

# Environmental Finance

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## Green Bond Funds Impact Reporting Practices 2021

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# Executive summary

Welcome to our second annual report on impact reporting by green bond funds.

The dramatic growth of the green bond market in 2021 has been matched by the growth of green bond funds. New issuance of green bonds in the nine months to 30 September totalled \$388bn, compared with less than \$300bn for the whole of 2020, according to the *Environmental Finance* Bond Database. Meanwhile, funds that have more than 50% of their portfolio in green bonds, saw their assets under management soar by 31% to \$34bn from \$26bn. The number of funds reaching the 50% threshold rose to 68 from 55, and several more are known to be preparing for launch.

In this year's survey of major investors in green bonds and green bond funds, a large majority said they are interested in increasing their investments in this market.

Despite this impressive growth and encouraging outlook, three-quarters of the investors we surveyed said they thought impact reporting practices in the green bond market were inadequate. This is higher than the two-thirds who held this view in the 2020 survey, but may reflect investors' higher expectations, rather than declining standards of reporting.

More than nine out of ten investors said they regard impact reports from bond issuers and green bond funds as 'crucial' and more than half said poor data and impact reporting were deterring them from making further investments.

Our survey also revealed a disconnect between the metrics that funds highlight in their impact reports and what specialist green bond investors want to see. While there has been an increase in the number of impact metrics used in funds' reports, there is growing demand from investors for an even greater variety of metrics.

While regulators and many bond issuers stress the importance of the Sustainable Development Goals (SDGs) as a measure of impact, the large sustainable investment firms that we interviewed – mostly pension funds and insurance companies – have reservations about their value. They acknowledge that they are useful for giving a high-level understanding of a firm's ESG performance, but some fear they can facilitate greenwashing and several said they are too broad to give the more precise measure of impact that they require.

The growing importance attached to the SDGs in funds' impact reporting was a notable trend of the past year. More than 70% of the funds surveyed this year report on their alignment with the SDGs and one in five claim to align with all of the 17 goals. (See page 19)

On more focussed environmental metrics, many funds are failing to meet investors' desire for more detailed impact data. Most funds are fulfilling investor requirements for information on GHG

emissions reduced and avoided, but they are falling well short on providing metrics covering alignment to a 2°C global warming scenario and biodiversity.

The political and regulatory pressure on investors and industry to acknowledge the increasing urgency of the climate crisis has resulted in a majority of the investors surveyed calling for information about the extent to which funds' portfolios are aligned with the 2°C Paris Agreement target, but less than 20% of the funds surveyed currently report against this metric.

Even on the widely reported GHG emissions data, funds' impact reports show little consistency. This is largely due to the fact that the funds rely heavily on bond issuers' own impact reports which vary considerably in the metrics, baselines and methodologies used, and the format in which the data is presented.

These challenges were prominent in last year's survey, but an additional problem this year is that six out of ten green bond funds are now also able to invest in social or sustainability labelled bonds for which the impact calculations are even more difficult. Far more investors expressed interest in social impact data this year than in the 2020 survey. This pressure seems sure to grow, given the explosive growth in issuance of social and sustainability bonds during the Covid-19 pandemic.

## › Key findings

- 68 funds have more than 50% of their assets in green bonds
- Nine out of ten investors regard impact reports as 'crucial'
- 72% of funds already produce impact reports, a further 15% plan to do so
- Three-quarters of investors say current impact reporting practices are 'inadequate'
- More than half the investors said poor data and impact reporting were deterring them from making further investments
- Key areas for improvement are transparency and standardisation of the reports
- Almost 70% of green bond funds rely on bond issuers' impact data
- More than 70% of green bond funds report on their alignment with the SDGs
- Most investors prefer standalone impact reports rather than integrated reporting
- GHG emission reductions is the most commonly reported impact metric
- Use of data from third-party databases or external companies is increasing

As last year, fund managers remain very keen to see more standardisation of impact reporting by bond issuers, to facilitate the difficult task of aggregating impact data across their portfolios. A growing number are turning to external companies or third-party databases to help with this work and several voluntary standards have been proposed, by various UN agencies and others, to complement the widely used Harmonized Framework for Impact Reporting from the International Capital Market Association. (See page 5) Such initiatives should make things easier for funds and other investors in future.

As in 2020, the vast majority of bonds held by dedicated green bond funds are from European or North American issuers, but more than half now hold bonds from emerging markets. (See page 12) This mounting interest in green debt from emerging markets is also evident from the growing number of funds investing exclusively in green bonds from these countries. In the past 12 months, the pioneering Amundi Planet EGO Fund has been joined by emerging market funds from BlackRock, HSBC and KfW.

Another sign of the growing maturity of the market is an increase in the number of funds issuing impact reports to 72% from 66%. A further 15% said they intend to do so in future. This trend comes as little surprise given the mounting pressure from investors, industry associations and regulators for better disclosure of ESG or sustainability data on all investment products.

This pressure is being felt most acutely in Europe, as a result of various measures within the EU's Action Plan on Financing Sustainable Growth, but the creation of a Climate and ESG Task Force by the Securities and Exchange Commission, suggests the

US is heading in a similar direction.

Reflecting this increasing focus on ESG issues across the investment landscape, institutional investors are becoming increasingly interested in asset managers' overall sustainability performance. Several of the investors we surveyed said they rigorously assess a fund manager's ESG credentials before investing with them. ■

### › Survey methodology

An online questionnaire was sent to 55 funds which allocate, or intend to allocate, at least 50% of their assets to green bonds, in September 2021. Responses were received from 40, representing 84% of the overall AUM in dedicated green bond funds. A complementary questionnaire was sent to major investors in these funds and others who invest directly in green bonds. Detailed responses were received from 14 pension funds, insurers and asset managers. All but two of them manage more than \$10 billion of assets and six have assets of more than \$50 billion. However, it should be noted that, for a large majority (11 of the 14), green bonds and green bond funds represent less than 10% of their overall AuM.

In addition, four investors were followed up with in-depth one-on-one interviews. This report is based on the responses we received and *Environmental Finance's* own research of publicly available information.

### Acknowledgements

### Supported by



The Green Bond Funds Impact Reporting Practices 2021 has been developed at the initiative of the International Finance Corporation (IFC) Green Bond Technical Assistance Program (GB-TAP) which aims to stimulate the supply of green bonds in emerging markets by creating and disseminating best practice and knowledge as global public goods. The GB-TAP is a multi-donor program managed by IFC and in partnership with the State Secretariat for Economic Affairs of Switzerland SECO; the Swedish International Development Cooperation Agency, SIDA; and the Ministry of Finance of Luxembourg. The program has two overarching goals: to facilitate capital flows from responsible investors in developed countries into green projects in emerging economies; and to grow markets by stimulating the demand for and supply of green bonds in emerging markets. This report was prepared by *Environmental Finance*, a publication of Field Gibson Media and written by Ben Smith and Graham Cooper. The authors would like to thank Haruko Koide, senior investment officer in the Global Financial Institutions Group at the IFC, for her support. She says: "We are pleased to see the publication on the 2nd edition of the "Impact Reporting Practice". The report aims to address how green bond funds are reporting their environmental impact and to what extent their reports meet the needs of their investors. We believe that this report is unique as it conducts the survey with the fund managers each year and tracks the progress over time. In addition, the report captures the new trends and highlights new climate metrics which are increasingly important for investors. As interest in sustainability and responsible investment grows, the demand for transparency and disclosure of sustainability-related funds has been increasing. Fund managers are under pressure --- from regulators and investors to provide quality reporting on its climate impact. This trend could lead to harmonization, triggering more consistent and comparable climate disclosures by issuers over the medium term. Therefore, we believe that it is meaningful to have this research to assess the progress and new trends in the climate related disclosure of sustainability funds."

### About IFC

IFC – a member of the World Bank Group – is the largest global development institution focused on the private sector in emerging markets. We work in more than 100 countries, using our capital, expertise, and influence to create markets and opportunities in developing countries. In fiscal year 2021, IFC committed a record \$31.5 billion to private companies and financial institutions in developing countries, leveraging the power of the private sector to end extreme poverty and boost shared prosperity as economies grapple with the impacts of the COVID-19 pandemic. For more information, visit [www.ifc.org](http://www.ifc.org)

## Environmental Finance

[Environmental-Finance.com](http://Environmental-Finance.com) is an online news and analysis service established in 1999 to report on sustainable investment, green finance and the people and companies active in environmental markets.

We have been covering the green bond market since its inception in 2007 and now offer a comprehensive database of labelled green, social and sustainability bonds. This [Bond Database](#) was recently expanded to accommodate green loans and sustainability-linked loans, in recognition of the growing importance of loans in the sustainable debt market.

For further information, please contact [Phil.Manley@fieldgibsonmedia.com](mailto:Phil.Manley@fieldgibsonmedia.com) or [Tony.Gibson@fieldgibsonmedia.com](mailto:Tony.Gibson@fieldgibsonmedia.com)

# Investors and regulators seek better impact reporting

Investors are increasingly calling for more and better data on the measurable impact of their investments. Several recent initiatives by regulators, industry associations and other organisations aim to help meet this demand.

A notable example was the publication in April of a set of [Impact Standards for Financing Sustainable Development](#) from the Organisation for Economic Cooperation and Development (OECD) and UN Development Programme (UNDP). These standards constitute a guide to best practice and “will help to set expectations, drive consistency, and eventually, drive comparability across investments,” the authors say. They add that they “build on” existing principles including the IFC’s [Operating Principles for Impact Management](#), the [Impact Management Project](#), the UN Environment Programme’s [Principles for Positive Impact Finance](#) and the UN-backed [Principles for Responsible Investment](#).

The OECD and UNDP say the voluntary standards are intended for organisations “seeking to optimise their positive contribution to the Sustainable Development Goals (SDGs), promote impact integrity and avoid impact washing.” They were designed primarily for development finance institutions, but will be made freely available for use by private financial institutions, including asset managers and owners.

Other UN initiatives in this area include the Impact Analysis Tools developed by the UN Environment Programme’s Financial Institutions group (UNEP FI). Separate tools are available for [banks](#) and [corporates](#).

A second UNDP initiative, of more direct relevance to the fixed-income market, was the [Sustainable Development Goals \(SDGs\) Impact Standards for Bond Issuers](#) (see page 6), which form part of a set of SDG Impact Standards that aim to enable the SDGs to be achieved by 2030. These bond standards are intended for use by all issuers globally and are said to be equally relevant for those seeking to minimise negative impacts and those seeking to contribute positively to SDG solutions through their products and services.

The UNDP says its standards complement ICMA’s principles and guidance for issuers of green, social and sustainability (GSS) bonds (see page 8) and the EU’s Taxonomy for Sustainable Activities and Green Bond Standard (see page 6). But, by focusing on bond issuers’ impact management and decision-making practices, the new standards help to fill some of the gaps in current market practice. In particular, they require a bond issuer:

- to develop an impact strategy, with ambitious goals, linked to both its SDG bond programme and organisation-wide strategy; and
- to focus on optimising its contribution to the SDGs by managing all positive and negative material impacts.

## > What is ‘impact’?

There are several different definitions of impact in use by the investment community but one of the most popular is that of the [Global Impact Investing Network \(GIIN\)](#):

“Impact investments are investments made with the intention to generate positive, measurable social and environmental impact alongside a financial return”.

## Focus on the SDGs

The importance of the SDGs in the GSS bond market is underlined by the ‘[High-level Mapping](#)’ exercise carried out by ICMA to show how eligible project categories for GSS bonds correspond to the individual SDGs (see Figure A). This exercise was first undertaken in 2018 but was updated in 2020, partly to take account of the impact of the Covid-19 pandemic.

The SDGs are popular with impact investors, many of whom are keen to express the net-positive contribution of their investments in terms that align with the Goals. They are also increasingly attracting the attention of regulators.

The European Securities and Markets Authority (ESMA), for example, when commenting on proposals to develop international sustainability reporting standards, said the SDGs should be used “as an underlying anchor”. It added that “the SDGs ... represent a framework to which several pieces of sustainable finance legislation may be linked.”

These proposals led to the formation of an [International Sustainability Standards Board](#) in November 2021, to sit alongside the International Accounting Standards Board (IASB). Its aim is to deliver a global baseline of sustainability-related disclosure standards and thereby provide investors with better data on companies’ sustainability-related risks and opportunities.

These initiatives come amid mounting concern about the credibility of some investment funds’ claims about their environmental credentials. This was highlighted in March when the US Securities and Exchange Commission (SEC) announced the creation of a [Climate and ESG Task Force](#), to “proactively identify ESG-related misconduct”.

The initial focus of the Task Force will be “to identify any material gaps or misstatements in issuers’ disclosure of climate risks under

## › SDG Impact Standards for Bond Issuers

The standards are based on four themes:

- **Strategy** – The issuer develops an impact strategy for contributing positively to sustainable development and the SDGs, establishes the SDG Bond Program and sets ambitious impact goals to implement its impact strategy.
- **Management approach** – The issuer integrates impact management into its management approach to optimize the SDG Bond Program’s contribution to sustainable development and the SDGs.
- **Transparency** – The issuer discloses how it integrates contributing positively to sustainable development and the SDGs into the impact strategy, SDG Bond Program and related aspects of its strategy, management approach and governance practices, and reports (at least annually) on its performance.
- **Governance** – The issuer’s commitment to contributing positively to sustainable development and the SDGs through the impact strategy and SDG Bond Program is reinforced through its governance practices.

existing rules” and to “analyse disclosure and compliance issues relating to investment advisers’ and funds’ ESG strategies”.

SEC Chairman Gary Gensler has said he aims to develop a mandatory climate disclosure rule that enables consistent, comparable, and decision-useful disclosures, as he believes the current voluntary disclosures have led to inconsistent reporting.

In a further sign of the growing demand from investors for better reporting of the sustainability impact of their investments, law firm Freshfields Bruckhaus Deringer has produced a major report intended to help clarify the legal implications of making impact investments.

Commissioned by The Generation Foundation, the Principles for Responsible Investment (PRI), and UNEP FI, [A Legal Framework for Impact](#) examines how far the law requires or permits investors to take deliberate steps to tackle sustainability challenges in discharging their duties. It also provides a suite of options for policymakers wishing to facilitate investing for sustainability impact.

The 564-page report follows a highly influential 2005 Freshfields report which helped clarify whether sustainable investing was part of an investor’s fiduciary duty.

This latest report identifies “the current law and modification options to support a transition from predominantly environmental, social and governance-integration to widespread investment for sustainability impact,” said Inger Andersen, executive director of UNEP.

Some of the new initiatives will be of particular interest to the green bond market. They include the [Global GHG Accounting and Reporting Standard](#) developed by the Partnership for Carbon Accounting Financials (PCAF). This UN-backed group of leading banks said this guidance aims to standardise the accounting and reporting of greenhouse gas (GHG) emissions for the financial industry. In November 2021, PCAF followed up with specific proposals on how investors should calculate the [emissions impact of their investments in green bonds](#).

