Climate Finance report

2020-June 2021

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Santander

Our approach

By fulfilling our purpose to help people and businesses prosper, we grow as a business and can help society address its challenges.

"The world is still heading for a temperature rise in excess of 3°C this century, far beyond the 1.5°C warming limit set by the Paris Agreement. If we don't stop that from happening, the consequences for the world will be profound. This is, therefore, an emergency. The good news is that it's not too late to avoid it, but must act now and quickly. The progress we make in the next decade will be absolutely key. As one of the world's largest banks, we have a responsibility to help people and businesses cut emissions, and support the transition to the green economy."

Ana Botín, Group executive chairman.

Link to the full Net Zero press release.

Our progress

		2018	2019	2020	2021	2022	2023	2024	2025	2030
Commitments relating to our own operations (Environmental footprint)	Electricity used from renewable energy sources[1]	43%	50%	57%	74%[3]				100%	
	Becoming carbon neutral in our own operations			0%						
	Reduction of unnecessary single use plastic in corporate buildings and branches		75%	98%	100%					
Commitments relating to our business activities	Green finance raised and facilitated[2] (euros)		19Bn	33.8Bn	41.7Bn[3]				120Bn	220Bn
Commitments relating to portfolio alignment	Power generation decarbonization target (tons of CO_2e per Megawatt/hour)		0.23 tCO_2e/MWh						0.18 tCO_2e/MWh	0.11 tCO_2e/MWh

From... to...
Cumulative target
Figures in black refers to targets

1. In those countries where it is possible to certify renewable sourced electricity for the properties occupied by the Group.
2. Includes Santander overall contribution to green finance: project finance, syndicated loans, green bonds, capital finance, export finance, advisory, structuring and other products to help our clients in the transition to a low carbon economy. Commitment from 2019 to 2030 in 220Bn.
3. June 2021 data.

Other Highlights

Founding signatory of the Net Zero Banking Alliance, Santander Asset Management member of the Net Zero Asset Managers Initiative (both under the umbrella of The Glasgow Financial Alliance for Net Zero - GFANZ). And member of the United Nations Principles for Responsible Banking

UNEP FINANCE INITIATIVE

EUROMONEY AWARDS FOR EXCELLENCE 2021 LATIN AMERICA BEST BANK FOR SUSTAINABLE FINANCE

Aligning our portfolio to meet the Paris Agreement goals

→ In 2021 we committed to being net-zero by 2050 and:
- aligning power generation portfolio to Paris Agreement goals by 2030 *See our new decarbonization target above*
- ending financial services to customers with more than 10% of revenues coming from thermal coal and cutting exposure to thermal coal mining, by 2030

→ We assessed the carbon footprint of the most carbon-intensive portfolios of Santander (power generation, oil & gas, mining & metals and transport).

Supporting our customers in the green transition

→ **We are once again** global leader in renewable energy financing in terms of the number of transactions and their amounts in 2020.

→ In 2019, we launched Santander Sustainable & Green Bonds Frameworks and issued a €1 billion green bond. In June 2020, we made our second green bond issuance of €1bn. And in June 2021, we issued the third green bond also of €1bn.

Reducing our environmental impact

→ In June 2021, 74% of our internal electricity consumed came from renewable energy; our target is to have 100% by 2025.

→ Became carbon neutral in our own operations in 2020.

Embedding climate in risk management

→ Expanded risk materiality assessment for a broader coverage, covering >80% of the loan book

→ Enhanced scenario analysis capabilities to deal with management needs and regulatory requirements

→ Further integration of climate in risk appetite and policies across the Group, including the updated "Environmental, Social & Climate Change Risk Management" policy.

Further progressing in our TCFD disclosure, detailed in the following chapters

Climate finance report
2020- June 2021

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Introduction

The United Nations' Intergovernmental Panel on Climate Change (IPCC), which assesses climate change data, estimated that heat-trapping emissions from human activities have raised global temperatures approximately 1°C above the pre-industrial (1850 – 1900) average. They will likely exceed the critical 1.5°C mark by 2052 — by as early as 2030 if current greenhouse gas (GHG) emission rates continue —, putting global warming on track to 4°C by the end of the century.

The models explaining the future of climate by level of warming show material differences between the present day and global averages between 1.5ºC and 2ºC. There is scientific evidence of changes[1] in the climate system that are causing or will cause some of the following impacts and high-confidence risks on natural and human systems:

Impact of global warming

- Impacts on organisms and ecosystems, as well as on human systems and well-being.
- Increases in both land and ocean temperatures, more frequent heat waves in most land regions; and an increase in the frequency and duration of marine heatwaves.
- Overshooting temperatures posing larger risks like the loss of some ecosystems.
- Wider temperature extremes could put 420 million people frequently exposed to extreme heat waves, and about 65 million people being exposed to exceptional heat waves.
- Multiple and compound climate-related risks are projected to increase, with higher rates proportions of people both exposed and susceptible to poverty in Africa and Asia.
- The ocean has absorbed significant amount of anthropogenic carbon dioxide, resulting in ocean acidification that would impact a wide range of marine organisms and ecosystems.

Climate change is a recognized global issue, with causes and effects that transcend borders. It has become a focal point for such multilateral policymaking initiatives as the UN Framework Convention on Climate Change (UNFCCC) in effect since 1992.

Parties at the 21st Conference of the Parties (COP) of the UNFCCC in Paris adopted the Paris Agreement in December 2015 to fight climate change with quick action and investment to achieve a sustainable low-carbon future to limit warming to well below 2°C above pre-industrial levels, and to pursue efforts to keep the increase at 1.5°C. The Paris Agreement binds each signatory to nationally determined contributions (NDCs) and to a commitment to strengthening their efforts over the years. Thus, under the Paris Agreement, all signatories should update and submit their NDCs every five years.

Climate change is a recognized global issue, with causes and effects that cross nations borders

1. From the "The Intergovernmental Panel on Climate Change (IPCC) - Impacts of 1.5°C of Global Warming on Natural and Human Systems" report.

The next round of nationally determined contribution submissions are due in 2021 at the COP 26 in Glasgow. Many leading countries are pledging ambitious plans — and legislation — to reduce emissions. However, the UNFCCC calls for greater measures to keep the global warming within the 1.5ºC threshold and avert a total climate disaster. Accordingly, net anthropogenic CO_2 emissions would need to decline worldwide by about 45% from 2010 levels by 2030 in order to reach net zero by 2050. More than 130 countries have committed to carbon neutrality[2], already being reflected in recent policy statements by governments.

The World Bank, in a report from October 2019, stated that countries would have to invest about €75 trillion by 2030 in energy, transport, building and water infrastructure to build a sustainable economy. Creating an opportunity for banks to help build a more sustainable and resilient world.

The transition to a low-carbon resilient economy has to be fair and considerate of social, environmental and economic factors as well as the Sustainable Development Goals (SDGs). A UNFCCC[3] report details how most of the parties had linked their NDC plans to SDGs.

The European Green Deal promotes plans to cut emissions by 55% from 1990 levels by 2030, in line with the net-zero goal for 2050. It will become legally binding once the Climate Law Regulation passes, which EU Member States must transpose into national legislation.

As a response to the Covid-19 pandemic the European Union provides the largest public stimulus package ever financed in Europe to boost the recovery, (over €2 trillion including the EU's long-term budget, and the extraordinary temporary instrument NextGenerationEU) aiming to mitigate the economic and social impact of the coronavirus pandemic and make European economies and societies more sustainable, resilient and better prepared for the challenges and opportunities of the green and digital transitions. Al least 30% of the EU funds will be spent to fight climate change.

Climate change in banking sector

Increasingly banking regulations and requirements reflect climate change and environmental risk. The UK's Prudential Regulatory Authority is set to launch climate-related risks stress testing in June 2021, with findings due in the first quarter of 2022. Also in 2022, the ECB will conduct its next supervisory stress test on climate-related risks, and the first disclosure obligations under the EU Sustainable Finance Taxonomy will come into force.

Investors, shareholders and other important stakeholders are calling on banks and other companies to help boost market confidence by disclosing the climate-change risks they manage. Many are pursuing net-zero objectives and adapting operations to the Paris Agreement.

Under the United Nations Environment Programme Finance Initiative (UNEP FI), Santander is a founding signatory of the Net Zero Banking Alliance (NZBA) with 45 other banks. It is a forum for leaders of financial institutions to accelerate the net-zero transition. Santander Asset Management also joined the global Net Zero Asset Managers initiative with more than 120 other signatories. Both initiatives are part of an umbrella alliance that brings net-zero finance initiatives under one sector-wide strategic forum, The Glasgow Financial Alliance for Net Zero (GFANZ), launched by Mark Carney in which Santander is also directly engaged.

Relevant stakeholders are calling on banks to help boost market confidence by disclosing and managing climate change risk

Disclosure recommendations

Disclosing our approach is key to helping markets and other stakeholders assess how we incorporate climate within our processes and policies and report on our climate performance. Key stakeholders increasingly share similar expectations regarding best practices for bank climate disclosures.

Supporting the Task force on Climate related Financial Disclosures (TCFD) since 2017, we structure and base our Climate Finance report on its recommendations and framework for disclosure. The following chapters detail our progress across TCFD four pillars: Strategy, Governance, Risk Management, Metrics and Targets.

2. Sources: Energy and Climate Intelligence Unit, Carbon Neutrality Coalition

3. UNFCC - Nationally determined contributions under the Paris Agreement Synthesis report by the secretariat" report of February 2021-

Strategy

Our approach: The Net Zero 2050 challenge

Aligning our portfolio to meet the Paris Agreement goals

Supporting our customers in the green transition

Reducing our environmental impact

Embedding climate in risk management

Our ambition

Banco Santander is fully committed to playing our part to achieve the objectives of the Paris Agreement while supporting our customers and economy. Our group-wide ambition is to achieve net-zero CO_2 emissions by 2050. This applies to the group's operations (which have been carbon neutral since 2020) and emissions from our lending, advisory and investment services.

Starting with the climate-material sectors in our portfolio, we are committed to aligning our power generation portfolio with the Paris Agreement goals by 2030. In our finance operations, our two initial decarbonization targets set concerning high emitting activities are:

i) ending financial services to power generation customers with over 10% of revenues coming from thermal coal by 2030; and

ii) cutting our exposure to thermal coal mining to zero by 2030.

In April 2021, we became a founding member of the Net Zero Banking Alliance (under the United Nations Environment Programme Finance Initiative). It sets out to:

i) transition operational and attributable greenhouse gas (GHG) emissions from lending and investment portfolios towards pathways to net-zero by mid-century.

ii) set intermediate targets for 2030 (or sooner) in respect of priority GHG-emitting sectors.

iii) prioritize client engagement with products and services that facilitate their needed transition in the real economy.

This report sets out our initial specific decarbonization targets for the power generation sector, measured on GHG, and established in two timeframes, 2025 and 2030.

See "Aligning our portfolio to meet the Paris agreement goals" section, Chapter 5

We're integrating climate within our governance, strategy and risk management. We've set out courses of action and reviewed procedures and targets to transition our climate-material portfolios to net zero by 2050.

Our strategy

Climate change is a global challenge that requires everyone's commitment and engagement. At Santander, we want to play our part in supporting our 148 million customers and the economy on our journey to become net zero by 2050 for a greener, more sustainable world.

We will offer our customers decarbonization solutions that will help them fulfil their own climate goals. We will also make sure our portfolios align with the Paris Agreement Goals; and keep our operations carbon-neutral. Integrating climate within our risk management is key to tracking our plan's robustness. Therefore, we have a four-pronged climate strategy and public commitments to:

(1) align our portfolio with the Paris Agreement Goals and set sector- portfolio alignment targets in accordance with the NZBA and with the Net Zero Assets Manager initiative: we will align on our portfolios to ensure the projected carbon emissions are in line with limiting to a 1.5C temperature increase compared to pre-industrial levels.

See "Aligning our portfolio to meet the Paris agreement goals" section, Chapter 5

(2) help customers transition to a low carbon economy, with the commitment to raise EUR 120bn in green finance between 2019 and 2025 and EUR 220bn by 2030; offering our 148 million customers guidance, advice and specific business solutions. Moreover, enable our clients to invest according to their sustainability preferences with a full ESG investment offer available.

See Chapter 6

(3) reduce our impact on the environment to remain carbon neutral and source electricity from renewable energy by 2025.

See "Reducing our environmental footprint" section, Chapter 5

(4) embed climate into risk management: understanding and managing the sources of climate change risks in our portfolios and setting the courses of action and processes to manage it.

See Chapter 4

Santander Asset Management strategy

Santander Asset Management has joined the global Net Zero Asset Managers initiative as part of its commitment to fighting climate change. Operating in 10 countries, it aims to have net zero greenhouse gas emissions from the assets we manage by 2050, and is the only Spanish asset manager to join the initiative. This is consistent with Santander's push for leadership in sustainability and the Group commitment to be net zero emissions by 2050.

Santander Asset Management commitments to reach in Net Zero by 2050

→ Commitment #1: 50% emissions reduction by 2030

→ Commitment #2: Measure portfolio greenhouse emissions

→ Commitment #3: Create the climate-related investment products our clients want

→ Commitment #4: Define the climate stewardship and engagement strategy

→ Commitment #5: Disclose annual progress with our Net Zero pledge

Climate risks and opportunities

We consider the two primary types of climate change-related risks: physical and transition.

Physical risks from climate change can be acute (event-driven) or chronic (longer-term) and tend to materialize in the medium-to-long term:

- **Acute** physical risks include more severe natural disasters, such as coastal floods, droughts, heat waves, heavy precipitation, floods, landslides, hurricanes/cyclones, and storm surges, water scarcity and stress, and wildfires.
- **Chronic** physical risks include extreme precipitation and weather shifts, higher average temperatures, chronic heat waves and higher sea levels.

Physical risks may have these financial impacts:

- Lower revenues owing to transport problems, supply chain disruption and other things that strain production;
- Lower revenues and higher costs owing to workers' health, safety, absenteeism and other workforce-related problems;
- Write-offs and early retirement of assets owing to property damage and "high-risk" locations;
- Higher operating costs (e.g., inadequate water supply for hydroelectric plants or to cool nuclear and fossil fuel plants);
- Wind pattern shifts that reduce energy production;
- Agricultural damage;
- Higher capital costs (e.g., damage to facilities);
- Lower revenues from declining sales;
- Higher insurance premiums and less insurance for assets in "high-risk" locations.

Transition risks arise from policymaking, technology, market sentiment changes and reputation in response to climate change:

- **Government policymaking and action** can give rise to higher operating costs for carbon-intensive customers; reporting obligations (data collection), especially on emissions (e.g. scope 3) and green taxonomy disclosures; and new EU directives on financial reporting; potential prudential treatment for high carbon-related exposures, which could also raise financing costs for customers. These impacts appear in a short-to-medium term.
- **Technological** advances in renewable energy, energy storage, energy efficiency, and carbon capture and storage to aid the transition to a low-carbon economy could render companies' systems obsolete and make them less competitive in the medium-to-long term.
- **Market sentiment** can impact on supply and demand in the medium-to-long term as customer preferences, companies' sales mix, energy pricing and asset revaluation change.
- **Reputation** can mean a prompt drop in demand for the goods and services of discredited sectors and companies.

Grupo Santander's risk management has tools and techniques to recognize, monitor and mitigate ESG risks early, especially climate risk. The chart in the following page summarizes pre-mitigation of climate risk under various categories:

Overall materiality assessment synthesis

Identified material climate-related impacts on risks existing in Santander taxonomy

Banking risk types	Impact from Physical Risk (non-exhaustive)	Time Horizon	Impact from Transition Risk (non-exhaustive)	Time Horizon
Credit risk	Physical risk exposure of Santander's borrowers could affect: → Collateral value, due to higher exposure to natural hazards → Borrowers ability to pay, if operating in sensitive sectors (e.g. Agriculture)	MT-LT	Changes in emission regulation or in user sentiment could affect: → Asset value, which if reduced would impact the collateral recovery process → Borrowers ability to pay, if operating in sensitive sectors (e.g. Oil & Gas)	MT-LT
Market risk	No material impact expected	-	No material impact expected	-
Liquidity risk	No material impact expected	-	No material impact expected	.
Structural risk	No material impact expected	-	No material impact expected	.
Operational risk	Extreme events that would cause damages to Santander and employees own sites could affect: → Ability to provide services to its clients (e.g., lack of electricity supply, inability for employees to work in premises)	ST-LT	No material impact expected	-
Regulatory Compliance risk	No material impact expected	-	Changes in the regulation (e.g. NFRD, SFDR, Taxonomy) could affect: → Bank's reputation or profitability through financial penalty	ST-LT
Model risk	Volatility could affect: → Model estimation, which if erroneous estimations on natural hazards damages would affect decisioning process	MT-LT	Volatility could affect: → Model estimation, which if erroneous estimations on transition risk impacts would affect decisioning process and bank profitability	MT-LT
Reputational risk	No material impact expected	-	Financing to high-emitting borrowers or for high-emitting assets could affect: → Climate KPIs (e.g.,"Green Asset Ratio") → Brand image perceived by NGO and market Failures in the identification of ESG/green products during the advisory process could affect: → Market share if there is a lack of transparency, misleading product classification, or if client suffer an unexpected loss due to climate risks	MT-LT
Strategic risk	No material impact expected	-	Changes in emission regulation or user consumption habits (e.g., use of vehicle substitutes such as public transport, car sharing, self-drive) could affect: → The size and profitability of the consumer loans business Change in regulation and investment behaviour could affect: → Strategy against peers, which could trigger a reduction in size for some activity	MT-LT

Additionally, certain secondary risks are assessed as well when considered relevant from a climate perspective (as for example residual value risk in auto loan portfolios, or fiduciary risk in the wealth management business)

Legend: ST: Short-term, MT: Medium-term, LT: Long-term

1. Addition from the standard Santander risk taxonomy for SCF and SCUSA
2. Addition from the standard Santander risk taxonomy for Santander Asset Management (SAM) and Private Banking (PB) assessed together with reputational risk

In our push towards net zero, working together with customers to support them in their transition to reduce carbon emissions will be key to achieving our ambition. Grupo Santander is actively engaging with customers to enable this transition. In addition, specialist environmental, social and governance (ESG) teams in Santander Corporate & Investment Banking (SCIB) and Wealth Management & Insurance (WM&I) are supporting that process.

Moreover Grupo Santander is working with the Banking Environment Initiative to develop a framework for client engagement and is a signatory to Climate Action 100+, to promote action on climate change among the world's largest corporate greenhouse gas emitters.

The transition to a low-carbon economy creates real commercial opportunities for the bank to:

- support customers with their decarbonization objectives.
- invest in renewable energy technologies, energy efficiency, emissions trading and weather markets, climate change related microfinance and other projects.
- open up markets and create commercial opportunities.
- advise and finance clients forced to address transform their businesses.
- raise our reputation and brand value according to investors, consumers and other stakeholders' growing demands for responsible conduct.

