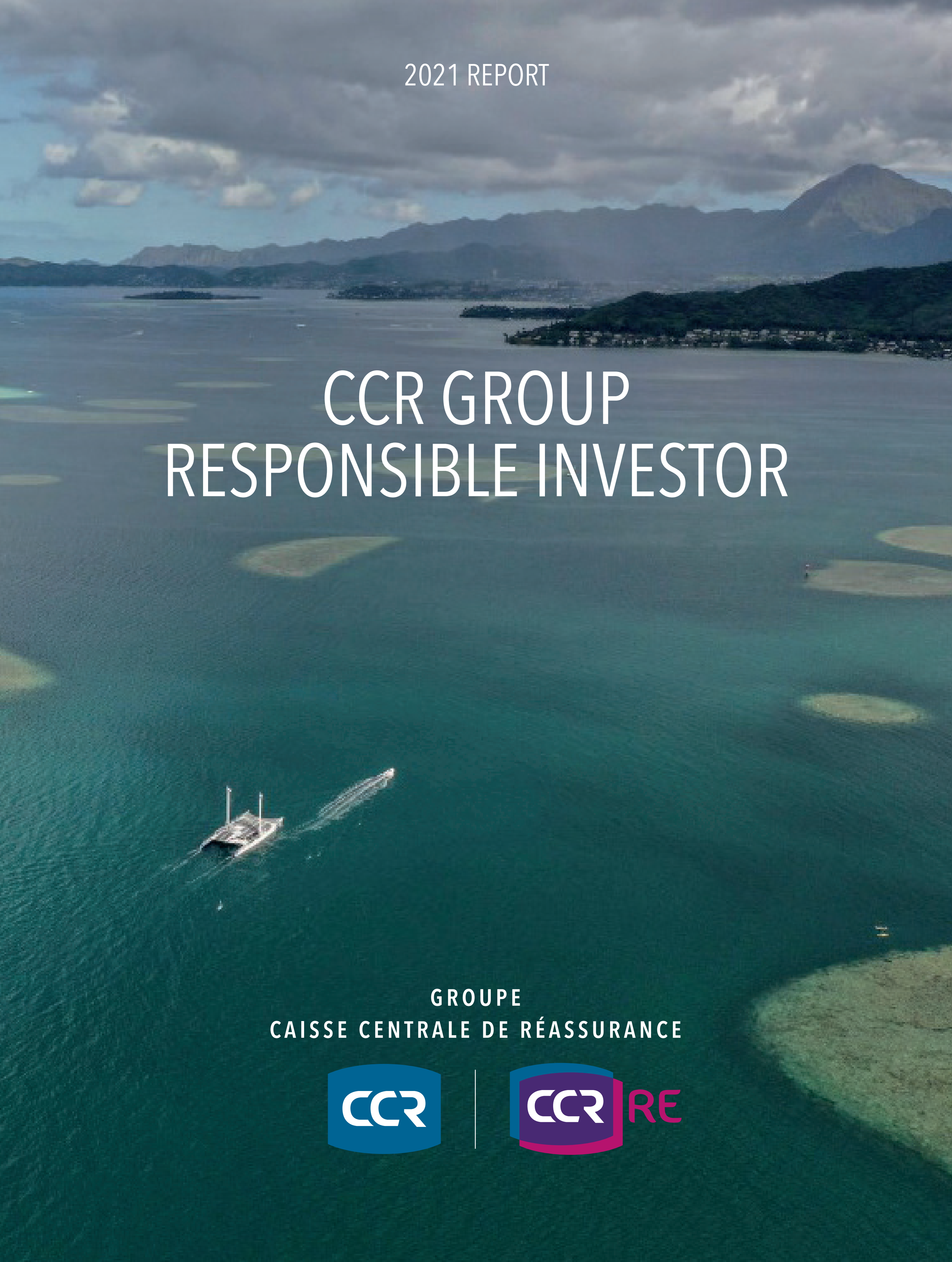


2021 REPORT

CCR GROUP RESPONSIBLE INVESTOR

GROUPE
CAISSE CENTRALE DE RÉASSURANCE

2021
HIGHLIGHTS

96% of the portfolio of assets looked through
85% of collective fund vs 54% in 2020

Signatory to the PRI

29% of the group's portfolio is composed of **ESG-climate assets**

5% of the group's portfolio is made of **green bonds**

Social and Sustainable bonds in two years:
x 6 under direct management **x 2** in dedicated funds

1% of total assets committed to the world's largest **decarbonised hydrogen** infrastructure fund

2030 Commitment to exit from coal
Commitment to exit from unconventional hydrocarbons

100% of partner management companies are signatories to the PRI

50% of office buildings labelled

100% of residential and office buildings supplied with green energy

EDITORIAL BY

Bertrand Labilloy
Chief Executive Officer

Laurent Montador
Deputy Chief Executive Officer

This report describes how CCR integrates environmental, social and governance (ESG) criteria into its reinsurance and investment activities. It also shows how CCR contributes to the French government's policy for climate change adaptation, energy transition and biodiversity preservation. For each of these themes, it describes progress made in 2021 in terms of the tools used, the specific achievements and the results obtained.

To give just a few examples, the look through rate of the investment portfolio is 96%, which ensures that the data used to produce this report is comprehensive and of high quality.

It should also be noted that CCR and CCR Re have made a massive contribution to the France 2030 plan, the ambition of which is to make France a leader in low-carbon hydrogen, by investing €100M in the Clean H2 Infra Fund, which specialises in hydrogen production, transport, storage and distribution infrastructures.

All these efforts and initiatives are yielding results. They position the CCR Group as a market leader. Thus, at the end of 2021, almost 30% of the group's investment portfolio was composed of ESG-Climate assets, while three-fifths of our assets under delegated management fell under SFDR Articles 8 or 9.

These excellent results testify to the commitment of all employees to responsible management of the environment and social balance, in line with the group's missions and the direction sought by its shareholder and customers.

They namely respond to the climate emergency, which is confirmed by the group's own studies on the evolution of natural catastrophes by 2050 and also, unfortunately, by the extreme weather events that hit the news in 2021.

Our ambition is to pursue these important efforts in the long term to stay on top of the issues at stake.

We are working hard and consistently at it with the support of our customers, the public authorities and our partners in the scientific ecosystem, making sure to keep in line with the founding principles of the company.

SUMMARY

This report presents the information required by French Decree no. 2021-663 of 27 May 2021 pursuant to Article 29 of Act no. 2019-1147 of 8 November 2019 on energy and the climate for the CCR Group portfolio as at 31 December 2021.
It also presents the information recommended by the Task Force on Climate-related Financial Disclosure (TCFD).

CCR GROUP

RESPONSIBLE PLAYER

SOCIALLY COMMITTED INVESTOR

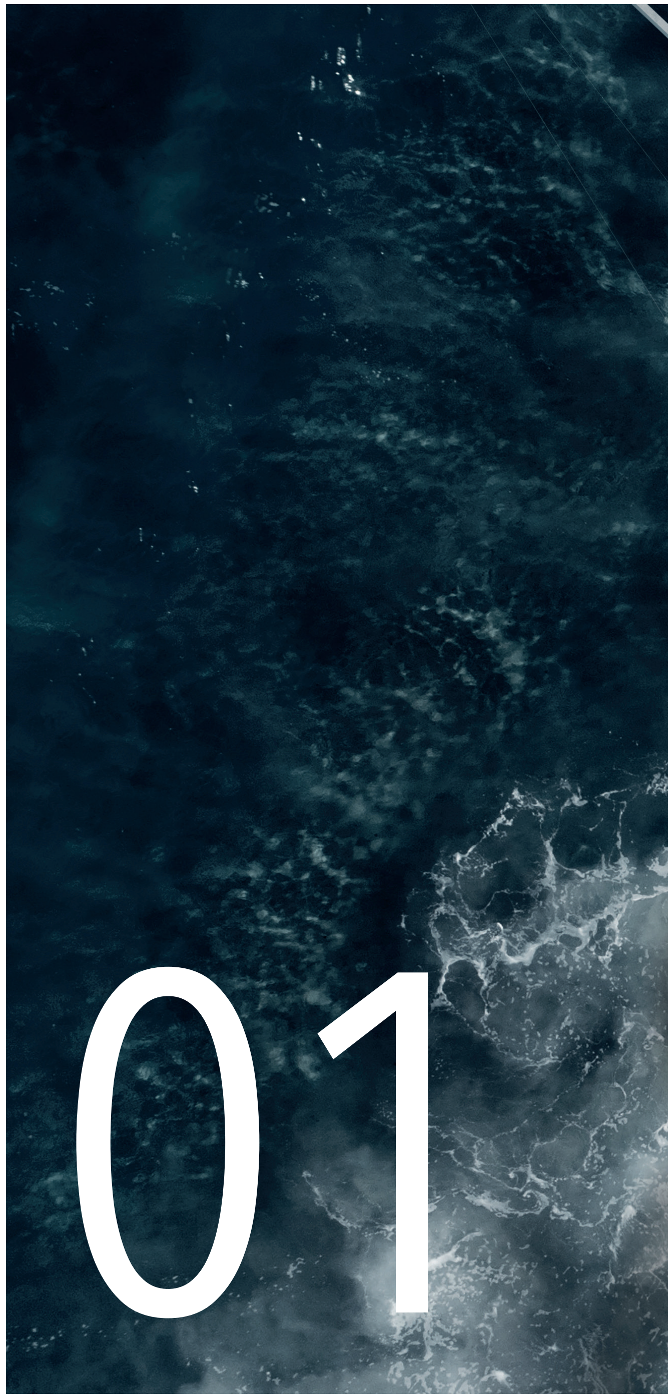
On the cover :
Arrival of Energy Observer in Hawaii
© Energy Observer Productions / Georges Conty

CCR GROUP

INVESTOR AT THE HEART OF THE ENERGY TRANSITION

BIODIVERSITY-ATTENTIVE INVESTOR

CCR GROUP,
A RESPONSIBLE PLAYER



CCR is a sponsor of the Polar POD ocean expedition launched by Jean-Louis Étienne. Polar POD, a 100 metre high zero-emission vertical vessel, is equipped with a gondola located 15 metres above the surface that can onboard 8 people. Designed to withstand extreme sea conditions it will allow scientists to collect valuable and previously unattainable data. For its first exploration, Polar POD will drift for three months in the waters of the powerful Circumpolar Current to study the Southern Ocean surrounding Antarctica.


POLARPOD

01.1 CCR GROUP'S *RAISON D'ÊTRE*

The Caisse Centrale de Réassurance Group, owned by the French State, with more than 75 years' experience in public and open market reinsurance, ranks among the 30 leading international reinsurance players.

As a public reinsurer serving the public interest, CCR provides insurance companies operating in France with state-guaranteed coverage against natural disasters and uninsurable risks.

CCR Re is an international multi-specialist reinsurer and a subsidiary of CCR. It offers Life, Non-Life and Specialty lines in France and in 80 countries worldwide.

The Caisse Centrale de Réassurance Group is a key player in the field of reinsurance, recognised for its expertise in risk management, its agility and the quality of its scientific research

CCR's *Raison d'être*

In the general interest, to reinsure, with State-guaranteed coverage, risks resulting from exceptional events on French territory, such as natural disasters, attacks and acts of terrorism or other uninsurable risks, and to contribute through its research and advisory activities to the study of risks of all kinds, their prevention, management and coverage.

Global warming and the escalation of natural disasters are increasing the need for the Group's expertise.

For more than fifteen years, the company has been carrying out research and development work in the field of natural catastrophes. The modelling research carried out in partnership with French scientific organisations is aimed at gaining a detailed understanding of the phenomena and their impact in terms of insured damage.

They help to strengthen risk culture and identify good practice in terms of prevention and crisis management.

CCR models have been used to carry out prevention studies, in particular within the framework of the agreement with the DGPR (French Ministry of Ecological Transition), the goal of which is to make CCR's expertise available to central and decentralised government departments to assist decision-making processes.

They have also been used to carry out exposure studies, in Morocco as part of a World Bank-funded project, and in France for RTE *(Réseau de Transport d'Électricité)*.

FROM CCR GROUP'S RESPONSIBLE STRATEGY…

The CCR Group's reinsurance strategy is based on three principles that derive from CCR's own business:

- **Principle of solidarity:** Through the public reinsurance scheme implemented with its member insurance companies, the CCR Group provides companies and individuals with access to affordable coverage for exceptional events and reimbursement in the event of claims;
- **Prevention of physical risk:** the CCR Group is a recognised reference[1] in the scientific field of research and management of physical risk linked to natural catastrophes and a multi-specialist player in other lines of insurance;
- **Societal support:** the CCR Group covers the risks of natural disasters to which populations are exposed and maintains an affordable insurance offer throughout France, including in the most vulnerable regions.

…TO A RESPONSIBLE INVESTMENT STRATEGY

Backed by the strength of this strategy, as soon as its first ESG - Climate report was published in 2016[2], the CCR Group has been committed to an ongoing improvement process to include environmental, social and governance (ESG) criteria within its investment decisions.

The year 2019 gave the CCR Group the opportunity to detail its responsible investor strategy and to formalise its responsible investment charter and policy.

In 2020, beyond the regulatory framework, the CCR Group voluntarily strengthened the integration of climate-related risks into its practices, by following the recommendations of the Task Force on Climate-Related Financial Disclosures (TCFD).
2021 marks a new development in extra-financial publication in accordance with the application decree of Article 29 of French Act 2019-1147 of 8 November 2019 on energy and climate.

The CCR Group is not subject to the requirements of EU Regulation 2019/2088 on Sustainability-related Disclosures in the Financial Services Sector (SFDR - Sustainable Finance Disclosure Regulation) and the EU Regulation 2020/852 on sustainable investments (the so-called "EU Taxonomy"). However, it incorporates some of their provisions to pursue its efforts to continuously improve in extra-financial matters.

The CCR Group's commitment is based on three pillars: financing, measuring, committing

- Financing the ecological, energy and societal transition;
- Measuring the impact of these investments;
- Committing to reducing negative impacts, specifically greenhouse gas emissions.

[1] Advisory role for the ACPR, Agreement with the MTE, Act n°2021-1837 of 28/12/2021, Art 8
[2] In accordance with Article 173 (VI) of the French Act of 17 August 2015 on the energy transition for green growth

01.2 THE RESPONSIBLE INVESTMENT STRATEGY

A - SOCIALLY RESPONSIBLE INVESTMENT (SRI) CHARTER

In 2019, the CCR Group adopted a SRI charter that defines its strategy and policy on responsible investment. This charter is based on three pillars:

- Pillar 1: Prevention of transition risk;
- Pillar 2: Adaptation to physical risk;
- Pillar 3: Supporting societal transition.

Through this charter the CCR Group has chosen:

- On the one hand, to strengthen the management of risks (transition, physical and ESG risks) by integrating them into its investment policy and by measuring their impact on the portfolios;
- On the other hand, to contribute to the financing of initiatives supporting the environmental and societal transition.

Through these various pillars, the CCR Group contributes to the progressive achievement of the Sustainable Development Goals (or SDGs).

Figure 1: Ambitions and action levers associated with the three pillars

PILLARS		AMBITIONS	CONTRIBUTION TO SDG's
1	Transition risk prevention	➢ Include energy and ecology transition risk within investment practices ➢ Contribute to financing low-carbon transition by increasing thematic investments	
2	Adaptation to physical risk	➢ Improve the knowledge of physical risk impacts on the portfolios ➢ Participate in financing assets working to adapt to climate change	
3	Social transition support	➢ Support societal transition ➢ Encourage stakeholders to take part in this process	

B - RESPONSIBLE INVESTMENT POLICY

The Responsible Investment Policy is based on the definition of an ESG risk management framework for each of the three pillars and a targeted responsible investment programme, with the objective of generating long-term financial performance.

The CCR Group has initiated a certain number of significant actions and made important commitments that confirm its standing as a responsible investor.

