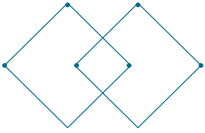




**ESG  
REPORT  
2016**

*Striving towards  
sustainable and socially  
responsible development*

**SCOR**  
The Art & Science of Risk



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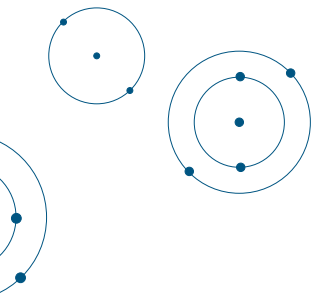
# ESG REPORT 2016

## ON INVESTMENTS



This report has been prepared  
in compliance with Article 173  
of the French law on energy transition  
for green growth

This report was prepared in compliance with decree no. 2015-1850 of 29 December 2015  
in application of the French law on energy transition for green growth no. 2015 – 992 of  
17 August 2015.



## MESSAGE FROM THE CHAIRMAN

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# DENIS KESSLER CHAIRMAN AND CHIEF EXECUTIVE OFFICER OF SCOR SE

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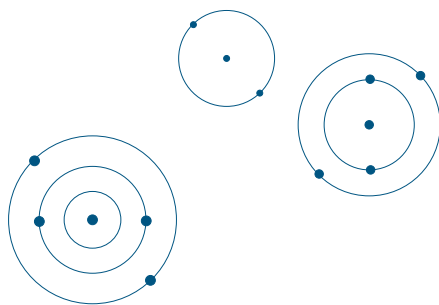
**R**isk, whether natural, technological or human, is the raw material of the SCOR group. It is difficult to influence the occurrence of certain risks, even though we can limit their impact. In the case of earthquakes, for example, we can encourage earthquake-resistant construction. For other risks, it is possible to limit their occurrence, their frequency and their gravity. This is the dual role played by policies of prevention and precaution, which are all about influencing the causes behind risks in order to reduce the likelihood that they will occur. But we can also make a distinction between individual risks – on which we can take the initiative to act – and collective risks requiring the involvement of all those concerned. Risks linked to climate change fall into this category. Managing them pre-supposes mobilization, dialogue and cooperation, even if we can all contribute on an individual level - for example by making choices and decisions that limit greenhouse gas emissions.

The SCOR group has been committed to these issues for the past fifteen years and strives, at its level and with its resources, to develop in a sustainable and socially responsible way.

SCOR signed the UN Global Compact in 2003 and the Kyoto Declaration in 2009, under the aegis of the Geneva Association. Since 2012, SCOR has also been a founding signatory of the Principles for Sustainable Insurance. In 2015, the Group reaffirmed its

commitment to the management of climate risk with its full divestment from companies deriving more than 50% of their turnover from coal, and with the signing of the French Business Pledge on Climate as part of COP21. More recently, on 21 March 2017, SCOR signed the





“ In a world that is constantly becoming more risky and uncertain, insurance and reinsurance have a leading role to play in terms of working towards ESG development and awareness. ”

Decarbonize Europe Manifesto. At the beginning of the year, the Group also announced its full divestment from tobacco companies. With this action, which confirmed its position as a responsible Life & Health reinsurer, SCOR demonstrated the crucial positive role the investment community can play in society.

On a more personal note, since May 2015 I have co-chaired the working group put into place by the Geneva Association on extreme events and climate risks. I am also on the steering committee of the Insurance Development Forum (IDF). This international body, created in 2016 in partnership with the World Bank and the United Nations, aims to build greater

resilience to climate risks by allowing the (re)insurance industry to share its expertise in terms of risk management and cover with the public sphere. The IDF is particularly involved with developing countries that are significantly affected by natural catastrophes and only have a very low level of (re)insurance protection.

SCOR also works towards sharing knowledge in terms of the main climate challenges facing humanity. The SCOR Foundation for Science was created in 2011 and bears witness to the Group's long-term commitment to creating and spreading a risk culture. In March 2017, the Foundation organized a seminar on climate risk modelling, which brought

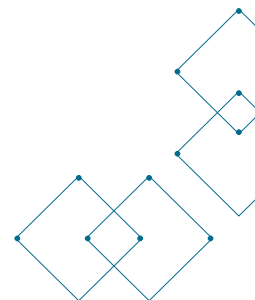
together numerous researchers and insurance industry professionals. The aim of this seminar was to look at how to improve risk modelling and foster databases in developing countries. Similarly, in November 2016 the SCOR group was the driving force behind a report on water risks, as part of the CRO Forum.

In a world that is constantly becoming more risky and uncertain, insurance and reinsurance have a leading role to play in terms of working towards ESG development and awareness. Environmental, social and governance considerations are an integral part of the identity and culture of the SCOR group.



# #1

## ESG PRINCIPLES



“The SCOR Group reaffirmed its commitment to applying ESG criteria in the management of its financial assets.”

As part of its 2016–19 strategic plan ‘Vision in Action’, the SCOR Group reaffirmed its commitment to applying ESG (Environmental, Social and Governance, see glossary) criteria in the management of its financial assets. In its aim to invest responsibly, SCOR has adopted an approach that is more pragmatic than dogmatic. The goal is to first construct a consistent, proactive approach based on the Group’s core competencies, then to gradually expand analysis to more innovative and ambitious topics. Criteria were given priority on the basis of the Group’s core business and fundamental values. Approved by SCOR’s Executive Committee and Board of Directors, the strategic plan defines clear principles and measurable objectives that the Group can report on regularly and transparently.

Risk management, which is the core of the Group’s business, is designed to be holistic and to cover various factors through a global approach. Over many years, SCOR has developed a transversal corporate culture of risk management under the ERM (Enterprise Risk Management, see glossary) concept. Environmental, social and governance risks fall naturally into this approach.



They do not require a separate, specific framework.

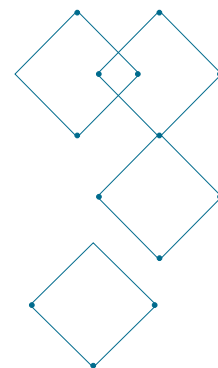
The SCOR group’s ESG approach is based on carefully selected themes, including risk management – the foundation of the Group’s business – but also the impact of targeted investments in ‘green’ sectors, the coverage of natural catastrophes, and both life and knowledge sciences. SCOR applies a policy of excluding certain sectors and companies on the basis of quantitative and qualitative criteria.

The size of the investment portfolio (EUR 19.2 billion at 31 December 2016), and the Group’s limited appetite for equities restrict SCOR’s engagement capacity with regard to this asset class, even in companies with the largest equity exposures. Nevertheless, the Group’s external asset managers (e.g. BlackRock and Invesco) are recognized for their commitment to responsible investment.

In order to fully assume its fiduciary responsibilities, the Group has chosen an approach that is both proactive and adaptable. In 2016, more than 80% of SCOR’s portfolio was rated in accordance with ESG criteria. The green portion of the investment portfolio now totals EUR 1.3 billion, including operational real estate. Through targeted investments, SCOR applies a consistent approach that combines risk analysis, exclusion and impact.

## #2

# ESG APPROACH



“ The Group has undertaken to help finance the energy transition by means of targeted investments in renewable energy sources and energy-efficient buildings. ”

The SCOR portfolio covered by ESG criteria comprises government bonds, agency bonds, corporate bonds, equities, real estate debt, infrastructure debt and direct real estate investments. The portfolio also includes investments in risks related to natural catastrophes (i.e. ILS, Insurance-Linked Securities, see glossary) and limited investments in private equity.

SCOR capitalizes on its expertise to analyze the exposure of its asset portfolio to climate change risks. The Group has undertaken to help finance the energy transition by means of targeted investments in renewable energy sources and energy-efficient buildings. SCOR is aware of the importance that access to knowledge plays in the empowerment of people and accordingly will continue its initiatives promoting the transmission of knowledge. This is found as an investment theme in its 2016–2019 strategic plan. Lastly, in deference to best practices, the Group has reinforced the governance criteria in its investment decisions.

The themes chosen demonstrate the Group’s consistency and determination. They are based on SCOR’s risk management know-how, especially with regard to adapting to the consequences of climate change. One example is the Group’s capacity for natural catastrophe modelling, developed as part of its P&C reinsurance activity. Catastrophe modelling provides analysis of potential physical risks related to real estate and infrastructure investments. It is also useful for the precise management of asset portfolio exposure to catastrophe bonds (see glossary) and other protection against natural catastrophes, i.e. insurance-linked securities (ILS).

The Group continues to research and refine its methodology in order to gradually integrate governance criteria prior to investment decisions, over the cycle of its strategic plan. Even though industry standards are still far from definitive, in some cases SCOR uses the methodologies developed by external suppliers of data and analyses to enhance its expertise and progressively improve its pragmatic approach.



# #3

## INVESTMENT PHILOSOPHY



Based on capital allocation in a Solvency II context, SCOR's approach to asset management is underpinned by an internal model developed by the Group. This approach was in place long before the advent of Solvency II. For years the Group has considered risk to be a major factor in its strategy. As in reinsurance underwriting, SCOR assesses its appetite for market risk, interest rate risk and credit risk. The investment strategy then adheres to risk-tolerance limits as defined by the Group's Executive Committee and approved by the SCOR SE Board of Directors.

The objective of asset management is to optimize the recurrent financial contribution to Group results, while protecting asset values. Accordingly, SCOR is prudent in the management of its investment portfolio. Technical reserves for Life and P&C reinsurance comprise the bulk of liabilities. Liabilities are covered mainly by fairly liquid, high-quality fixed-income assets in order to ensure Group solvency in the event of large claims. ALM (Asset and Liability Management, see glossary) is a critical factor in the selection of assets used to cover SCOR's technical liabilities. In addition, the Group manages assets under the congruence principle, which

ensures that investments are always made in the same currency as underwriting commitments.

The Group places great importance on asset allocation, not only in terms of the major asset classes but also in terms of concentration. Precise limits for asset classes and asset quality are stated in the Group's Investment Guidelines and are reviewed at least once a year and approved by the SCOR SE Board of

Directors. In its latest 2016–2019 "Vision in Action" strategic plan, published in September 2016, SCOR reaffirmed its prudent approach, although the Group is normalizing its investment strategy in the plan.