Climate opportunities over the short, medium and long term

Sector / asset	Opportunities	Time Horizon
Mortgages	Green mortgages	MT
	Lending and advisory offering to help clients identify real estate retrofitting solutions	MT
Energy	Growth in wind and solar renewable energy financing and advisory	ST
	Financing for scaling of new technologies such as hydrogen, CCUS , biofuels as well as energy storage more broadly	MT
	Financing and advisory to facilitate EV charging infrastructure build-out	ST
	Financing and advisory for early-stage companies focused on energy transition-enabling solutions	ST
Automotive	Financing and advisory to enable shift to EVs	ST
	Financing to establish and integrate battery supply chains	ST
	Financing of additional technologies that enable low-carbon mobility solutions	ST
Agriculture	Incentivize and support clients across the value chain to decarbonize and to adopt low-carbon practices	MT
	Financing and advisory of on-farm emission reduction technologies	MT
Voluntary Carbon Markets	Provide advisory services and solutions to enable clients to access carbon market opportunities	MT
	Offering of green products to individuals and companies with offsetting options	MT
Cross sector	Growth in green bonds, green loans and sustainability-linked financing instruments	ST

Legend: ST: Short-term, MT: Medium-term, LT: Long-term

Key Opportunities

Trusted Partner

→ Know our clients better, driving conversations focused on climate related advisory with a long-term horizon

→ Develop a deeper understanding of our clients' businesses and sectors they operate in. Gather information

→ Upskill on Sustainable Finance and position yourself as a trusted partner

Enable Transition Journeys & Risk Mitigation

→ Accelerate sustainable finance for clients through a market leading proposition

→ Grow market share, attracting new customers, seek partnerships (public-private, corporate-FI)

→ Provide funding for risk mitigation and adaptation activities, product development, market growth and M&A

Credit integration

→ Assess climate risk within the credit process, driving effective risk-based pricing

→ Manage climate risk impacted credit exposures within existing portfolios

→ Climate risk accounted for in capital adequacy assessment process, ensuring efficient use of capital

Market Reputation

→ Position ourselves as one of the world's most sustainable and responsible bank with existing and prospective clients across key markets

→ Manage the ways we contribute to mitigating climate change and our exposure to risks arising from climate change

Climate risks and opportunities identified in Santander Asset Management

Santander Asset Management is exposed to many asset types and sectors, and has a duty to always act in the long-term interests of our clients. We have assessed the climate change risks in each sector and included them in our extra financial ESG analysis.

Similarly, the transition to a lower-carbon economy will require significant investment, generating new opportunities.

The **3 top climate-related risks** considered in our proprietary ESG analysis model are:

- Regulatory risks such as the increasing price of GHG emissions;
- Technology risks linked to more efficient low-carbon technology alternatives; and
- Market risks resulting from increased costs and a shift in consumer demands, which could result in stranded assets, increased operating costs, reduced demand for products and services and increased cost of, and reduced availability to, capital.

The **3 top climate-related opportunities** embedded in within our analysis model are:

- Development of products and services earmarked as climate solutions that could entail diversification, greater competitive advantage and increased revenue;
- Provision of lower-emission energy sources that could benefit from less exposure to GHG emissions, reduced costs, supportive policy incentives and reputational benefits; and
- Resource efficiency through better production and distribution to reduce operational costs, increase production capacity and increase the value of fixed assets.

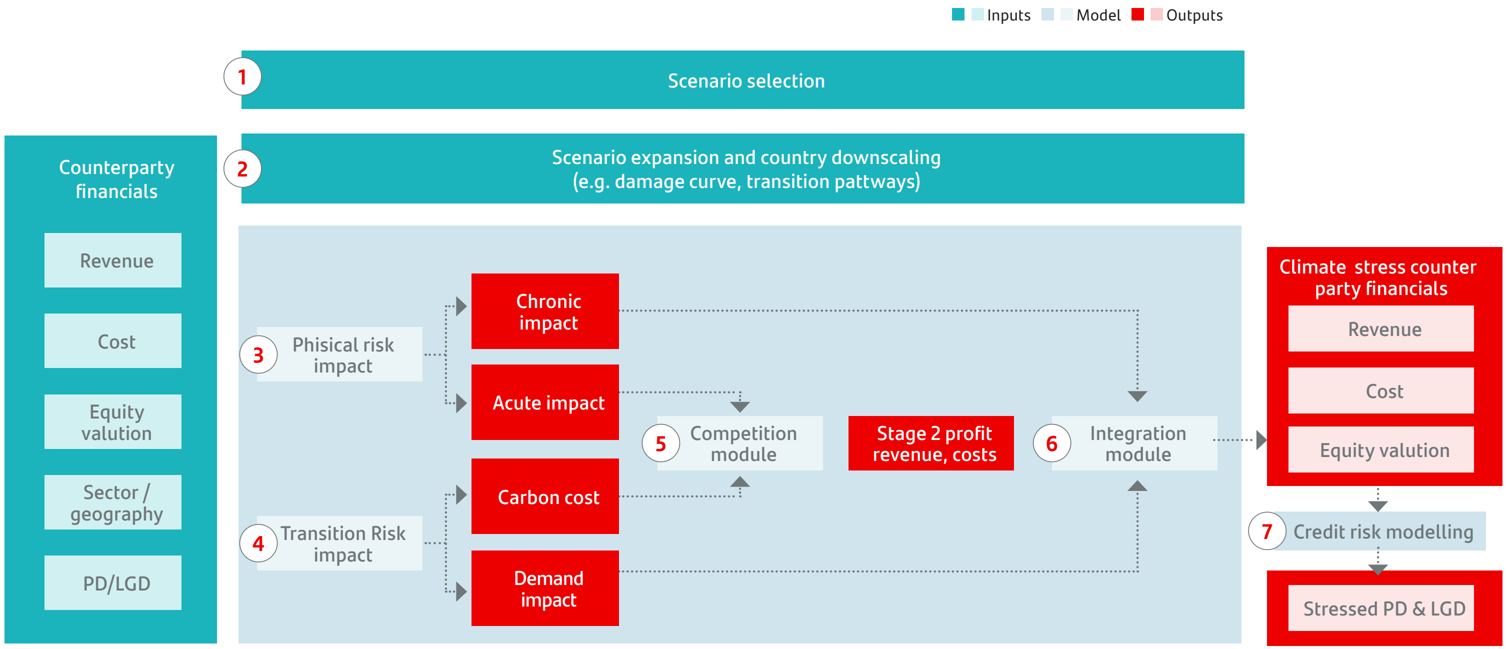
Scenario analysis and resilience of Santander's strategy

Grupo Santander is embedding climate change risk management in 1-year budgeting, 3-year planning, overall strategic planning, the ICAAP/ILAAP and the Recovery & Resolution Plan. One of our main tools is scenario analysis, and we're developing a framework that integrates in-house elements with Planetrics, an external vendor tool by Vivid Economics that quantifies the financial impacts of physical and transition risks from climate change on each counterparty. Climate scenarios describe plausible future pathways and allow investors to understand the impact of climate change on their portfolios. Planetrics, modelling methodology translates climate scenarios into economic shocks and models real asset and financial impacts.

It comprises seven modules:

1. **Scenario selection:** choosing appropriate climate scenario (described below).
2. **Scenario expansion and country downscaling:** modelling the impact of global scenarios into a range of variables at country and sector level.
3. **Physical risk impact:** capturing the financial impact of extreme weather events and longer-term shifts in climate patterns.
4. **Transition risk impact:** capturing the changing patterns in demand (e.g. increase in low-carbon products) and carbon-related cost (e.g. carbon tax).
5. **Competition module:** examining the interplay between risk exposure and company responses.
6. **Integration module:** aggregating the previously estimated impacts on business units to obtain the financial impact by geography and sector.
7. **Credit risk modelling:** translating the changes in the company's market capitalization into effects on PD/LGD.

Grupo Santander is planning to use that framework for management, regulatory and supervisory needs. Earlier this year, the SSM announced it would run climate stress testing in 2022 and started to design its methodology to assess transition risk and physical risk for expected losses over 3 years (short term) and 30 years (long term), up to 2050. Stress testing will cover credit, market, reputational and operational risks, and require the financial entities to provide revenues, exposure and emissions from relevant sectors, as well as how prepared some entity's climate-scenario analysis framework is. Santander's subsidiaries are also participating in local stress tests conducted by each country's competent authority.



PD: Probability of default. LGD: Loss given default. SSM: Single supervisory mechanism - European Central Bank Banking supervision

<u>CBES in Santander UK:</u> Last year, the Bank of England confirmed the 2021 Climate Biennial Exploratory Scenario would launch in early June 2021. First, Santander UK defined a target operating model based on scenario modelling requirements, process mapping and designated responsibilities. The bank then performed a dry run on physical and transition risks from mortgages, corporate exposures, social housing counterparties, sovereign bonds, index-linked gilts and supranational agency exposures in Q1 2021, which tested the process, assessed data; and provided scenario modelling training to the teams involved in stress testing exercise; and covered transition impacts on the residual value of Santander Consumer UK vehicles.

For Santander UK's Retail Mortgage portfolio (which accounts for more than 60% of the Grupo Santander's mortgages), it analysed physical and transition risks under different scenarios, which included business-as-usual (average of 3.7°C by 2100) and low-carbon transition (trends towards 2°C of warming). We provided Landmark with the property addresses and balance of our 1.2 million retail mortgages. Having considered flooding, subsidence and coastal erosion, we drew the conclusion that physical risks from our mortgage portfolio are very low. In particular, 95% of our mortgaged properties have negligible or very low risk from flooding, the most significant risk (see table next).

Flood Risk[C]	Number of properties	%
High; >1:30	2,906	0.24
Medium: between 1:30 and 1:100	10,021	0.81
Low; >1:1000	49,678	4.02
Very low; >1:10,000	69,523	5.63
Negligible ; <1;10,000	1,102,435	89.3
Total Properties	**1,234,563**	**100.00**

C. Flood Risk is expressed as a ratio, where 1 in 30 year (1:30) flood event refers to the likelihood of flooding occurring in a given year.

Our analysis also considered a transition risk scenario that required properties to improve their energy efficiency rating to C-grade.

Santander UK is working on climate change scenario modelling; outreach to learn our customers' mitigation and adaptation plans; and staff training. Irrespective of CBES, Santander UK has a plan to continue embedding climate change in management processes.

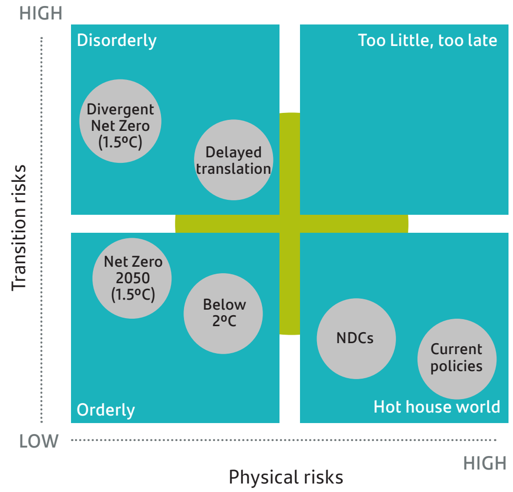
Scenario selection

Santander's Economic Research Department analyses the economic impact of climate change based on the scenarios published by the Network for Greening the Financial System (NGFS) and other external sources (like the IEA - Net Zero scenario we used for Portfolio Alignment.)

See "Aligning our portfolio to meet the Paris agreement goals" section, Chapter 5

With internal assumptions, to create feasible scenarios and data including GDP, energy consumption and emissions. In exploring the impacts of climate change, the NGFS, which is becoming a standard in the industry, provides a common framework and starting point for bespoke scenario pathways, which allow stakeholders to explore transition risks, as well as physical risks.

The next figure shows the conceptual representations of the different scenario sets (NGFS - Climate Scenarios Framework):



Source: NGFS – New Climate Scenarios Framework

Below is a high-level description of the features of each subset:

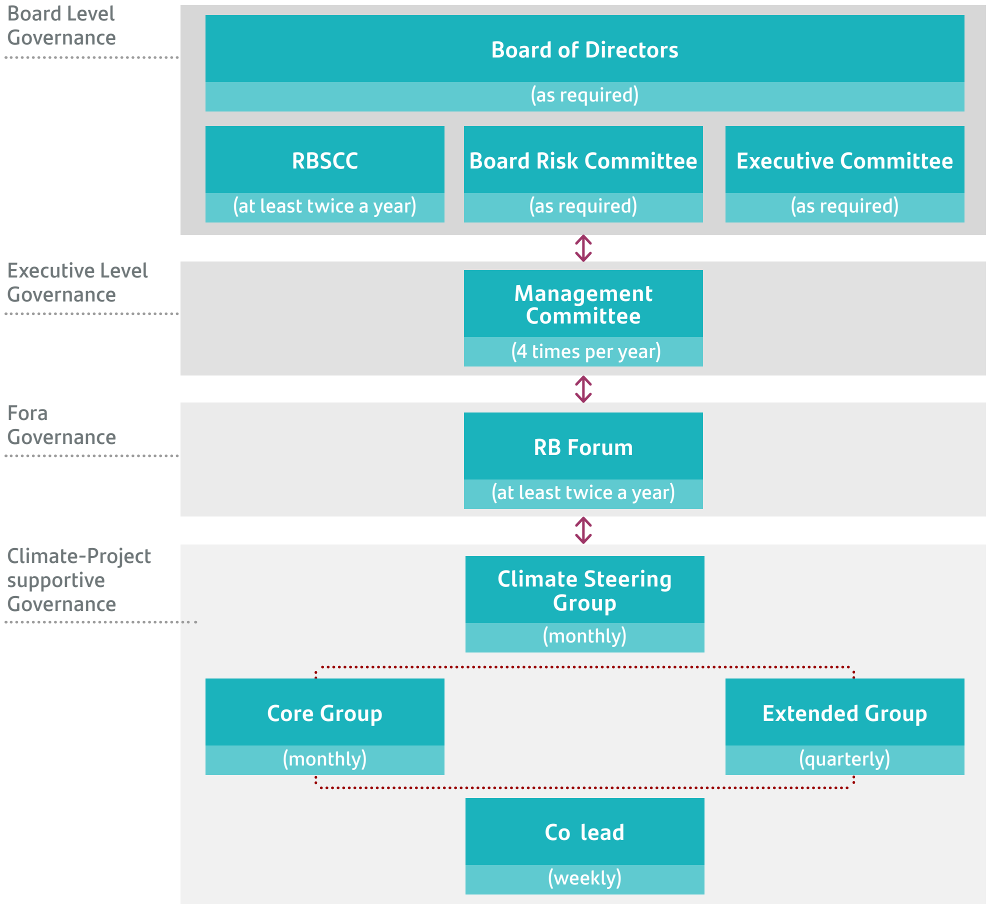
Orderly:
- Climate policies: early and more stringent over time.
- Result: low physical and transition risks.

Disorderly:
- Climate policies: not introduced until 2030.
- Result: higher transition risk.

Hot House World (current policies):
- Climate policies: limited.
- Result: severe physical risks and irreversible changes like higher sea level.

Governance

Governance bodies of Banco Santander involved in Climate change management and periodicity on which Climate change is presented (in brackets)



The board's responsible banking, sustainability and culture committee (RBSCC) reviews and challenges climate change strategy and other environmental considerations. It's an advisory body that assists the board with overseeing the climate change components of the responsible banking strategy, leading to more informed board decisions and enhanced strategic focus based on the related risks and opportunities. The RBSCC comprises five independent board members and meets at least quarterly. Members are appointed on the back of their knowledge, qualifications and experience in the areas under the committee's remit.

Of its four meetings in 2020, three had climate change on the agenda. In the first half of 2021, the RBSCC reviewed climate change topics three times, with additional discussions planned before the end of the year.

The committee discussed climate change project updates; climate-related financial risks and opportunities; roadmaps to fulfil TCFD and ECB expectations; fulfilment of the bank's net zero commitments; Santander's sustainable finance proposition to help our customers' transition to a low-carbon economy; plans for business lines; and the progress of our carbon footprint and green finance commitments.

To streamline our governance, we created a responsible banking forum (RB Forum) by merging the former responsible banking culture steering and inclusive & sustainable banking steering groups. Its purpose is to drive the responsible banking agenda across the Group at executive level; to meet and refresh public commitments; facilitate management alignment on key issues; discuss and escalate matters to the RBSCC; and ensure the execution of RBSCC mandates. The Forum meets at least six times per year and reviews the climate change strategy/net zero ambition before discussion at the RBSCC. The Forum's 11 permanent executive and non executive members are the regional head of Europe (rotating chair); regional head of North America (rotating chair); regional head of South America (rotating chair); group head of Strategy, Corporate Development & Financial Planning; group head of Human Resources; group chief risk officer; group chief compliance officer; global head of Wealth Management & Insurance; global head of Santander Corporate and Investment Banking; group head of Communications, Corporate Marketing and Research; and senior advisor on responsible business practices to the executive chairman. As at June 2021, the RB Forum has held two meetings and addressed such climate-related topics as net zero strategy, sustainable finance and carbon offsetting.

The group management committee, chaired by the CEO, receives progress reports on the responsible banking agenda twice a year and on climate change four times per year.

Specialist working groups cascade Santander's climate change agenda, including TCFD implementation, supervisors' expectations, climate commitments and governance, throughout the Group. The climate project/ working group, co-led by SCIB, Risk, and Responsible Banking with members from several functions and geographies, meets weekly to monitor and drive progress according to the climate change project roadmap; monthly with the corporate areas involved to ensure headway; and quarterly with all subsidiaries and areas.

The project has an Climate Steering Group that meets each two months, and is composed by the group chief credit officer, the global head of enterprise wide risk management, the chief of staff to the global head of Santander Corporate and Investment Banking, the global head of responsible banking, the head of the chairman's office, the deputy director of group strategy and the senior advisor on responsible business practices to the executive chairman; and receives feedback from executive directors as part of the RB Forum.

The Group has also embedded climate components through the following governance:

- Board approval of the 2021 executive remuneration scheme. Responsible Banking forms part of the qualitative adjustment to the short-term metrics. The Responsible Banking scorecard considers progress against the bank's RB agenda and specifically includes climate change.
- In 2020, the board strategy committee approved the climate change project as one of the bank's strategic initiatives. Progress is reviewed twice a year according to the established roadmap.
- In Q1 2020, the Risk division completed a review of its climate change governance that looked at the terms of reference of governing bodies, their forward-looking agendas and the risk framework. In the annual review, it re-examined all policies and internal procedures, and introduced specific references to climate change risk management.
- In 2020, we also included climate information in our three-year financial plan and through our green finance targets and other business metrics.

Policies

The general sustainability policy, which was updated in 2020 and the environmental, social & climate change risk management policy (that outlines climate-specific lending criteria), includes climate change considerations.

ESG training for SCIB and for WM&I

In 2021 we created our ESCC training course on the implementation of the European Banking Authority Guidelines on Loan Origination and Monitoring. The main objective was to present Santander´s latest work on climate change and show the 128 attendees how to embed climate change in the SCIB customer risk assessment. In 2020, our Private Banking bankers and advisers (over 1,100 experts), received a special ESG training.