Figure 2: Overall target to contribute to the long-term financial performance of the CCR Group

PILLARS	RISK MANAGEMENT	INVESTMENTS
1 Transition risk prevention	➢ Withdrawal from activities related to coal and unconventional hydrocarbons ➢ Portfolio analysis on transition risk related to climate change (carbon footprint Sc1, 2&3, green and brown shares, temperature) ➢ Assessment of transition risk related to the biodiversity erosion	➢ Investment in green impact funds, in the largest fund in the hydrogen sector (1% AUM) ➢ Direct investment in green bonds
2 Adaptation to physical risk	➢ Portfolio exposure analysis on physical risk related to climate change: - Financial: CRIS method (Carbon4Finance) - Real-Estate: Batadapt and proprietary tool ➢ Assessment of physical risk related to the biodiversity erosion	➢ Financing of assets striving to adapt to climate change ➢ Thematic funds (CatBonds, etc.)
3 Social transition support	➢ Issuer score analysis ➢ Controversies ➢ Sector and normative exclusions	➢ Direct investment in social and sustainable bonds ➢ Investment in social impact funds ➢ Creation of surveys for 62 management companies regarding 143 funds ➢ Encouragement for management partners to vote at GMs

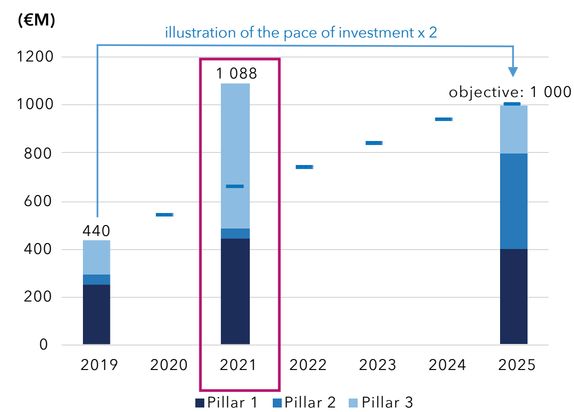
The group decided in 2019 to commit 20% of its investment flows to one of the three pillars each year, i.e. approximately €100m per annum, thus setting a target of €1bn for responsible investment financing by 2025. This commitment will eventually more than double the size of the portfolio of thematic investments associated with each of the three pillars of the charter.

2022 will be the opportunity to further develop the SRI policy by integrating biodiversity-related ambitions and confirming those relating to achieving carbon neutrality by 2050.

The aim will be to continue to support companies on the road to adaptation and climate transition, but also to encourage a reallocation of capital towards innovative projects and virtuous companies.

The responsible investment targets set in 2019 for 2025 were achieved ahead of schedule in 2021, while maintaining a strong financial performance.

Figure 3: Investment programme on all three pillars



Example of instruments:
- green bonds
- social & sustainable bonds
- impact funds
- certified real estate
- infrastructure

PORTFOLIO STRUCTURE AND LOOK-THROUGH

2021 was marked by a major change in the quality of portfolio information.

The CCR Group considers the use of comprehensive and quality data to be fundamental. Fine granular understanding is needed on two levels:

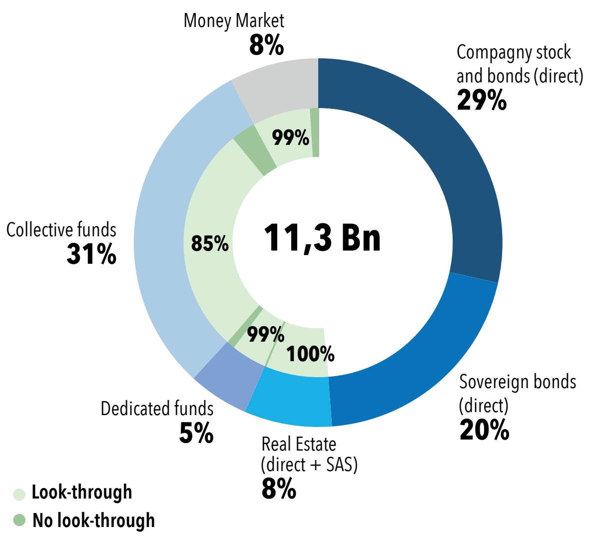
- On the portfolio: which issuers are held (including in open-ended collective funds). To this end, the entire portfolio was looked through.

- On the methodologies of data providers. The CCR Group thus conducted a series of audits, with the help of its climate experts.

The CCR Group is committed to transparency and ongoing improvement.

As at 31 December 2021, the CCR Group has €11.3 billion of assets under management. The CCR Group's management of assets is primarily driven by liability constraints within the framework of prudent management.

Figure 4: The CCR Group portfolio structure as at 31/12/2021 and look-through (in % by investment category; market value)



The CCR Group has chosen to make all its assets under delegated management transparent through look-through analysis, to trace the detailed positions of the in-depth knowledge of the portfolio is essential for risk monitoring.
CCR managers can thus monitor issuers of collective and dedicated funds and identify positions that would go against the CCR Group SRI policy.
2021 was shaped by a major increase in portfolio look-through transparency, mainly concerning collective funds, which rose from 54% in 2020 to 85% in 2021.

The CCR Group thus reached, ahead of schedule, the 80% look-through target set in 2019 for 2022 and even exceeded it by reaching 96%.

Look-through to improve ESG risk monitoring

« As a result of the Solvency 2 Directive, portfolio look-through transparency, i.e. the line-by-line disclosure of the entire portfolio, is increasingly required of management companies. Insurance and reinsurance companies should be able to calculate their exposure across their entire portfolios, including when they invest in open-ended funds.

Using look-through transparency to assess and monitor ESG-Climate indicators in its portfolios allows for fine granularity and overall consistency of sustainability indicators for open-ended fund investments. As part of an approach to promote SRI, this is a practice that can only be encouraged for responsible investors, and it is welcomed by the CCR Group.»

Nicolas Fournier,
co-founder and CEO of Sequantis LT

ESG-CLIMATE-BIODIVERSITY ANALYSIS TOOLS

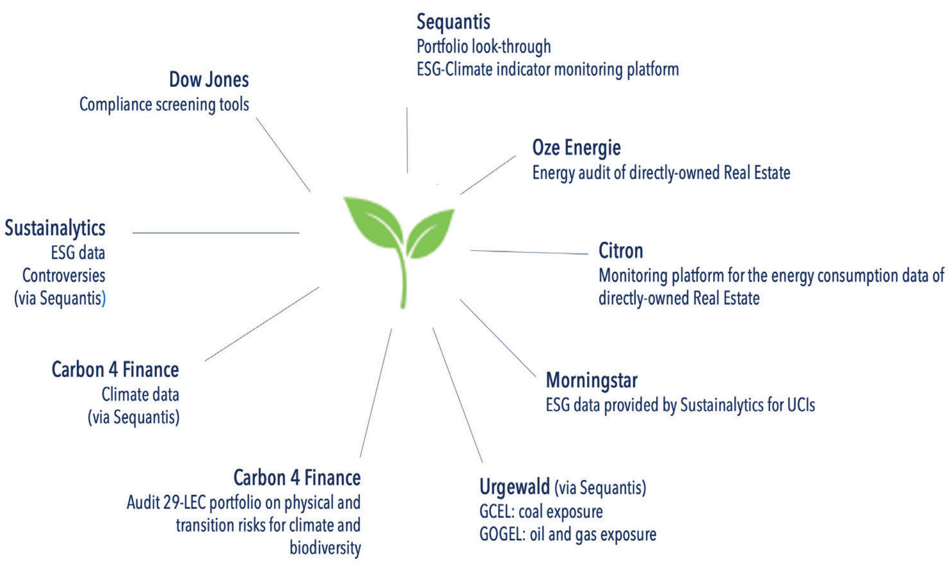
To include sustainability criteria into the management process, managers use the Sequantis Transition Monitor (STM) platform to monitor ESG-Climate indicators applied to direct and looked-through portfolios (excluding direct real estate).

To strengthen and carry out its responsible strategy, the CCR Group audited a large number of data providers, to understand methodologies applied and to choose the players most in line with its SRI Charter.

Following this audit, the CCR Group chose to call on Carbon4Finance, a player recognised for its climate expertise (selected by the Eurosystem to provide climate data) to measure physical and transition risks.

The CCR Group also took part in the development of the Climate Risk Impact Screening (CRIS) project by entering into a partnership with Carbone 4 in 2017.

Figure 5: CCR providers for ESG Climate and Biodiversity issues



C - GOVERNANCE

BOARD OF DIRECTORS

The members of the Boards of Directors are regularly faced with the issue of how to deal with the consequences of global warming in the context of the CCR Group's reinsurance activities.

Several directors are recognised for their expertise in climate-related issues, some of whom are members of the French Ministry of Ecological Transition.

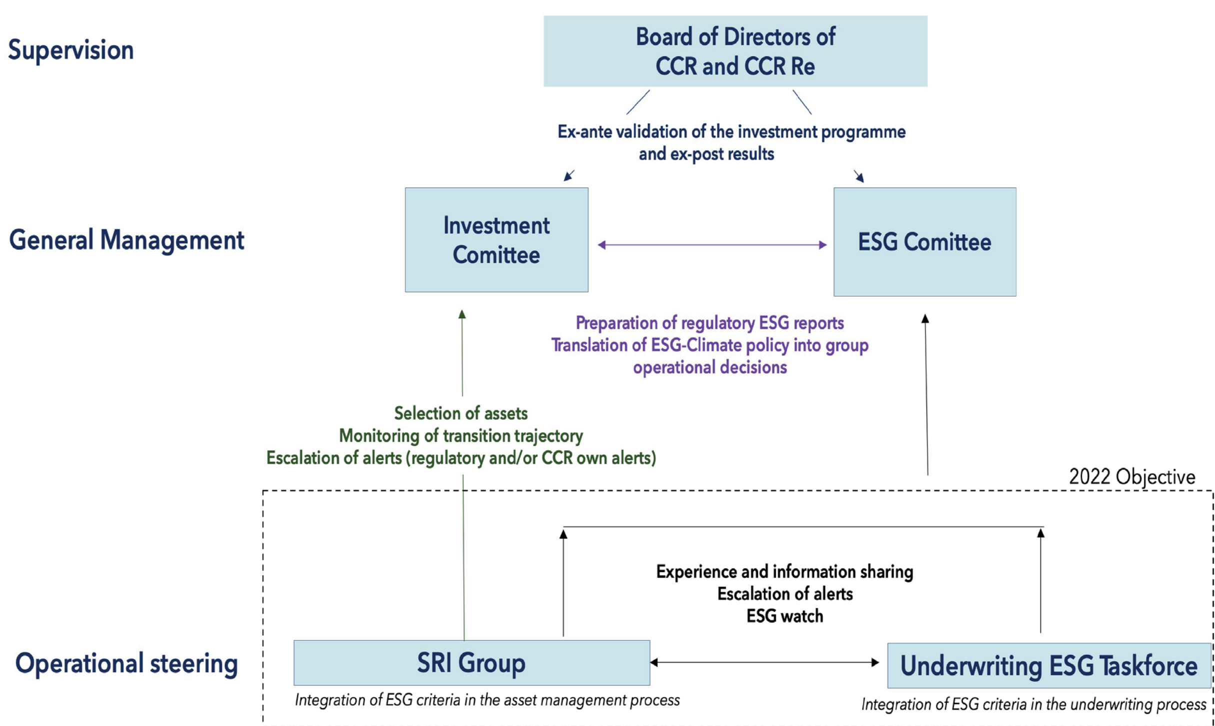
In addition, some directors participate in the Climate and Sustainable Finance Commission of the French Prudential Control and Resolution Authority (ACPR or *Autorité de Contrôle Prudentiel et de Résolution*) and contribute to monitoring and exchange services on leading ESG and climate issues.

The responsible investment strategy, its objectives and its implementation are presented to and validated by the Boards of Directors of CCR and CCR Re. They are consulted at least twice a year on ESG - Climate issues:

- for the *ex-ante* review and validation of the investment policy upon proposal of the Audit, Risk and Accounts Committees of both entities;
- for the ex-post review of the previous year's ESG-Climate report in view of its publication, to reiterate all the issues related to the content of the regulatory report and to exchange on the implementation and the extensions of the mentioned measures.

2022 will be an opportunity for the Board of Directors to continue integrating ESG issues into its operations.

Figure 6: Comitology



ESG INTEGRATED INTO THE BUSINESS PROCESS

In 2021, the governance of ESG issues was strengthened, an SRI working group was created, led by an ESG analyst and meeting on a weekly basis. It is composed mainly of financial and real estate asset managers.

Through this organisation, non-financial management is directly supported by the financial managers.

Figure 7: Operating Charter - SRI Group

SRI GROUP

Objectives:

This working group intends to build the SRI Policy, ensure its implementation by monitoring key indicators on a quarterly basis, write up reports related to responsible investment, etc.

Members	Missions
- CIO - Deputy CIO - Head of Delegated Management - Head of Direct Management - Advisor for the General Management - Real Estate valuation - Financial and Compliance Controller - ESG Analyst (RC coordinator and head)	- Set up of a Responsible Investment Policy - Analysis of key indicators to monitor the transition trajectory of the portfolios - Creation and implementation of regulatory reports - Regulatory watch - Competitive watch - Feedback after marketplace meetings / SRI forums
Output	**Duration & Frequency**
- ESG and climate reports on the portfolios - *Ad'hoc* specific analysis - Agenda and minutes	Weekly meetings Duration: 90 minutes

In addition, on the liabilities side, an Underwriting ESG Task Force has been set up to integrate ESG issues into the underwriting business.

MEANS ROLLED OUT FOR A BETTER UNDERSTANDING OF ESG ISSUES

Vocational training

The CCR Group has been investing in ESG-focused vocational training for its employees for several years. Thus, all asset managers and EXCOM members have been receiving training on sustainable finance from Novethic every year since 2019.

In 2021, an ESG analyst was hired to carry out regulatory monitoring and competitive benchmarking, and to provide training on specific issues. She is a member of the Sustainable Development Commission and of the ESG working group of France Assureurs.

The CCR Group actively contributes to the ESG and Climate thought process, in particular as a:

- Member of the ESG-Climate working group of France Assureurs,
- Member of the Sustainable Development Commission of France Assureurs,
- Participant of ACPR round tables, including on climate change risk governance.

Signatory of industry initiatives:

- Signatory of the *Plan Bâtiment Durable* charter,
- Signatory to the PRI (Principles for Responsible Investments).

1	We will **incorporate ESG issues** into investment analysis and decision-making processes.
2	We will **be active owners** and incorporate ESG issues into our ownership policies and practices.
3	We will **seek appropriate disclosure** on ESG issues by the entities in which we invest.
4	We will **promote acceptance and implementation** of the Principles within the investment industry.
5	We will **work together** to enhance our effectiveness in implementing the Principles.
6	We will each **report** on our activities and progress towards implementing the Principles.

Mathilde Mancel, ESG Analyst

« Raising awareness of ESG issues across all departments and identifying best practices are key to the roll-out of a group's sustainability strategy.
To do so, it is necessary to know the sustainability criteria, to master the tools, to audit the methodologies and to know how to interpret the data, against an ever changing regulatory backdrop.
The CCR Group is fully committed to this approach to sustainability issues with comprehensive, transparent and high quality information »

The CCR Group joined the 365 French signatories of the Principles for Responsible Investments defined and supported by the UN. Joining the PRI is an obvious choice for the CCR Group, which has been committed to responsible and sustainable finance for many years.

Signatory of:

PRI Principles for Responsible Investment

A RESPONSIBLE APPROACH BEYOND INVESTMENTS

ESG issues go well beyond investment activities: they drive all the initiatives of the group's teams. The Actuarial and Risk Management Department has now integrated climate risk into the risk framework.

It started to be incorporated in 2021 to all the mappings of the group's operational entities.

The various departments are made aware of this risk, in particular by the Permanent Control Managers, who represent approximately 10% of the group's staff.
The three pillars developed by the CCR Group reflect the consistency of its responsible approach across all business lines.

Figure 8: A Responsible Approach beyond Investments

PILLARS		UNDERWRITING LIABILITIES	CSR ENTITY
1	Transition risk prevention	➢ Coal exposure: limit in thermal coal exposure (claims / engineering) for CCR Re, exposure for CCR as public reinsurer ➢ Consideration of climate risk in the ORSA report since 2018	➢ Patronage partnership: with Energy Observer and Polar POD ➢ Various actions at HQ level: green energy underwriting contracts, waste recycling, actions in favour of soft mobility (Velib' memberships)
2	Adaptation to physical risk	➢ RTE Study of the French electricity grid exposure to flood risk up to 2050 ➢ Acknowledgement of CCR's role: Support for the public authorities in charge of prevention ➢ Partner of ACPR's pilot exercice on climate-related stress tests ➢ Integration of physical risks in the Pricing policy	➢ Publication of scientific research, namely on the prevention of climate risk ➢ Research parternships (Météo-France, DGPR, etc.)
3	Societal Transition support	➢ Exposure analysis of ESG risks in countries in which CCR Re operates ➢ Reinsurance business enabling anyone to take out affordable insurance	➢ Inclusion: 91% gender equality index ➢ Signatory to the Diversity Charter and support of disability ➢ Multicultural and multilingual environment: 21 nationalities, 15 different languages spoken

CCR GROUP,
A SOCIALLY COMMITTED INVESTOR

CCR continued to patron Energy Observer. 2021 was the year of the greatest crossings of this odyssey, in an environment still generally weakened by the pandemic.
Victorien Erussard has been appointed as the first French ambassador of the 17 Sustainable Development Goals (set by the UN in the 2030 Agenda) by the Ministry of Ecological Transition, goals that are at the heart of the Energy Observer Foundation missions today.
© Energy Observer Productions / Agathe Roullin 29 mars 2018


OBJECTIFS
DE DÉVELOPPEMENT
DURABLE

02.1 SUPPORTING SOCIETAL TRANSITION

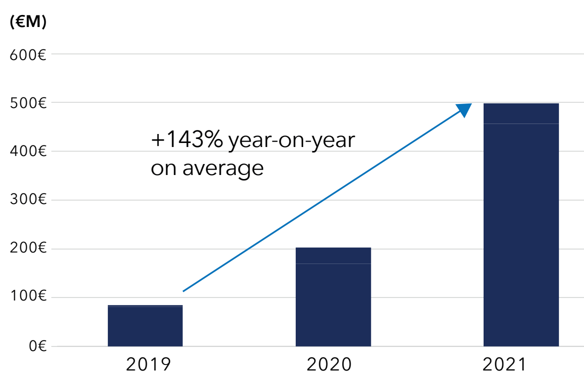
As a responsible investor, the CCR Group supports the real economy, which is why it has made support for societal transition a pillar of its Responsible Investment Charter.