All asset management is delegated to asset managers, both inside the Group (via its subsidiary SCOR Investment Partners) and outside the Group.



# #4

## THE APPLICATION OF ESG CRITERIA



### 4.1. SUPPORTING CHARTERS, TAKING ACTION FOR THE CLIMATE

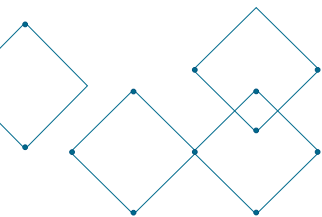
For many years, SCOR has been committed to fighting global warming. SCOR signed the Global Compact in 2003, and the Kyoto Protocol under the aegis of the Geneva Association in 2009. SCOR was also a founding member of Principles for Sustainable Insurance (PSI) in 2012. Since May 2015, Denis Kessler, Chairman and Chief Executive Officer of SCOR, has co-chaired the task force for extreme events and climate risks, created by the Geneva Association, alongside Shuzo Sumi, Chairman of Tokio Marine. This task force has endeavored for many years to promote a better understanding of the connections between reinsurance and climate risks. On 19 November 2015, the Group reaffirmed its support of the Geneva Association's position on resilience and adaptability to climate events.

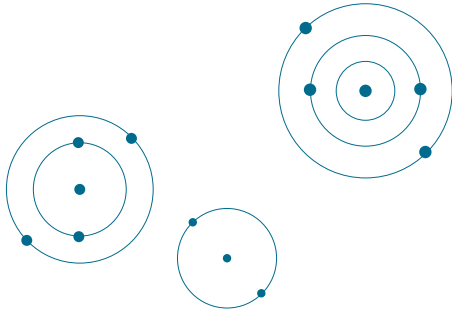
At the COP 21 (Conference of Parties), SCOR joined other large French companies on 26 November 2015 in a commitment to fight against climate change. In the French Business Climate Pledge ("Manifeste pour le Climat"), SCOR reiterated its proactive approach to promoting complementary initiatives in several aspects of its business, in terms of both mitigating and adapting to climate change. SCOR is committed to further embedding these initiatives in its activities by 2020.

In June 2015, before the COP 21, the SCOR Group organized a conference titled "SCOR Foundation Seminar on Climate Risks", in collaboration with the Toulouse School of Economics and the Geneva Association. The conference was attended by eminent economists, climatologists, actuaries and academics, in addition to insurance and reinsurance professionals. Together the participants analyzed and discussed climate risks and their insurability, as well as how to take decisions in a context of climatic uncertainty. [The Group published a report after the conference.](#)

During the conference, SCOR invited participants to examine and study the implementation of efficient and balanced public-private partnerships in order to lower costs for the government, expand coverage to the entire population, and insure against risks associated with climate change. The Group emphasized the necessity for capital markets to strengthen their capacity to absorb major catastrophes and increase their research on how to combine capital-market instruments with traditional insurance and reinsurance.

The CRO Forum's Emerging Risk Initiative, led by SCOR in 2016, published a new Position Paper on Water Risks at the end of the year. The re/insurance industry represents substantial investment capacity over the medium and long term. It may therefore provide strong leverage to promote promising or sustainable water projects and investments. It could also use its influence to encourage major infrastructure projects to minimize their impact on water supply and usage. [Link to the position paper.](#)





The SCOR Group participated in a working group established after the publication of decree no. 2015-1850 of 29 December 2015 concerning Article 173 of the French law on energy transition for green growth. Through the French Insurance Federation's Sustainable Development Standing Committee and the French Association of Institutional Investors, the Group made its experience in risk management and the effects of climate change available to the Paris financial market. The objective is to produce guidelines for insurers and reinsurers that explain the challenges and importance of Article 173 as well as reporting requirements.

The SCOR Group has also worked with the Geneva Association to analyze the positioning of insurer and reinsurer investment portfolios, with regard to exposure to climate-change risk and the financing of the energy transition.

SCOR Investment Partners ('SCOR IP'), the SCOR Group's asset management company, signed the UNPRI (United Nations Principles for Responsible Investment, see glossary) on 13 December 2016.

When asset management is delegated to external asset managers, SCOR verifies during the selection process and regular due diligence procedures that the principles of responsible investment adhered to by asset managers are in accordance with the principles defined by the Group.



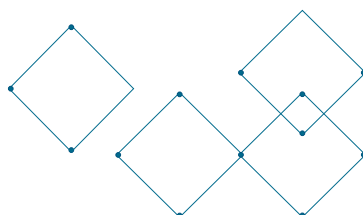
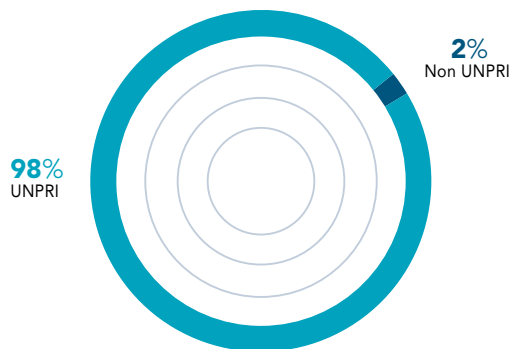


South Pole Group is a leading provider of global sustainability solutions and services. The company has delivered climate-proven solutions to a wide range of public, private and civil society organisations for over a decade. Areas of expertise cover key areas of corporate climate action, investment climate risks, public advisory, sustainable supply chains, green finance, as well as renewable energy and energy efficiency. A pioneer in emission reduction and renewable energy projects, the South Pole Group's portfolio is at present the largest available on the market.



In 2016, only one external asset manager working with the Canadian branch was not a signatory of the UNPRI. Except for Canadian government bonds, which correspond to automatic hedges placed on interest rate risk under ALM, the exposure to credit risk handled by this asset manager is marginal in SCOR's portfolio.

### UNPRI COVERAGE RATE OF ASSET PORTFOLIO at 31 December 2016





## 4.2. APPLYING ESG PRINCIPLES TO INVESTMENT DECISIONS



### GOVERNANCE IN THE APPLICATION OF ESG CRITERIA TO INVESTMENT DECISIONS

#### ► EXECUTIVE COMMITTEE AND BOARD OF DIRECTORS

The Group examines CSR (Corporate Social Responsibility, see glossary) at both the Executive Committee and the SCOR SE Board of Directors level. The ESG policy applied to assets was reviewed for the new 2016-2019 strategic plan "Vision in Action". The Group Executive Committee reaffirmed ESG goals, which were approved by the SCOR SE Board of Directors. Through its various reports on asset management, the Group informs the Group Executive Committee of actions taken and on the inclusion of ESG criteria in investment management.

On the operational level, the ESG policy for investments is then determined by two committees.

#### ► GROUP INVESTMENT COMMITTEE

The Group Investment Committee chaired by the Chairman & Chief Executive Officer of SCOR meets every three months to define portfolio positioning within the limits set by the strategic plan. Normative and thematic exclusions, as well as major asset reallocations related to risk management, are approved during these meetings.

#### ► MANDATE INVESTMENT COMMITTEE

The SCOR Global Investments division in charge of Group investments is composed of a Group Investment Office (GIO) and the asset management company, SCOR IP.

The Group Investment Office is in charge of relations between SCOR and its asset managers. On the basis of the Group's risk appetite, the GIO defines investment constraints and provides oversight. It is also in charge of reporting, data quality and the Group ESG investment policy.

**“The Group examines CSR at both the Executive Committee and the SCOR SE Board of Directors level.”**

SCOR IP is the Group's principal asset manager. A wholly owned subsidiary of SCOR SE, SCOR IP manages the assets of Group's companies, except for entities operating in the Americas and in certain Asian countries. SCOR IP may also act as investment advisor to entities that have delegated asset management to external asset managers. SCOR IP is a signatory of the UNPRI and applies, as part of its investment decisions, ESG principles defined by SCOR for its investment mandate.

The Mandate Investment Committee meets once a fortnight with both GIO and SCOR IP representatives, in order to analyze portfolio positions at a more operational and granular level. This committee discusses strategic choices in light of ESG criteria. The exclusion lists are updated at the initiative of SCOR or based on proposals

submitted by SCOR IP. The lists feature specific issuers (e.g. the exclusion list of the Norwegian pension fund) and business sectors (e.g. exclusion of companies whose turnover is largely derived from activities related to thermal coal).

#### ► EX-POST MONITORING

The updated list of exclusions is sent to SCOR IP and to external asset managers for immediate enforcement.

The Investment Guidelines are updated accordingly. The GIO is in charge, inter alia, of verifying that investment decisions are in compliance with the various risk-related limits set by the Group (e.g. concentration, appetite, tolerance and target allocation). To achieve this aim, the Group Investment Office retrospectively controls the adequacy of portfolio positions and ESG performance indicators with the objectives set by the various governance bodies that

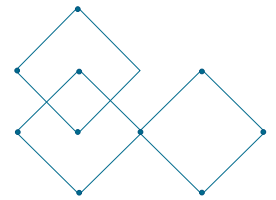
determine ESG policy. The GIO's risk management team integrates ESG scoring and exclusion lists in its weekly portfolio reporting. The head of the GIO risk management team is a member of the Mandate Investment Committee and in that capacity participates in discussions on ESG guidance for portfolio investment. Both before and after the investment decision concerned, ESG is fully integrated into risk management.

#### ► THE ROLE OF ASSET MANAGERS

SCOR relies on the skills of the asset managers to whom asset management is delegated. SCOR IP plays a dominant role in the integration of ESG criteria in investment decisions. The principal external asset managers are recognized for their ESG culture. They can be asked to provide analyses of issuers, thereby giving a basis for evaluating investments in light of the Group's ESG policy.

During the selection process for external asset managers, SCOR considers the candidates' capacity to include ESG criteria in their investment decisions. When SCOR IP acts as investment advisor, the management company also monitors the application of Group criteria prior to investment decisions.

New mandates have been awarded over the past two years. The two asset managers selected, BlackRock and Invesco, are longstanding signatories of the UNPRI charter. They apply an active engagement policy with regard to issuers, and their voting policy includes ESG considerations.