Climate training for the Board

On November 2020, the board of directors participated in a second climate change training programme that included modules on the Paris Agreement and Net Zero. The Santander UK board and executive committee attended a climate change workshop delivered by external experts, which covered climate science, regulatory requirements and TCFD recommendations.

Training for risk analysts

In March 2021 we held a CDP-sponsored workshop on climate change for risk analysts, with over 182 attendees who discussed the physical and transition risks of climate change.

A follow-up CDP webinar on climate change, held in April with around 80 attendees, delved deeper into the TCFD´s reporting standards and recommendations.

Climate dialogues

We launched "Climate Dialogues", for senior managers to discuss critical climate-related topics with renowned experts. In 2020 we held three sessions, with up to 940 participants in a single session. The programme continues on a bimonthly basis throughout 2021. So far, we've had six sessions with: Ivan Glasenberg (Glencore CEO), Lord Nicholas Stern (Grantham Research Institute and London School of Economics), Claire O'Neill (WBCSD, Managing Director, Climate & Energy), Alzbeta Klein (IFC Director and Global Head of Climate Business), Andy Marsh (President and CEO of Plug Power Inc) and Håkan Samuelsson (President and Chief Executive Volvo Cars).

Risk Management

Key processes

- **I Planning:** setting business objectives and considering business environment
- **II Identification:** ensuring effective categorization and control
- **III Assessment:** determining the likelihood, impact and materiality of risk
- **IV Execution:** managing risk profile within the limits agreed in the planning
- **V Monitoring:** comparing perfomance against agreed plans
- **VI Mitigation:** bringing perfomance back within or towards acceptable levels
- **VII Reporting:** production and submission of accurate and relevant management information

Grupo Santander's Corporate Risk Framework contemplates physical and transition risk from climate change due to their potential impact on other risks in the medium and long term.

This framework also establishes the key processes for managing a given risk to which Grupo Santander is exposed.

Climate risk is embedded in these key processes:

I. Planning

We shape our strategy with tools that help us understand our business environment; prioritize business and risk decisions on climate risk; and monitor our progress on internal and external commitments as well as on our stakeholders' expectations. The climate strategy is further explained in section 2.

II. Identification

Risk identification comprises the Risk Profile Assessment (RIA/RPA) and the Top Risk exercise.

For the Risk Profile Assessment (RIA/RPA), Grupo Santander performs a routine assessment of all risk types to evaluate its risk profile systematically and objectively. The Risk Profile Assessment (RPA) reveals the organization's overall risk exposure by unit and risk type or for the entire group management of deviation of risk levels; and threats to the group's business plan or strategic objectives.

RPA methodology consists of three blocks:

- **Risk performance:** assesses the Group's risk exposure level based on metrics that are unique for each risk type but common within all units.
- **Control environment:** assesses the risk management according to a Target Operating Model (TOM), regulatory requirements and best market practices.
- **Forward-looking approach:** potential threats to business planning and strategic goals.

The RPA helps monitor our risk profile consistently across units and recognize where risk management fails to apply best practices and target operating models. In 2021, we ran a climate change control environment questionnaire to assess control standards; we will consider its findings in our 2022 RPA.

Risk teams across the group will keep track of potential gaps.

Our Top Risk exercise addresses risks to the group's three-year financial plan and long-term strategic plan. In this bottom-up process between the headquarters and the subsidiaries (which is subject to quarterly review and monitoring), top risks are identified by our first line of defence and then challenged by our second line of defence to inform key strategic processes and serve as input for idiosyncratic scenarios in the ICAAP, the ILAAP and the group's recovery plan. Since 2018, the Top Risk exercise has covered climate risk. The approach has evolved from mainly regulatory driven to a more holistic perspective. As climate change data and methodologies progress (including scenario analysis and stress testing), inputs will become less qualitative to more quantitative.

III. Assessment

Grupo Santander recurrently performs a materiality assessment, which covers the group's main material ones, identifying the most climate material portfolios. Our materiality assessment, which plots each sector's transition and physical climate-related risks on a five-point scale to measure its materiality to the group's balance sheet, enables us to manage the emergence and concentration of climate change risks by sector. It is critical in defining our strategy and priorities.

Methodology

Build a Taxonomy of sectors

Based on UNEP-FI TCFD guidelines
Including physical and transition risks

Assess vulnerabilities with a Heat Map

5-levels scale to assess vulnerability of each sector to physical and transition risks

Calculate Exposures of portfolio

Estimation of Santander exposures for portfolio in scope

Grupo Santander follows UNEP-FI guidelines and uses a top-down application of climate risk heat map per sector and geography.

The assessment covers climate-related risks to material and non-material businesses over specific time horizons, in order to address them into the group's management processes such as risk appetite, top risks, credit limits and stress tests. It treats climate risk as an aspect of regular balance-sheet risks (especially credit risk) because of how it can exacerbate expected losses and raise probability of default from customers.

Risk taxonomy and heat maps form the basis for a qualitative classification of portfolios and their potential exposure to climate risks. They are designed to capture the value chain of economic activities, regardless of their original NACE classification. The internal climate change risk taxonomy recognizes sectors directly exposed to physical and transition climate risks. It incorporates sectors based on guidelines issued by the Task Force for Climate Related Financial Disclosures (TCFD) and the United Nations Environment Programme Finance Initiative (UNEP FI), of which Santander is an active member.

The heat map of physical and transition risks provides a starting point to understand overall risk. Indicates the degree of an sector's potential financial risk either based on its exposure to physical risk or a "rapid" and "disorderly" transition to a low-carbon economy. It uses RAG (Red-Amber-Green) classification (from low to very high) to rate physical and transition risks for each sector: (see following page)

RAG classification assessment for physical and transition risk

Physical Risk	Overall Score	Transition Risk
Sector has low exposure to physical risk	Low	Sector has low emissions intensity, is not reliant on fossil fuel, and is closer to achieving a net zero position in relation to other sectors.
N/A	Moderately low	Sector has lower per unit emissions relative to others, and is less carbon-intensive. A much lower level of investment is needed to transition to net zero. Sector is unlikely to be impacted significantly by changes in consumer sentiment or policy.
Some disruption from climate events is experienced by the sector and will continue to be experienced (i.e. in terms of weeks)	Medium	Material investment is needed to transition to net zero. Sector will experience some impact from changing customer sentiment and will be more exposed to policy and technological changes.
Sector is highly exposed to physical risks and will suffer prolonged exposure and cost from climate events	High	Sector has higher emissions per unit of production relative to others and will experience adverse demand responses. Sector warrants targeted low-carbon policy, technological innovation, and/or investment to transition to net zero.
N/A	Very High	Sector is heavily fossil fuel reliant. Significant investment needed to transition and targeted policy intervention required. Focus on action from a wider range of stakeholders. Increased risk of premature write-downs on assets. Net zero position still unclear, indicating a longer transition.

First, the materiality assessment reviewed the group's balance sheet in relation to its loan book covering SCIB, Corporates, Retail Individuals, Santander Consumer Finance, Private Banking, Institutions, Retail SME, and Wealth Management & Insurance, focusing on climate risk by sector and geography. That enabled us to select the most adequate methodology to evaluate impacts and prioritize a roll-out plan.

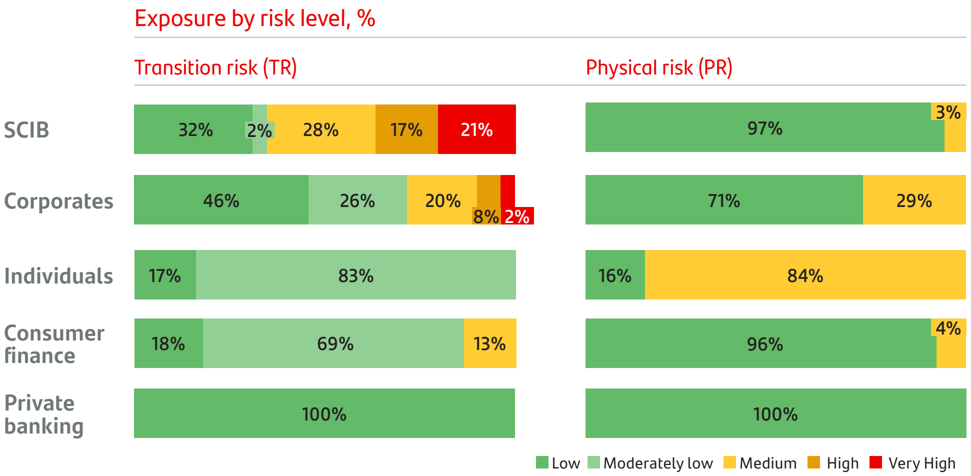
We use materiality assessment findings as inputs to monitor, measure and report on financial impacts and develop new metrics for risk management, credit policies and business strategy.

Santander is adapting policies and processes, and running courses on climate change to enhance risk management and our business model, and to seize opportunities relating to climate risks. We're committed to aiding our customers' green transition. We base decisions on internal reporting about risks and opportunities in the short, medium and long term.

Our materiality assessment covers more than the 80% of our balance sheet, with a deep analysis of financial loss from loan defaults or credit quality deterioration. We also put such other risk factors as residual value, strategic, market and liquidity risks under close analysis.

Materiality assessment overview

Dec 2020; Credit risk; Inherent risk (before mitigants)



Materiality assessment - Climate risk analysis and heat mapping of portfolios

Dec 2020 ; Billions euros

	TR	PR	SCIB	Other segments
Power (Conventional)			23	2
Power (Renewables Project Finance)			9	0
Oil & Gas			18	0,5
Mining & Metals			8	2
Transport			27	85
Real Estate			4	345
Agriculture			2	4
Construction			21	7
Manufacturing			32	12
Water Supply			2	1
Total Climate Sectors			**148**	**458**
Other sectors			55	170
Total			**203**	**628**

Credit Risk= SCIB : REC (on and off balance sheet lending + guarantees + derivatives PFE), Other segments : Drawn amount
Other Sectors= SCIB and Corporate NACES outside of risk taxonomy perimeter // Individuals and SCF: Cards and Other Consumer
Other segments include Individuals, SCF, Corporates and Institutions.

We've extended our materiality assessment on a progressively approach. We're including now more sectors and segments from the materiality assessment shown in the 2020 Annual Report, where we shown SCIB customers from the most concerning sectors. The current identification includes also other climate relevant sectors as well as individuals, SCF and corporates customers.

Santander Consumer Finance (SCF) is a good example of how we assess a distinct type of business. To include it in the materiality assessment, we grouped its exposures and analysed them. However, as SCF has businesses that are particularly affected by climate (such as auto lending), we ran a special assessment considering four traditional risk types: credit risk, residual value risk, reputational risk and strategic/business model risk. We split SCF's portfolio by auto loans, consumer loans, exposures secured by mortgages and corporate loans, screened each segments on a 5-level risk scale (very high, high, medium, moderate, low). Our analysis considered regulatory environment, mitigating actions and consumer sentiment as well as more precise aspects like low credit risk and residual value risk (mainly in light of the portfolio's limited maturity and diversification). We concluded that SCF's climate risk mainly stem from its retail auto lending, a segment that contributes significantly to the group's profit and could be at risk in the future, if not managed properly. We also found auto financing business could have moderate reputational risk. Still, we expect the impact of these risks will materialize only in the medium-to-long term (in more than 5 years).

Our materiality assessment of SCF's business model (mainly retail, good-quality, short-term and diversified portfolios) found that credit risk would have no material impact from climate because average maturity (mainly for auto loans) is short and its climate risk score, based on external benchmarks and providers, was low.

We also conducted deeper business analyses with a similar methodology to consider each segment's specificities and behaviour in the short, medium and long term.

Santander is committed to implementing advanced risk classification. Our approach follows a bottom-up analysis, in which we consider each customer's drivers, financial situation and technology. We also calculate quantitative impacts on probability of default based on climate scenarios to differentiate customers on qualitative sector-subsector heat maps and class best positioned customers under the same subsector so we can recognize how strategical risk is evolving.

IV. Execution and monitoring

Santander's risk appetite statement (RAS) determines the size and type of risks deemed prudent to its strategy, even under unexpected circumstances. Because the board sets it every year according to specific limits and policies for each risk type, portfolio and segment, it is an effective management tool. In 2019, the RAS included a qualitative statement that linked climate change management to policies that placed restrictions on, or ended financing for, transactions bearing social and environmental risk in the energy, mining and metals, and soft commodities sectors (we review these policies annually to ensure our standards are consistent with best practices and our strategy). In 2020, we adapted our RAS and related policies in furtherance of our commitment to social causes, the environment and the Paris Agreement's transition to a low-carbon economy. In 2021, the board approved additional amendments to the RAS, and we updated and merged our policies into our Environmental & Social Risk Management Policy.

Also, as part of the Net Zero Banking Alliance launched in April 2021, Santander will continue to set alignment targets for power, oil and gas, transport, mining and metals, and other carbon-intensive sectors. Risk appetite continues to evolve to reflect the Group's strategy, as well as to the methodologies and data available aiming to include metrics in our 2022 RAS to limit our exposure to the most carbon-emitting sectors.

V. Mitigation

Our lending process contemplates risks from climate change. We've aligned our loan approval policies with EBA guidelines on loan origination and monitoring. We also assess socio-environmental and climatic risks from customers from sectors documented in the Climate Change financial risk guide to assess their impact on our loan book.

Our Wholesale Banking and Corporate & Commercial loan approval requires customers and transactions to meet certain criteria, which cover socio-environmental and climate change risks based on our corporate credit risk function's Climate Change financial risk guide. In addition, we analyse project finance transactions in the Wholesale Banking portfolio according to Equator Principles guidelines (which Grupo Santander adopted voluntarily in 2009) and the International Finance Corporation, as defined by socio-environmental risk function in Structured Finance team.

Our Environmental, Social & Climate Change Risk Management Policy dictates special environmental and social (E&S) risk screening for SCIB to approve financing based on the client's management of socio-environmental and climate risk. It allows us to understand how our operations supported by products and services provided by Grupo Santander impact on the environment.

The first-line business functions conduct proper due diligence by completing questionnaires. If this process reveals a reputational issue, they will report it to the Reputational Risk team for review. Our reputational risk model implements preventive risk management.

In addition, a cross-functional group has been set up at the corporate level to analyse controversies in a broad environment, including those related to climate change management and which could have an impact in terms of reputation.

VI. Reporting

Climate has become a regular topic on Santander's management agenda.

See Chapter 3. Governance

Grupo Santander continues to embed climate change in long-term business strategies for the group and subsidiaries. It is assessing its Target Operating Model (TOM) for managing climate and environmental risk with support from an external expert. This 5-step approach to create a detailed roadmap will cover climate risk organization and governance model, metrics, risk appetite, training and culture, policies and other topics.

Embedding climate in Santander's operating model requires a 5-step approach that involves key stakeholders...

1. Select key areas of decision
2. Develop strategic criteria to frame design choices
3. Determine hypotheses on the client ambition
4. Conduct high-level gap analysis for the bank
5. Enhance current target operating model and define implementation roadmap

...aligning it with the overarching TOM framework and its key risk areas (e.g., Credit, Operational, Reputational, Strategic and other risks)

A. Roles and Responsibilities

B. Governance

C. Key processes
- Planning
- Identification
- Assessment
- Execution
- Monitoring
- Mitigation
- Reporting

Santander and the Brazilian Amazon

Protecting the Amazon rainforest is critical if we are to tackle climate change. Grupo Santander is committed to doing so, while helping promote sustainable development and practices.

Deforestation in the Brazilian Amazon has been taking place over several decades: logging, mining, property speculation, lack of clear land titles, large infrastructure projects in the region have all played a role.

In addition to the information available about Santander's global policy on Environmental, Social & Climate Change Risk Management (link) (ESCC), and our commitment to the Equator Principles, we detail below the additional care Santander takes when lending to Brazilian clients with operations in the Amazon.

Our Global Policy

Santander's global ESCC policy obviously also applies to our activities in financing clients with operations in the Amazon. Our ESCC policy requires a special focus, among others, on the following activities:

- Industrial processes with an environmental impact on nearby areas classified as Ramsar Sites, World Heritage Sites or by the International Union for Conservation of Nature (IUCN).
- Extraction and sale of native tropical timber species.
- Forestry plantations in forests listed as protected by official bodies.

Santander's overall approach to the Brazilian Amazon

For years, the bank has been working with them to promote sustainable development in the Amazon. Santander was the first private-sector Brazilian bank to develop, in 2002, credit analysis that looked at environmental and social risk; and we were the first, in 2016, to formally incorporate a sustainability rating into the credit rating of its Corporate segment clients. Since then, the bank has taken a number of further steps:

- All loan requests by farmers and ranchers to Santander in Brazil are checked for embargoes issued because of illegal deforestation, and are screened to make sure that the properties do not overlap with officially-recognized indigenous peoples' reserves and parks.
- Clients' practices are reviewed regularly: there are annual ESG reviews of more than 2,000 customers, including beef processors, soy traders and logging companies.

Plano Amazônia

In July 2020, Santander Brazil announced a plan to promote sustainable development in the Amazon, in collaboration with the two other largest private-sector banks in Brazil. Part of this plan, called Plano Amazônia, aims to eliminate deforestation in the supply chain of cattle for beef processors in the Amazon and is being implemented by Santander Brazil.

The Plano Amazônia also prioritizes other objectives: understanding the land ownership issue, and promoting the cultivation of local crops.

Farmers and ranchers

As part of its credit approval for loans to farmers and ranchers, Santander retains a satellite-imaging firm that monitors 14,000 properties that it is financing or that are taken as collateral. This firm supplies us with daily information on embargoes issued by the government prohibiting production on specific illegally-deforested plots, as well as incursions into officially-recognized indigenous lands and parks and conservation areas.

If there are problems, we will contact the client and require an explanation. If material breaches of environmental law and regulations are identified, under the terms of our standard contract the bank has the power to take remedial action including, where applicable, declaring the early maturity of the debt and demanding its payment.

Environmental and social reviews of companies

For corporate clients across Brazil, not just in the Amazon, Santander has a set of ESCC processes and controls that take into consideration if our clients are legally compliant and if they have good practices.

Over the past decade, Santander Brazil has conducted reviews of more than 2,000 corporate client groups a year, including those that have operations in the Amazon such as large soy producers, beef processors, logging companies, etc. Specifically regarding reviews of beef producers, Santander has closely followed the implementation of their practices regarding their suppliers.

Once again, if material breaches of environmental law and regulations are identified, under the terms of our standard contract the bank has the power to take remedial action including, where applicable, declaring the early maturity of the debt and demanding its payment.

Working with others to stop deforestation

Santander was the first bank in Brazil to require that native-species lumber companies to have the Forest Stewardship Certification (FSC) or equivalent certification to be a client.