Its investments cover all asset classes and are committed in line with the SDGs followed by the group:

- Social Bonds that finance projects with a positive social impact on target populations. For example, by promoting access to household essentials for disadvantaged populations and actions to tackle poverty;
- Sustainable bonds that finance both environmental and social projects;
- Funds specialised in societal and social issues such as microfinance, long-term financing of companies and economic development in developing countries;
- Real estate funds, e.g. for the construction of non-

The outstanding balance of directly managed Social and Sustainable Bonds have increased sixfold in two years.

Figure 9: Outstanding social & sustainable bonds (direct management)



Marie Laure Mahieu,
Head of Bond & Money Market Management

« Given the health context, the CCR Group has looked to support the French economy through investments in sustainable bonds issued by BPI, UNEDIC, CADES, Île de France Mobilités and others.

The CCR Group has also been involved in bonds issued by the AFD which include, among others, budget support to developing countries, emergency credit lines to local financial institutions to stimulate lending to SMEs, support to health, economic and social measures in response to the COVID-19 crisis.»

CCR, SERVING THE FRENCH ECONOMY

CCR plays an important role in financial innovation, especially when it involves supporting the French economy in periods of crisis.

CCR has partnered with Gagéo, a fund that supports companies that have no longer access to bank loans. It involves an innovating solution of direct loans secured by companies'essential inventories.

The fund is also supported by the European Investment Bank which has helped preserve thousands of jobs on French territory.

CCR SUPPORTS LOCAL BUSINESSES IN UNDERPRIVILEGED AREAS

CCR has invested in a new strategy created after the Covid pandemic called "Impact Rebond" by Impact Partner - which aims to support local businesses in France, in areas defined as priority aeras by town policy, rural revitilisation areas and "Actions Cœur de Ville" towns.

The strategy offers more than just finding: it offers training to company managers to better run their businesses and ensure their sustainability over time.

CCR is also an advisory member during financing choices.

Over the 6 first investments - in Q4 2021 - the outcome is positive with:

- 47 positions created,

- 120 days of training / coaching,

- 6 positions saved.

EUR 7.6M in revenue generated.

THE CCR GROUP SUPPORTS MICROFINANCING IN EMERGING COUNTRIES

The CCR Group has invested in the NN FMO funds which co-invests with FMO, the Dutch development bank dedicated to sustainable development in the private sector in emerging countries. It targets countries in which access to public financing is dificult (essentially non IG countries).

Each investment aims to contribute to FMO's 'Impact Investing' goal, a dual objective of creating jobs and reducing greenhouse gas emissions.Three sectors with high 'Impact Investing' potential are focused on: renewable energies, financial institutions and agri-business, food and water.

02.2 THE ESG APPROACH

The management teams apply ESG criteria within their daily investment process. The approaches are differentiated according to the type of management.

A/ DIRECT FINANCIAL INVESTMENTS

The responsible investment process for directly held securities is composed of exclusions and extra-financial analysis:

THE MANAGEMENT TEAM APPLIES AN INITIAL FILTER OF EXCLUSIONS:

Normative:
- Controversial weapons[1];
- Companies or countries that may be subject to an embargo or financial sanction[2];
- Companies that flout the principles of the International Labour Organisation.

Sector-based:
- Tobacco: tobacco producers;
- Thermal coal: companies generating more than 10% of their revenue from coal mining or coal-fired power generation. The CCR Group published a thermal coal exit policy in 2020, which aims for a final exit from the sector in 2030;
- Unconventional hydrocarbons: in 2021, the CCR Group initiated a policy to exit unconventional hydrocarbons by 2030[3].

A SECOND FILTER FOCUSES ON ESG ANALYSIS

Any new investment is subject to ESG analysis. The managers use Sustainalytics data through the Sequantis Transition Monitor platform.

- For sovereigns:

- **Country Risk Rating:** combines ESG and economic analysis for comprehensive country risk assessment.

- For companies:

- **ESG Risk Rating** measures the residual risk to which the company is exposed (gross risk - risk management). It ranges from 0 to 100, with 0 meaning no risk and 100 meaning maximum risk.
- **Controversy analysis:** assesses the impact of contentious facts or actions on stakeholders and, consequently, on the company's own business. A low controversy score (1 to 2 on a scale of 1 to 5) indicates a limited-impact event.

Particular attention is paid to issuers in the 'red zone', i.e. with an ESG score above 40 and facing severe controversy (level 5). CCR Group will define a process for dealing with these issuers, and depending on the controversy may cease further investments in the issuer in question, or even sell its positions if market conditions allow it, or may continue to develop a constructive dialogue with the issuer and support it over time.

MANAGERS FOCUS ON COMMUNICATING WITH ISSUERS

Throughout the investment process, the direct management teams regularly participate in roadshows organised by issuers to foster communication with companies. These events are an opportunity to question them on their financial and non-financial strategies, to assess their consistency with the CCR Group's responsible investment principles, and to encourage them to better consider ESG issues.

[1] This means companies involved in the production, use, stockpiling, marketing or transfer of anti-personnel mines or cluster bombs, which are prohibited by the Ottawa (1999) and Oslo (2010) conventions.
[2] This means companies and states that do not comply with anti-money laundering and anti-terrorist financing regulations, states under embargo, States and territories deemed non-cooperative in terms of tax information exchange by the Financial Action Task Force (FATF).
[3] Formalised in 2022

Exit policy for unconventional hydrocarbons

In accordance with the recommendations of the Scientific and Expert Committee of the Sustainable Finance Observatory[4], the CCR Group is committed to exiting unconventional oil and gas exploration and production entirely by 2030.

The definition of unconventional hydrocarbons is based on that of the Scientific and Expert Committee. It is based on the geological characteristics of hydrocarbon tanks (including tank viscosity and permeability), as well as on extraction methods. The following are therefore considered as 'unconventional':

- coalbed methane or coal seam gas;
- tight oil and gas tank;
- oil shale and shale oil;
- shale gas and shale oil;
- oil from tar sands;
- extra-heavy oil;
- ultra-deep offshore oil and gas and fossil oil and gas resources in the Arctic (as defined by the Arctic Monitoring and Assessment Program).

This policy concerns direct management from 2022 and will then be extended to dedicated funds in 2023. In accordance with the recommendations of the Scientific and Expert Committee, it focuses in the first phase on (upstream) production and exploration.

To achieve this exit target by 2030, the CCR Group is committed to no longer investing in companies that are developing exploration or production projects with their existing capacities.

Players committed to a greenhouse gas reduction trajectory compatible with the goal of the Paris Agreement to limit global warming under 2°C, as well as subsidiaries, projects and financing vehicles dedicated to the energy transition (namely green bonds) are not concerned.

To monitor this commitment, the CCR Group uses the database of the Urgewald NGO, called the Global Oil and Gas Exit List (GOGEL) for which the definition is in line with the recommendations of the Scientific Expertise Committee (except for methane hydrates which are not included). This list covers the entire oil and gas sector, both Upstream (extraction) and Midstream (transport and processing).

[4] *"Recommendations of the Scientific and Expert Committee on Unconventional Hydrocarbons and Alignment Strategies", published on 22 September 2021*

B/ DELEGATED MANAGEMENT INVESTMENTS

The managers include extra-financial criteria in the same way as financial criteria when making investment decisions for the funds.

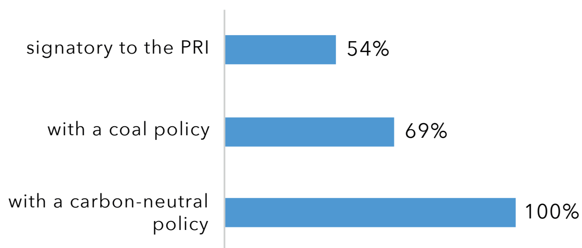
During the selection process, a specific analysis is carried out to understand how ESG issues are integrated. To carry out this study, the management teams rely on different sources of information: documentary (publications and data platforms), fund classification (labels and SFDR), communication with the management companies and their own analysis.

For equivalent performance (risk/return trade-off) and objectives, the fund selection teams favour funds with a rigorous SRI policy.

A DEMANDING SELECTION BASED ON BEST PRACTICE

All assets under delegated management are entrusted to companies that are signatories to the Principles for Responsible Investment (PRI), which is now a prerequisite for any investment. This endorsement is a guarantee that ESG-Climate issues are considered within the management process.

Figure 10: Portion of assets delegated to management companies



(Source: CCR Group proprietary questionnaire)

2021 marked a turning point in the regulation of sustainable finance with the implementation of the SFDR on sustainability reporting in the financial services sector. The self-declaration of funds under Article 8 or 9 provides knowledge of how ESG issues are considered based on harmonised criteria.
For the sake of harmonisation and transparency, the CCR Group has chosen to give priority to this classification in its selection and monitoring of funds, rather than to multiple labels.

The SFDR identifies three main categories called "Articles".

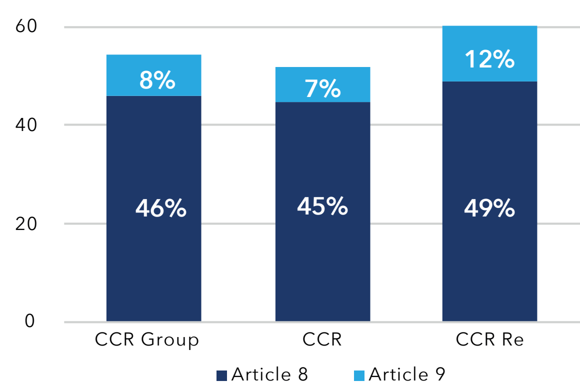
- Article 6 refers to standard products without specific ESG characteristics on sustainable objectives.

- Article 8 refers to products that promote environmental and/or social characteristics, without pursuing a sustainable investment objective. Unlike products classified under Article 9, there is no obligation for methodological explanation, evaluation and improvement of criteria, or for transparency.

- Article 9 refers to products that have a sustainable investment objective, which means products that invest in an economic activity that contributes to an environmental and/or social objective. The sustainable objectives of the product must be explained and measured, and the results assessed over time.

More than half of the investments under delegated management reported being under SFDR Article 8 or 9. This exposure is expected to grow, particularly in Article 9 funds.

Figure 11: Breakdown of assets under delegated management, according to SFDR regulation



The SFDR classification remains a self-assessment exercise with a varying degree of integration of ESG criteria, particularly for Article 8.

SELECTION STRENGTHENED BY PROPRIETARY ANALYSIS

In parallel, the team of CCR managers carry out their own qualitative analysis on the integration of ESG criteria in each strategy based on different sources:
- the Morningstar platform which integrates Sustainalytics' ESG scores,
- management reports and non-financial reports,
- a proprietary Due Diligence questionnaire,
- communication with the management company throughout the period of investment,
- ex-post, the managers use the Sequantis Transition Monitor platform to monitor ESG, controversy and climate indicators; via quarterly look-through analysis.

In 2021, pursuing its objective of transparency and better understanding of the ESG practices and policies of management companies and portfolio funds, the CCR Group strengthened its systematic analysis with the creation of two proprietary Due Diligence questionnaires.

Each questionnaire consists of 15 questions, one concerning the group's partner management companies (62), the other involves the 143 funds in which the group is invested in.

The response rate was 100%.

Aurélien Couloumy, Head of Digital Transformation

Artificial intelligence at the service of the ESG

"Using technology to automate and refine the data processed from CCR Group's ESG due diligence questionnaires is an important challenge. In view of the number of responses, it is particularly important to streamline the exploration time. It is necessary to allow managers to focus on the strategy that results from the study of the responses, for example, through the development of dashboards (which allows for historical monitoring, comparisons between management companies or funds, etc.)."

Figure 12: Questionnaires Themes

Good Practice	ESG / Climate policy structure	Alignement of the climate policy with the ambitions of the CCR Group
- Signatory to the PRI	- Ressources used for ESG analysis (team, data providers, internal tool)	- Target Net Zero policy
- Participation in initiatives related to the climate or responsible investment	- Use of Labels	- Coal policy
- Application of normative and sector-based exclusions	- Existence of impact strategies	
	- Set up of a voting policy	

This questionnaire allows for consistency tests between the practices of the management companies and what is applied in the funds. It ensures that they are aligned with the CCR Group's objectives and encourages them to get involved.
For example, some management companies declare a coal policy that is not applied in the funds, or conversely, some funds include a strict coal policy even though the management company has not yet formalised one.
This questionnaire enabled the CCR Group to carry out a survey on the votes of management companies at 2021 Annual General Meetings (namely on environmental and compensation issues).
This questionnaire will be sent out annually and will allow to measure progress over time. It will also be used as a screening tool prior to any new investment.

DEDICATED FUNDS: A CONSTRUCTIVE PARTNERSHIP WITH MANAGEMENT COMPANIES

The CCR Group encouraged asset management companies to translate its commitments in dedicated funds[5].

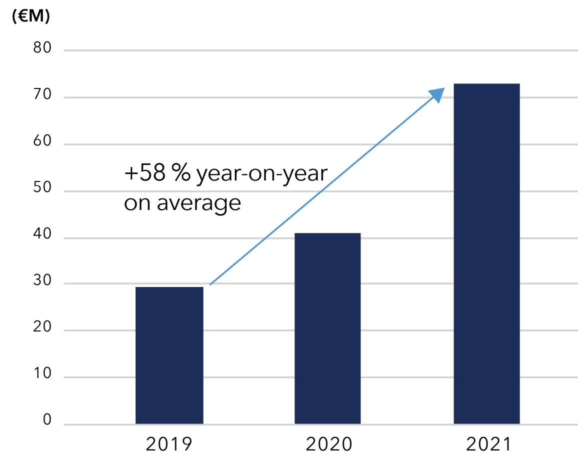
Thus in 2021, CCR's coal policy was shared with the management companies for implementation from 2022. This policy, which is sometimes more restrictive than their own, helps foster good practice and alignment with a low-carbon trajectory.

Conversely, the expertise of the management companies allows CCR Group teams to develop and strengthen their knowledge.

The collaboration between the management teams is also illustrated by the ambition to transform dedicated Article 8 funds into Article 9 funds during the course of 2022.

This ongoing improvement is reflected in a significant increase of the sustainable bond exposure (Green, Social and Sustainable bonds), while maintaining a strong financial performance.

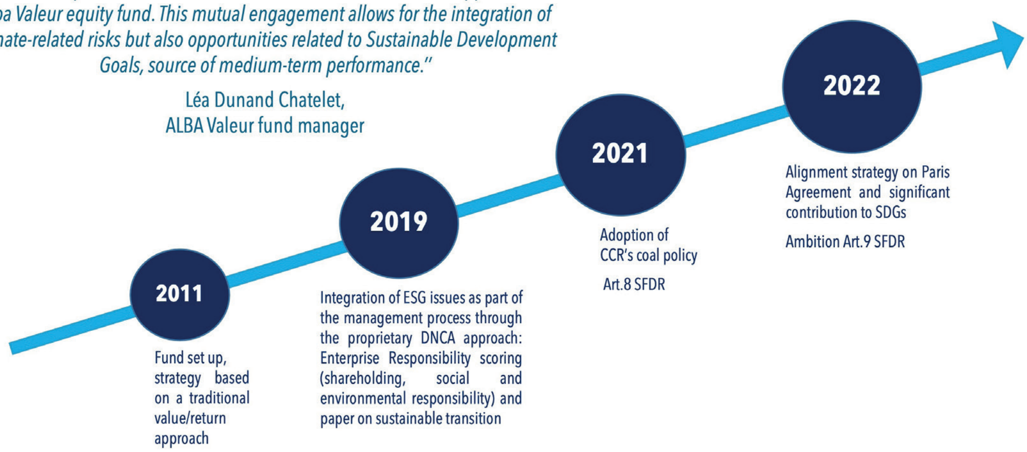
Figure 13: Outstanding sustainable bonds in dedicated funds



Alba Valeur, Dedicated Equity Fund, managed by DNCA Finance

"The DNCA teams are involved, alongside the CCR Group, in the ongoing improvement process to better consider the extra-financial criteria applied to the Alba Valeur equity fund. This mutual engagement allows for the integration of climate-related risks but also opportunities related to Sustainable Development Goals, source of medium-term performance."