The Group uses information provided by its asset management company. SCOR IP has chosen South Pole to assess the carbon footprint of Group assets, and oekom research has been selected to determine non-financial ratings. SCOR IP uses these ratings for investment decisions. After the investment period, SCOR uses the ratings to verify that the macro-positioning of the portfolio complies with the Group investment strategy.

An analysis of the SCOR portfolio's alignment with the objective of keeping global warming under 2°C by the year 2100 was carried out by the think tank 2° Investing Initiative.

### ► EXCLUSIONS

The SCOR Group has applied an exclusion policy for many years. Although limited at first to companies involved in the production of weapons prohibited by certain international agreements, and to countries which do

not adhere to anti-money-laundering and anti-terrorism-financing rules, the principle of exclusion was expanded in November 2015 to include companies which derive more than 50% of their turnover from coal. Thus, on 30 November 2015, the SCOR Group announced its divestment from companies deriving more than 50% of their turnover from coal and pledged, across its entire asset portfolio, to make no new financial investments in such companies.

Because of its international positioning, the Group is exposed to numerous regulatory systems that differ on the basis of the activities of the various subsidiaries. Certain entities are constrained to apply an even stricter limit, setting the maximum authorized turnover at 30%. In addition to these standard exclusions, specific exclusions are applied where needed for rigorous risk management.

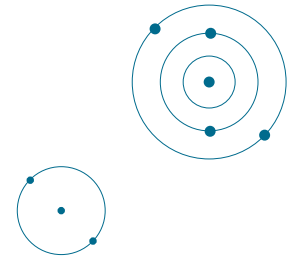
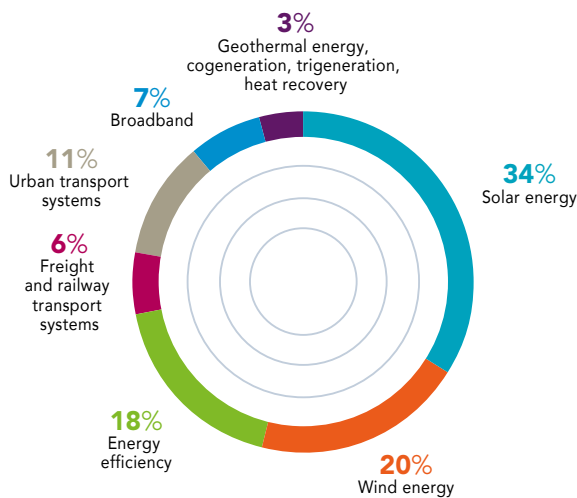
### ► IMPACT INVESTING

SCOR chooses its investments on the basis of a responsible and committed approach. Through its financing of the energy transition by means of infrastructure debt allocated to renewable energy sources, its investing in insurance-linked securities to help rebuild after natural catastrophes, its active commitment to the life sciences and its promotion of the knowledge society, SCOR assumes full responsibility as an institutional investor which aims to make the world more respectful towards both the earth and people.

**Bearing witness to this approach, more than 60% of the infrastructure debt investments made through funds managed by SCOR IP finance projects that comply with French TEEC (Energy and Ecological Transition for the Climate, see glossary) criteria, or that have a social impact.**



**BREAKDOWN OF INFRASTRUCTURE DEBT INVESTMENTS LABELLED TEEC OR WITH A SOCIAL IMPACT at 31 December 2016**



Examples of infrastructure in funds managed by SCOR IP





## PROJET AREMA SOCIAL INFRASTRUCTURE FRANCE

### PROJECT DESCRIPTION

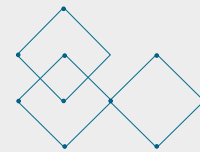
- Financing the revamping of the Orange Velodrome Stadium in Marseille and its surroundings
- Project financed under a PPP format with the City of Marseille (rating S&P: A | Fitch: A+) as public guarantor
- Awarded in 2010 to the project company AREMA following a public call for tender
- Project in operation since 28 August 2014 with the commissioning of the whole project.

### PROJECT UPDATE

- Project in operation since August 2014
- Debt repayment independent of operational performance

### KEY DATA

Country	France
Sector	Social Infrastructure
Shareholders	CDC, Mirova, CEPAC, Bouygues Bâtiment Sud-Est, Bouygues E&S FM
Total debt amount	EUR 136,367,501
SCOR IP funds share	EUR 30,000,000
Acquisition date	15/07/2016



(1) Public Private Partnership.



## THD NORD PAS DE CALAIS PROJECT TELECOMMUNICATIONS FRANCE

### PROJECT DESCRIPTION

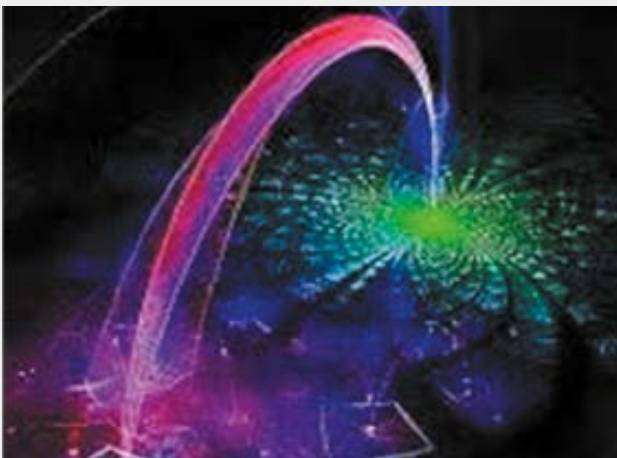
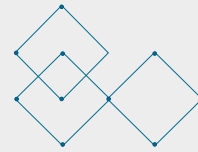
- Financing the design, construction, operation, maintenance and commercialization of a superfast fiber optic broadband network in the former Nord Pas de Calais region, in areas not covered by the private sector due to their low population density
- Benefits from a 25-year concession contract with the Nord-Pas-de-Calais Digital Joint Association
- Credit agreement signed with the EIB, with a view to implementing EUR 105 million of partial senior debt refinancing during the construction period

### PROJECT UPDATE

- Construction period of five years until 2021, with the network progressively put into service over the period

### KEY DATA

Country	France
Sector	Telecommunications
Shareholders	Fideppp 2, Mirova SP2, CDC, Axione, Bouygues Energies & Services
Total debt amount	EUR 401,018,000
SCOR IP funds share	EUR 33,700,000
Acquisition date	16/12/2016



## SCOR'S REAL ESTATE STOCK INCREASINGLY MEETS BREEAM, HQE OR LEED CRITERIA



PARIS



SINGAPORE



COLOGNE



LONDON

## 4.3. PROMOTING RESEARCH AND KNOWLEDGE

### LIFE SCIENCES

In the objectives set out in its strategic plan for 2016-2019, "Vision in Action", SCOR reaffirms its support of the life sciences through the investment of an additional EUR 50 million by 2019. At the end of 2016, investments in life-science equities and bonds totaled nearly EUR 150 million, of which EUR 40 million was invested in the second half of 2016. Most of the companies selected for investment are in the biotechnology field and are working to improve medical treatment and broaden access thereto. These companies aim for responsible development.

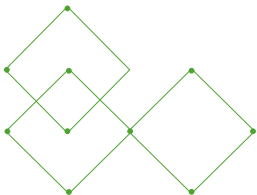
### KNOWLEDGE SCIENCES

Wishing to invest in high-quality, medium-sized companies working in the production and publication of certified knowledge, SCOR acquired the French publishing houses Presses Universitaires de France (PUF) and Editions Belin. In a context of information available 24/7, which can be a source of confusion, the objective behind these acquisitions was to protect against a contemporary risk: cognitive risk, i.e. the risk of misunderstanding or of biased judgment, which are often the result of low-quality information or insufficient access to knowledge.

The initial approach was to strengthen and digitalize these two companies, notably by supplying them with the services of another SCOR investment in knowledge sciences, Gutenberg Technology, an expert in e-learning and the digital transformation of content. Today the idea is to produce, disseminate and even create diploma programs for confirmed knowledge.

Thus SCOR hopes to satisfy a threefold need: for a guarantee linked to knowledge, for a multi-support offer that validates acquired skills and knowledge, and for training courses – basic, university-level and professional – that are distinct from or complement the existing public offer.

Rolled out over time, this policy of "cognitive protection" is now embodied in a group, HUMENSIS, the result of the merger between PUF and Editions Belin. HUMENSIS aims to bring together robust, well-known brands in the production, dissemination and diploma-level teaching of confirmed knowledge. Its ambition is to participate actively in the expansion of the knowledge society.



**EUR 150**  
million invested  
in shares and bonds  
relating to life  
sciences

## 4.4. RESPECTING BEST PRACTICES

### ESG RATING

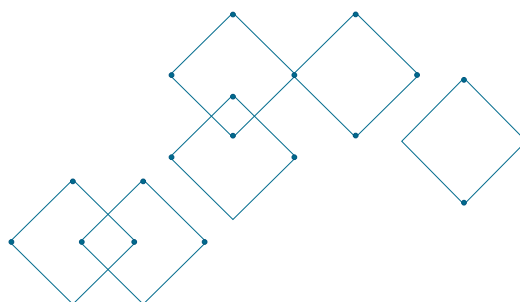
For SCOR, the inclusion of ESG criteria is achieved above all through asset portfolio quality assessment. Given the extreme diversification of its investments, the Group has chosen the independent, non-financial ratings agency oekom research to assess its portfolio's standard instruments. The agency assesses mainly government bonds, corporate bonds and listed equities. For debt instruments, particularly infrastructure and real estate debt, the Group relies on the expertise of its subsidiary SCOR IP, a recognized leader in the European debt instrument management industry.

**Thanks to the data it has collected, SCOR is able to rate 73% of its financial-asset portfolio in accordance with non-financial criteria.** A line-by-line analysis is regularly performed ex-post. Issuers with the lowest ratings may be placed under review, and the asset managers in charge of managing such securities may be asked to provide additional information or to justify their investment decisions. At present, SCOR does not apply systematic exclusions, however it may make adjustments to portfolios after analysis. By taking a pragmatic approach, the Group aims to



reconcile risk control with profitability and solvency targets. Like all reinsurers, SCOR is subject to numerous asset management constraints, especially since it operates in multiple jurisdictions. The main growth drivers are in Asia, where national law often requires that assets be owned and held locally. However, the Group often chooses to restrict the capital placed in certain emerging countries to core reinsurance

activities. As a result, asset management objectives are primarily related to ALM constraints, and the portfolio largely comprises government bonds. It is very likely that over the next few years this asset class will grow at the same rate as SCOR's Asian business. Nevertheless, the Group remains very alert for any local initiatives that could be taken to promote the energy transition, especially the outlook for sovereign green bond issues.