## › The European Green Bond Standard

The creation of a [European Green Bond Standard](#) (EU GBS) was proposed by the European Commission in July. It would require full alignment of funded projects with the EU Taxonomy of sustainable activities and “will set a gold standard” for green bonds, according to Mairead McGuinness, European Commissioner for Financial Services, Financial Stability, and the Capital Markets Union.

Use of the standard would allow companies and public bodies to more easily raise large-scale financing for climate and environmentally-friendly investments, while protecting investors from greenwashing, the Commission claims.

The standard will be available for use by any issuer of green bonds, including those outside the EU and its key requirements will include:

- All funds raised by a bond should be allocated to projects aligned with the EU Taxonomy, which lists activities that contribute substantially to climate mitigation and adaptation objectives and do no significant harm to other environmental objectives;
- There must be full transparency on how bond proceeds are allocated through detailed reporting requirements;
- All EU green bonds, except for sovereign issues, must be checked by an external reviewer to ensure compliance with the standard; and
- External reviewers of EU green bonds must be registered with and supervised by ESMA.

It was initially proposed that use of the European standard should be voluntary but the [European Central Bank](#) has called for it to be made mandatory within five years.

Another effort to encourage standardisation in the market is the [Green Bond Transparency Platform](#) developed by the Inter-American Development Bank. This free service aims to help green

bond issuers in Latin America and the Caribbean to harmonise their reporting on where the proceeds were invested and the environmental impact achieved. ■

Figure A: Excerpt from ICMA High-Level Mapping for Green Bond Project Categories

SDG	Green Bond Project Category	Example Indicators
	- Climate Change Adaptation	- Number of people benefiting from measures to mitigate the consequences of climate change such as natural disasters
	- Climate Change Adaptation - Environmentally Sustainable Management of Living Natural Resources and Land Use	
	- Pollution Prevention and Control - Renewable Energy	- Amount of wastewater treated, reused, or avoided before and after the project - Amount of raw/untreated sewage sludge that is treated and disposed
	- Sustainable Water and Waste Water Management - Terrestrial and Aquatic Biodiversity Conservation	- Volume of water saved - Volume of wastewater treated for reuse - Area covered by sustainable land and water resources management practices - Potable water produced
	- Energy Efficiency - Renewable Energy	- Renewable energy produced - Avoided greenhouse gas emissions (tons CO <sub>2</sub> eq)
	- Eco-efficient and/or Circular Economy Adapted Products, Production Technologies, and Processes - Energy Efficiency - Renewable Energy	
	- Energy Efficiency - Renewable Energy	
	- Clean Transportation - Eco-efficient and/or Circular Economy Adapted Products, Production Technologies, and Processes - Environmentally Sustainable Management of Living Natural Resources and Land Use - Green Buildings - Pollution Prevention and Control - Renewable Energy - Sustainable Water and Waste Water Management	- Floor space of green real estate - Waste that is prevented, minimized, reused, or recycled before and after the project - Number of electric vehicles deployed - Number of electric vehicle charging points installed
	- Eco-efficient and/or Circular Economy Adapted Products, Production Technologies, and Processes - Environmentally Sustainable Management of Living Natural Resources and Land Use - Pollution Prevention and Control - Renewable Energy - Sustainable Water and Waste Water Management	- Avoided resource waste - Avoided emissions to air (other than greenhouse gases) - Reduction of food losses - Materials sourced sustainably or recycled - Absolute or % reduction in local pollutants - Reduction of hazardous materials used
	- Climate Change Adaptation - Climate Change Mitigation	- Water storage capacity - Reduction in weather-related disruption and/or risk frequency (%) - Flood-resilient floor space - High-risk assets with climate insurance cover - Greenhouse gas emissions reduced
	- Environmentally Sustainable Management of Living Natural Resources and Land Use - Terrestrial and Aquatic Biodiversity Conservation	- Avoided or reduced marine and fresh water pollution (ecotoxicity, eutrophication) - Biodiversity loss avoided or reduced (# of species)
	- Environmentally Sustainable Management of Living Natural Resources and Land Use - Terrestrial and Aquatic Biodiversity Conservation	- Avoidance or reduction of land pollution (ecotoxicity, acidification, salinization, transformation) - Avoidance or reduction of biodiversity loss (# of species) - Certified afforested or reforested land - Area covered by sustainable land and water resources management practices - Expenditure on conservation and sustainable use of biodiversity and ecosystems

Source: International Capital Markets Association (ICMA) 2021; IFC 2021

# Green, social and sustainability bonds – a guide to the market

The International Capital Market Association (ICMA) which represents the global debt capital market, provides the standards underpinning the sustainable bond market with the Green and Social Bond Principles (GBP and SBP), the Sustainability Bond Guidelines (SBG for a mix of green and social) and the Sustainability-linked Bond Principles (SLBP).

These are voluntary process guidelines created by a market-led initiative consisting of issuers, investors and underwriters of/in sustainable bonds, and in 2020, 97% of all sustainable bonds issued globally, have been aligned to these Principles (ICMA research based on *Environmental Finance* data).

As shown in Figure B, the sustainable bonds market differentiates between so-called ‘use-of-proceeds’ bonds such as green and social bonds which typically finance or re-finance eligible green and/or social projects, and general purpose bonds such as sustainability-linked bonds (SLBs) where the focus is more on an issuer’s strategy and the achievement of predefined sustainability objectives. With social bonds, an additional feature is that the projects are aimed at certain target populations.

The GBP and SBP consist of four core components to which two key recommendations have been added in 2021. In addition, the latest version recommends heightened transparency for issuer-level sustainability strategies and commitments; encourages information, if relevant, on the degree of alignment of projects with taxonomies; and promotes transparency on issuers’ processes to identify and manage perceived and known social and/or environmental risks.

The SLBP have five core components and, as opposed to the pre-issuance external review such as a ‘second party opinion’, which is recommended, post-issuance verification is a necessary

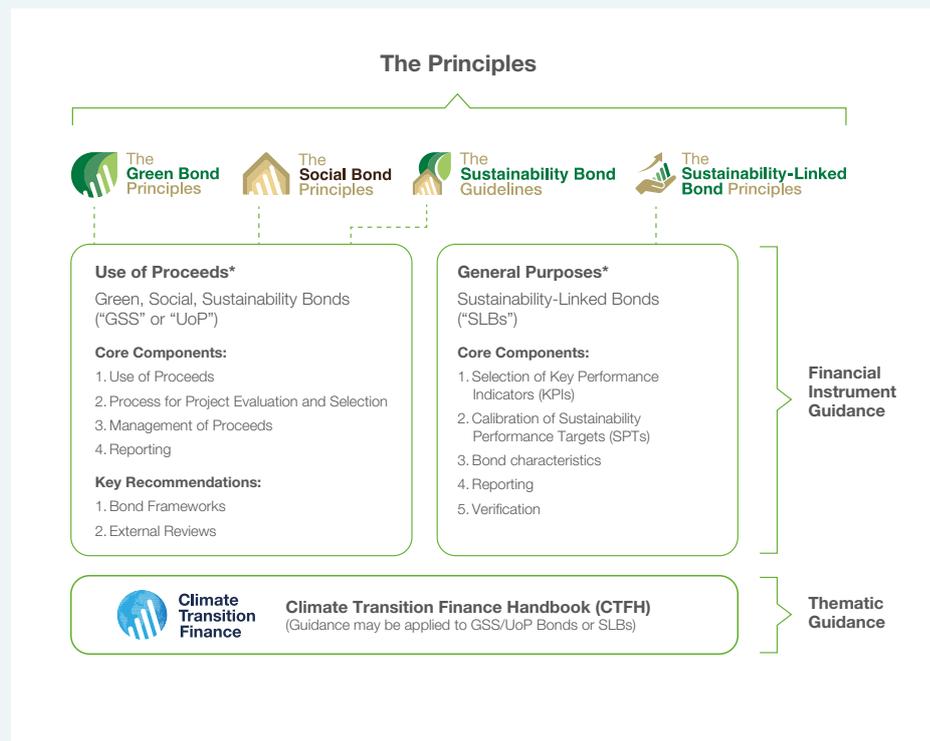


Figure B: ICMA bond principles and guidelines

Source: International Capital Market Association (ICMA) 2021

element of the SLBP. This is important, as the bond’s financial and/or structural characteristics can vary depending on whether the selected key performance indicators (KPIs) reach (or not) the predefined sustainability performance targets (SPTs). For example, non-achievement of a set target could trigger a step-up in the coupon of the bond.

Reporting under the core components of the Principles comes in two forms: allocation and impact reporting. The latter, especially, is receiving growing attention as investors not only want to know where their money goes but also what impact it is having.

ICMA’s Harmonized Frameworks for Impact Reporting for green and social bonds provide issuers with sector specific guidance and reporting metrics such as sample core indicators. Furthermore, the

documents contain practical templates which can serve as a first step towards simplifying and standardising impact reporting, something that investors are often still missing. For database providers there are guidelines available that are intended to help with creating a harmonised method for collecting and presenting impact data.

Other information provided by ICMA is the guidance handbook and issuer guidance on climate transition finance (CTFH). With the UN Sustainable Development Goals (SDGs) becoming increasingly popular with investors, and issuers therefore wanting to mention them in their frameworks, there is also guidance available on how to map the Principles’ green and social eligible project categories to the SDGs. All documents can be found under the resources centre on the ICMA website. ■

# Dramatic growth in emerging markets



**T**he green bond market remains heavily dominated by issuance from industrialised countries. But issuance from emerging markets soared by 60% in the first nine months of 2021 to almost \$66 billion from \$41 billion in the whole of 2020. More than 45 emerging markets have now issued green bonds.

For the whole range of green, social and sustainability-labelled (GSS) bonds, the increase was even more dramatic, reaching a combined total of almost \$125 billion in the first nine months of 2021, compared with less than \$65 billion in 2020. Corporate issues accounted for more than half these deals (see Figure C).

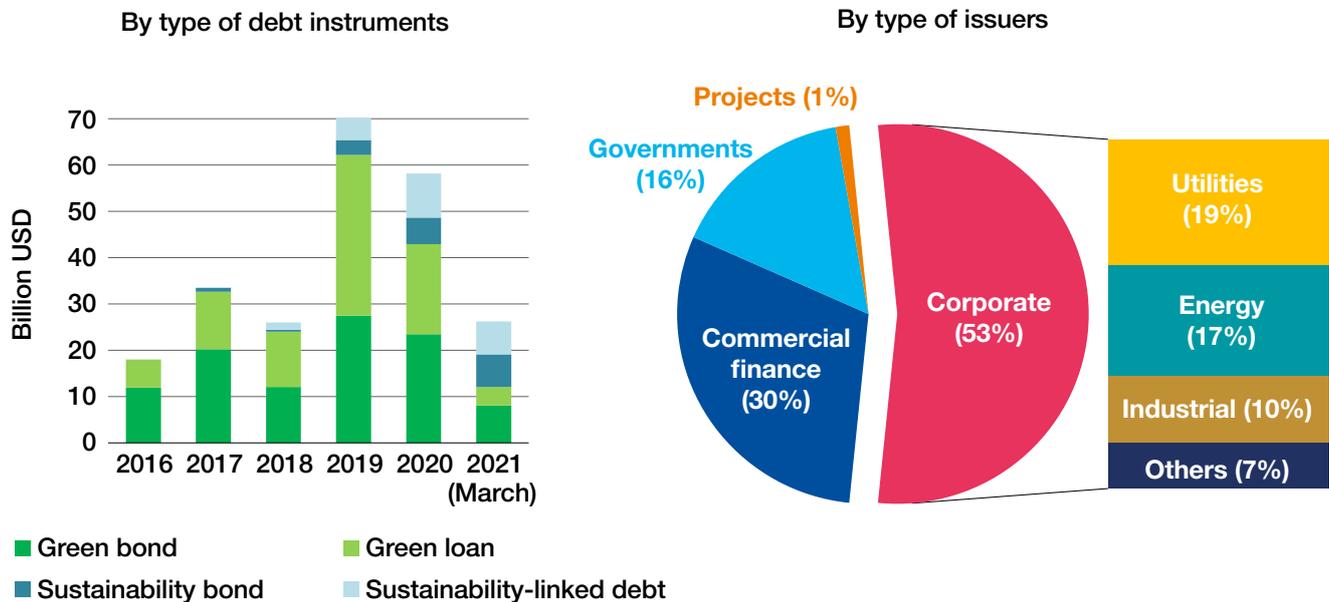
Additional financing from GSS bonds and other sources is essential as it is widely acknowledged that developing countries are likely to suffer the most as a result of climate change. With a

handful of exceptions, their per capita emissions are among the lowest in the world yet, [according to the International Energy Agency \(IEA\)](#), they will be responsible for most of the emissions growth in coming decades unless strong action is taken to transform their energy systems.

The energy sector dominates the use of proceeds of emerging market green bonds (See Figure D) but a massive increase in clean energy spending is needed to help these countries curb their emissions growth. In 2020, however, they experienced an 8% fall in clean energy investment to less than \$150 billion. Only a modest increase is expected this year.

China remains by far the largest green bond issuer in emerging markets, with issuance of almost \$44 billion between January and September 2021, two-thirds of all emerging market issuance.

Figure C: Sustainable debt issuance in emerging and developing economies



Source: International Energy Agency (IEA) calculations based on BNEF (2021) and Bloomberg (2021)

The next most active emerging market countries in the first nine months of 2021 were India, Chile, Poland and Turkey, with green issues totalling \$5 billion, \$2.4 billion, \$1.2 billion and \$1.2 billion respectively. However, if sustainability and social bonds are included, the top five emerging markets for the same period were: China (\$50 billion), Chile (\$18 billion), India (\$7.5 billion), Brazil (\$7.2 billion) and Mexico (\$7.2 billion).

Debut issuances, since the start of 2020 have come from Armenia, Benin, Egypt, Georgia, Hungary, Kazakhstan, Romania, Saudi Arabia and Uzbekistan.

This explosive growth in issuance of green bonds from emerging markets in the past 12 months, has been accompanied by growing interest from dedicated bond funds. This time last year, there was only one fund dedicated to buying emerging markets green bonds – the \$1.4 billion [Amundi Planet EGO fund](#). Since then, Amundi has launched a second fund with a similar mission and new emerging market funds have come from BlackRock, HSBC and KfW.

The new Amundi fund – officially known as the [Build-Back-Better Emerging Markets Sustainable Transaction \(BEST\) strategy](#) – was launched in partnership with the IFC at COP26 in November 2021. It aims to attract up to \$2 billion in private investment into emerging market sustainable bonds that support “a green, resilient, and inclusive recovery” from the Covid pandemic. It will invest primarily in labelled sustainable bonds from corporates and financial institutions in developing countries.