Léa Dunand Chatelet,
ALBA Valeur fund manager



The collaboration between DNCA and the CCR Group is important as it enriches CCR's non-financial approach by making it benefit from DNCA's recognised expertise with the aim of aligning the strategy to the values and needs expressed by the CCR Group.

[5] *Traditional management funds*

C/ DIRECT REAL ESTATE INVESTMENTS

The CCR Group's directly owned real estate portfolio consists of 22 buildings, including 13 residential buildings (62% of the surface area expressed in m^2) and 9 office buildings (38% of the surface area expressed in m^2), located mainly in Paris.

Since 2019, the CCR Group has been monitoring a detailed analysis of the ESG impact of its real estate assets, based on the 19 issues in the materiality matrix of the *Observatoire de l'Immobilier Durable* (OID)[6]. All the Sustainable, Real Estate, Observatory dimensions are taken into account, allowing the Group to set objectives and measure the impact of the actions implemented.

Figure 14: ESG issues defined in the OID materiality matrix

E1	ENERGY
E2	CARBON
E3	RESOURCES AND WASTE
E4	WATER
E5	BIODIVERSITY
E6	MOBILITY AND TRAVEL
E7	CLIMATE-CHANGE RESILIENCE
S1	HEALTH AND SAFETY OF OCCUPANTS
S2	COMFORT AND WELL-BEING
S3	TERRITORIAL IMPACT AND EMPLOYMENT
S4	ACCESSIBLITY
S5	SERVICES TO OCCUPANTS
S6	POSITIVE SOCIAL IMPACT
G1	BUSINESS ETHICS
G2	INTEGRATION OF ESG ISSUES IN THE INVESTMENT POLICY, ASSET MANAGEMENT POLICY AND RISK-CONTROL POLICY
G3	RELATIONSHIP WITH STAKEHOLDERS
G4	INTERNAL GOVERNANCE
G5	RESPONSIBLE PROCUREMENT
G6	CRISIS MANAGEMENT AND BCPs

Responsible Investment Barometer *(source: OID, 2020)*

Yohann Mielczarek, Technical Manager

"***Energy audits are a solution to identify areas for energy improvement.***

The CCR Group commissioned an energy audit of each of its 22 buildings in 2021.

This audit made it possible to precisely analyse the potential of each building and to define the works and capital expenditure necessary to improve their energy performance. Identified actions, requiring awareness-raising among occupants and maintenance teams, could be ***carried out within 2 years:***

- 47% savings on energy bills,

- 32% energy savings MWh/year,

- 27% savings in tCO_2 /year.

These energy audits and consumption monitoring measure the impact of operating actions and consolidate the progress of building energy efficiency over time."

[6] *The definition of the 19 ESG issues is based on a market study of the materiality matrices published by some thirty real estate players (listed real estate companies, investors, developers, users) between 2013 and 2018 and on a cross-analysis of French and international normative and regulatory standards*

In 2021, the CCR Group strengthened its commitment to low-carbon energy efficiency in its buildings.

When acquiring new assets, ESG criteria are systematically integrated into the ex-ante assessment. The CCR Group set itself the objective that all new acquisitions of new or renovated commercial buildings should be subject to environmental labelling or certification (HQE, LEED, BREAM, etc.).
The proportion of service-sector buildings with a label is currently 50%. It is expected to grow to 75% within 5 years.

In the existing stock of buildings, several actions were carried out to act on energy sobriety (through use and refurbishment), but also on the energy mix used by its buildings:

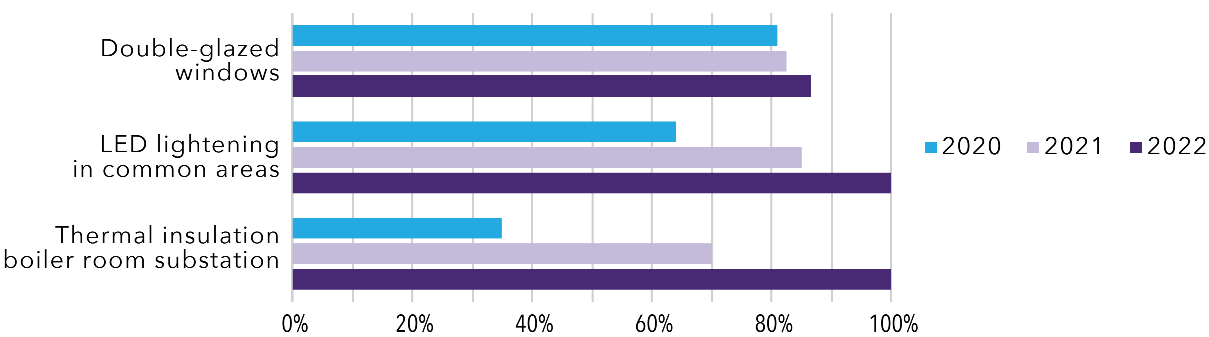
- 100% of residential and office buildings have taken out green energy contracts (electricity and gas);
- one third of the buildings are connected to district heating, the 50% target should be reached within 3 years;
- 30% of the works budget is spent each year on improving energy performance;
- each restructured office building is labelled;
- 100% of buildings have their energy consumption data collected (common and private areas);
- a partnership was renewed with Citron® Energie, which centralises and analyses the energy consumption of buildings and thus enables the CCR Group to prepare its energy reduction actions in accordance with the provisions of the French "Tertiary Eco-Energy" Decree[7].

Nawfel Guemazi, Head of Rental Management

*"**In 2021 we pursued our waste management and recycling approach.** With one of our tenants we have set up the services of Greenwishes, a concierge service company adapted to waste sorting. All the recyclable waste collected is recycled in France. Any treatment such as incineration, landfill or international export is prohibited.*

In addition, 100% of the sorting agents come from integration or long-term unemployment to contribute to responsible and social development."

Figure 15: Energy performance improvement works



[7] The Tertiary Decree requires the implementation of actions to reduce the final energy consumption of existing office buildings to achieve a reduction in final energy consumption of at least 40% in 2030, 50% in 2040 and 60% in 2050 compared to 2010..

Christophe Blanchard, Head of Real Estate Valuation and Management Control

"All of our office buildings and residential assets are supplied with green electricity and gas."

Why did you choose to use 'green' energy?

As a group involved in natural hazard prevention, it is important to reduce the carbon footprint of our real estate portfolio. This approach also makes it possible to encourage and support energy market players to favour more environmentally friendly production methods through the development of renewable energy.

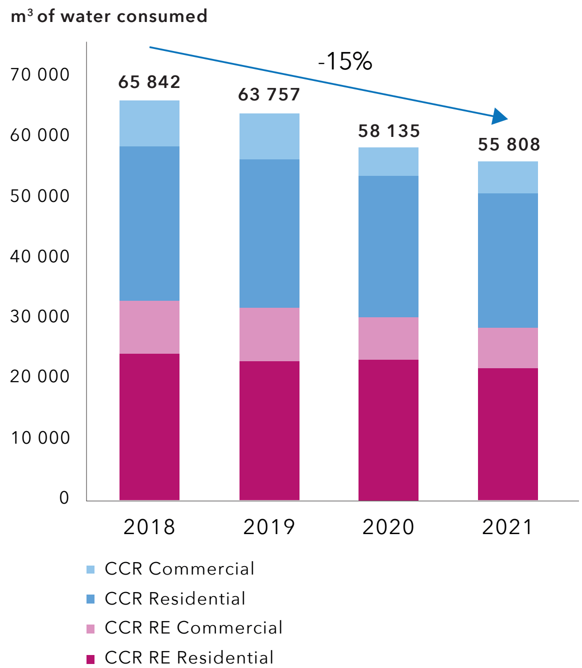
How does one know if it is green energy?

We do not benefit directly from green energy, but our consumption allows us to produce it. An offer is said to be "green" if the supplier can prove that a quantity of green electricity equivalent to the consumption of our buildings has been fed into the grid. The certification mechanism used is a traceability tool, called Guarantees of Origin (Garanties d'Origine). For gas, we offset 100% of the carbon emissions related to the natural gas consumption of our sites. We offset emissions by purchasing carbon credits that contribute to the reduction of greenhouse gases. The issuance of these certified credits is governed by the United Nations Framework Convention on Climate Change.

"In 2021, our gas consumption offset 696 tonnes of CO_2."

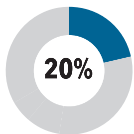
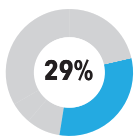
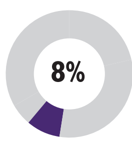
OID indicators also cover issues related to water consumption, biodiversity and waste recovery, as well as social and governance issues. All the buildings have green spaces and bicycle rooms to encourage soft mobility.

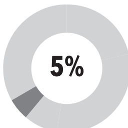
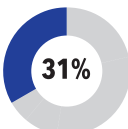
Figure 16: Total building water consumption



The total water consumption of the buildings has decreased by 15% since 2018, in particular with the installation of water-saving taps.

Figure 17: Summary table of ESG-Climate-Biodiversity analyses by asset class

DIRECT MANAGEMENT	CLIMATE	ESG	BIODIVERSITY
Sovereign Bonds 	**Transition Risks:** **C4F coverage: 71%** • Carbon footprint & temperature • Green Bonds • Green share and fossil fuel exposure **Physical risk:** **C4F coverage: 81%**	**Sustainalytics coverage: 84%** • ESG score analysis and controversies • Country risk monitoring • Social and sustainable bonds	**C4F coverage: 69%** • Biodiversity footprint • Dependency score
Corporate Stocks & Bonds 	**Transition Risks:** **C4F coverage: 89%** • Carbon footprint & temperature; Analysis of issuers alignement strategy on Paris Agreement • Green Bonds • Green share and fossil fuel exposure **Physical risk:** **C4F coverage: 92%**	**Sustainalytics coverage: 99%** • ESG score analysis and controversies • Social and sustainable bonds	**C4F coverage: 92%** • Biodiversity footprint • Dependency score
Real Estate **100% look through** 	• Energy consumption monitoring: energy audit and water consumption monitoring • Carbon footprint calculation	• Integration of the 19 OID challenges, monitoring of proprietary indicators for each building • Identification of real estate funds with a social component, e.g. Non-medicalised senior residences	Greening

DELEGATED MANAGEMENT	CLIMATE	ESG	BIODIVERSITY
Dedicated Funds  	**Transition Risks:** **C4F coverage: 81%** • Carbon footprint & temperature • Green Bonds • Green share and fossil fuel exposure **Physical risk:** **C4F coverage: 80%**	**Sustainalytics coverage: 89%** • Due diligence questionnaire: analysis of the management companies' policies and those applied to the fund • Control of the alignment of the ESG approach of the management companies with the Group • Issuer ESG score analysis and controversies (by look through) • Social and sustainable bonds	**C4F coverage: 79%** • Biodiversity footprint • Dependency score
Listed UCIs  	Study included in the total portfolio analysis **By Sequantis: 73% coverage** • Carbon footprint & temperature • Green Bonds • Green share and fossil fuel exposure • Thematic funds	**Sustainalytics coverage: 80%** • Due diligence questionnaire: analysis of the management companies' policies those applied to the fund • Issuer ESG score analysis and controversies (by look through) • Social and sustainable bonds • Thematic funds	Study included in the total portfolio analysis

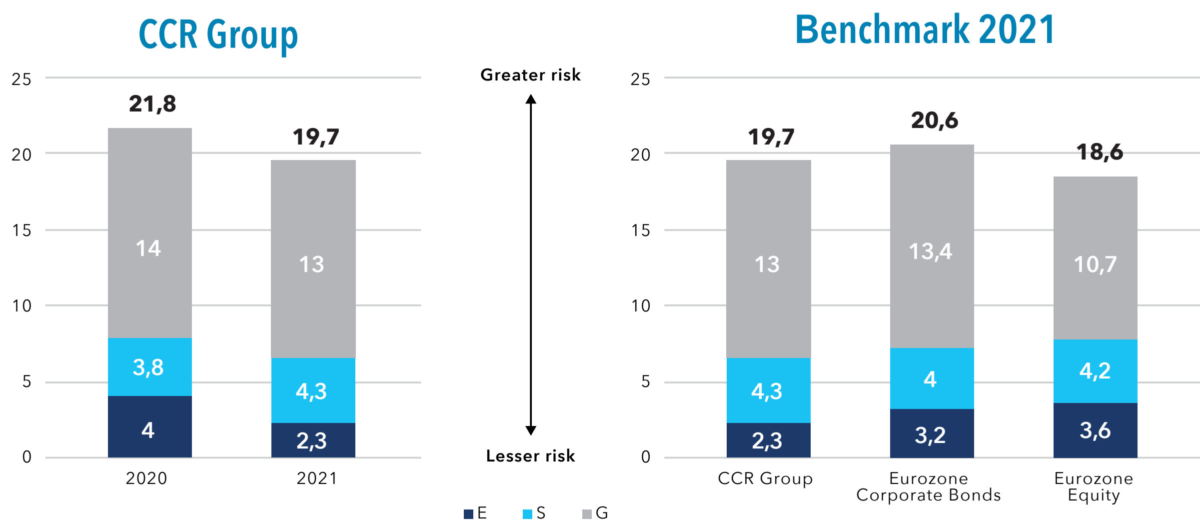
The coverage rate shown reflects data provider's coverage of the entire asset class.

02.3 ESG ANALYSIS RESULTS
(EXCLUDING DIRECT REAL ESTATE)

The ESG score of the financial portfolio is based on Sustainalytics data (via the Sequantis platform) and covers assets held under direct management (excluding real estate) and under delegated management (excluding non-looked through funds), i.e. 89% of the portfolio assets. This is a significant increase from 62% in 2020.

This supplier was chosen because of the quality of its audited methodology. Like other data providers, Sustainalytics does not cover the entire investment universe, as it relies on public company reports. Therefore, 87% of the scope is rated by Sustainalytics analysis.

Figure 18: CCR Group ESG score - Historical comparison and benchmarks



The ESG score reflects a risk rating: the lower the score, the lower the risk and the more controlled the risk.

Source: Sustainalytics via Sequantis, CCR Group

The Sustainalytics ESG score focuses on issuers. The types of investment in the portfolio are not taken into account. For a given issuer, the ESG score of a sustainable bond should be better than that of a conventional bond. The ESG risk of the portfolio seems overestimated to us: the ongoing investment effort in sustainable bonds is not reflected in this assessment.

However, the ESG score of the portfolio is low at 19.7/100, below the Eurozone-Corporate bonds index and slightly above the Eurozone-Equity index.

It is also significantly lower than in 2020.

This low exposure to ESG risks is explained by the geographical allocation with a high weighting of European issuers and by the selection of less risky issuers.

Figure 19: ESG score allocation by geography

	Grade	Negligible	Low	Moderate	High	Acute	Weight	Contribution
Latin America and Caribbean	26.0						1.4%	0.4
Asia / Pacific	22.7						4.9%	1.1
Europe	19.1						79.3%	15.1
Africa / Middle East	24.7						1.1%	0.3
North America	21.1						13.4%	2.8

Source: Sustainalytics via Sequantis, CCR Group

This ESG score is mainly the result of governance risk, with environmental and social risks being low. Governance risk emerges mainly from the financial sector given its significant weight in the analysed portfolio (36.3%).

Nevertheless, it is important to note that despite a similar allocation in 2020 (36.6%), the ESG governance score has decreased, reflecting a better integration of ESG criteria during the stock-picking process.

Figure 20: ESG score allocation by sector

	Grade	Negligible	Low	Moderate	High	Acute	Weight	Contribution
Utilities	22.5						3.3%	0.7
Energy	32.3						2.2%	0.7
Non-cyclical consumption	21.7						5.1%	1.1
Public Sector	15.2						27.5%	4.2
Télecom	19.0						1.7%	0.3
Real Estate	11.2						1.9%	0.2
Finance	22.0						36.4%	8.0
Materials	20.2						2.2%	0.4
Healthcare	23.0						3.7%	0.9
Industry	20.9						6.5%	1.4
Discretionary consumption	19.1						4.9%	0.9
Information technology	17.2						4.5%	0.8

Source: Sustainalytics via Sequantis, CCR Group

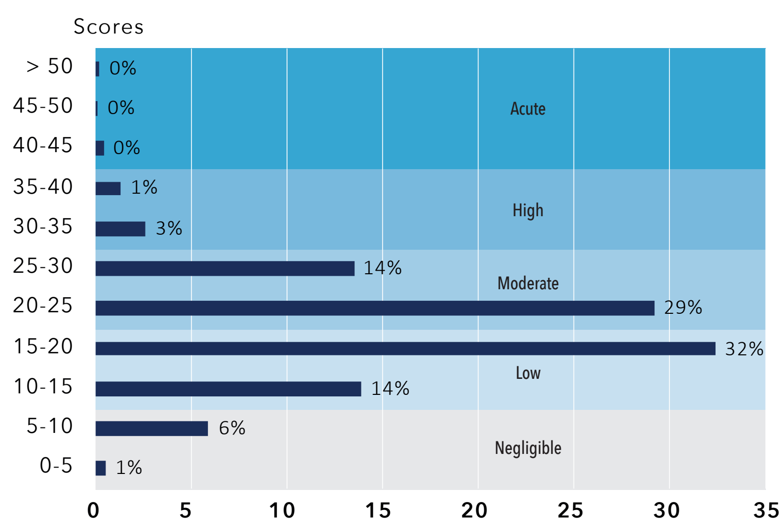
The distribution of ESG scores shows very low portfolio exposure to issuers with high or acute risk (only 4.1%).