**oekom research**

oekom research AG is one of the world's leading rating agencies in the area of sustainable investment. Their research insights provide us with a competitive edge, allowing us to blend sustainable and responsible investment (SRI) with a high rate of return. As the experienced partner of numerous institutional investors and financial service providers, they develop tailor-made services and help realize investment strategies in a rapidly growing sector. Their sustainability research covers major issuers of shares and bonds (companies, countries and supranational institutions).

When assessing securities, they attach great importance to high standards in quality, independence and transparency. Since 1993, oekom research has actively helped to shape the sustainable investment market. Their analysts' services and expertise are in high demand. Their evaluations provide companies with an astute yardstick and simultaneously fuel their interest in integrating environmental, social and corporate governance concerns into day-to-day management.

The oekom research rating methodology is based on the analysis of environmental and social ("E" and "S") factors, including governance criteria. On the basis of a 73% coverage ratio, oekom research assigns SCOR's portfolio an average rating of C, which is derived from very diverse data. As previously mentioned, SCOR's influence varies widely, depending on the asset class involved. Government and corporate bonds are the portfolio's largest asset classes and account for 87% of Group assets covered by the oekom research analysis.

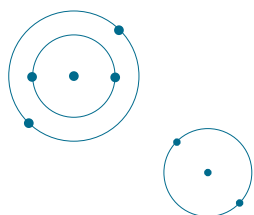
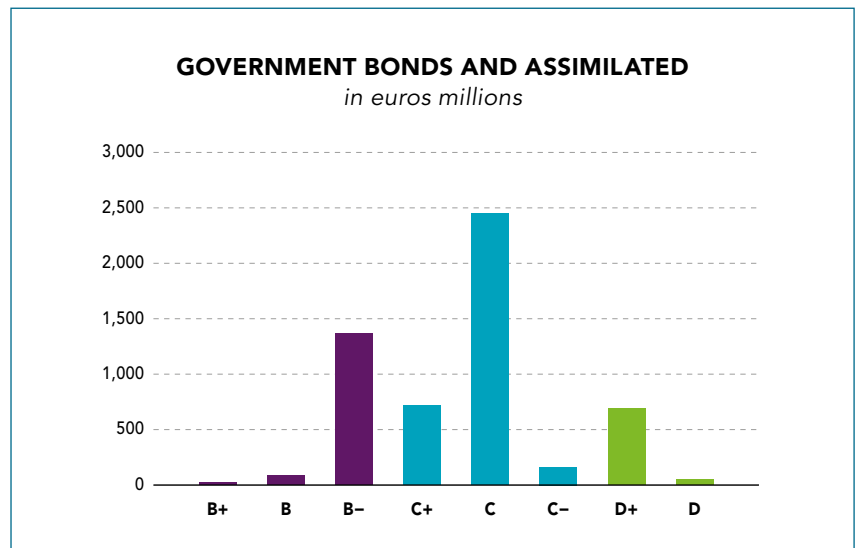
For the country rating as applied to government securities, oekom research assigns equal weighting to the two groups of E and S factors.

The portfolio of government bonds (EUR 5.4 billion at 31 December 2016) is rated C on average and is broken down as shown in the diagram below.

These securities are employed mainly for ALM coverage of the Group's underwriting commitments. Investing

in other asset classes creates other types of risks, a strategy that is not currently considered advantageous.

The methodology used to rate private-sector companies is also based on the two groups of E and S factors, but their weighting depends on the business





sector involved. Analyses are based not only on financial and non-financial data provided by the companies, but also on interviews with employees and external stakeholders. Corporate bonds rated by oekom research totaled EUR 7.2 billion at 31 December 2016, with an average ESG rating of C. The distribution of ratings is shown in Figure 1.

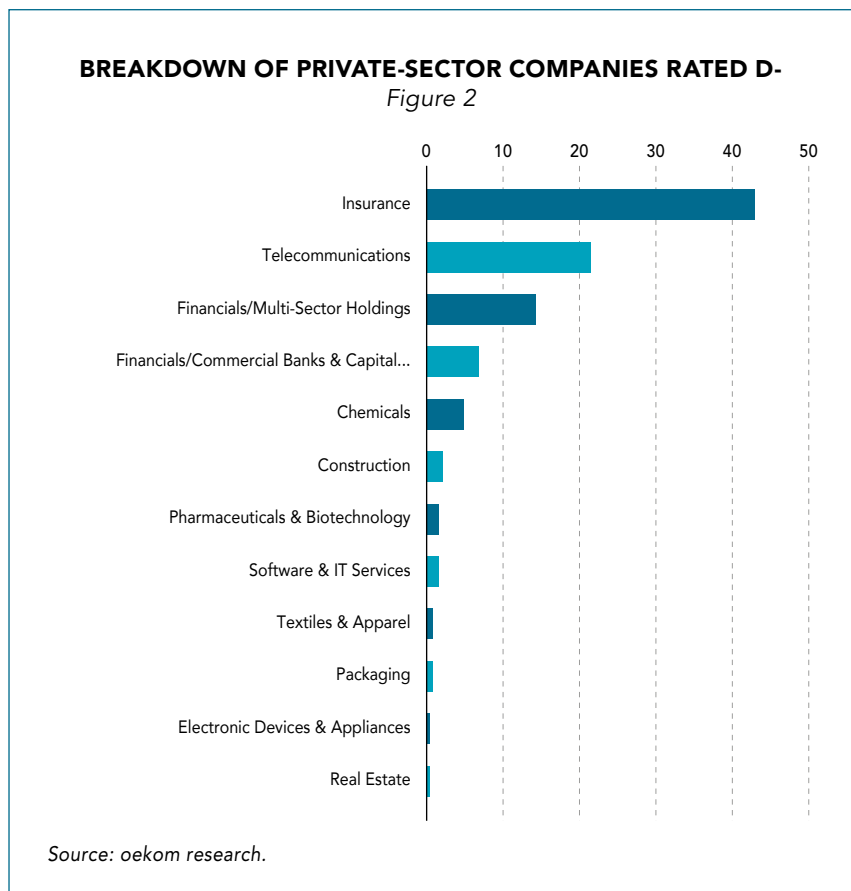
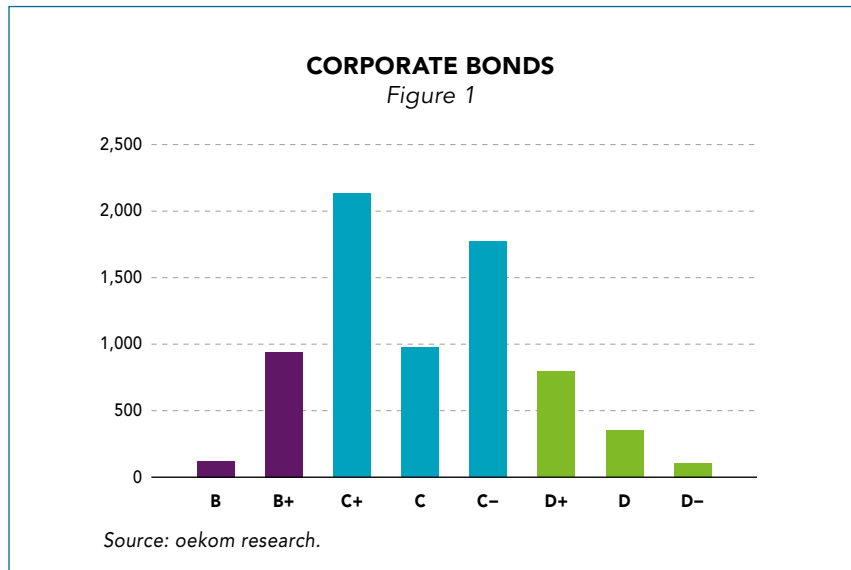
Investment in bonds rated D- total less than EUR 100 million. The breakdown by sector is shown in Figure 2.

Analysis of individual issuers essentially reveals a lack of transparency in their published information, with more than half of their outstanding assets relating to the subsidiaries of unlisted groups.

**EXERCISE OF VOTING RIGHTS**

The Group regularly reviews its policy on voting rights attached to non-strategic shares. The exercise of voting rights has hitherto depended on holding a required minimum volume of securities. Given its modest investments in this asset class, the Group has not exercised its voting rights in recent years. This approach will become more systematic in the years to come. Decisions will be based on recommendations from a proxy, who was in the process of being selected at the end of 2016.

The exercise of voting rights for shares held as strategic investments will be based on an internal analysis of the resolutions proposed and of their compliance with Group ESG principles.



# #5

## CLIMATE RISK MANAGEMENT



### 5.1. PROTECTING ASSETS

#### RISK MANAGEMENT METHODOLOGY

##### ► PHYSICAL RISKS

SCOR analyzes “acute” physical risks which could affect its portfolio of real estate debt, infrastructure debt and direct real estate investments.

Acute physical risks are defined as risks related to events such as natural catastrophes, which include extreme weather phenomena such as cyclones, hurricanes and floods.

The 2016 analysis concerns a portfolio located mainly in France with a total market value of EUR 1.8 billion at 31 December 2016.

The breakdown by market value, asset class and country is as follows:

	Market value (in EUR million)	Market value (%)
Real estate debt	265	15%
Infrastructure debt	201	11%
Real estate	1,364	75%
<b>TOTAL</b>	<b>1,830</b>	<b>100%</b>

	Market value (in EUR million)	Market value (%)
France	1,569	85.7%
Denmark	7	0.4%
Germany	45	2.5%
Italy	40	2.2%
Netherlands	20	1.1%
Singapore	52	2.8%
Spain	7	0.4%
UK	90	4.9%
<b>TOTAL</b>	<b>1,830</b>	<b>100%</b>



# 85%

of the physical risks analyzed are located in France



The “acute” physical risks on this portfolio were analyzed using SCOR’s internal model for simulating natural catastrophes. Based on scenarios validated by the Group’s modelling teams, this model estimates potential losses from natural catastrophes.

