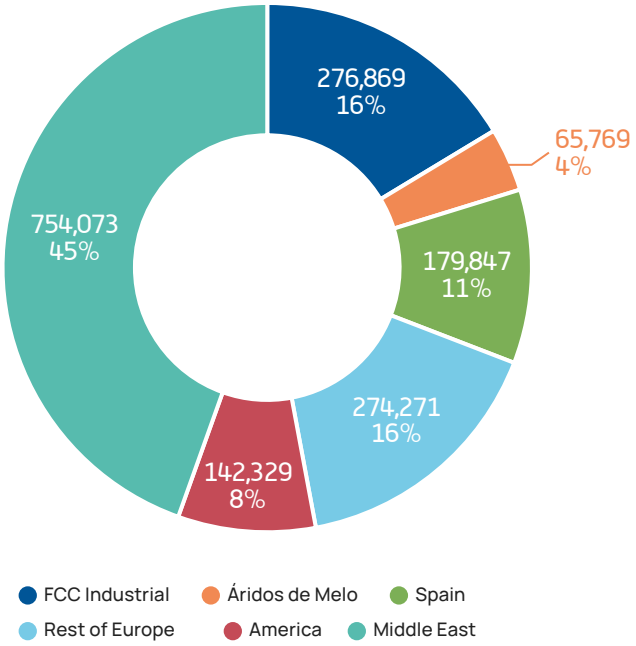


Power Type (GJ)	2023	2024
Direct energy consumption		
Fuel Oil	196	196
Natural Gas	971	58,895
Diesel A	447,544	1,185,457
Diesel B	208,604	243,420
Diesel C	752	7,533
Gasoline	15,472	22,193
Biodiesel	-	14
Bioethanol	-	-
Biomass	0	114
LPG	27	221
Butane	0	1.38
Propane	8	25
Indirect energy consumption		
Electric Power	541,328	173,461
Renewable Energy	1,228	1,825
Total	1,216,131	1,693,158

Diesel A (diesel) continues to be the most used fuel by the company, used both in light vehicles and in construction machinery.

On the other hand, FCC Industrial maintains a high electricity consumption due to the nature of its activity, which focuses on energy efficiency projects in different towns and large cities.

Energy consumption 2024 (GJ)



For more information, see Annex V.

3.2. Transition to a circular economy

The evolution from a linear to a circular economic model represents a strategic opportunity to extend the useful life of materials and infrastructures, while reducing the generation of waste and, therefore, the costs of its management and its impact on the environment. This approach makes it possible to optimize the use of resources through practices focused on reuse and recovery, thus reducing the pressure on natural systems.

The construction sector generates a high volume of waste, mainly inert, but with a high potential for recovery. In this context, FCC Construcción identifies a great opportunity in the efficient use of resources throughout its activity.

Os Peares blue bridge (Galicia, Spain)

FCC Construction focuses on the application of circular economy principles through the design and promotion of different initiatives such as:

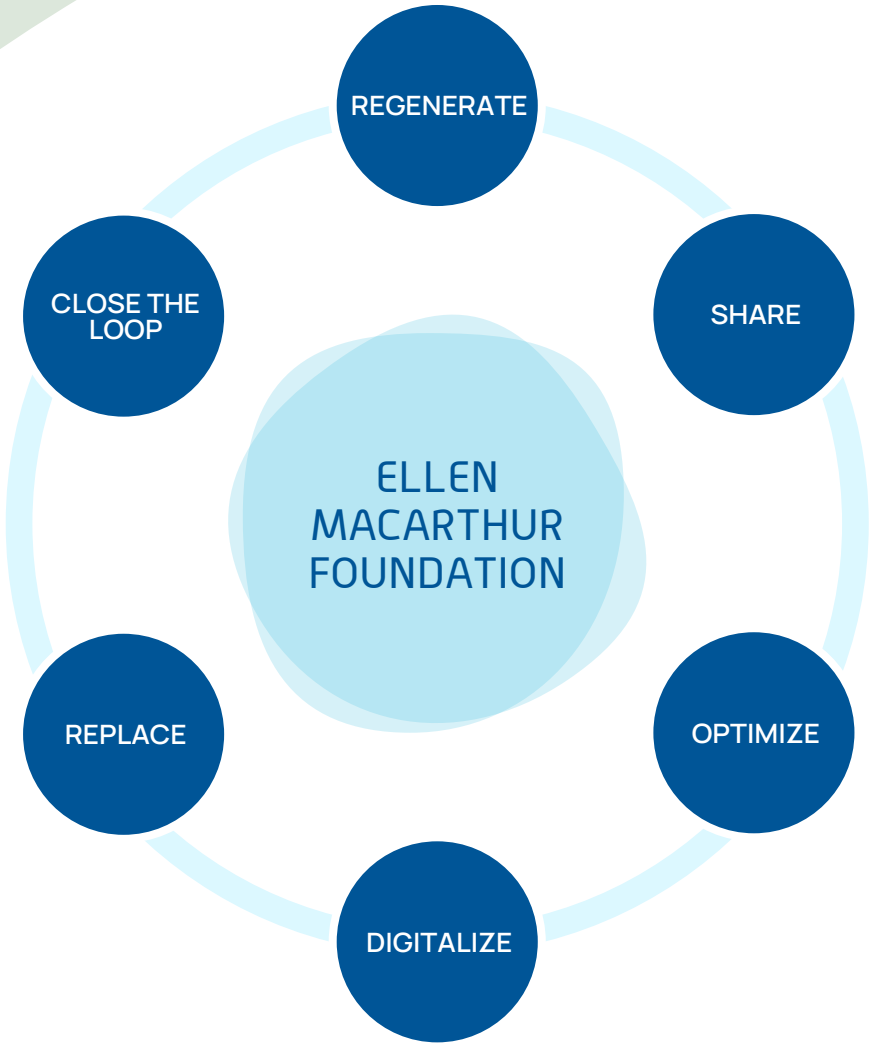
- Optimize the use of excavated natural material
- Improve the management and utilization of excavation surplus
- Promote the reuse of rubble and other internally generated materials
- Increase waste valorization rates to percentages above 90% (Zero Waste)

The application of these actions promotes the transition towards a more circular system, where the impact on the environment is reduced and, in turn, dependence on it is reduced. Likewise, through the use of circular economy techniques, there is an opportunity to reduce costs by reducing the expenses linked to waste management, the extraction of new raw materials and their transport.

The **circular economy** is one of the three key pillars within FCC Construcción's Sustainability Strategy and is essential to strengthen the company's climate resilience towards the 2050 horizon. In line with this commitment, FCC Construcción promotes the adoption of a circular model both in its projects and in its fixed centers, orienting its actions around the six areas of intervention established by the Ellen MacArthur Foundation, through the ReSOLVE programme, widely recognised worldwide.

For more information on FCC Construcción's plans regarding the circular economy, see the Sustainability Strategy: Sustainability Strategy 2023-2026

ELLEN MACARTHUR FOUNDATION



FCC Construcción is also a signatory of the **Pact for a Circular Economy**, through which it committed to achieve the objectives of the Spanish Circular Economy Strategy and the implementation of the actions defined in the Pact aimed at promoting the transition:

1. **Reduce the use of non-renewable natural resources**, reusing materials contained in waste as secondary raw materials.
2. **To promote the analysis of the life cycle and the eco-design of products**, reducing harmful substances, facilitating repairability, prolonging the useful life and enabling recovery at the end of their use.
3. **Apply the principle of waste hierarchy,** promoting prevention, reuse, recycling and traceability of waste.
4. **Increase innovation and efficiency in production processes**, through measures such as the implementation of environmental management systems.
5. **Promote sustainable consumption**, including sustainable products and services and the use of digital infrastructures and services.
6. **Promote responsible consumption**, based on transparency about the characteristics, duration and energy efficiency of goods and services, using measures such as the ecolabel.
7. **Facilitate the exchange of information and coordination with administrations**, the scientific community and economic and social agents to create synergies.
8. **To disseminate the importance of the circular economy,** promoting transparency, consciousness and public awareness.
9. **Promote the use of common and accessible indicators** to know the degree of implementation of the circular economy.
10. **Promote social and environmental impact indicators within companies**, to assess beyond the economic benefits derived from their commitment to the circular economy.

3.2.1. Waste

Key impacts, risks and opportunities

The generation of construction and demolition waste (CDW) is one of the main environmental aspects to be considered in projects. However, good management and the application of circularity principles can result in their minimization and the generation of multiple opportunities to reduce consumption.

CDW, although bulky, is mostly non-hazardous and has a high potential for recycling and reuse. For this reason, the European Union sets ambitious recovery targets for non-hazardous CDW, setting the target above 70%. In most of its projects, FCC Construcción achieves recovery rates of more than 70%, although these figures may vary depending on the location of the project and the degree of technological development in waste management in the country.

In general, CDW are very heterogeneous and, in most works, represent a problem of space. Therefore, the main measure adopted is to minimize their generation as much as possible and ensure adequate separation to facilitate their recycling and reuse. These actions not only reduce the pressure of construction activity on the environment but also optimize costs by reducing waste whose final destination is landfill, which involves high rates.

From the point of view of hazardous waste management, although large quantities are not generated in the projects, they represent a greater risk to health and the environment and, therefore, require specific measures to be taken that go beyond simple compliance with legal requirements, such as, for example, correctly defining the collection area, protect them from the weather and the transit of machinery, prevent their mixing, and install buckets or trays that waterproof the floor against possible discharges or spills.

Likewise, achieving proper waste management is an issue that requires awareness and sensitization of the people involved, both at FCC Construcción and outside the organization. Therefore, it is essential to ensure that the management carried out by subcontractors and waste managers is adequate since, in addition to the environmental problems that may arise, malpractice on their part can lead to sanctions and reputational damage for the company.

FCC Construcción's strategy regarding waste includes actions such as:

- Minimization of waste generation, with a focus on reuse.
- Optimization of waste management, reducing its volume.
- Improvement in the management of sludge as waste, through dehydration or mixing with soil.
- Minimization of natural resource consumption through the reuse of CDW.
- Reduction of packaging waste generation, implementing measures from the point of acquisition.
- Awareness-raising across the subcontracting chain, promoting sustainable practices among collaborators.

Some of our actions

Actions to adress risks	**Compliance with legal requirements:** Hire authorized transporters and managers for waste management, provide reliable evidence to the competent authority of the reuse of uncontaminated soils and stone materials.
	Subsidiary liability for improper waste management by subcontractors: Agree in advance who is responsible for managing the waste generated by the subcontractor on site; establish clauses in subcontractor procurement specifications that clearly outline environmental agreements.
	Reduction of additional costs due to inadequate segregation: Inform employees and subcontractors about waste segregation.
Actions to leverage opportunities	**Minimization of waste generation**: Reuse soils for land restoration; plan and execute demolitions under selective deconstruction criteria, aimed at optimal valorization and reuse of materials; Reduce inert waste sent to landfill compared to the volume planned in the project.
	Optimization of waste management: Use mobile crushing and screening units to reduce waste volume.
	Improvement in the management of sludge as waste: Dehydrate using filter presses; stabilize with soil or additives; valorize and reuse stabilized sludge as fill material on site.
	Minimization of natural resource consumption through the reuse of CDW: Recycle waste into asphalt, gravel, draining aggregate; reuse soil in landscape formation, small elements, or pallets; mill pavements and reuse them as subbase; separate topsoil for reuse.
	Reduction of packaging waste generation: Promote bulk supply, prioritizing the reduction of individual packaging to optimize logistics and minimize waste; returnable packaging systems; use compactors to reduce volume.
	Awareness-raising across the subcontracting chain: Incorporate environmental clauses in contracts; provide specific training; prioritize suppliers with sustainable packaging.

For more information on the actions developed to address the risks and opportunities identified in the works, see *Annex III.*

In 2024, FCC Construcción reinforced its commitment to the circular economy by implementing the **Zero Waste Management System**, obtaining certification in two construction sites and a fixed center.

This AENOR seal accredits responsible management that avoids sending waste to landfill, a requirement that involves recovering at least 90% of the waste generated.

2025
Goal
Recover
100%
of the waste generated

*FCC Construcción has obtained Zero Waste certification in the **Los Berrocales housing estate**, one of the largest urban developments in Spain located in the southeast of the Community of Madrid, as well as in the "**Playa de Vias" railway** project in Valladolid, proof that it manages to recover more than 90% of the waste generated.*

42 Homes Arroyofresno Madrid (Spain)

To increase waste recovery and incorporate new materials into the circularity model, innovation is key. FCC Construcción, through its participation in R+D+i projects, promotes, among others, the **development of advanced digital solutions**, such as specialised software that allows the modelling of the recovery of materials (Demoltech project), or the application of LCA and blockchain technology (Smart Construction Manager project), or **the study of a second life for waste** (CATAR's geopolymer project.

Demoltech Proyect

This project develops an integral smart demolition prototype to convert Construction and Demolition Waste (CDW) into circular raw materials in urban environments. The project incorporates BIM tools and advanced methodologies to optimize the estimation and treatment of CDW.

FCC Construcción is committed to the development of technological solutions to improve the traceability of materials throughout the life cycle of assets. This digital traceability, in addition to facilitate more efficient management of resources, allows us to move towards more transparent, responsible and sustainable construction models.

Sapataria Tunnel (Portugal)

Reuse of concrete beams

Project: VeenIX A9 BAHO
Client: Rijkswaterstaat
Location: Amsterdam (Netherlands)

Description of the work

The VeenIX A9 BaHo project is one of the largest road infrastructure improvement initiatives in the Netherlands. Its objective is to increase mobility and safety on the A9 motorway through actions in an 11.4 km section that include the widening of three to four lanes in each direction, the renovation of 11 existing structures and the construction of a 1.7 km deep cut to optimize the route and reduce the visual and acoustic impact.

Challenge

The project faces the challenge of meeting the strict sustainability requirements of the Dutch Ministry of Infrastructure and Water, aimed at reducing the environmental impact of building materials. As a result, key opportunities were identified, such as the valorization of in-situ debris and the reuse of different materials, including structural components such as planks, anchors, and steel beams.

Among the initiatives developed, the **reuse of the concrete beams** that were part of the pavement of the bridge near Ouderkerk aan of Amstel stood out, considered one of the actions that could have the greatest impact. This proposal posed important challenges such as replacing traditional demolition practices in a large-scale project, such as the remodeling of the A9 BaHo Motorway, with more selective methods, without compromising the stability of the infrastructure or traffic in the surrounding areas, in addition to evaluating the technical feasibility of the beams for reuse.

Solution

In collaboration with the client **Rijkswaterstaat**, the solution adopted by FCC Construcción was to implement a bold **circular economy strategy** in which the feasibility of giving beams a second life through direct reuse or transformation into concrete aggregates to be used as secondary materials in other processes was evaluated.

In March 2024, the beams were selectively and carefully removed for inspection. In total, **360 beams** were evaluated, verifying that they were in excellent condition and with a useful life of more than 100 years. Of these, **220 were destined to be integrated into new viaducts and the Kaagbrug bridge of the A44 motorway**, while the rest were stored at the Nationale Bruggenbank (National Bank of Bridges), a national repository that ensures the availability of high-quality materials for future projects.

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Description of the work

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Result

The initiative made it possible to extend the useful life of concrete beams, conserve valuable resources and significantly reduce the environmental footprint of the construction process.

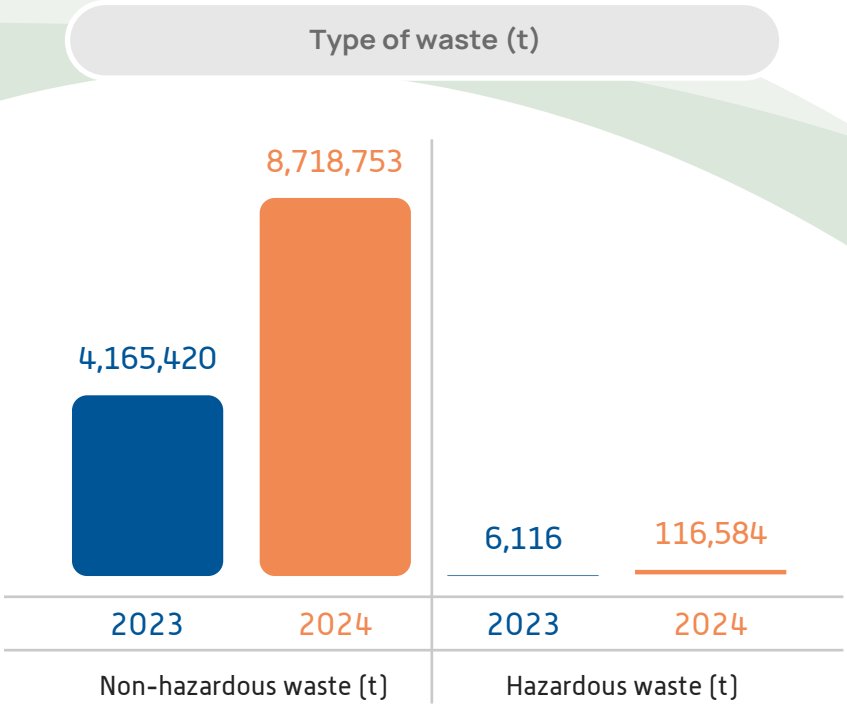
Therefore, it can be concluded that the selective extraction of the beams facilitates their reuse without the need for additional processes to convert them into aggregates, avoiding extra consumption of energy and resources and reducing the environmental impact of the project.

This project demonstrates how innovation, collaboration and sustainability can go hand in hand. By giving a second life to concrete products, FCC Construction not only builds roads, but also paves the way towards a more responsible and resource-efficient future.

The main challenge was to overcome traditional demolition and disposal practices in a larger infrastructure project, such as the redevelopment of the A9 BaHo Motorway.

Indicators

The notable increase in waste is mainly due to the greater volume of activity in international projects that involved earthworks and the generation of special waste. In addition, some projects required removing and managing materials with specific characteristics, classified as hazardous waste.



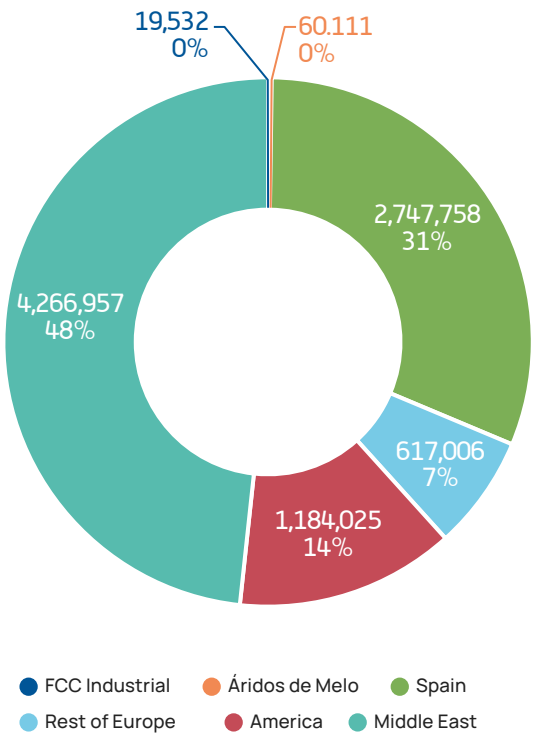
Type of treatment of waste that is NOT destined for disposal (kg)			
Type of waste	Treatment	2023	2024
Hazardous Waste	Total	265,252	74,556,592
	Reuse	2,335	3,470
	Recycled	3,159	175,070
	Other valuation operations	259,757	74,378,051
Non-hazardous waste	Total	2,365,666,229	2,965,630,220
	Reuse	34,672	171,899,703
	Recycled	1,301,821,753	1,190,452,887
	Other valuation operations	1,063,809,803	1,603,277,630
Total waste not disposed of (kg)		2,365,931,480	3,040,186,812

Waste treatment aimed at recovery, rather than disposal, has experienced significant growth, with an increase of 27.53% compared to 2023. This progress reflects a general improvement in reuse, recycling and other recovery operations, consolidating more sustainable practices in waste management. The increase in the treatment of hazardous waste compared to the previous year stands out, while non-hazardous waste registered a growth of 24.4% in the total treated. These results show notable progress in the optimization and use of materials within the construction processes.

Type of treatment of waste destined for disposal (kg)		
Treatment	2023	2024
Hazardous Waste	5,852,074	42,028,380
Incineration with energy recovery	3,918	161,620
Incineration without energy recovery	150	-
Landfill	5,401,946	41.730,558
Other	446,060	136,202
Non-hazardous waste	1,799,753,882	5,753,123,080
Non-hazardous waste	3,499,586	401,259
Incineración sin recuperación de energía	1,190	17,127
Vertedero	1,787,071,821	5,749,051,378
Other	9,181,285	3,653,315
Total	1,805,605,956	5,795,151,459

Área	Hazardous waste	Non-hazardous waste	Total 2024
FCC Industrial	303	19,229	19,532
Áridos de Melo	0.312	59.799	60.111
Spain	303	2,747,455	2,747,758
Rest of Europa	115,441	501,566	617,006
America	538	1,183,487	1,184,025
Middle East	-	4,266,957	4,266,957
Total	116,585	8,718,753	8,835,338

Waste generation 2024 (t)



Waste generation by type and origin (kg)	
Hazardous waste	116,584,971
Subcontractor	68,121
Own work	116,516,850
Non-hazardous waste	8,718,753,300
Subcontractor	1,011,833,990
Own work	7,706,919,310
Inert Waste	8,512,051,923
Subcontractor	1,007,832,914
Own work	7,504,219,009
Urban Waste	4,596,412
Subcontractor	416,713
Own work	4,179,699
Other non-hazardous waste	182,816,337
Subcontractor	3,584,363
Own work	179,231,974
Total 2024	8,835,338,271

For more information, see Annex V.

3.2.2. Material Consumption

Key impacts, risks and opportunities

The activity that FCC Construcción carries out involves a high consumption of natural resources, so making responsible and efficient use of them becomes a key aspect to reduce its environmental impact. From the extraction of raw materials to their transformation and commissioning, each phase of the construction process **entails an ecological footprint** that must be managed rigorously and responsibly.

In terms of material consumption, FCC Construcción faces several risks. Among them are the dependence on raw materials that can suffer fluctuations affecting the continuity and cost of projects, either by single or limited suppliers, or by the increase in prices.

Current environmental policies, aimed at decarbonising the economy, have had a direct impact on the cost of key materials, such as concrete. These regulations require a progressive reduction in CO_2 emissions in the supply chain, especially in sectors such as cement (carbon-intensive), which is one of the main components. As a result, the costs associated with the purchase of emission allowances, the adaptation of industrial processes to cleaner technologies and the use of alternative materials with a lower environmental footprint have increased. All this has an impact on the price of acquiring materials, which represents a challenge for the optimization of costs in projects.

From an environmental point of view, the intensive consumption of materials entails risks such as the depletion of natural resources, the alteration of ecosystems and the generation of waste, as well as a high carbon and energy footprint. These impacts, added to regulatory requirements, reinforce the need for responsible management aimed at efficiency, reuse and the circular economy to minimize environmental effects and ensure regulatory compliance.

Another aspect that influences the availability and consumption of materials is the location of the projects. The location of the work in areas with a limited supply of materials increases the need for transport from long distances, which not only raises costs, but also the carbon footprint and environmental impact of the project.

To mitigate these effects, FCC Construcción implements actions to mitigate these risks, such as prioritizing local suppliers whenever possible, using recycled aggregates from nearby plants, implementing collaborative logistics systems to reduce travel and emissions, and planning optimized routes to minimize the environmental impact of transport.

To mitigate these risks and reduce material consumption, FCC Construcción carries out efficiency-oriented initiatives:

Minimization of natural resource consumption by using recycled or surplus materials.

Minimization of natural resource consumption through the reuse of CDW.

Economic and environmental optimization of the supply chain by prioritizing local suppliers.

Awareness-raising across the subcontracting chain, promoting sustainable practices among collaborators.

Implementation of collaborative logistics systems to reduce travel and emissions, and the planning of optimized routes to minimize the environmental impact of transportation.

2025
Goal
Use of more than

90%

responsible, recycled or recyclable materials

Some of our actions

Actions to adress risks	**Shortage of topsoil required for the work**: Sow or fertilize the stockpiled topsoil; Stockpile topsoil in horizontal layers less than 2.5 m high; Separate topsoil for later reuse or for covering and restoring the affected area at the end of its useful life.
	Shortage of subbase materials required for the work: Re-examine the mass diagram to maximize on-site soil compensation; Reuse or recycle CDW.
	Shortage of the necessary resource for work development: Search for precise borrow pits for project execution; Minimize surplus soil and use it on the same site; Re-examine the mass diagram to maximize on-site soil compensation; Reuse inert materials from other work.
	Appearance of invalid, expired, or obsolete materials that become waste: Do not overload wheelbarrows and pallets used to transport materials; conduct a visual inspection of materials before receipt to ensure they arrive at the site in suitable condition.
	Additional cost due to the project's location in an area with few material suppliers: Identify the required amount of material through measurement of work units and study what percentage can be obtained through reuse or recycling processes.
Actions to leverage opportunities	**Minimization of natural resource consumption:** Adjust and optimize consumption; use recycled or surplus materials for alternative purposes; minimize waste in steel cutting; improve cutting processes for bricks and ceramic elements.
	Minimization of natural resource consumption through the reuse of CDW: Use as road base, gravel in concrete production, fill material, safety barriers, etc.; Use reusable formwork systems instead of wood.
	Economic and environmental optimization of the supply chain: Use locally sourced materials, manufactured in areas close to the construction site.
	Awareness-raising across the subcontracting chain: Prioritize suppliers who take responsibility for the management of their products and provide transparent information on the percentage of recycled material incorporated in their solutions; Promote the hiring of certified material suppliers.

For more information on the actions developed to address the risks and opportunities identified in the works, see ***Annex III.***

Ballast washing, reclassification and reuse

Project. Modernisation of the Mira Sintra - Meleças – Torres Vedras section of the West Line.
Client. IP-Infraestructuras de Portugal, S.A.
Location. Lisbon (Portugal).