Maxim Vydrine, lead portfolio manager for the BEST fund,

told *Environmental Finance* the fund will buy social, sustainability and sustainability-linked bonds as well as green bonds, as long as they comply with the relevant principles or guidelines published by the International Capital Market Association (ICMA). Pure green projects will not exceed 15% of the whole portfolio.

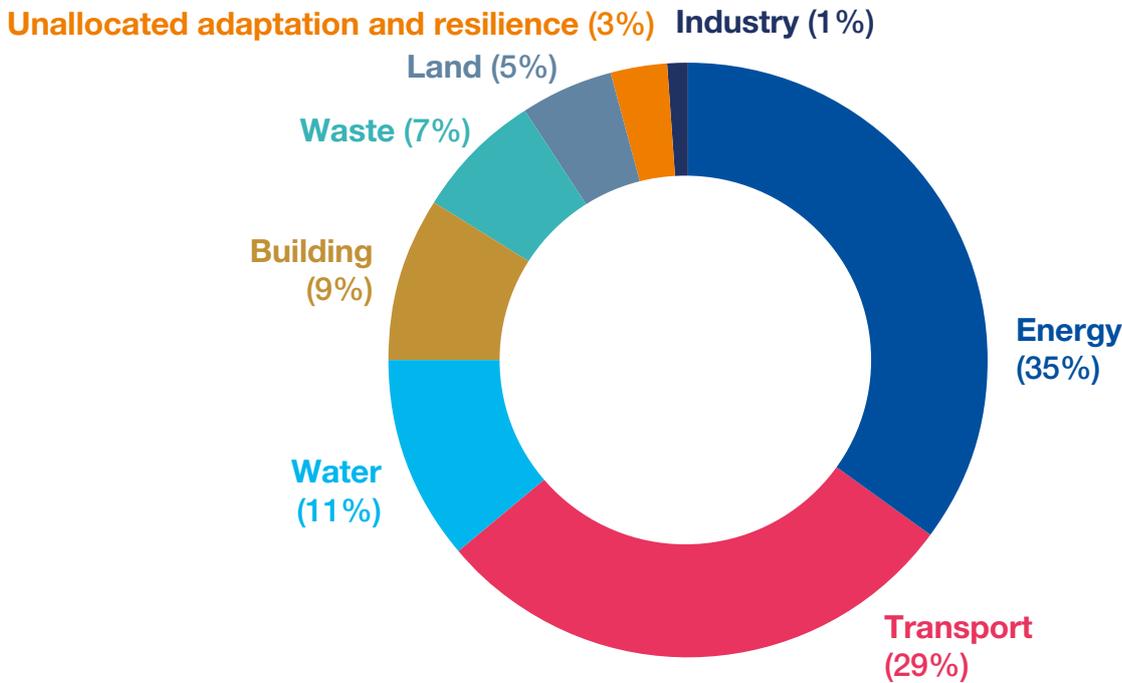
But another new IFC-supported fund is dedicated solely to green bonds. The [HSBC Real Economy Green Investment Opportunity Global Emerging Market Bond Fund \(REGIO\)](#) had attracted \$538 million by the time of its March close, including anchor investments of \$75 million from both HSBC and the IFC. Other investors include several European pension funds and development finance institutions.

The REGIO fund will mainly buy bonds issued by non-financial or ‘real economy’ companies, such as those from manufacturing, agribusiness and infrastructure firms. Its investment framework is closely aligned with the SDGs and the goals of the Paris Climate Agreement.

A third notable fund announcement came in July when investment giant BlackRock entered the market. Although modest in scale, with assets of just over \$56 million, the [BGF Emerging Markets Impact Bond Fund](#) aims to invest at least 80% of its total assets in a portfolio of green, social and sustainability (GSS) bonds issued by governments, agencies, and companies based in emerging markets.

More recently, the first fund dedicated to green bonds in Latin America was launched at COP26 by German development bank KfW. The [LAGreen fund](#) has the support of the EU as well as

Figure D: Emerging market green bond issuance by use of proceeds 2012-2020



Source: Climate Bonds Initiative, IFC.

the German government and is advised by impact asset manager Finance in Motion. KfW has committed €74 million to the fund which aims to raise €500 million by 2024. Santander Asset Management is also supporting the fund.

The [IFC expects green bond issuance from emerging markets to double in the next three years](#) compared to the previous three and to exceed \$100 billion/year by 2023. It says this optimism is supported by strong investor demand, increased adoption of sustainable finance policies and frameworks; development of local capital markets; and the growing number of companies in developing countries showing strong commitments to sustainable development.

Examples of new, more supportive national regulations are to be found in Bangladesh, Cambodia, Ghana, Indonesia and Nigeria, among others, the IFC notes. In addition, China is believed to be preparing a mandatory ESG disclosure framework, linked to the SDGs and India's Institute of Chartered Accountants has developed a sustainability scoring tool for corporates. Colombia and Thailand are among those to have issued new guidance specifically intended to boost issuance of green bonds.

Focused support for emerging market institutions considering issuing green bonds is also available from the World Bank, which helped Egypt develop a green bond framework to support its inaugural \$750 million sovereign green bond in late 2020 and the IFC has helped many local banks in emerging markets to bring

new green or sustainability bonds to market, via its Technical Assistance Program. (See page 4)

Developments in international regulations should also support market growth in developing countries. Notable examples include:

**EU Taxonomy and Green Bond Standard:** The forthcoming EU Green Bond Standard (GBS) aims to establish a uniform, high-quality standard for green bonds and improve transparency and comparability across the market. The voluntary standard would formally link green bond investments to the EU Taxonomy of sustainable activities. These initiatives will formally apply only to institutions in the European Union, but they are likely to influence the global green bond market and possibly lead to the development of EM-specific taxonomies, the IFC says.

**Sustainable Finance Disclosure Regulation (SFDR):** The recently introduced SFDR is another EU initiative which aims to ensure transparency on sustainability across financial markets in a standardised manner and thereby enhance comparability. The IFC believes it could help scale up the financing of sustainable projects and activities in emerging markets.

**Task Force on Climate-related Financial Disclosures (TCFD):** The recommendations of the TCFD – which aims to increase and improve the reporting of climate-related financial information – have already been adopted by more than 1,500 organizations across 20 emerging markets and 25 industrialised countries. ■

# Funds seek better impact data from bond issuers

The growing interest in ESG and sustainable investing generally is reflected in the growth of green bond funds. Such funds represent one of the most transparent sustainable investments due to the strict ‘use-of-proceeds’ structure of green bonds and the reporting practices of green bond funds.

The 2020 edition of this report covered 55 green bond funds which qualified for our criteria of having more than 50% of their assets in green bonds; this year’s report has 68 qualifying funds. 50 of these were launched more than 12 months ago and should be expected to have issued an impact report. The survey covers 40 of those 50 funds, with combined assets under management (AuM) of \$29bn.

Not only have the number of green bond funds increased but the size of almost all the funds has also increased year-on-year (see table 2).

## Portfolio composition

A striking feature of the past 12 months since the publication of our 2020 report has been a large increase in the issuance of social and sustainability bonds due to the Covid-19 pandemic. Some funds have always had a mandate to include social and sustainability bonds in their portfolios and have increased their holdings, while others have broadened their mandates to include these labelled bonds. Six out of ten of the funds surveyed are now able to invest in social or sustainability bonds.

The inclusion of social and sustainability bonds in green bond portfolios, whilst broadening a fund’s ESG and SDG footprint, can also add additional complications to the collection, aggregation and reporting of impact as social metrics present different challenges when it comes to fund level reporting.

The majority of funds are listed in Europe

(39/50), with 16 of the 18 new funds launched since the 2020 report also listed in Europe. There are nine funds listed in North America and two in Australia.

In terms of issuer type, the funds surveyed this year have a similar diversity of issuers to the funds surveyed in 2020 (See Figure 1). The most notable change was a slight drop in the number of funds invested in supranational bonds (87% in 2020 to 75% in 2021) and a slight increase in investment in sovereign issues.

The credit requirements of the green bond funds surveyed has also changed slightly year-on-year, the biggest difference being the number of funds answering “no restriction” to a question about minimum credit requirements. This number dropped from 46% in 2020 to 30% in 2021, which could reflect a shift in risk appetite amongst fund managers. The size of bonds in which funds can invest has stayed fairly constant, with half of funds having no restriction.

Figure 1: 2020-2021 Issuer type

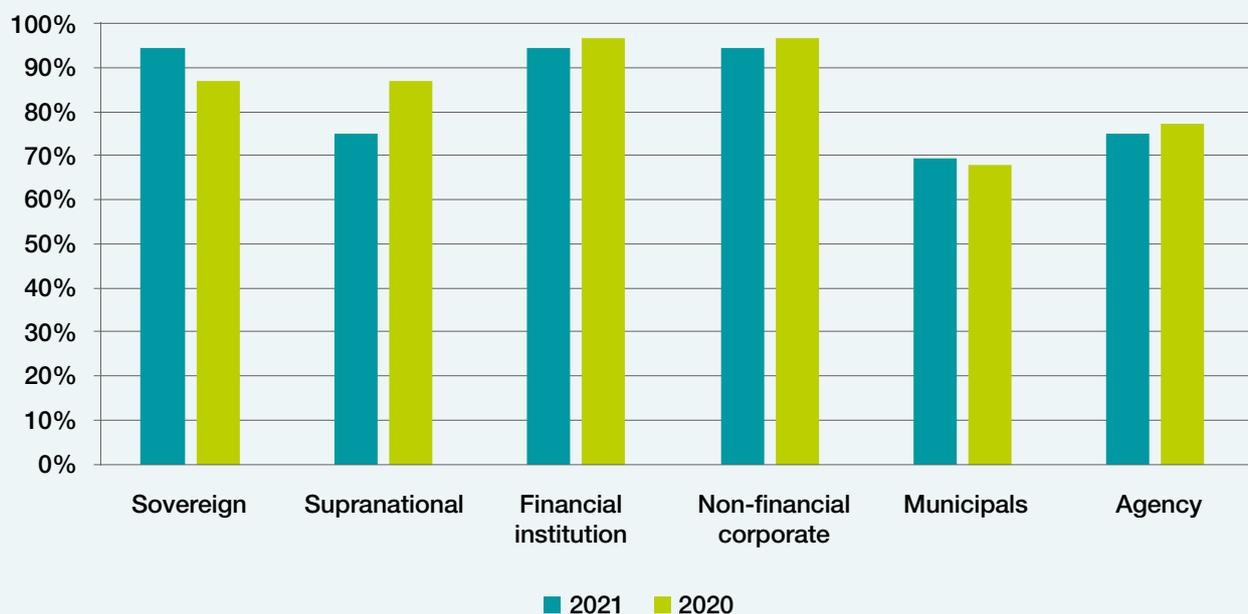


Table 1: Green Bond Funds - Impact reports

Name	Impact report	UN SDG Reference	3rd party/ external input	Financial data (performance)	Case studies	Metrics
<b>Euro Denominated Funds</b>						
<a href="#">Ålandsbanken Green Bond ESG</a>	Fund Metrics Report	Yes	Yes (MSCI)	No	No	Carbon risk (tCO <sub>2</sub> e/\$M Sales), governance risk, reputational risk, environmental risk, ESG Score
<a href="#">Allianz Green Bond</a>	Impact Report	Yes	No	Yes	No	Renewable energy capacity (MW), renewable energy generation (MWh), CO <sub>2</sub> emissions avoided/sequestered (tCO <sub>2</sub> )
<a href="#">Amundi Responsible Investing Impact Green Bonds</a>	Monthly Factsheet	No	No	Yes	No	Avoided emissions (tCO <sub>2</sub> e/€1m), ESG score
<a href="#">AXA WF Global Green Bonds</a>	Monthly Factsheet	No	No	Yes	No	Carbon Intensity (tCO <sub>2</sub> /\$1m), water intensity (Cubic Meters per million \$ revenue), ESG score
<a href="#">BNP Paribas Green Bond Fund (formerly Parvest)</a>	Climate Reporting	No	Yes (Carbon4-Finance)	No	Yes (brief)	Carbon Intensity (tCO <sub>2</sub> e/€1m)
<a href="#">DPAM L Bonds Climate Trends Sustainable</a>	Quarterly Sustainability Report	No	Yes (Trucost for ESG ratings)	No	Yes	Carbon intensity (tCO <sub>2</sub> e/\$M revenue), ESG Score
<a href="#">ERSTE Responsible Bond Global Impact</a>	ERSTE Responsible Bond Global Impact	Yes	No	No	No	Renewable energy produced (MW/h), renewable energy capacity installed (MW), water saved/recycled (M <sup>3</sup> water), sustainable land management (ha), jobs created/saved
<a href="#">Eurizon Absolute Green Bonds</a>	Green Bonds Impact Report 2020	Yes	No	No	Yes	Renewable energy produced (MWh), renewable energy capacity installed (MW), emissions reduced (tCO <sub>2</sub> ), water saved/recycled (litres), jobs created/saved, waste recycled (tons) Also MWh/€m; MW/€m; CO <sub>2</sub> /€m
<a href="#">HGA Obligations Vertes ISR</a>	Green Bond Fund Report	No	No	Yes	Yes	Carbon intensity (tCO <sub>2</sub> /€m)
<a href="#">JSS Sustainable Green Bond Global</a>	ESG Analytics	Yes	No	Yes	Yes	Carbon intensity (tCO <sub>2</sub> /€m), stranded asset risk, climate warming scenario
<a href="#">LGT Sustainable Bond Fund Global</a>	Sustainability report	Yes	No	Yes	No	Carbon emissions tCO <sub>2</sub> /\$m
<a href="#">MFM Global Sustainable Bonds</a>	Fund webpage online	No	No	No	Yes	Carbon emissions avoided (tCO <sub>2</sub> e), carbon sequestered (tCO <sub>2</sub> e), water savings (m <sup>3</sup> ), trees planted, renewable energy generated/saved (KWh), green office space (f2) waste collected or treated (tons), jobs created, public transport passengers
<a href="#">Mirova Euro Green &amp; Sustainable Bond</a>	Monthly Factsheet R/A share class	Yes	Yes (Carbone4 methodology used)	Yes	No	Induced emissions (tCO <sub>2</sub> / million € company value), Avoided emissions (tCO <sub>2</sub> / million € company value), ESG score
<a href="#">Mirova Euro Green &amp; Sustainable Corporate Bond</a>	Monthly Factsheet R/A share class	Yes	Yes (Carbone4 methodology used)	Yes	No	Induced emissions (tCO <sub>2</sub> / million € company value), Avoided emissions (tCO <sub>2</sub> / million € company value), ESG score
<a href="#">Mirova Global Green Bond</a>	Monthly Factsheet R/A share class	Yes	Yes (Carbone4 methodology used)	Yes	No	Induced emissions (tCO <sub>2</sub> / million € company value), Avoided emissions (tCO <sub>2</sub> / million € company value), ESG score
<a href="#">NN (L) Green Bond</a>	Green Bond Funds Impact Report 2020	Yes	No	No	Yes	Carbon emissions (tCO <sub>2</sub> ), new renewable energy capacity added (MW), renewable energy generated (GWh), energy savings (GWh)
<a href="#">NN (L) Green Bond Short Duration</a>	Green Bond Funds Impact Report 2020	Yes	No	No	Yes	Carbon emissions (tCO <sub>2</sub> ), new renewable energy capacity added (MW), renewable energy generated (GWh), energy savings (GWh)
<a href="#">NN (L) Corporate Green Bond</a>	Green Bond Funds Impact Report 2020	Yes	No	No	Yes	Carbon emissions (tCO <sub>2</sub> ), new renewable energy capacity added (MW), renewable energy generated (GWh), energy savings (GWh)
<a href="#">ODDO BHF Green Bond</a>	Monthly Factsheet	Yes	No	Yes	No	GHG avoided (tCO <sub>2</sub> ), renewable energy installed (MW)
<a href="#">Raiffeisen-GreenBonds</a>	Sustainability report	Yes	No	No	No	Carbon Emissions (tCO <sub>2</sub> e), carbon intensity (tCO <sub>2</sub> e/Million Euro sales)
<a href="#">SEB Green Bond</a>	Annual and Sustainability Report	Yes	No	No	No	Carbon reduction (tCO <sub>2</sub> ), renewable energy (MW)
<a href="#">Uninstitutional Green Bonds</a>	Sustainability report	No	No	No	No	Carbon intensity (tCO <sub>2</sub> /\$1m), ESG Score
<b>US Dollar Denominated Funds</b>						
<a href="#">Aegon US Sustainable Fixed Income Strategy</a>	Sustainability Report	Yes	Yes (ISS data)	No	No	SDG score
<a href="#">AIM US\$ Liquid Impact Fund</a>	2021 Impact Report	Yes	Yes (Carbon Yield + ISS-ESG)	Yes	Yes	Carbon emissions avoided (tCO <sub>2</sub> e) and (tCO <sub>2</sub> e/\$1m), clean energy capacity installed (MW), clean energy generated (MWh), water treated (M <sup>3</sup> ), green buildings (M <sup>2</sup> ), jobs created, immunisation, students supported, microfinance loans
<a href="#">Amundi Planet - Emerging Green One (EGO)</a>	Annual Impact Report 2020	Yes	No	No	Yes	GHG avoided annually (tCO <sub>2</sub> e/y) and tCO <sub>2</sub> e per \$1m invested)