Depending on the geographical location of the investments, the internal model calculates damage rates, which provide estimates of the potential losses that these investments could suffer in the event of a natural catastrophe.

The internal model analyzed 80% of the infrastructure debt portfolio, 95% of the real estate debt portfolio and 96% of the real estate portfolio. The principal risk for the portfolio is European windstorms.

The results calculated by the internal model for the selected investments are presented in the following table:

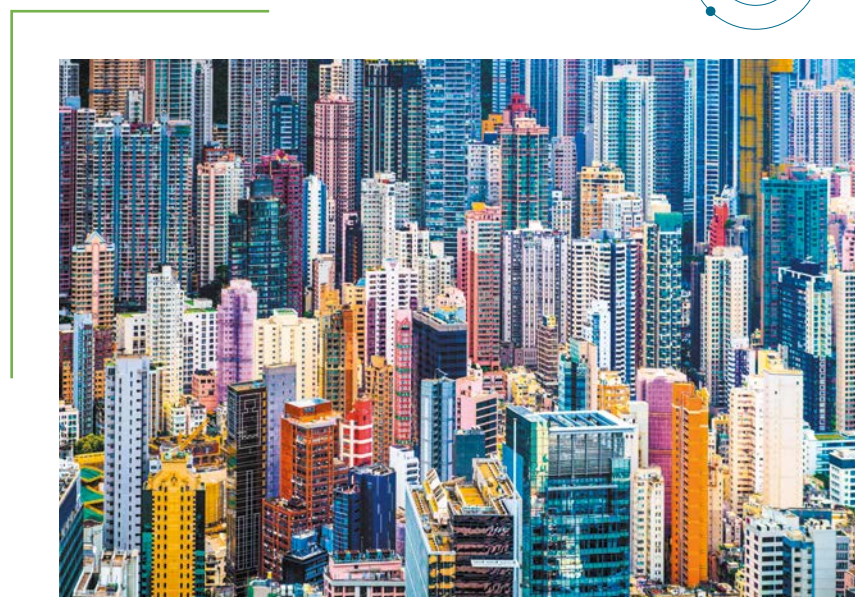
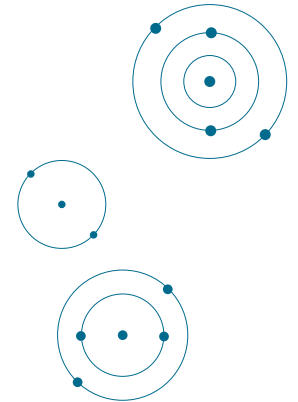
	Infrastructure debt	Real estate debt	Direct property investment	Total
Average annual loss (EUR)	6,869	8,281	32,118	47,268
Average loss for a 100-year event (EUR)	65,624	144,251	578,291	733,062

These results show that an event occurring statistically once every hundred years (a 100-year event) would lead to a loss of EUR 0.7 million for the total portfolio. The average annual loss totals EUR 47,000. These are relatively small amounts, compared with the amounts invested in the three asset classes analyzed. The locations of directly held buildings provide reasonable protection against physical risk.

► ISSUER RISKS

The protection of assets against global warming comprises two distinct dimensions: issuer risk and the holding period of the asset. The risk of a loss in value may be low enough in the short term to mean that immediate action is not justified. Similarly, a company’s greenhouse gas emissions should be analyzed not only in isolation, but also in the context of the company’s commitment to reduce them. SCOR does not intend to take a punitive approach, but rather to help companies transition towards more virtuous practices through the gradual

development of a matrix and methodology for analyzing individual risk positions. This approach would enable the Group to steer the portfolio’s exposure to climate change. SCOR is currently studying the feasibility of such an approach.



**CARBON FOOTPRINT AND INTERNATIONAL TARGETS**

► **CARBON FOOTPRINT**

SCOR uses South Pole data to measure the carbon footprint of its portfolio. The measurement taken is only an indicator at a given time. It provides little information on the approach or commitment of issuers with regard to climate risk, nor on how SCOR can efficiently manage its assets with regard to risks related to greenhouse gas emissions. The methodologies currently available are far from consistent. This is especially true for bond portfolios, for which the allocation key used for greenhouse gas emissions remains very arbitrary. The likely emergence of a market benchmark

in the years to come will undoubtedly allow the Group to refine its approach, which at present remains highly pragmatic.

Carbon footprint assessment is based on a number of assumptions and conventions, including the distribution of greenhouse gas emissions by scope:

- scope 1: direct production of greenhouse gas emissions through the consumption of fossil fuels;
- scope 2: indirect production of greenhouse gas emissions through the consumption of energy that in turn consumes fossil fuels;
- scope 3: other forms of greenhouse gas production related to the entity's activity.

For government bonds, South Pole collects data with regard to all three emission scopes, but only with regard to the first two scopes for other asset classes. Consequently, the results are not yet fully consistent. The analysis provided by South Pole covers EUR 13.2 billion of portfolio assets.

Carbon intensity is defined as the ratio of total CO<sub>2</sub> emissions to GDP for states and to turnover for companies.

Carbon footprint results calculated by South Pole for SCOR's portfolio positions as at the end of 2016, on the basis of issuer information from 2015, are summarized in the following tables:

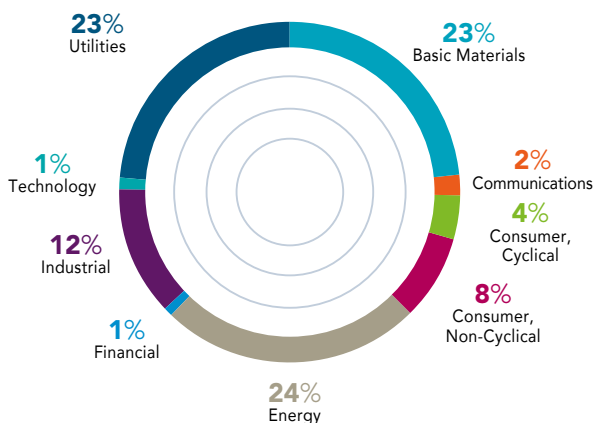
	Scopes 1, 2 and 3		Scopes 1 and 2		
	Government bonds	Corporate bonds	Equities and convertible securities	Covered bonds	Corporate loans
Tons of CO <sub>2</sub> equivalent to GDP (government bonds) or to turnover (other assets)	486	165	144	8	190

The assets analyzed in this table exclude real estate debt, infrastructure debt and exposure to direct real estate investments.





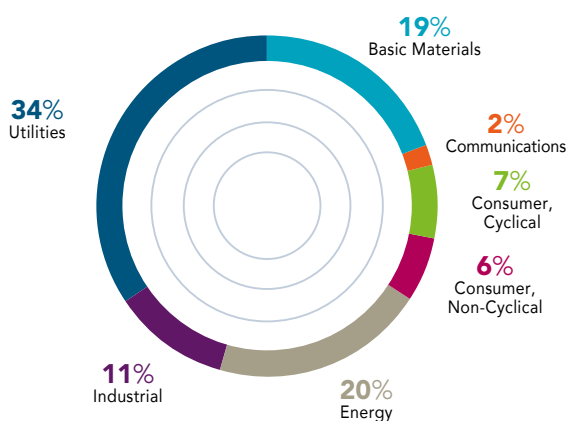
**BREAKDOWN OF CARBON INTENSITY TO TURNOVER RATIO, BY SECTOR (CORPORATE BONDS)**



Another measure is based on the ratio of total greenhouse gas emissions to the amount of investments made by SCOR (tons of CO<sub>2</sub> equivalent per million euros invested). The analysis can then be broadened to include real estate debt and infrastructure debt, thereby covering EUR 16.3 billion of portfolio assets.

	Total SCOR
Tons of CO <sub>2</sub> equivalent per EUR millions invested	354

**BREAKDOWN OF CARBON INTENSITY FINANCED, BY SECTOR (CORPORATE BONDS)**



**► OUTLOOK, ALIGNMENT WITH INTERNATIONAL TARGETS**

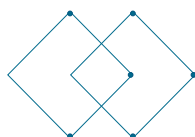
For the first time, SCOR has analyzed the alignment of its investment portfolio with the 2°C Scenario defined by the International Energy Agency.

This 2° scenario was approved by the Paris Agreement signed during the COP 21 in December 2015. This agreement aims to limit global warming to 2°C by the year 2100, compared with levels found in the pre-industrial era.

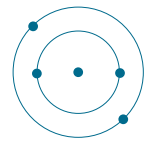
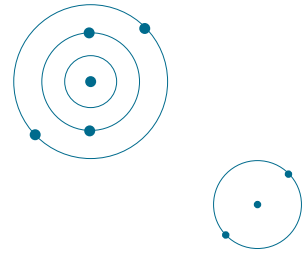
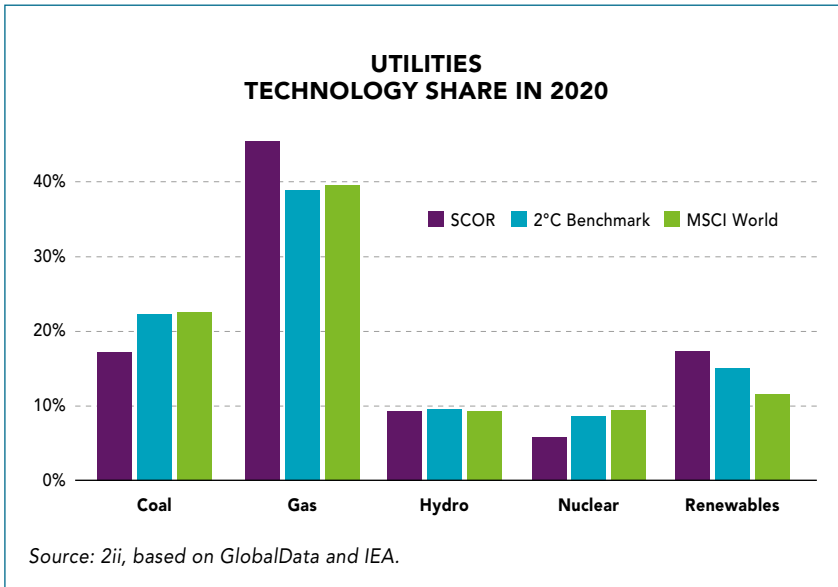
The analysis of the SCOR portfolio was performed by 2° Investing Initiative and covers a limited part of the equity and bond portfolios. The portfolio alignment is measured against a benchmark which represents the theoretical weighting of each energy source needed to attain the 2° target by 2020.