Description of the work.

The project consists of the modernization of the Mira Sintra/Meleças – Torres Vedras section of the Western Line, Portugal. The work includes the execution of active railway diversions, comprehensive electrification, improvement of stations and stops, removal of level crossings, construction of crossings at different levels, rehabilitation of tunnels, and installation of signaling, telecommunications and electrical protection systems, all aimed at modernizing and optimizing the railway infrastructure.

Challenge

One of the challenges presented by this project was the high volume of ballast that had been removed from the track and that could not be reused directly on site, as it did not meet the required characteristics (Category 2 Ballast), which meant a great loss of a natural resource.

Solution

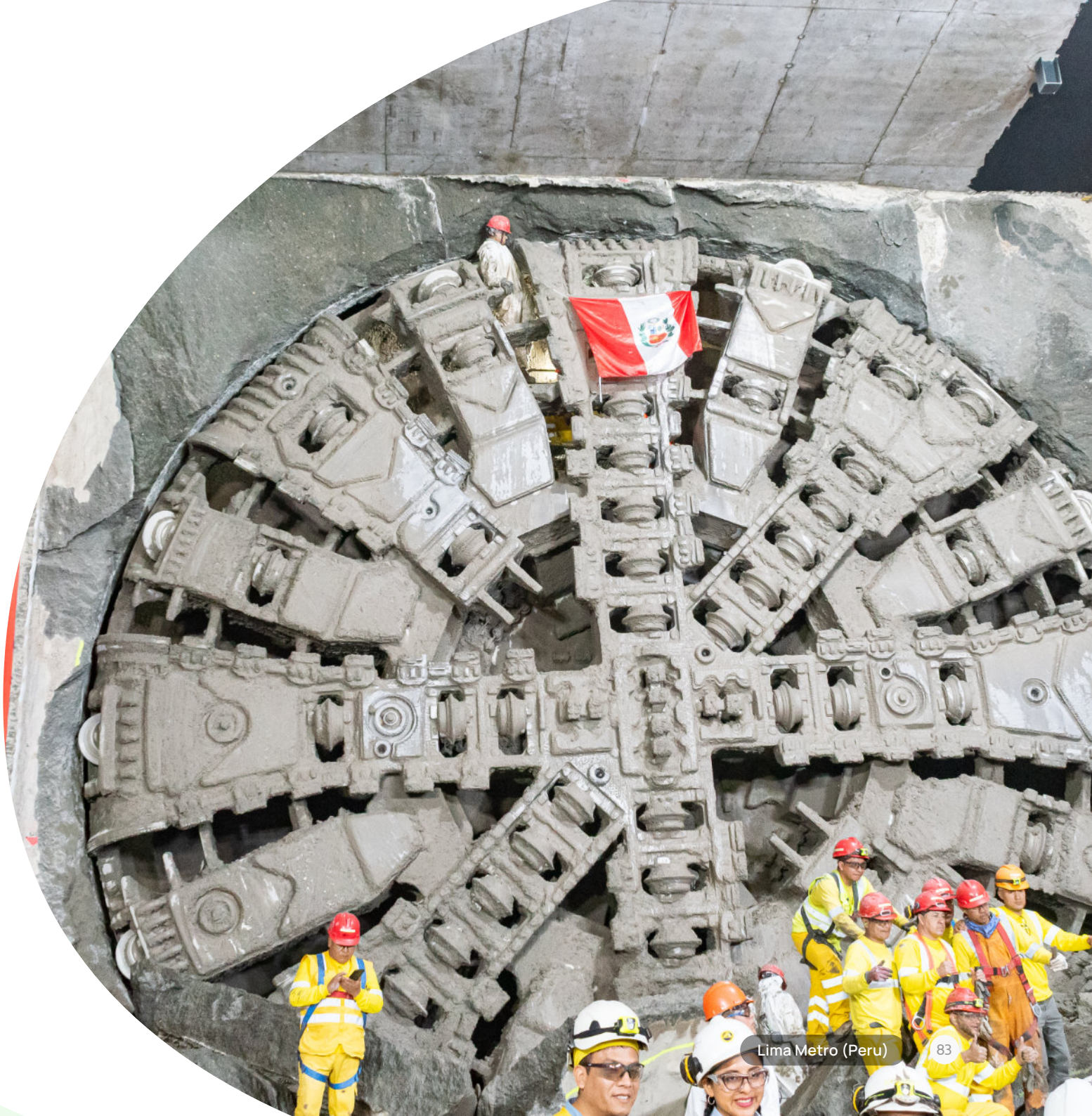
As a solution to this challenge, the washing and treatment of the ballast was proposed to be able to reclassify it as purified inert, Category 1, in accordance with *the General Rule of Railway Ballast waste in use* in Portugal and thus be able to be reincorporated back into the track.

The actions carried out for the treatment of the ballast included the assembly of the screening and washing installation (screen, trommel and belts), the collection and transport of the material to the provisional stock, the feeding of the equipment to guarantee the particle size curve, the separation of unsuitable fractions, and the washing by trommel with water jets to remove soil residues and organic matter, and finally, the deposit, loading and transport of the clean ballast to the place of application.

Result

After visually checking the washed ballast, it was verified that it complied with the Category 1 requirements described in the Portuguese regulations (*Annex I - Classification Key of the Degree of Environmental Contamination of Ballasts*).

This achievement made it possible to reuse **14,829 m³** of the material, favouring the use of resources and avoiding the extraction of new raw materials, with the impact that this entails. This success story is a clear example of how the implementation of good practices can significantly reduce the impact of the project on the environment.

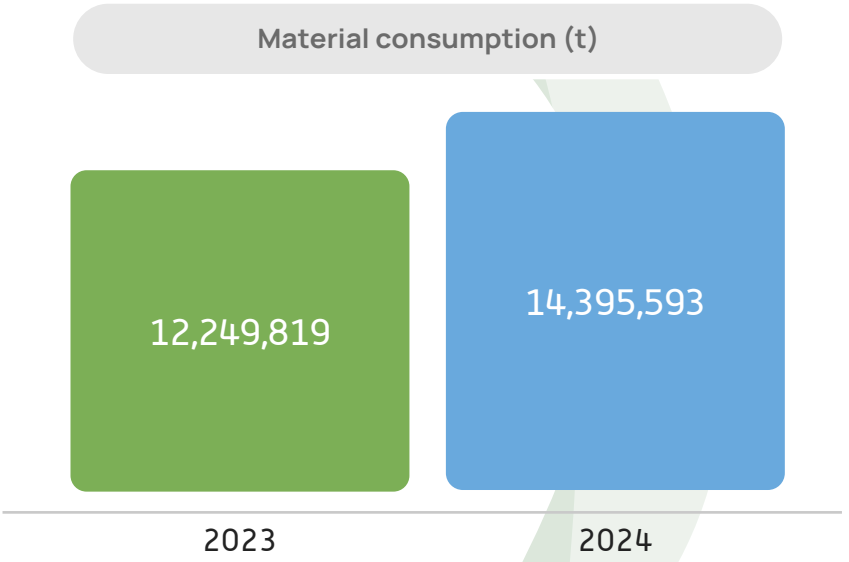


Lima Metro (Peru)

Indicators

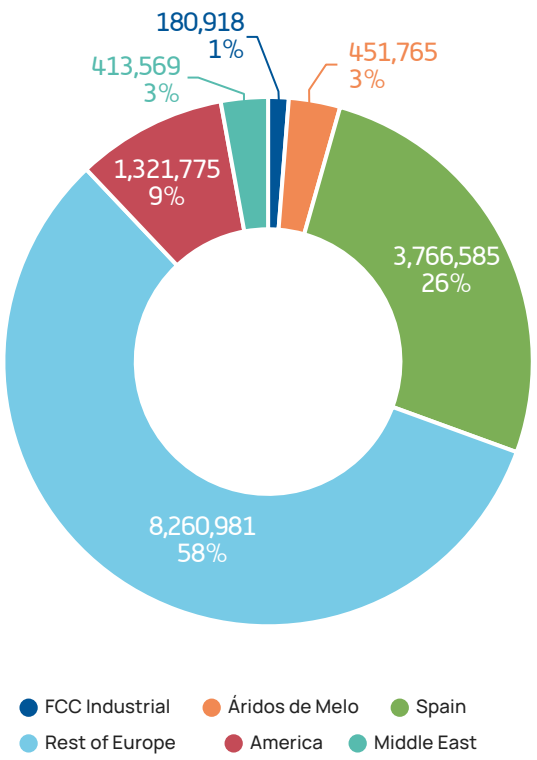
In 2024, FCC Construcción recorded a total consumption of 14,391,935 tonnes of materials, which represents a significant increase compared to 2023. This increase is largely due to an intensification of construction activity in Europe, a region that accounts for 57% of the company's total material consumption.

The increase in the use of materials is directly related to the increase in greenhouse gas emissions, since a significant part of these emissions comes from activities related to the supply chain, transport and the transformation of raw materials.



Type of Material Consumption (t)	
Material	**Total**
Aggregates, earth and gravel forests, marl and limestone	10,762,964
Asphalt agglomerate	342,766
Concrete	3,038,184
Cement	79,298
Steel	136,655
Bricks	13,870
Glass, metals and insulators	1,793
Paint, solvents, release agents, concrete curing fluids, accelerants, fluidizers,	18,385
Oils, fats and other harmful substances	1,678
Total 2024	14,395,593

Material Consumption (t)



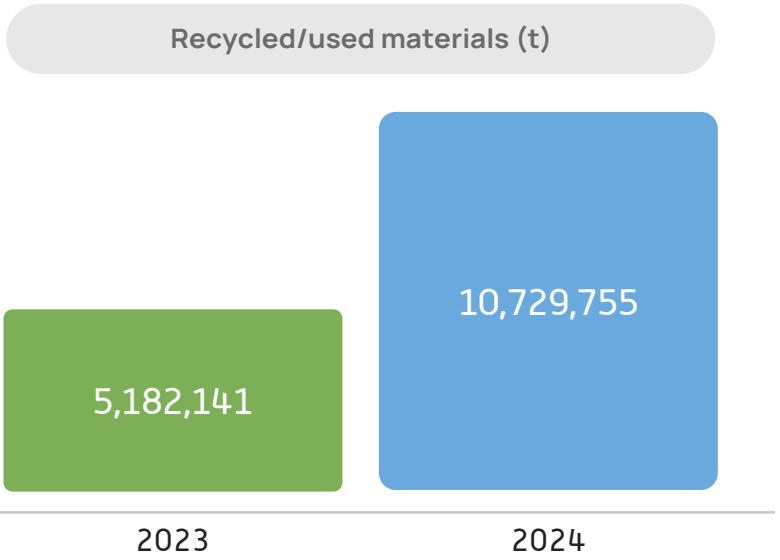
Quantity of recycled/reused materials (t)	2023	2024
Leftover soil or rocks that are reused	5,176,995	10,660,777
Used on site (compensation-excavation-filling) (m³)	4,994,957	9,569,115
Employees from other works (m³)	182,038	1,091,662
Leftover clean debris that is reused	5,146	68,978
Used on site (m³)	5,146	68,978
Employee from other works (m³)	0	0
Total	5,182,141	10,729,755

A465 motorway (United Kingdom)

With the implementation of good practices, such as the reuse of clean earth and debris from the construction site itself or other works, as well as the optimization of the use of materials in projects, it is possible to reduce the environmental impact generated by the consumption of materials.

In 2024, **the amount of reused land has increased from the previous year by more than 107%**. It is relevant to indicate that it is not always feasible to reuse the excavated land, since not all of it meets the necessary conditions for its use and, in addition, the typology of the project may not allow it, so the amount of reused earth will vary depending on its characteristics and the casuistry of the project.

Whenever possible, FCC Construcción prioritizes its reuse. In 2024, the company's construction activity reached reuse rates of almost 50% of the excavated natural material, and almost 2% of the clean debris.



*Reaching **90**% valorisation and utilisation of earthworks is a strategic objective for FCC Construcción.*

For more information, see Annex V.

3.3. Pollution prevention and control

Environmental pollution is one of the main global challenges in terms of sustainability. In this scenario, the construction sector, due to the nature of its activities, can generate significant impacts on the environment through different channels.

Air emissions, which include gases, particulate matter, noise, and light pollution, have the potential to affect both work zones and nearby residential areas. Likewise, construction operations can cause the alteration and contamination of soil and water, either by spills, dragging of materials or the use of chemical substances.

Aware of these risks, FCC Construcción has developed and implemented a set of preventive and corrective measures aimed at minimizing the environmental effects of its activities, reinforcing its commitment to environmental protection and sustainable development.

3.3.1. Air pollution

Key impacts, risks and opportunities

Currently, air pollution is one of the most important environmental challenges facing FCC Construcción. Due to the emissions generated in the development of activities such as earthmoving, the use of heavy machinery, the production and transport of materials, and waste management. These processes can release suspended particles (PM10, PM2.5), polluting gases (NOx, SO_2, CO_2) and volatile organic compounds, affecting air quality and the health of nearby communities.

Associated risks include non-compliance with environmental regulations, impacts on biodiversity and corporate reputation. However, this challenge also represents an opportunity for FCC Construcción to lead the transition towards more sustainable practices by incorporating machinery with low emissions, dust control systems, logistics optimization and the use of less polluting materials, reinforcing its commitment to decarbonisation and environmental protection.

Likewise, light pollution is another impact to consider, especially at night or near natural areas and residential areas. The improper use of artificial lighting can alter wildlife cycles, affect biodiversity, and cause nuisance in nearby communities. To mitigate these effects, FCC Construcción applies measures such as the installation of efficient and directional lighting systems, the use of timers and the reduction of light intensity at critical times, contributing to the protection of the environment and compliance with environmental regulations.

The identification of these risks allows us to establish opportunities to strengthen the environmental performance of the organization:

Reduction of atmospheric emissions through technological renewal and preventive maintenance of equipment.

Minimization of acoustic impact through measures, control systems, and awareness-raising across the subcontracting chain.

Reduction of particulate emissions by implementing dust control systems.

Environmental awareness as key tool to promote a culture of sustainability among all stakeholders involved in te construction process.

Some of our actions

Actions to adress risks	Dust emission control	Implement dust control systems such as sprinklers, windbreaks, access sweeping, reduction of work speed, etc.
		Plan the work: centralize cutting areas, use physical barriers, etc.
		Prevention of adverse conditions, for example, by reducing activity on windy days.
		Cover trailers and cargo.
		Prompt attention to neighborhood complaints and prioritization of subcontractors with certified environmental management.
	Reduction of gas emissions	Monitor emission parameters in fuel usage to ensure legal compliance.
		Implement control systems such as filters, cyclones, electrostatic precipitators, etc
		Establish an adequate maintenance program for boilers and machinery.
		Monitor the sealing of containers with hazardous substances.
		Keep solvents and chemical products properly sealed.
	Minimization of noise and vibrations	Install acoustic screens and vibration barriers.
		Adapt work schedules to avoid noisy activities during rest periods.
		Move noisy activities to remote areas.
		Use certified machinery and electric compressors with silencers.
	Light pollution control	Reschedule night-time lighting schedules and locations. Install efficient and directional lighting systems. Use sensors and timers. Reduce light intensity during critical hours.
Actions to leverage opportunities	Reduction of air emissions	Carry out preventive maintenance of machinery.
		Monitor temperatures in heated or refrigerated spaces.
	Reduction of noise levels	Use, whenever possible, material or waste stockpiles as noise barriers.
		Promote the use of machinery with quieter engines.
	Awareness-raising within the subcontracting chain	Hold environmental awareness meetings with subcontractors.
		Prioritize hiring companies that implement good environmental practices.

For more information on the actions developed to address the risks and opportunities identified in the works, see Annex III

Road irrigation and access paving for dust reduction

Project. Pedreira do Alvito.
Client. EMGI.
Location. Lisbon (Portugal).

Description of the work.

The work consists of the decontamination of the soil, caused by the previous occupations of the land (former limestone quarry), on the outskirts of the Monsanto Forest Park, considered the green lung of Lisbon (Portugal). The works consist of the removal of contaminated soil and waste, which are sent to authorized and appropriate final destinations according to their degree of danger.

Challenge

During the execution of the waste management and contaminated earthworks site activities, concerns arose about the dust content in the air and the possible impact on third parties.

Solution

As a solution to this problem, measures were implemented to minimize the environmental impact, such as the irrigation of interior roads, the paving of accesses and the transport of covered cargo. To verify the effectiveness of the measures implemented, there was a total station on the site that monitored the following parameters:

- PM10 particulate matter.
- Metals (lead, cadmium, arsenic, nickel).
- PAHs, including benzo(a)pyrene (BaP).
- Benzene, Toluene, Ethylbenzene, Xylenes (BTEX) during the excavation process.
- Meteorological parameters such as wind speed and direction, humidity and air temperature, and amount of precipitation.

Result

As a result of the implementation of these measures, during the 9 months of work, only 20 days were recorded with PM10 levels above the legal limits, due to external phenomena such as Saharan dust from Africa and fires in different parts of Portugal. Likewise, all the reports were validated by the environmental authorities, reflecting FCC Construcción's commitment to rigorous control and protection of the environment.

Installing sound barriers

Project. Pape Tunnel Metro Ontario.
Client. Metrolinx and Infrastructure Ontario.
Location. Ontario (Canada).

Description of the work.

The *Pape Tunnel and Underground Station (PTUS)* project is a key contract on the Toronto Ontario Line that consists of the construction of 3 kilometers of twin tunnels under Pape Avenue and the creation of two new underground stations (*Pape and Cosburn*), as well as support works at the existing TTC Metro Line 2 station.

Challenge

Due to the proximity to neighboring properties, during the execution of the works, construction noise became a problem. This situation represents one of the main constraints to the implementation of an infrastructure project in a densely populated neighborhood in the city of Toronto.

Solution

As a measure to address this problem, a permanent acoustic barrier was installed to mitigate the noise generated by construction activities towards neighboring properties. The design of the barrier, including aspects such as structure, soundproofing materials, height and width, was developed by a professional engineer in coordination with the noise Subject Matter Expert (SME), an expert in noise control. In addition, the design process was complemented with acoustic modelling to precisely define the required technical specifications.

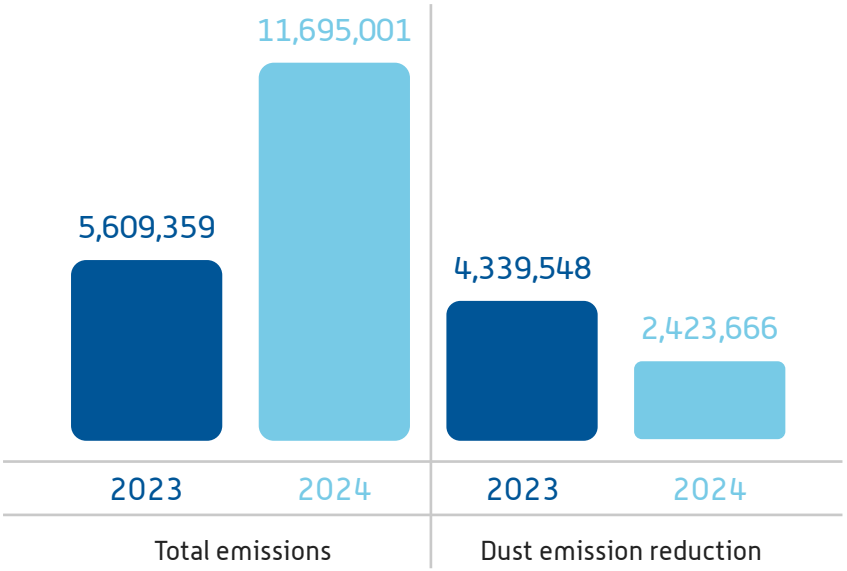
Result

The installation of the noise barrier has significantly reduced the impact of noise on neighboring properties, and noise measurements have shown that the noise levels in those properties meet the established criteria. No complaints have been received from the community.

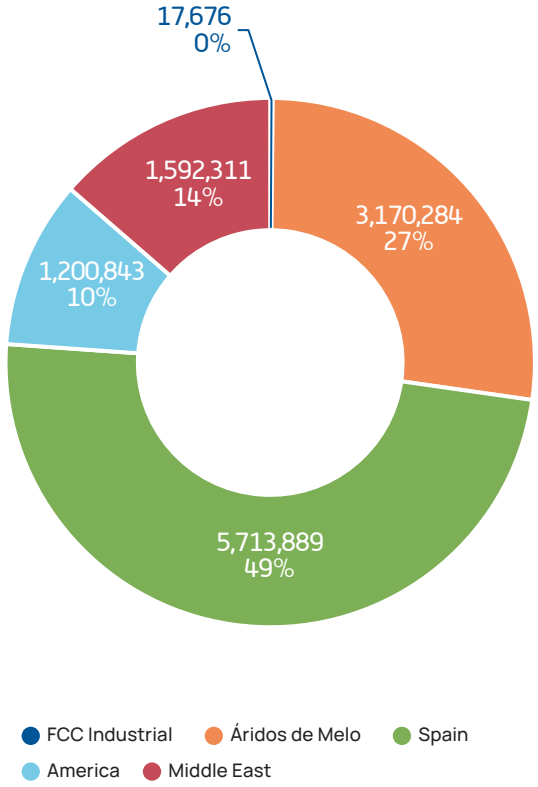
Indicators

FCC Construcción's total emissions doubled in 2024, from 5.6 to 11.7 million kg, mainly due to the increase in activity in the Middle East and Europe. In Spain, despite a 53% increase in total emissions, dust emissions were reduced by 44%, reflecting the effectiveness of mitigation measures.

Emissions (kg)



Total emissions (NOx, SOx, COVs, PM) 2024



Below is a detailed analysis of dust emissions, broken down by the production activity of origin. This classification is useful for identifying at which stages of production the most emissions are generated, which allows specific and more effective reduction measures to be targeted and applied in each dust emissions per activity.

10,808,497
Nox Emissions (kg)

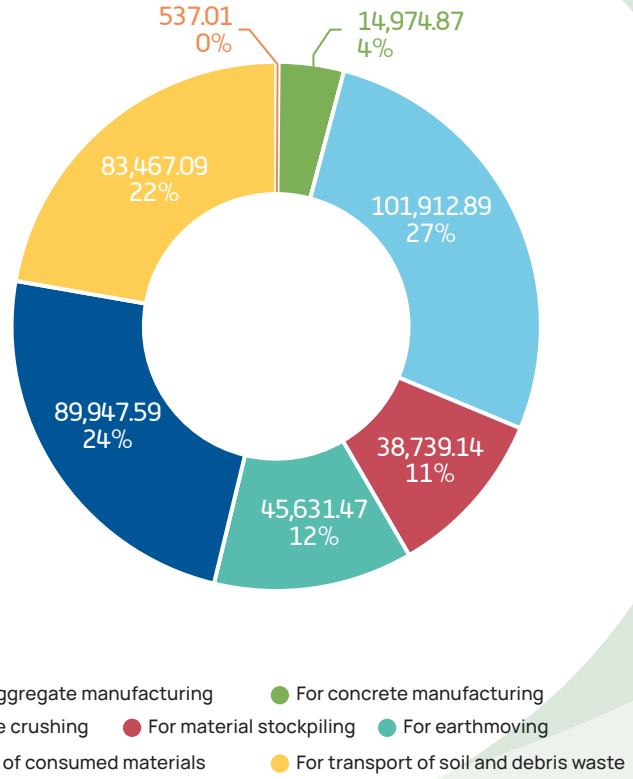
392,886
Particle emissions (kg)

2,670
SOx Emissions (kg)

490,947
VOCs Emissions (kg)

11,695,001
Total (kg)

Dust emissions from activity 2024 (kg)



3.3.2. Soil contamination

Key impacts, risks and opportunities

The activity that FCC Construcción carries out can generate significant impacts on the soil, so its protection and responsible management becomes a key aspect to reduce environmental impact. From the direct occupation of the land to earthworks and excavations, each phase of the construction process can alter the structure, composition and functionality of the soil, compromising its stability and capacity for regeneration.

In land management, FCC Construcción faces various risks. These include erosion and loss of fertile soil, compaction resulting from the intensive use of heavy machinery, and pollution from accidental discharges of hazardous substances, washing water or waste. Risks associated with the destabilization of slopes due to overloads or changes in the water table are also identified, which can cause landslides and affect ecosystems. Added to this is the inadequate management of waste, such as improper mixtures of sludge, which hinders its treatment and raises costs.

From an environmental point of view, these alterations accelerate degradation processes such as desertification and negatively affect the natural environment, as well as increasing regulatory pressure. All this reinforces the need for responsible management aimed at preventing discharges, reusing suitable land and applying stabilization techniques to minimize impacts and ensure regulatory compliance.

Another aspect that influences land management is the location of projects. Works in sensitive areas or with complex geotechnical features require additional measures to prevent loss of stability and contamination of the ground.

To mitigate these effects, FCC Construcción implements actions such as waterproofing washing areas, installing settling ponds for wastewater, separating and treating sludge properly, and reusing uncontaminated land in landfills. Likewise, preventive planning and environmental training are promoted for all the actors involved, promoting a culture of sustainability and circular economy in each project.

Minimization of the use of hazardous substances, prioritizing less polluting alternatives and strengthening storage and handling protocols.

Improve machinery movement planning to reduce soil compaction and preserve its natural structure.

Implementation of erosion control measures, such as slope revegetation, use of organic meshes, or physical barriers.

Optimization of waste management through proper segregation and the use of technologies that facilitate its treatment.

Strengthening spill prevention systems, including periodic inspections, tank maintenance, and staff training.

