The environment

# An emission-free future

Ferrovial's climate strategy is aligned with the 2030 Agenda for Sustainable Development adopted by the United Nations. The company prioritizes activities with less environmental impact, promotes the circular economy, prioritizes low emission products and services, reduces its carbon and water footprint, and preserves and enhances natural capital.

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errovial offers products and services that promote decarbonizing the economy and reducing the environmental impact. The company actively works to

optimize the use of natural resources and actively manage the risks and opportunities presented to it.

### CLIMATE STRATEGY

Through its climate strategy, Ferrovial is aligned with SDG 13, Climate Action, set by the United Nations in the 2030 Agenda. Climate change is a key element in the company's governance, which incorporates both the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), as well as climate risks within the corporate risk identification and assessment system, Ferrovial Risk Management.

True to its commitment to support international initiatives, in 2019 Ferrovial participated in COP25 in Madrid, as a United Nations observer. Thanks to its own emission reduction objectives and those of customers and users of products and services, the company can be considered a strategic partner in achieving the objectives of mitigating emissions and adapting to the effects of climate change, offering solutions through its low carbon products and services, consistent with the global trend toward a low emission economy.

#### **CARBON FOOTPRINT**

INTEGRATED ANNUAL REPORT 2019 I MANAGEMENT REPORT

The calculation and reporting of the carbon footprint is applicable to the entire company and covers all business areas and subsidiaries. The calculation method is based chiefly on the GHG Protocol (WRI&WBCSD), which is the most internationally accepted approach, while also adhering to ISO14064-1 standards. The market-based method was used to calculate scope 2.

Ferrovial has set ambitious emission reduction targets, which have all been Science Based Target Initiative (SBTi) certified, for the 2020 and 2030 horizons, and for the three scopes.

	SCIENC BASED TARGE	DE TS
2030 vs 2009	<b>-32%</b>	scope 1&2 (absolute)
	-42,9%	scope 1&2 (intensity)
2030 vs	-20%	scope 3 (absolute)

A progressive reduction of relative emissions can be observed, in general terms, as a result of the various initiatives promoting energy efficiency, sustainable purchasing, the optimization of waste and water treatment processes and the use of renewable energy instead of fossil fuels. Examples of the latter are the introduction of a fleet of 100% electric buses to transport passengers at Glasgow airport, the installation of solar panels at the offices of the NTE and LBJ toll roadss to reduce the network's electricity consumption by up to 30% and the fact that all the electricity consumed by Heathrow comes from renewable sources.

# RISKS AND OPPORTUNITIES RELATED TO CLIMATE CHANGE

Throughout 2019, a review of the company's risk matrix was carried out, following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD), improving the identification and classification of risks and opportunities related to climate change. This analysis has considered three scenarios based on the degree of implementation of policies against climate change, the so-called current policies scenario (CPS)\*; new policies scenario (NPS)\* and sustainable development scenario (SDS)\*. As a result of this study, it can be concluded that in the short, medium and long term, Ferrovial's main environmental risks are physical and transitional.

Transition risks are related to the increase in operational costs due to rising prices of raw materials,



Thames Tideway Tunnel

# GREENHOUSE GAS EMISSIONS 2019\*

#### AVOIDED EMISSIONS



 791,974 Scope1 (tCO2eq)

 292,555 Stationary

 Stationary

 271,220 Mobile

 Mobile

 69,327 Scope2 (tCO2eq)

 69,327 Scope2 (tCO2eq)

 2,498,0075 Scope3 (tCO2eq)

 569,388 Investment

 692,499 Use of sold product

 426,605 Purchased, goods and Services

\*In absolute terms, by category or source

SCOPE 1: GHG from sources that are owned or controlled by the company. These mainly come from fuel combustion in stationary equipment, diffuse, channeled and fugitive emissions. **SCOPE 2:** GHGs as a result of consuming electricity purchased from other companies that produce or control the power.

**SCOPE 3:** GHGs issued indirectly by Ferrovial attributable to purchased products and services, or by the use of products and services produced by third parties.

increased prices of fossil fuels, payment for emissions produced or incorporating activities included in the emissions market. Policies restricting the allocation of emission quotas, carbon rates, water shortages, restrictions or incentives for land use, changes in the supply and demand of services or interruption of operational processes.

The physical risks refer mainly to possible physical damages in infrastructure and temporary stoppage the activity, decrease of productivity in extreme climatic conditions, increase of the risk premium or a delay in delivery of products and services.

The probability of occurrence of physical risks and the financial impact is higher in the CPS scenario and decreases when moving toward the SDS scenario. The progress of transition risks is the reverse. The company has the appropriate measures to mitigate, reduce and manage the risks related to climate change that have been identified.