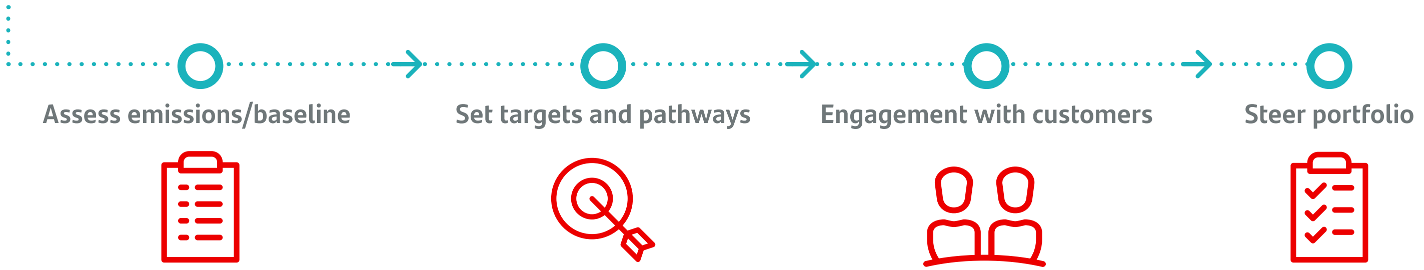
Santander Brazil participates in three external initiatives that propose solutions to stop deforestation. It is a founder of The Round Table on Responsible Soy (RTRS), and were its first president. The bank is also a founder and board member of the Brazilian Roundtable on Sustainable Livestock (GTPS, in Portuguese), a multi-stakeholder initiative to promote better ranching practices in Brazil. Santander Brazil is also active in the banking association's (Febraban) committee on forestry/agribusiness issues.

Find more information about our Santander and the Brazilian Amazon.

Metrics and Targets

Aligning our portfolio to meet the Paris agreement goals

Alignment strategy



Santander's commitment to the Net Zero Banking Alliance

Santander aims to be net zero in carbon emissions in our own operations and financed customers' emissions by 2050. We pledged in our 2020 Climate Report and 2020 Annual Report to reduce our carbon footprint, focusing initially on the most material sectors to climate risk like power generation and oil & gas. We've been publishing the PACTA analysis of our power generation portfolio since 2019.

As stand above, the pledges we made in our 2020 Annual Report to align our lending activity with the Paris Agreement included being net zero by 2050 and:

i) **aligning our power generation portfolio to the Paris Agreement**

ii) **ending financial services to power generation customers with a revenue dependency on coal of over 10% by 2030; and**

iii) **cutting our exposure to coal mining to zero by 2030.**

In April 2021, Grupo Santander became a founding member of the Net Zero Banking Alliance (NZBA). We committed to set and disclose decarbonization targets for most GHG intensive sectors.

This report details the methodology we use to set our power generation portfolio targets and how it enables us to monitor our commitments and embed climate risks in our financing decisions.

Emissions data challenges: a progressive approach

When setting portfolio alignment targets, the availability, quality and comparability of data is a challenge. There is still a lot to be done to improve how companies report GHG emissions and relevant activity data to enable stakeholders (including financial institutions) to analyse their climate performance.

Given the data gaps, therefore we developed a data hierarchy which combines the use of customer's data, verified external data sources and the use of proxies. We've reconciled the information as far as possible but acknowledge that disparities between reported sources and modelled emissions remain. We expect the gaps and inconsistencies to be reduced progressively as companies make progress on disclosing non-financial data.

At this stage, it's important to have a good understanding of data quality to make sure we base decisions on solid information that will enable us to act on our financed emissions. That's why we're using the PCAF data quality score[1] and will monitor its performance for each sector.

We calculated the quality score for our power generation portfolio using a conservative estimate that took data gaps into account. On a scale of 1 to 5, where 1 is the highest quality, it scored 2.

1. PCAF – Partnership for Carbon Accounting Financials: https://carbonaccountingfinancials.com/
The PCAF standard considers three emissions types: Option 1 – reported emissions (best option but barely available), option 2 – physical activity or estimated emissions (intermediate option, using some real data and estimated factors) and option 3 – economic activity emissions or unspecific estimated emissions (lowest quality of data using average factors).

Financed emissions

We've started using and disclosing the financed emissions from our customers, following the PCAF standard. This means we can assess the GHG emissions linked to our portfolios and consequently devise alignment strategies.

Financed emissions must be accurate enough to gain a picture of our customers' emissions and take stock of improvements along the pathway towards net zero.

To draw up alignment strategies and practical decarbonization targets, we need emissions data and accurate estimates to monitor real progress. This data forms the basis of our engagement with customers to help them on their decarbonization journey. Helping our customers cut emissions is another fundamental component of our alignment strategy. We're working with institutions and experts to increase our knowledge and capabilities, and to improve the current data and methodology available.

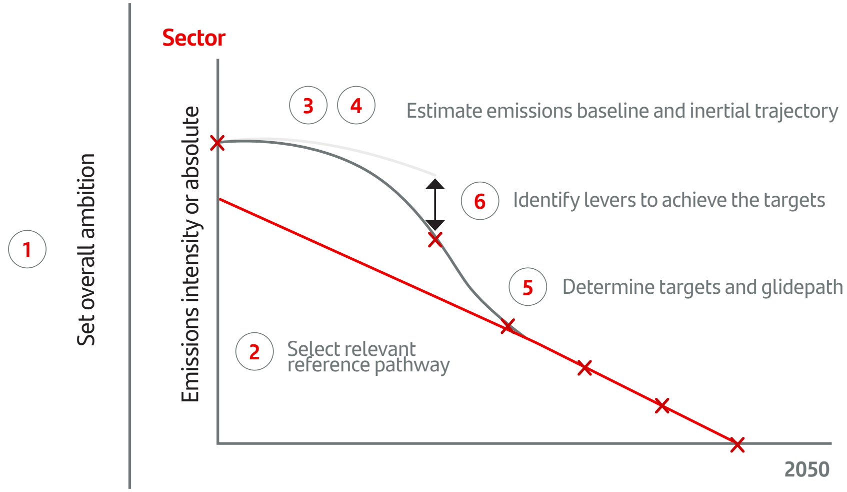
Reporting financed emissions goes hand in hand with an explanation of the methodology and assumptions made. In some cases, the recommended design choices for each sector or asset class consider the different components of the value chain and emissions scopes (1, 2 and 3), which occasionally makes it difficult to interpret and compare results accurately. For the same reason, reporting absolute emissions could be misleading if we fail to understand the different components of the value chain we effectively measure. We will enhance our financed emissions disclosures as data quality improves.

How we set and achieve targets

We follow the guidelines and recommendations of the Net Zero Banking Alliance to prioritize the most carbon intensive sectors where data and methodologies are available, as well as taking into consideration our climate-materiality assessment.

See Materiality assessment, Chapter 4

The steps we take to set and achieve emissions targets are:



1) Set overall ambition. Portfolio-wide strategic choices that include:

a. setting a temperature target, which will determine the GHG emissions reduction ambition;

b. portfolio coverage, which often depends on data availability and each sector value chain component where most of the emissions take place;

c. lending and other financial activities that will define the attribution rule for the financed emissions calculation; and

d. interim targets, certification needs and reliance on technologies like Carbon Capture & Storage, etc.

2) Select reference pathway. The chosen scenario will help map out the decarbonization pathway to meet the temperature objective. While we use scenarios for each sector, global and local scenarios may also be available.

3) Estimate emissions baseline. Measure current portfolio financed emissions.

4) Estimate inertial trajectory. Project portfolio emissions that take into account our customers' announcements on emissions reduction targets, portfolio maturity profile, etc.

5) Determine targets and glidepath:

a. Set interim targets based on science (using 2030 as the preferred option for an initial target) in line with the latest climate knowledge that will help us achieve the long-term goal of being Net Zero by 2050.

b. Define the convergence approach towards the reference pathway to meet interim and final targets.

6) Identify levers to achieve targets: For each sector, and considering the composition of the bank's portfolio, identify commercial steering levers to meet the target glidepath and size their impact and cost.

Portfolio alignment for select material sectors

The most carbon-intensive sectors for Santander as identified in the climate materiality assessment are power generation, oil & gas, transport and mining & metals. We've analysed how well our customers in those sectors are positioned in terms of current and expected emissions from their activities to align with the Net Zero pathway towards 2050.

This year we've enhanced our capabilities and tools for measuring and proposing alignment strategies for our portfolios and identifying the data required and where we can get it from (internal and external sources).

The methodology relies on financial information from our customers (total equity, total debt, total assets, company valuation, etc.), as well as emissions and production data. In the absence of public emissions data, the methodology requires calculating emissions estimates based on a proxy (average emissions by sector, country, etc.). Once we have an idea of our customers' total financed emissions, we can attribute the emissions Santander actually financed by applying our attribution factor in line with the PCAF approach. This has been extraordinarily challenging given the limited emissions data available, as it is a relatively new priority for many sectors.

Portfolio alignment is a nascent field for banks. We've decided to use a bespoke approach that considers the alternatives available to provide targets in line with our NZBA commitment. Following the initial approach with PACTA, we're now focusing on the Sector Decarbonization Approach (SDA, one of the methodologies the Science Based Target initiative uses), Transition Pathway Initiative (TPI) and PCAF as the main forms of calculating financed emissions.

The pandemic made 2020 an outlier in the performance of many financial metrics, not to mention economic and production activity in many sectors, we conducted the analysis based on 2019 figures as we consider this data more reliable to measure the baseline and emissions of our portfolios.

Sector	Methodology	Sub-sectors / Value chain in scope				Scope of emissions
Power	PCAF-SDA	Upstream / generation	Midstream / T&D	End product		1
Oil & Gas	TPI	Upstream/ extraction	Midstream	Downstream		1-2-3
Metals coal-related	PCAF-SDA / TPI	Metal-ore Mining	Manufacturing	End product		1 and 2
Mining coal-related	PCAF-SDA / TPI	Mining	Separation & Preparation	Storage	Trade	1-2-3
Transport	PCAF-SDA	Suppliers	OEMs	Use of transport	Service activities	1-2-3
	TPI	Suppliers	Aircraft manuacturers	Leased aircrafts	Airliners	
Mortgages	PCAF-SDA	*Methodology definition in progress*				
Agriculture	N/A					
Other sectors	TBD					

PCAF – Partnership for Carbon Accounting Financials: https://carbonaccountingfinancials.com/
SDA - Sector Decarbonization Approach. Methodology based on Science Based Target Initiative. https://sciencebasedtargets.org/
TPI - Transition Pathway Initiative.
https://www.transitionpathwayinitiative.org/sectors

Priority sectors for the next 18 months

Power generation:

Power generation is responsible for a significant part of the anthropogenic GHG emissions causing global temperatures to rise. The power sector relies on technological alternatives that produce very different levels of emissions: coal, oil and gas-fired power plants produce significantly high emissions as opposed to renewable energy sources (wind and solar). Therefore, the technology mix of our power generation clients – and of our portfolio – is very important.

We began by assessing how aligned our power generation portfolio was, using the PACTA methodology to analyse its technology mix, and published the results in our 2019 and 2020 annual reports. We've now estimated the current and future emissions of our power generation portfolio and proposed the first GHG decarbonization targets for 2025 and 2030.

In setting our targets, we've taken into account the expected trajectory of our portfolio and how it compares with the latest recognized scenario to achieve net zero emissions by 2050: "International Energy Agency (IEA) – Net Zero Emissions" (see graph next). This scenario sets out the global pathway to net-zero emissions by 2050, for the energy sector.

We based the pathway on the SDA and the convergence ambition approach. The SDA assumes global convergence of key sectors' emissions intensity by 2050. The convergence approach, rather than the trajectory, sets out the progressive reduction of the emission metric to meet the target along the pathway, even if it requires sharp falls to meet the scenario pathway.

Results show that the 2019 baseline was a good starting point, due to two factors:

(i) Our long-lasting, worldwide leadership in renewable energy project finance (which accounts for a significant amount of electricity generation with the cleanest and almost zero-pollution technology), and

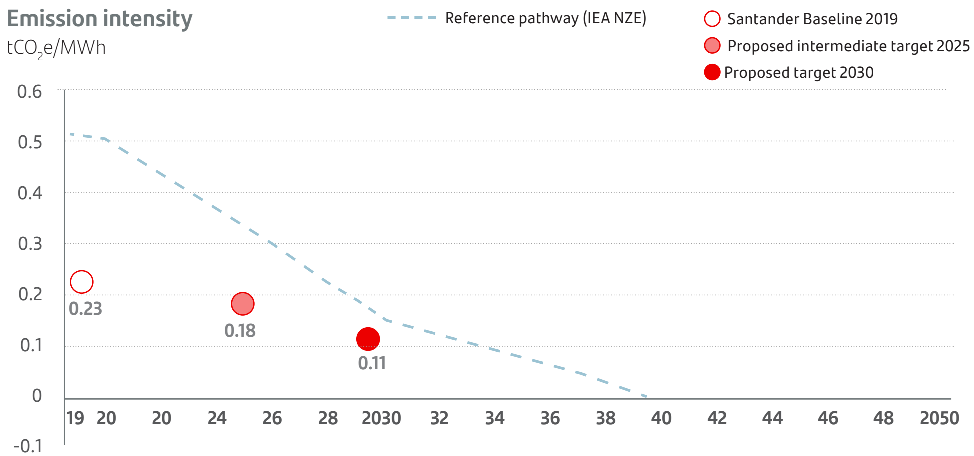
(ii) Our current client base, with high exposure to corporate power generation customers that have a good generation technology mix and ambitious plans to decarbonize their activity.

Those two factors will stand us in good stead to achieve our long-term commitment and remain the leader among our peers all the way to 2030 and beyond.

As the chart on the right shows, the emissions intensity of our power generation portfolio is 0.23 tCO_2e/MWh, based on 2019 portfolio data. Our commitment is to reduce to 0.18 tCO_2e/MWh by 2025, and to 0.11 tCO_2e/MWh by 2030, in line with the Paris Agreement.

1st NZBA emission target: Power Generation alignment pathway

Power Generation, 2019 data



1. Analysis performed based on the available data (~16BN€ out of ~23Bn€ in scope [SCIB and Commercial Banking]). Data coverage will be extended in the future with potential update of the baseline

Note: In our 2020 Annual Report we disclosed the physical emissions intensity of our corporate power generation portfolio as 309.6 $grCO_2/KWh$. The difference lies within the progress we've made in reporting financed emissions on three fronts: i) incorporating corporate exposures and our 10.4Bn power generation project finance portfolios; ii) increasing the scope of the portfolio analysis; and iii) using drawn amounts in accordance with PCAF methodology to calculate emissions as a better reflection of our financing activity's contribution to our customers' emissions.

Methodology:
We have analysed the "upstream/generation" component of the value chain for the power sector since it's the material sector with the most emissions.

The target metric we've used is emissions by physical intensity, measured in tons of CO_2 equivalent per megawatt produced by hour. This metric is simple and widely-used, which aids benchmarking and monitoring. It is also our preferred choice due to its actionability, as it rewards emissions efficiency improvements – our customers' performance can be tracked over time using it, and because production needs to increase over time to support the electrification of the broader economy.

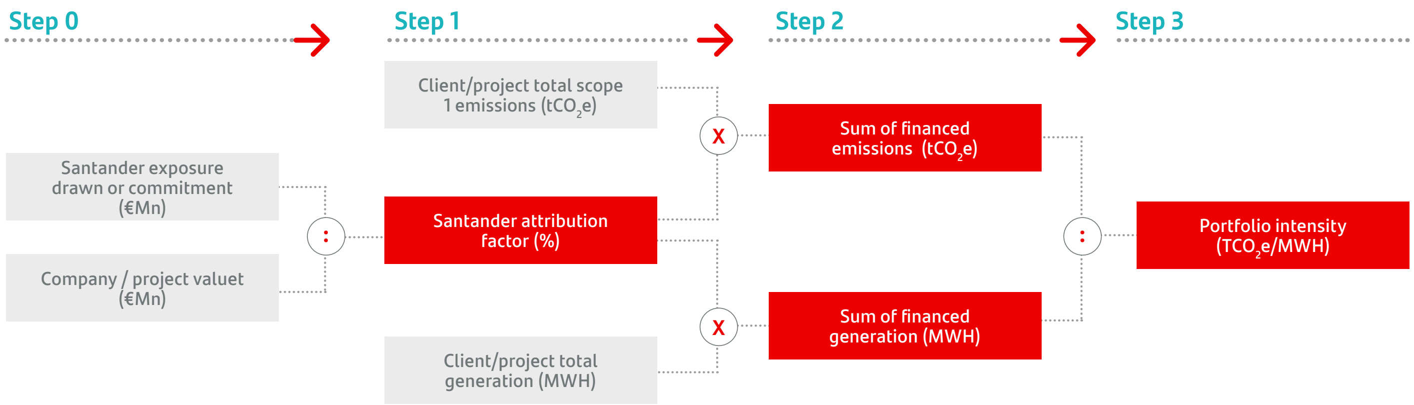
As far as the attribution factor is concerned, we've used the PCAF and SBTi -SDA recommended methodology to calculate financed emissions: (a) the drawn amounts for corporate lines of credit (as the best representation of our financing that contributes to their activity and therefore their emissions) and (b) the total commitment to Project Finance.

For the Santander attribution factor, we use financial information from internal databases or Capital IQ as an external source, when necessary.

44% of the exposure has been assessed using the Trucost[1] data source with a PCAF score of 2; 40% has been estimated for project finance renewable energy with a PCAF score of 2; for another 14% of the exposure, emissions data info was gathered directly from the annual reports, also resulting in a PCAF score of 2. The remaining 4% is of relatively lower quality with a PCAF score of 3.

Other material sectors:
We have also made progress in our other three most material sectors: oil & gas, transport and mining & metals. We worked on an initial definition of the proposed design variables to ensure alignment in each of those sectors, including the metrics to be used, the value chain focus, scopes, alignment methodologies and an understanding of our footprint in terms of financed emissions. We have to continue our analysis to confirm our alignment approach and, as with power, provide a target for each in line with the NZBA and set out an action plan to achieve it.

Steps taken to obtain the physical emissions intensity



Roadmap for delivery on Net Zero

The ambition to have Net Zero emissions by 2050 in many sectors depends on several exogenous factors, with available data and methodologies the most crucial. In many cases, there is still a lot of room for improvement before we can use them as reliable tools to measure emissions and set decarbonization targets.

Under our climate risk materiality assessment, we identified and analysed the potential physical and transition risks for each of the bank's sectors and portfolios. This assessment enables us to prioritize our work while determining decarbonization strategies for each sector.

For the most concerning sectors identified in the materiality assessment (power, oil & gas, mining & metals and transport), we've been progressing to measure the GHG emissions associated with our customers' activities and the bank's share of emissions, per PCAF guidelines indications. Those sectors are the ones considered to have more GHG emissions directly or indirectly linked to their activities and with more potential levers to reduce the emissions and contribute to the Paris Agreement goals.

1. S&P Trucost Limited © Trucost 2021 has been used as the primary source of information for 2019 emission and production metrics, complemented with public information obtained directly from companies' annual reports.

Subject to data and methodology availability, in line with our NZBA commitment and previous commitment as part of the Collective Commitment to Climate Action, we plan to set decarbonization targets based on emissions metrics for portfolios of the following sectors: oil & gas, mining & metals (coal-related) and transport by September 2022 or earlier in line with our NZBA commitment and previous commitment as part of the Collective Commitment to Climate Action. These decarbonization targets must be compatible with helping our customers transition to a greener economy.