Some of our actions

Actions to adress risks	Prevention of erosion and loss of fertile soil	Stockpile topsoil in horizontal layers.
		Construction of physical barriers.
		Stabilization and planning of roads.
		Redirect runoff and suspend work on rainy days.
		Early seeding and fertilization of stockpiled topsoil
	Soil compaction control	Use designated roads for work execution
		Reduce areas occupied by machinery and personne
	Prevention of spills and contamination	Waterproofing of washing, maintenance, and storage areas.
		Use of sealed and covered containment for hazardous substances
		Checking the tightness of tanks and containers
		Carrying out maintenance in authorized workshops.
	Proper waste management	Separation of sludge in sealed tanks.
		Preparation of designated areas for stockpiling contaminated materials.
Actions to leverage opportunities	Reuse of topsoil: Separate and preserve for the restoration of affected areas.	
	Reduction of chemical impact: Select products with lower hazard and ecological labeling.	
	Optimization of planning: Early execution of seeding and revegetation works.	
	Improvement of operational efficiency: Rational use of space and resources to minimize the footprint on the land.	

For more information on the actions developed to address the risks and opportunities identified in the works, see ***Annex III.***

Settling pond for washing concrete tanks

Project. New Hospital of Aranda del Duero.
Client. Regional Health Management of Castilla y León.
Location. Burgos (Spain).

Description of the work.

The project consists of the construction of a new Hospital in Aranda de Duero, intended to replace the current Santos Reyes Hospital. The complex will have a total area of 71,073.95 m², whose main building will be organized on four floors above ground and will be structured on a base made up of 13 interconnected blocks, which will generate interior courtyards to favor natural lighting and ventilation.

Challenge

During the foundation and structure phase of the project, the washing of vats is carried out in a construction container waterproofed with plastic sheeting. In order to improve this practice, it is proposed to implement a permanent solution for the rest of the work, which avoids the environmental inconveniences derived from the management of waste when the container is full and reduces the risk of leaks into the ground, since it is complex to guarantee total watertightness with the current system.

Solution

For this improvement, the settling pond was excavated and waterproofed with EPDM sheet and geotextile for washing concrete tanks. The work carried out included excavation, preparation of the bottom with sand, installation of the sheets, filling of edges and signage, guaranteeing a safe and environmentally friendly solution.

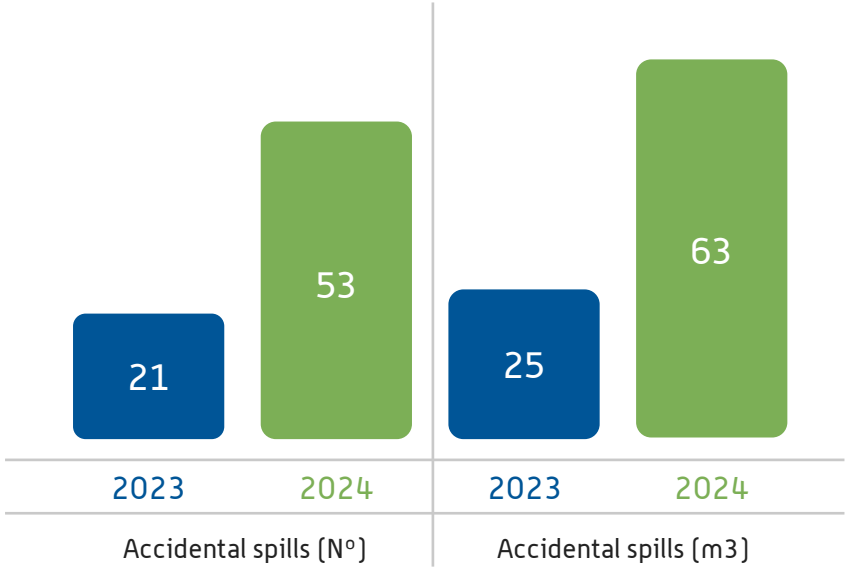
Result

As a result of this initiative, a settling pond was built that allows the washing of concrete tanks to be carried out in a safe and environmentally responsible way, avoiding leaks into the ground and reducing costs associated with the use of containers.

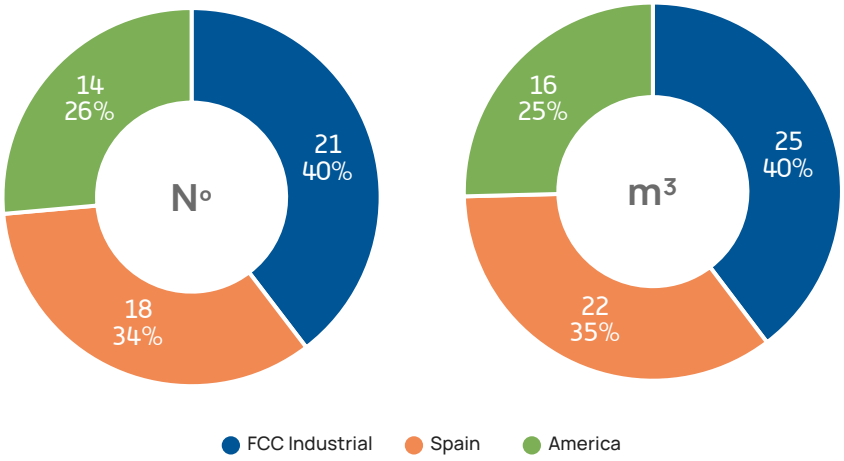
Indicators

Significant effects on the ground of FCC Construction					
Contamination or alteration of soils in an inappropriate or uncontrolled manner		Improper, uncontrolled, or accidental discharges		Total accidental spills (2024)	
Nº	Volumen (m³)	Nº	Volumen (m³)	Nº	Volumen (m³)
34	40	19	22	53	63

Accidental spills



Accidental spills 2024



During the year 2024, the total number of incidents related to accidental spills and spills was higher than the previous one. However, the increase in frequency has not been accompanied by an increase in the volume spilled.

3.3.3. Water pollution

Key impacts, risks and opportunities

Water pollution is one of the main environmental challenges in the construction sector, both because of the impacts it generates and because of the risks associated with its management. Although much of the water used in construction activities is reincorporated into the natural environment, there is a possibility that its quality will be altered by contact with materials, waste, chemical additives or hazardous substances. This alteration, if not properly controlled, can affect the integrity of surface and groundwater, with consequences for ecosystems, human health and regulatory compliance.

FCC Construcción implements responsible management of water resources, aimed at preventing pollution, ensuring compliance with current environmental regulations and protecting the environment where its projects are developed. To this end, specific measures are applied such as the correct management of the washing of concrete tanks, avoiding leaks to the ground and reducing costs associated with the use of containers, as well as protocols for the control of spills and the safe maintenance of machinery.

The main risks associated with water pollution in construction activities include the alteration of the quality of surface water during the execution of works, non-compliance with the discharge parameters established by environmental regulations and the possibility of accidental discharges derived from the maintenance of machinery or the rupture of tanks. There is also a risk of contamination by washing water, especially in operations such as the rinsing of concrete vats, as well as the improper mixing of sludge and waste, which complicates its treatment and management. These risks, if not properly controlled, can have significant impacts on aquatic ecosystems, public health and corporate reputation, as well as economic and legal sanctions.

This scenario, in addition to involving risks, opens up strategic opportunities for the adoption of innovative solutions that minimize impacts, optimize the use of water resources and reinforce FCC Construcción's commitment to sustainability. These include the implementation of technologies for water reuse and treatment, real-time control systems and circular economy practices that contribute to safer, more efficient and environmentally friendly projects.

Although the impact on water resources in the field of construction is limited, FCC Construcción applies specific measures to ensure that its impact is minimal. From the protection of riverbeds to the controlled treatment of discharges, the company reinforces its commitment to continuous improvement in water management and environmental compliance.

Algunas de nuestras acciones

Acciones to adress risks	Prevention of pollution during work execution	Isolation of areas at risk of contact with aquifers.
		Concentration of auxiliary facilities away from watercourses.
		Execution of sensitive works away from the watercourse.
		Protection of diversions from activities involving spill risk or material stockpiling.
		Use of dredging techniques with low water disturbance.
		Placement of river water intakes that do not generate significant increases in turbidity.
	Control and treatment of discharges	Prior control of water before discharge into the natural environment.
		Prior treatment of effluents.
		Periodic monitoring of the treatment system to ensure compliance with legal limits.
		Discharge into sealed tanks for subsequent removal or reuse.
	Management of maintenance and storage operations	Availability of granular absorbent material on site to collect accidental spills.
		Location of storage areas away from water flows or other sensitive elements.
		Carrying out machinery maintenance in suitable areas or authorized workshops.
	Protection of water quality in specific operations	Continuous monitoring of turbidity and physicochemical quality during dredging.
		Placement of straw bales or filtering elements before access to the watercourse.
		pH neutralization through CO_2 injection or the addition of specific acids.
		Prohibition of direct discharge into the sewage system of substances such as oils or solvents.
		Removal and proper management of solid waste present in dredged materials
		Prevention of loss of dredged material during transport, avoiding overflows or leaks.

For more information on the actions developed to address the risks and opportunities identified in the works, see ***Annex III.***

Domestic Wastewater Control and Equipment Washing

Project. Pedreira do Alvito.
Client. EMGI.
Location. Lisbon (Portugal).

Description of the work.

The work consists of the decontamination of the soil, caused by the previous occupations of the land (former limestone quarry), on the outskirts of the Monsanto Forest Park, considered the green lung of Lisbon (Portugal). The works consist of the removal of contaminated soil and waste, which are sent to authorized and appropriate final destinations according to their degree of danger.

Challenge

During the development of the works, two types of spills occurred: domestic and industrial, as a result of the washing of truck wheels that were carried out on the site before entering the public road.

Solution

As a solution to the problem and with the aim of avoiding pollution, domestic discharges were channeled to a municipal collector. In turn, chemical toilets were installed on the work fronts, whose cleaning was collected and discharged into the municipal treatment plant.

For industrial-type discharges, the wheel washing machine recycled the water used in cleaning, while the sludge accumulated in the tank was periodically removed and stored in a vat. The water was reused for 30 days, until it reached a state of clogging that required its replacement. At that time, it was transferred to a 10 m^3 tank, where an analytical control was carried out to verify compliance with the values established in the license issued by the Lisbon City Council.

Result

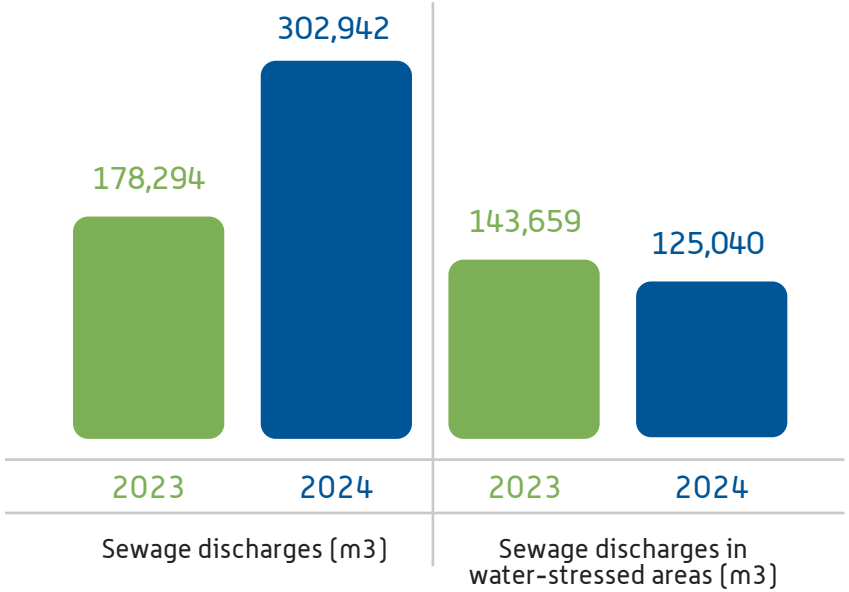
As a result of these practices, domestic wastewater was finally treated at the municipal treatment plant. As for industrial water, it was initially sent to the same facility; however, in the last trial it was not possible to comply with the limits established by the City Council, so they were collected by an authorized operator for the management of hazardous waste. The accumulated sludge was transferred to the ECODEAL treatment plant, ensuring safe management and compliance with environmental regulations.

Indicators

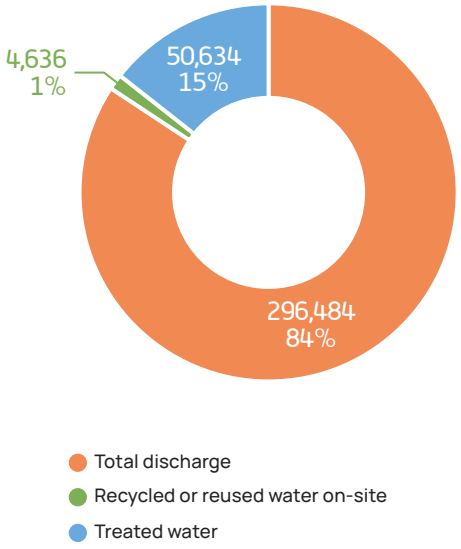
The notable increase compared to the previous year does not necessarily reflect an increase in actual discharges, but a substantial improvement in the capacity for data collection, traceability and analysis due to the Water Footprint calculation objective, which requires greater control over discharges. This development represents a key step towards a more efficient and transparent management of water resources and provides a solid basis for environmental decision-making in the group's projects.

16%

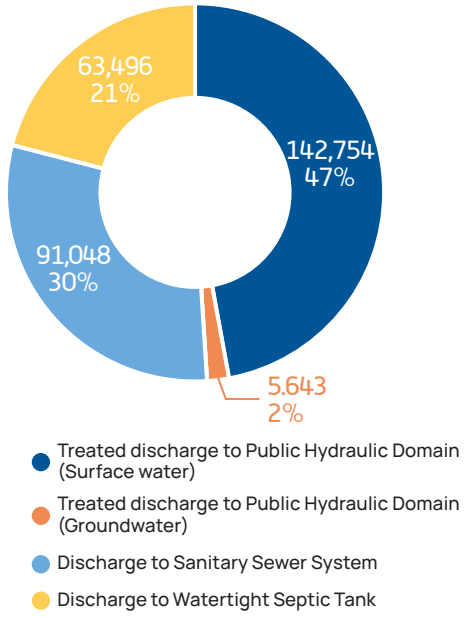
Treated or recycled waste water on site



Wastewater Discharge Volume 2024 (m³)



Destination of the Discharge 2024 (m³)



3.4. Sustainable use and protection of water and marine resources

Although construction is not considered a water-intensive activity, this resource is essential and is required in numerous construction processes, such as concrete curing, dust control, cleaning and cooling of equipment and machinery. While most of the water used is returned to the ecosystem, its quality can be altered during these processes, for example, by the entrainment of substances, grease or suspended solids, or the increase in pH when it comes into contact with concrete.

Therefore, it is essential to control discharges and the runoff generated, applying treatments, when necessary, to avoid impacts on ecosystems. FCC Construcción's activity is also carried out in areas with water stress, which requires greater control and efficiency in the use of water so that it does not put additional pressure on the ecosystem.

For all the above, it is essential to apply sustainability criteria that ensure an efficient use of the resource and avoid impacts on the good ecological status of ecosystems.

FCC Construcción promotes efficient and responsible water management, based on the continuous control of consumption and the application of measures that favor its rational use in all phases of the project.

FCC Construcción's strategy not only reduces the possible associated environmental impacts, but also reinforces the company's commitment to sustainability, promoting practices that contribute to the conservation of water resources. Proper water management improves operational efficiency and generates shared value, both for the organization and for the environment in which it operates.

Krainer Wall, Guadiana (Spain)

3.4.1. Key impacts, risks and opportunities

The analysis of impacts, risks and opportunities in the water field has made it possible to identify water consumption as another of the significant environmental aspects that require attention from FCC Construcción's works. FCC Construcción's activity requires environmental planning and specific actions to make responsible use of water, in addition to implementing measures to avoid compromising the quality of aquatic ecosystems.

The water used in FCC Construcción's works comes mainly from the supply network. However, in civil works projects, a high volume of water comes from its extraction from bodies of groundwater or surface water near the project. Although this use is not intensive, the extraction of the resource can affect the associated ecosystems, among other reasons, by altering its availability, the lowering of the water table or the modification of the water/sediment balance, which result in changes in hydro-morphological processes and in the quality of the resource.

Likewise, the company manages its discharge in such a way that the necessary actions are taken to respect the legal limits of discharge and any other requirement derived from its environmental impact statement, where it exists. In addition, FCC Construcción goes a step further through the application of Good Practices that include treatment measures by purification, decantation and neutralization of the pH.

The purification and decantation of solids are essential processes, since, although suspended particles are not a pollutant in themselves, they can affect the aquatic environment by increasing the turbidity of the water, reducing the penetration of light and, in general, altering the biodiversity of the ecosystem. By installing containment elements in the work areas near the watercourses, the arrival of solids into the river courses is prevented.

Although the main risk is the possible scarcity of the resource, this situation represents a strategic opportunity to advance in water efficiency and reduction of water consumption, through the implementation of measures that optimize its use on site.

Reducción del consumo de agua y maximización de la eficiciencia de su uso en obra.

Some of our actions

Actions to adress risks	**Calculate and minimize** the water required for each activity.
	Verify that the amount of water used for concrete production is appropriate.
	Avoid overconsumption by maintaining control over water usage and preventing waste.
	Plan the supply of the required water well in advance for each activity.
Actions to leverage opportunities	**Use water-saving systems**: Install diffuser systems, taps with timers, and dual-flush mechanisms in sanitary facilities.
	Efficiency in cleaning: Clean paved areas with mechanical sweepers instead of using water; clean machinery using water-saving systems; clean equipment immediately after use to prevent the formation of hardened deposits.
	Periodic inspections to detect possible leaks.
	Reuse water from the same process or from other processes under organizational control.
	Use previously stored **rainwater**.
	Use **non-potable water** whenever activities and operations allow it.

For more information on the actions developed to address the risks and opportunities identified in the works, see ***Annex III.***

2025
Goal
Reduce

20%

water consumption

In 2024, FCC Construcción began calculating and verifying its water footprint, both nationally and internationally, a key step in advancing the sustainable management of the resource. Thanks to the Water Footprint Network's applied methodology, the company can identify the main points of consumption and define specific strategies to optimize their use and reduce their impacts.

At the same time, the company promotes other good practices such as water reuse through innovative solutions such as rainwater harvesting and the use of treated water for operational tasks, thus reducing pressure on natural sources. Under this preventive and continuous improvement approach, FCC Construcción addresses the associated risks and transforms challenges into strategic opportunities to reduce water consumption and increase efficiency in a context of growing scarcity.

Ventas Bridge, Madrid (Spain)

Installation of anti-turbidity barriers in the Biobío River

Project: Industrial Bridge Road Concession
Client: Aleatica S.A., Sociedad Concesionaria Puente Industrial S. A.
Location: Bío-Bío Region (Republic of Chile)

Description of the work

The "Industrial Bridge Road Concession" project aims to improve connectivity between the Hualpén and San Pedro de la Paz communes, in the Bío-Bío region, providing a new mobility option, which seeks to decongest Route 160, on the way to Coronel, and Costanera Avenue. This project consists of a new 2.5 km long bridge that together with the links has a total length of 6.5 km.

Challenge

The project contemplated interventions in the Biobío riverbed, specifically the construction of artificial islands, called peninsulas, aimed at generating dry work areas for the construction of the bridge. During the execution of these structures there was a risk of affecting the fish fauna and the quality of the water, due to the erosion of the channel and the dispersion of sediments caused by the works.

Solution

To minimize the impacts on the fish fauna of the Biobío River due to the construction of the peninsulas, anti-turbidity geotextile barriers were installed on the downstream edges, specifically in those sectors where the flow of water could generate more erosion and increase the concentration of suspended sediments.

These barriers were designed with geotextiles and equipped with PVC pipes that provided buoyancy and weight, allowing them to be kept in a semi-vertical position according to the riverbed. The system also incorporated a full PVC skirt to prevent the migration of fine particles, allowing water to be renewed from the bottom. A galvanized steel chain was used as a ballast element to prevent corrosion, leaving open points in certain sections for anchoring. In addition, the curtain had an adjustment system that allowed the height of the skirt to be adjusted and adapted to the different areas of operation.

The installation of the barriers was carried out before the enabling of the peninsulas and they were moved progressively as the work progressed, maintaining an approximate distance of twenty meters both in front of and behind the work front.

Likewise, an Environmental Monitoring Plan was implemented that included the monitoring of water and sediment quality in the Biobío River and the Los Batros estuary, through in situ measurements of turbidity and total dissolved solids, in order to verify the effectiveness of the barriers in the protection of the aquatic environment.

Installation of anti-turbidity barriers in the Biobío River

Project: Industrial Bridge Road Concession
Client: Aleatica S.A., Sociedad Concesionaria Puente Industrial S. A.
Location: Bío-Bío Region (Republic of Chile)

Description of the work

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Result

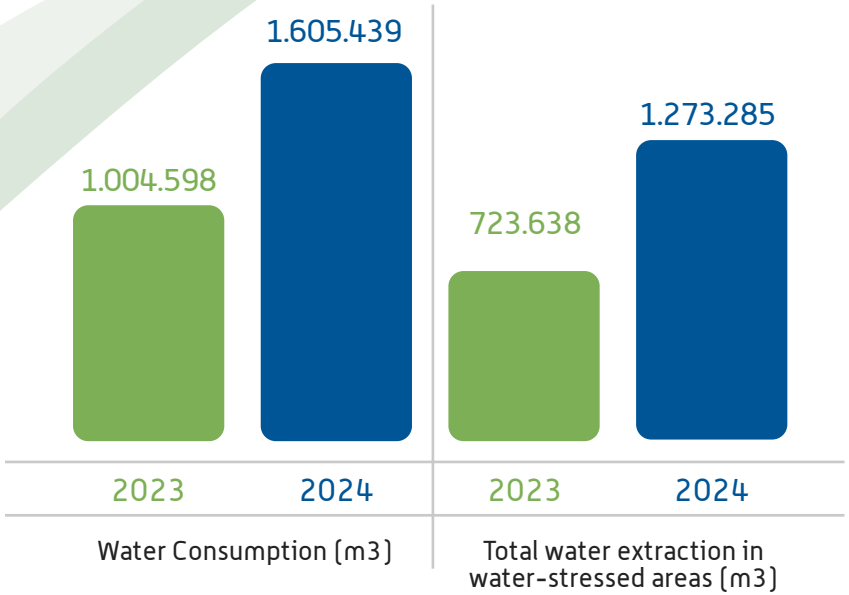
The installation of the barriers and the implementation of the Environmental Monitoring Plan, together with the use of specialized machinery and the presence of biologists on the ground, contributed significantly to minimizing the impact of the construction of the peninsulas on the ecological status of the Biobío River.

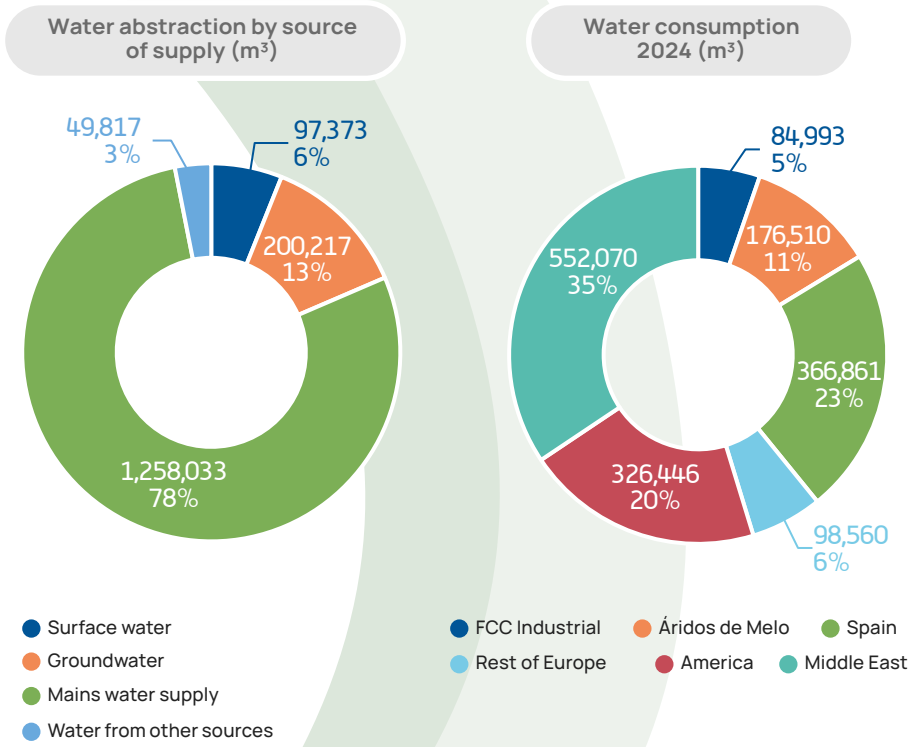
The process, which included the prior installation of the anti-turbidity barrier, the extraction of the road layer, the removal of maxi bags, the return of the sand to the riverbed and the final removal of the barrier, was carried out efficiently and safely, complying with planning, technical procedures and current environmental regulations. Always prioritizing the protection of the river ecosystem. Likewise, the correct disposal of the extracted materials and the responsible management of waste by authorized companies reaffirms the project's commitment to environmental sustainability.

Possible exceeding (or exceeding) the limits of the water discharge requirements.
Improved effluent quality (lower turbidity).

Indicators

Over the course of 2024, in general terms, total consumption increased significantly during this year, a total of 1,605,439m3 of water were consumed, of which 4,636 m³ were reused in different activities, thus contributing to more efficient and sustainable management.





For more information, see Annex V.

3.5. Protection and restoration of biodiversity and ecosystems

FCC Construcción works to protect biodiversity and reduce the impact of its activities on the natural environment. To this end, it applies a comprehensive approach based on three complementary lines of action. Most projects include studies and **Environmental Impact Assessments**, which make it possible to identify potential risks and plan preventive measures from the design phase, during execution and until the completion of the works.

Implementation of a specific methodology to identify, measure, and assess impacts on biodiversity in projects located in sensitive areas.

Incorporation of Nature-Based Solutions (NBS) as a tool to address environmental challenges from an ecosystem-based perspective.

Dissemination of good practices aimed at the preservation and restoration of biodiversity.