Similarly, exposure to issuers with controversy levels of 4 and 5 is extremely low.

Figure 21: Portfolio breakdown by ESG score and controversy level

Controversy	Weight
Level 5	0%
Level 4	4%
Level 3	35%
Level 2	22%
Level 1	9%
No involvement	33%

Source: Sustainalytics via Sequantis, CCR Group



CCR GROUP,
AN INVESTOR AT THE HEART OF THE ENERGY TRANSITION

Visuel :
Energy Observer - Crossing the Kiel Canal (Germany)
© Energy Observer Productions / Kevin Peyrusse

03.1 COMMITMENT FOR A LOW-CARBON ECONOMY

The CCR Group is committed to aligning its portfolio with a greenhouse gas emission reduction trajectory that is compatible with the global warming mitigation objectives of the Paris Agreement: the report states that the global temperature increase should be "well below 2°C, striving for 1.5°C (above pre-industrial temperatures by 2100)".

As part of this long-term commitment, the CCR Group aims to achieve carbon neutrality of its investments by 2050. This commitment is made in a continuous improvement process based on the good practices defined by the regulators and on scientific recommendations[8].
The enrichment of the SRI policy during 2022 is an opportunity to set intermediate objectives that will be reviewed every 5 years. The first of these is to halve the CO_2 emissions of the portfolio by 2030.

To achieve this commitment, **the CCR Group is focusing on financing the energy transition and excluding high emitters that are not part of this transformation process to a low-carbon economy.**

The gradual implementation of a low-carbon business model to limit global warming to below 2°C raises a transition risk for all agents, and more particularly for the financial system, which is at the heart of capital allocation. **According to TCFD segmentation**, this risk is mainly defined by:

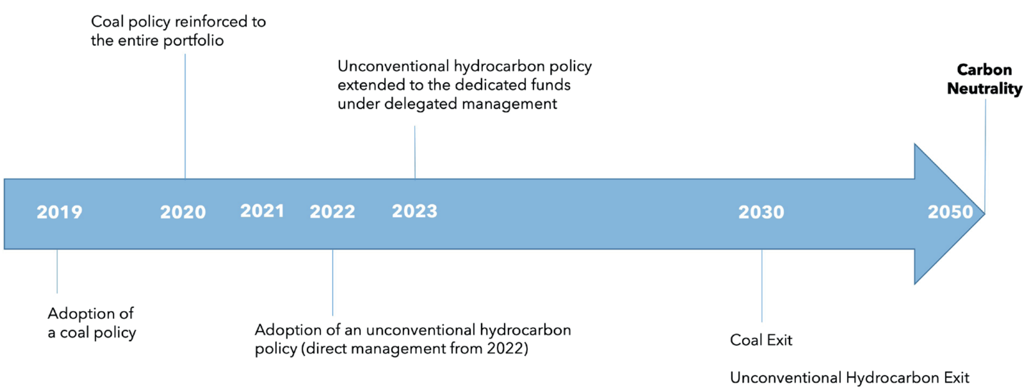
- **Legal and regulatory risk** linked to the evolution of laws and standards aimed at guiding agents towards a low-carbon economy;

- **Technological risk** arising from research and technological innovations to improve the energy efficiency of production processes and equipment;

- **Market risk** resulting from the impact of climate change on supply (scarcity of certain resources) and demand (changes in consumption behaviour);

- **Reputational risk** linked to changes in the perceptions of all stakeholders, in particular customers and consumers, about the challenges of climate change and the positioning of agents in relation to these challenges.

Figure 22: Summary of fossil fuel commitments



[8] International Energy Agency "Net Zero by 2050 A Roadmap for the Global Energy Sector" published in May 2021

03.2 FINANCING THE TRANSITION

The CCR Group finances the energy transition, specifically through investments in green bonds and innovative solutions, such as infrastructure development.

A/ GREEN BONDS

Green bonds are now the main vehicle used to finance the energy transition. This type of financing supports companies in the transformation of their business model towards a low-carbon economy.

As at 31 December 2021, outstanding green bonds represent €575 million or 5.1% of assets under management.

They are owned both directly and through funds (dedicated and collective).

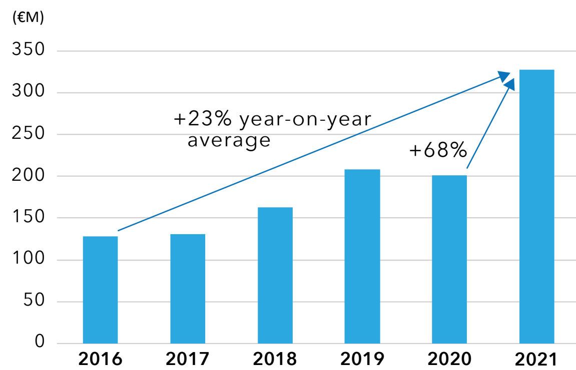
DIRECTLY-OWNED GREEN BONDS

In contrast to 2020, a year in which the direct management investment effort was concentrated on social bonds (due to the health crisis), 2021 shaped by investments in green bonds, which increased by 63% over the year. These investments were made on a sector basis (banking, utilities and food).

In its sustainable investments, the management team optimises the risk/return profile, specifically by ensuring that the credit quality remains robust. In addition, the project financed must be consistent with our ESG commitments. The managers regularly monitor the compliance of these green obligations over time (analysis of annual reports).

"These investments protect the performance of our resilient portfolios as we finance sustainable growth"
Marie Laure Mahieu, Head of Bond & Money Market Management

Figure 23: Outstanding green bonds - direct management



Since 2016, the outstanding amount of green bonds has increased by an annual average of 23%.

"Over the course of 2021, the outstanding amount of directly managed green bonds increased by 68%. These sustainable investments have been made while maintaining an appealing financial return without deteriorating the level of risk.
Direct management has chosen to promote the ecological and energy transition by supporting committed companies.

In the real estate sector, which is responsible for a quarter of greenhouse gas emissions, we have financed projects of committed players such as Icade and Gécina, one of which has reclassified €600M of its bond debt as a Green Bond in 2021, while the other has greened 100% of its bond debt.

The transition of energy companies seems essential to us for a low-carbon economy, so we invested in RWE's green bond. The latter has committed to a +1.5°C alignment by 2030, to be climate neutral by 2040 and to have a net positive contribution to biodiversity by 2030 for each new assets. We value the fact that energy providers are transforming.
We also support local authorities in their development, specifically by investing in the green bonds of the Île-de-France Mobilités group, bonds aligned with the Taxonomy requirements. The Île-de-France Group intends to develop the public transport offering, renew the rolling stock, encourage cycling, carpooling and carsharing, to limit the impact on the environment and preserve biodiversity, environments and resources (in accordance with SDGs 9, 11 and 13).

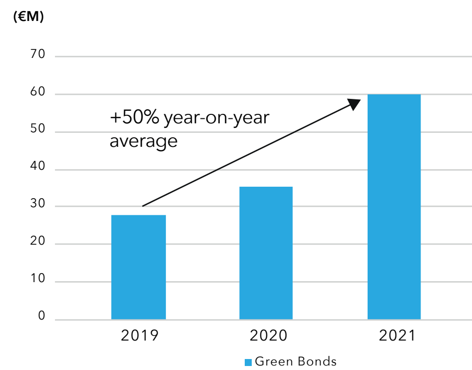
Convinced of its role as a sustainable investor in social and environmental terms, the CCR Group's direct management team support companies in their transition strategies."

Marie Laure Mahieu, Head of Bond & Money Market Management

EXPOSURE THROUGH DEDICATED FUNDS

CCR Group managers encourage management companies partners to invest in green bonds. This dialogue has led to an increase of these outstanding positions. As a result, **the outstanding amount of green bonds has increased by 50% per annum on average since 2019.**

Figure 24: Outstanding green bonds - Dedicated Funds



B/ FINANCING INNOVATIVE SOLUTIONS FOR TRANSITION

In addition to financing the energy transition through green bonds, the CCR Group invests in innovative solutions via impact funds.

In 2021, the group committed to investing 1% of its total assets in the world's largest hydrogen infrastructure fund. This is a significant and iconic investment in a climate impact fund classified under SFDR Article 9 funds.

Through this commitment, the CCR Group is investing in the development of hydrogen infrastructures that will allow a low-carbon economy to emerge. Hydrogen is created by electrolysis from low-carbon energy: nuclear, wind, solar or hydro energy. The hydrogen produced in this way is essential for two reasons: firstly, the decarbonisation of mobility and heavy industry, and secondly, the storage of energy, which is essential to cope with the drop in energy production linked to the development of intermittent energies (such as solar and wind power energy).

Nicolas Mary, Head of Delegated Management Investments

"With the objective of financing of the energy transition and of playing the role of accelerator by promoting innovation, we launched a major consultation early of 2021 to determine the best way to expose ourselves to the infrastructure segment.

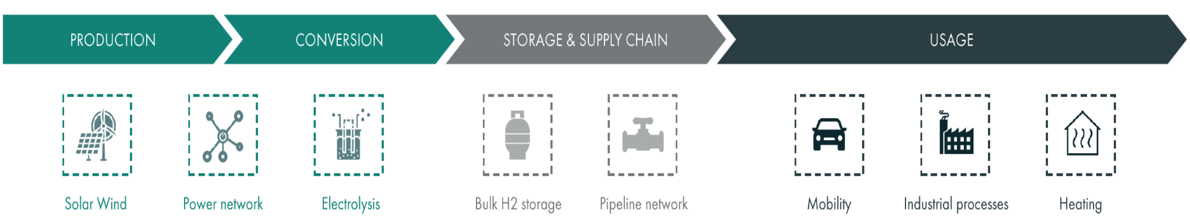
Our ambition was to find an innovative investment, thinking outside the box to meet the challenge of sustainability of renewable energies but also their intermittency.

We have made a major investment for the Group (commitment equivalent to 1% of assets) in the Clean H2 Infra Fund.

This strategy, co-created by Ardian and FiveT Hydrogen through the Hy24 structure, aims to support the development of low-carbon hydrogen throughout the value chain. Thus, the fund's objective is both to invest upstream in electrolysers and downstream, particularly for the use in mobility (fleet and distribution stations).

Our interest in this initiative was guided by its contribution to the energy transition and also because of the collaboration with the industry in the sector (such as Air Liquide, Vinci, EDF, ADP in particular).

The fund's first investment will be dedicated to the production of synthetic fuels based on green hydrogen to decarbonise sea and land transport, aviation and industry, all of which are highly dependent on fossil fuels. The projects are located in Europe but also internationally, and the production units that will soon be built could reach 880MW, the equivalent power of a nuclear reactor."



In Private Equity, the CCR Group has focused its responsible investments primarily in companies involved in the development of effective solutions for a low-carbon economy.

"The T2 Energy Transition fund managed by Tikehau is an essential part of our private equity strategy. Indeed, its objective is to boost the growth of European SMEs and ISEs that provide solutions to the climate emergency and contribute to the emergence of a low-carbon economy.

The fund is based on three pillars: energy efficiency, increasing the supply of renewable energy and low-carbon mobility. In 2020, it avoided 115,000 tonnes of CO_2 through new projects of portfolio companies."

Nicolas Mary, Head of Delegated Management Investments

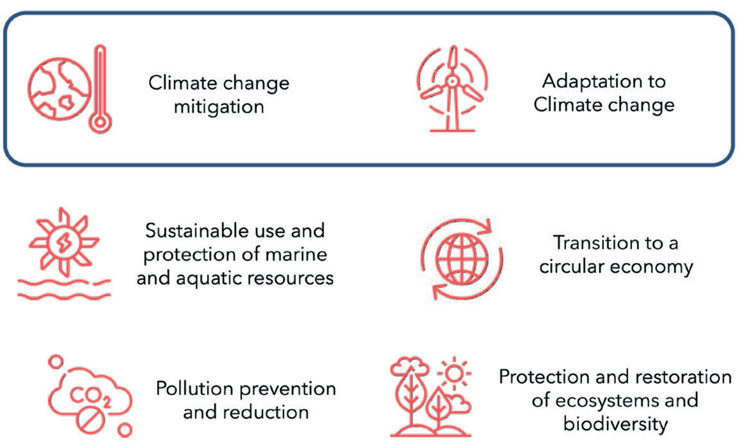
C/ MEASURING GREEN AND BROWN SHARES

GREEN SHARE

Although not subject to the Taxonomy Regulation, the CCR Group has chosen, in the interests of transparency and ongoing improvement, to carry out an initial exercise to determine the proportion of its assets considered as Green Share.

TAXONOMY, ELIGIBLE AND ALIGNED ACTIVITY

The European Taxonomy creates a classification system for sustainable activities based on six environmental objectives:



At this stage of the regulation, only climate change mitigation and adaptation have been the subject of delegated actions.
Three types of activities are eligible:
- Low-carbon activities with low carbon emissions and adapted activities (rolling out measures to adapt);
- Activities in transition, which promote the energy transition;
- Carbon-neutral enabling or facilitating activities that enable carbon neutrality through significant reductions in greenhouse gas emissions.

EXERCISE: DEFINITION, RESULTS AND LIMITATIONS

The CCR Group used data from the SequantisTM platform to calculate the green share of its portfolio. Sequantis uses two criteria to determine whether a company is eligible for the study[9]: the country of incorporation (the issuer must be European) and the listing on a regulated market.

At this stage, the eligible and aligned shares are still estimates due to the lack of raw data from companies.

Thus, **within the Taxonomy-eligible perimeter[10], the weight of aligned issuers is about 27%.**
This percentage does not include green bonds, which represent 5.1% of the CCR Group's total assets (aggregation of bonds held directly and in delegated form via dedicated and collective funds).

To be considered sustainable and to be qualified as 'aligned' an economic activity must first be eligible and meet 4 cumulative conditions:
- Contribute substantially to one or more of the six environmental objectives;
- Comply with the technical examination criteria established by the Commission;
- Do no significant harm ("DNSH") to any of the other 5 environmental objectives;
- Be carried out in accordance with minimum governance and human rights safeguards.

The CCR Group is committed to phasing out thermal coal across its portfolio and exiting unconventional hydrocarbons by 2030 in line with its policy[11].

BROWN SHARE

There is currently still no consensus on the definition of what the Brown Share is. It can be seen as the reverse of the Green Share.

To assess this brown share, the CCR Group has chosen to monitor an indicator of exposure to fossil fuels (extraction and production of electricity from fossil fuels). It thus measures its exposure to high-polluting and potentially 'stranded' assets as a result of the transition to a low-carbon economy.

[9] Non Financial Reporting Directive, Directive 2014/95/EU of 22 October 2014 on the disclosure of non-financial information
[10] That is the range of companies subject to the NFRD regulation and having activities that are Taxonomy-eligible
[11] Description of the unconventional hydrocarbons policy See page 23

METHODOLOGY

To measure the exposure of its fossil fuel investments, the CCR Group uses data from Urgewald, an NGO providing lists of companies active in the fossil fuel sector (coal, oil and gas), which are integrated within the STM platform.

RESULTS

The CCR Group has decided to analyse its entire portfolio of assets (excluding real estate), which covers directly held securities, dedicated funds and collective funds with a look-through lens.

As at 31 December 2021, the CCR Group portfolio's exposure to fossil fuels is minimal[12]. The weight of issuers linked to coal and non-conventional hydrocarbons represents less than 0.50% of the portfolio.

The **GCEL, Global Coal Exit List**, covers companies involved in the coal value chain (exploration, drilling, mining, transport and logistics, engineering, trading, construction, maintenance, infrastructure, power generation etc.). Companies listed in the GCEL account for over 88% of global thermal coal production and almost 85% of global coal-fired power generation capacity.

The **GOGEL, Global Oil and Gaz Exit List**, covers the entire oil and gas sector, at both upstream (extraction) and midstream (transport and processing) levels. Companies listed in the GOGEL represent 95% of hydrocarbon production in 2020 and 74% of pipeline projects in 2020. The definition of non-conventional hydrocarbons is in line with that of the Scientific Expertise Committee of the Sustainable Finance Observatory (except for methane hydrates which are not included).