Name	Impact report	UN SDG Reference	3rd party/ external input	Financial data (performance)	Case studies	Metrics
<a href="#">LO Funds Global Climate Bond</a>	2021 Impact Report	Yes	Yes (Carbon Yield + ISS-ESG)	Yes	Yes	Carbon emissions avoided (tCO <sub>2</sub> e) and (tCO <sub>2</sub> e/\$1m), clean energy capacity installed (MW), clean energy generated (MWh), water treated (M <sup>3</sup> ), green buildings (M <sup>2</sup> ), sustainably managed land(ha), jobs, immunisation, students supported, microfinance loans
<a href="#">Ping An of China Asset Management China Green Bond Fund</a>	Brief mention in 2020 Sustainability Report	No	No	No	No	Renewable energy capacity added (MW), renewable energy produced (MWh), carbon emissions reduced (tCO <sub>2</sub> ), water treated (M <sup>3</sup> ), green buildings, green transport (km of railway)
<a href="#">TIAA-CREF Core Impact Bond Fund</a>	Measuring Impact in Public Markets	Yes	No	No		Carbon emissions avoided (tCO <sub>2</sub> ), renewable capacity added (MW), renewable energy generated (MWh), energy saved (KWh), water saved (gallons), water treated (gallons), water delivered (gallons), jobs created, green buildings, land, people benefitting, affordable housing (units), jobs created, green transport
<a href="#">TIAA-CREF Green Bond Institutional</a>	Measuring Impact in Public Markets	Yes	No	No		Carbon emissions avoided (tCO <sub>2</sub> ), renewable capacity added (MW), renewable energy generated (MWh), energy saved (KWh), water saved (gallons), water treated (gallons), water delivered (gallons), jobs created, green buildings, land, people benefitting, affordable housing (units), jobs created, green transport
<b>Other Currencies</b>						
<a href="#">Affirmative Global Bond Fund (Colonial First State)</a>	2021 Impact Report	Yes	Yes (Carbon Yield + ISS-ESG)	Yes	Yes	Carbon emissions avoided (tCO <sub>2</sub> e) and (tCO <sub>2</sub> e/\$1m), clean energy capacity installed (MW), clean energy generated (MWh), water treated (M <sup>3</sup> ), green buildings (M <sup>2</sup> ), sustainably managed land(ha), jobs, immunisation, students supported, microfinance loans
<a href="#">AlphaFixe Green Bond Fund</a>	Quarterly Report	Yes	No	Yes	No	GHG emissions reduced/avoided (tCO <sub>2</sub> equivalent per \$1m), energy saving (kWh per \$1m), water savings (litres per \$1m), waste reduction (kg per \$1m), carbon intensity (tCO <sub>2</sub> equivalent per \$1m)
<a href="#">Captor Dahlia Green Bond</a>	2020 Impact Report	Yes	Yes	No	Yes	CO <sub>2</sub> avoided annually (tCO <sub>2</sub> ), energy avoided annually (MWh), green energy production (MW)
<a href="#">SPP Grön Obligationsfond</a>	Carbon Footprinting of Investments					Carbon intensity (tCO <sub>2</sub> e/1m SEK sales revenue)
<b>Passive Funds</b>						
<a href="#">iShares Global Green Bond ETF</a>	Annual Impact Report	Yes	No	No	Yes	CO <sub>2</sub> emission avoided annually (tCO <sub>2</sub> ), energy savings (MWh), renewable energy generated (MWh), water savings annually (m <sup>3</sup> ), re/afforestation (Ha), public transport use, people benefitting (all per \$1m)
<a href="#">iShares Green Bond Index</a>	Annual Impact Report	Yes	No	No	Yes	CO <sub>2</sub> emission avoided annually (tCO <sub>2</sub> ), energy savings (MWh), renewable energy generated (MWh), water savings annually (m <sup>3</sup> ), re/afforestation (Ha), public transport use, people benefitting (all per \$1m)
<a href="#">Lyxor Green Bond ETF</a>	Impact Report 2020	Yes	Yes	No	Yes	Annual GHG avoided (tCO <sub>2</sub> e), renewable energy produced (MWh), renewable energy capacity added (MW), water treated (m <sup>3</sup> ), green buildings (m <sup>2</sup> ), ESG score
<a href="#">VanEck Vectors Green Bond ETF</a>	Income with Impact	Yes	No	Yes	Yes	Renewable energy generated (Mwh), CO <sub>2</sub> avoided or reduced (tCO <sub>2</sub> ), Land conserved or reforested (Hectares)
<a href="#">Lyxor Green Bond ESG Screened UCITS ETF</a>	ESG & Climate Metrics	No	No	No	No	Weighted Carbon Average Intensity (tCO <sub>2</sub> e/€1m sales), ESG score, physical risk score, climate scenario alignment
<a href="#">Unicredit MSCI European Green Bond UCITS ETF</a>	Monthly Factsheet	No	Yes (Vigeo Eiris)	Yes	No	Carbon intensity portfolio and per €1m invested (tCO <sub>2</sub> e/€1m sales), ESG score
<a href="#">Franklin Liberty Euro Green Bond ETF</a>	Impact Report 2021	Yes	Yes (Cicero + Carbon4 Finance)	No	Yes	Emissions saving (tCO <sub>2</sub> e), emissions avoided tCO <sub>2</sub> e/€10m (calculated for energy, transport + buildings investments separately)
<b>New Euro Denominated Funds</b>						
<a href="#">Pimco GIS Climate Bond Fund</a>	Quarterly Report	Yes	No	No	Yes	Carbon intensity (tCO <sub>2</sub> /\$1m sales), ESG score
<b>New Other Currencies</b>						
<a href="#">Artesian Green and Sustainable Bond Fund</a>	Monthly update	Yes	No	Yes	Yes	Carbon abatement (tCO <sub>2</sub> e)
<b>New Passive Funds</b>						
<a href="#">Lyxor Euro Government Green Bond UCITS ETF</a>	ESG & Climate Metrics	No	No	No	No	Carbon emissions (tCO <sub>2</sub> e), carbon intensity and weighted average carbon intensity (tCO <sub>2</sub> e/€1m), ESG score, climate scenario alignment

Figure 2: Mean Average % of AuM by Bond Issuer Region

	Region				
	North America	Europe	Asia (ex-China)	China	Emerging Markets (ex-China)
2020	18.1	55.5	5.8	4.7	10.1
2021	19.9	64.4	5.2	1.4	4.9

**Portfolio geography:**

- 32 of the 40 funds hold European bonds with 22 having more than 75% of their AuM in European bonds
- 27 funds hold North American bonds, with the AlphaFixe Green Bond Fund

being 100% invested in North American issues. Excluding this North America-only fund, the average for North American holdings was 17.4% of AuM

- 24 funds hold some emerging market (EM) issues (ex-China). The highest

share was in the Blackrock Emerging Markets Impact Green Bond Fund which has 91% of its assets in EM (ex-China) bonds. The average, excluding this fund, is 2.4% of AuM in EM (ex-China)

- 24 funds hold Asia (ex-China) bonds, with an average of 5.2% of AuM
- 11 funds have Chinese green bonds in their portfolio, but only to an average of 1.4% of their assets. The largest holding of a single fund was 16% of total AuM

As Figure 2 shows, the regional breakdown of funds' AuM in 2020 and 2021 were broadly similar, with the main change being a large increase from 55.5% to 64.4% of AuM in European bonds. But there were significant drops in the share of AuM invested in China and other emerging markets.

Our survey showed a growing focus on pre-investment analysis of both bond and issuer. It also revealed an increase in the number of funds requiring a second opinion of bonds from 31% in 2020 to 40% in 2021.

There was also a slight increase in the number of funds tracking the ESG ratings of bond issuers. Ratings and other ESG performance measures are used by more than 85% of fund managers to gauge the attractiveness of a particular green bond, with the broader context of company-wide ESG performance acting as either an exclusionary criterion or an important selection factor.

Several fund managers mentioned their awareness that some companies use green bond issuance to distract from ESG controversies or as a virtue signalling exercise. The majority of funds also have rigorous screening for controversies and exclusionary criteria based on the ESG performance of issuers.

**Impact reporting**

Fund level impact reporting is growing amongst the funds surveyed, with the number of funds issuing impact reports rising from 66% in 2020 to 72% in 2021 (see Figures 3 and 4).

As Table 1 shows, the quality and size of funds' impact reports vary widely but the overall increase in the proportion supplying fund-level impact reports is a positive step

Figure 3: Do you issue an impact report? – 2021

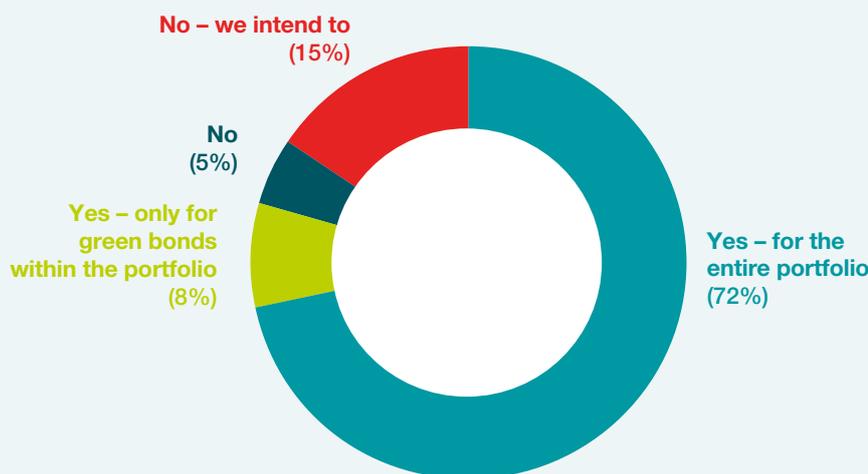


Figure 4: Do you issue an impact report? – 2020

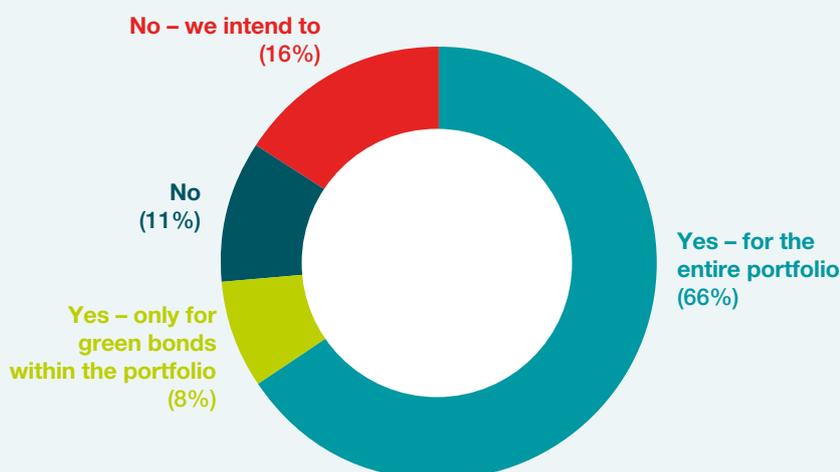
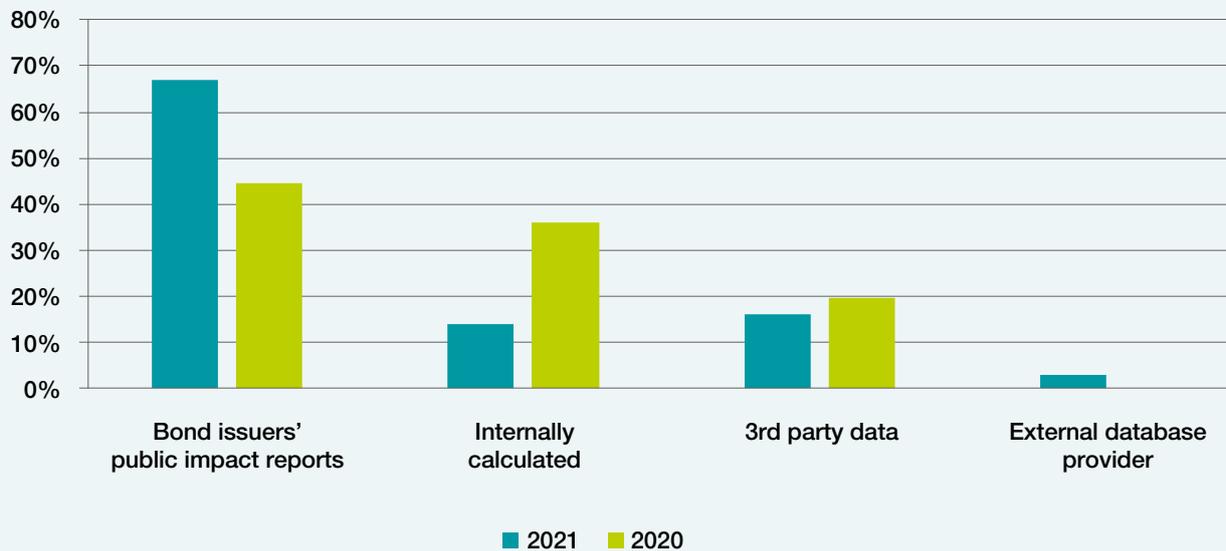


Figure 5: How is the data for your fund's impact report gathered?



towards greater transparency.