After the execution of the interventions, specific actions are carried out to restore the natural environment in the affected areas. When projects are developed in sensitive areas, such as Sites of Community Interest (SCI) or Special Protection Areas for Birds (SPAs), specialised monitoring is carried out with the aim of preserving the environment and applying compensatory measures that favor biodiversity. FCC Construcción is committed to responsible management and develops specific practices to reduce impacts on fauna, flora and their habitats.

3.5.1. Key impacts, risks and opportunities

FCC Construcción's activities, by their nature, can generate alterations in the landscape and ecosystems. In certain projects, the works can modify the environment significantly, causing fragmentation and disconnection of habitats, which hinders the mobility and natural development of species of fauna and flora. The main associated risk is the impact on fauna due to habitat modification, derived from the occupation of the territory, earth movements, soil loss or intervention in watercourses and seabeds.

Other relevant risks include perturbances caused by artificial lighting at night, impacts from noise and vibrations, habitat pollution from accidental discharges and dust emissions or blasting, which can lead to the abandonment of hatchlings and the displacement of wildlife. Although no specific opportunities have been identified in this analysis, the focus is on the application of preventive and corrective measures to minimize risks.

Some of our actions

Actions to adress risks	**General preventive measures**	Carry out an initial ecological inventory to identify existing habitats and species.
	Flora protection	Install soil-mass screens or terracing to mitigate vibrations in vegetated areas.
		Use micro-blasting or blasting with micro-delays to reduce explosive charge.
		Identify existing plant species prior to clearing activities.
		Physically protect plant specimens of higher value.
		Reduce the clearing area and transplant singular specimens affected by the works.
	Fauna protection	Create temporary shelters for animal species.
		Reduce or halt blasting activities during breeding seasons.
		Avoid habitats of vulnerable species when selecting disposal areas.
		Impose temporary restrictions on activities during migration or spawning periods.
		Install wildlife fencing or deterrent signage to prevent animal crossings.
		Prepare work programs that reduce temporary impacts and facilitate migration.
		Recover nests or burrows in logs when necessary.
		Relocate nests or animal specimens in cases of direct impact.
Actions to leverage opportunities	**Measures to minimize disturbance**	Proper placement of lighting fixtures, with focused and shielded lighting in sensitive areas.
		Use of yellow lights to reduce insect attraction.
		Rescheduling night work to minimize light pollution impacts.
		Reduction of activity during periods or hours with greater noise or vibration impact.
	Protection of aquatic habitats	Respect the riverbed and physically protect spawning grounds.

For more information on the actions developed to address the risks and opportunities identified in the works, see Annex III.

Protection of birds in railway structures

Project. Track construction and electrification for the Valladolid East Railway Bypass.
Client. ADIF.
Location.Valladolid (Spain).

Description of the work

The East Bypass is a new railway infrastructure that will improve the connection in the surroundings of Valladolid. With an approximate length of 17 kilometers, it runs through the east of the city and Santovenia de Pisuerga, avoiding urban centers and facilitating integration with other projects such as the future Outer Ring Road.

The route combines embankment sections, viaducts and tunnels to cross rivers, roads and canals, minimizing the impact on the territory. This project seeks to optimize rail mobility, reduce interference with urban traffic and coordinate with other infrastructures, contributing to more efficient and sustainable transport.

Challenge

A high mortality of birds has been detected associated with the poles that support the overhead contact line on railway tracks, specifically this mortality is associated with closed poles. These poles are closed along their longitudinal axis and only have an opening at the top.

When the ambient temperature is high, the pole behaves like a thermal chimney. Heat collects in the hollow section along the entire length of the pole and escapes through the opening at the end. The ambient heat is increased by the properties of the galvanized steel from which the pole is made, and by the heat accumulated by the ballast and the nearby rail.

When birds perch on top of poles, the heat coming out of the opening at this point can cause heat stroke. Birds can fall down the inside of the pole and, given the small section of the pole, cannot flap their wings to get out, getting stuck inside and slowly dying.

Solution

To protect the birds and reduce their mortality, a metal lid was designed that covers the top of the closed poles, preventing birds from falling inside and reducing the risk of thermal stress. This piece, in the shape of a "U", adapts to the head of closed poles, leaving space for ventilation and avoiding thermal stress. In addition, it allows assembly operations without adding significant visual impact or high costs.

The lid, made of galvanized steel and adapted to each pole, allows ventilation to prevent heat build-up, maintains structural safety and facilitates assembly operations. Its discreet and low-cost design ensures harmonious integration into the environment, contributing to the conservation of biodiversity without generating visual pollution.

Protection of birds in railway structures

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Result

The designed system allows the pole to be hoisted without removing the lid, as it remains open during slinging and closes automatically at the end of the operation, being fixed by means of settings that prevent it from sinking when birds are perching. In this way, birds are prevented from falling into the pole, fulfilling the main objective of protecting wildlife.

The cap covers most of the pole head, leaving side openings that ensure ventilation and prevent heat build-up, protecting both welds and birds from thermal stress. In addition, its discreet design does not stand out, so it does not generate visual impact, and it integrates perfectly into the landscape.

It is a simple, economical and effective solution that meets all technical, environmental and cost requirements, reinforcing the project's commitment to sustainability and biodiversity conservation.

Protection of birds in railway structures

Project. Monsaraz Reguengos Hydraulic Circuit.
Client. EDIA – Empresa de Desenvolvimento e infraestructuras do Alqueva, S.A.
Location. Portel and Évora (Portugal).

Description of the work

The Monsaraz Reguengos Hydraulic Circuit, which originates in the Álamos-Loureiro canal, represents a key infrastructure to ensure efficient and sustainable use of water in the region. The project aims to connect the water intake with the Bragada tank through a system designed to optimize the distribution of water resources, reducing energy consumption thanks to gravity conduction. The primary network, built with resistant materials such as steel and reinforced concrete, ensures durability and reliability in the transport of water, while the secondary network, which integrates the Peral Block, incorporates pipes in recyclable materials and filtration stations that improve the quality of the water for agricultural irrigation.

The works include special crossings over the Degebe River and the Azambuja stream, designed to preserve the integrity of aquatic ecosystems and minimize environmental impact. This project not only promotes the modernization of collective irrigation, but also contributes to the protection of natural resources and the development of more sustainable agriculture, aligning with the objectives of water efficiency and resilience to climate change.

Challenge

During the development of the work, with the aim of improving access to the work area of the main pipeline, the need arose to cut down three specimens of olive trees.

Solution

To guarantee the preservation of the natural heritage and minimize the impact of the works, a solution that allows all the affected olive trees to be preserved by transplanting them to the land of one of the owners involved, was adopted.

The process began with the identification and marking of each specimen, ensuring precise control during operation. Subsequently, the ground was prepared around the roots to protect their root system, and the cavities in the new site were adapted to receive the trees in optimal conditions. The extraction was carried out with slow and controlled movements, using fastening systems that prevent damage to the trunk and roots, and the transport was carried out with special care to guarantee the stability of the olive tree. Once relocated, quality soil was used and the soil was compacted to promote rooting, complementing the process with an adjustment pruning that reduces pressure on the roots and facilitates adaptation. Finally, the original area was restored by returning the land and its landscaping, ensuring the environmental integration of the space.

Protection of birds in railway structures

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Result

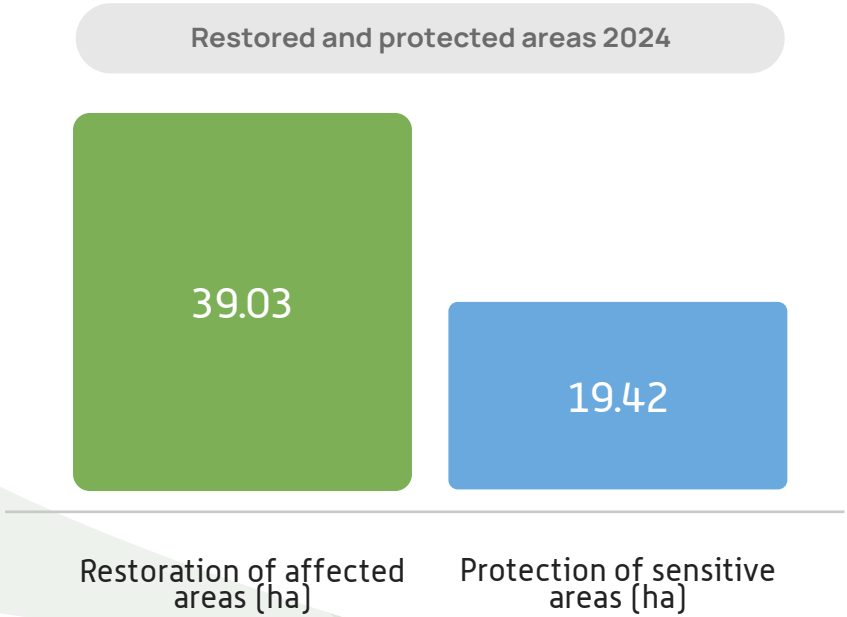
As a result, thanks to this action, the falling of three centenary olive trees was avoided, guaranteeing the preservation of a protected species with a high landscape and cultural value. The transplant made it possible to keep these specimens in optimal conditions, contributing to the conservation of biodiversity and the sustainable management of the agricultural landscape.

In addition, the solution adopted facilitated the development of the Monsaraz Reguengos Hydraulic Circuit work without generating additional impacts, improving access to the work front and allowing the arrival of trucks with DN2000 steel pipe safely and efficiently. This measure reflects the commitment to a responsible construction model, which integrates the protection of the natural environment in each phase of the project.

Indicators

During 2024, as in previous years, FCC Construcción has maintained its commitment to the restoration of affected natural areas and the protection of sensitive areas from the point of view of biodiversity. The actions have focused on minimizing the impact of the works and guaranteeing the conservation of environments of high ecological value.

The data for the year reflect that the number of projects located in natural landscapes, areas with catalogued landscapes or areas that affect riverbeds and protected vegetation remained stable compared to 2023, consolidating the trend towards responsible and sustainable management of the territory.



Land adjacent to or located within protected natural areas or areas of high biodiversity not protected				
Type of condition	**2023**		**2024**	
	Nº works	Area (ha)	Nº works	Area (ha)
Location in protected natural areas or with high value for the DB	12	125	22	53
Location in an area with a landscape classified as relevant	13	865.4	13	1,166.35
Effect on a natural riverbed in a protected area	6	11	6	51.18
Effect on natural riverbeds in areas with high biodiversity value	13	853	13	858.23
Effect on riverbeds with very high value for local communities and indigenous communities	7	9,5	7	63.74
Effect on channels with relevant value for local and indigenous communities	10	852.3	10	852.34
Effect on listed or protected vegetation	18	868	8	907.99
Effect on listed or protected animal species	18	869	18	905.18

In 2024, the following works were identified as being located in natural or protected areas, or with high biodiversity value.

Country	Name of the Work	Location and Context	Conditions and Protection Measures
Chile	Industrial Bridge	Hualpén, Biobío Region. It crosses a wetland on the Biobío River.	The wetland is home to protected species of reptiles and amphibians. Measures were implemented for the controlled transfer of species and sensitization to subcontractors.
United Kingdom	A465 motorway	Brecon Beacons National Park, Wales. It crosses two Special Areas of Conservation (SACs).	Habitats of the marsh fritillary butterfly and the small horseshoe bat. Bat hotels were created as a unique measure of protection.
Romania	Section 3: Gurasada–Simeria	Natura 2000 sites: "ROSCI0064 - Defileul Mureșului".	Protected areas under the European Union's Habitats Directive. Rigorous planning and protective measures were required.
	Lugoj–Timișoara East	Natura 2000 sites: "ROSCI0373 - Râul Mureș între Brănișca și Ilia".	Areas with high ecological value and identified with priority habitats. Protection and conservation measures were implemented.
Spain and Portugal	5 works and 1 fixed centre	Iberian Peninsula.	Located in protected natural areas or of high value for biodiversity.
	Specific projects in Spain	Southeast Regional Park (Madrid), Tenerife Island Ring (Teno SAC, Montes y Cumbres de Tenerife SPA and Chinyero Nature Reserve), El Pilar Quarry (Les Gavarres Massif, Catalonia).	These works cross or are located in areas of great ecological value and with different levels of protection, which requires careful environmental management.

Some of the flora species identified on the **IUCN Red** List and in national conservation lists whose habitats are in areas affected by the projects were:

- **In Spain:** *Matollars halonitròfils; Maytenus senegalensis; Palpensy Salsola; Ziziphus lotus; Hymantoglossum (Chio flower) and Zostera noltei.*
- **In Romania:** *Quercus cerris; Fagus sylvatica; Paduri alluvial of Anus glutinosa; Fraxinus excelsior; Alnus glutinosa; Alnus incana; Salix alba. And plant associations: Alno-Padion, Anion incanae, Salicion albae.*

Some of the fauna species identified were:

- **In Spain:** *Bonelli's eagle (Auila fasciata); Terrerola (Calandrella bracchydactyla); Sandgrouse (Pterocles alchata); European roller (Coracias garrulus).*
- **In Romania:** Golden Eagle *(Aquila chrysaethos);* Common kingfisher *(Alcedo atthis).*
- **In the United Kingdom:** Lapwing; Marsh fritillary butterfly *(Euphydryas aurinia);* Dormice *(Gliridae);* Great Crested Newt *(Triturus cristatus).*

In all cases, the corresponding protection and preservation measures have been taken.

3.6. Spatial planning

Construction projects, especially those of civil infrastructure, occupy large areas of the territory, in addition to exerting a great influence, both direct and indirect, on it. Interventions in natural areas can cause the modification of reliefs and landscapes, generate interference in the functioning of ecosystems, and even affect local communities and their way of life.

In more urban environments, the work also has repercussions. The interruption of traffic, cuts in basic services and the occupation of pedestrian paths, among others, are aspects that must be adequately addressed to try to avoid causing further inconvenience and always guarantee safety

For all these reasons, territorial planning is essential for responsible management, as it defines the planning and actions necessary for the rational use of natural resources, assessing the fragility of the environment and the socio-economic activities of each geographical area. Its essential purpose is to prevent significant soil disturbance, preserve natural and cultural heritage and lay the foundations for long-term sustainability.

3.6.1. Key impacts, risks and opportunities

The concept of **territorial planning** refers to the set of actions aimed at guaranteeing a rational use of resources, considering the fragility of the environment and the activities that are carried out in each area. Its aim is to prevent significant soil disturbances, preserve natural and cultural heritage and lay the foundations for long-term sustainability.

Therefore, all construction projects have an influence on the planning of the territory, although the intensity of this influence varies depending on various factors. This influence depends on a number of factors, including its **location** (natural vs. urban environment); the **type of project or infrastructure** in question (e.g., linear infrastructure, such as a road or railway, generates very different impacts than a building project); **the interaction of the project with communities**, for example, if there is a connection between the infrastructure and basic services, as it can affect mobility and accessibility, or if it is located in an environment of special cultural, historical or landscape interest, its repercussions will be greater for them.

Construction projects are essential for the development of communities, although they inevitably have effects on the environment. For this reason, FCC Construcción considers land use planning to be a key aspect of its Management System, for which it identifies risks and opportunities, and defines measures to ensure that this development is conducted in the most sustainable way possible, minimizing the risk of impact and trying to make the most of its opportunities.

Among the most relevant risks identified in the System are the **fragmentation of ecosystems**, caused by the "barrier effect" of linear infrastructures that limit the mobility of fauna; the **alteration of watercourses, relief and landscape**, derived, among others, from earth movements, soil compaction or the creation of impermeable surfaces; or the occupation of land, which together with the above actions can lead to the reduction of the permeability of the land, affect the quality of the water and also transform the configuration of the landscape.

In urban environments, the System also identifies risks (interruptions to traffic and basic services, dirt, noise, etc.), which generate unrest in communities and can lead to reputational damage for the company, as well as a reduced willingness of stakeholders to collaborate in other aspects. Therefore, in order to prevent and minimize these risks, FCC Construcción considers it essential to carry out exhaustive studies during the design and planning phase of the territory, assessing its repercussions on its environment and society. It also seeks to implement all necessary measures to preserve biodiversity and protect the interests of communities.

> *FCC Construcción integrates spatial planning into all phases of its projects: from initial planning and design, through construction and operation, to end-of-life management. It actively seeks to minimize and mitigate the impacts generated in order to ensure that each infrastructure is developed respecting the fragility of the natural environment and promoting the well-being of society.*

Some of our actions

Actions to adress risks	**Site selection:** Choose material extraction areas with the lowest visual impact.
	Landscape restoration: Restore the landscape at the end of construction and/or after the disposal area is no longer in use.
	Use of **native plant species** in sowing and planting.

*For more information on the actions developed to address the risks and opportunities identified in the works, see **Annex III.***

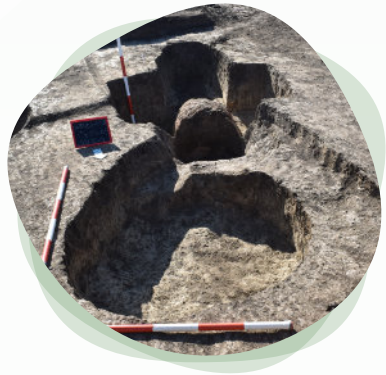
Discovery and protection of archaeological site

Project. Lugoj-Timisoara East railway works
Client. SNCF CFR S.A.
Location. Timisoara (Romania).

The project consists of the comprehensive modernization of the railway line between Lugoj and Timișoara East, part of the Caransebeș – Timișoara – Arad corridor, to allow speeds of up to 160 km/h. It includes the doubling of the track, renovation of stations, improvement of bridges and drainage, installation of a European Rail Traffic Management System (ERTMS), telecommunications modernization and electrification, as well as measures to reduce environmental and acoustic impact. The aim is to increase the capacity, safety and efficiency of rail transport in accordance with European standards.

Challenge

The modernization of the Lugoj-Timișoara East railway section, part of the Orient/East-Mediterranean Corridor, encountered a major challenge: the presence of 10 archaeological sites in the project area. Romanian law requires preventive investigations to protect historical heritage before starting any work, which involved carrying out detailed excavations and documenting the findings.



Solution

Between September and December 2024, more than 6,000 m² were excavated, uncovering remains of two settlements: one from the Late Bronze Age and the other from the late Roman period. 188 archaeological units were identified, including dwellings, ovens and wells, as well as numerous ceramic fragments. The findings were documented and transferred to the National Museum of the Banat, guaranteeing the preservation of the heritage and allowing the railway modernization to continue in accordance with the regulations.

Result

During the preventive archaeological investigation, the following categories of materials were discovered: pottery, stone tools, bone and antler objects, coins, glass, and metal objects. The intervention made it possible to preserve the archaeological heritage, comply with legal regulations and advance in the railway project in a responsible and sustainable way.

The excavations revealed two archaeological sites of great relevance. The first corresponds to a Late Bronze Age settlement, located in the western area of the site, which includes domestic pits, a ritual deposit pit with pottery and semi-underground dwellings. The second is a settlement from the late Roman period (3rd-4th centuries AD), confirmed by the discovery of a bronze coin of the URBS Roma type, minted during the reign of Emperor Constantine the Great in the house identified as Complex No. 25. The Roman occupation is evident from the third century A.D. thanks to pieces such as a silver fibula in the shape of a "T", fragments of terra sigillata (fine Roman ceramics) and pottery made both on a wheel and by hand. In the northwestern part of the settlement, a set of grouped ovens was discovered, used to smoke or dry food. This community, dated to the 3rd-4th centuries AD, belonged to a mixed population of farmers and shepherds, descendants of local Dacians and Sarmatians who migrated from the Pannonian Plain at the end of the 2nd century AD. The strong Roman influence is reflected in the presence of metal and ceramic artifacts, including fine-turn pottery of gray paste and common reddish-brown tableware.

04

Successful work: Rubí Line

The Rubí Line project (Casa da Música - Santo Ovídio Line), promoted by METRO DO PORTO S.A., will be developed in the municipalities of Porto and Vila Nova de Gaia, in Portugal. This new line will have a total length of 6.27 km, combining underground, surface and viaduct sections. With an expected duration of 36 months, the project includes the construction of 8 stations, a new bridge over the Duero River, 3 ventilation and emergency wells, 2 wells exclusively for emergency use emergency, as well as various actions to remodel the urban space in the affected areas.

Promotion of the use of renewable energies

Challenge: Minimization of emissions and consumption of energy resources

The execution of the works would lead to an increase in atmospheric emissions and energy consumption. The potential generation of these impacts prompted the adoption of more sustainable solutions that would help reduce the environmental impact of construction activities.

Solution

Fleet renewal

Renewal of the transport fleet by incorporating 100% electric vehicles for road travel. This decision makes it possible to significantly reduce polluting gas emissions and move towards cleaner mobility.

Photovoltaic installation

Installation of photovoltaic solar panels in the project's main warehouses. This technology harnesses energy from the sun, a clean, continuous and renewable source, which covers part of the facilities' energy needs, reducing electricity consumption from the grid. In total, seven 3 kW systems have been purchased, each consisting of six 500 Wp panels and an inverter that allows the energy generated to be fed directly into the warehouse grid. The assembly has been designed so that the panels can be dismantled and reused in future projects without causing damage or requiring additional drilling in the modular containers.

Result

FCC and ACA have a fleet of nine 100% electric light passenger vehicles in use, including models such as the Renault Zoe, MG 4, Volkswagen ID3, Peugeot and Citroën. This fleet actively contributes to reducing polluting emissions and promoting more sustainable mobility.

As for solar energy production, the installation of the systems is expected to be completed in 2025. In terms of energy production, each of the installed photovoltaic systems, with a power of 3 kW, has an estimated generation capacity of 8,760 kWh per year, considering an average operation of 8 hours per day throughout the year. Based on an average price of €0.15/kWh, the annual savings per system are estimated at €1,314. With seven systems installed, the total economic benefit amounts to approximately €9,198 per year.

These measures reflect the project's commitment to energy efficiency, emissions reduction and responsible use of resources, in line with FCC Construcción's sustainability objectives.

Efficient waste management

Challenge: Incorporation of CDW

During the execution of the works, excessive production of construction and demolition waste (CDW) was observed, as well as intensive use of natural materials. This situation not only generates significant environmental impacts, but also jeopardizes the sustainability of the resources used in the sector.

Solution

To address this problem, a strategy based on the principles of circular economy was launched, **which consists of reusing waste generated during construction and demolition activities, reintroducing it into the production process of the construction site itself.** This measure has made it possible to partially replace conventional materials such as gravel, sand, or paving bases, thereby:

- Decreasing the need for extraction and transport of virgin materials.
- Reducing associated environmental impacts.
- Complying with current environmental legislation.

The action includes the classification, processing and reuse of CDW identified under the LER codes 170101 (concrete), 170107 (inerts mixture) and 170302 (bituminous material), both those generated on the site itself and those from authorized external sources.

The waste is selected, non-inert materials are removed and shredded for subsequent application in tasks such as filling trenches, covering landfills and regularizing accesses and roads. The entire process is carried out following technical and environmental criteria that guarantee the safety and performance of the reused materials.

Result

As a result of this process, a total of 23,478 tons of construction and demolition waste (CDW) have been reincorporated in different phases of the work, representing a significant advance in the application of circular economy practices. This amount is distributed as follows:

- 1,244 tons of concrete (LER 170101), mainly reused in filling and levelling tasks.
- 14,542 tons of inert mixture (LER 170107), used as a base for paving and road covering.
- 7,692 tons of bituminous material (LER 170302), applied to improve accesses and work surfaces.

These results reflect the project's commitment to sustainability, efficiency in the use of resources and the reduction of environmental impact, consolidating a responsible practice aligned with FCC Construcción's sustainable development goals.

Reduction of acoustic impact

Challenge: Reducing noise levels

During the execution of the works, the generation of high levels of noise in urban environments, especially on some work fronts with continuous activity 24 hours a day, had a great impact. This situation directly affected the well-being of the nearby population, causing inconvenience and complaints, as well as compromising compliance with established environmental requirements.

Solution

In compliance with the project's Environmental Impact Statement, the Portuguese Environment Agency (APA) requires the carrying out of **pre-emptive noise studies by work front**, especially in urban areas and in those with uninterrupted activity. These studies are prepared following recognized methodologies and are submitted to analysis and approval by the APA.

Its main objective is to propose minimization measures that reduce the acoustic impact on the population. Although some solutions cannot be applied due to space limitations or incompatibilities with the design of the project, the studies are updated whenever the construction procedure or the execution schedule is modified, evaluating the effectiveness of the proposed measures and considering new alternatives.

Among the measures implemented, the following stand out:

- Acoustic encapsulation of fixed equipment, such as generators, jet-grouting units, fans and concrete mixers.
- Installation of mobile and fixed acoustic barriers at strategic points, especially next to sensitive receivers.
- Adaptation of work procedures to times with less acoustic impact.

In addition, a noise monitoring program was launched, with punctual, quarterly and continuous measurement campaigns, which allow the effectiveness of the measures adopted to be verified in situ.

Currently, noise barriers are being installed with a noise reduction index Rw ≥ 30 dB, according to ISO 717-1, and a weighted sound absorption coefficient αw equal to 0.9, according to ISO 11654, which guarantees high levels of attenuation.

Result

As a result of these measures, and despite the fact that this is a continuously active construction site, there has been a reduction in noise levels, which has contributed to a decrease in the number of complaints from the local population.

Minimizing the impact on water quality and aquatic ecosystems

Challenge1: Peninsula Bridge

During the execution of the works, a possible impact on the aquatic ecosystem and water quality of the Duero River estuary was identified, especially in the area where the 'A Ferreirinha' bridge was being built. The original project required the installation of temporary pillars on the riverbed, as the placement of permanent pillars in that location was not contemplated.

The technical complexity of the bridge, with a 300-metre span and a central arch, made it essential to install these temporary pillars. The original design contemplated the installation of 60 foundation piles directly in the bed of the Duero River, using boats and shipborne equipment, while the concreting would be carried out from the banks. Although technically feasible, this solution involved significant environmental and occupational risks, such as possible spills, falling materials and debris, and even the risk of accidents involving workers in the riverbed.

Given this scenario, the need to review the construction strategy was assessed in order to minimize the impact on the river environment and ensure the safety of operations.