For the stock portion of the portfolio, the analysis covers approximately one-third of all positions but 80% of their carbon footprint. The stock portfolio analyzed is in line with the 2° target for fossil fuels. However, it is not aligned with the 2° target for community services or the automotive sector. At present these are the only three sectors covered by 2° Investing Initiative analysis. The Group's equity positions accounted for only 3% of SCOR's asset portfolio at the end of 2016.

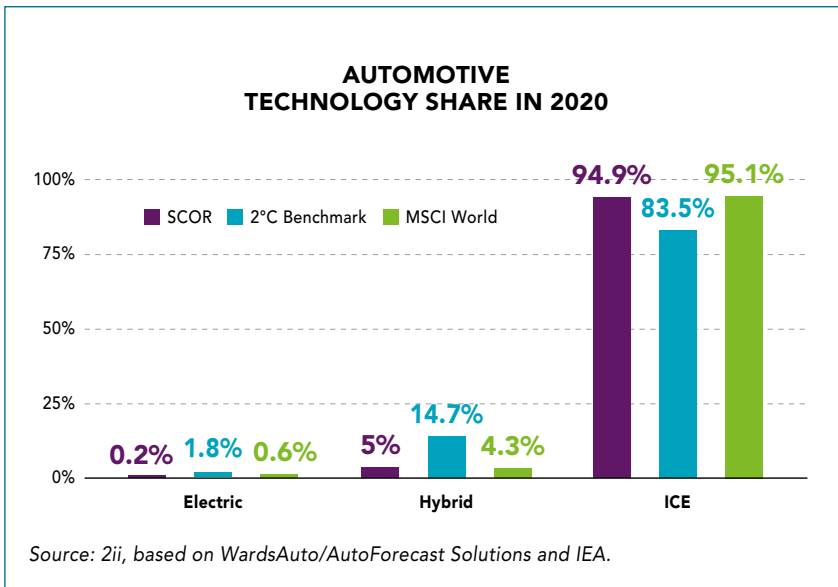
For the bond portfolio, the analysis covers energy generation in the community services and automotive sectors.



The following graph shows the successful alignment with the 2° benchmark of the SCOR portfolio invested in energy generation for community services, thanks mainly to underexposure to carbon and overexposure to renewable energies.



In the automotive sector, the portfolio remains overweighted in traditional manufacturers, compared to manufacturers of electric or hybrid vehicles.





SCOR also performed a forward-looking analysis of its portfolio's carbon risk. The analysis was carried out with the help of ratings provided by oekom research, whose Carbon Risk Rating measures a company's capacity – not in isolation, but with respect to its business sector – to manage climate risk. Oekom research assigns each company a position level:

- laggards (see glossary);
- climate underperformers (see glossary);
- climate performers (see glossary);
- leaders (see glossary).

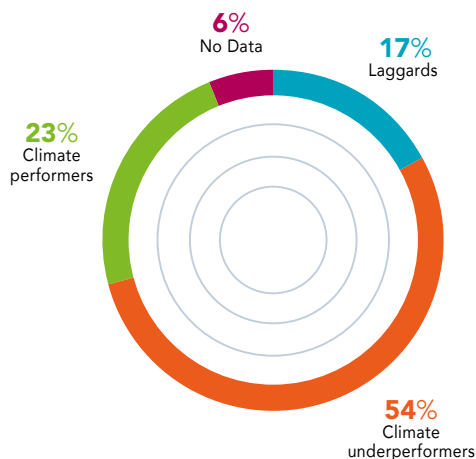
Figure 3 shows the breakdown of the asset portfolio invested in corporate bonds.

Viewed through the prism of the Carbon Risk Rating system, 23% of the bond portfolio is invested in companies which actively take climate risk into consideration. This is the result of the very high granularity of the SCOR portfolio, a major element in the Group's risk management. The universe of issuers is still too small to allow for rapid adjustment in favor of issuers that are more advanced in terms of climate change risks.

Figure 4 shows the breakdown of the portfolio invested in shares and convertible bonds.

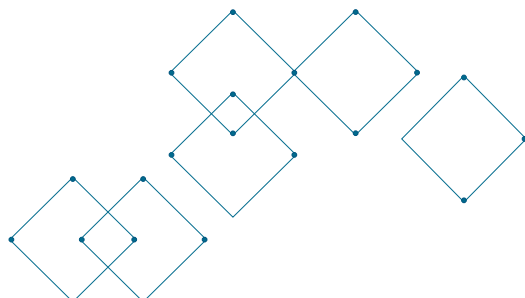
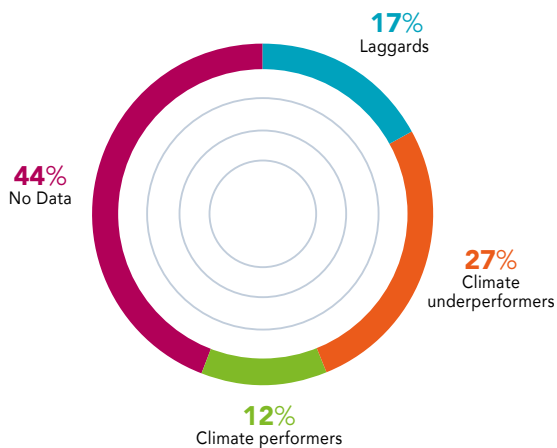
### BREAKDOWN OF ASSETS INVESTED IN CORPORATE BONDS

Figure 3



### BREAKDOWN OF ASSETS INVESTED IN SHARES AND CONVERTIBLE BONDS

Figure 4



With regard to equities, 44% of the portfolio is not covered by oekom research's Carbon Risk Rating, as equity funds are the main focus rather than directly held equities.

Another approach provided by South Pole consists of analyzing, for each of the portfolio's issuers, the quality of reporting published on greenhouse gas emissions. The companies are then classified according to the degree of maturity of their reporting:

- no reporting on greenhouse gases;
- under average reporting;
- better than average reporting;
- reporting in line with the SBT (Science-Based Target, see glossary) initiative, whereby companies commit to reducing their greenhouse gas emissions in order to meet the 2° target.

Nearly 74% of all investments in stock and corporate bond portfolios that were analyzed using this method are

implementing the means necessary to gradually achieve the 2° target.

Because of the disparity of the conclusions determined by the methodology used, and because the coverage ratio is often incomplete, SCOR continues to endeavor to establish a robust, reliable benchmark that would allow it to base its strategy on stable and consistent results.

### **PRACTICAL IMPLEMENTATION OF CLIMATE RISK MANAGEMENT: EFFECTS ON PORTFOLIO MANAGEMENT**

The type of portfolio management adopted by SCOR is based on rapid adaptability to market changes, which asset managers must be capable of handling. The average duration of assets is relatively short (3.6 years at 31 December 2016) and the normal rotation of the portfolio means that assets are reallocated rapidly.

In addition to the carbon footprint, sector allocation is monitored systematically, ensuring that portfolio positioning is in line with Group objectives for climate risk exposure. The Group takes a pragmatic approach and does not aim for zero risk. Rather, it seeks a level of controlled risk that is compatible with the specificities of its activity and of its profitability targets.



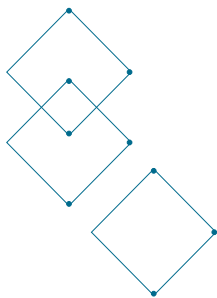
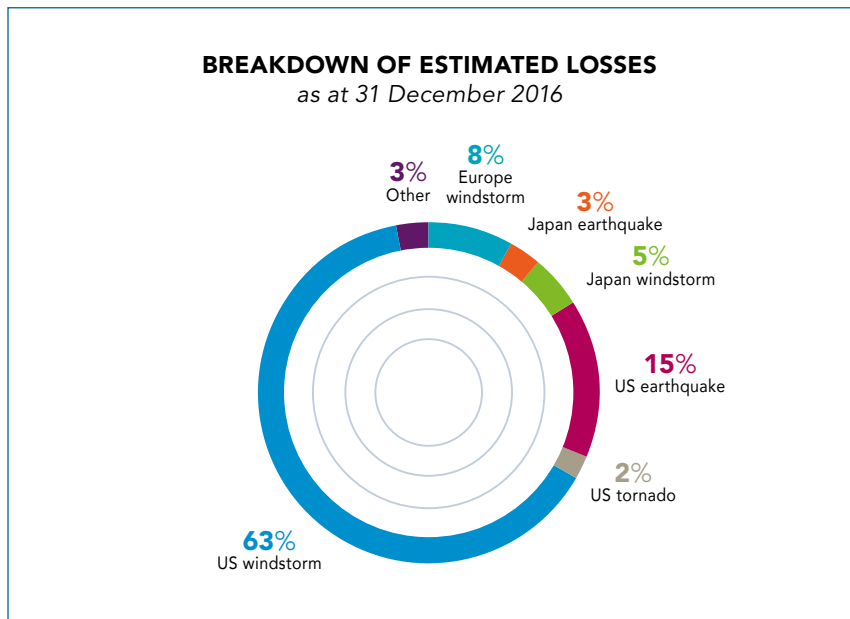
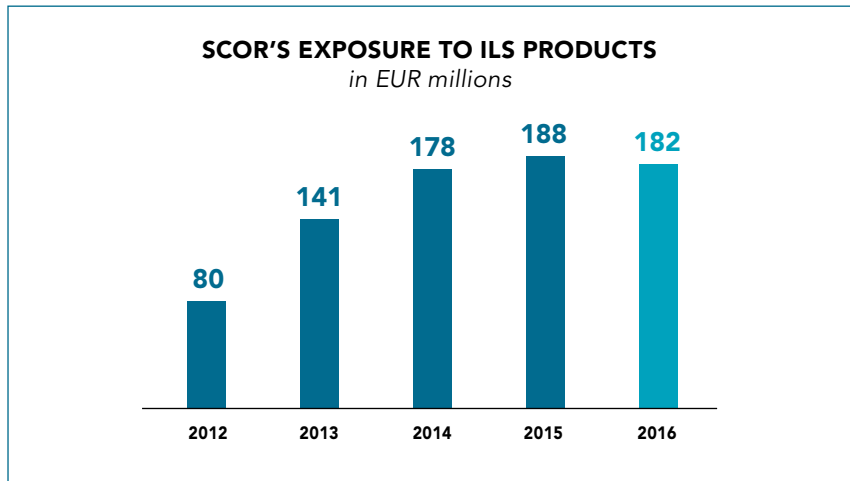
The 2° Investing Initiative is a multi-stakeholder think tank working to align the financial sector with 2°C climate goals. Their research and engagement activities seek to:

- Align the investment processes of financial institutions with 2°C climate scenarios;
- Develop the metrics and tools to measure the climate performance of financial institutions;
- Mobilize regulatory and policy incentives to shift capital to energy transition financing.