### Data collection

Data collection is one of the cornerstones of fund level reporting and is still a predominantly manual and time-consuming process. There are some database and third-party solutions emerging but the majority of impact data must be extracted from issuers' impact reports which still show very little sign of standardisation in terms of format, frequency, detail and data metrics.

The accessibility and location of issuers' impact reports continues to challenge data collection as most are still in inaccessible pdf format and with little consistency in publishing date. Many investors and funds gather this information manually and say having it available in Excel format would be much preferred.

Where the issuers' impact data is reported is also inconsistent. There are developments in the market to create a central hub to hold issuers' impact reports and data. (See page 37 for details).

Technology-driven solutions are also emerging, such as the [Green Asset Wallet](#), that are attempting to create a single source for issuers' impact reports.

Whilst larger green bond fund managers have committed resources to gathering

data for their portfolio analysis and impact reporting, using their own internal databases to store and access the relevant data, data collection is still a major barrier for smaller asset management firms with green bond funds.

Our survey also revealed an increase in the number of funds using external companies to assist with preparation of their impact reports, up from 11% in 2020 to 17% in 2021. The growing role of third-parties and databases underlines the growing complexity and resource requirements for funds to produce impact reports on their holdings. Funds vary greatly in their size and the resources they allocate to impact reporting, ranging from fund managers with large internal databases to smaller firms where the fund manager or a single sustainability team member is responsible for the fund impact report.

Figure 5 shows there has been a decrease from 36% in 2020 to 14% in 2021 of funds using internal calculations for their impact report data. This has been matched by an increase in the use of bond issuers' impact reports. This is likely due to the growing maturity of impact reporting practices amongst issuers, meaning that more reliable data is available so that fewer internally calculated estimations are required at the fund level.

Engaging with issuers to outline reporting expectations and to request or query data

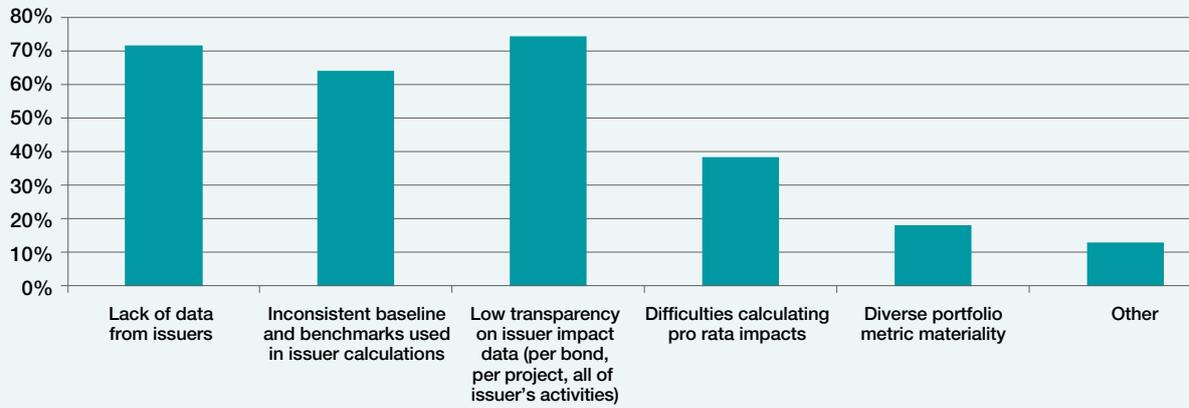
is a key part of the data gathering process for the majority of green bond funds. This engagement can vary in terms of frequency and detail, but nine out of ten funds surveyed have routes of engagement with issuers to request impact data.

This engagement can be structured or ad hoc, but many funds will engage with issuers annually as a matter of due diligence. Engagement usually starts pre-investment and is followed by regular engagements focussed on impact reporting.

Many issuers and funds engage to establish clear expectations regarding metrics and reporting. This represents an opportunity for funds to advise issuers on which metrics they consider material. However, some funds are wary of being overly prescriptive and want issuers to communicate project-relevant metrics.

Funds engage with issuers to gather additional impact data they require for their reports but also to clarify outlying figures and request explanation of methodologies if they are not provided in the issuer's impact report. Funds play an important role in fact checking and verifying issuers' impact reports and are well placed to spot outliers as they are likely to have legacy data and experience working with similar issuers in the same sector and regions.

Figure 6: What are the main challenges to aggregating issuer impact data?



### Data aggregation

According to Figure 6, the main challenges that green bond funds face when aggregating data for their fund level impact reports stem from issuers' data collection. Three-quarters of survey respondents highlighted low transparency of issuer data and almost as many cited a simple lack of issuer data as their main challenges.

A major obstacle to accurate aggregation for fund level reporting remains the diversity of metrics, baselines and

methodologies used by issuers.

There is currently little standardisation of impact metrics in issuers' impact reports but efforts are being made by ICMA and other bodies to recommend specific metrics and methodologies at a sector level (see pages 5-8).

An added complexity in the aggregation process remains the underlying methodology used by issuers. Even in relatively commonly used environmental metrics such as greenhouse gases

(GHG) or carbon (CO<sub>2</sub>) emissions avoided or reduced, there are a variety of methodologies and baselines used in issuers' calculations which require normalising before aggregation. As Figure 7 shows, funds themselves also use several different baselines to calculate avoided emissions.

Another significant problem is that it is difficult to aggregate issuers' impact data which is presented using absolute metrics with those using relative metrics. The majority of issuers reporting relative

Figure 7: What baseline/benchmark do you use to calculate GHG or CO<sub>2</sub> emissions avoided?

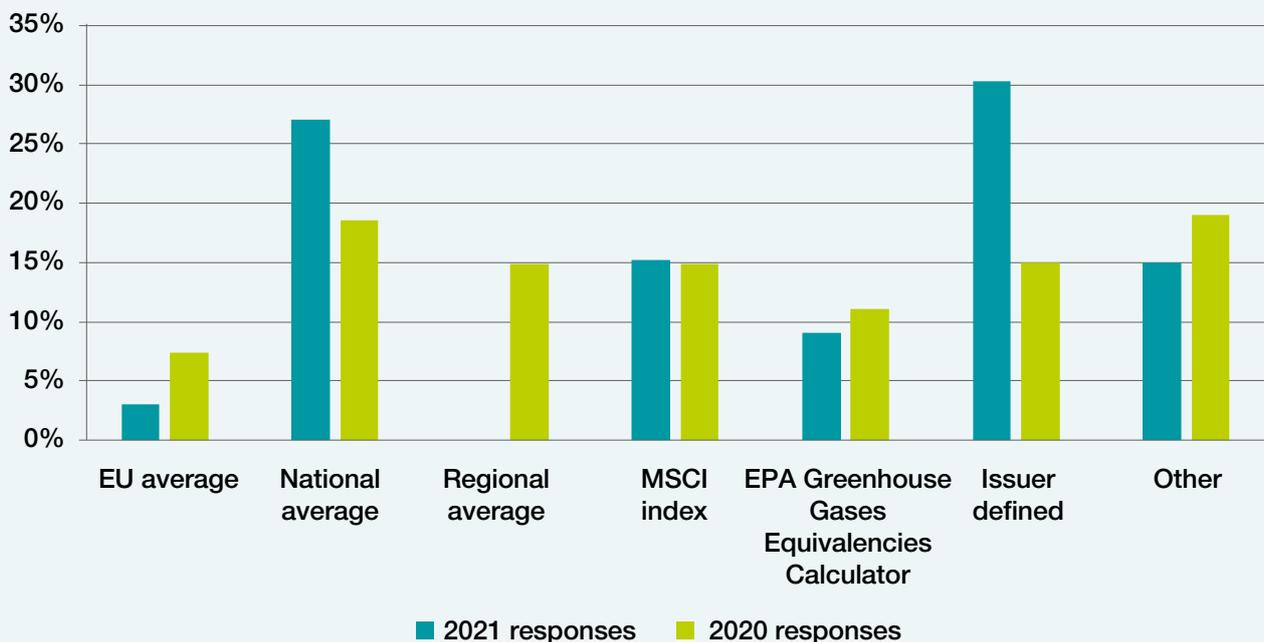
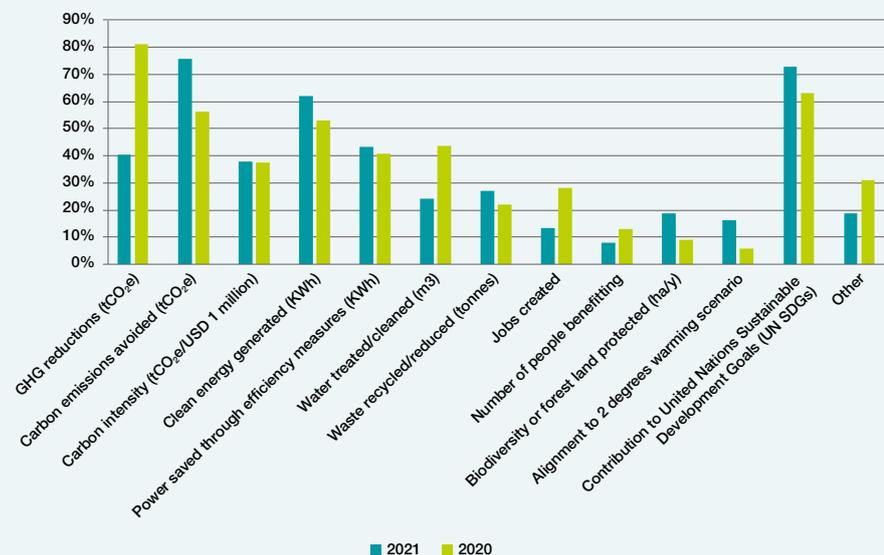


Figure 8: What environmental metrics does your impact report cover?



specify the impact per bond or per project.

These challenges in data gathering and aggregation have led to the growth of third-party impact reporting products and some green bond funds employ an external company to gather, aggregate and produce their impact report.

### Metrics

The selection of metrics for fund-level impact reports depends on many factors. The majority of metrics included depend on the availability of data from bond issuers, but funds also cite investor demand, impact materiality, industry standards and their own sustainability strategy as factors in deciding which metrics are selected for their impact reports.

Ease of portfolio-level aggregation was also mentioned by several survey respondents, as some metrics lend themselves to aggregation more easily than others.

As demonstrated in Figure 8, climate mitigation remains the most common metric for green bond funds to report on, with more than 75% of funds reporting on carbon emissions avoided. There are still some fund impact reports which only cover one or two metrics but, overall, there has been an increase in the number of metrics being covered from 2020 to 2021.

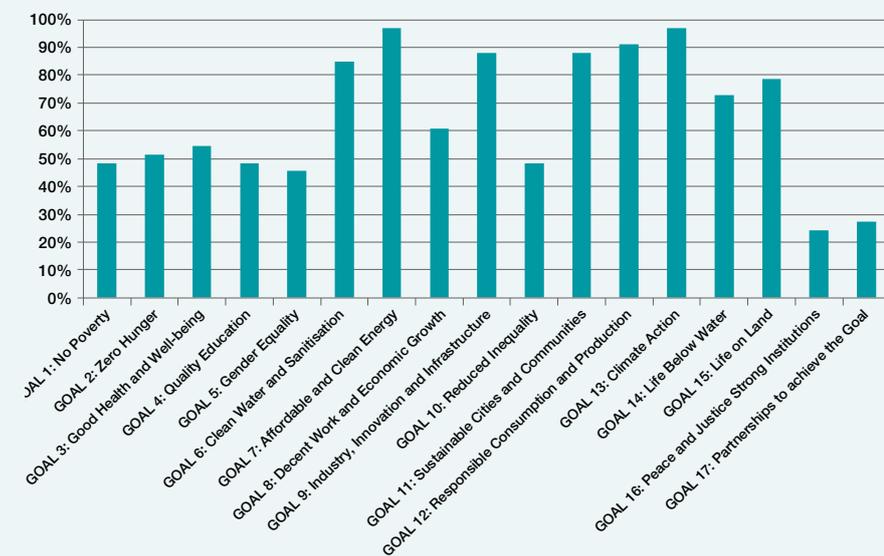
The continuing debate over the additionality of green bonds creates difficulties for funds when communicating the impact of their portfolios. Some funds track how many new projects are being financed by the bonds they invest in, compared with the number of refinancing, but, at present, most green bonds issued are for refinancing, which makes it difficult to truly judge the additionality of the funds' environmental impact.

### SDGs and temperature scenario alignment

Whilst the SDGs undeniably lack granularity, their ability to convey the broad areas of impact and provide a metric to compare bonds and funds is appealing to many investors.

There was an increase from 63% in 2020 to 73% of funds in 2021 reporting on their alignment to the SDGs. A key factor in the

Figure 9: For which SDGs are you tracking your fund's contributions?