Figure 25: Portfolio exposure to fossil fuels

	Coal	Unconventional hydrocarbons	Conventional hydrocarbons
Weight of issuers for which their business is related to fossil fuel in the portfolio	0,26%	1,17%	
Restated weight for the share of fossil fuel in the revenue of issuers	0,04%	0,30%	0,72%

Sources : GCEL and GOGEL via Sequantis, CCR Group

[12] *Oil and gas exposure is calculated on the upstream part. The midstream part will be integrated at a later stage*

03.3 RESULTS OF CLIMATE RISK EXPOSURE

The CCR Group is recognised for its expertise in risk management, its agility and the quality of its scientific research. CCR thus collaborated in the climate exercise conducted by the ACPR from July 2020 to April 2021. This exercise brought together the banking and insurance sectors to assess climate change by 2050 in the context of the law on energy transition and green growth and the 2015 Paris Agreement. CCR's role was to measure these consequences on the portfolios of risks underwritten by the insurers participating in the exercise for the perils concerned (floods, coastal flooding and drought).

CLIMATE CHANGE IS A SOURCE OF RISK FOR THE VALUATION OF FINANCIAL ASSETS.

Transition risk is the financial risk associated with the process of adjusting to a low-carbon economy: regulatory, technological or market changes. Emissions must eventually reach carbon neutrality to prevent further climate change. The process of reducing emissions is likely to have a significant impact on all sectors of the economy by affecting the value of financial assets and the profitability of companies. While urgent action is needed, an abrupt transition could have an impact on financial stability and the wider economy. This justifies the transition funding approach adopted by the CCR Group.

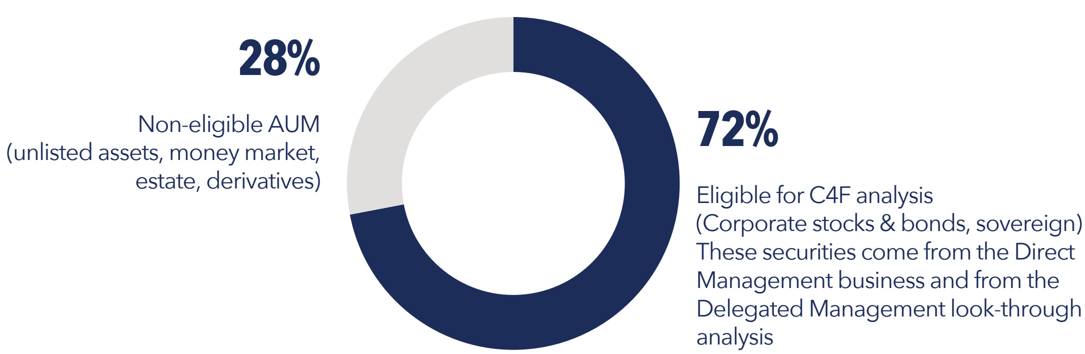
Increases in extreme weather events (such as heat waves, landslides, floods, fires or storms), as well as long-term, gradual changes in climate (such as changes in rainfall and ocean acidification, or rising sea levels and average temperatures), can cause damage to portfolio companies: this is **physical risk**.

DATA PROVIDER AND SCOPES

Carbon4Finance is in charge of the analysis of the portfolio's exposure and has expertise in corporate bonds and equities, and in sovereign bonds.

The study was therefore carried out on 72% of the total assets in terms of market value.

Figure 26: CCR Group look-through - C4F eligibility analysis



A/ TRANSITION RISKS:
IMPACT OF INVESTMENTS ON THE CLIMATE

METHODOLOGY

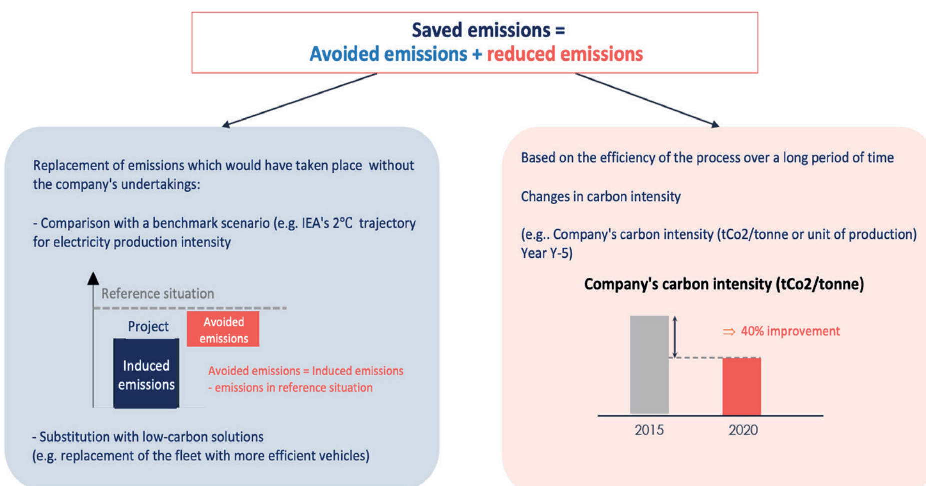
Climate change transition risk is assessed using the Carbon Impact Analytics (CIA) methodology.

This methodology measures:
- the carbon footprint,
- the emissions saved,
- the Carbon Impact Ratio (CIR),
- the portfolio temperature.
The larger a company's carbon footprint, the higher the transition risk.

Carbon footprint measurement varies according to the sector of activity:
- High stakes: a bottom-up approach is applied. These are sectors that are highly exposed to transition risk and that emit a significant proportion of greenhouse gases (energy companies, transport, heavy industry, etc.). Scope 1, 2 & 3 emissions[13] are taken into account and the company's future strategy is assessed.
- Low stakes: a simplified analysis. These are sectors with low greenhouse gas emissions. Scope 1 and 2 emissions are reported if the data is available, otherwise emissions are recalculated using sector averages.

A double-counting adjustment is made[14].

The assessment of saved emissions measures an entity's contribution to climate change mitigation.



Source: Carbon4Finance

[13] The 2001 Greenhouse Gas Protocol (GHG Protocol) on the measurement of corporate greenhouse gas emissions includes three levels of emissions:
- Scope 1: a company's direct emissions
- Scope 2: indirect emissions related to the consumption of energy supplied by other companies: for example, GHGs emitted during the production of electricity consumed by the company
- Scope 3: indirect emissions related to the company's upstream (supplier emissions) and downstream (emissions linked to the use of goods sold) value chain.
[14] See Appendix – Double-Counting Treatment in the CIA Methodology

The ratio of emissions saved to emissions induced is the Carbon Impact Ratio (CIR) The CIR represents the capacity of a player to reduce GHG emissions in relation to the emissions generated by its business and products. As such, it represents a company's contribution to the transition to a low-carbon economy at a given time.

The portfolio temperature is determined here by positioning investments on an average global rating scale of the underlying constituents, calibrated with two benchmarks representing the 2°C and 3.5°C "Business as Usual"[15]. trajectories. A curve, using these two references, starting at +1.5°C and capped at +5°C allows[16] us, to assess the temperature rise of the investments through its overall average score.

RESULTS:

82% of eligible assets were covered by the CIA methodology.

Of the securities covered, 76% are approached by the bottom-up method and 24% by the simplified method.

1/ CARBON FOOTPRINT, EMISSIONS SAVED AND CARBON IMPACT RATIO

Figure 27: Carbon footprint results, emissions saved and Carbon Impact Ratio

	CCR Group	BB Euro AG Benchmark	Stoxx 600 Benchmark	Composite Benchmark
Carbon footprint (tCO_2/M€ ev)	195	206	180	201
Saved emissions (tCO_2/M€ ev)	30	23	18	22
Carbon Impact Ratio	**0,15**	**0,11**	**0,10**	**0,11**

Source: Carbon4Finance, CCR Group

For each tonne of CO_2 induced, the portfolio avoids more than the benchmark indices[17]

The carbon footprint of the CCR Group portfolio is slightly lower than that of the composite benchmark, the CCR Group's choice to finance the transition is illustrated by the weight of the carbon footprint and through the emissions saved.

These are namely generated by green bonds that produce high avoided emissions, thanks to projects in low-carbon transport (train infrastructure, buses, electric vehicles, bicycle lanes), in renewable energy (electricity production, transmission and distribution, energy efficiency) and in the building trade (construction and renovation).

The Carbon Impact Ratio of the portfolio is higher than the benchmark, indicating that CCR Group has been more successful in identifying opportunities and real players of the climate transition. The CCR Group portfolio is therefore better at assessing a company's ability to reduce its emissions, or its ability to avoid emissions that would have occurred if the player had followed a so-called business as usual scenario.

[15] Euronext Low Carbon 100 index represents the 2°C trajectory. It is specifically designed to reflect the investment needs to reach a 2°C world based on the IEA outlook. The business as usual scenario is based on the IPCC scenario SSP3-7.0
[16]Corresponding to IPCC SSP1-1.9 and SSP5-8.5 scenarios
[17] The CCR Group portfolio is mainly European and circa 80% of its exposure is related to bonds. The CCR Group therefore decided to calculate a composite index to reflect the portfolio exposure. The composite benchmark is a weighted average of the BB Euro AG index (80%) and the Stoxx 600 index (20%)

2/TEMPERATURE

The CCR Group portfolio is aligned with a 2.6°C trajectory, equivalent to a better performing model than the Business as usual (3.5°C) and benchmark scenarios.

Figure 28: Temperature results

	Temperature (°C) at 2100
CCR Group	**2.6**
BB Euro AG Benchmark	3
Stoxx 600 Benchmark	2.8
Composite Benchmark	3

Source: Carbon4Finance, CCR Group

This calculation is a first approach. The CCR group will follow its trajectory over time to go below 2°C by 2100.

B/ PHYSICAL RISKS: THE IMPACT OF CLIMATE CHANGE ON INVESTMENTS

In 2019, the CCR Group set itself the goal of analysing the physical risk on its entire directly held portfolio (real estate and financial assets) by 2021.

In 2020, the directly managed real estate portfolio was measured by a proprietary tool, based on the group's expertise in this area (measure of the impact of natural events on insured risks).

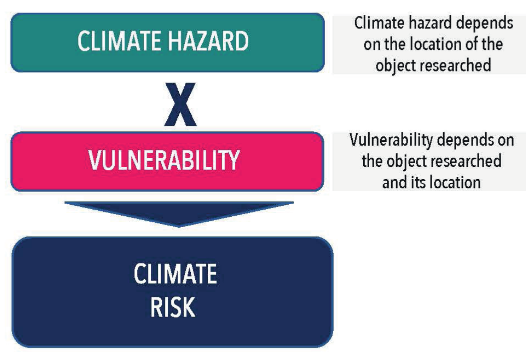
The CCR Group decided in 2021 to analyse the physical risk of its directly held portfolio and to extend this analysis to all delegated funds (collective and dedicated funds), thus exceeding the goal set in 2019.

METHODOLOGY

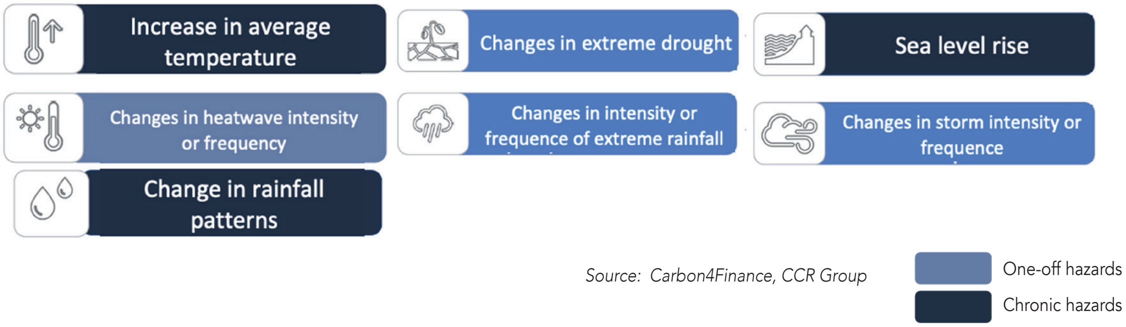
The physical risks associated with climate change are assessed using the Climate Risk Impact Screening (CRIS) methodology.

CRIS relies on descriptive financial information of activities as input, including the distribution of revenue or tangible assets by country and sector.

This information is then combined with scientific data on climate hazards and sectoral and sovereign vulnerabilities.



The output of the analysis allows for an assessment of the asset's risk under three IPCC climate scenarios (see insert) over the long term (with two time periods: 2050 and 2100).
Risk scores ranging from 0 to 99 (the higher the score, the greater the risk) are presented for 7 direct weather hazards.



Source: Carbon4Finance, CCR Group

These hazard-specific risk scores are then weighted to calculate an overall risk score, also known as a multi-hazard risk score. The weighting system gives more weight to extreme risks than to chronic risks, to consider the fact that extreme risks are more difficult to predict than chronic risks.

There is no double-counting risk in the CRIS methodology.

The three IPCC scenarios:

- The **low** emission scenario, below 3°C in 2100, consistent with RCP4.5 and SRES B1 scenarios (median temperatures increase steadily until 2060, before stabilising over the rest of the century);

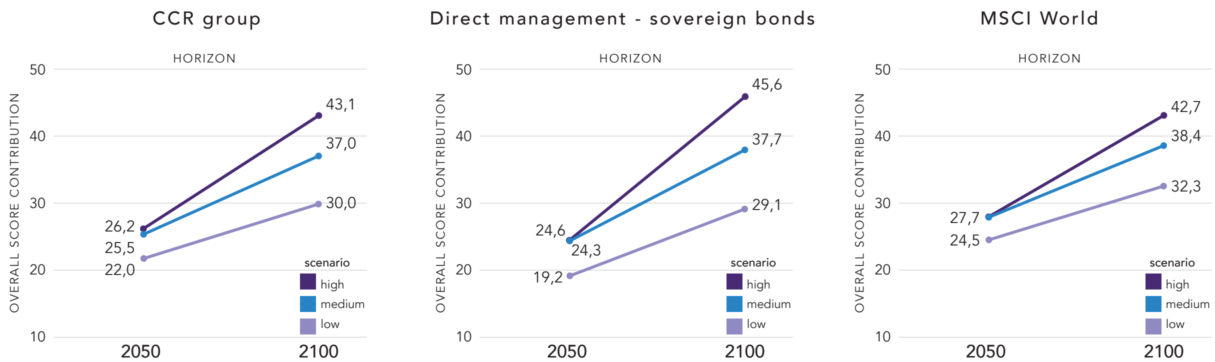
- The **medium** emission scenario, above 3°C in 2100, consistent with RCP 6.0 and SRES A1B scenarios (median temperatures increase significantly throughout the century);

- The **high** emission scenario, above 4°C in 2100, in line with RCP 8.5 and SRES A2 (median temperatures increase dramatically and steadily until the end of the century).

RESULTS

85% of eligible assets were covered by the CRIS methodology.

Figure 29: Results of the physical risk assessment under the three scenarios



Source: Carbon4Finance, CCR Group

Score	risk level
0-20	low
20-40	moderate
40-60	average
60-80	high
80-100	acute

The CCR Group portfolio shows better resilience in the 'low' and 'medium' scenarios.

This lower portfolio risk compared to the MSCI index for a medium scenario by 2050 is illustrated for all climate hazards (except for the hazard of change in frequency and intensity of droughts).

Figure 30: Distribution of risk levels by climate hazard

For an average scenario by 2050

	Sea Level Rise	Changes in Heatwaves Frequency & Intensity	Changes in Storms Frequency & Intensity	Changes in Drought Extremes Frequency	Changes in Rainfall Extre-mes Frequency & Intensity	Changes in Rainfalls Patterns	Increase in Average Temperature	Overall Risk Score
CCR Group	37	29	26	19	27	11	15	25.5
MSCI World	39	29	34	13	29	11	17	27

Source: Carbon4Finance, CCR Group

It is however slightly higher in the 'high' scenario. This score is explained by the high exposure to sovereign bonds, an asset class that shows a higher level of risk by 2100.

03.4 DIRECTLY-OWNED REAL ESTATE EXPOSURE TO CLIMATE RISKS

Thanks to its expertise in physical risk modelling, the CCR Group has a very detailed analysis of the exposure of its directly held real estate assets to the risks of natural catastrophes and those linked to climate hazards.

All of the assets are subject to physical risk mapping using the "BAT-ADAPT" (Bâtiments-ADAPTés) tool, developed by OID in partnership with the City of Paris, ADEME, the Paris Climate Agency, the Association of Real Estate Directors and the Sustainable Building Plan.