#### SHADOW CARBON PRICING

In the preinvestment process in large contracts, a tool is available to consider variable prices for a ton of carbon over different time horizons and across different regions and project types, internalizing the potential economic risk linked to climate change (including physical impacts, as well as those of a social, regulatory and socio-economic nature, among others). This helps reduce the inherent uncertainty associated with legislation relating to climate change, considering a realistic quantification of the possible costs associated with each project.

## BIODIVERSITY

Ferrovial continued its activities under strict criteria of respect for the mitigation hierarchy working toward the goal of zero net impact. In this regard, during 2019 the Biodiversity Initiative Catalogue was published in which the various initiatives carried out by Ferrovial to protect flora and fauna are detailed.

In 2019, the preparation and testing of a methodology of Monetization of Impacts on Biodiversity (INCA), a project carried out in collaboration with Climate Kic, was completed. This methodology will facilitate decision-making related to biodiversity by providing quantitative information.

In addition, the company adhered to The Natural Capital Commitment, which implies belonging to a community that shares its knowledge and has a common goal of carrying out actions in favor of natural capital.

#### **CIRCULAR ECONOMY**

Ferrovial has consolidated incorporating the principles of the circular economy in its processes, products and services. To avoid and minimize waste generation, the use of renewable natural resources is enhanced and, as far as possible, they are recovered for reuse as raw materials. The waste treatment division works on the continuous improvement of triage and recovery of materials in order to avoid, minimize and offset emissions released into the atmosphere.

A good example of the latter is the ZRR Project for Municipal Waste, which applies robotic technology in classifying and selecting urban waste. The application of artificial intelligence increases the rate of recovery of materials and their quality, improves the efficiency and speed of processes, and minimizes the risk of workplace accidents.

Another relevant project in the field of the circular economy is the Secasol Project, in which Ferrovial Servicios participates with other partners with the objective of applying solar energy in drying sludge from water purification waste and leachate from the treatment of household waste. With this project it is expected to reduce the economic and environmental impact of managing this waste by designing a specific facility to reduce the volume of final leaching from evaporation using a renewable energy source through heat exchangers and accumulators.

### LOW CARBON PRODUCTS AND SERVICES



WATER TREATMENT Construction and operation of water treatment plants. Optimization and innovation in plant managements



PERSONAL MOBILITY Zity: carsharing 100% electric vehicles certified as being powered by renewable energy

SUSTAINABLE INFRASTRUCTURES Managed Lane Toll Road NTE carbon neutral toll roads



ENERGY EFFICIENCY SERVICES International Energy Control Center, for centralized energy management of infrastructure



COMPREHENSIVE CITIES MANAGEMENT Sustainable urban services, such as waste collection and treatment, installation of high-efficiency lighting, etc.

Ferrovial also applies sustainability criteria in its construction activity. The company includes eco-design criteria ensuring efficient management during the life cycle of the building or infrastructure. In 2019, the first Environmental Product Declaration (EPD) was obtained in a track assembly contract, concluding that Ferrovial Agroman's bid had an impact per functional unit at least 30% less than the competition.

The percentage of buildings constructed, managed or owned by Ferrovial that incorporate environmental improvements in the design, construction and operation phases has been increasing in recent years. These buildings have considerably lower energy consumption than conventional buildings.

Within the construction activity, earthmoving is one of our aspects that generates the greatest environmental impact, so efforts are focused on its management to minimize the final waste. Reusing earth on the construction site effectively eliminates the emissions that would otherwise be generated by having it transported off-site, while also ensuring the project's better integration with the landscape. Ferrovial has set a target to reuse 80% of earth on the construction site by 2020.

#### WATER FOOTPRINT

Ferrovial has a methodology to calculate and report its water footprint, through which it identifies the value of water in processes and the environment, taking into account its availability and quality, as well as the balance of the ecosystems in which it is located. Water footprint makes it possible to measure offsetting global water consumption (Water Business Index, WBI\*) with the contribution of treated water (Water Treatment Index, WTI\*), returning it to the environment in better conditions to those in which it entered, as well as the actions that allow local communities in developing countries to access drinking water (Water Access Index, WAI\*) through the Social Infrastructures social action program.

In 2019, the company set a goal to reduce its global water footprint by 10% by 2022, considering 2017 as the baseline year. The reduction of the water footprint implies a positive net impact, entailing a gradual increase in offsetting the volume of water consumed through the treatment of waste or saline water and accessibility to drinking water. To achieve this objective, the company has projects such as demand prediction implemented in the Águilas desalination plant, which uses artificial intelligence and big data to optimize resource planning and thus improve process efficiency.