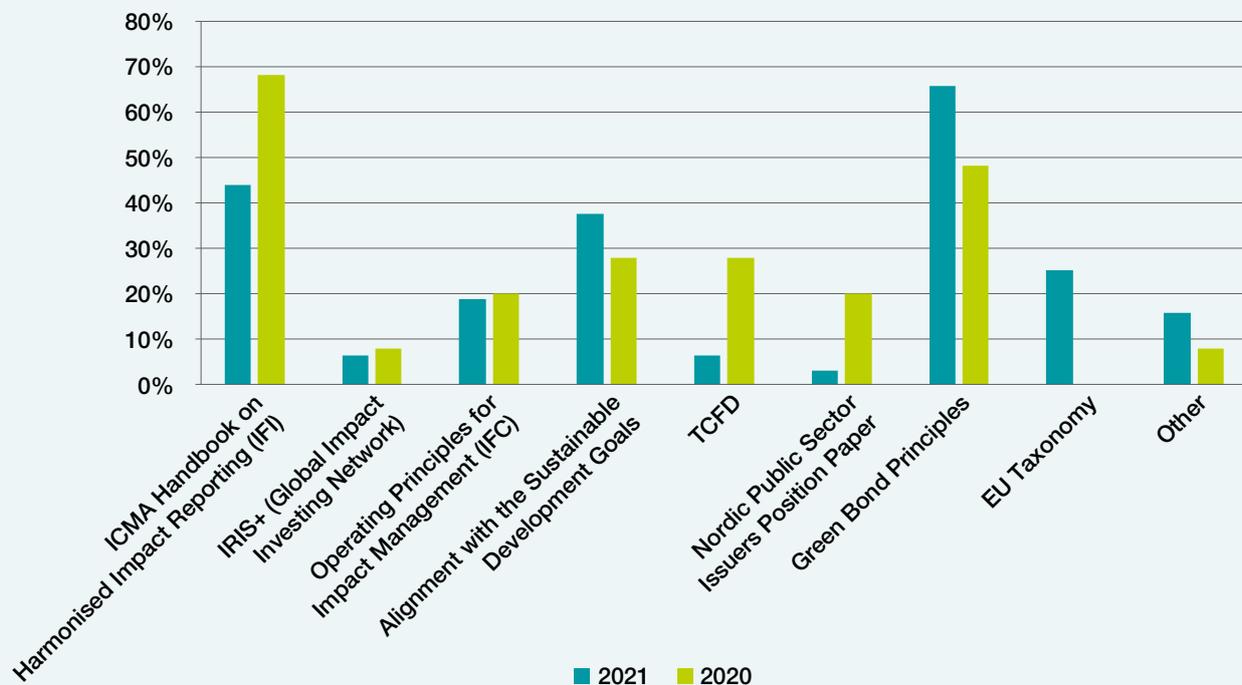
metrics do have the absolute data available internally and some funds contact them requesting this data, but it adds another layer of time-consuming engagement and data gathering for a fund and is a barrier to accurate fund level aggregation.

An additional complexity is that a green bond is often not the sole source of funding for a project, so the pro-rating of impact is an additional layer in data aggregation

for impact reporting at the fund level. The impact must be calculated on a pro-rata basis for the amount of the project that is funded by the bond, and the fund must then reduce that number to reflect the amount of the bond which the fund holds.

To add to this challenge, not all issuers report on a bond or project level; some report their impact data for the entirety of their sustainability operations and do not

Figure 10: Which impact reporting guidelines, if any, do you use?



growth of SDG reporting at a fund level is investor demand (see pages 34-36). Figure 9 shows that Goal 7: Affordable and Clean Energy and Goal 13: Climate Action, were the most commonly aligned by fund impact reports with only one survey respondent not selecting them.

Other notable Goals which feature in over 80% of funds' impact reports were Goal 6: Clean Water and Sanitation, Goal 9: Industry, Innovation and Infrastructure, Goal 11: Sustainable Cities and Communities, and Goal 12: Responsible Consumption and Production.

One in five funds claim to align with all 17 SDGs.

SDG alignment can be subjective, however, and many funds carry out their own SDG mapping for the bonds they hold rather than using those in issuers' impact reports. This allows the same stringency to be consistently applied to all issuers.

Alignment to the goals of the Paris Agreement or particular global warming scenarios is an additional broad metric which some issuers and funds utilise. But temperature scenario alignment presents challenges for green bond funds as it is generally assessed at an issuer level rather

than a bond level.

Like SDG mapping, temperature scenario alignment lacks granularity but can provide data which can allow macro-level comparisons of issuers and funds.

### Data presentation

Fund-level impact reporting can take many different forms. As table 1 shows they range in size from 1 page to 50+ pages, can cover as few as three metrics and up to 14, and there is little consistency in metrics, methodology, use of case studies and report format.

The lack of standardisation in funds' impact reporting can be seen in Figure 10 which shows the wide range of impact reporting guidelines used. However, our survey did highlight some consistent elements to fund-level impact reporting. As in 2020, the most commonly used guidelines were the Green Bond Principles and ICMA's Handbook on Harmonized Framework for Impact Reporting. And, as last year, around nine out of ten funds report their impact per million euros or dollars invested, however 2021 has seen a significant increase in the number of funds also reporting their impact at a bond level, rising from 13% in 2020 to 34% in 2021.

The frequency of impact reporting by green bond funds has remained broadly the same year-on-year with about 60% reporting annually. There has been a slight increase in monthly reporting, however, up to 22% in 2021 from 15% in 2020. These monthly impact reports are commonly integrated into funds' monthly factsheets to provide an environmental or impact element to the monthly financial updates.

This shift to some form of monthly impact reporting is reflected in how green bond fund managers see impact reporting evolving in the future. In 2020 only 12% said they intended to report more frequently but in 2021 that number has risen to 35%.

### Comparing fund impact

There are many challenges in attempting to find comparable, unifying metrics by which to communicate a fund's overall impact as green bond funds vary significantly in terms of size, portfolio, investment mandate and geographical focus.

Carbon intensity and carbon footprint offer some form of comparability but, as discussed in the 2020 study, sovereign and municipality bonds complicate these calculations as they generally rely on issuers' enterprise value and revenues. ■

# Green bond funds – at a glance

Table 2:

Name	Inception Date	2021 AuM: USD Million (as of 30/09/21)	2020 AuM: USD Million (30/09/20)	Impact report
<b>Euro Denominated Funds</b>				
<a href="#">Ålandsbanken Green Bond ESG</a>	22/05/2019	96	83	Fund Metrics Report
<a href="#">Allianz Green Bond</a>	17/11/2015	948	873	Impact Report
<a href="#">Amundi Responsible Investing Impact Green Bonds</a>	27/09/2016	932	806	Monthly Factsheet
<a href="#">AXA WF Global Green Bonds</a>	05/11/2015	1,400	701	Monthly Factsheet
<a href="#">BfS Nachhaltigkeitsfonds Green Bonds (Universal Investments)</a>	19/10/2001	28	24	Report not readily available
<a href="#">BNP Paribas Green Bond Fund (formerly Parvest)</a>	07/09/2017	1,300	1,156	Climate Reporting
<a href="#">CM-CIC Green Bonds</a>	08/06/2017	58	42	Report not readily available
<a href="#">CROWD - Green Bond Impact Fund</a>	30/12/2015	3	3	Report not readily available
<a href="#">DPAM L Bonds Climate Trends Sustainable</a>	28/06/2019	520	183	Quarterly Sustainability Report
<a href="#">ERSTE Responsible Bond Global Impact</a>	01/06/2015	216	191	ERSTE Responsible Bond Global Impact
<a href="#">Eurizon Absolute Green Bonds</a>	10/01/2018	2,668	2,278	Green Bonds Impact Report 2020
<a href="#">HGA Obligations Vertes ISR</a>	27/10/2015	458	547	Green Bond Fund Report
<a href="#">JSS Sustainable Green Bond Global</a>	30/11/2007	37	31	ESG Analytics
<a href="#">LGT Sustainable Bond Fund Global</a>	30/11/2009	134	134	Sustainability report
<a href="#">MFM Global Sustainable Bonds</a>	31/07/2019	29	30	Fund webpage online
<a href="#">Mirova Euro Green &amp; Sustainable Bond</a>	15/10/2013	792	704	Monthly Factsheet R/A share class
<a href="#">Mirova Euro Green &amp; Sustainable Corporate Bond</a>	11/05/2011	570	416	Monthly Factsheet R/A share class
<a href="#">Mirova Global Green Bond</a>	02/06/2017	940	568	Monthly Factsheet R/A share class
<a href="#">NN (L) Green Bond</a>	01/03/2016	1,660	1,466	Green Bond Funds Impact Report 2020
<a href="#">NN (L) Green Bond Short Duration</a>	01/04/2019	213	98	Green Bond Funds Impact Report 2020
<a href="#">NN (L) Corporate Green Bond</a>	29/02/2020	570	119	Green Bond Funds Impact Report 2020
<a href="#">ODDO BHF Green Bond</a>	01/10/19 (as a green fund)	144	146	Monthly Factsheet
<a href="#">Raiffeisen-GreenBonds</a>	15/09/2015	343	196	Sustainability report
<a href="#">Rivertree Bond Euro Green Bonds</a>	01/02/2016	32	61	Report not readily available
<a href="#">SEB Green Bond</a>	05/12/1989	228	228	Annual and Sustainability Report
<a href="#">Uninstitutional Green Bonds</a>	28/04/2017	103	149	Sustainability report
<a href="#">DWS Invest Green Bonds Deutsche Asset Management</a>	15/10/2018	196	129	Report not readily available

Name	Inception Date	2021 AuM: USD Million (as of 30/09/21)	2020 AuM: USD Million (30/09/20)	Impact report
<a href="#">Generali Investments Euro Green &amp; Sustainable Bond</a>	16/12/2019	265	175	Report not readily available
<a href="#">Mansartis Green Bonds</a>	31/10/2019	17	15	Report not readily available
<b>US Dollar Denominated Funds</b>				
<a href="#">Amundi Planet - Emerging Green One (EGO)</a>	28/02/2018	1,530	1,497	Annual Impact Report 2020
<a href="#">Calvert Green Bond</a>	31/10/2013	995	696	Report not readily available
<a href="#">LO Funds Global Climate Bond</a>	01/03/2017	682	642	2021 Impact Report
<a href="#">Nikko AM Global Green Bond</a>	25/02/2010	14	56	Report not readily available - due Q1 2022
<a href="#">Ping An of China Asset Management China Green Bond Fund</a>	11/11/2019	93	50	Brief mention in 2020 Sustainability Report
<a href="#">Syz AM Green Bonds</a>	30/09/2003	32	37	Report not readily available
<a href="#">TIAA-CREF Core Impact Bond Fund</a>	21/09/2012	6,250	6,120	Measuring Impact in Public Markets
<a href="#">TIAA-CREF Green Bond Institutional</a>	16/11/2018	55	45	Measuring Impact in Public Markets
<a href="#">The Colchester Global Green Bond Fund</a>	30.05.2019	2	2	Report not readily available
<a href="#">Aegon US Sustainable Fixed Income Strategy</a>	01/04/2019	189	N/A	Sustainability Report
<a href="#">AIM US\$ Liquid Impact Fund</a>	16/05/2018	41	37	2021 Impact Report
<a href="#">Franklin Municipal Green Bond Fund</a>	01/10/2019	10	5	Report not readily available
<b>Other Currencies</b>				
<a href="#">Affirmative Global Bond Fund (Colonial First State)</a>	06/04/2018	87	83	2021 Impact Report
<a href="#">AlphaFixe Green Bond Fund</a>	21/11/2017	500	313	Quarterly Report
<a href="#">Captor Dahlia Green Bond</a>	02/07/2018	163	90	2020 Impact Report
<a href="#">Öhman Green Bond Fund</a>	12/10/2017	79	76	Report not readily available
<a href="#">SPP Grön Obligationsfond</a>	02/03/2015	585	787	Carbon Footprinting of Investments
<b>Passive Funds</b>				
<a href="#">CSIF (Lux) Bond Green Bond Global Blue</a>	15/04/2019	153	108	Report not readily available
<a href="#">iShares Global Green Bond ETF</a>	13/11/2018	256	145	Annual Impact Report
<a href="#">iShares Green Bond Index</a>	16/03/2017	3,705	2,898	Annual Impact Report
<a href="#">Lyxor Green Bond ETF</a>	21/02/2017	723	605	Impact Report 2020
<a href="#">VanEck Vectors Green Bond ETF</a>	03/03/2017	101	50	Income with Impact
<a href="#">MM Global Green Bond Fund (Aegon Asset Management)</a>	27/03/2019	343	N/A	Report not readily available
<a href="#">Lyxor Green Bond ESG Screened UCITS ETF</a>	13/09/2019	35	N/A	ESG & Climate Metrics
<a href="#">Unicredit MSCI European Green Bond UCITS ETF</a>	20/11/2018	23	N/A	Monthly Factsheet
<a href="#">Franklin Liberty Euro Green Bond ETF</a>	29/04/2019	147	80	Impact Report 2021
<b>New Euro Denominated Funds</b>				
<a href="#">Pimco GIS Climate Bond Fund</a>	23/09/2020	334	N/A	Quarterly Report
<a href="#">Evli Green Corporate Bond Fund</a>	17/08/2020	82	119	Fund allocation and impact report 2020

Name	Inception Date	2021 AuM: USD Million (as of 30/09/21)	2020 AuM: USD Million (30/09/20)	Impact report
<a href="#">RobecoSAM Global Green Bonds</a>	21/04/2020	50	18	Not yet reporting
<a href="#">Bantleon Select Green Bonds</a>	06/10/2020	114	N/A	Not yet reporting
<a href="#">Asteria Funds - Climate Bonds</a>	08/12/2020	30	N/A	Not yet reporting
<a href="#">NN (L) Sovereign Green Bond</a>	31/03/2021	160	N/A	Not yet reporting
<a href="#">Vontobel - Green Bond</a>	14/04/2021	71	N/A	Not yet reporting
<a href="#">Amundi Responsible Investing – Just Transition for Climate (previously Amundi Responsible Investing Green Bonds)</a>	01/04/2021	407	N/A	Not yet reporting
<b>New Other Currencies</b>				
<a href="#">Artesian Green and Sustainable Bond Fund</a>	01/09/2020	50	N/A	Monthly update
<a href="#">Blackrock Emerging Markets Impact Bond Fund</a>	12/07/2021	28	N/A	Not yet reporting
<a href="#">Amundi Funds Emerging Markets Green Bond Fund</a>	22/04/2020	673	N/A	Not yet reporting
<b>New Passive Funds</b>				
<a href="#">Lyxor Euro Government Green Bond UCITS ETF</a>	25/06/2021	64	N/A	ESG & Climate Metrics
<a href="#">iShares € Green Bond UCITS ETF</a>	25/03/2021	46	N/A	Not yet reporting



# Case Study

## Affirmative Investment Management

**A**ffirmative Investment Management is responsible for the impact reports of three of the green bond funds in this report:  
**Lombard Odier (LO) Funds – Global Climate Bond**  
**AIM US\$ Liquid Impact Fund**  
**Affirmative Global Bond Fund – alliance partner with Colonial First State**

These impact reports are some of the most comprehensive analysed in this year's survey. The three funds have different mandates and sizes however their impact reports share several characteristics and metrics.

This case study will concentrate on the Lombard Odier (LO) Funds – Global Climate Bond fund to track the year-on-year evolution of reporting practices.

LO Funds – Global Climate Bond fund was launched in March 2017 and the 2021 Impact Report is the fourth to be published. The fund has more than doubled in size from AuM of \$322m in the 2020 report to \$682m in the 2021 report. The fund is classified as an Article 9 fund under the EU's Sustainable Finance Disclosure Regulation (SFDR).