Solution

In order to minimize impacts, the construction solution for the provisional pillars was redesigned. Instead of running all the piles directly into the riverbed, it was decided to build temporary peninsulas using sheet pile enclosures and breakwaters. This alternative allowed 14 piles to be constructed in a dry environment and only 6 using ship-based methods.

The proposal was evaluated and approved by the competent environmental and port authorities. In addition, hydrocarbon and sediment containment barriers were implemented to protect the environment during the execution of the on-board piles.

Result

A significant reduction in the impact on aquatic communities and water quality in the River Duero was achieved. Specifically, the total number of piles was reduced by 60% and the number of piles driven using ship-based equipment was reduced by 90%.

This solution not only improves the environmental performance of the project, but also contributes to shortening execution times, reducing sediment dispersion during drilling and minimizing the risks associated with materials, equipment or people falling into the river.

Minimizing the impact on water quality and aquatic ecosystems

Challenge 2: Ecological monitoring of the Duero River estuary

During the execution of the works, the possibility of impacts on the aquatic ecosystem and water quality of the Duero River estuary was identified, especially in the area where the temporary pillars of the 'A Ferreirinha' Bridge were being constructed. This situation required special attention to ensure the protection of the aquatic environment and compliance with the project's environmental commitments.

Solution

As a preventive response, a **Program to monitor the ecological status of the body of water in the Duero River estuary** was launched, with the aim of detecting possible alterations and defining mitigation measures if necessary.

The actions carried out in this program are:

- Monitoring at two strategic points of the river, one upstream and the other downstream of the work area.
- Characterization of the ecological status before the start of construction activities.
- Classification of water quality according to the Management Plan of the Duero Hydrographic Region.
- Monitoring of physicochemical parameters to support biological parameters, with quarterly campaigns.
- Phytoplankton monitoring on a biannual basis.
- Evaluation of benthic macroinvertebrates and fish fauna carried out annually.

This monitoring program provides a solid scientific basis for assessing the real impact of the work and, if necessary, defining corrective measures to protect the aquatic ecosystem.

Result

As a result of this programme, the following have been carried out:

- 5 quarterly physicochemical monitoring campaigns.
- 4 semi-annual phytoplankton monitoring campaigns.
- 2 annual campaigns focused on macroinvertebrates and fish fauna

The results obtained do not show alterations attributable to the works of the Rubí Line. The variations observed in the parameters analyzed correspond to natural seasonal fluctuations of the Duero River, which confirms the effectiveness of the preventive measures adopted and implemented.

Minimizing the impact on water quality and aquatic ecosystems

Challenge 3: Groundwater monitoring

During the execution of the works, it was identified that the activities could potentially cause alterations in the groundwater level, potentially affecting existing water catchments within the project's area of influence, defined as a radius of 200 meters. This situation required rigorous monitoring to avoid interference with the local hydrogeological balance and to ensure the protection of groundwater resources.

Solution

To address this problem, a **comprehensive piezometric monitoring program** was implemented in all work areas, with the aim of controlling variations in the water table and anticipating possible impacts.

The main actions include:

- Measurement of the water table prior to the start of excavations, as a reference for subsequent monitoring.
- Monitoring at 23 points defined in the project's DCAPE.
- Installation of piezometers with automated readings every 4 hours, connected to a web platform.
- Integration with the geotechnical monitoring network of the work.
- Use of the SIGTUN platform, which allows remote monitoring in real time.
- Definition of mitigation measures, in case significant alterations are detected.

This system allows continuous and accurate monitoring of the aquifer's behavior, facilitating informed decision-making to protect both the environment and the existing hydraulic infrastructures.

Result

As a result, since these actions began, three quarterly assessment campaigns have been carried out, allowing for analysis of groundwater level fluctuations in the project's area of influence. Among the actions carried out, the following stand out:

- Installation of 21 vibrating wire piezometers.
- Installation of 24 geotechnical system piezometers.
- Identification and sealing of boreholes and wells that interfered with the layout of the works.
- Replacement of sealed monitoring points with new devices.
- Drilling of new boreholes as a mitigation measure on affected properties.
- Detection of a temporary drop in the water table in the vicinity of Emergency and Ventilation Well 5 (PEV-5), with water supply to those affected.
- Integration of the results with the Botanical Heritage Monitoring Program to define minimization measures in the event of damage to monitored tree specimens

These results reflect FCC Construcción's commitment to responsible groundwater management and the protection of the natural environment, ensuring that the progress of the work is carried out with the least possible impact on water resources.

Challenge 4: Water reuse and IWTP

Desafío 4: Reutilización de aguas y ETARi

During the execution of the works, high consumption of drinking water for various operational uses was identified, placing increasing pressure on available water resources. This situation compromised the sustainability of use and created the need to adopt measures that would allow for more responsible and efficient use of water.

The technical complexity of the bridge, with a span of 300 metres and a central arch, made the implementation of these provisional pillars essential. The original design contemplated the execution of 60 foundation piles directly in the bed of the Duero River, using boats and equipment on board, while the concreting would be carried out from the banks. This solution, although technically feasible, involved significant environmental and occupational risks, such as possible spills, falling materials and waste, and even the risk of accidents with workers in the riverbed.

Faced with this scenario, the need to review the construction strategy to reduce the impacts on the river environment as much as possible and guarantee the safety of operations was assessed.

Solution

To address this problem, a **water reuse system was implemented under the "*fit-for-purpose*"** approach. The water used in the excavation and concreting of wells, tunnels and stations, which had high levels of suspended solids and an alkaline pH, was channelled to an Industrial Wastewater Treatment Plant (IWTP). Once treated through decantation and neutralisation processes, this water can be reused in various tasks on site, such as:

- Irrigation of green areas enabled within the project's setting.
- Irrigation for dust minimization, as an environmental control measure.
- Cleaning of internal accesses, helping to maintain safe and orderly conditions.

This solution has made it possible to transform potential waste into a useful resource, aligning with the principles of circular economy and sustainability.

Result

Since the system was launched, there has been a positive change in construction practices. In different areas, *joppers* have begun to be used and irrigation has been carried out manually with treated water from the IWTP. The volumes reused are monitored by reading the meters at the WWTPs and recording the figures monthly on specific forms completed by the drivers. This measure not only helps to reduce dust dispersion but also represents a significant step forward in the responsible use of water.

Botanical Heritage Monitoring

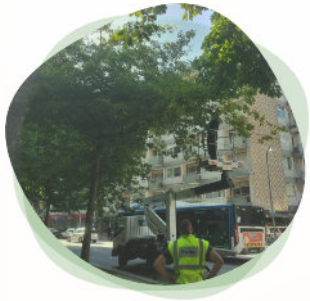
Challenge 1: Minimizing the impact on vegetation

During the execution of the works, the vegetation of the municipalities of Porto and Vila Nova de Gaia surrounding the worksites, was significantly impacted by the construction activities.

Solution

Due to the volume of vegetation affected by the activities, it was deemed necessary to **monitor the Botanical Heritage** and adopt mitigation measures for its preservation. To this end, the following actions were carried out:

- Update of the botanical inventory included in the RECAPE, prior to the start of the works.
- Dendrometry and phytosanitary evaluation of the specimens located in a 50-metre strip around the route of the Rubí Line.
- Identification of the specimens that will be felled or affected by construction activities.
- Analysis of the impact of the construction of the Rubí Line on urban trees.
- Definition of applicable minimization measures.
- Control of exotic species.



Result

Detailed monitoring of Botanical Heritage has been carried out in ten monitoring areas, where 1,289 trees have been identified and observed. Each specimen has been carefully tended to, recognizing its ecological value and contribution to the urban landscape.
As part of the monitoring of botanical heritage in the vicinity of the Rubí Line, different monitoring frequencies have been established, adapted to the needs of each type of intervention:

- Trees of public interest are checked weekly, ensuring constant monitoring of their condition.
- The control of felling and the definition of mitigation measures is carried out monthly, allowing actions to be adjusted as the work progresses.
- Every three months, the phytosanitary status of all specimens included in the monitoring is updated, ensuring the early detection of any relevant changes.

As a preventive measure, around 100 trees have been protected by fencing in the project's construction and workshop areas. Likewise, herbaceous, shrub and tree specimens have been removed to prevent them from being damaged during the execution of the works.

In addition, selective pruning has been carried out on two streets in the municipality of Porto and two streets in Vila Nova de Gaia, with the aim of preserving the health of the trees and facilitating the development of the project in safe conditions.
In addition, 10 tree specimens have been transplanted, and 8 additional transplants are expected to be completed before the end of the year, as part of the commitment to the conservation of urban trees.

These actions reflect the project's commitment to the protection of the natural environment, integrating urban development with respect for biodiversity and the plant landscape that is part of the identity of the affected municipalities.

Botanical Heritage Monitoring

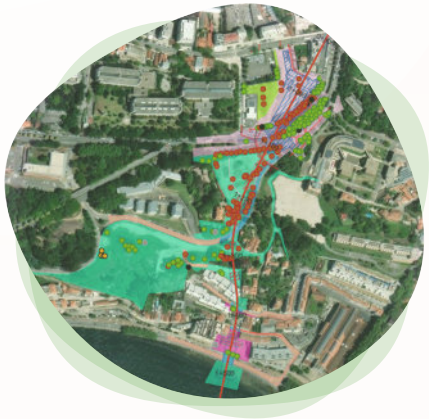
Challenge 2: Digital data collection and disposition

During the execution of the Rubí Line Botanical Heritage Monitoring Program, a difficulty was identified in integrating and making available the data and images generated, especially for remote monitoring by internal teams and other actors involved. This limitation affected the transparency of the process and made it difficult for stakeholders to collaborate.

Solution

To respond to this need, a **specific WebGIS application was developed for the monitoring of the Botanical Heritage**, integrated into the Rubí Line Portal.

The application, called Botanical Heritage, was created thanks to the collaboration between the departments of Environment and Projects. This tool allows detailed monitoring of the evolution of the tree heritage during the works, facilitating remote access to georeferenced data and images. Its design promotes transparency, traceability and active collaboration between technical teams, construction management, subcontractors, the client and inspection bodies.



Result

The Botanical Heritage application, already operational and integrated into the Rubí Line Portal, allows any authorized person to consult in real time the status of the monitoring of the urban trees linked to the project. This solution has significantly improved environmental management, facilitating informed decision-making and technical monitoring.

Main functionalities of the App:

- Monitoring of the evolution of the number of trees: monitored, felled, transplanted, removed, dead and absent.
- Individualized consultation of each specimen: common name, species, dendrometric data, location, phenological characteristics, phytosanitary status, risk assessment, among others.
- Historical photographic record of each tree, which allows its evolution to be compared and visual memory of the heritage to be preserved.
- Generation of graphs to assess the general state of health, degree of damage, level of risk and potential for rupture, as a basis for defining mitigation measures.
- Quarterly update of the database and the image repository.

For each tree, the following data is displayed:

- Species and common name.
- Georeferenced location.
- General characteristics.
- Phenology.
- Dendrometric data (height, diameter, crown, etc.).
- Phytosanitary evaluation.
- Current status.
- Risk assessment.
- Other relevant data for management and decision-making.

Noteworthy benefits of the App:

- Clear and accessible visualization of the progress of the monitoring program.
- Issuance of technical reports based on up-to-date data and graphs generated by the application.
- Remote access to information by all the actors involved, both internal and external, with prior authorisation.

05

Involving Society in responsible management

Involving Society in responsible management

FCC Construcción believes that the **responsible management** of its activities must contemplate not only compliance with legal and environmental requirements, but also the active integration of society in its construction processes. The construction sector has a direct influence on territorial, economic and social development, generating employment, boosting the local productive fabric and facilitating access to essential infrastructures and services. However, given its transformative nature of the environment, especially in urban areas or close to them, the execution of works may cause inconvenience to the community, such as noise, dust, dirt, disruption in urban mobility or interruptions in basic services.

Aware of this reality, FCC Construcción incorporates the interests and expectations of its Stakeholders into its corporate strategy, prioritising the identification, assesment and management of the possible negative effects of its activities. To this end, the company has developed a set of actions aimed at reducing the inconvenience caused during the execution of projects, as well as maximizing the social benefits derived from its activity. These measures include advance impact planning, the implementation of communication protocols with the community, coordination with local authorities and the adoption of technical solutions that maximize the social footprint of the works. This approach allows FCC Construcción to move towards a **sustainable, transparent construction model committed** to the well-being of the communities in which it operates.

FCC Construcción is also firmly committed to conveying its values throughout its value chain so that the stakeholders involved in its processes contribute to preventing or minimizing the possible negative effects of its activity and maximizing the sustainable development of the environment.

To this end, among other actions, all suppliers and subcontractors who wish to collaborate with the organization must sign and commit to act in accordance with FCC's Code of Ethics and Conduct, which includes the principles of environmental responsibility towards the environment. Likewise, all of them must adopt the organization's **Code of Environmental Behavior** and commit to the **Ten Principles of the Global Compact of Nations**, both commitments included in the contractual clauses.

For FCC Construcción it is very important to transfer its responsibility to the environment throughout its chain. Other noteworthy actions include obtaining **Sustainable Procurement certification** in accordance with **ISO 20400 Standard** and switching to a **new supplier approval platform (GoSupply)** more focused on sustainability criteria.

For both these inconveniences and others that may be caused during the execution of its works, **FCC Construcción** has identified a series of Actions and Opportunities based on three fundamental pillars for **FCC Construcción.**

CREATING ENVIRONMENTAL AWARENESS

committed to training and raising awareness in this area.

ENGAGING STAKEHOLDERS

to achieve environmental goals more easily through active collaboration.

COMMUNICATE

both internally and externally, to build relationships of trust with the various stakeholders involved in the projects.

Annex IV includes the Good Practices that FCC Construcción has implemented during 2024, based on the three previous pillars, to improve the potential impact of its works on the local population and the environment in general.

5.1. Environmental training and awareness

FCC Construcción remains firmly committed to **training and environmental awareness as strategic tools** for integrating sustainability into all levels of its activity. The company believes that the continuous training of its own staff and subcontractors is essential to ensure the correct application of good environmental practices, prevent negative impacts and foster a corporate culture committed to respecting the environment.

The training program is specifically designed for each professional profile, including technical courses, awareness sessions and materials adapted to the activities carried out on site. This training not only provides theoretical knowledge but also promotes practical skills and a proactive attitude towards environmental challenges. In this way, FCC Construcción ensures that all those involved in its projects are prepared to identify risks, apply preventive measures and act in accordance with the principles of the ***Good Environmental Practices System®.***

During the 2024 financial year, the results obtained reflect the organisation's high level of commitment to this line of action:

100% of production personnel, up to the level of supervisors, received the scheduled environmental training at 63% of all worksites.

99% of subcontractors involved in construction projects participated in environmental awareness talks specific to their activities, in 52% of all projects.

Training in sustainability has been reinforced, with a growing offer of specialized courses: ***0 Waste, Carbon Footprint Management, Sustainable Building, Water Footprint, etc.***

These efforts generate tangible benefits for FCC Construcción:

- Reduction of environmental and legal risks by ensuring regulatory compliance and the proper management of aspects such as waste, emissions and protection of the natural environment.
- Improved operational efficiency by minimizing errors, optimizing processes and reducing costs arising from environmental incidents.
- Strengthening corporate reputation by demonstrating a genuine commitment to sustainability to customers, governments and local communities.
- Greater involvement of staff, who take ownership of environmental objectives and actively contribute to their fulfilment.

Overall, environmental training and awareness are key aspects that allow environmental management to be integrated effectively and transversally in each project, from planning to execution.

5.2. Stakeholder involvement

The active involvement of local communities in FCC Construcción's projects is a fundamental pillar for achieving the environmental objectives defined by the organization. Stakeholder participation not only strengthens the social dimension of environmental management, but also builds relationships of trust, improves transparency and fosters a shared culture of sustainability.

From an operational perspective, this direct interaction with the social environment provides the company with valuable information about the characteristics of the territory, the concerns of the population and the possible environmental risks associated with each project. This knowledge facilitates more informed decision-making, early identification of potential impacts and the definition of solutions tailored to the real needs of the environment. As a result, FCC Construcción achieves **more efficient environmental management**, aligned with the expectations of its stakeholders and capable of anticipating possible conflicts, thus promoting a smoother and more responsible execution of the works.

On the other hand, local communities also benefit from this active relationship. Through communication, awareness-raising and training processes, citizens become more aware of the importance of protecting the environment and, in many cases, incorporate sustainable practices into their daily lives. This transfer of knowledge contributes to generating more resilient, informed environments committed to the conservation of the natural environment.

The benefits derived from this participation are multiple:

For FCC Construcción, this translates into **continuous improvement** of its processes, greater social legitimacy for its projects and a reduction in reputational and operational risks.

For **local communities**, it represents an opportunity to get involved in transforming their environment, access relevant environmental information, and adopt more sustainable habits.

In short, the integration of stakeholders in environmental management not only improves the company's environmental performance, but also promotes a more inclusive, transparent and environmentally friendly construction model.

5.3. Active communication

FCC Construcción considers **active communication** to be an essential element to guarantee transparency, accountability and the consolidation of relationships of trust with its stakeholders. This communication strategy not only allows the company to transmit its values, commitments and actions in environmental matters, but also facilitates direct knowledge of the perceptions, concerns and expectations of the stakeholders regarding its projects.

The company has developed a **two-way communication approach**, both internally and externally, which allows for a constant exchange of information. Internally, it promotes cross-communication between all levels of the organization, from construction sites to the corporate structure, ensuring that strategic decisions are aligned with operational reality. Externally, FCC Construcción establishes open channels with local communities, public institutions and other relevant stakeholders, allowing them to express suggestions for improvement, complaints or environmental concerns, while receiving up-to-date information on the status of projects.

This active communication model generates significant benefits for the company:

Improvement in environmental management by incorporating stakeholder input into project planning and implementation.

Strengthening corporate reputation by demonstrating a genuine commitment to transparency and active listening.

Reduction of negative impacts, thanks to the early identification of potential issues and the implementation of corrective measures.

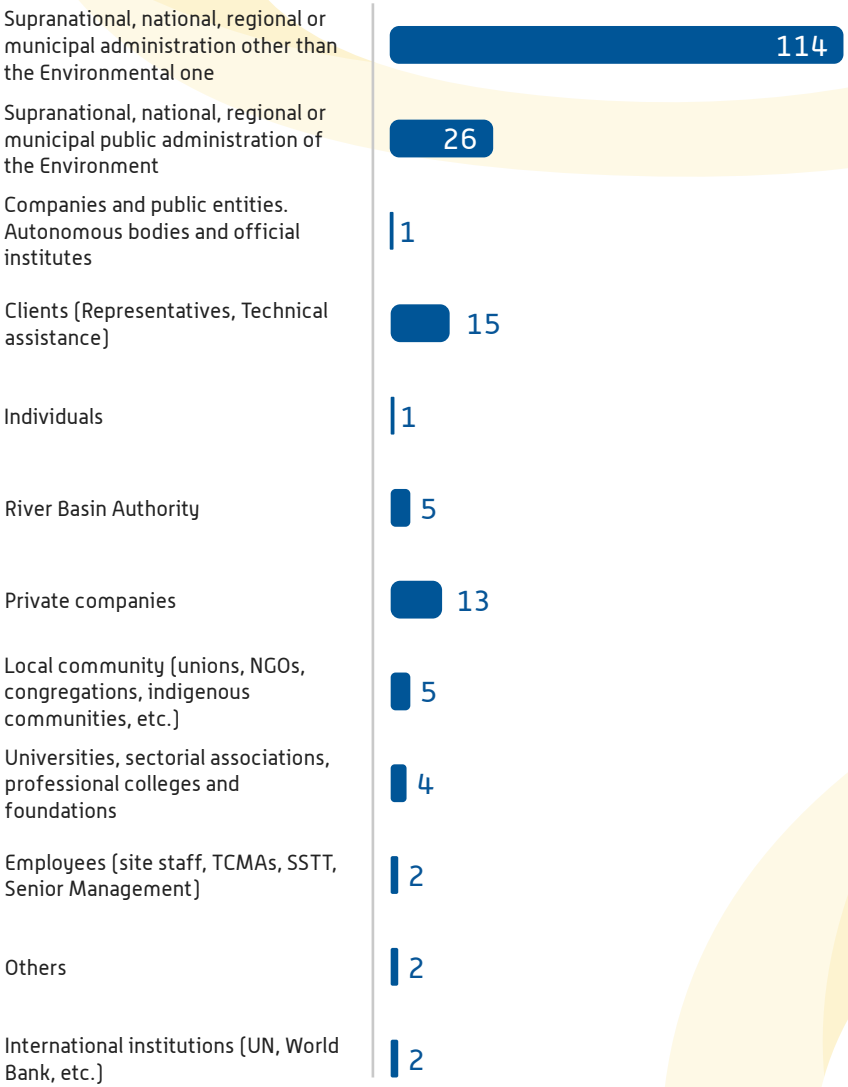
Greater operational efficiency by avoiding social conflicts and facilitating collaboration with affected communities.

To guarantee the effectiveness of this strategy, FCC Construcción has implemented specific mechanisms within its **System of Good Practices®**, such as the development of environmental, social or cultural heritage Communication Plans. These plans encourage collaboration with local communities and public institutions, including government representatives, and allow messages and channels to be adapted to the characteristics of each environment.

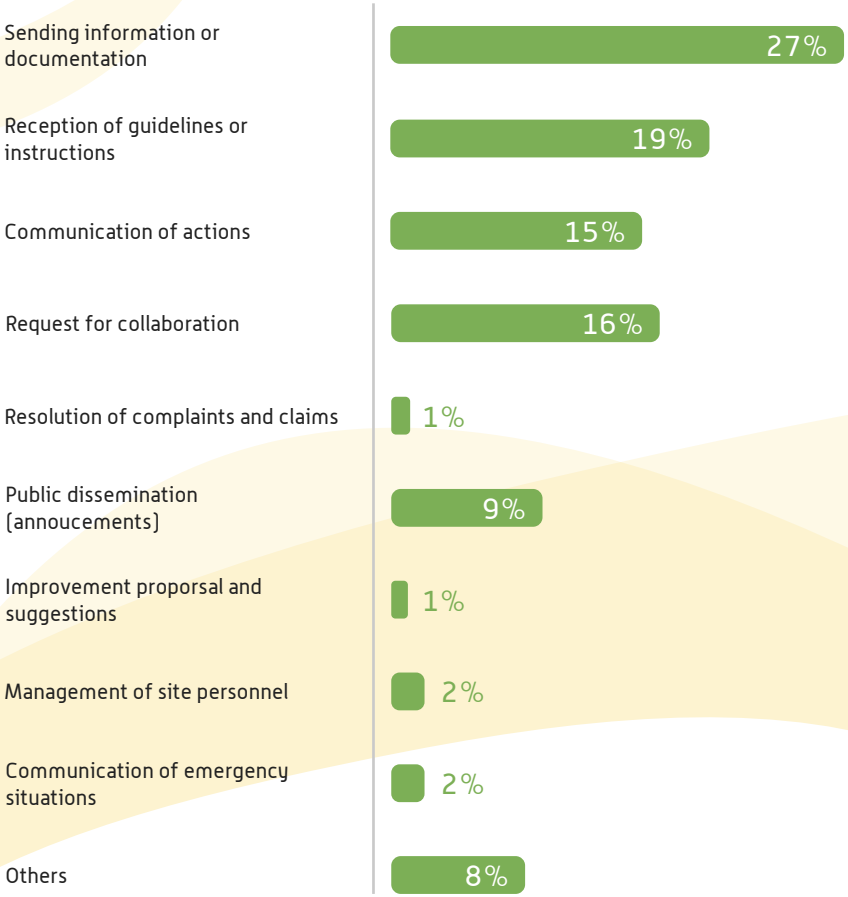
Active communication not only strengthens the link between FCC Construcción and its Stakeholders but is also key to moving towards a more sustainable, participatory and environmentally friendly construction.

The following graphs show the relationships maintained with FCC Construcción's different Stakeholders during 2024, as well as the main subjects of its communications.

Frequency of communication with the different Stakeholders during the execution of the works



Frequency of communication with stakeholders on each matter during the execution of the works



Community Engagement

Project. Pape Tunnel Metro Ontario.
Client. Metrolinx and Infrastructure Ontario.
Location. Ontario (Canada).

Description of the work

The Pape Tunnel and Underground Station (PTUS) project is a key contract on the Toronto Ontario Line that consists of the construction of 3 kilometers of twin tunnels under Pape Avenue and the creation of two new underground stations (Pape and Cosburn), as well as support works at the existing TTC Metro Line 2 station.

Challenge

During the execution of the work, the need for mechanisms to investigate and address, in a timely manner, the immediate environmental concerns of the community were identified. Currently, there is an absence of adequate channels to manage the environmental concerns raised by communities in the areas where the PTUS project is being developed. The use of a complain tracker proved insufficient to address these issues effectively.

Solution

The Pape North Connection (PNC) *environmental team* actively participates in Community *Liaison Committee (CLC)* meetings, forums created by the PTUS project to ensure two-way communication between the project and local communities about the progress of the works.

During these meetings, PNC's Environmental Manager and/or Environmental Compliance Officer brief the community on the implementation of environmental mitigation measures on the work fronts, aimed at protecting both the environment and community health. In addition, environmental monitors, including equipment to measure noise, vibration and air quality, are installed in strategic locations defined by Subject Matter Experts (SME), in order to continuously monitor the effectiveness of these measures.

Result

Since *PNC* began attending Community *Liaison Committee (CLC)* meetings, the number of environmentally-related complaints recorded in the Metrolinx Complaint Tracker, which is managed on a project-wide basis, has dropped significantly. Likewise, the frequency of specific complaints, such as those related to the lack of dust control, has also decreased.

Face-to-face communication has contributed to generate a strong and trusting relationship between the PTUS project and the community. To address dust concerns, *Pape North Connection (PNC)* has taken additional measures, such as hiring a street sweeper and tanker truck to keep the job site and nearby public roads in good repair. The community has recognized and valued these actions.