Bat-ADAPT analyses climate risk at the location of the building with time projections up to 2030, 2050, 2070 and 2090. Heat waves, droughts, floods and coastal flooding are assessed. A cross analysis of the climate risks and the sensitivity of the building makes it possible to obtain the vulnerability to the various hazards on a scale of 1 to 5 (the higher the score, the greater the risk). The tool provides a diagnosis of the climate vulnerability of a building with the use of the following methodology.

We decided to refine the data and results by integrating CCR models, thus creating a proprietary tool.

Based on the summary mapping of the impact of floods in France, CCR developed a complementary indicator specifically addressing the exposure of buildings to flood-risk areas. This methodology is based on the overlay of an actual loss indicator based on data relating to the costs and frequencies of historical claims recorded by CCR and a potential loss indicator based on CCR's probabilistic modelling and "OSO Theia" land use data.

The summary of impacts is classified into 6 categories from "very low" to "major". All of these indicators are consolidated in a specific tool developed by CCR to effectively monitor the exposure of its directly-owned real estate to climate risks.

The CCR and CCR Re real estate portfolios have a moderate vulnerability score of 8/20 (the lower the score, the better the outcome). This physical risk mapping and assessment exercise identifies areas for improvement which preserves the value of the assets and the well-being of the occupants.

Nathalie Orlhac, Geomatics Specialist / Project Manager
Stat Services & Scientific Calc

"To gain a better understanding of its portfolio of assets in relation to the problem of adapting buildings to climate change, the real estate department developed a high-performance dashboard, in collaboration with the Data Science and Actuarial department of the Public Reinsurance Division.

This interactive tool provides a geographical view of CCR's assets, the areas impacted by floods modelled by CCR and access to the IDO indicators."

CCR GROUP,
A BIODIVERSITY-ATTENTIVE INVESTOR

Energy Observer arrives in the Galápagos Islands in March 2021
© Energy Observer Productions / Victorien Erussard

04.1 PROTECTING BIODIVERSITY WITHIN THE INVESTMENT STRATEGY

The CCR Group's business, like any other business, is linked to ecosystem services[18]. For several years now, scientific reports, namely those of the IPBES[19], have been warning of the increasing deterioration of biodiversity and making companies aware of the risks linked to the loss of biodiversity and the need to control their impacts or pressures on the diversity of ecosystems and species.

The IPBES identified five direct drivers of biodiversity loss as changing use of sea and land, overexploitation of resources, pollution, climate change and invasive non-native species.

The 1992 Rio Earth Summit[20] the 2011-2020 Aichi Strategic Plan and the 2021 Convention on Biological Diversity set the framework for a sustainable future. This framework has "the objective, by 2030 and 2050, to take urgent action across society to conserve and sustainably use biodiversity. It also aims to ensure that benefits arising from the use of genetic resources, are shared fairly and equitably . The aim is to put biodiversity on the road to recovery by 2030 for the benefit of the planet and its population[21]."

The CCR group is analysing the actions that can be implemented to preserve biodiversity and is seeking to assess its dependency on nature's services to reduce this risk. Several prevention studies on the effectiveness of nature-based means have been carried out.

By fighting global warming and financing the energy transition, the CCR Group is already helping to protect biodiversity.

It has also decided to commit to the preservation of biodiversity through investments in thematic funds:

When green concrete comes to life

THROUGH ITS DEDICATED PRIVATE EQUITY FUND - INNOVATION CCR INVESTS IN GÉOCORAIL

"We combat erosion and reinforce marine structures."

Provider of offshore engineering services intended to prevent coastal erosion and protect marine structures. The company's services are based on an electrochemical process that respects the environment and makes it possible to create a natural rock in situ from minerals present on-site. These innovative solutions have excellent compatibility on the aquatic life forms and therefore have a direct impact on biodiversity prevention.

CCR GROUP INVESTS IN THE REHABILITATION OF BROWNFIELD SITES

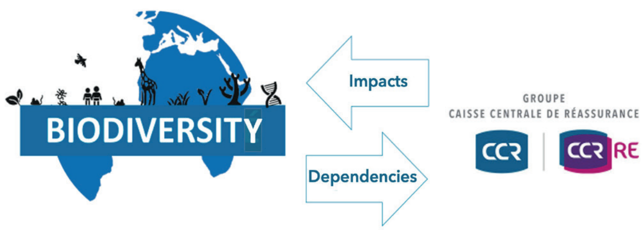
The Ginkgo funds are aimed at the acquisition and rehabilitation of polluted industrial brown field. Ginkgo aims to take a holistic approach to the rehabilitation of contaminated land. The aim is to limit the environmental and health risks that may emerge from these sites and to ensure the recycling of building land to fight against urban sprawl and to reallocate land in areas suffering from structural shortage of building land.

For the CCR Group, the preservation of biodiversity is a goal that can be discriminating in its investments, and the question of the impact of wind projects on the marine ecosystem as well as on bird migrations has led the group to rule out certain opportunities, pending scientific consensus.

[18] *Ecosystem services are defined as the direct or indirect services that humans obtain from nature. Source: Svartzman et al. (2021)*
[19] *IPBES: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem, the equivalent institution to IPCC for biodiversity*
[20] *https://www.cbd.int/doc/legal/cbd-fr.pdf*
[21] *https://www.cbd.int/doc/c/d40d/9884/b8a54563a8e0bf02c1b4380c/wg2020-03-03-fr.pdf*

04.2 BIODIVERSITY EROSION RISK EXPOSURE RESULTS

The CCR Group was determined[22] to carry out an initial assessment of the impact of its investments on biodiversity. This initial assessment made it possible to grasp new methodological concepts, with a view to continious team training, and fuel the thought process going into the SRI policy on this topic.



ANALYSIS: DATA PROVIDER AND SCOPE

To assess the impact of the Group's investments on biodiversity as well as its dependency on ecosystem services, the CCR Group commissioned Carbon4 Finance which, in partnership with CDC Biodiversité, developed a joint methodology: Biodiversity Impact Analytics - Global Biodiversity Score (BIA-GBS).

The study covered all corporate bonds and equities held directly or via looked-through dedicated funds (i.e. 34% of total assets by market value).
The current methodology overestimates the impacts for sovereign bonds (it does not deduct the impact of exports in the calculation of country impacts), the CCR Group therefore opted to exclude them from the area under review this year. Once the methodology matures and stabilises, this will be reconsidered.

Of the sample submitted for BIA analysis, 90% was covered by the methodology.

[22] Pending COP15 and the recommendations of the Task Force on Nature-related Financial Disclosure (TNFD), the equivalent of the TCFD for biodiversity, which is expected to publish recommendations on a nature-related risk management and disclosure framework by September 2023.

A/ TRANSITION RISKS: IMPACT OF INVESTMENTS ON BIODIVERSITY

The impact of investments is assessed by the biodiversity footprint. This is the equivalent of a carbon footprint: the larger a company's footprint, the higher its transition risk.

METHODOLOGY

The GBS tool allows for the quantitative assessment of the contribution of companies to the various pressures on biodiversity and the translation of these pressures into potential impacts using the GLOBIO model. Carbon4Finance then applies this tool to the portfolio through BIA.

GBS calculates the biodiversity footprint of an economic activity, measured by the Mean Species Abundance (MSA) indicator which is the ratio of observed biodiversity to undisturbed biodiversity. The MSA indicator assesses the ecological integrity of ecosystems on a scale of 0% to 100%. As the pressure increases, the percentage decreases. Thus a natural virgin forest will have an MSA indicator of 100% while a cement slab will have an MSA indicator of 0%.

This assessment is carried out along the entire value chain. Scopes 1, 2 and 3 impacts on the operational sites and upstream (suppliers, distribution chain, etc.) are covered in this study (downstream on a case-by-case basis).

GBS has implemented the MSA.m² equivalent which provides the quality and quantity of biodiversity: 1 MSA.km² lost is equivalent to the total destruction of 1 km² of initially intact natural landscape. This metric shows two levels of aggregation: the combination of terrestrial and aquatic biodiversity (MSAppb) and the combination of static and dynamic impacts (MSAppb*). Thus, stocks and flows of impacts are accounted for: the accumulation of past impacts represents static impacts, ongoing impacts, dynamic impacts.

This measure has its limitations, namely because of the unavailability of the data necessary for its calculation, as well as the use of approximations and the failure to take into account all the pressures identified by the IPBES (the marine environment and invasive species).

To compare the impact of portfolios, it is necessary to use the MSA.m²/€K intensity indicator, which links the biodiversity footprint to the amount invested.

RESULT: BIODIVERSITY FOOTPRINT – INTENSITY

Figure 31: Biodiversity - intensity footprint score

intensity MSA.m²/€K	Direct Management Corporate	BB Euro Agreggate
aquatic - dynamic	0.07	0.10
aquatic - static	7.00	8.00
terrestrial - dynamic	4.00	4.00
terrestrial - static	99.00	101.00

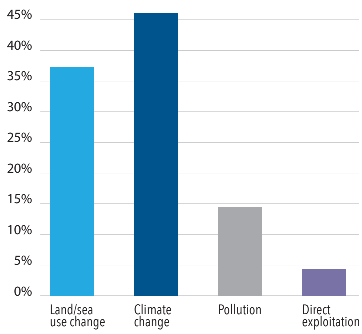
intensity MSA.m²/€K	Dedicated funds	Stoxx 600
aquatic - dynamic	0.08	0.10
aquatic - static	7.00	10.00
terrestrial - dynamic	5.00	4.00
terrestrial - static	95.00	128.00

Source: Carbon4Finance, CCR Group

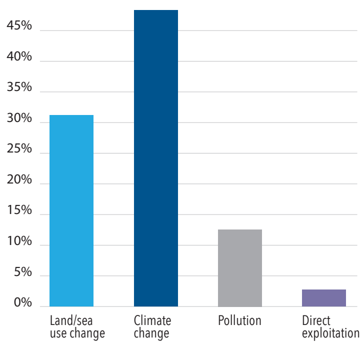
As a result, the portfolios of the CCR group have a lower impact on terrestrial and aquatic biodiversity than the benchmarks.

Figure 32: IPBES pressure distribution of the overall score

Direct Management Portfolio - Corporate



Dedicated Fund Portfolio



Source: Carbon4Finance, CCR Group

Climate change and land use are the predominant pressures exerted by the companies invested in the portfolio of Direct Management - Corporate and Biodiversity Funds. These results justify the CCR Group's initial approach of taking into account biodiversity in the fight against global warming.

LIMITATION

The CCR Group recognises the challenge of using a single indicator to capture the multidimensional and complex nature of biodiversity. Biodiversity is not only about ecosystems and life forms, but also about the relationships and interactions between the different organisms in the biosphere and between these organisms and their environment. "It is illusory to hope to describe biodiversity by a single indicator" (Chevassus-au-Louis et al., 2009).

B/ PHYSICAL RISKS: PORTFOLIO DEPENDENCY ON ECOSYSTEM SERVICES

After an initial assessment of the impact of its investments on biodiversity, in accordance with the principle of double materiality, the CCR Group attempted to measure its biodiversity dependency.

Here, it is the physical risk that is assessed by the dependency on ecosystem services, called the dependency score.

The ENCORE database makes it possible to establish a dependence between 4 ecosystem themes (detailed in 21 ecosystem services) and various production processes (86 sectors of activity are covered). ENCORE assigns dependency (or materiality) scores that are the product of two factors: the degree of disruption to production processes if the ecosystem service were to be lost, and the expected financial losses that would result. The methodology is still under development, and is based on the ENCORE[23] database and the EXIOBASE[24] nomenclature.

The CCR Group has carried out a study which shows that the dependency score of its portfolio is lower than that of several benchmarks[25].

These different measures have limitations due to their stage of development. However, they provide initial awareness and a first quantitative overview needed to develop the consideration of biodiversity-related issues within the CCR Group's asset management.

The CCR Group will strengthen its approach to biodiversity through a strategy of alignment with the 2030 targets. Through its investments it will contribute to limit the degradation and aggravation of biodiversity loss, and promote the regeneration of natural ecosystems.

[23] *ENCORE methodology, developed by the Natural Capital Finance Alliance, 2021 (Exploring Natural Capital Opportunities, Risks and Exposure)*
[24] *EXIOBASE nomenclature which links 163 industries to 86 ENCORE production processes*
[25] *The CCR Group portfolio has a Scope 1 dependency score of 10.7%, compared to 11% for the MSCI World Index; 10.9% for the BB Euro Aggregate Index and the Stoxx 600*

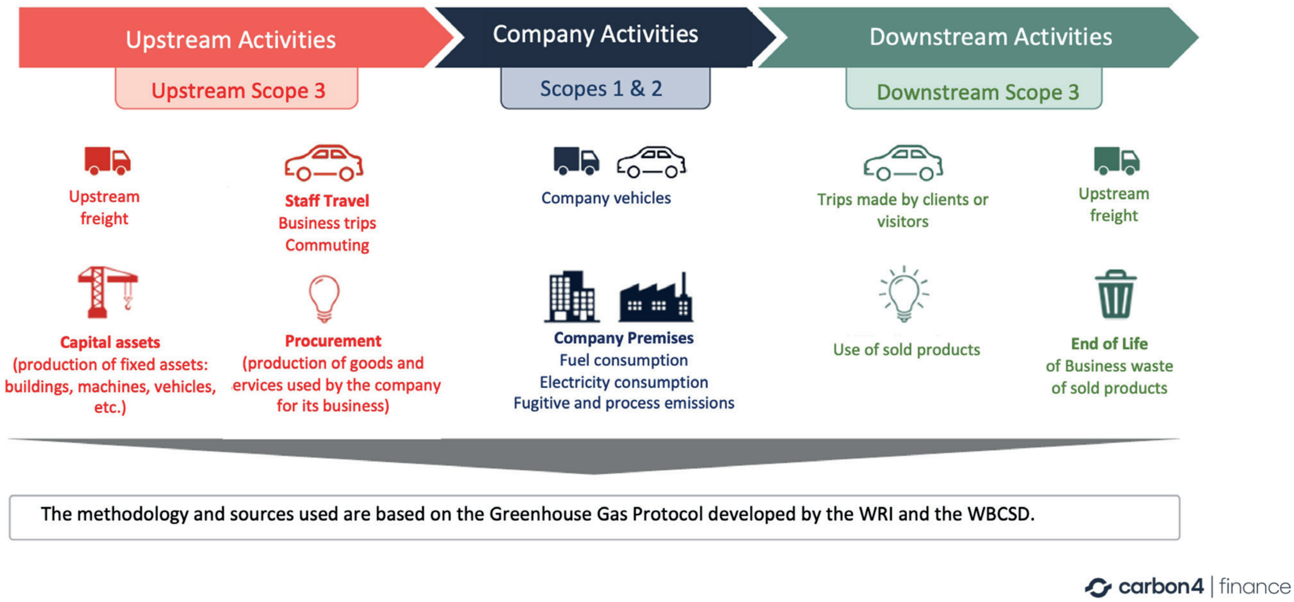
05 APPENDICES

05.1 LIST OF FIGURES

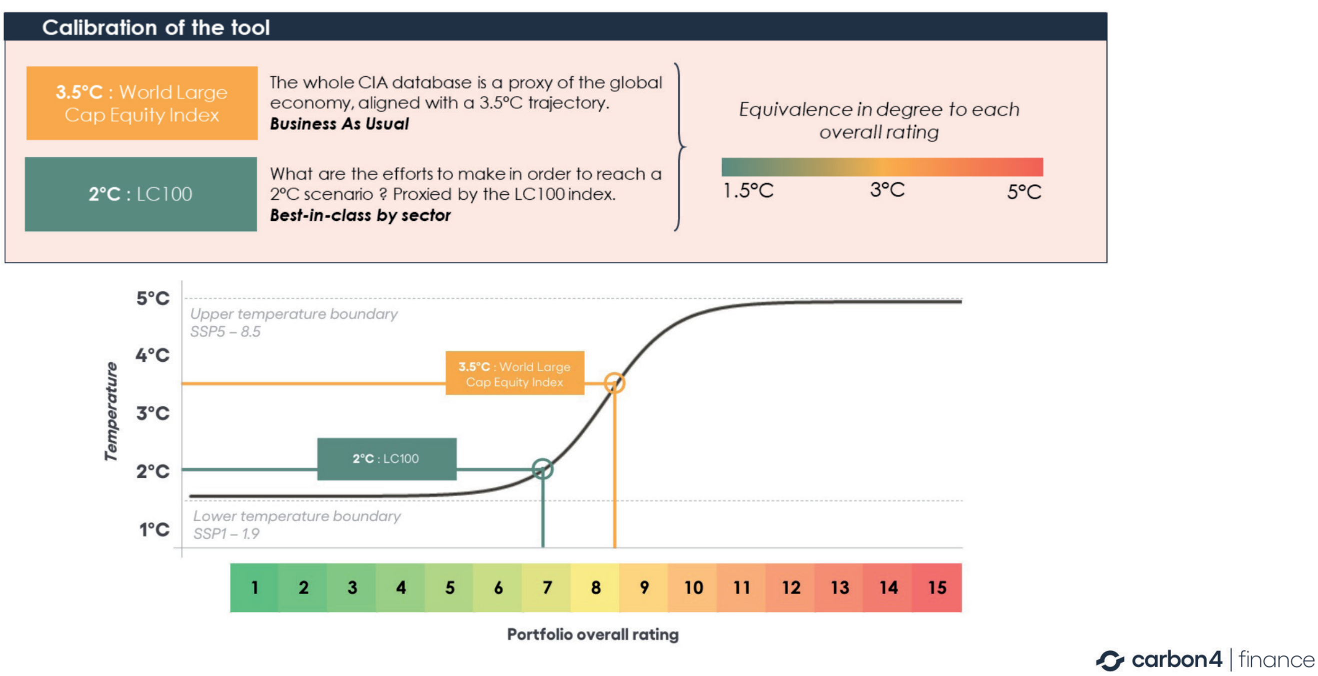
05.2 FOCUS ON METHODOLOGY

CIA METHOD, FOCUS ON THE CALCULATION OF CARBON FOOTPRINT

Scopes 1, 2 and 3



Scenarios used



DOUBLE-COUNTING TREATMENT IN THE CIA METHODOLOGY

Double counting emissions occurs when the same tonne of GHG emissions is counted more than once in a portfolio, usually due to the compilation of induced and saved emissions:
- within the sectoral value chain
- between different sectors of the world economy
- within a sovereign entity and all the companies included in this entity.