We will set decarbonization targets for Santander Asset Management (SAM) by November 2021 to fulfil the commitment with the Net Zero Asset Managers initiative.

We will set decarbonization targets for mortgages, commercial real estate, auto loans, cement, agriculture and some sub-sectors by the end of March 2024.

Fossil fuels financing

The Banking on Climate Chaos: Fossil Fuel Finance Report 2021, endorsed by over 300 organizations from 50 countries, analyses the world´s largest banks´ exposure to the fossil fuel sector. Santander was one of the analysed banks, and the figures contained here show our relative position versus our peers and other banks, measured in terms of our total fossil fuel exposure, and its weighting when compared to total lending.

Ranking way below most of our peers and other banks, Santander´s low fossil fuel finance exposure, in both absolute and relative terms, is further evidence of our commitment not to finance sectors that have a negative impact on climate change.

Our fossil fuels exposure over our total lending barely reaches 1% and is the lowest ratio among our nine peers. Our volume of fossil fuel finance is more than 5 times smaller when compared to the leading bank.

Rank	Bank	Fossil fuels exposure (Billion USD)	Fossil fuels exposure over total lending
1	Bank 1	51,300	5.1%
2	Peer 1	48,389	7.4%
3	Bank 2	42,149	4.5%
4	Peer 2	40,751	4.4%
5	Bank 3	29,521	1.4%
6	Bank 4	29,070	3.7%
7	Bank 5	28,199	4.7%
8	Bank 6	27,702	9.1%
9	Bank 7	26,400	3.0%
10	Peer 3	23,542	2.1%
13	Peer 4	19,594	1.7%
19	Peer 5	16,453	2.7%
29	Santander	9,678	0.9%

Ranking by Fossil fuels exposure.

Exposure over total lending not provided in the Report mentioned in the text, but calculated with data from the banks' official reports.

Peers are banks whose size and market capitalization are comparable to Santander, including BBVA, BNP Paribas, Citi, HSBC, ING, Itaú, Scotia Bank and UniCredit.

Reducing our environmental footprint

We are strongly committed to protecting the environment by reducing our footprint. We base our environmental management strategy on three areas: reducing and offsetting CO_2 emissions, reducing and managing waste responsibly, raising employees' and other stakeholders' awareness of environmental issues.

We've been measuring our environmental footprint (energy consumption, waste and emissions) since 2001. Since 2011, our strict energy efficiency and sustainability initiatives have made sure we have the lowest possible impact on the environment.

In 2019, we set three targets to reduce our direct impact on the environment:

- To source 60% of our electricity from renewable energy by 2021 and 100% by 2025 (currently at 50%).
- To become carbon neutral by offsetting all the emissions generated by our own operations from 2020 onwards.
- To eliminate unnecessary single-use plastic in our branches and corporate buildings in G10[1] by 2021.

Use of energy from renewable sources

To further reduce carbon emissions, we committed to source all our electricity from renewable sources (where possible) by 2025.

At the end of June 2021, 74% of the electricity used in our buildings was renewable, with 100% green energy in Germany, Spain, Portugal and the UK. We continue to work towards our 100% target by 2025.

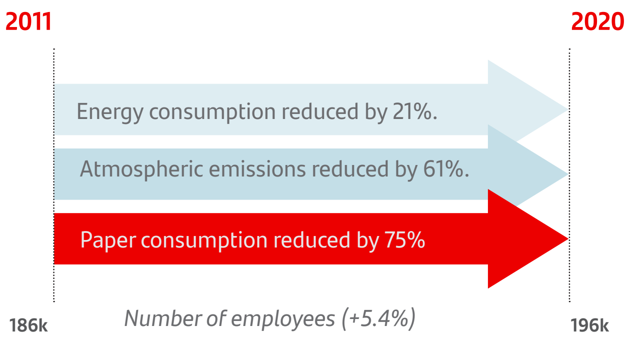
The emissions reduction for electricity consumption was 21%, thanks to the purchase of green energy. In terms of the total, this enabled us to reduce our emissions by 12%.

Carbon neutral

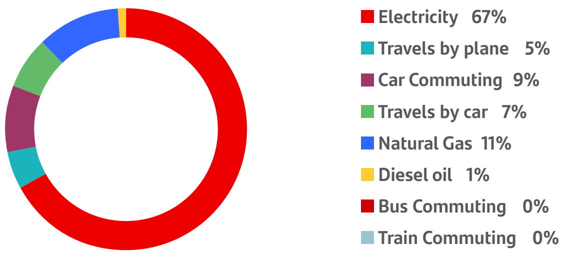
In 2020 we became carbon neutral in our own operations, with the help of CO_2 offsetting projects. For more information on how we measure and offset our emissions, please refer to: the "2020 Grupo Santander Carbon Footprint Procedure and Report" and the "Independent limited assurance report on Greenhouse Gas Statement 2020", available on our corporate website.

Register of the carbon footprint, offset and carbon dioxide absorption projects managed by the Ministry for the Ecological Transition and the Demographic Challenge of Spain.

2011-2020 result of plans



Emissions in 2020 by sources



Certified environmental management system

We measure and manage the direct environmental impact of our activities through environmental management systems implemented in most of our buildings, which are externally audited under ISO 14001. And we've also received LEED Platinum and LEED Gold certifications in three and ten buildings, respectively.

We are eliminating unnecessary single-use plastics: at the end of 2020, we met 98% of our target, with all G10 subsidiaries working together.

1. Ten core markets where Santander operates - Germany, Poland, Spain, Portugal, UK, US, Argentina, Chile, Mexico and Brazil.

2020 environmental footprint[1]

The pandemic made the 2020 an outlier also in terms of buildings and facilities use, when many employees did remote work during a significant part of the year.

		Var. 2019-2020 (%)
2,064,113 M^3 water consumed from the supply system		-29.7
920 MILL. KWH total electricity	 **57%** renewable energy	-0.7
18,101 T total paper consumed	 **83%** recycled or certified paper	1.0
5,926,139 KG paper and cardboard waste		-38.9
3,758,225 GJ total integral energy consumption		-3.5

		Var. 2019-2020 (%)
194,159 T CO_2 teq total emissions (market based)		-41.6
Scope 1	**24,818 T CO_2 teq** direct emissions	
Scope 2	**128,633 T CO_2 teq** indirect electricity emissions (market based)	
	282,216 T CO_2 teq indirect electricity emissions (location based)	
Scope 3	**40,708 T CO_2 teq** indirect emissions from employees travelling to work	

1. The environmental footprint table, with two-year historical data and the consumptions and emissions per employee, can be found in section 'Key Metrics' on this chapter.

Waste zero certification

At our Group headquarters (Santander Group City, or SGC) in Boadilla del Monte, Madrid, home to more than 8,000 employees, we have a 1,000 sqm recycling facility where 30 different types of waste are sorted and collected.

We're the first financial institution in Spain to be "Zero Waste" certified by AENOR. This certification recognizes that at least 90% of the waste generated at SGC is reintroduced into the value chain. So far this year, we've sorted 1.9 million kilos of waste at our recycling facility.

This certification is a testament to our commitment to sustainability, respect for the environment and cooperation with the circular economy as a responsible bank that rests on three pillars: reduce, reuse and recycle.

We've also obtained the Zero Waste certification by Aenor in other three main buildings in Madrid (Luca de Tena, Abelias and Josefa Valcarcel), where more than 6,700 employees work.

Projects to offset CO_2 emissions

Reforestation

Planting of native species in over 1,000 hectares scorched by forest fires in Alcoroches (Guadalajara).

As the affected area could not regenerate naturally, reforestation was necessary. Drones released seeds and the saplings of indigenous species were planted. Trees and shrubs will become "sinks" to absorb existing atmospheric greenhouse gases.

The project also includes regular monitoring of the saplings and their growth, as well as the yearly removal of bad weeds that could affect them.

Reduction of N_2O emissions

Eradication of the N_2O emissions produced at a nitric acid plant.

This project consists of eliminating the N2O produced inside the ammonium burner of the COMPO GmbH & Co. KG plant in Krefeld. Previously, the site released N2O into the atmosphere, which contributed to global warming. Thanks to the project, the gas is now disposed of by means of a catalyser.

Wind energy.

Wind energy project with 309 MW of installed capacity that provides renewable energy to the power grid and reduces greenhouse gas emissions from energy production. The project includes a social project in Oaxaca, which aims to contribute to the development of local communities in three different areas: basic rights, basic services and sustainability.

Recovering energy from greenhouse gases

Capturing the methane gas produced at a landfill site in Spartanburg (South Carolina) to be converted into biogas for clean energy. The naturally-produced methane is collected and processed, with the resulting biogas then used to generate electricity. So, instead of releasing methane into the atmosphere and increasing global warming, it's now used to supply energy to the community.

Hydropower

Financing of a hydro power plant, with a capacity of 182 MW, helping to reduce greenhouse gas emissions and meeting Brazil's growing energy demand through clean energy. In addition, the project also had a social component through job creation.

Our contribution to the United Nations Sustainable Development Goals

Helping society tackle global challenges

Our activity and investments contribute to several United Nations' Sustainable Development Goals and support the Paris Agreement's aim to fight climate change.

Our climate strategy and our ambitious roadmap to be "Net Zero" by 2050 enables us to contribute directly to the achievement of UN SDGs 7 and 13.

7 AFFORDABLE AND CLEAN ENERGY

We're the global leader in renewable energy financing, and also finance energy efficiency projects; low-emission, electric and hybrid vehicles; and other cleaner transport solutions.

TARGETS WHICH BANCO SANTANDER CONTRIBUTES TO

7.1 By 2030, ensure universal access to affordable, reliable and modern energy services.

7.2 Significantly increase the share of renewable energy in all energy sources.

7.3 Expand infrastructure and improve technology to provide modern and sustainable energy services.

13 CLIMATE ACTION

We tackle climate change by reducing our own carbon footprint and helping our customers transition to a sustainable economy. We are a member of Net Zero Banking Alliance and Net Zero Asset Managers.

TARGETS WHICH BANCO SANTANDER CONTRIBUTES TO

13.1 Strengthen resilience and adaptive capacity to climate-related hazards and natural disasters in all countries

13.2 Incorporate climate change measures in national policies, strategies and plans.

13.3 Improve education, awareness-raising and human and institutional capacity on climate change.

Financing the green transition

Finance is a critical enabler of the transition towards a low-carbon economy. At Santander, we want to play our part and support our 148 million customers and the economies where we operate, through this journey towards a greener and more sustainable world Net Zero by 2050.

Our goal is to offer our products and services that support our customers' transition towards a greener economy and align our portfolio with our climate ambition, while we deliver on our public commitments and regulatory requirements. Our green finance approach is through a customer centric mind-set, harnessing commercial opportunities through specific green activities around four key verticals: (i) clean mobility, (ii) green buildings, (iii) agriculture, and (iv) renewables.

Santander is already playing a major role in helping to tackle climate change and enable the transition to the green economy and has already committed to:

- Raise or facilitate the mobilization of 120 billion euros in green finance by 2025 and 220 billion euros by 2030. Until June 2021, Santander CIB division has contributed with 41.7 billion euros to this commitment. Separately, Santander Retail and Commercial division are also raising green financing.
- Maintain our leadership position in renewables, as well as leveraging our origination capabilities to issue more green bonds.
  - The volume of greenfield renewable energy projects financed represents enough installed capacity to power 10.3 million homes and avoid 60 million tons of CO_2 emissions.
- Develop our green products proposition including: green mortgages; energy efficiency loans; loans to install solar panels, for electric vehicles, and for low carbon agriculture; ESG investment solutions incentivizing our clients to improve their ESG performance through Sustainability linked Loans (SLLs); and additional services such as eco-cards and carbon footprint measurement tools, which allow customers to offset emissions.
- Progress with ESG bonds issuance and net zero commitment in Santander Asset Management, joining the Net Zero Asset Managers initiative.
  - Santander has already issued three 1 billion-euro green bonds as part of a global sustainable debt plan. The funds are being used to finance and refinance existing and future wind and solar power projects. In the green bond issued in October 2019 for institutional investors, proceeds financed 32 solar and photovoltaic projects with an installed capacity of more than 6,300 MW[1], avoiding the emission of 909,417 million tons of CO_2.
  - We are expanding our range of ESG products in Wealth Management, with over €8bn of assets under management (Jun21), including €7.5bn from Santander Asset Management and an additional €550mm from third party funds in Private Banking.
- We continue to fight deforestation and its negative impact on climate change and biodiversity, especially in the Amazon.

Santander and the Brazilian Amazon

"The challenge is not simply to finance only what is already green, but to green the rest of the economy"

Ana Botin, Santander Executive Chairman

1. https://www.santander.com/content/dam/santander-com/es/documentos/presentaciones-de-renta-fija/2020/11/prf-2020-11-25-banco-santander-green-bond-report-2019-es.pdf

Sustainable Finance Classification System

The Sustainable Finance Classification System ("SFCS") is an internal guideline with the criteria for identifying sustainable finance activities. It will provide Santander with a uniform and harmonized approach to sustainable finance designed to allow consistent activity tracking, support the development of themed solutions for our clients and mitigate potential greenwashing risk.

The SFCS will be a key enabler to develop our sustainable finance proposition, complementing the existing Global Sustainable Bond Framework and our Green Finance Commitment and ensuring it is aligned with our climate ambition.

It draws upon internationally accepted guidelines and principles such as ICMA Social and Green Bond Principles, the Climate Bond Standards and it is aligned with the EU Taxonomy.

The SFCS will apply to all Santander business units and subsidiaries, and will capture two complementary approaches to sustainable finance:

- The funds of the transaction are directed towards activities with a green or social impact (i.e. a regular client that wants to install solar panels)
- The funds of the transaction may not be solely dedicated to green or social activities but are designated to incentivize clients to achieve ESG targets or better ESG performance through sustainability-linked transactions

It outlines the classification logic, eligibility parameters for social and green activities, the applicable environmental and social due diligence requirements, and the verification methodology for sustainable finance transactions.

Different pilots have been conducted to test its applicability in Spain, UK, and Digital Consumer Bank with the following preliminary results:

- Green buildings: 1.6 billion euros in real estate development loans with Energy Performance Certificate (EPC) B or above
- Clean mobility: 3.6 billion in electric or hybrid vehicles from new auto deals
- Renewables: 1.3 billion euros in solar panels leased in Spain

Corporate and Investment Banking

SCIB Contribution to Climate Finance

Santander Corporate and Investment Banking (SCIB) aims to be a leading bank for providing sustainable finance and ESG solutions across our geographies and product spectrum.

Leveraging on a strong track record in renewable energy financing and advisory, SCIB is aiming to integrate ESG and sustainability considerations across all sectors and products, serving an increasing demand from corporates and investors while contributing to Santander´s own ambition.

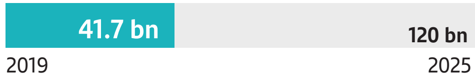
The ambition is to become the leading financial platform for energy transition-enabling technologies by supporting our clients in achieving their sustainability objectives and transition towards more responsible, social and environmentally sustainable business models.

SCIB set up a dedicated, global ESG Solutions team in 2020 to bolster its sustainable finance proposition. The team works closely with the product teams across SCIB's platform to provide strategic solutions as well as product and financing structures tailored to specific sectors, geographies and market sectors.

Santander raised and mobilized €41.7bn of Green Finance during 2019, 2020 and the 1st half of 2021 across the following instruments:

Green finance volumes from 2019 to June 2021

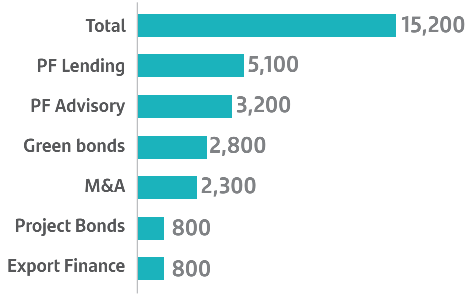
Raised or facilitated. Euros [B]



B. Information obtained from public sources, such as Dealogic, Inframation news, TXF or Mergermarket league tables. All roles undertaken by Banco Santander in the same project are accounted for. Other sustainable finance components, such as financial inclusion and entrepreneurship, are excluded.

2020 Green finance volumes split by product

Millions €



Financing renewable energies

For the last 10 years, Santander has been the leading bank in financing renewable energies, ranking consistently in the Top 3 by number of deals and Top 5 by transaction value globally. In 2020, we participated in 143 renewable energy finance deals, investing more than 6 billion dollars.

Finance Volume by MLA - FY 2020[A]

Rank	Mandated Arranger	Vol. (USDm)	Nº.	%share
1	Banco Santander	6,284	143	6.7
2	Bank 1	5,638	73	6.0
3	Bank 2	5,511	63	5.9
4	Peer 1[B]	3,779	76	4.0
5	Bank 3	3,737	52	4.0
6	Bank 4	3,436	54	3.7
7	Bank 5	2,962	28	3.2
8	Peer 2	2,601	32	2.8
9	Peer 3	2,589	40	2.8
10	Bank 6	2,313	24	2.5

A. As indicated by Dealogic and Bloomberg New Energy Finance league tables for project financing within the Lead Arranger category.

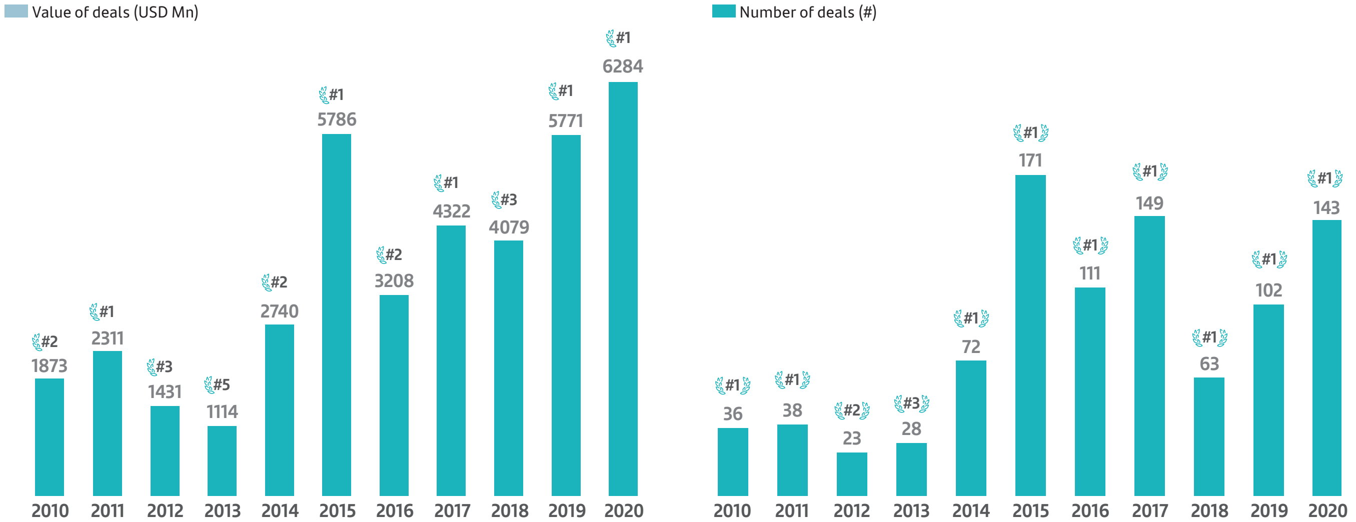
B. Peers are banks that due to their size and market capitalization are comparable to Santander, including BBVA, BNP Paribas, Citi, HSBC, ING, Itaú, Scotia Bank and UniCredit.