06

Annexes

6.1. Annex I

6.1.1. Environmental characteristics of the projects

6.1.1.1. Interaction with the environment

Indicator	Average value	% Evaluated*
Distance to nearest town (m)	448.7 505.3 339.0	100% 100% 100%
Distance to essential community services (fire stations, airports, hospitals, government offices, airports, power stations, telephone services) (m)	748.8 13,398.9 10,057.3	42% 61% 55%
Distance to residential areas or industrial activities (m)	568.8 376.3 441.4	76% 77% 76%
Length of riverbed affected by diversions (m)	230.9 239.9	N/A 22% 14%
Distance to bodies of water (m)	5,457.9 2,24.4 3,572.1	91% 84% 87%
Water table depth (m)	105.5 40.7 63.4	85% 81% 82%
Distance to final waste destination (authorized landfill for inert or non-hazardous waste or other site) (km)	18.8 21.7 20.7	100% 94% 95%
Simultaneous presence of hazardous substances on site (litres)	1,259.2 3,592.6 2,721.5	85% 73% 77%

**Percentage of works in which the different magnitudes have been evaluated.*

6.1.1.2. Characteristics of the works

Indicator	Average value	% Evaluated*
Surface area occupied by the work (m2)	26,014.6 450,805.3 304,783.5	100% 98% 99%
Built area (buildings) (m2)	30,803.7 5,250.3 16,310.7	88% 59% 69%
Office area (m2)	280.2 630.9 502.3	100% 89% 93%
Workshop area (m2)	3,254.3 3,254.3	N/A 5% 3%
Surface of the work with Hazardous Waste (PR) or Hazardous Substances (SP) (m2) movement or presence.	26,633.0 63,881.3 55,847.4	33% 63% 53%
Surface area of pavement or road occupied by the work (m2)	1,088.2 57,107.1 28,569.2	82% 41% 55%
Surface area of the Hydraulic or Maritime-Terrestrial Public Domain affected by the work (m2)	12,981.0 5,182.3 5,507.3	3% 36% 25%
Number of people on site (units)	103.3 61.0 76.0	100% 94% 96%
Number of people in office (units)	11.0 24.8 19.9	97% 91% 93%
Number of auxiliary facilities other than the construction office (plants, workshops, prefabricated buildings, quarries, landfills, machinery parks, etc.) (units)	1.2 1.9 1.7	82% 77% 78%
Number of vehicles or machinery with combustion engines on site (excluding generator sets) (units)	5.8 19.5 14.8	97% 94% 95%

**Percentage of works in which the different magnitudes have been evaluated.*

Indicator	Average value	% Evaluated*
Number of generator sets present on site for more than 5 days (units)	2.6 3.9 3.5	76% 84% 81%
Number of road closures (units)	1.0 3.4 2.6	36% 42% 40%

**Percentage of works in which the different magnitudes have been evaluated.*

6.1.1.3. Material Production

Indicator	Average value	% Evaluated*
Concrete Plant Production (m^3)	0,0 21,830.4 21,830.4	N/A 11% 7%
Asphalt Agglomerate plant production (t)	0,0 7,671.6 7,671.6	N/A 2% 1%
Aggregate plant production (t)	3,473.7 50,265.8 41,492.2	9% 20% 16%
On-site production of asphalt agglomerate (t)	1,467.5 4,266.6 3,748.2	30% 69% 56%
Concrete placement (t)	4,918.3 15,660.7 11,889.4	100% 95% 97%
Quantity of steel used on site (structural and corrugated) (t)	49,797.5 36,956.5 41,664.9	100% 89% 93%
Percentage of electricity consumption at night (%)	2.7 101.7 66.8	91% 86% 88%
Quantity of non-ferrous metals used on site (t)	145.1 21.7 86.4	67% 31% 43%
Brick factory surface area (m^2)	15,957.0 3,789.2 10,708.1	88% 34% 53%
Glass surface area (m2)	22,472.1 3,668.4 14,849.0	67% 23% 38%

**Percentage of works in which the different magnitudes have been evaluated.*

6.1.1.4. Managed volumes

Indicator	Average value	% Evaluated*
Stored volume of flammable/combustible substances (wood, paper, etc.) (m³)	11.1 44.1 31.9	91% 80% 84%
Stored volume of harmful or hazardous substances that may accidentally break (m³)	4.6 29.4 22.7	58% 80% 72%
Volume of aggregates and other stockpiled materials that can create turbidity in the water (m³)	2,903.3 13,394.8 11,646.2	9% 23% 19%
Volume extracted from river water (m³/year)	3,551.0 3,551.0	 33% 22%
Volume of water extracted from wells (m³/year)	5,013.7 6,129.5 6,067.5	3% 27% 19%
Volume of water consumed in activities other than concrete manufacturing and irrigation of earthworks and pavements (m³/year)	2,502.6 2,915.2 2,773.2	64% 63% 63%
Volume of topsoil needed on site (m³)	752.1 16,361.2 12,593.5	21% 34% 30%
Demolition volume (m³)	2,649.3 1,894.2 2,079.9	45% 72% 63%
Blast volume (m³)	2,502.6 2,915.2 2,773.2	3% 13% 9%
Volume of bulk used on site (embankments + gravel + cement soil + chipboard + concrete) (m³)	76,284.6 120,887.5 105,515.5	88% 95% 93%
Earthmoving volume (excavations plus fills, clearances plus embankments) (m³)	14,724.6 210,231.4 143,718.8	100% 100% 100%

**Percentage of works in which the different magnitudes have been evaluated.*

Indicator	Average value	% Evaluated*
Volume of loans and quarries exploited (m³)	38,877.9 38,877.9	 19% 12%
Volume of earth and debris planned for landfill (external or construction) (m³)	23,157.3 71,432.6 53,182.2	94% 80% 85%
Expected volume of rubble (rubble that is reused on site plus rubble destined for landfill/recovery) (m³)	2,309.8 16,430.9 11,401.5	79% 73% 75%
Planned construction landfill volume (m³)	4,815.8 55,023.9 51,885.9	3% 23% 16%
Volume of soil contaminated for reasons unrelated to the work (m³)	18.2 20,856.0 18,404.5	6% 23% 18%
Volume of containment sludge (bentonite) used (m³)	2.4 10,399.7 8,320.3	6% 13% 10%
Volume of paint, solvents, release agents, concrete curing fluids, accelerants, fluidizers, antifreeze, epoxy resins (m³)	156.5 295.4 247.9	79% 78% 78%
Volume of soil for backfill from the work itself (m³)	6,022.2 86,718.4 70,280.3	33% 67% 56%
Volume of land for landfill from loans or other works (m3)	1.589,9 50,915.3 41,780.2	30% 69% 56%
Volume of gravel used in construction (m³)	2,013.2 8,391.6 6,392.4	64% 72% 69%

**Percentage of works in which the different magnitudes have been evaluated.*

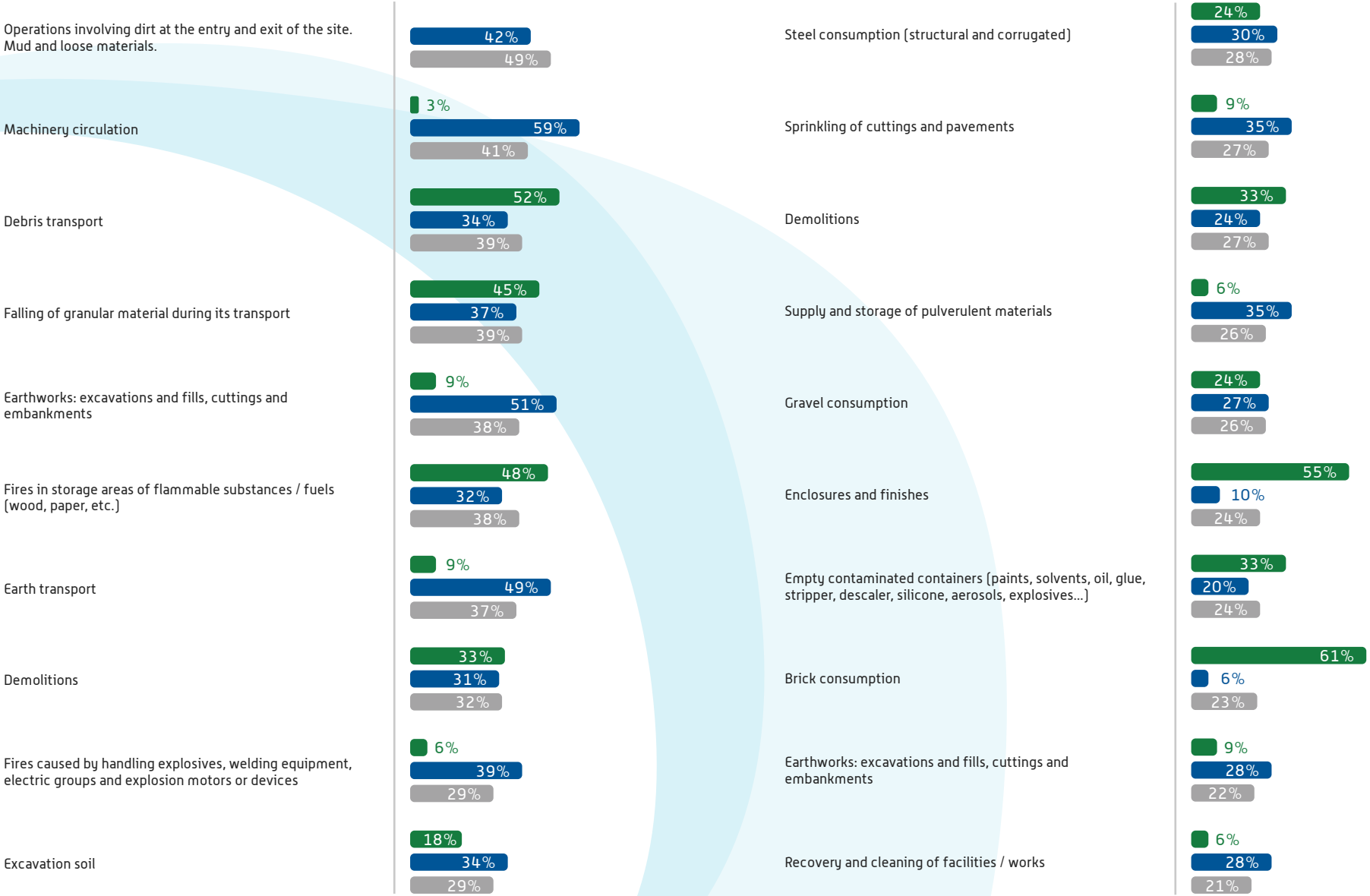
6.1.1.5. Characteristics of the natural environment

Indicator	Average value	% Evaluated*
Animal species catalogued or protected: Not recorded (1). Yes (2). No (3).	2.1 2.1	 38% 25%
Abundant vegetation (more than 50% of the territory within a radius of 10 km): Yes (1). No (2).	1.5 1.5	 38% 25%
Catalogued or protected vegetation: Yes (1). No (2).	1.3 1.3	 38% 25%
Landscape not listed as relevant (1). Listed as relevant (2).	1.4 1.3 1.3	15 45% 35%
Hardly visible landscape (1). Highly visible landscape (2).	2.0 1.5 1.6	15% 50% 38%
Landscape near historic-artistic buildings (1). Not close to historic-artistic buildings (2).	2.0 1.9 1.9	9% 45% 33%
Urban areas (1). Semi-urban (2). Rural (3). Natural and protected areas (4).	1.2 2.1 1.8	100% 98% 99%
Channel: Artificial channel (1). Natural channel (2).	1.4 1.8 1.8	21% 70% 54%
Coastline: Artificial (1). Natural anthropized (beaches) (2). Natural (3).	1.7 1.9 1.9	52% 58% 56%
Normal daytime activity (8-22 h) (1). Night work in less than 10% of the construction period (2) . Night work in more than 10% of the construction period (3).	1.0 1.5 1.4	100% 97% 98%
Majority of fuels consumed on site: Gas (1). Gasoline, diesel, fuel oil (2). Coal (3).	2.0 2.0 2.0	97% 94% 95%
Type of road affected: Roads not belonging to the official road network (1). Local roads, urban roads (2). Other routes (3).	1.9 2.0 2.0	55% 59% 58%

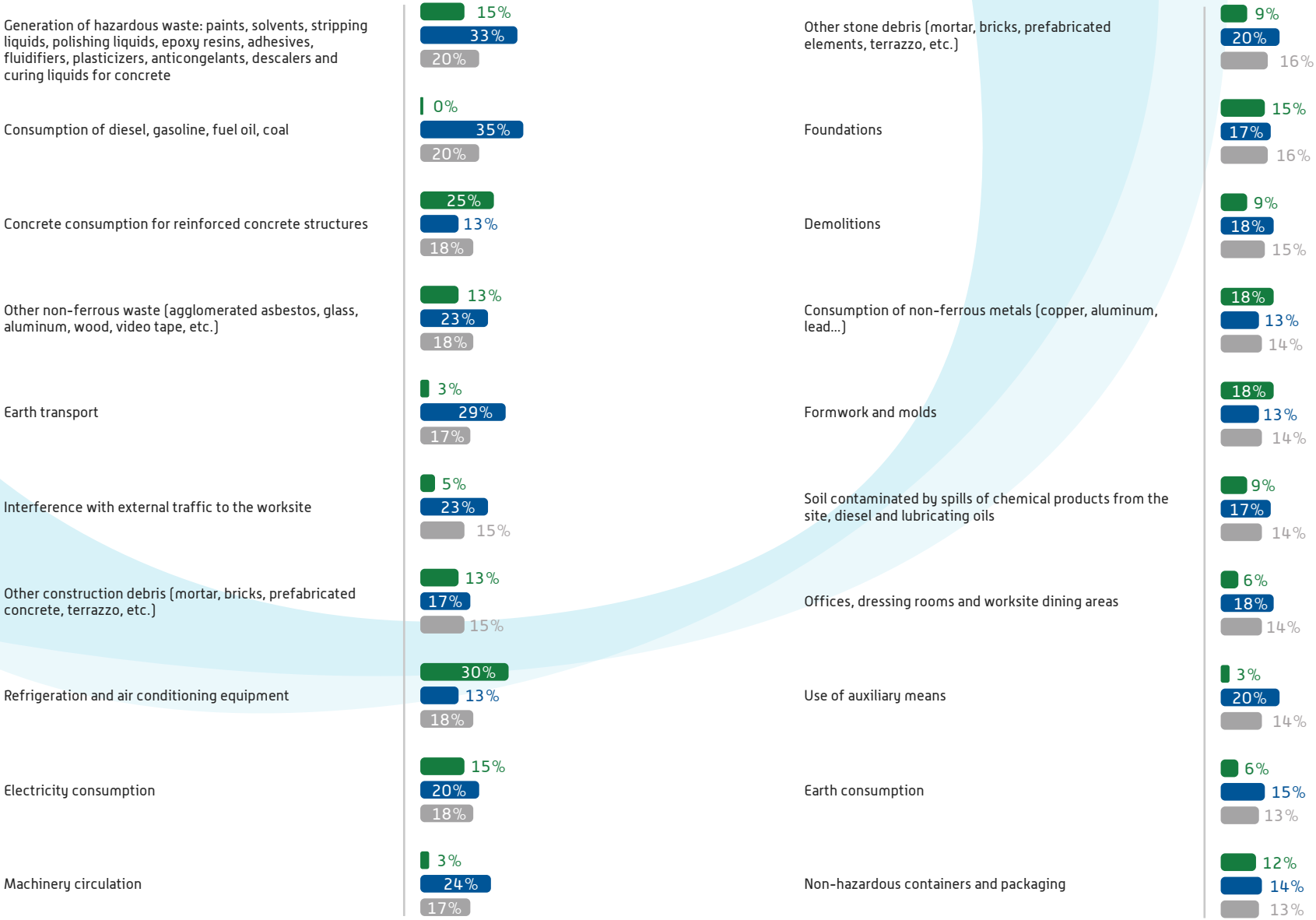
**Percentage of works in which the different magnitudes have been evaluated.*

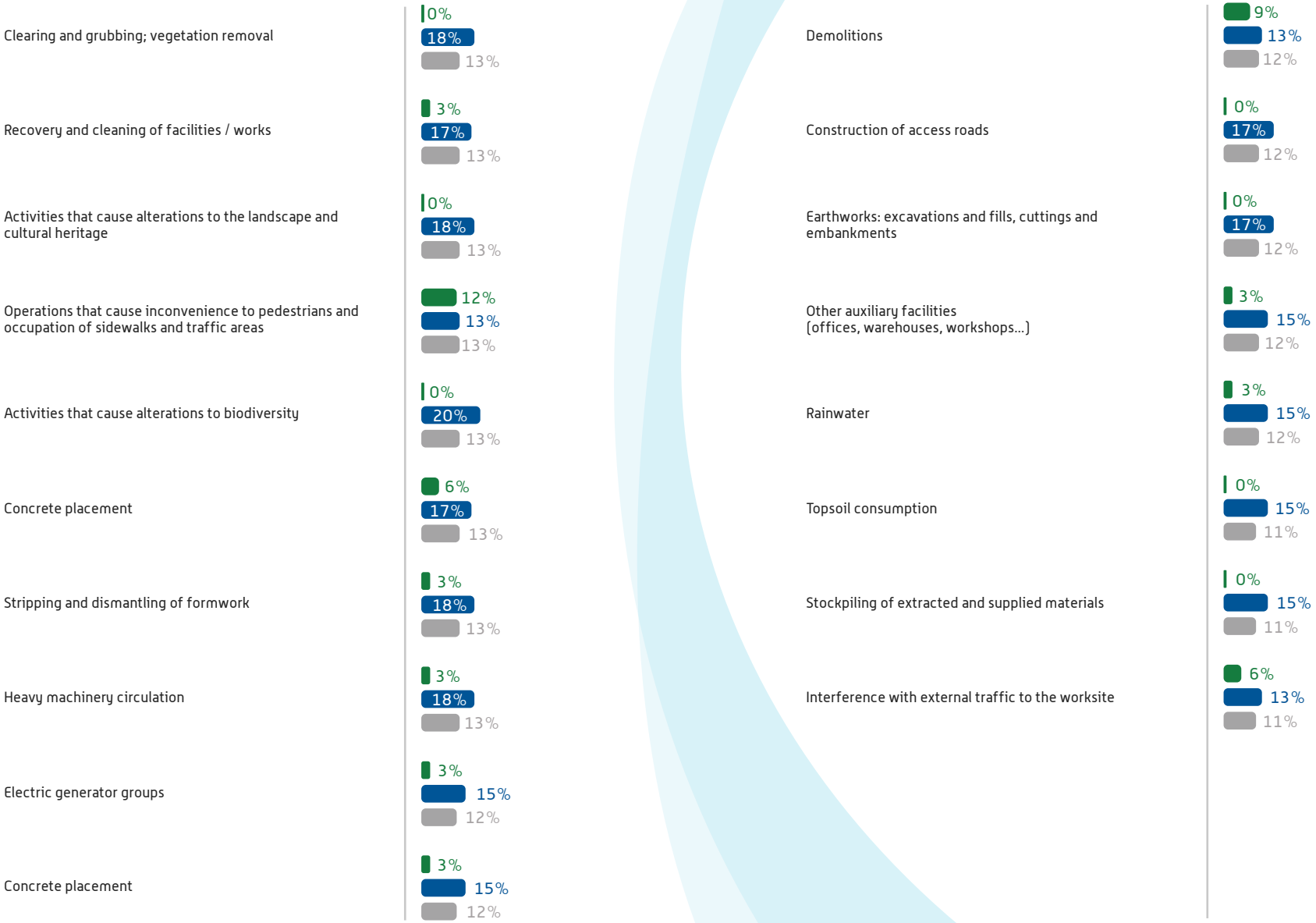
6.2. Annex II

6.2.1. Significant environmental aspects 2024




Consumption of diesel, gasoline, fuel oil, coal
0%
30%
20%
Earthworks: excavations, fills and compaction of embankments
18%
21%
20%
Breakage of buried conduits (Electrical, Telephone, Water, Hydrocarbons [liquid or gaseous])
12%
23%
19%
Other non-ferrous waste (aluminum, copper, glass, scrap, wood, video tape, etc.)
6%
25%
19%
Paints, varnishes, degreasing liquids, polishing liquids, special oils, lubricants, adhesives and curing liquids for concrete
24%
17%
Generation of inert or non-hazardous waste: surplus excavation soil
18%
40%
30%
Consumption of gravel
24%
27%
26%
Water consumption for sprinkling of cuttings and pavements
13%
42%
29%
Brick consumption
58%
6%
28%
Electricity consumption
18%
35%
27%
Generation of hazardous waste: empty contaminated containers (paints, solvents, oil, glue, stripper, descaler, silicone, aerosols, explosives...)
28%
27%
27%
Noise generation from demolitions
20%
31%
26%
Generation of inert or non-hazardous waste: formwork and molds
23%
27%
25%
Noise generation from earthworks: excavations and fills, cuttings and embankments
8%
37%
24%
Generation of inert or non-hazardous waste: non-hazardous containers and packaging
38%
13%
24%
Generation of urban waste from offices, dressing rooms and worksite dining areas
5%
37%
23%
Generation of vibrations from earthworks: excavations, fills and compaction of embankments
13%
31%
23%
Generation of urban waste from recovery and cleaning of facilities / works
5%
37%
23%
Refrigeration and air conditioning equipment
20%
25%
23%
Environmental accident: fires caused by handling explosives, welding equipment, electric groups and explosion motors or devices
5%
33%
12%


Generation of hazardous waste: paints, solvents, stripping liquids, polishing liquids, epoxy resins, adhesives, fluidifiers, plasticizers, anticongelants, descalers and curing liquids for concrete
15%
33%
20%
Consumption of diesel, gasoline, fuel oil, coal
0%
35%
20%
Concrete consumption for reinforced concrete structures
25%
13%
18%
Other non-ferrous waste (agglomerated asbestos, glass, aluminum, wood, video tape, etc.)
13%
23%
18%
Earth transport
3%
29%
17%
Interference with external traffic to the worksite
5%
23%
15%
Other construction debris (mortar, bricks, prefabricated concrete, terrazzo, etc.)
13%
17%
15%
Refrigeration and air conditioning equipment
30%
13%
18%
Electricity consumption
15%
20%
18%
Machinery circulation
3%
24%
17%
Other stone debris (mortar, bricks, prefabricated elements, terrazzo, etc.)
9%
20%
16%
Foundations
15%
17%
16%
Demolitions
9%
18%
15%
Consumption of non-ferrous metals (copper, aluminum, lead...)
18%
13%
14%
Formwork and molds
18%
13%
14%
Soil contaminated by spills of chemical products from the site, diesel and lubricating oils
9%
17%
14%
Offices, dressing rooms and worksite dining areas
6%
18%
14%
Use of auxiliary means
3%
20%
14%
Earth consumption
6%
15%
13%
Non-hazardous containers and packaging
12%
14%
13%


Clearing and grubbing; vegetation removal
0%
18%
13%
Recovery and cleaning of facilities / works
3%
17%
13%
Activities that cause alterations to the landscape and cultural heritage
0%
18%
13%
Operations that cause inconvenience to pedestrians and occupation of sidewalks and traffic areas
12%
13%
13%
Activities that cause alterations to biodiversity
0%
20%
13%
Concrete placement
6%
17%
13%
Stripping and dismantling of formwork
3%
18%
13%
Heavy machinery circulation
3%
18%
13%
Electric generator groups
3%
15%
12%
Concrete placement
3%
15%
12%
Demolitions
9%
13%
12%
Construction of access roads
0%
17%
12%
Earthworks: excavations and fills, cuttings and embankments
0%
17%
12%
Other auxiliary facilities (offices, warehouses, workshops...)
3%
15%
12%
Rainwater
3%
15%
12%
Topsoil consumption
0%
15%
11%
Stockpiling of extracted and supplied materials
0%
15%
11%
Interference with external traffic to the worksite
6%
13%
11%

6.3. Annex III

6.3.1. Main environmental risks and opportunities identified

	Aspecto ambiental	Riesgo/oportunidad detectada	% Proyectos
 **Environmental accidents**	Fires in areas where flammable/combustible substances (wood, paper, etc.) are stored	Risk: Illness affecting workers due to inhalation of toxic gases, burns, etc.	55% (54/98)
	Breakage of containers with harmful substances. Storage tanks for hazardous products.	Risk: Soil or water contamination.	50% (29/58)
 **Emissions into the atmosphere**	Demolitions	Opportunity: Awareness raising in the subcontracting chain.	57% (35/61)
	Earthworks: excavations and fills, clearings and embankments	Risk: Complaints from neighbors regarding high levels of suspended particles.	61% (60/98)
		Risk: Fine for dirt at the entrances and exits of the work.	61% (60/98)
	Supply and stockpiling of powdered materials	Risk: Complaints from neighbors regarding high levels of suspended particles.	77% (59/77)
	Machinery circulation	Risk: Complaints from neighbors regarding high levels of suspended particles.	75% (78/104)
	Soil transport	Risk: Complaints from neighbors regarding high levels of suspended particles.	64% (60/94)
		Risk: Fine for dirt at the entrances and exits of the work.	63% (59/94)
	Enclosures and finishes	Risk: Complaints from neighbors regarding high levels of suspended particles.	63% (31/49)
	Debris transport	Risk: Complaints from neighbors regarding high levels of suspended particles.	63% (50/79)
		Risk: Fine for dirt at the entrances and exits of the work.	58% (46/79)
	Generators	Risk: Emissions exceeding authorized or nominal emissions due to obsolescence or lack of maintenance of the equipment.	52% (47/91)
	Asphalt agglomerate paving	Risk: Emissions exceeding authorized or nominal emissions due to obsolescence or lack of maintenance of equipment or installations	56% (27/48)
	Refrigeration equipment, air conditioning	Risk: Emissions exceeding authorized or nominal emissions due to obsolescence or lack of maintenance of equipment or installations	57% (62/109)