### Metrics:

	2020 report	2021 report
Frequency	Annual	Annual
Pages	51	59
Weighted Portfolio Coverage	93%	91%
Metrics: Avoided emissions per year	57,277 tCO <sub>2</sub> e	126,000 tCO <sub>2</sub> e
Carbon yield	0.21tCO <sub>2</sub> e/US\$1,000/annum	268 tCO <sub>2</sub> e/US\$m/annum (equivalent to 0.27tCO <sub>2</sub> e/US\$1,000/annum)
Clean energy capacity installed	60 MW	215MW
Clean energy generated	228,291 MWh	811,000 MWh
Daily passenger capacity for low carbon transport	19,586	n/a
Water treated	322,952 m <sup>3</sup> /day	6,150,000m <sup>3</sup> /year
Green buildings by floor area	12,774 m <sup>2</sup>	23,000m <sup>2</sup>
Student places supported	696	400
Children immunised	1,977	9,240
Jobs retained/created	165	1,050
Microfinance and SME loans	14,685	240
Land sustainably managed	n/a	10,500Ha
TCFD Weighted Average Carbon Intensity (WACI)	54.4tCO <sub>2</sub> e/\$m revenue	64tCO <sub>2</sub> e /\$m revenue
UN SDG Alignment	17/17	15/17

*AIM notes that comparing impact metrics between year-on-year impact reports is challenging. Metrics are determined by the holdings over the year and these vary with the size of the fund, as bonds mature and for many other reasons. Impact reporting methodologies are still in their infancy, and therefore metrics will also vary year-to-year because of methodological differences (which are always noted within the impact report).*

**Additional Metrics:** In 2018, AIM collaborated with ISS ESG and Lion's Head Global Partners, with funding from the Rockefeller Foundation, to create the Carbon Yield methodology which quantifies the climate change mitigation of its green bond holdings. Since then, AIM has worked alongside ISS ESG to apply the Carbon Yield methodology to its green bond holdings. The fund manager also works with South Pole on physical risk profiling and provides the detailed methodology in its fund impact report.

**Portfolio composition:** Details are provided by bond type, sector and geography.

**Case Studies:** 10 case studies including sector information, project context, SDG alignment and impact information.

**Methodologies:** Explanations are given of every metric used and there are six pages of in-depth methodologies in an annex.

**Also included:**

- Commentaries on each industry sector, the green recovery and the green bond market.
- AIM corporate sustainability data and commentary. An overview of AIM's proprietary SPECTRUM selection methodology for bonds and issuers.
- Issuer engagement by issuer type and point of engagement. Real world equivalencies for each headline metrics (e.g MWh of clean energy generated expressed in terms of homes powered).

**Awards:** Morningstar ESG Commitment level of Leader; *Environmental Finance* Bond Awards 2021: Winners Impact report of the year (for investors); *Environmental Finance* Sustainable Investment Awards 2020 Best sustainability reporting by an asset manager medium and small (fixed income).

## Case Study Interview

Lombard Odier (LO) Funds – Global Climate Bond  
AIM US\$ Liquid Impact Fund  
Affirmative Global Bond Fund – alliance partner with  
Colonial First State

**Interview with:**

**Katie House, Partner, Sustainability, Affirmative Investment Management (AIM)**

***Environmental Finance:* What are AIM's main motivations for impact reporting?**

**KH:** We would not be fully delivering on our mission to be an impact investor if we did not do impact reporting. There are two key facets to the way we ensure impact is delivered. The first is verification of issuers – before any issuer and issue enters our investable universe, we verify how confident we are that positive environmental or social impact occurs and that our other sustainability and credit criteria are met. This is done pre-investing and generally before seeing impact reports from issuers.

The second part is our impact measurement and reporting. It is an important annual check in with issuers to make sure impact is being delivered as we expected, and it allows us to aggregate and understand the impacts of our investment. We are also able to show our clients the types of positive environmental and social impacts their investments are making around the world.

**EF: How does the pre-investment verification work?**

**KH:** Our strategy is a combination of positive selection and exclusions. Our framework for verifying issuers and issues helps us maintain consistency amongst the analysts who are completing the verification and deciding what should be included in the



**Katie House, Partner, Sustainability, Affirmative Investment Management (AIM)**

investable universe. That framework covers both the issuance and the issuer.

On the issuance side we review the use of proceeds and the expected impact, both the intended positive impact and also the unintended negative and positive impact. For example, for an environmental project we would assess the unintended impacts from an environmental and social point of view and weigh up if it is a project we want to support.

We also assess the issuer's commitment to transparent reporting on impact. If the bond issuer does not have a strong commitment to report on impact, there is a higher risk that we will not receive ongoing information that confirms impact is being delivered. At the issuer level we do our "responsible issuer" check. We look at the environmental, social and governance aspects of an issuer including their policies, past performance and future transition plans.

This framework allows us to be nuanced and perform in-depth analysis. We are able to be context specific, for example, we do not have to require the same from a developed market issuer and an emerging market issuer. We are able to take the context into account, which is a key driver of the material environmental and social risks and impact.

We do have overarching exclusionary criteria – there are some things that we just won't include in our investable universe at an issuer level – and we make these publicly available. If an issuer has revenue from an excluded activity, the issue will be excluded regardless of what the bond's use of proceeds are directed to.

**EF: Is your expectation of impact reporting in emerging markets different from your expectations of developed markets?**

**KH:** There is a minimum that we hold all issuers to, regardless of whether they come from an emerging market or a developed market. We want to see where the allocation has gone at either a category level or a project level. We want there to be enough visibility that we can have comfort that the funds are being used for projects we want to support.

We also want to see some impact metrics. We have key impact metrics we expect from all issuers, depending on the sectors and technologies funded however recognize that there are different regional norms in terms of reporting and disclosure and some countries are more advanced than others in presenting this type of information. Some countries tend to follow national impact measurement methodologies vs others that may follow regionally agreed norms such as the Nordics and the EU.

We also acknowledge that some issuers are new to the impact bond market and still on the journey to establishing their internal data systems to facilitate more detailed impact reporting and would expect issuers who have been in the market for a long time to be more proficient.

Reporting on the country of projects supported by our investments is an interesting aspect of impact reporting. We support projects in over 160 countries while maintaining a high

average credit rating. This comes from holding labelled bonds from highly rated entities, such as supranational and development banks, that allocate proceeds to projects in many different countries. We are able to have developed market credit risk but support projects across the globe.

**EF: Where does the data and analysis come from on unintended negative impact?**

**KH:** Analysis of unintended negative impacts is done at the verification level. Unintended negative impacts are considered at pre-screening verification and during re-scoring verification, which we complete on a regular basis.

The information might come from the issuer, as some issuer websites have project-by-project information including details of negative impacts. We also do controversy screening, which may uncover negative information.

We incorporate our own contextual and sectoral experience. For example, we know that a hydro power project in South America could have higher risks of deforestation or community displacement. We examine these factors more closely including engaging with other parties such as the NGO community for their views on the project.

In future impact reports we will incorporate alignment with SFDR reporting and its PAI (principle adverse impacts) regime. This will require a more quantitative review of the associated negative impacts. I think this is going to be a very interesting exercise to start including this information into our impact report including to present an appropriate benchmark to contextualise our information.

**EF: Who decides which metrics you use in your report? How do you find a material metric for all the sectors held in your portfolio?**

**KH:** We have an in-house data management system into which we enter all impact data collected either through publicly available information and/or engagement. Our process involves looking at the issuers' impact reports, pulling all the data we can from the reports, in some cases engaging with the issuers to enhance that data if the impact report has not been published or updated, then inputting the data into our database.

We have been developing our data system for many years and it automatically pro-rates each KPI we have collected for each project in our portfolio. Issuers will often give you the full KPI for each of their projects. We take that information and firstly calculate the share for which the issuer is responsible and then for what we hold. We never just present data for the whole project, it is always calculated on a pro rata basis to our holding.

Once data collection is completed, we can collate results across each fund to assess the aggregated pro-rated metrics across the portfolio. We can pull the summary for the whole fund and see which metrics will be the most interesting and material for that portfolio. There is such a variety of metrics reported by issuers. Some are very commonly reported, such as renewable energy capacity or water savings, which we are almost certainly going to

report on. Other metrics do not make it into our impact reports because only one or two issuers report on them.

We report more environmental metrics and fewer social ones, mainly because our holdings are much more green than social, but also because social metrics are more challenging to aggregate. Five years ago, we saw fewer green metrics reported and less commonality around what was being reported. This is what we are seeing with social metrics now. I think we will see more social metrics and more commonality in the future.

**EF: How do you select external companies to partner with on your impact reports?**

**KH:** We are always interested to see what parts of impact reporting we can enhance and partners who we can work with. We have partnered with ISS ESG for a number of years and the partnership allows us to leverage their expertise to calculate potential avoided emissions for green bonds. This is something that you really need to have deep expertise in to know you are using an appropriate methodology and baseline construction.

The other partnership we have had for a few years is with South Pole on physical risk. We started off with a case study then developed it and rolled it out across our portfolios. We collaborated with South Pole to develop a methodology that was going to work well for us to assess the physical risk of green bonds. When selecting companies to partner with, we are always keen to work with those that are open to collaboration as well as those that are known for the rigour in their approach and technical expertise.

One thing we have been keeping an eye on recently is partnering on impact data collection because it takes up so much of our time. For this year's report, we had almost 200 individual impact reports to collect data from. However, the best external data source we have seen so far would give us coverage of 35% of our portfolio, whereas the coverage we achieve doing it ourselves in-house is over 90%.

It is critical that we achieve a high level coverage ratio, as if we have a low coverage then extrapolate up this skews our impact results and does not provide the transparency and accuracy of reporting to our investors.

**EF: Is there a growing interest in temperature scenario alignment as an impact metric?**

**KH:** It is definitely something we are interested in. We have not seen many issuers doing temperature alignment of their labelled bond frameworks, but we are seeing a lot of issuers signing up to Science Based Targets and the Transition Pathway Initiative.

These initiatives will require the issuer to provide an assessment on whether their targets are 2°C or 1.5°C aligned at the issuer level. We are considering how we can do temperature alignment of our portfolios and we are currently exploring who we can partner with; how can we develop a collaborative methodology that will work for us focusing on green and sustainability bonds.

**EF: How do you choose metrics that can be reported across multiple funds?**

**KH:** We do not select metrics based on comparability between funds. It is more focussed on which metrics are most appropriate to showcase a particular portfolio. Our portfolios look very different, they have very different mandates, they are very different sizes.

**EF: Do any of your clients request specific metrics?**

**KH:** Our clients understand how we construct the investable universe which our portfolio managers can select from. Everything in that universe has been verified to have positive environmental or social impact but beyond that selection we do not prioritise one impact above another. Our portfolio management team builds the portfolio in order to deliver the best risk adjusted financial returns.

Clients are always interested in knowing which SDGs are supported. We do our own SDG mapping, we do not use the issuer's mapping. You must review them critically and understand how an issuer has attributed their use of proceeds to different SDGs.

This is the second year we done our Weighted Average Carbon Intensity (WACI) analysis and our clients are much more interested in it this year than they were last year. I think awareness of its utility is growing. It is one of the metrics they can use to compare fund by fund and across asset classes.

All clients like to see a mix of social and environmental impact. There are not many specific metrics that clients request, but they are interested in some form of contextualisation of the metric. Our clients expect us to continue to show leadership in impact reporting and underlying metrics. It has become a norm to report on avoided emissions, carbon intensity and SDGs supported. Clients value our ability to report at a project level and achieve coverage of over 90%. We are in the fortunate position that we have been actively measuring and reporting on impact since 2017 and over the years have developed market-leading methodologies, such as Carbon Yield. ■

# Case Study

## NN Investment Partners

**NN (L) Green Bond** (Inception 26/02/2016)

**NN (L) Green Bond Short Duration**  
(Inception 01/04/2019)

**NN (L) Corporate Green Bond**  
(Inception 29/02/2020)

**NN (L) Sovereign Green Bond**  
(Inception 31/03/2021)



The NN Investment Partners Green Bond Fund Impact Report provides impact data and analysis for three of its funds that qualify for this study. The impact data is provided in aggregate and per fund. This annual impact report is augmented by a monthly strategy brief containing impact data.

NN IP first launched its Green Bond Fund in 2016 and launched three subsequent funds with different mandates.

The annual impact report includes comprehensive portfolio breakdowns and strong contextual information. It also has some interactive elements to the pdf allowing data to be manipulated in the document to show different perspectives on metrics e.g. by €m invested or portfolio total.

### Metrics:

	2021 report
Frequency	Annual
Pages	36
Weighted Portfolio Coverage	Not specified in annual report. Portfolio coverage per metric is specified in the monthly strategy brief
Metrics: Avoided emissions per year	561,211 metric tons CO <sub>2</sub> e
	268 tCO <sub>2</sub> e/US\$m/annum (equivalent to 0.27tCO <sub>2</sub> e/US\$1,000/annum)
Clean energy capacity installed	333 MW
Annual renewable energy output	835 GWh
Annual energy savings	42 GWh
UN SDG Alignment	8/17

**Additional Metrics:** The metrics are all available per €m invested and portfolio total

**Other Alignments:** ICMA Green Bond Principles

**Portfolio Composition:** detailed breakdown by geography, sector, use of proceeds, SDG contribution, bond type and currency. Year-on-year comparison numbers provided

**Methodology:** 1 page explanation on impact calculations

**Case Studies:** 6 sector specific bond case studies and three engagement case studies

### Also included:

- Commentaries on the green bond market and its future development
- Green bond assessment methodology
- Issuer engagement by sector, region and point of engagement
- Real-world equivalencies for each headline metric

**Awards:** *Environmental Finance* Bond Awards 2021: Winner, Green Bond Fund of the Year; Main-street Partners 2021 ESG Champions; 2020 Swiss Sustainable Fund Awards prize winner for best aggregate bond fund

# Case Study Interview: NN Investment Partners - Green Bond Funds Impact Reporting

[NN \(L\) Green Bond](#)  
[NN \(L\) Green Bond Short Duration](#)  
[NN \(L\) Corporate Green Bond](#)  
[NN \(L\) Sovereign Green Bond](#)

## Interview with:

[Bram Bos, Lead Portfolio Manager, Green Bonds \(BB\)](#)  
[Kaili Mao, Green Bonds Analyst \(KM\)](#)

### **Environmental Finance: What are NN IP's motivations for impact reporting?**

**KM:** Impact reporting is one of the most important elements for green bonds and our green bond focused investment strategy. At the very beginning of our strategy as a green bond investor we start with recording the impact metrics and then report on them at the appropriate time. This strategy has helped us respond to reporting requests from clients as well as satisfying the regulations.

**BB:** The SFDR regulation does not change anything because we already have the impact reporting. Article 9 funds will be required to show some proof of achievement, but we have had this since the inception of the fund so, for us, it does not change anything.

### **EF: How do you select the metrics you include in your impact report?**

**KM:** For each of the bonds we look at the metrics the issuers report. In terms of materiality, we check if the metric is widely used by issuers and in similar projects. We also check if the portfolio coverage of each metric is high enough for it to be included in the impact report.