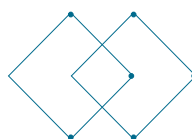
## 5.2. ADAPTING TO THE CONSEQUENCES OF CLIMATE CHANGE

SCOR uses its expertise in the insurance coverage of natural catastrophes, both to optimize asset portfolio profitability through diversification, and to finance reconstruction after natural catastrophes. Thus, SCOR participates actively in strategies for adapting to climate change, by developing, distributing and investing in financial products that cover natural catastrophes (insurance-linked securities).

At the end of 2016, SCOR held EUR 182 million in such funds managed by its subsidiary SCOR IP.



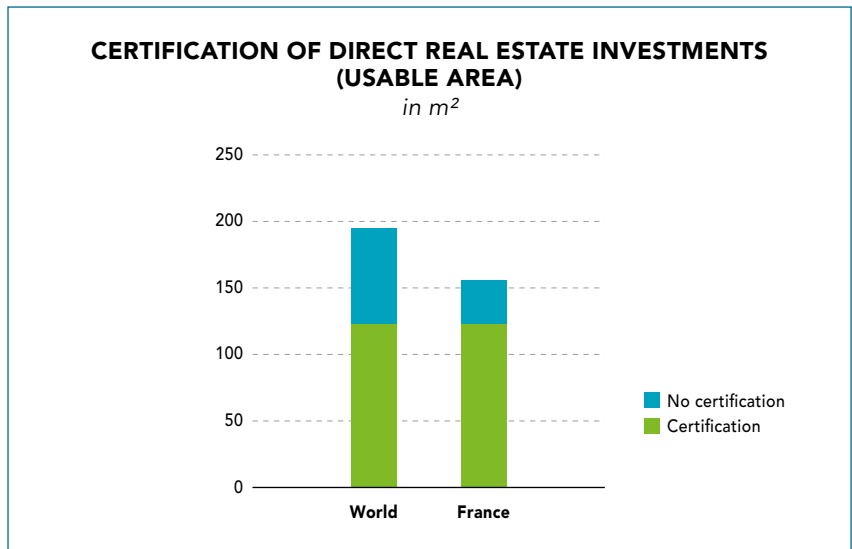
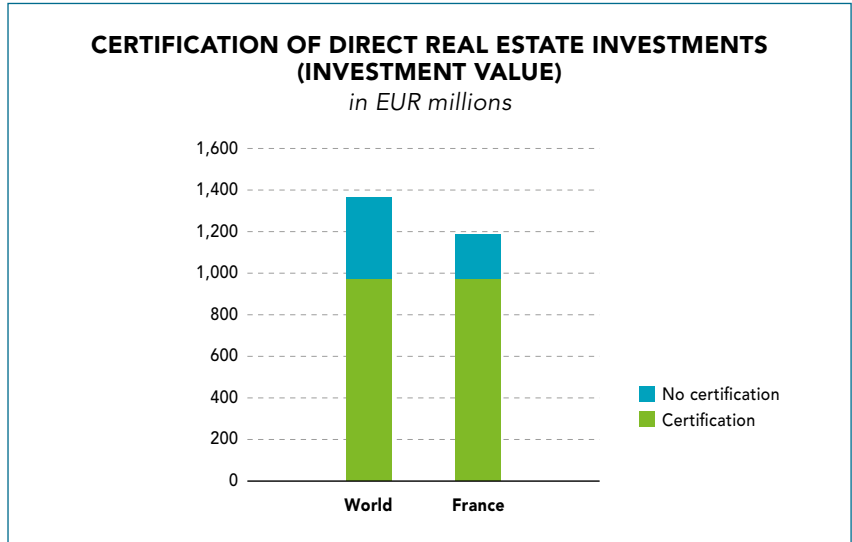
SCOR holds commitments of  
**EUR 182**  
 million linked to natural catastrophes cover



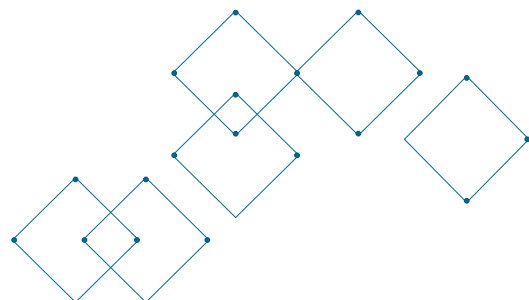
### 5.3. PROMOTING THE ENERGY TRANSITION

In its "Vision in Action" strategic plan, SCOR reaffirmed its commitment to financing the energy transition through additional investment of up to EUR 500 million in renewable energy sources and energy-efficient buildings.

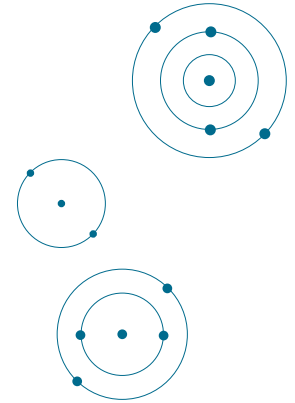
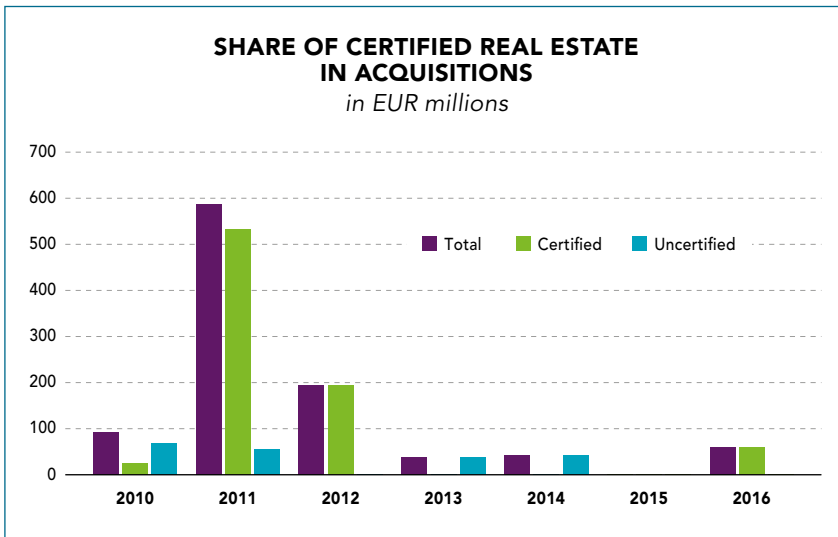
For many years the Group has taken a proactive approach to the environmental certification of its real estate investment portfolio. In addition to office buildings acquired for SCOR's own use, the real estate portfolio contains assets purchased solely for investment purposes. The Group owns one of the very first positive-energy office buildings of its size (more than 23,000 m<sup>2</sup>), in Meudon-la-Forêt, near Paris. This type of acquisition is supplemented by several refurbishment programs within the existing portfolio, with environmental certification and improved energy-efficiency targets.



**EUR 500**  
million invested  
in renewable energy  
and energy-efficient  
buildings





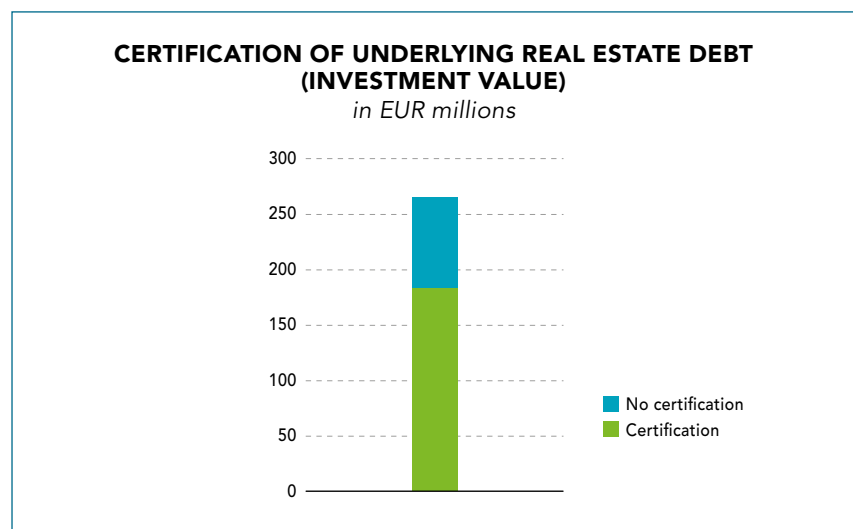


For many years, SCOR has included certification criteria in its acquisitions, as shown in the graph above. Although some of the properties acquired are not certified, the vast majority are eventually refurbished and awarded one or more certifications. Consequently, SCOR’s real estate portfolio boasts an increasing number of BREEAM (BRE Environmental Assessment Method, see glossary) and HQE (High Quality Environmental Standard, see glossary) certifications.

In addition to its tertiary real estate business, the Group has created real estate debt funds and infrastructure debt funds through its asset management subsidiary. Environmental targets are gradually being introduced into both funds. The SCOR Real Estate Loan II fund, launched in October 2015, focuses on assets that have received environmental certification. In the infrastructure debt funds, one third of the investments relate to renewable energy.