	Aspecto ambiental	Riesgo/oportunidad detectada	% Proyectos
Land use planning and urban development	Interference with road traffic outside the construction site	Risk: Complaints from neighbors, due to increased dust and noise.	51% (31/61)
	Operations that involve inconvenience to pedestrians and occupation of sidewalks and transit areas	Risk: Impact on pedestrians and road users.	75% (42/56)
	Operations that involve dirt at the entrance and exit of the work. Mud and loose materials.	Risk: Fine for dirt at the entrances and exits of the work.	76% (66/87)
	Falling of granular material during transport	Risk: Fine for dirt at the entrances and exits of the work.	70% (46/66)
Use of natural resources	Irrigation of earthworks and pavements	Opportunity: Reduction of water consumption.	50% (29/58)
	Electrical power consumption	Opportunity: Reduced energy consumption	67% (84/126)
Waste and vibration generation	Machinery circulation	Risk: Complaints regarding excessive and annoying sound levels.	60% (64/107)
	Demolitions	Risk: Complaints regarding excessive and annoying sound levels.	60% (38/63)
	Foundations	Risk: Complaints regarding excessive and annoying sound levels.	60% (43/72)
	Earthworks: excavations and fills, clearings and embankments	Risk: Complaints regarding excessive and annoying sound levels.	58% (56/96)
	Use of auxiliary means	Risk: Complaints regarding excessive and annoying sound levels.	62% (42/68)
	Earthworks: excavations, backfills and compaction of embankments	Risk: Complaints from neighbors regarding high vibration levels.	57% (52/92)
	Concrete placement	Risk: Complaints from neighbors regarding high vibration levels.	51% (45/88)
	Piloting	Risk: Complaints from neighbors regarding high vibration levels.	51% (24/47)
Operations involving occupation, contamination and soil loss	Machinery storage	Risk: Soil contamination due to machinery maintenance work.	58% (23/40)
	Stockpiles of materials extracted and supplied	Risk: Soil contamination in areas where potential contaminants are collected.	50% (38/76)

6.3.2. Actions identified to address risks and opportunities

Action	% of sites identifying the action	Total projects
Controling the movements and limit the speed of machinery on the site and its accesses.	76% 74% 6% 56%	74
Periodic sweeping of the area where vehicles enter and exit the worksite.	88% 61% 0% 52%	68
Adequate maintenance program.	62% 52% 43% 52%	68
Covering the transported materials that produce dust.	79% 61% 0% 50%	65
Having differentiated containers for the different types of waste generated on site.	62% 53% 29% 49%	64
Watering where and when needed.	65% 65% 0% 47%	52
Prioritizing the hiring of subcontractors that apply environmental management systems.	71% 56% 0% 45%	59
Having absorbent granular material on site, for the collection of possible spills.	41% 65% 14% 45%	59

Action	% of sites identifying the action	Total projects
Knowing the protocols for action against fires.	59% 40% 40% 45%	59
Using machinery with a certification mark, to ensure that noise emissions are within the required limits.	62% 56% 6% 44%	58
Turning off equipment that is ngnot in use.	44% 34% 60% 44%	57
Knowing the protocols for action against fires.	62% 39% 20% 40%	52
Identifying the legal requirements that affect the activity and check their compliance periodically.	38% 55% 11% 39%	51
Knowing the evacuation routes.	44% 32% 46% 39%	51
Not carrying out the noisiest activities during rest hours (in agreement with the neighbors).	62% 45% 0% 38%	39
Not carrying out activities with higher vibration levels during rest times (agreed with the neighbors).	62% 45% 0% 37%	49

Action	% of sites identifying the action	Total projects
Marking the location of fire extinguishers and evacuation routes.	41% 29% 46% 37%	48
Reducing the speed of vehicles.	29% 58% 3% 36%	47
Estimating the amount and volume of waste that will be generated, to optimize transport.	63% 50% 0% 40%	47
Periodically checking whether waste is sorted in accordance with instructions.	41% 39% 23% 35%	46
Making the most of natural lighting.	32% 27% 46% 34%	44
Keeping the documentation that justifies the proper management of waste.	29% 42% 23% 34%	44
Informing employees and subcontractors of the waste they must deposit in each container.	53% 32% 17% 34%	44

6.4. Annex IV

6.4.1. Good Practices ® applied by FCC Construcción in "Relationship with society" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
0a	FCC production staff (including managers) who have completed the company's scheduled environmental training course.	3			> 30% of construction site staff			> 60% of staff.			100% of staff		
	% of application	100%	100%	100%	17%	12%	14%	23%	23%	23%	60%	65%	63%
0b	Subcontractors that have received environmental awareness and training talks from FCC, at least one hour long, in relation to the subcontracted activities.	3			> 30% of subcontractors			> 60% of subcontractors			> 90% of subcontractors		
	% of application	100%	99%	99%	24%	26%	25%	18%	26%	23%	58%	48%	52%
0c	Subcontractors that apply an environmental management system.	2			At least one subcontractor is ISO 14001 or EMAS certified			The same > 10%			The same > 25%		
	% of application	96%	100%	99%	29%	42%	39%	50%	42%	44%	21%	16%	17%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
0d	Environmental performance of subcontractors.	3			› 30% of subcontractors carry out actions related to waste optimization, provide their relevant permits and licenses and have contractual environmental requirements, which they meet.			› 75% of subcontractors carry out actions related to waste optimization, provide their relevant permits and licenses and have contractual environmental requirements, which they meet. or › 30% of subcontractors carry out actions related to waste optimization, provide their relevant permits and licenses and have contractual environmental requirements, which they comply with and, in addition, the non-conformities resulting from their actions either do not occur, or are identified and communicated by them.			› 75% of subcontractors carry out actions related to waste optimization, provide their relevant permits and licenses, and have contractual environmental requirements, which they comply with and, in addition, the non-conformities resulting from their actions either do not occur, or are identified and reported by them.		
	% of application	69%	93%	87%	73%	64%	66%	18%	24%	23%	9%	12%	11%
0e	Relationship with stakeholders.	3			All aspects that can lead to significant relevant impacts have been discussed with the client and the solution to be adopted has been agreed upon.			Those that have the greatest impact on society have dealt with the authorities or with the associations and individuals potentially affected.			Those who have the greatest impact on society have dealt with the authorities and with the associations and individuals potentially affected.		
	% of application	82%	98%	92%	43%	36%	39%	22%	32%	29%	35%	32%	33%
0f	Complaints and claims.	3			All complaints and claims received have been dealt with with by the individuals concerned.			The solutions to be adopted have been agreed with them.			These actions have been carried out and there is written acceptance in at least 50% of the cases.		
	% of application	69%	93%	85%	44%	38%	40%	39%	42%	41%	17%	20%	19%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
0g	Obtaining social recognition.	3			A congratulatory note has been received from the customer or the local authority regarding environmental performance.			Some publications outside the company praise the environmental performance.			The company has received an award with express mention of its environmental performance.		
	% of application	80%	55%	67%	100%	67%	86%	0%	33%	14%	0%	0%	0%
0h	Ownership involvement in environmental management.	3			The Owner is aware of the implementation of the Environmental Management System in the work.			The Owner has been actively involved in some aspects of the development of the Environmental Management Program.			A formal presentation of the Environmental Management System has been made in a specific session, with transparencies or other audiovisual means.		
	% of application	93%	98%	96%	44%	32%	36%	52%	61%	58%	4%	7%	6%
0i	Environmental training, lasting at least four hours, for production personnel from managers to operators.	3			100% of managers			100% of managers and > 20% of operators/foremen			100% of managers and > 50% of operators/foremen		
	% of application	90%	73%	78%	33%	25%	28%	22%	38%	32%	44%	38%	40%
0j	Environmental improvements introduced to the original project.	3			Some environmental/social improvements to the original project have been proposed, although they have not been finally admitted.			An environmental/social improvement to the original project has been admitted.			More than one environmental/ social improvement to the original project has been admitted.		
	% of application	100%	80%	85%	50%	30%	36%	50%	30%	36%	0%	40%	29%
0k	Adoption of environmental signage on the site that helps to inform and raise awareness among the personnel working on the site.	2			Standard environmental waste signage is used throughout the construction site			Full standard environmental signage is used throughout the construction site			Full standard environmental signage is used throughout the construction site and awareness posters are also put up.		
	% of application	97%	100%	99%	10%	19%	16%	13%	21%	18%	77%	60%	66%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
0l	Dissemination of the knowledge acquired in environmental matters.	2			At least one experience to be transmitted or an example of Good Practice (in relation to environmental management or social initiatives) is prepared and published on the intranet of the Delegation, Area or Technical Services so that it is available for other works.			Same with 2 experiences to be transmitted or examples of Good Practices (in relation to environmental management or social initiatives).			Same with 3 or more experiences to be transmitted or examples of Good Practices (in relation to environmental management or social initiatives).		
	% of application	50%	80%	74%	100%	42%	50%	0%	33%	29%	0%	25%	21%
0m	Relationship with populations affected by the project.	3			Affected populations receive information on the social, economic, environmental and cultural impacts, the duration of the activities, the affected municipalities and the benefits and compensations of the project.			In addition, mechanisms for consultation and participation are established with the populations likely to be affected by the work.			In addition, after the participation process, consent has been obtained freely and with full knowledge of the facts from the affected populations.		
	% of application	67%	79%	77%	100%	47%	53%	0%	47%	41%	0%	7%	6%
0n	Training in social issues for FCC's production staff and subcontractors.	3			> 30% of the site's own personnel and > 30% of the subcontractors.			> 60% of the site's own personnel and > 60% of the subcontractors.			100% of our own staff and > 90% of the subcontractors.		
	% of application	0%	50%	30%	0%	33%	33%	0%	33%	33%	0%	33%	33%
0o	Ethical behavior of subcontractors	3			> 25% of subcontractors have their own code of conduct or contractually accept and comply with the FCC Code of Ethics.			> 50% of subcontractors have their own code of conduct or contractually accept and comply with the FCC Code of Ethics.			> 75% of subcontractors have their own code of conduct or contractually accept and comply with the FCC Code of Ethics.		
	% of application	100%	93%	94%	25%	7%	9%	0%	29%	25%	75%	64%	66%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
0p	Communication Plan on environmental, social or cultural heritage matters	3			A communication plan is developed and implemented for the dissemination of the project in environmental, social and cultural heritage matters; in which the affected communities collaborate.			In addition, institutional bodies also collaborate.			In addition, the corresponding Ministries (Culture, Environment, etc.) also collaborate.		
	% of application	0%	63%	50%	0%	40%	40%	0%	20%	20%	0%	40%	40%

6.4.2. Good Practices® applied by FCC Construcción in "Spatial Planning" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
8a	Use of means to avoid dirt at the entrance and exit of the work.	1			Entrances and exits are systematically swept			The wheels of all trucks are cleaned before they are incorporated into the public road			A fixed device is used for this (pits with water at the exit, sprinklers, etc.)		
	% of application	93%	97%	95%	54%	63%	60%	39%	23%	29%	7%	14%	12%
8b	Occupation of sidewalks and roads.	1			Protection measures are adopted (fencing, signage, separation of sidewalk / roadway, etc.).			In addition, alternative access routes are enabled.			In addition, the maximum authorized occupancy time or space is reduced		
	% of application	93%	94%	94%	41%	27%	33%	52%	52%	52%	7%	21%	15%
8c	Prevention of the fall of debris on public roads or adjacent buildings.	2			Placement of "protective tray" on the front of the façade (cantilevered scaffolding protruding from the façade with vertical defense)			Placement of wraparound mesh around the building structure.			In addition to the placement of a "protective tray" or enveloping mesh, signage of the means of prevention installed.		
	% of application	65%	47%	56%	45%	57%	50%	45%	29%	39%	9%	14%	11%
8d	Adaptation of the planning of the work to minimise the impact on public roads.	1			Activities on public roads are limited to the hours of least disturbance for pedestrians and vehicles.			Activities on public roads are interrupted punctually, depending on external conditions.			Significant alteration of the planning of the work to avoid affecting the public road.		
	% of application	58%	69%	64%	71%	33%	50%	14%	67%	44%	14%	0%	6%

6.4.3. Good Practices ® applied by FCC Construcción in "Circular Economy: Waste" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
6a	Reduction of inert waste to landfill with respect to the volume planned in the project.	3			Reduction greater than 5%.			More than 15%.			More than 30%.		
	% of application	91%	89%	90%	63%	67%	65%	20%	6%	11%	17%	27%	23%
6b	Construction and demolition waste is sorted/ separated for individual management	2			Construction and demolition waste is classified into one more category than required by law.			Construction and demolition waste is classified into two categories in addition to those required by law.			All construction and demolition waste is sorted and recycled.		
	% of application	91%	88%	89%	50%	48%	49%	25%	17%	20%	25%	34%	31%
6c	Changes in design or construction systems in relation to the use of waste-generating materials such as fibre cement, formwork release agents, additives, resins, varnishes, paints, etc., generating less hazardous or non-hazardous waste.	3			Any hazardous waste foreseen in at least one activity/unit of work is no longer generated. For example, by applying water-based paints instead of paints with organic solvents.			The same in three or more activities.			The same in five or more		
	% of application	100%	25%	40%	0%	100%	50%	100%	0%	50%	0%	0%	0%
6d	Reduction of packaging waste through practices such as requesting materials with returnable packaging from the supplier, reusing contaminated packaging, receiving it with large volume or bulk elements instead of packaging, etc.	2			It applies to two or more materials.			The same to 5 or more.			The same to 10 or more.		
	% of application	40%	89%	78%	100%	88%	89%	0%	13%	11%	0%	0%	0%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
6e	Management of excavation surpluses.	2			More than 1% in another work or restoration of degraded area.			More than 30%.			More than 50%.		
	% of application	85%	88%	87%	27%	20%	22%	45%	43%	44%	27%	37%	34%
6f	Recovery of debris.	2			Reuse or recycling on another site or in an external plant			Reuse in the work itself.			Stone recycling by setting up a plant on site		
	% of application	65%	89%	79%	87%	52%	63%	7%	35%	26%	7%	13%	11%
6g	Use of means to reduce the volume of waste (paper, cardboard, metals, etc.)	2			It is applied to a type of waste.			It applies to two different types of waste.			It applies to three or more different types of waste.		
	% of application	92%	69%	79%	67%	18%	43%	33%	45%	39%	0%	36%	17%

6.4.4. Good Practices ® applied by FCC Construcción in "Circular Economy: Materials" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
5a	Reuse of inert waste from other works.	3			More than 1% of all inert (filled).			More than 5%.			More than 15%.		
	% of application	100%	69%	73%	50%	33%	36%	0%	44%	36%	50%	22%	27%
5b	Use of recoverable elements in construction processes such as removable walls (traditionally made of concrete from later demolition) in aggregate crushing facilities, etc.	2			Use of some system at least in 50% of cases possible in the development of an activity.			The same in 2 or more activities			The same in 5 or more activities.		
	% of application	0%	71%	71%	0%	80%	80%	0%	0%	0%	0%	20%	20%
5c	Reduction of loans with respect to the volume planned in the project.	3			Reduction greater than 5%.			More than 15%.			More than 30%.		
	% of application	100%	86%	92%	81%	76%	78%	15%	13%	14%	4%	11%	8%
5e	Reuse of removed topsoil	2			Separation of topsoil into horizontal layers less than 2 and a half meters high			In addition, turning of the topsoil collected for more than six months.			In addition, sowing or fertilizing the stockpiled topsoil.		
	% of application	82%	92%	90%	78%	62%	65%	22%	29%	28%	0%	9%	7%
5f	Use of items recovered from other works, such as portable purifiers, buckets, etc..	2			Use of 1 item.			Use of up to 3 items.			Use of more than 3 items.		
	% of application	100%	80%	88%	22%	50%	38%	33%	17%	24%	44%	33%	38%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
5h	Use of renewable energies	3			Some renewable energy source (photovoltaic solar panels, solar thermal panels, biomass boilers, etc.) is used for the self-supply of the construction offices.			Some renewable energy source (photovoltaic solar panels, solar thermal panels, biomass boilers, etc.) is used for some activities in the construction process.			The previous two.		
	% of application	0%	57%	57%	0%	50%	50%	0%	50%	50%	0%	0%	0%
5i	Use of recycled aggregates, instead of loan material.	2			More than 5% of the total aggregates needed are recycled aggregates.			More than 15% of the total aggregates needed are recycled aggregates.			More than 30% of the total aggregates needed are recycled aggregates.		
	% of application	100%	76%	79%	0%	50%	42%	33%	19%	21%	67%	31%	37%
5j	Prioritize cleaner electricity supply options.	2			Natural gas or liquefied gas generators are used, exceptionally, for electricity supply.			Renewable energy self-consumption systems or non-combustion energy storage systems are used for electricity supply.			All electricity is supplied via connection to the grid.		
	% of application	50%	20%	29%	0%	0%	0%	0%	100%	50%	100%	0%	50%

6.4.5. Good Practices® applied by FCC Construction in "Pollution prevention: Emissions into the atmosphere" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
1a	Reduction of dust by irrigating with water from roads and stockpiles.	2			Sporadic application			Frequent application			Systematic application		
	% of application	97%	97%	97%	13%	21%	18%	47%	56%	53%	41%	24%	29%
1b	Use of additives in irrigation water to create surface crust, paving tracks, or other long-lasting dust control practices.	1			Sporadic application			Frequent application			Systematic application		
	% of application	0%	50%	50%	0%	67%	67%	0%	0%	0%	0%	33%	33%
1c	Use of screens against dust dispersion in localized activities.	1			In more than 30% of the perimeter of the enclosure where the dust is generated.			The same by more than 60%			The same by more than 90%		
	% of application	75%	56%	62%	33%	0%	13%	67%	60%	63%	0%	40%	25%
1d	Use of molecular action sprayers in dust-generating facilities, such as aggregate treatment plants, etc.	2			Sprayers in more than 30% points Dust generation.			The same by more than 60%			The same by more than 90%		
	% of application	100%	40%	57%	0%	50%	25%	50%	0%	25%	50%	50%	50%
1e	Use of drilling machinery with a dust humidifier system, establishment of a wet curtain at the outlet of ventilation pipes, or other dust collection systems.	3			Implementation in a activity			Implementation in two or more activities			Implementation in five or more activities		
	% of application	100%	82%	85%	50%	89%	82%	50%	11%	18%	0%	0%	0%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
1f	Improvement of the levels required by legislation in parameters that are controlled (opacity of discharges, suspended particles, etc.).	3			Systematic collection of pollutant levels better than required by more than 5% in all Controlled parameters			The same by more than 15%, or by more than 30% in half of the parameters controlled			The same by more than 30% or on all the controlled parameters		
	% of application	0%	60%	60%	0%	67%	67%	0%	33%	33%	0%	0%	0%
1g	Proper maintenance of the machinery that operates on the site.	2			Preventive maintenance, in addition to that required by the legislation, in at least the 30% of the machines operating within the construction site			Preventive maintenance, in addition to that required by the legislation, in at least the 60% of the machines operating within the construction site			Preventive maintenance, in addition to that required by the legislation, in at least the 90% of the machines operating within the construction site		
	% of application	80%	90%	86%	45%	58%	54%	35%	22%	27%	20%	19%	20%
1h	Environmentally friendly night lighting.	1			Directional lighting instead of ambient lighting in at least 30% of the area, or automation of switching lights on and off.			Directional lighting instead of ambient lighting in at least 60% of the area, or automation of switching lights on and off.			Directional lighting instead of ambient lighting in at least 90% of the area, or automation of switching lights on and off.		
	% of application	91%	94%	93%	40%	34%	36%	40%	45%	44%	20%	21%	21%
1i	Use of horns for the dumping of debris from height and covering the containers with tarpaulins.	1			In more than 30% of the Containers			The same by more than 60%			The same by more than 90%		
	% of application	80%	64%	71%	38%	57%	47%	0%	43%	20%	63%	0%	33%
1j	Adequate speed control of vehicles on site.	1			More than 30% of construction roads with speed limit signs			The same by more than 60%			The same by more than 90%		
	% of application	96%	100%	99%	13%	34%	28%	29%	34%	33%	58%	32%	40%
1k	Reduction of dust emission in auxiliary installations.	2			Shielding over elements of the installation.			Individual fairing some equipment of the installation.			Fairing of the set of installation.		
	% of application	0%	80%	67%	0%	63%	63%	0%	38%	38%	0%	0%	0%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
1l	Appropriate selection of the location of the machinery and dust-emitting activities.	1			There is a written or graphic plan of the work areas where machinery will be placed and activities that may emit dust.			Furthermore, the planning considers the environment in order to locate these areas as far away as possible from potential recipients.			Furthermore, planning is dynamic and contemplates the relocation of these areas depending on the constraints of the work and the environment.		
	% of application	63%	90%	84%	40%	54%	52%	0%	38%	32%	60%	8%	16%
1m	Paving of construction roads to reduce dust raising.	2			The entrances and exits are paved.			The entrances and exits are paved, as well as more than 10% of the construction roads.			The entrances and exits are paved, as well as more than 20% of the construction roads.		
	% of application	71%	67%	69%	80%	67%	73%	20%	0%	9%	0%	33%	18%
1n	Reduction of combustion gas emissions from vehicles and machinery.	2			Turning off vehicle engines when they are not in use. Turn off vehicle engines when they are not in use.			In addition, minimization of construction traffic in the work area.			In addition, use of fuel with low sulphur content.		
	% of application	83%	92%	91%	100%	74%	77%	0%	26%	23%	0%	0%	0%

6.4.6. Good Practices® applied by FCC Construcción in "Pollution prevention: Noise and vibrations" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
2a	Incorporation of noise/ vibration reduction devices in construction site installations or machinery, such as silencers, noise barriers, silencers, dampers, etc.	3			Presence of these devices in any equipment considered critical.			The same applies to 50% of the equipment considered critical and 50% of those used in night work.			The same in 100% of both critical and night work.		
	% of application	100%	93%	94%	100%	100%	100%	0%	0%	0%	0%	0%	0%
2b	Rubber lining in hoppers, mills, screens, containers, buckets, etc.	2			Presence of rubber-coated elements.			More than 30% of these elements are protected against noise.			The same for more than 60%.		
	% of application	100%	40%	50%	100%	100%	100%	0%	0%	0%	0%	0%	0%
2c	Consideration of environmental conditions in the work programme.	2			Limiting noisy activities to the least annoying hours.			Limiting noisy activities to the least annoying times of the year.			Frequent punctual interruption of work due to external conditions.		
	% of application	96%	97%	97%	83%	70%	75%	9%	22%	17%	9%	8%	8%
2d	Reduction of blasting effects.	2			Protection of the affected area through the use of rubber blankets, provision of intermediate barriers between the affected area and the origin of the blasting, or protection by means of tarpaulins, meshes or any other of the sensitive elements.			In addition, use of low-density explosives.			In addition, reduction of the explosive load due to micro-delay in blasting, or preparation of decoupling or spacing of the load.		
	% of application	100%	43%	50%	0%	100%	75%	100%	0%	25%	0%	0%	0%
2e	Improvement of the levels required by legislation in the noise levels that are controlled.	3			Systematic achievement of noise levels better than those required by more than 5%.			The same by more than 15%.			The same by more than 30%.		
	% of application	0%	78%	78%	0%	71%	71%	0%	29%	29%	0%	0%	0%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
2f	Use of modern machinery.	2			Percentage of machinery with CE marking (own and subcontractors) greater than 50%.			The same greater than 70%.			The same greater than 90%.		
	% of application	93%	97%	96%	8%	12%	11%	36%	22%	26%	56%	67%	64%

6.4.7. Good Practices® applied by FCC Construction in "Pollution Prevention: Soil Protection and Spills" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
4a	Restoration of the areas affected by the work facilities.	2			Cleaning and removal of elements foreign to the environment, or without subsequent use, with written and/or graphic planning of the actions.			In addition, the decompaction of the land and the morphological adaptation with the environment are carried out.			The same but adding plantations and ornamental elements integrated into the resulting or pre-existing environment.		
	% of application	82%	95%	91%	56%	47%	50%	30%	31%	30%	15%	22%	20%
4b	Limitation of access areas.	2			There is a written or graphic road access plan that is respected throughout the work.			The same but including the physical signage that delimits them "in situ".			The same but limiting road access to those already existing.		
	% of application	96%	98%	97%	16%	28%	24%	72%	56%	61%	12%	16%	15%
4c	Limitation of occupied areas.	1			There is written/graphic documentation of the areas that machinery and personnel can occupy.			In addition, there is a physical delimitation or marking of these areas.			In addition, these areas are limited to the area occupied by the work		
	% of application	100%	98%	99%	11%	17%	15%	59%	39%	46%	30%	44%	40%
4d	Prevention of accidental spills.	2			Physical defences and/or deterrent signs are available on the perimeter of the storage trays for hazardous substances or hazardous waste, to prevent unwanted access and avoid collisions.			Additional protection is available in the supply area of the storage trays for hazardous substances or hazardous waste.			In addition, there are platforms or protected areas for handling or maintenance operations that must be carried out on the site or centre.		
	% of application	90%	93%	92%	39%	38%	38%	50%	43%	45%	11%	19%	16%
4e	Adequate planning of the execution of access roads.	2			Use of existing roads.			Search for a definitive use for temporary access roads.			The previous two.		
	% of application	80%	88%	86%	75%	45%	53%	25%	9%	13%	0%	45%	33%

6.4.8. Good Practices® applied by FCC Construcción in "Pollution Prevention: Discharges" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
3a	Use of portable treatment plants or recoverable prefabricated water tanks for the treatment of sanitary water.	3			They are installed at least in the effluent with the highest flow.			At least 50% of the discharge generating points are installed.			The same with elements recovered from other works.		
	% of application	100%	60%	67%	50%	33%	38%	50%	67%	63%	0%	0%	0%
3b	Ponds for decanting effluents with or without the use of additives in effluent discharges and process water.	2			Greases and solids in suspension are controlled			In addition, the pH.			In addition, the effluent must not have coloration.		
	% of application	0%	82%	82%	0%	67%	67%	0%	33%	33%	0%	0%	0%
3c	Acid neutralization of the pH of basic effluents.	2			Neutralization with HCl or H2SO4 at least one discharge point.			The same in 50% or at least in two different discharges.			The same at 100% or at least at three discharge points.		
	% of application	0%	50%	50%	0%	67%	67%	0%	0%	0%	0%	33%	33%
3d	Improvement of the levels required by legislation or by the discharge permit in controlled parameters.	3			Systematic obtaining of pollutant levels better than those required by more than 5% in all parameters.			The same in more than 15%, or in more than 30% in half of the parameters controlled.			The same in more than 30% on all the parameters controlled.		
	% of application	100%	33%	50%	100%	100%	100%	0%	0%	0%	0%	0%	0%
3f	CO_2 neutralization of the pH of basic effluents.	3			CO2 neutralisation at least at one discharge point.			The same in 50% or at least in two different discharges.			The same at 100% or at least at three discharge points.		
	% of application	0%	50%	50%	0%	100%	100%	0%	0%	0%	0%	0%	0%