Highlights

1. Santander has consistently been the leader in renewables financing for the last 10 years.

2. Santander has ranked consistently in the Top 3 having been **#1** since 2014, by number of deals.

3. Santander has participated in **936** renewable energy finance deals, representing more than **EUR 38bn** in the last decade.



Source: Dealogic League tables Role: Mandated Lead Arranger Sectors: Wind + Renewable Fuel (solar, hydroelectric, biomass, geothermal and other).

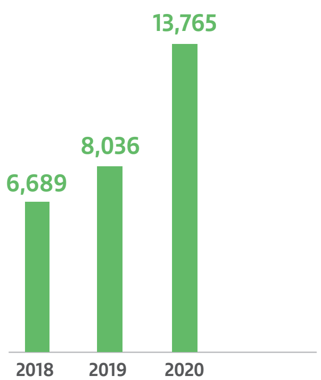
In 2020, we helped finance greenfield renewable energy projects with a total installed capacity of 13,765 MW, avoiding the emission of 60 million tons of CO_2. We also contributed to the expansion, improvement and maintenance of existing renewable energy infrastructure projects (brownfield), with a total installed capacity of 8,106 MW (further details in the graphs next).

Our renewable energy project finance portfolio (greenfield and brownfield) totalled EUR 11.6 billion at the end of the year, making up almost half of our project finance portfolio and spread over 307 transactions.

The renewables projects financed portfolio has a generation capacity equivalent to the annual consumption of 10.3 million homes.

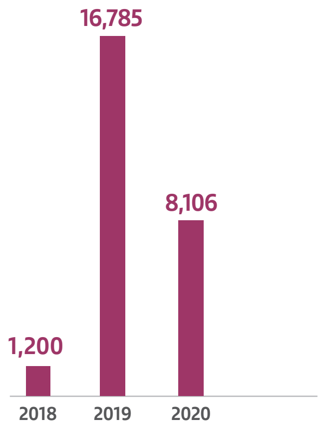
Financing of renewable energy greenfield

(MW Financed)[C]



Financing of renewable energy brownfield

(MW Financed)[C]



Breakdown of MW financed by type of renewable energy

	2018 Greenfield	2018 Brownfield	2019 Greenfield	2019 Brownfield	2020 Greenfield	2020 Brownfield
Wind energy	77%	--	77%	35%	77%	46%
Solar energy	22%	100%	22%	54%	18%	33%
Other[D]	1%	--	1%	11%	5%	21%

■ Greenfield ■ Brownfield

Breakdown of renewable MW finance by country in 2020[E]

(greenfield and brownfield)

	USA	United Kingdom	Spain	Chile	Brazil	France	Poland	Portugal	Germany
Greenfield	3,796 MW	5,455 MW	706 MW	882 MW	1,597 MW	497 MW	242 MW	0 MW	0 MW
Brownfield	681 MW	630 MW	2,169 MW	0 MW	17 MW	0 MW	0 MW	3,510 MW	306 MW

C. In 2020, the MW attributable to Banco Santander according to its share in each project was: 19% of total for greenfield and 23% for brownfield.
D. Others greenfield: Taiwan (600 MW). Others brownfield: Italy (61 MW); Uruguay (52 MW); The Netherlands (600 MW); Sweden (80 MW)
E. Includes biomass for 2018 and hydropower for 2019, and solar-wind energy for 2020.

In line with our expertise in financing photovoltaic plants, wind farms, thermosolar and hydraulic power generation, Santander is also at the forefront in project finance advisory for more nascent low-carbon power technologies, such as floating offshore wind farms.

Our experience and commitment will help us position ourselves for financing new low-carbon technologies such as sustainable aviation fuels or green hydrogen.

Prominent renewable energy and energy efficiency projects in 2020

Acted as Financial Adviser on a refinancing of a portfolio of smart meters, the first syndicated institutional facility in the UK smart meter sector.

Completed one of the largest financing deals in the Spanish renewable energy market, using a hybrid structure including a bank loan and project bonds.

Participated in the financing of Dogger Bank, an offshore windfarm in the UK that will become the world's biggest. When fully complete in 2026, Dogger Bank will produce enough renewal electricity to supply 5% of UK demand and power six million UK homes each year.

Acted as Coordinating Lead Arranger for the construction financing of the first phase of the largest solar complex in the US. When completed, it will have 1.31 GW of solar PV capacity.

Completed one of the largest financing deals in the Spanish sustainable energy efficiency market. The portfolio is located in Spain, Portugal and France and holds contracts of proven technologies, such as energy efficiency, electrical infrastructure, LNG, NGV, piped gas and PV self-consumption.

Participated in the financing of a depolymerisation plant for end-of-life tyres in Spain in conjunction with the European Investment Fund's Innovfin guarantee facility. It's one of the first new circular economy and eco-innovation project finance transactions in Spain.

ESG Products and advisory capabilities

Santander achieved several milestones across a number of products, such as sustainability-linked supply chain finance, sustainability-linked swaps and our first socially responsible bond for retail investors.

In 2020, we participated in 59 sustainability linked loan transactions globally, ranking second in Dealogic's league table.

Global Sustainability Linked Loans – FY 2020

Rank	Lender	Volume ($m)	Deals
1	Peer 1	10,277	94
2	**Santander**	**6,996**	**59**
3	Peer 2	6,573	59
4	Bank 1	6,474	52
5	Peer 3	5,955	54
6	Peer 4	5,758	54
7	Bank 2	5,722	69
8	Bank 3	5,615	50
9	Bank 4	5,343	37
10	Peer 5	4,937	44

Source: Dealogic
Ranking by #deals within lender category

We also ranked first in the Bloomberg LatAm Green and ESG bonds league table and twelfth in Bloomberg European ESG bonds (excluding sovereigns, supranationals and agencies) league table at the end of 2020.

Notable ESG transactions

• Sustainability Coordinator for one of the largest sustainability-linked facilities

Santander acted as Joint Sustainability Coordinator in one of the largest ever sustainability-linked revolving credit facilities (RCF) for Anheuser-Busch InBev and the first of its kind among publicly listed companies in the alcohol beverage sector.

The Banker DEALS OF THE YEAR 2021

• First Polish sustainability-linked bond and swap

SCIB acted as Coordinator, Lead Arranger and Bookrunner for a Polish company, Tauron Polska Energia S.A., on a sustainability-linked bond, the proceeds of which will be used to increase the share of zero-emission energy sources in the generation mix of Tauron Group.

• First UK retailer set to offer sustainability-linked supply chain finance

Santander partnered with Tesco PLC to offer sustainability-linked Supply Chain Finance (SCF) to their supplier base. Tesco suppliers will be offered preferential financing rates via Santander's market leading SCF platform which incentivises suppliers to make positive changes to their business while tracking performance and creating a culture of continuous improvement.

• First sustainable bond by a Latin American bank

Santander acted as Joint Bookrunner and ESG structuring agent in an issuance for Banco Continental del Paraguay that aims to finance the transition to an environmentally and socially sustainable economy.

Environmental Finance Bond Awards 2021 Winner
Sustainability bond of the year – bank

• First ESG bond issued in local currency by the Republic of Chile

Santander was one of the Lead Managers on the largest single sovereign social bond issue in 2020 for Republic of Chile.

Environmental Finance Bond Awards 2021 Winner
Lead manager of the year, social bonds – sovereign

• First social project bond in Latin America

Santander acted as Sole Social Bond Structuring Agent for the first Social Project Bond in Latin America, and the First Global Social Project Bond with international distribution, for Sacyr. The bond issuance is linked to an infrastructure project in Colombia, Puerta de Hierro-Cruz del Viso roadway.

• First sustainability-linked bond in Brazil

Santander acted as a Bookrunner for the first sustainability-linked bond in Brazil, and second globally, for Suzano Papel e Celulose, a pulp and paper producer, aiming to reduce GHG emissions.

Environmental Finance Bond Awards 2021 Winner
Sustainability-linked bond of the year

• Sustainability-linked facility for leading player in renewable energy

Santander acted as Sole Sustainability Coordinator for RWE AG's Syndicated Credit Facility, which is linked to the company's share of renewables portfolio, CO_2 reduction and share of sustainable investments aligned with the EU Taxonomy.

• Sustainability-linked facility in the waste management sector

Santander played a leading role in the sustainability-linked financing of Valoriza Servicios Medioambientales S.A, a fully owned subsidiary of Sacyr Group.

• Socially responsible bond for retail investors

The funds raised from the bond, developed by SCIB, will fund Santander-managed projects that meet our socially responsible criteria. With a three year maturity, the bond's yield is pegged to the performance of the Eurostoxx 50 ESG-X index.

• Green structuring adviser on a European bond issue

Santander acted as Joint Bookrunner and Joint Green Structuring Adviser on Workspace Group PLC inaugural green bond, the proceeds of which will be used to finance or refinance eligible green refurbishment and redevelopment projects.

ESG Corporate Finance roles

A key milestone was the first ESG corporate finance advisory role in Hydrogen. Santander acted as sole financial advisor to Plug Power, a US-based global leader in fuel cell systems and hydrogen related services, in the launch of a 50-50 joint venture with Groupe Renault by the end of the first half of 2021. The resulting company, "Hyvia" will lead the way to a complete ecosystem of fuel cell powered light-commercial vehicles, green hydrogen and refuelling stations across Europe. Santander also acted as exclusive financial advisor to Plug Power in its partnership with Acciona, a Spanish-based global renewable energy operator, to create a leading green hydrogen platform in Iberia.

We have advised the French start-up Verkor on the creation of a strategic partnership with Renault Group. Renault Group and Verkor will co-develop and manufacture low-carbon and high-performance battery cells to foster the emergence of a competitive, sovereign and sustainable battery supply chain in Europe.

Other client engagement initiatives

Santander has deepened its engagement with clients in key ESG topics such as sustainability strategy and ESG ratings.

We have collaborated with The University of Cambridge Institute for Sustainability Leadership's (CISL) Banking Environment Initiative to publish a new guide to bank-client engagement, which aims to address the need for a market-wide transformation in how banks and corporate clients interact. *Let's Discuss Climate: The essential guide to bank-client engagement* focuses on the customer service model, to equip bankers to have meaningful conversations with large corporate clients about their decarbonisation plans and associated financing needs.

Santander has strengthened its expertise across different thematic areas related to ESG. Our global research teams help corporate and institutional clients understand the ESG paradigm by covering thematic trends shaping the business environment over the coming years. In 2020 a dedicated ESG equity research function was created in SCIB Brazil. Some of the recent thematic publications from our global research teams are:

- *Hydrogen (H2) – Energising the future*
- *Next Generation EU – Towards a more united; greener; digital Europe*
- *Brazilian Banks, ESG – The bond between a better world and profits*
- *Brazil, the ESG Giant of Tomorrow*

Santander hosted and participated in several events related to sustainability and key ESG topics:

- August 2020: Santander Brazil Virtual Panel - ESG Investment: Time has Come
- October 2020: Santander International Banking Conference – Panel: A sustainable and resilient recovery, meeting the climate challenge while addressing economic and social needs
- December 2020: Santander Chile ESG Webinar - ESG: Moving towards a sustainable capital market
- January 2021: 25th Santander Latin American Conference – Panel: New frontiers for sustainable finance and ESG as an asset class
- February 2021: XXVII Santander Iberian Conference – Panel: ESG, An opportunity for industrial companies
- February 2021: UN PRI Panel - Deforestation as a Credit Risk
- April 2021: Santander Brazil Virtual Panel - ESG Water & Waste conference
- June 2021: Latin America ESG Summit - Sovereign ESG issuance in a post pandemic world; The path to Net Zero: How Can Latin American Corporates Move the Dial on Climate Change

Leveraging on a strong track record in renewable energy financing and advisory, SCIB is aiming to integrate ESG and sustainability considerations across all sectors and products, serving an increasing demand from corporates and investors

Retail & Commercial Banking

As a retail bank, we support our customers' transition to a low-carbon economy by offering products and services that meet their needs and demands. In order to do so, we have identified 5 key focus areas: Green buildings, renewables, clean mobility, agro and circular economy.

And we do so through:

• Specific retail products (Santander Green Book) like green mortgages, energy efficiency loans, leasing to install renewable energy, loans to electric vehicles or low carbon agriculture. Since 2019, Santander has granted 1.5 billion euros in green financing through this Green Book

• General purpose lending directed to economic activities that contribute to climate change mitigation and adaptation, promote sustainable use of resources.

Testing the Sustainable Finance Classification System (SFCS) in three specific segments, namely green buildings in Spain, clean mobility and renewables in SCF, we have been to spot 6.3 billion euros that were not being captured before through the Green Book. The further implementation of the SFCS classification will further provide clarity to support business origination and meet the increasing demand for ESG solutions, driving innovation and new product development. Thus, it will ensure consistency across the Group and help us deliver and potentially enhance our support to clients in their transition.

Helping retail customers go green

Green Buildings

Development, acquisition, retrofit and/or refurbishment of new or existing buildings, with or whose purpose is obtaining an eligible certification of efficiency of the real estate or achieve a minimum energy reduction of 30%.

Poland

In Poland, we are financing new office buildings that meet certain sustainability standards (LEED Gold or BREEAM Excellent or above).

SCF Poland, in partnership with several companies from the renewable energy sector, is offering advantageous conditions for both retail customers and entrepreneurs when financing the acquisition of solar panels and boilers. Those upgrades contribute to clean energy generation and energy efficiency and have proved to be a sounding success.

Spain Portugal

In Spain and Portugal, we are offering green mortgages to finance acquisition of properties that meet recognized energy efficiency standards or certifications with Price bonifications.

Together with BEI, also offering financing for energy saving and efficiency projects that reduce consumption and CO_2 emissions in residential buildings.

In Spain, 94% of the real estate developing funding goes to developing houses with an Energy Certification A or B, which qualifies as green financing (EUR 1.5Bn for 2020)

UK

Santander, in partnership with Countrywide Surveying Services, became the first mortgage provider to launch EnergyFact - a free, practical home energy report. The free report provides existing Santander mortgage customers with guidance to improve the energy efficiency of their home.

The report comes as the Government consults on ways lenders can help improve homeowners' carbon footprint.

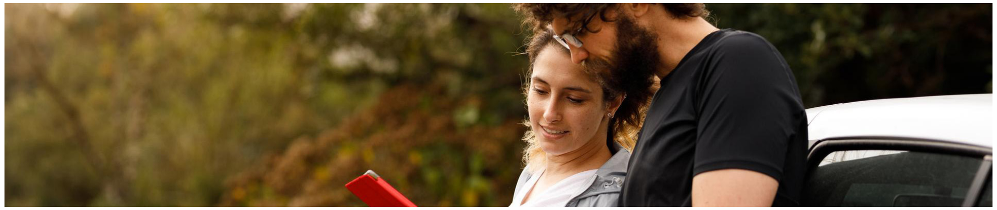
Chile

Alliance with real estate projects with LEED certificate for sustainable construction to offer green mortgage loans.

Clients are able to buy these properties at a preferential rate as well as contributing to offset the carbon footprint with attractive interest rates with an associated contribution.

SCF

Santander Consumer Finance offers consumer loans for the installation of photovoltaic panels as well as green heating systems in residences. In 2021, SCF has financed almost €44 million of this type of asset.



Renewables

Renewable energy generation, production, distribution or storage, including wind, solar, ocean, hydropower, geothermal, hydrogen and biomass, can also be eligible under certain criteria. Mainly applicable to solar or wind projects.

Brazil

IFC is partnering with Santander Brazil to boost access to credit for SMEs and expand green financing in Brazil. Santander Brazil is a pioneer in financing solar power generation projects, from large solar plants to the sale of photovoltaic panels to small farmers. The Bank has already made possible the financing of 285 wind farms, which account for 30 percent of the installed capacity of wind energy in Brazil.

Spain

We offer leasing solutions for photovoltaic installations to accompany our clients in improving their energy efficiency and reducing emissions.

UK

Supporting developers or investors with a range of renewable schemes, including onshore wind farms, solar PV, battery storage power plants and energy efficiency. Within the UK's fast-growing battery energy storage sector, Santander UK has demonstrated its capabilities in the net asset value (NAV) lending space and as a leading lender for battery storage projects to deliver complex and innovative funding solutions.

Portugal

A consumer loan for energy efficiency and for renewable energy installment that incentivizes the acquisition of renewable energy generation or energy efficiency equipment.

Clean mobility

Low carbon ground and water transport, and the infrastructure for low carbon transport including the charging points. It is mainly applicable to electric vehicles and hybrid vehicles.

Poland

Leasing product for electric and hybrid vehicles with several advantages (financing up to 36 months, 30% of the first lease fee, attractive support offer, car insurance, etc.).

Spain

In May 2019 we launched the first eco loan for customers that need to finance the purchase of a sustainable vehicle (electric or hybrid) with a lower interest rate. We also have a wide range of eco car available for renting.

Mexico

In Mexico, through a partnership with Tesla, we have increased the offer and financing of electric and low carbon emissions vehicles.

SCF

Santander Consumer Finance has seen a significant increase in the volumes of eco-friendly cars, including electric and hybrid, and it is also contributing to reduce emissions. During 2020, we financed more than 45,000 electric vehicles only in Europe, accounting for 1.2 billion euros and, and we are reaching almost the same figures in the 1H 2021.

Agro

Sustainable agricultural or protected agricultural practices that improve productivity and efficiency, sustainable feed production and restoration of forests and preservation of land.

Spain

Santander Spain has the Agricultural Machinery Renovation Plan to promote the digitalization and sustainability of Spanish farmers. In Spain, 55% of the machinery is more than 18 years old, and with the new precision vehicles, farmers will be able to reduce CO_2 emissions by up to 25% and generate cost savings in farm inputs.

Brazil

Brazil is a leader in sustainable agribusiness in LatAm and Santander is a key component in this movement. Connecting sustainability with agribusiness, Santander is offering financing solutions for innovation and sustainability in the countryside, including BNDES and CDC products. Rural producers have access to specialized services and lines of credit that facilitate the adoption of planting techniques with less environmental impacts, including irrigation systems, low carbon agro and others.

Santander also issued Brazil's first ESG linked loan to the company FS Bioenergia creating a financial benefit that will be unlocked by the achievement of ESG commitments.

Circular Economy and other activities relevant for climate change mitigation/adaptation

Shifting towards a circular model that creates long-term value and creating a positive impact: water and waste activities, energy efficiency, reduce consumption and emissions etc.