SCOR investments in two real estate debt funds managed by its subsidiary SCOR IP totaled EUR 265 million at the end of 2016. In its selection of eligible debt, certification labels are an important consideration for the asset management company. Certification by BREEAM, HQE or LEED (Leadership in Energy and Environmental Design, see glossary) **has been awarded to 69% of SCOR’s gross investments.**

At the end of 2016, SCOR had also invested EUR 217 million in infrastructure debt, through funds managed by its subsidiary SCOR IP. One-third of the funds’ infrastructure projects directly finance the energy transition.





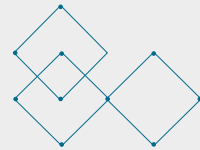
## GREEN OFFICE MEUDON FIRST LARGE-SCALE POSITIVE-ENERGY OFFICE BUILDING IN FRANCE

### PROJECT DESCRIPTION

- Office block acquired from Bouygues Immobilier in May 2011; let to Sopra-Stéria in July 2011 for 9 years
- Annually it produces more renewable energy than it consumes thanks to:
  - a solar power generator with 4,200 square meters of panels, producing approx. 450 000 kWh per year, resold to EDF over a 20-year period
  - a vegetable oil boiler which generating both electricity and heat
  - an efficient design benefiting from BBC labels and BREEAM and HQE certifications

### PROJECT UPDATE

- Building in use since July 2011



### KEY DATA

Country	France
Sector	Real Estate
Acquisition price	EUR 102,500,000
Yearly revenue from solar panels	EUR 280,000





## PROJET GREEN YELLOW SOLAR ENERGY FRANCE

### PROJECT DESCRIPTION

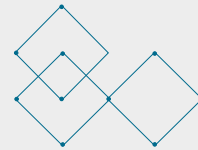
- Solar project developed by Green Yellow, the energy subsidiary of Casino group
- Refinancing of 15 solar PV plants in operation for a total capacity of 31MW, located in the south of France
- Solar panels are installed on the rooftops and/or parking shelters of Casino supermarkets
- Benefit from revenues secured under the French electricity act with a 20-year fixed tariff with the public counterparty EDF
- Solar panels supplied by Sunpower, leader in solar innovation and Total's subsidiary since 2011

### KEY DATA

Country	France
Sector	Solar Energy
Shareholders	DIF II, Green Yellow
Total debt amount	EUR 196,100,415
SCOR IP funds share	EUR 20,000,000
Acquisition date	14/03/2016

### PROJECT UPDATE

- Project in operation since 2011-2012





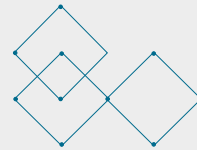
## PROJECT VEJA MATE OFFSHORE WIND ENERGY GERMANY

### PROJECT DESCRIPTION

- Financing of the construction and operation of the 402MW Veja Mate offshore wind farm
- Project located in the German Exclusive Economic Zone of the North Sea
- Benefits from revenues secured under the German renewable energy sources act with a fixed tariff until 2037 with the public counterparty (TenneT)
- Electricity production for over 280,000 households and reduction of CO<sub>2</sub> emissions by over 570,000 tons per year
- Supply, installation, commissioning and maintenance of the 67 6-megawatt offshore wind turbines provided by Siemens

### PROJECT UPDATE

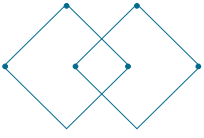
- Project under construction since summer 2015
- Works completion planned end of December 2017 in line with initial schedule, with half of the offshore wind turbines already installed



### KEY DATA

Country	France
Sector	Offshore Wind Energy
Shareholders	Highland (HGHL), Siemens FS, CI-II
Total debt amount	EUR 1,436,236,975
SCOR IP funds share	EUR 30,000,000
Acquisition date	31/08/2015





# #6

## CONCLUSION

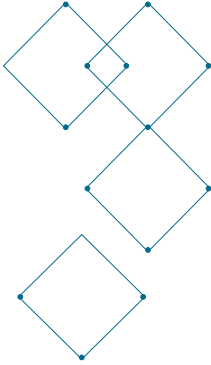


“Through initiatives designed to promote research and the sciences and to finance the energy transition, SCOR plays an active role in protecting the future.”

Through initiatives designed to promote research and the sciences, or to finance the energy transition, SCOR plays an active role in protecting the future. Its status as a long-term investor and the very nature of the reinsurance business mean that the Group plays a key role in the understanding of major risks and the implementation of coverage strategies.

The Group applies its ESG approach as a responsible investor that is careful to balance risk management with profitability targets. SCOR has committed, throughout the duration of its 2016–2019

“Vision in Action” strategic plan, to adapting its approach in order to enhance the integration of ESG criteria across its entire investment portfolio. Achieving this depends on the creation of a robust benchmark, an industry initiative in which the Group is involved. Improvements will be gradually integrated into SCOR’s investment strategy in the years to come.



# #7

## GLOSSARY



### **ALM (ASSET AND LIABILITY MANAGEMENT)**

the practice of managing risks that arise due to mismatches between assets and liabilities, based on risk appetite and profitability targets.

### **BREEAM (BUILDING RESEARCH ESTABLISHMENT ENVIRONMENTAL ASSESSMENT METHOD) CERTIFICATION**

British certification, a method for measuring the environmental performance of buildings. BREEAM was first developed by the BRE (Building Research Establishment), whose mission is to improve construction through research.

### **CATASTROPHE BONDS**

investors purchase catastrophe bonds to cover certain risks (or groups of risks) and to receive income, as with other types of bonds. If one or more of the risks covered should occur, the investor may lose part or all of the income and invested capital.

### **CSR (CORPORATE SOCIAL RESPONSIBILITY)**

recognition of the need for each company to include social and environmental criteria in its strategy, and to improve its practices with regard to these criteria. CSR covers both corporate responsibility and reporting obligations.

### **ERM (ENTERPRISE RISK MANAGEMENT)**

approach which includes risk as an integral part of a company's strategy. ERM regroups all methodologies in order to identify, manage and account for risks which may have an impact on the definition of the company's strategy and the achievement of its objectives.

### **ESG (ENVIRONMENTAL, SOCIAL AND GOVERNANCE)**

criteria for measuring environmental risks, the management of human capital, and corporate organization. The development of these criteria aims to promote best practices for the respect of the planet and of people.

### **HQE (HIGH ENVIRONMENTAL QUALITY) CERTIFICATION**

French certification awarded to buildings which meet 14 criteria for construction, water management, energy use, comfort, and the capacity to provide a healthful environment through high-quality water and air.

### **ILS (INSURANCE-LINKED SECURITIES)**

insurance products covering natural catastrophe risks.

### **LAGGARDS, UNDERPERFORMERS, PERFORMERS AND LEADERS**

non-financial ratings agencies divide issuers into several categories, according to their level of maturity and commitment to ESG criteria. The category may reflect all ESG criteria, or it may refer to a company's position with regard to a single criterion for climate change. Laggards and underperformers are below standard and do not meet objectives, while performers and leaders apply the highest standards.

### **LEED (LEADERSHIP IN ENERGY AND ENVIRONMENTAL DESIGN) CERTIFICATION**

American certification awarded to buildings that meet high environmental quality standards. LEED is the American equivalent of HQE and BREEAM certifications.

### **SBT (SCIENCE-BASED TARGETS)**

launched in 2015, the SBT initiative aims to encourage 500 companies to define targets for lowering greenhouse gas emissions in line with the 2°C target.

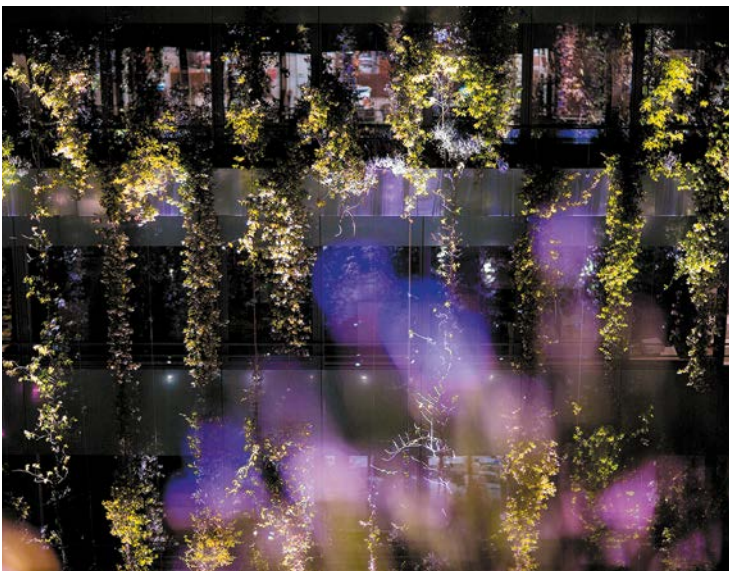
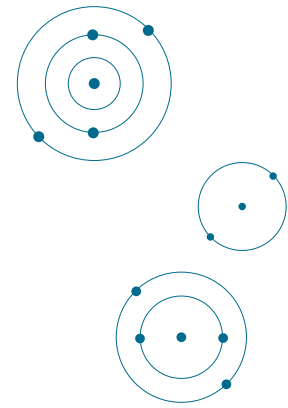
### **TEEC (ENERGY AND ECOLOGICAL TRANSITION FOR THE CLIMATE)**

created in September 2015 by the French Ministry of the Environment, Ecology and Marine Affairs, this certification is awarded to funds which finance the green economy through investments having a positive environmental impact.

### **UNPRI (UNITED NATIONS PRINCIPLES FOR RESPONSIBLE INVESTMENT)**

initiative launched in 2006 by investors in partnership with the United Nations Environment Programme Finance Initiative and the United Nations Global Compact. The UNPRI promotes six principles for responsible investment.

# CONTACTS



## GROUP COMMUNICATIONS

### **Email**

media@scor.com

### **Marie-Laurence Bouchon**

Group Head of Communications

Tel. +33 (0) 1 58 44 75 43

**[www.scor.com](http://www.scor.com)**

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