6.4.9. Good Practices® applied by FCC Construcción in "Sustainable use and protection of water resources" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
5d	Reuse of effluents and process wastewater.	2			More than 15%			More than 30%.			More than 60%.		
	% of application	0%	44%	44%	0%	100%	100%	0%	0%	0%	0%	0%	0%
5g	Use of recycled water for irrigation, provided that it meets the necessary quality conditions.	2			More than 30% of the water used for irrigation is recycled water, from the work itself.			More than 80% of the water used for irrigation is recycled water, from the work itself			Recycled water from external sources is used.		
	% of application	0%	53%	53%	0%	63%	63%	0%	25%	25%	0%	13%	13%
3e	Reuse of washing water from concrete tanks.	3			Reuse on site for road irrigation.			Reuse on site for subsequent tank washes.			Reuse in the concrete plant.		
	% of application	100%	58%	62%	0%	86%	75%	0%	14%	13%	100%	0%	13%
3g	Gutter cleaning area	1			Definition of points away from bodies of water and the water table where to wash the gutters.			In addition, they are waterproof.			In addition, they are covered and recovered landscaped at the end of the work.		
	% of application	97%	97%	97%	14%	26%	22%	62%	25%	37%	24%	49%	41%

6.4.10. Good Practices® applied by FCC Construcción in "Protection and restoration of biodiversity" in 2024

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
7a	Physical protection of specimens of vegetation present in the work.	1			All the unique specimens affected by the work are protected.			The same for all copies.			In addition, care and maintenance work is carried out		
	% of application	100%	93%	94%	25%	28%	28%	75%	52%	55%	0%	20%	17%
7b	Transplants.	1			The transplantation of a singular specimen affected by the work is carried out.			The same for all unique specimens			In addition, transplant success is more than 80%.		
	% of application	100%	72%	76%	33%	23%	25%	33%	69%	63%	33%	8%	13%
7c	Adaptation of the planning of the work to the life cycles of the most valuable species.	2			Project forecasts are improved.			It was not contemplated in the project to take it into account and it is done.			In addition, affected individuals are monitored for more than six months.		
	% of application	0%	55%	55%	0%	67%	67%	0%	17%	17%	0%	17%	17%
7d	Transfer of nests or individuals.	1			Some transfer is made.			A generalized transfer is carried out.			In addition, affected individuals are monitored for more than six months.		
	% of application	0%	75%	75%	0%	17%	17%	0%	17%	17%	0%	67%	67%
7e	Use of means to minimize the barrier effect and avoid running over animals.	2			Entrances and exits are systematically swept.			The wheels of all trucks are cleaned before they are incorporated into the public road.			A fixed device is used for this (pits with water at the exit, sprinklers, etc.)		
	% of application	0%	50%	50%	0%	33%	33%	0%	0%	0%	0%	67%	67%
7f	Wildlife refuge establishments with artificial structures	2			Protection measures are adopted (fencing, signage, separation of sidewalk / roadway, etc.).			In addition, alternative access routes are enabled.			In addition, the maximum authorized occupancy time or space is reduced.		
	% of application	0%	50%	50%	0%	0%	0%	0%	50%	50%	0%	50%	50%

	GOOD PRACTICE	IMPORTANCE			GOAL (DEGREE OF IMPLEMENTATION)								
					1			2			3		
7g	Biodiversity Plan	1			Placement of a "protective tray" on the front of the façade (cantilevered scaffolding protruding from the façade with vertical defense).			Placement of wraparound mesh around the building structure.			In addition to the placement of a "protective tray" or enveloping mesh, signage of the means of prevention installed.		
	% of application	0%	83%	83%	0%	20%	20%	0%	0%	0%	0%	80%	80%

6.5. Annex V

6.5.1. Emissions

6.5.1.1. Verified emissions

2024 Verified GHG Emissions (tCO2e)				
Geographical area	**Total 2024**	**Scope 1**	**Scope 2**	**Scope 3**
FCC Industrial	18,313.23	5,654.22	2,220.40	10,438.61
Matinsa	21,441.27	5,240.41	138.98	16,061.88
Megaplas	4,019.41	276.37	91.53	3,651.51
Prefabricados Delta	36,505.07	417.52	592.36	35,495.19
Áridos Melo	3,557.52	3,300.05	257.47	0.00
Spain	273,614.08	11,763.39	1,186.78	260,663.91
Rest of Europe	292,729.71	18,452.68	200.54	274,076.49
America	159,477.03	8,277.57	1,816.84	149,382.62
Middle East	110,041.11	56,061.80	0.00	53,979.31
Australia	1,011.92	0.00	7.82	1,004.10
Total	902,395.45	103,789.79	4.292,32	794,315.01

6.5.1.2. Emissions classified by scopes

Emissions Classified by Scope (according to UNE-ISO 14064-1:2006) tCO2e								
	FCC Industrial Spain (2023)	Matinsa	Delta	Megaplas	Áridos Melo	FCC CO	FCCO + investees	FCCO + verified investees in 2024
Scope 1: Direct GHG emissions	5,654.22	5,240.41	417.52	276.37	3,300.05	94,555.44	109,444.01	103,789.79
Associated with fuel consumption in stationary sources	16.79	115.26	285.98	265.24	2,794.35	62,888.74	66,366.36	66,349.57
Associated with fuel consumption in mobile sources	5,637.43	5,125.14	105.87	11.13	505.70	31,666.70	43,051.97	37,414.54
Other anthropogenic biogenic emissions	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Fugitive emissions from refrigerant equipment	0.00	0.00	25.67	0.00	0.00	0.00	25.67	25.67
Scope 2: Indirect GHG emissions	2,220.40	138.98	592.36	91.53	257.47	3,211.98	12,936.68	4,292.32
Localized focus	2,407.59	143.99	592.36	84.85	257.47	3,211.98	13,122.20	4,290.65
Market Focus	2,220.40	138.98	592.36	91.53	257.47	3,211.98	12,936.68	4,292.32
Scope 3: Other indirect emissions	10,438.61	16,061.88	35,495.19	3,651.51	0.00	739,106.43	804,753.62	794,315.01
Category 3: Indirect GHG emissions caused by transport	1,467.87	3,342.99	3,286.53	639.96	0.00	164,032.69	172,770.04	171,302.17
Associated with the displacement of the company's staff for business trips	228.76	42.58	4.77	13.10	0.00	5,567.34	5,856.55	5,627.79
Associated with commuting to the workplace	979.85	1,563.45	287.48	256.00	0.00	5,322.52	8,409.30	7,429.45
Associated with the transport of consumed materials	259.26	1,696.40	691.18	64.21	0.00	153,142.83	155,853.88	155,594.62

Emissions Classified by Scope (according to UNE-ISO 14064-1:2006) tCO2e								
	FCC Industrial Spain (2023)	Matinsa	Delta	Megaplas	Áridos Melo	FCC CO	FCCO + investees	FCCO + verified investees in 2024
Associated with the displacement of subcontractors executing the work within the work.	0.00	40.56	0.00	0.00	0.00	0.00	40.56	40.56
Downstream goods (finished product)	0.00	0.00	2,303.10	298.73	0.00	0.00	2,601.83	2,601.83
associated with the transport of waste	0.00	0.00	0.00	7.92	0.00	0.00	7.92	7.92
Category 4: Indirect emissions caused by products used by the organization	8,970.74	12,718.89	32,208.66	3,011.55	0.00	575,073.74	631,983.58	623,012.84
Associated with the production of consumed materials	3,855.32	11,123.82	32,114.25	2,937.13	0.00	465,484.69	515,515.21	511,659.89
Associated with the execution of subcontracted works units	2,650.85	0.00	0.00	0.00	0.00	35,313.86	37,964.71	35,313.86
Associated with activities related to the energy acquired	1,509.58	1,285.25	85.76	68.36	0.00	25,164.78	28,113.73	26,604.15
Associated with the transport and management of waste and surplus materials	917.42	21.30	3.49	5.81		48,950.98	49,899.00	48,981.58
Associated with the consumption of water from the supply network		0.92	5.16	0.25	0.00	159.43	165.76	165.76
Associated with capital goods	37.57	287.60				0.00	325.17	287.60
Total Emissions 2024	18,313.23	21,441.27	36,505.07	4,019.41	3,557.52	836,873.85	927,134.31	902,397.12

6.5.1.3. Emissions avoided

Avoided greenhouse gas emissions of FCC Construction (tCO2e)	
Geographical area	**t CO2e**
FCC Industry2	296.68
Matinsa	48.98
Megaplas	44.32
Áridos Melo	303.14
FCC Construction	4,636.06
Total	5,032.50

6.5.2. Energy

Energy Resource Consumption by Consumption Type (GJ)							
Power Type	**FCC Industrial**	**Áridos Melo**	**Spain**	**Rest of Europe**	**America**	**Middle East**	**Total**
Direct energy consumption							
Fuel Oil	-	-	-	-	-	-	-
Gas Natural	176	55,134	813	2,772	-	-	58,895
Gasoleo A	159,114	1,125	120,832	47,385	102,974	754,027	1,185,457
Gasoleo B	4,255	5,678	38,873	194,614	-	-	243,420
Gasoleo C	5,479	-	1,855	-	199	-	7,533
Gasolina	4,586	64	2,340	6,480	8,723	-	22,193
Biodiesel	12	-	-	-	-	-	14
Bioetanol	-	-	-	-	-	-	-
Biomasa	114	-	-	-	-	-	114
GLP	220	1	-	-	-	-	221
Butane	1	-	-	-	-	-	1.38
Propane	24	1	-	-	-	-	25
Indirect energy consumption							
E. Electric	102,167	3,371	15,097	22,346	30,434	46	173,461
E. Renewable	173,461	0	812	0	1,013	-	1,825
Total 2024	276,869	65,769	179,847	274,271	142,329	754,073	1,693,158
Total 2023	61,392	7,562	162,135	63,817	90,194	831,032	1,216,131

6.5.3. Waste

6.5.3.1. Type of treatment of waste not destined for disposal

Type of treatment of waste not intended for disposal (kg)									
Type of residence	Treatment	FCC Industrial	Áridos Melo	Spain	Rest of Europe	America	Middle East	Total 2023	Total 2024
Hazardous Waste (kg)	Total	273,849	237	108,578	74,171,789	2,138	0	265,252	74,556,592
	Reuse	97	0	1,680	280	1,413.34	0	2,335	3,470
	Recycling	174,582	0	488	0	0	0	3,159	175,070
	Other valuation operations	99,170	237	106,410	74,171,509	725	-	259,757	74,378,051
Non-Hazardous Waste (kg)	Total	18,496,835	57,768	2,630,792,945	315,505,864	776,171	638	2,365,666,229	2,965,630,220
	Reuse	40.00	-	171,892,975	6,688	-	-	34,672	171,899,703
	Recycling	6,829,346.00	8,641.00	1,056,199,806	126,729,158	685,677	260	1,301,821,753	1,190,452,887
	Other valuation operations	11,667,449.00	49,127.00	1,402,700,164	188,770,018	90,494	378	1,063,809,803	1,603,277,630
Total (kg)		18,770,684	58,005	2,608,944,450	389,020,803	723,949	260	2,365,931,480	3,040,186,812

6.5.3.2. Type of treatment of waste destined for disposal

Type of treatment of waste destined for disposal (kg)									
Type of residence	**Treatment**	**FCC Industrial**	**Áridos Melo**	**Spain**	**Rest of Europe**	**America**	**Middle East**	**Total 2023**	**Total 2024**
Hazardous Waste (kg)	Total	28,981	75	194,585	41,268,880	535,859	0	5,852,074	42,028,380
	Incineration with energy recovery	-	-	95	156,191	5,334	-	3,918	161,620
	Incineration without energy recovery	-	-	-	-	-	-	150	-
	Dump	50	-	100,194	41,099,789	530,525	-	5,401,946	41,730,558
	Other	28,931	75	94,296	12,900	-	-	446,060	136,202
Non-Hazardous Waste (kg)	Total	731,994	2,031	116,661,591	186,059,928	1,182,711,150	4,266,956,386	1,799,753,882	5,753,123,080
	Incineration with energy recovery	-	-	62,620	338,639	-	-	3,499,586	401,259
	Incineration without energy recovery	5,127	-	12,000	-	-	-	1,190	17,127
	Dump	723,240	2,031	116,170,015	182,623,845	1,182,575,863	4,266,956,386	1,787,071,821	5,749,051,378
	Other	3,627	-	416,957	3,097,444	135,288	-	9,181,285	3,653,315
Total (kg)		760,975	2,106	116,856,176	227,328,807	1,183,247,009	4,266,956,386	1,805,605,956	5,795,151,459

6.5.3.3. Waste generated by type and geographical location

Waste generated by type of waste and geographical location (kg)						
Area	**Hazardous waste 2023**	**Non-hazardous waste 2023**	**Total 2023**	**Hazardous waste 2024**	**Non-Hazardous Waste 2024**	**TOTAL 2024**
FCC Industrial	97,857.000	75,883,822	75,981,679	303	19,229	19,532
Áridos Melo	290.000	42,365	42,655	0.312	59.799	60.111
Spain	2,493,472	2,314,277,776	2,316,771,248	303	2,747,455	2,747,758
Rest of Europe	84,252	210,000,270	210,084,522	115,441	501,566	617,006
America	3,359,527	1,563,713,086	1,567,072,613	538	1,183,487	1,184,025
Middle East	80,820	1,503,012	1,583,832	-	4,266,957	4,266,957
Total	6,116,218	4,165,420,331	4,171,536,548	116,585	8,718,753	8,835,338

6.5.3.4. Residuos generados según tipología

Waste generated by type		116,281,829.25
Empty RP containers (kg)		76,961.61
15 01 10*	Empty RP containers	60,278.78
15 01 10*	Empty plastic RP containers	8,985.71
15 01 10*	Empty metal RP containers	6,106.12
15 01 11*	Metal packaging containing a dangerous solid and porous matrix (e.g. asbestos)	1,591
Solid hazardous waste (kg)		115,607,595.76
08 03 17*	Printing toner waste containing hazardous substances	410.45
15 02 02*	Absorbents and cleaning cloths containing SPs	59,676.24
16 01 07*	Oil Filters	1,315
16 02 11*	Discarded equipment containing chlorofluorocarbons HCFC, HFC	421
16 02 13*	Discarded electrical and electronic equipment	2,511
16 05 04*	Sprays containing SPs	5,853.71
16 05 08*	Discarded organic chemicals containing hazardous substances	257
16 06 01*	Lead-acid batteries	421
16 06 02*	Ni-Cd Batteries	223
16 06 03*	Mercury-containing batteries	158.34
17 01 06*	Debris containing SPs (concrete, mortar, bricks, prefabricated elements, others)	408,324
17 02 04*	Glass, plastic, and wood containing SPs	144,528
17 03 01*	Bituminous mixtures with tar	93
17 05 03*	Contaminated land and rocks	114,367,299.7
17 05 07*	Railway track ballast containing hazardous substances	464,900
17 06 01*	Asbestos-containing insulation materials	114,900
17 06 05*	Asbestos-containing building materials	18,506

19 03 06*	Solidified hazardous waste	4,270
19 08 06*	Saturated or used ion exchanger resins	2,355
20 01 21*	Fluorescent tubes containing mercury	431.32
20 01 31*	Cytotoxic and cytostatic drugs	30
20 01 33*	Batteries and accumulators specified in codes 16 06 01, 16 06 02 or 16 06 03, and unclassified, containing such batteries	14
20 01 35*	Discarded electrical and electronic equipment, other than 13,941.00 codes 20 01 21 and 20 01 23 with hazardous components	278
20 01 37*	Wood containing hazardous substances	10,420
	Oils Used (kg)	30,461.88
12 01 12*	Used waxes and greases	176
13 02 05*	Non-chlorinated mineral oils for engines, mechanical transmissions and lubricants	16,668
13 03 08*	Engine oils, mechanical transmission oils and lubricants	7,099.01
13 05 02*	Sludge from water separators/oily substances	3,360
13 08 99*	Oil residues not elsewhere specified	3,158.87
	Liquid hazardous waste (kg)	566,810
06 02 05*	Alkaline solution residues	4,869
07 01 04*	Other solvents, cleaning fluids and organic mother liquors	153
08 01 11*	Paint and varnish residues containing SPs	7,521
08 01 13*	Paint and varnish sludge containing organic solvents or other hazardous substances	2
08 04 09*	Adhesive and sealant residues containing SPs	2,789
11 01 11*	Phosphating waters	42
12 03 01*	Aqueous cleaning liquids	1,530
13 05 08*	Mixture of waste from sand traps and water/oily separators	170
13 07 03*	Liquid fuels	5,901

14 06 03*	Solvents and solvent mixtures	665
16 01 21*	Release agents, curing fluids, plasticizers, fluidizers	10,423
16 05 06*	Laboratory chemicals with SPs	4
16 07 08*	Hydrocarbon waters	116,311
19 08 13*	Sludge from other industrial wastewater treatment, which contains hazardous substances	415,810
20 01 99	Other factions not specified elsewhere	620
	NON-HAZARDOUS WASTE	8,699,464,672.03
	Inert (kg)	8,512,051,923.1
17 01 01	Concrete	158,381,055
17 01 02	Bricks	1,646,400
17 01 03	Roof tiles and ceramic materials	172,055.8
17 01 07	Clean debris (concrete, mortar, bricks, prefabricated elements, others)	678,168,424.8
17 05 04	Leftover soil or rocks	7,673,683,987.5
	Urban waste (kg)	4,596,411.52
20 01 39	Plastics	68,907
20 02 01	Remains of vegetation	1,596,736.22
20 03 01	Urban and similar to urban waste	2,193,824.3
20 03 07	Bulky municipal waste	736,944
	Other non-hazardous waste (kg)	182,816,337.41
01 05 04	Bentonitic sludge	856,370
02 01 07	Forestry waste	621,820
08 03 18	Print toner waste	153.42
10 09 08	Casting cores and moulds other than those specified in code 10 09 07	20,060

10 11 03	Waste from fiberglass materials.	582
12 01 13	Welding residues	640
15 01 01	Paper and cardboard packaging	25,606.75
15 01 02	Plastic packaging	15,070
15 01 03	Wooden containers	12,600
15 01 05	Composite packaging	18,628
15 01 06	Non-hazardous packaging	162,720
15 02 03	Absorbents, filters and cleaning cloths that do not contain hazardous substances	4
16 01 03	End-of-life tyres	38,670
16 01 17	Ferrous metals	120,536
16 02 14	Discarded, non-hazardous electrical and electronic equipment	2,135
16 06 04	Alkaline batteries that do not contain mercury	132.05
16 06 05	Other batteries and accumulators	13,740
17 02 01	Woods	2,583,807.16
17 02 02	Glass	21,302
17 02 03	Plastic	492,718
17 03 02	Bituminous mixtures (agglomerates and bitumens)	25,138,104
17 04 01	Copper, bronze, brass	70,340
17 04 02	Aluminium	3,630
17 04 03	Lead	12
17 04 05	Iron and steel	2,234,792
17 04 07	Mixed metals	4,392,123.91
17 04 11	Cable residues, which do not contain hazardous substances	11,106.02
17 05 08	Railway track ballast that does not contain hazardous substances	6,812,060

17 06 04	Insulation materials, which do not contain asbestos or hazardous substances	41,400
17 08 02	Plasters	259,955
17 09 04	Mixed debris (non-hazardous waste mixing)	129,560,283.09
19 12 01	Paper and cardboard	16,228
19 12 02	Ferrous metals	21,200
19 12 04	Plastic and rubber	629
19 12 12	Other waste (including mixtures of materials) resulting from the mechanical treatment of waste other than code 19 12 11	340
20 01 01	Paper and cardboard	81,363.63
20 01 08	Cooking fats	451.98
20 01 32	Expired medicines, class II biomedical waste	91
20 01 34	Batteries and accumulators other than those specified in code 20 01 33	2.5
20 01 36	Discarded electrical and electronic equipment other than those specified in codes 20 01 21, 20 01 23 and 20 01 35	761
20 01 40	Metals	1,933,779
20 03 04	Septic tank sludge	7,230,390.9
TOTAL WASTE		8,815,746,501.28

6.5.4. Resource Consumption

6.5.4.1. Material consumption

Type of Material Consumption (t)							
Material	**FCC Industrial**	**Áridos Melo**	**Spain**	**Rest of Europe**	**America**	**Middle East**	**Total**
Aggregates, soils and gravel, loam and limestone	96,948	422,403	2,119,466	7,642,726	481,421	-	10,762,964
Asphalt agglomerate	54,161	-	77,095	195,564	15,946	-	342,766
Concrete	941	-	1,467,019	379,108	778,654	412,462	3,038,184
Cement	17,569	29,359	23,957	2,746	5,667	-	79,298
Steel	8,638	-	48,492	39,561	38,857	1,107	136,655
Bricks	13	-	12,938	882	37	-	13,870
Glass, metals and insulators	339	-	1,263	190	1	-	1,793
Paint, solvents, release agents, concrete curing fluids, accelerants, fluidizers,	1,397	2	15,635	160	1,191	-	18,385
Oils, fats and other harmful substances	912	1	720	44	1	-	1,678
Total 2024	180,918	451,765	3,766,585	8,260,981	1,321,775	413,569	14,395,593
Total 2023	139,386	447,040	3,341,415	2,568,057	2,545,941	3,207,980	12,249,819

6.5.4.2. Water consumption by source of supply

Water withdrawal by supply sources (m3)								
Origin	Surface water	Groundwater	Mains water	Agua marina	Water from other sources	TOTAL	Total with water stress (2023)	Total with water stress (2024)
FCC Industrial	4,117.00	36,982	42,706	0	1,188	84,993	44,366	84,992
Áridos Melo	-	0	173,977	0	2,533	176,510	176,576	176,510
Spain	4,420.00	149,589	166,815	0	46,037	366,861	227,432	366,861
Rest of Europe	26,182.00	13,646	58,673	0	59	98,560	12,102	28,656
America	62,654.00	0	263,792	0	0	326,446	158,708	64,196
Middle East	-	0	552,070	0	0	552,070	104,454	552,070
Total 2024	97,373	200,217	1,258,033	0	49,817	1,605,440	723,638	1,273,285

6.5.5. Air pollution

Nitrogen oxides, sulphur oxides and other significant air emissions per area (kg)								
Area	Total NOx emissions	Total SOx emissions	Total VOC emissions 2024	Total particulate matter (dust) emissions	TOTAL 2024	Reduction of dust emissions 2024	TOTAL 2023	Reduction in dust emissions 2023
FCC Industrial	-			17,676	17,676	-	28,456	-
Áridos Melo*	-	-	-	-	0	-	-	-
Spain	2,850,855	804	129,506	189,118	3,170,284	1,406,742	2,061,867	1,829,068
Rest of Europe	5,354,320	1,256	243,196	115,116	5,713,889	786,262	2,507,521	343,641
America	1,135,377	266	51,569	13,630	1,200,843	230,662	804,600	249,553
Middle East	1,467,945	344	66,675	57,346	1,592,311	-	206,915	1,917,286
Total	10,808,497	2,670	490,947	392,886	11,695,001	2,423,666	5,609,359	4,339,548

**Prefabricados Delta has also recorded total emissions of sulphur oxides (SOx) of 318.3 mg/Nm³, total particulate emissions of 5.74 mg/Nm³ and emissions of volatile organic compounds (VOCs) of 6.92 mg/Nm3.*

6.5.6. Soil contamination

Afecciones significativas sobre el terreno de FCC Construcción								
Geographical area	**Total accidental spills (2023)**		**Contamination or alteration of soils in an inappropriate or uncontrolled manner**		**Improper, uncontrolled, or accidental discharges**		**Total accidental spills (2024)**	
	Nº	Volume (m^3)	Nº	Volume (m^3)	Nº	Volume (m^3)	Nº	Volume (m^3)
FCC Industrial	9	11	21	25	0	0	21	25
Áridos Melo	0	0	0	0	0	0	0	0
Spain	15	18	11	13	7	8	18	22
Rest of Europe	0	0	0	0	0	0	0	0
America	11	13	2	2	12	14	14	16
Middle East	0	0	0	0	0	0	0	0
Total	21	25	34	40	19	22	53	63

6.5.6. Water pollution

Wastewater discharge (m3)							
Destination of the water discharge	**FCC Industrial**	**Áridos Melo**	**Spain**	**Rest of Europe**	**America**	**Middle East**	**Total**
Year 2024							
Public Hydraulic Domain (surface water)	-	-	-	142,754	-	-	142,754
Public Hydraulic Domain (groundwater)	-	-	5,114	529	-	-	5,643
Public Domain Maritime Terrestrial (seawater)	-	-	-	-	-	-	-
Sanitation network (third-party water)	6,355	103	48,898	9,056	26,637	-	91,048
Watertight septic tank (third-party water)	-	-	485	2,286	11,443	49,282	63,496
Total 2024	6,355	103	54,497	154,626	38,079	49,282	302,942
Total with water stress 2024	6,355	103	54,497	4,615	10,188	49,282	125,040
Year 2023							
Treated water	-	-	3,497	9,740	37,397	-	116,089
Total 2023	5,439	103	50,960	7,170	30,069	84,553	178,294
Total with water stress 2023	5,440	103	49,280	2,312	1,971	84,553	143,659

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