The CIA methodology treats each case separately to minimise double-counting as much as possible.

Double-counting treatment in the same value chain

Measuring Scope 3 indirect emissions can lead to double counting for companies in the same sector - at company level - particularly for vertically integrated companies.

To avoid this first double-counting set, CIA considers that the sum of all induced emissions and saved emissions that have been accumulated in the creation of the final product is proportional to the company's value in creating the final product. The total induced emissions and saved emissions from sold products (quantified at company level) are multiplied by the company's share of the total value added along the value chain. However, the value added by a company on specific products is rarely disclosed, so the CIA methodology calculates the company's share in its value chain.

Thus, for a given product category, multiplying indirect emissions induced by the company's share in the value chain becomes equivalent to multiplying the indirect emissions induced by €1 of the final product by the company's added value, in financial terms. The same rule applies to saved emissions.

Double-counting treatment between different sectors of the world economy

Double counting also tends to occur between three categories of players in the global economy:
- energy suppliers (e.g. the oil company that supplies fuel)
- energy and carbon intensive businesses (e.g. trucking companies)
- companies providing equipment and solutions (e.g. the truck manufacturer).

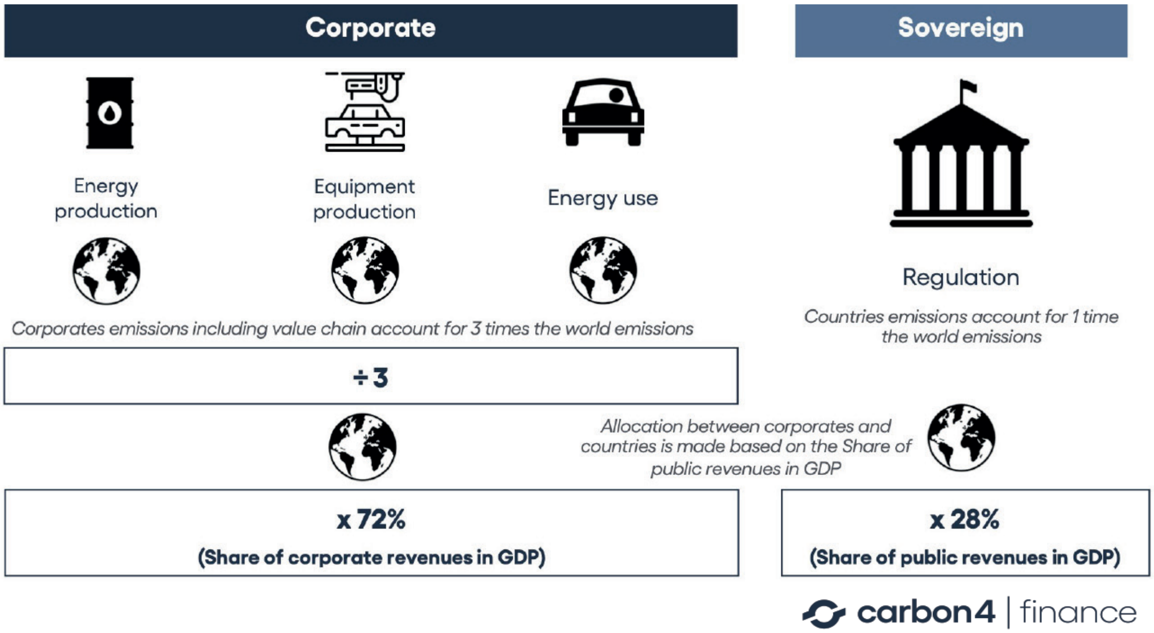
Therefore, the CIA methodology restates the total GHG emission figures by allocating one third of the emissions from each category. Both induced emissions and saved emissions are restated in this way, eliminating most multiple counting at portfolio level.

Treatment within a sovereign entity and all the companies included in such entity

Another double counting elimination is applied to the portfolios. Indeed, on the macroeconomic front, GDP is impacted by corporate and sovereign income. To eliminate multiple counting issues in the portfolios, a ratio is applied to each category of issuer, representing the share of the company or sovereign in the average GDP.

...

The following figure describes how CIA specifically solves this double-counting problem:



With these three principles, the CIA methodology avoids the most common problems of double counting. In addition, the separate treatment of induced emissions and saved emissions provides valuable information, especially as the results are not distorted and highly comparable.

DEFINITION OF BIODIVERSITY AND PRESSURES FROM HUMAN ACTIVITY

There are several levels of biodiversity:
- Genes: what makes us up
- Species: living things (sheep, earthworms, etc)
- Ecosystems: non-living things (lakes, mountains, rocks, etc.)

Biodiversity can be broken down into 8 natural capital assets...:

Atmosphere	Minerals	Land relief	Species
Habitats	Underwater relief	Soils and sediments	Waters

... which each provide ecosystem services that can be grouped under 4 major themes
- Supply: tangible benefits that can be derived from ecosystems (which can be from plants or animals)
- Regulation: to make the planet habitable (e.g. climate regulation through carbon sequestration)
- Housing: which enables living species to live and reproduce in a suitable environment
- Cultural aspect: the intangible or spiritual benefits that humanity can get from ecosystems through knowledge enhancement

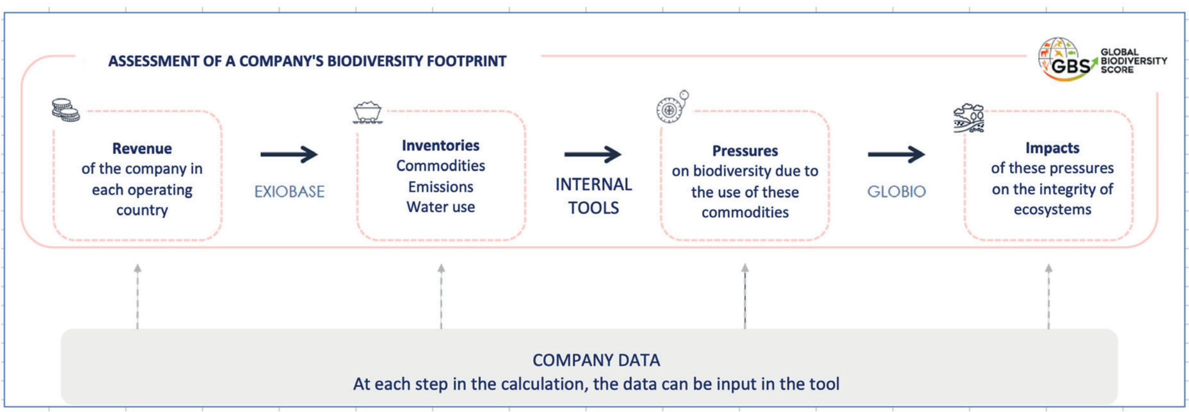
BIA GRS: METHODOLOGY

IPBES has mapped five main direct pressures responsible for biodiversity erosion.

The GBS model covers most of it:

IPBES PRESSURES	GBS / GLOBIO PRESSURES: Terrestrial	GBS / GLOBIO PRESSURES: Freshwater	Marine
Land and Sea change of use	Use of land Fragmentation Riprap	Conversion of humid areas	Not covered
Direct exploitation	Pressures due to the extinction of resources (agriculture, wood, mines, etc.)	Hydrologic system disturbance due to water use	Not covered
Climate change	Climate change	Hydrologic disturbance due to climate change	Not covered
Pollution	Atmospheric nitrogen deposition Ecotoxicity	Use of land in humid areas Eutrophication of freshwater Ecotoxicity	Not covered
Invasive species	Not covered	Not covered	Not covered

GBS assesses the pressures on biodiversity and their impact on the state of ecosystems using the GLOBIO model.



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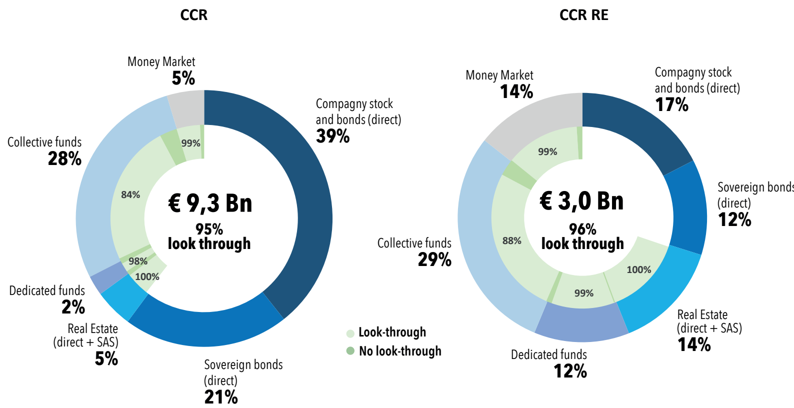
05.3 CCR AND CCR RE RESULTS

RESULTS TABLES FOR CCR AND CCR RE

Figure 33: CCR and CCR Re portfolio structure as at 31/12/2021 and look-through (in % by investment category; market value) [26]



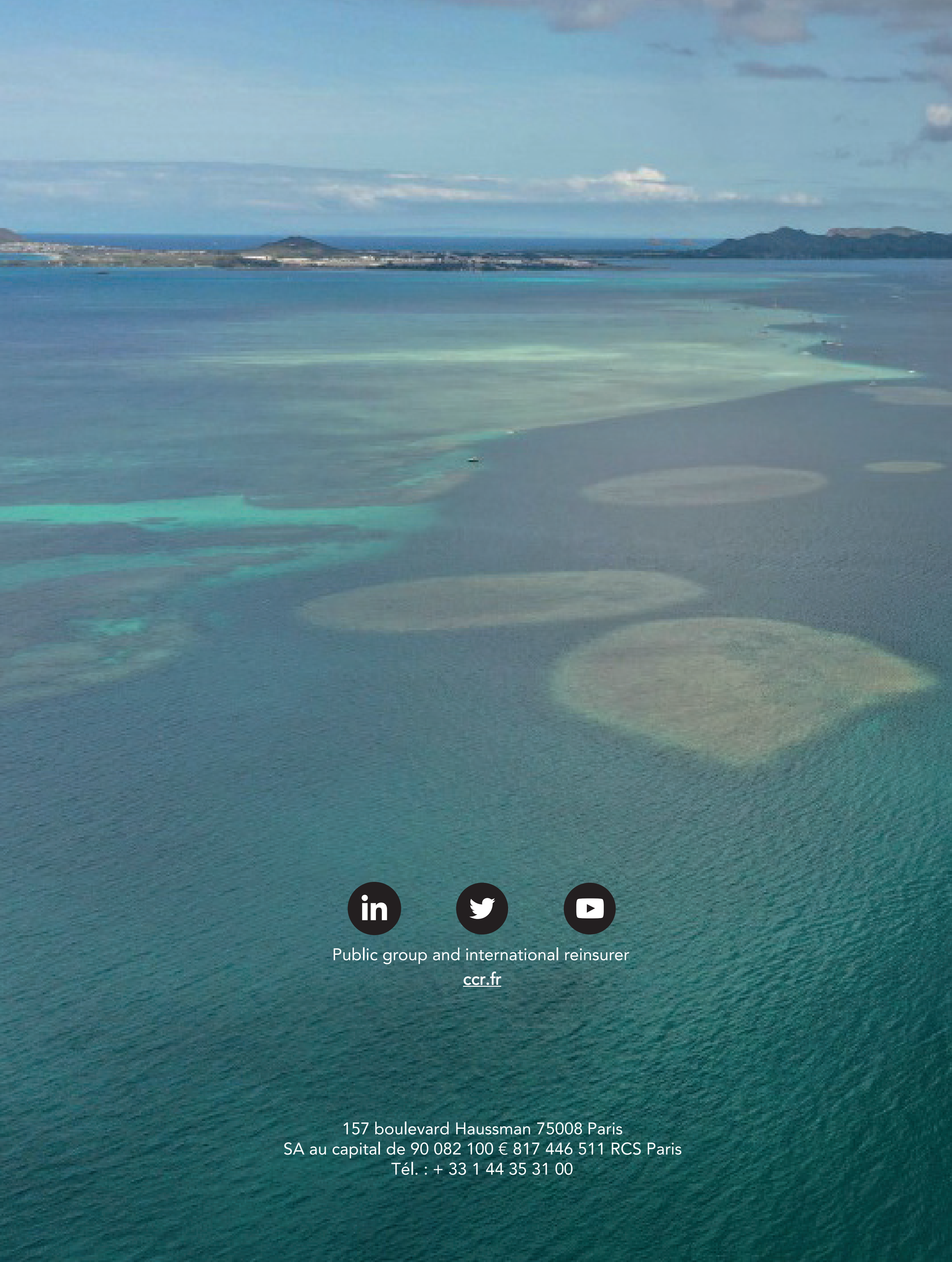
The following results come from the Sequantis Transition Monitor platform on the Carbon4Finance[27] database and Sustainalytics.

	CCR	CCR Re
% of portfolio eligible for analysis (not eligible: directly held real estate, non-looked-through funds, unlisted assets)	90%	88%
ESG Analysis		
Coverage rate		
Covered	89%	80%
Not covered	11%	20%
Results		
ESG score	19 = low risk	20.6 = low risk
E	2.2	2.5
S	4.7	3.9
G	12.1	14.2
Climate Analysis		
Coverage rate		
Covered	86%	78%
Not covered	14%	22%
Results		
Carbon footprint (tCO_2/€M)	153	212
Emissions saved (tCO_2/€M)	15	17
Carbon Impact Ratio	0.09	0.08
Temperature by 2100 (°C)	Same for CCR Group	
Exposure to sustainable bonds		
Directly-owned social, sustainable bonds (% total assets)	5.0%	1.4%
Green bonds (% total assets)	4.8%	3.6%
Coal exposure		
Weight of issuers with coal-related activity (% total assets)	0.22%	0.30%
Weight adjusted by the share of coal in the emitter's revenue	0.04%	0.05%

[26] The CCR Group portfolio is not the sum of the CCR and CCR Re portfolios: the intra-group investment/loan must be restated.
[27] The results of the climate analysis via the Sequantis Transition Monitor platform may differ slightly from those directly obtained from Carbon4Finance due to different data coverage (e.g. on the treatment of green bonds).

05.4 CROSS-REFERENCE TABLE WITH THE INFORMATION REQUIRED BY FRENCH DECREE NO.2021-663 OF 27 MAY 2021 ON EXTRA-FINANCIAL REPORTING BY INSTITUTIONAL INVESTORS

1°	Information on the entity's general approach	01.2 The Responsible Investment Strategy 02.2 The ESG Framework
2°	Information on the internal resources deployed by the entity	0I.2 B/ Responsible Investment Policy 0I.2 C/Governance
3°	Information on the approach to the consideration of environmental, social and governance criteria at the level of the entity's governance	0I.2 C/Governance
4°	Information on the engagement strategy with issuers or management companies and on its implementation:	02.2 The ESG Framework
5°	Information on European taxonomy and fossil fuels	03.2 C/ Measuring Green and Brown Shares
6°	Information on the strategy to align with the international targets to limit global warming under the Paris Agreement	03 CCR Group, an investor at the heart of the energy transition
7°	Information on the strategy for the alignment with long-term biodiversity objectives	04 CCR Group, a Biodiversity-Attentive Investor
8°	Information on the approaches to consider environmental, social and governance criteria into risk management	03.3 Results of Climate Risk Exposure 04.2 Biodiversity Erosion Risk Exposure Results



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