Portugal Spain

Santander is supporting the green transition through eco-friendly cards in Europe. By 2025, all our cards in Europe will be made of 100% sustainable, biodegradable materials, and will share the same design. These cards are already available in Spain and Portugal.

Eco Cards

Chile

"**Mide lo que Importa**" (Measuring what matters) is a free online programme that will support 300 SMEs in measuring, managing and upgrading their socio-environmental performance through the use of the highest international standards, such as the SDG Action Manager or the B Impact assessment.

Spain

Aenor Sustainability Seal Spain

The objective is to help spanish SMEs obtain a sustainability rating that allows them to differentiate themselves from their clients and suppliers, public or private. The bank reinforces its commitment to this segment with tools that drive its transformation and make it more competitive.

Brazil

Santander Brazil has a strong focus on supporting the transition to a circular economy of its clients. During 2020 it launched a R$5 billion line to finance basic sanitation projects, with the possibility of reduced rates for companies that deliver pre stablished ESG goals. By the approval of the new regulatory framework for the sector, Santander Brazil was the only private bank to publically express its focus on the development of such vital market.

Offsetting options

In different areas and geographies of the Group we are developing initiatives that enable our customers to offset their carbon footprint. The criteria followed are consistent with those applied by the group to measure offsets on our own environmental footprint. These initiatives will increase awareness of solutions to tackle climate change and engage our customers in environmentally friendly initiatives.

UK SCF in eight countries CHOOOSE

Currently SCF is offering offsetting solutions with Chooose in eight countries including Norway, Spain, Portugal, Poland, Germany, Italy, Netherlands, Sweden, and Austria. In some of these countries Chooose offers CO_2 offsetting through dedicated websites where the customer can calculate and offset the emissions related to their driving, while in Portugal the Bank plants a tree on behalf of the customer for each contract including insurance. In Sweden, the Bank compensates a fixed amount for the customers financing fleets. The contributions go to closely-selected carbon reducing projects in developing countries that replace oil and coal with renewable energy. By offering carbon offsetting solutions, SCF wants to give customers the possibility to create a positive impact on the environment and enables them to address the carbon footprint from their driving emissions.

Uruguay

First auto loan in Uruguay with a carbon zero footprint for the 0km cars. Buyers will receive carbon credits that certify that the CO_2 emitted will be compensated.

iOffset SCF UK

Santander Consumer UK and iOffset have launched their "Go Green" initiative, a service that enables customers to calculate and offset their vehicle emissions.

reforestACTION SCF France

SCF France aims to promote a green attitude among its customers with the "reforest'ACTION" initiative to boost the use of e-signatures, planting a tree for each contract signed electronically.

Chile

Carbon footprint offsetting

In Chile, we have developed a methodology that estimates the Carbon Footprint for every single client based on his or her local Credit and Debit Card transactions. We then share the calculated cost of offsetting their Carbon Footprint and offer them the options of:

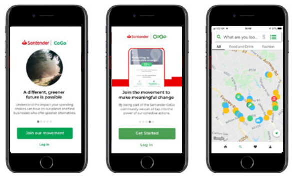
- Buying Carbon Credits: CarboNutral buys Carbon Credits with international certification.
- Donating to the Conservation of Chilean Ecosystems by financing specific conservation projects that are implemented by NGO's in protected areas throughout Chile.

UK Spain

Santander UK launched a carbon footprint tracker pilot for retail customers in partnership with leading sustainability fintech CoGo. This project provides customers with an insight into how their spending has an impact on the environment.

Santander Spain is also developing a carbon footprint tracker.

CoGo



Finland

Green All in One

Green All in One is the first product in the Finnish car market to offer inexpensively carbon emission offsetting. The product can be included in the financing agreement for a petrol, diesel or hybrid car to be registered for the first time. This offset is included in the monthly quota.

Brazil

Carbon Markets CBIO's

Santander is an active player in the first regulated carbon market in Brazil created by the Renovabio legislation. Santander engaged with the Government during the design of this regulation. Santander was the first bank to work as a CBIO's (carbon credit) underwriter and to trade them. Under the scheme, biofuel producers are able to issue and trade carbon credits (CBIO's) with fuel retailers required by law to buy a certain amount of CBIO's or face penalties. By the end of 2020, we had 69% of CBIOs underwriter market share.

Working with multilateral institutions: financing energy efficiency and renewable energy projects

In the last four years, we've signed agreements with the EIB (European Investment Bank), EBRD (European Bank for Reconstruction and Development, IFC (International Finance Corporation), MIGA (Multilateral Investment Guarantee Agency), CEB (Council of Europe Development Bank), the CAF Development Bank of Latin America and others to provide over 1.36 billion in green finance in Spain, Poland, Portugal, Brazil and Peru. Other agreements reached in this area total 11.1 billion euros.

In 2020, we continued to work with multilateral entities to offer our customers more lines of credit under better conditions, meeting the needs of everyone in society and supporting their green transition. We signed three financing agreements with MDBs (Multilateral Development Banks) to contribute 104 million euros to green financing projects.

Amid the economic and social crisis caused by covid-19, we provided customers with solutions to weather the storm and continue pursuing their goals.

In **Spain**, we have signed seven agreements worth a total of 1.2 billion euros with the EIB Group (including the European Investment Fund – "EIF") to provide additional liquidity and investment capacity for SMEs and mid-caps to tackle the pandemic, renew their transport fleet or become more sustainable.

Moreover, thanks to the EIF's involvement in a synthetic securitization initiative, we aim to provide 10 million euros in new climate-related investments.

In **Portugal,** a guarantee agreement with the EIF enables us to furnish agricultural and agro-sector companies and entrepreneurs with up to EUR 100 million in working capital and investment capacity, as well as help young farmers invest in their business. The EIB Group also participated in Banco Santander Consumer Portugal's securitization initiative that mobilized 587 million euros for SMEs and mid-caps to renew their transport fleets.

In **Brazil,** a 100 million-dollar loan facility from the IFC supports projects that promote the use of renewable energy and energy efficiency, as well as Santander's working capital lending programme for Brazilian SMEs.

In **Poland**, a synthetic securitization agreement signed with the EIB Group enables us to provide around 2.8 billion zloty in new funding to SMEs and mid-caps.

Santander Wealth Management & Insurance

In recent years, Environmental, Social and Corporate Governance (ESG) has become paramount in investment. More investors have been considering environmental and social issues to assess risk-adjusted returns in the medium-to-long term, while clients, employees and other stakeholders interest in ESG has also been growing significantly. We are focused on our ESG strategy across the division by: embedding ESG factors in our decision-making process, building a sustainable value proposition for clients, playing an active role on engagement and adopting the highest international ESG standards, with special focus on climate

We've been embedding ESG factors in our decision- making. In 2020, we shored up our ESG strategy.

Santander Asset Management

ESG Governance in Santander Asset Management

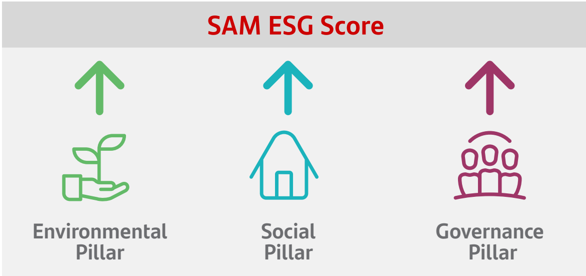
Santander Asset Management has a framework of policies and a governance structure for the correct implementation of its Sustainable and Responsible Investment strategy, which involves the application of environmental (including climate change), social and governance (ESG) criteria in investment decisions. Governance comes from such bodies as the SRI governance committee, the investment and sustainability committees and the global, expert SRI team. The SRI (Socially Responsible Investment) governance committee is the highest body and is chaired by the head of Wealth Management & Insurance. It is responsible for approving and overseeing the global SRI strategy.

Santander Asset Management has a Sustainable and Responsible Investment Policy that outlines our SRI approach and the criteria used to integrate ESG variables in investment. The Engagement Policy explains the principles SAM follows in relation to ESG engagement with investees or companies we wish to invest in individually or through collaborative engagement initiatives. In 2020, SAM approved a voting policy that sets the guidelines for voting at the annual general meetings of the companies SAM invests in.

See SAM policies

Climate change as part of our ESG methodology

Climate change is embedded in our proprietary ESG analysis model through relevant indicators and a weighting system that enables us to account for these factors within our ESG performance evaluation. We assess issuers' performance on climate change (according to its materiality in each sector) within the environmental pillar analysis that generates ESG scores. Our climate change analysis includes such criteria as CO_2 emissions, emissions targets, alignment with TCFD recommendations, and risks and opportunities. We use the ESG score in the investment selection and portfolio management of our SRI products, according to the SRI strategies applied to each of them.



Environmental Factors

Environmental Strategy
- Environmental Strategy & Systems

Climate Change
- Climate Change Mitigation
- Climate Change Adaptation
- Products & Services-Climate

Natural Resources
- Water Management & Conservation
- Material Sourcing, Waste Prevention & Management
- Products & Services

Pollution Prevention & Control
- Air Pollutant Emissions
- Hazardous Subst., other emissions and Spills
- Products & Services

Natural Habitats
- Biodiversity & Land
- Animal Welfare

International factors analysed are defined upon:

- **International norms,** such as the UN Global Compact, the Sustainable Development Goals, the Paris Agreement, OECD Guidelines for Multinational Enterprises, EU Taxonomy, etc.
- **Standards,** such us the Global Reporting Initiative, Sustainable Accounting Standards Board, the Task Force on Climate-Related Financial Disclosures, PRI, etc.
- **Market references,** ESG Analysts, Sell side research, etc.

We regularly update our ESG analysis framework to develop the analysis model and capture the latest ESG and climate change findings and trends.

Sustainable and responsible investment products

We manage 19 SRI funds (11 funds + 8 pension funds) in Europe and Latin America, and offer 3 funds mandated to third parties (Santander Go).

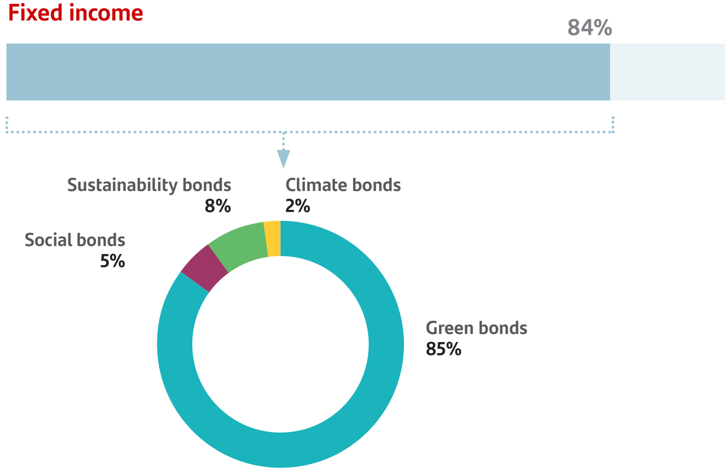
Santander AM is the leader in SRI management in Spain. We manage 44% of the assets in SRI funds in Spain and pioneered these products in the local market after launching our first SRI fund in 1995. Our flagship strategies include the Santander Sustainable range, which consists of two balanced funds: Santander Sostenible 1 and Santander Sostenible 2, with different weights in equities and fixed income; a European equity fund, Santander Sostenible Acciones; and a fixed income fund, Santander RF 1-3. As part of our pledge to promote sustainability in investments, we launched the first sustainable bonds mutual fund by a Spanish asset manager. We have started to extend the offer to other geographies (Mexico, Brazil, Chile and Portugal) and our total AuMs as of June 2021 stand over €7.5bn.

Santander Sostenible Bonos demonstrates our commitment to fighting climate change.

This product targets conservative investors with a portfolio that mainly focuses on green bonds issuances (corporate debt designed to finance green projects: clean energy, emissions reductions...), which will be complemented with other types of sustainable bonds.

Santander Sostenible Bonos profile

Fixed income



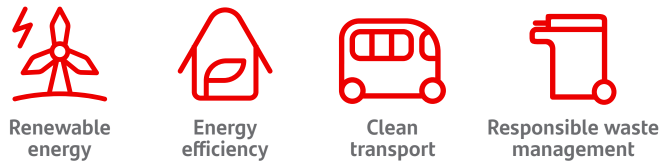
Source: Santander Asset Management. 30 April 2021.

Euro Fixed Income Investing in **Green Bonds,** in Spain

Investment in public and/or private fixed income, mainly green bonds (90%) and to lesser extent and other sustainable bonds (social, climate change or environmental), all of them focused on generating positive impacts on society and the environment

Portfolio distribution by bond type

Green bonds are a type of debt issued by public or private institutions. Unlike credit instruments, the funds obtained are specifically used for the financing or refinancing of green, sustainable and socially responsible projects in areas as diverse as renewable energy, energy efficiency, clean transport and responsible waste management.



Santander Asset Management: an active player in Sustainable Finance

Santander Asset Management's commitment to SRI has several lines of action:

- Close monitoring of **regulatory developments** under the EU Sustainable Finance Plan, with special focus on the EU Taxonomy, which will be a common language to assess whether investments are meeting robust environmental standards and are consistent with high-level policy commitments such as the Paris Agreement.

  The appropriate use of the taxonomy entails facing challenges like the availability of information aligned with this new classification. The lack of data is one of the major obstacles to implementing the taxonomy properly. That's why we're working on data availability solutions that meet asset managers' requirements.

- **UN PRI:** We adopted the UN-backed Principles for Responsible Investment (PRI) in July 2020 to demonstrate our commitment to responsible investment, placing us at the heart of a global community seeking to build a more sustainable financial system. The Santander employees' pension fund in Spain is also a signatory.

- **Training.**
  We collaborate with universities and educational centres to organize and participate in SRI events and training days (virtual EFPA classrooms, UNED/ Spainsif MOOC, etc.) We also run internal sessions where we highlight the relevance of the Sustainable Development Goals and climate change as key drivers for promoting SRI.

- **International Investors Group on Climate Change (IIGCC).**
  In 2020, Santander Asset Management became a signatory to the IIGCC, the European membership body for investor collaboration on climate change and the voice of investors taking action for a prosperous, low-carbon future.

- **Climate Action 100+.**
  In January 2021, Santander Asset Management signed up to Climate Action 100+ to promote action on climate change among the world's largest corporate greenhouse gas emitters. This initiative entails engagement with one of the companies included in its scope to ensure they take necessary action on climate change. Five regional investor networks coordinate the movement, including two to which SAM is a signatory: IIGCC and PRI.

Private banking

We are embedding ESG in our private banking advisory services, to respond to the investment needs of our customers. In 2021, we have been awarded by Euromoney as the best private bank in ESG and Impact investing in Latam, Chile, Mexico, Portugal, Spain and Poland.

ESG experts

Training is a cornerstone of our ESG strategy. In 2020, our bankers and advisers (over 1,100 experts), received special training from our ESG team at SAM and Private Banking. In 2021, we've been reinforcing ESG communications and learning materials; designating specialists in each country; and setting up a governance model for better ESG products and advisory services.

Our sustainable private banking value proposition

Our ESG proposition comprises of a wide range of traditional mutual funds, alternative products and ETFs. We are working on rounding off our value proposition with new products across all asset classes and an impact investment options. We have nearly EUR 1.8bn in AUMs in ESG products.

Future Wealth, a thematic investment initiative that we launched in 4Q20, brings the environment to the fore, complementing clients' traditional strategies with innovative and sustainable sources of growth and returns.

SAM's ESG ratings methodology allows us to analyse all the third-party funds we market. We've been running thorough due diligence on the factors and investment strategies of products subject to SFDR, despite being reported under article 8 or 9.

ESG portfolio review

Talking to our clients about their ESG preferences is essential so we can provide them with tailored-made reports that include a strong portfolio review in terms of i) impact (CO_2 emissions, water consumption footprint, waste increase and energy saving), ii) SDG alignment, and iii) performance according to our internal ESG methodology.

Insurance

We have focused our efforts on two main actions. First, to maximize the portion of our life-savings premiums invested under the ESG standards set by SAM. Secondly, we are also working with our JV partners: to adhere to the UN's Principles for Sustainable Insurance (PSI) and to develop specific strategies in financial education and inclusion related issues in the geographies in which we operate.

Collaboration with stakeholders

Sector working groups

The nature and size of the climate change challenge require collaboration between stakeholders with diverse expertise. In line with SDG 17 (Partnerships for the goals), Santander enters into partnerships to help achieve global and company goals covering various international and local issues and stakeholders (sector associations, think tanks, universities, peers and others). Our key initiatives with leading organizations to improve how banks manage climate change include:

United Nations Environmental Programme Finance Initiative (UNEP FI)

Santander was a founder member of the UN Principles for Responsible Banking and has worked tirelessly to implement them. We also joined the UN Collective Commitment to Climate Action in September 2019 and formed part of working groups. Most recently, we worked with UNEP FI, peers and other partners to create the Net Zero Banking Alliance. We will continue to help build on this initiative by driving through our commitments and collaborating with the UNEP FI and peers to develop tools and methods that enable banks to set and achieve net zero targets. We will now also be engaging within the newly formed Glasgow Financial Alliance for Net Zero (GFANZ), set to be the umbrella organization for and represent the financial sector towards the 2021 COP in Glasgow and beyond. Our Executive Chairman is a member of the Principals Group which, among other things, will set the strategic direction for GFANZ and promote net zero alliances.

Santander has continued to work alongside the UNEP FI on the TCFD Banking Pilot Projects to develop and refine metrics, tools and methods to enable banks to implement the TCFD recommendations since their inception in 2017.

Banking Environment Initiative (BEI)

Following on from BEI's successful Bank 2030 initiative to set out a vision for banks to accelerate the transition to a low-carbon economy, Santander collaborated with The Cambridge Institute for Sustainability Leadership and peers to develop a guide for relationship managers to engage customers on their decarbonization plans and associated financing needs. *The Let's Discuss Climate* guide's five-phase approach provides context, helpful resources and pointing questions to help relationship bankers have more strategic conversations with their clients about the risks and opportunities posed by climate change and assist them in accelerating the transition to a net zero economy.

United Nations Global Investors for Sustainable Development Alliance (GISD)

We are an active member of the GISD Alliance, a working group created as part of the UN's strategy for financing the 2030 Agenda for Sustainable Development. SCIB collaborates with one of the task forces that aims to develop investment platforms and vehicles to catalyse finance and investment flows to developing countries in support of the SDGs. The focus of this working group is to accelerate the flow of capital into emerging market and developing economies (EMDEs), where needs and SDG impact are the greatest.

World Business Council for Sustainable Development (WBCSD)

Agriculture is one of the most challenging sectors to align with targets. Santander has joined forces with the WBCSD and other partners to bring together key stakeholders to work on developing data, methods, tools and guidance for banks to assess, manage and act on aligning agricultural portfolios with climate scenarios. This is a cross-sector initiative as part of the WBCSD's Scaling Positive Agriculture project under the Food and Nature programme, and aims to build a framework to transform organizations' operations and align with the target to keep global warming to within 1.5°C of pre-industrial levels.

We have supported WBCSD and participated in the development of the ground-breaking Vision 2050: Time to transform publication which sets a shared vision of a world in which more than 9 billion people are able to live well, within planetary boundaries, by 2050.

Taskforce on Scaling Voluntary Carbon Markets (TSVCM)

Santander is also part of the Consultative Group of the Taskforce on Scaling Voluntary Carbon Markets (TSVCM), contributing to discussions to scale an effective and efficient voluntary carbon market, which will be an important element in delivering net zero commitments.

World Economic Forum Alliance of CEO Climate Leaders

Santander recently joined the World Economic Forum Alliance of CEO Climate Leaders as an important network to influence stakeholders, including policymakers, and drive change towards meeting net zero targets.

Engagement with regulators, sector bodies and other stakeholders

Santander plays an active role in the climate change and sustainable finance policy debate by participating in formal consultations on key regulations locally, in Europe and globally. We also take part in sector forums and workshops on the transition to a low-carbon economy.

In the same line, we also actively engage with the Financial Stability Board, European Banking Authority, European Banking Federation and Bank of Spain among others that are contributing to build finance solutions that better support the UN Sustainable Development Goals and the Paris Agreement on climate.

We work very closely with sector bodies – including the Institute of International Finance, European Financial Services Round Table, the Association for Financial Markets in Europe and the European Banking Federation – to reach common positions on such issues as the implementation and continued development of the EU framework for identifying sustainable economic activities (the so-called Taxonomy), the framework for ESG disclosures the disclosures in the Pillar 3 report, the definition of standards and labels for sustainable products, as well as the ongoing work on the identification and management of climate-related risks.

In addition, Santander is part of the European Banking Federation - UNEP FI partnership that is working on banks' application of the EU Taxonomy to core banking products. The first stage of this collaboration resulted in voluntary guidelines and recommendations issued in April 2021 to banks and policymakers. We are also participating in the second stage of the project on the analysis related to use of proceeds, KPIs, retail and SMEs and transition. Through our involvement, we aim to aid the sector's understanding of the Taxonomy, helping build an effective framework that drives the sustainability agenda and ensures it is consistent with Santander's responsible banking ambitions and priorities.

We participate as speakers in conferences, different organisms' events, consultation papers; working with other stakeholders to contribute to progress on the climate change agenda.

Santander also maintains an open dialogue and engages with NGOs on studies and initiatives.

Our position on some key issues

We want to help achieve sustainable development and pledge to play an active role in supporting the green transition. It is vital that the transition is fair and inclusive, taking into account regional and sector specificities to avoid isolating communities and stranded creating assets. It must provide clarity and certainty for each sector. Governments should set clear pathways on how key sectors will meet the targets of a low-carbon economy, backed by policies and incentives that enable banks to support companies in their transition.

We aim to contribute constructively to the transition debate by supporting policymakers and regulators to achieve a global, common approach to regulation – especially as regards the green taxonomy, disclosure and reporting standards.

The EU Taxonomy is a step forward in the sustainability agenda. We need to build on this approach in other regions that seek to create taxonomies to align the understanding of what is sustainable and avoid regulatory fragmentation.

Disclosure: transparency to the market is necessary to understand how companies are embedding sustainability into their strategy and business models. As the financial sector complies with a growing number of new climate-related disclosures (particularly the upcoming Taxonomy-related disclosures and ESG disclosures in the Pillar 3 report), these requirements must take into consideration the information readily available. Non-financial corporate disclosures must be well-defined and reinforced. The publication of the Corporate Sustainability Reporting Directive to review the Non- Financial Reporting Directive could be instrumental in achieving this. Banks and authorities need this information to spot and assess risks and opportunities from climate activities and ensure compliance, as well as understanding the composition of their portfolios.

We would back further efforts to ensure a global approach to companies' ESG-related disclosures. We support the IFRS's ongoing work to develop a global sustainability standard – highly sought after to measure companies' sustainability performance in a comparable way.

Carbon pricing and subsidies: Policies and regulations are key to fixing prices and guiding the transition through transparent incentives. Governments must set clear pathways for each sector to transition to a low-carbon economy.

Fossil fuel subsidies must be reviewed to support progress on phasing them out. The policy framework should ensure that fuel prices include the associated environmental costs.

An effective carbon pricing mechanism can contribute to reducing emissions and driving investment in low-carbon technologies and infrastructure. Carbon policy instruments should form part of a broader policy framework that includes energy efficiency research and emissions. In line with the initiatives that organizations like the WBCSD are supporting, international alignment should be prioritised so that solutions work across regions.

Promoting initiatives to support and protect the environment

a.Santander X Environmental Challenge

A global challenge for entrepreneurs with innovative solutions to build a more sustainable future.

At Banco Santander, we work to meet the demands of society and to build action around our purpose of helping people and businesses prosper. In collaboration with the Oxentia Foundation, we launched the global Santander X Environmental Challenge to help entrepreneurs committed to the environment and to support innovative ideas to build a more sustainable future.

Entrepreneurs from the countries where Banco Santander operates presented their solutions to fight climate change and positively impact the environment. The prizes for the six winners were:

• **A share of EUR 120,000** to further develop their solutions.

• **Mentoring** by Oxentia Foundation experts.

• **Visibility** of the projects through Grupo Santander's social media profiles and official channels.

The winners were:

• **CoGo Connecting Good Ltd (UK),** an app that shows consumers and businesses the impact of their carbon footprint in real time and how to reduce it.

• **Scoobic Urban Mobility (Spain)**, provides sustainable solutions for getting around in cities with last-mile vehicles.

• **Plastecowood (UK),** turns mixed plastics into durable, environmentally-friendly plastic lumber.

• **Climate trade (Spain),** a blockchain marketplace where companies can buy carbon offsets directly and with full transparency from mitigation project developers.

• **Xilinat (Mexico)**, transforms agricultural waste into natural sweeteners through sustainable processing.

• **Breeze technologies (Germany),** helps companies monitor, manage and optimize air quality indoors, in cities and in industrial settings.

b. Initiatives by country

We feel it's important not only to protect our ecosystems but also to restore them while striking a balance between economic growth and social wellbeing. That's why we're promoting and cooperating on several projects that aim to save our planet.

Spain

Our Plan Natura initiative on environmental conservation consists of activities to reforest wooded areas, clean up beaches and riverbanks, install bird houses, etc., with the help of hundreds of Santander employees who volunteer. This allows us to follow through on our commitment to looking after ecosystems with the help of our professionals.

Our work to help protect the environment starts at our Corporate Centre. Ecosystem conservation and CO_2 reduction at the Santander Group City in Boadilla del Monte, Madrid, are shining examples of our commitment.

We've managed to create the perfect reserve for over 60 species, improving the Centre's natural setting. How have we done it? Our Corporate Centre covers 215 hectares, including 170 for green areas. Its design is both functional and environmentally friendly, with minimal impact on nature. It is home to vast gardens with over 20,000 trees of more than 40 species, including olive trees (the city's symbol), cork, red oak, poplar, ash and fruit trees.

Furthermore, through **Fundación Banco Santander**, we've launched initiatives to preserve endangered Spanish species and ecosystems. The Fundación carries out actions across Spain to rehabilitate, conserve and restore flora and fauna in partnership with other entities and NGOs. Some examples of its ongoing projects are:

1. Santander for the Seas

In 2021, this programme focused on supporting projects and initiatives on conservation, habitat recovery and marine life, with three objectives:

A. Mitigate damage to seas and oceans.

B. Publicize the importance of the Blue Economy and climate change.

C. Raise awareness of society's role in protecting the environment.

The programme will support a maximum of three projects and allocate funds of up to EUR 150,000 to each one.

More information

2. Protection of boba turtle nests and hatcheries on the Spanish Mediterranean coast

3. Conservation of endangered sharks and rays in the Sea of Alborán

To boost knowledge on the elasmobranchian population and create awareness of their vulnerability to accidental fishing.

4. Pollinator mission

Highlights the key role of pollination in the maintenance of terrestrial ecosystems. It seeks to restore habitat and promote a change in green space management to encourage the spawning of beneficial invertebrate fauna and reestablish ecological balance in these ecosystems.

More information

5. Reintroduction of the red kite in the south-west of Badajoz

With living red kites coming from a growing donor population, and ensuring the long-term conservation and viability of the southernmost populations of this species in Spain.

More information

6. Restoration of the "brañas" pastures in La Laciana (Castilla y León)

To develop a demonstrative and replicable model for the restoration of mountain "brañas" (pastures); to improve medium-term productivity by favouring the key species for the functioning of ecosystems. It contributes to the changes in the conservation of some of the most endangered species of wildlife in Europe.

More information

7. Ecosocial laboratory of Barbanza (Galicia)

The objective is environmental conservation to guarantee the provision of ecosystem services and provide a laboratory in the territory to serve as a reference for sustainable practices.

More information

8. Diversia Natura (Comunidad Valenciana)

The objective is to restore the natural environment of the Mediterranean ecosystem (in areas that have suffered forest fires). Volunteers are people at risk of social exclusion and persons with disabilities.

More information

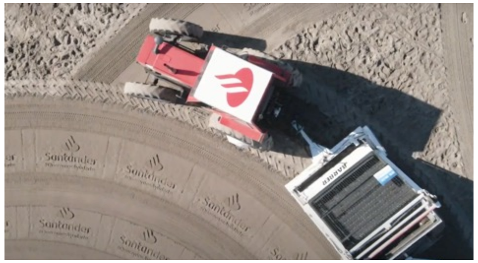
More information on the projects

Argentina

Eco Arenas

The bank also works for the conservation of ecosystems in Argentina through volunteering actions, such as the cleansing of sand beaches carried out in partnership with the Vida Silvestre foundation and Eco Arenas; or with social impact organizations, such as the "El Corre Camino" co-op, created by a homeless person, and dedicated to the collection of waste, and that has managed to provide a job for tens of people in social exclusion risk.

Eco Arenas is a specialist beach cleaning company that works alongside Santander to keep Argentina's urban beaches free from waste, contributing to the preservation of the environment and local tourism businesses.



Vídeo Vida Silvestre foundation and Eco Arenas

Poland

PNUMAGrid's Generacja ('Regeneration') project

In Poland, for World Environment Day, we'll be taking part in PNUMAGrid's Generacja ('Regeneration') ecosystem preservation project.

As a strategic partner in this initiative, we aim to play an active role in the conservation of ecosystems. For six months, we'll become conservationists for one of the country's most protected ecosystems, acting as stewards of 16.35 hectares of meadows and pastures around the Mała Czantoria and Wielka Czantoria mountains in the Lower Silesia region.

Other initiatives

Brazil

We signed a momentous agreement in 2020 with Bradesco and Itaú Unibanco for the conservation of the Amazon Rainforest.

Mexico

We're working with the sustainable forests initiative, Reforestamos ("We reforest"), which has raised over 1,200,000 pesos in donations made at our ATMs.

Chile

We're part of the Parque el Durazno project, which has just completed its first phase; it aims to restore run-down areas and protect the ecosystem of the Canela commune (in the Coquimbo Region) against erosion, while creating corridors for native wildlife.

Annex

Soft Commodities Compact 2020 Report

Reporting on our progress

The charts on the right show the certification of our current CIB soft commodity clients that engage in:

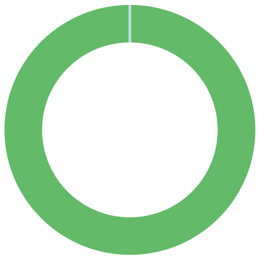
- **Palm oil:** palm plantations, palm oil manufacturing, palm oil trading.
- **Soya:** soybean plantations, soya processing, soya trading.
- **Timber:** lumberyards, pulp processing and paper manufacturing.

Palm oil: all CIB clients are have Roundtable on Sustainable Palm Oil (RSPO) certification for all their palm oil-related operations.

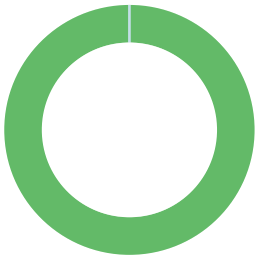
Soya: all CIB clients are have Rountable on Responsible Soy (RTRS) Association certification, are RTRS members or buy RTRS/ISCC-certified soy.

Timber: all CIB clients have Forest Stewardship Council (FSC) certification.

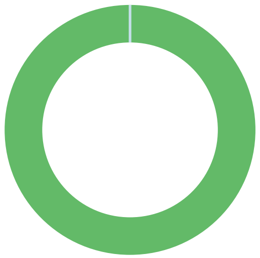
Palm Oil



Soya



Timber Products



SCIB League Tables

Latin America's Green & ESG Bonds

Rank	Lender	Volume MM EUR	# of Deals
1	**Banco Santander**	**1,351.33**	**7**
2	Peer 1	920.83	5
3	Bank 1	773.84	5
4	Peer 2	762.74	5
5	Peer 3	670.53	4
6	Bank 2	654.23	2
7	Peer 4	591.43	2
8	Peer 5	496.14	2
9	Bank 3	465.2	4
10	Bank 4	277.7	3

Europe's Green & ESG Bonds (excuding SSAs)

Rank	Lender	Volume MM EUR	# of Deals
1	Peer 1	6,082.97	43
2	Bank 1	4,515.88	29
3	Peer 2	4,342.64	39
4	Peer 3	4,168.61	33
5	Peer 4	4,134.23	35
6	Bank 2	4,122.31	30
7	Peer 5	4,017.40	30
8	Bank 3	3,491.58	31
9	Bank 4	2,551.01	18
10	Bank 5	2,485.94	23
12	**Banco Santander**	**6,461**	**51**

Source: Bloomberg

Peers are banks whose size and market capitalization are comparable to Santander, including BBVA, BNP Paribas, Citi, HSBC, ING, Itaú, Scotia Bank and UniCredit.

Environmental footprint

Environmental footprint 2019-2020[A]

	2020	2019	Var. 2019-2020 (%)
Consumption			
Water (m^3)[B]	2,064,113	2,938,024	-29.7
Water (m^3/employee)	11.07	15.20	-27.1
Normal electricity (millions of kwh)	395	548	-27.9
Green electricity (millions of kwh)	526	517	1.8
Total electricity (millions of kwh)	920	1,064	-13.5
Total internal energy consumption (GJ)[C]	3,758,225	4,322,838	-13.1
Total internal energy consumption (GJ/employee)	20.16	22.37	-9.9
Total paper (t)	8,902	16,497	-46.0
Recycled or certified paper (t)	7,348	13,784	-46.7
Total paper (t/employee)	0.05	0.09	-44.1
Waste			—
Paper and cardboard waste (kg)[D,J]	5,926,139	9,705,579	-38.9
Paper and cardboard waste (kg/employee)[J]	31.79	50.22	-36.7
Greenhouse gas emissions			—
Direct emissions (CO_2 teq)[E,F]	24,818	27,673	-10.3
Indirect electricity emissions (CO_2 teq)-MARKET BASED[G]	128,633	183,745	-30.0
Indirect electricity emissions (CO_2 teq)-LOCATION BASED	282,216	322,414	-12.5
Indirect emissions from employee travel (CO_2 teq)[H, I]	40,708	120,969	-66.3
Total emissions (CO_2 teq)- MARKET BASED	194,159	332,387	-41.6
Total emissions (CO_2 teq/employee)	1.04	1.72	-39.4
Average number of employees	186,429	193,261	-3.5

A. The report covers Grupo Santander's core markets: Argentina, Brazil, Chile, Germany, Mexico, Poland, Portugal, Spain, United Kingdom and United States (excluding Puerto Rico and Miami). Consumption, waste generation and emissions reporting decreased due to the covid-19 pandemic.

B. Figures on water use from the public water supply.

C. External energy consumption resulting from employee travel and business trips was: 579,155 GJ in 2020 and 1,721,139 GJ in 2019.

D. 2019 and 2020 figures do not include waste from the commercial network in Brazil. Also, 2019 figures do not include waste for Argentina.

E. Emissions include those derived from the direct consumption of energy (natural gas and diesel, and additionally, in the particular case of Mexico, gasoline and diesel for automobiles and LPG) correspond to scope 1, defined by the GHG Protocol standard. To calculate these emissions, the emission factors DEFRA 2020 for 2020 and DEFRA 2019 for 2019 were applied

F. Emissions from electricity consumption correspond to the scope 2 defined by the GHG Protocol standard. In both 2020 and 2019 the IEA (International Energy Agency) emission factors for 2017 have been used.

- Indirect Electricity Emissions - Market-based: zero emissions from green electricity consumed in Germany, Spain, Portugal and UK; electricity in Argentina, Brazil, Chile, Poland and the US partially sourced from green energy; CO_2 reduction amounted to 153,582 tonnes in 2020 and 138,660 tonnes in 2019; remaining electricity consumption measured according to the IEA's emission factor for each country
- Indirect emissions of electricity - Location-based: Total electricity consumption measured according to the IEA's emission factor for each country, regardless of source (renewable or non-renewable)

G. Indirect electricity emissions fell mainly because of higher green energy purchase in 2020 in G10 countries

H. Emissions from employee travel from central services in each country to workplace by car, collective vehicles and rail, and from business travel by air and car. Type of travel by employee determined from surveys or other estimates. DEFRA 2020 for 2020 and DEFRA 2019 for 2019 were conversion factors to calculate emissions from employee travel

- Employees travelling to work in own vehicles estimated according to parking spaces in central services buildings and to diesel/petrol consumption mix of vehicle fleet in each country. Data from Argentina, Poland and the UK unavailable and not reported
- Employees' journeys in collective vehicles and rail calculated from average distance travelled by Grupo Santander collective transport rentals for employees in Germany, Brazil, the US, Spain, Mexico, Poland, Santander Consumer Finance and Portugal, and the central services in Spain (CGS) and at the Luca de Tena building
- Data on business trips by car from USA Consumer are not reported, as the information is not available.
- Emissions from courier services, the transport of funds, any purchase of products or services, and indirect emissions owing to provided financial services not included.

I. Indirect emissions from employee travel have plummeted due to reduced mobility during the covid-19 pandemic and remote working.

J. Data restated from 2020 annual report english version.

Further information

This Climate Finance report outlines our strategy and progress to address climate change and achieve the Paris Agreement goals, while supporting our customers and the communities where we operate to their transition to a more sustainable economy.

Scope

This report complements the Responsible Banking chapter of the Group's 2020 Annual Report and expands on the information contained therein, including the progress made in the first half of the financial year 2021. The information included in the report therefore refers to the period from 1 January 2020 to 30 June 2021, quantitative data not covering January to December 2020 is indicated in the report. And covers the Group´s relevant activities in the geographical areas in which it is present: Continental Europe, the United Kingdom, the United States and Latin America. The economic information is presented according to the definition used by the Group for accounting purposes; the social and environmental information has been prepared according to the same definition, wherever this is available. Data contained covers Banco Santander S.A. and subsidiaries (for more information see notes 3 and 52 to the consolidated financial statements and sections 3 and 4 of the economic and financial chapter of our 2020 Annual Report). New data not included in 2020 Annual report have not been audited.

Santander

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