### **EF: Do you prioritise new capacity added over refinancing when selecting investments?**

**BB:** We do not prioritise new capacity. A green bond must reach our criteria, and we take the view that both new and existing bonds should be eligible. New is always good, as it does something more than the current situation. On the other hand, refinancing is also good as it gives transparency and shows investors what you already have on your balance sheet. We don't have a preference for one over the other.

### **EF: How do you confirm and verify issuers' impact data?**

**KM:** We have developed an internal methodology as we see so many issuers are reporting on different metrics, using different methodologies, and reporting on the portfolio level, the bond level or the project level.



**Bram Bos, Lead Portfolio Manager, Green Bonds**



**Kaili Mao, Green Bonds Analyst**

When we receive the impact report, the first thing we do is verification, we look at the issuer's methodology and we have checks in place to avoid double counting. For example, if the issuer is reporting greenhouse gases avoided on an energy transmission project, we count this as zero because we consider the impact occurs at the generation of the renewable energy, not the transmission.

We also do our own intensity calculation. We make sure the reported impact is pro-rated to the share financed by the green bond, then we calculate the impact intensity which is defined as the impact data per €m invested through the bond allocation. We store this intensity data in our database and our reporting tools can then grab this intensity data readily for the monthly and annual impact reporting.

**BB:** Our experience with green bond funds helps us a lot. We have been tracking data for green bonds for the past five or six years. We have been collecting all the data points so when an issuer publishes a new number, we have a good idea whether or not it is credible in terms of the type of project and the project location.

**EF: How do you assess issuers when making investment decisions?**

**KM:** Our in-house green bond assessment methodology takes into account both issuer level information and bond level information. On the issuer level we consider the ESG performance as well as any controversies data. On the bond level we consider the CBI taxonomy and the EU taxonomy as well as our internal in-house view.

**BB:** When it comes to impact reporting, it is only on the underlying projects, not the impact of the issuer as a whole that is taken into account.

**EF: How important are the S and the G elements of your issuer ESG assessment?**

**KM:** We take the ESG score as a whole ... these scores have already taken the S and G elements into account. We also look at any controversies that are related to S and G (in addition to E). We will exclude the issuer if they have high-profile controversies and engage with the issuer if they are involved in repetitive lesser controversies.

**BB:** S and G factors are also important. The risk is that certain issuers issue a green bond to distract investors and other stakeholders from the S and/or G problems they are having. You have to weigh that as well when you make your assessment.

**EF: Do you treat emerging markets (EM) differently from developed markets (DM) when assessing issuers and impact reports?**

**BB:** We have one green bond standard and we do not differentiate between EM and DM. We are strict, which means we filter out more EM issuers than DM issuers. That is our stance at the moment, and it is the reality in the market. Emerging markets are more challenging, but there are other investors who take a different approach.

**KM:** On the reporting side we also use the same methodology when assessing EM or DM impact reports. We do notice that some of the impact reporting from different regions such as Asia or North America are briefer [than from European issuers] and they provide all of the figures but without explaining the methodology or baseline or any of the detailed information. In these cases, we always have to ask for more information from the issuers.

**EF: What does issuer engagement entail for NN IP?**

**KM:** Engagement is a very important topic in our strategy. We can get more information from our issuers and let them know what we are seeing in the market in terms of best practices.

In our impact reporting we report our pre- and post-issuance engagement by issuer region and sector. Some issuers reach out to us during the construction of their bond framework about the framework criteria, the impact metrics, and the methodology they should be using. We will always talk to them about the best practices we see in the market.

For post-issuance reporting, if we see any outliers in the impact data or we have questions about the baselines they are using, we will email or call them one-on-one to address our concerns.

**BB:** We try to have contact with each issuer at least once every two years.

**EF: Do you have sector-specific metrics in mind when engaging with an issuer and writing your impact report?**

**KM:** We will look at the project and decide on the reasonable metrics that could be used for it but, also, we consider how the market views that particular type of project and the appropriate metrics and how the reporting is currently being done in that sector. We consider the best practices in the market and make suggestions to new issuers.

**EF: How important are macro metrics such as SDGs for communicating impact?**

**KM:** We have seen that different issuers have different criteria when it comes to SDG alignment. We never use the issuer's alignment; we have our own view on what kind of project will contribute directly to which SDGs.

**BB:** SDGs are something we include in our impact reports at the request of our clients. It is not something we use for filtering, or to decide how we build our portfolios. It is very high level ... exposure to a specific SDG does not really communicate the impact you are achieving. Those are two different things, – exposure to an SDG and really measuring your impact.

I think the quantitative indicators we are including like CO<sub>2</sub> savings, renewable energy generated etc are much more powerful than claiming specific SDG exposure.

However, some of our clients think SDGs are important, for example some of our pension clients have mentioned one or more SDGs as core for their responsible investment policy. So that is why we are including it.

**EF: Do you track the alignment of your investments to a particular warming scenario?**

**KM:** We have integrated 2°C scenario alignment into our issuer level checking and if there is no alignment data available from issuers or third-party providers then we check for any targets set for net-zero commitment. It is embedded in our framework.

We do our impact reporting on a bond or project level, so it is reporting on the positive environmental benefits of a project. 2°C alignment and net zero commitment are more on the issuer level strategy.

**EF: Are you looking to incorporate more social metrics into your impact reports?**

**KM:** The portfolio is dedicated to green bond investment, so the majority of our impact reporting is focussed on the green impact and green projects. We have not seen many bonds integrating the social impacts or benefits in their reports.

**BB:** A green bond fund focuses on achieving positive green impact. We have no plans to focus on social elements. By nature, our clients are trying to achieve green positive impact, we make sure there are no negative social or governance impacts but, on the positive side, we are focussed on green.

**EF: Do you apply the same reporting methodology to all your green bond funds?**

**KM:** At a fund level we use our impact reporting database. The database has over 750 bonds and we are tracking not only the

bonds held in our portfolio but other green labelled bonds. We then map our portfolio bonds in the database and create the reports from there. This means there is not much difference in reporting methodology across all our green bond funds.

**EF: How frequently do you report your green bond fund impact?**

**BB:** We have monthly strategy briefs and the annual report. On our website we have standard metrics reported for all the sustainable funds at NN IP. They are focussed on issuer level carbon footprint.

But, for our green bond strategy, we take the issuer level carbon footprint with a pinch of salt because the impact you are achieving is on a project level not an issuer level.

We are reliant on our green bond database for our monthly impact numbers. For every bond that we track in the database we have an email alert for the anniversary of the bond issuance, so we know when it is time to reach out to the issuer or go to the issuer website to find the report. We do it for each of the bonds on an annual basis to update our impact numbers.

**EF: How much time and resources are committed to green bond fund impact reporting?**

**KM:** Data gathering and impact calculation is much more efficient due to our green bond database, but we also include a lot of testimonies and engagement case studies and impact reporting case studies. This also takes some time to collect.

We spend around two or three months preparing the data for our annual impact report. ■

**Our green bond highlights for 2020**

Making a positive and demonstrable environmental impact is our key goal and four of our seven highlights relate to the impact our strategies made in 2020. Engaging with issuers to work towards a cleaner world is a vital part of this process. Our ability to track and assess the green bond universe helps us choose investments that really make a difference, and the recognition we receive is proof of our success.

- 561,211 metric tons CO<sub>2</sub>e annual greenhouse gas emissions avoided
- 333 megawatts (MW) renewable energy capacity added
- 835 gigawatt hours (GWh) annual renewable energy output
- 42 gigawatt hours (GWh) annual energy savings
- 756 bonds tracked and assessed in our database
- 3 awards for our NN (L) Green Bond fund
- 97 engagement dialogues With 92 issuers in 9 sectors

Greenhouse gas emissions are measured in carbon dioxide equivalent (CO<sub>2</sub>e). This metric signifies the amount of CO<sub>2</sub> for any type of greenhouse gas which would have the equivalent global warming potential. The CO<sub>2</sub>e emissions avoided per EUR 1 million invested were 278 metric tons for NN (L) Green Bond and NN (L) Green Bond Short Duration and 412 metric tons for NN (L) Corporate Green Bond.

Click on a box to read more  
The impact calculation methodology in this report is different from the one used in our monthly strategy briefs (see page 36).

Foreword by Edith  
Our green bond highlights  
Green bond market  
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# What do fund investors expect from impact reports?

**S**ustainable investment is a growing priority for many asset owners and investors and many of them recognise that green bond funds have an important role to play.

In this year's survey, we questioned 14 prominent green bond fund and green bond investors to better understand the role that green bonds play in their investment strategies and to gauge their expectations of impact reporting.

Survey respondents were a mix of public and private pension funds, insurers, and asset managers. All but two of them manage more than \$10 billion of assets and six represent firms with assets of more than \$50 billion.

We also conducted in-depth telephone interviews with four major investors to add context and greater detail to our survey results. They were:

**Carina Silberg (CS)**, head of governance and sustainability at Sweden's Alecta, the fifth largest occupational pension provider in Europe;

**Joshua Linder (JL)**, senior credit analyst and sustainable finance lead at Dutch pension provider APG Asset Management, which manages assets of more than €600 billion;

**Lars Lindblom (LL)**, fixed income portfolio manager at AP2, one of Sweden's four state pension funds;

**Saleem Shivji (SS)**, collectives analyst at Rathbones Greenbank, a leading UK sustainable investment manager.

For a large majority (11 out of 14) of our survey respondents, green bonds and green bond funds represent less than 10% of their overall AuM. However, these instruments offer them high transparency impact among other benefits, as explained by our interviewees:

**JL:** "We don't have a green-only fund. Our responsible investment philosophy is embedded in the entire fixed income portfolio and something we are always



**Carina Silberg,**  
Alecta



**Joshua Linder,**  
APG Asset  
Management



**Lars Lindblom,**  
AP2



**Saleem Shivji,**  
Rathbone  
Greenbank

thinking of. Green bonds help us achieve our clients SDI (Sustainable Development Investment) and SDG targets because they provide direct data that you can very easily map to the SDGs."

**LL:** "The evolution of the green bond market in the past couple of years and the number of investors now involved in green bonds is quite remarkable."

"In the short and midterm, issuance of green bonds will continue to increase, we hope, helped by regulatory changes, which are ambitious in aiming to grow the market and improve transparency."

"Green bonds have changed the fixed income market in terms of transparency. I expect demand for information and knowledge on measurable impact will increase, driven by organisations striving to get a better understanding of sustainability aspects in different branches and how investments are made for a more sustainable future. Labelled bonds will continue to be an important instrument in this process and will spill over and affect the fixed income market. Looking 10 years down the line it is possible that you would not need to be explicit in labelling your bond, but it's very hard to say."

**CS:** "Green bonds have a standardised format which is a strong benefit from our perspective, and we also have quite a lot of experience with them now, but regarding some of the more exotic colours of bonds or impact investments they do require a disproportionate amount of work for us in

terms of the due diligence processes etc."

"A big appeal of green bonds is the transparency regarding the use of proceeds and relative ease of apportioning impact to our investment."

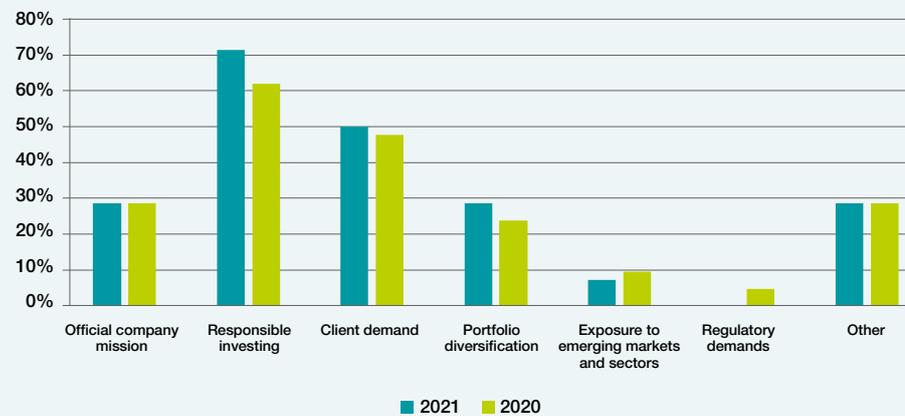
**SS:** "Rathbone Greenbank – is the ethical, sustainable and impact investing arm of Rathbones. As specialists in this space, we are much further along the impact spectrum, and we are keen to move even further in that direction now that ESG integration is becoming commonplace across the finance industry."

"In terms of where the market is going from a green bond point of view, there are just going to be more and more green bonds being issued and it will become a larger proportion of the fixed income market. As that happens, investors are going to be looking at them more – there will be more resources applied for these types of instruments and that will only be a good thing."

The growth of social and sustainability bond issuance in the past 12 months (see page 3) is reflected in the increasing number of investors (81% in 2020 and 92% in 2021) who have mandates to invest in GSS bonds rather than purely green bonds or green bond funds.

As Figure 11 shows, the motivations behind these investments are broadly similar in 2020 and 2021. The biggest motivation remains responsible investment, with slight increases in client demand and portfolio

Figure 11: What are your firm's motivations for green bond investment



“APG has always aimed for impact as part of its responsible investment strategy. It is about how you communicate that to the end pensioners who want to know their dollars are being invested responsibly and that they are delivering impact. One of the core ways APG does this is through its commitment to allocate a certain percentage of its total asset portfolio, across all asset classes, for sustainable development investments.”

“By 2025, our largest client ABP aims to have 20% of AuM classified as SDI. This is our internal way of measuring an investment’s contributions to the SDGs.”

**LL:** “My impression is that climate is now a key issue for all stakeholders. One of the key resources in communicating sustainability aspects of our portfolio for us [AP2] is our sustainability report which we publish on an annual basis and impact is an important feature to demonstrate tangible signs of sustainability.”

**SS:** “Our clients are very vocal – as you would expect given that we are focused on ethical, sustainable and impact investing. Our clients tend to be the ones that are very impact minded, who are thinking in impact terms, or they are charities or ethical pension funds. They are definitely pushing us all the time in terms of our impact”

“Reporting our impact to our clients is an ongoing process. It is trickier when it comes to funds as the impact data is one step removed from us. We try to share as much information as possible, answer client questions and make updates to our disclosures. We are discretionary managers, and our clients can be quite different in terms of their views on sustainability ethical issues, hence our focus on bespoke portfolios.”

In addition to impact reports, investors are becoming increasingly interested in asset managers’ overall sustainability performance, with some of the more engaged investors rigorously assessing a manager’s ESG credentials before investing in a fund.

There is an increasing trend of investor engagement with funds and issuers at the pre-investment stage and more engagement with funds regarding impact reporting.

**SS:** “We would look at the house, their

diversification.

There is growing pressure, from both clients and regulators, for investors to report on the impact of their investments. Whilst still nascent, this movement towards investor level impact reporting will likely result in increased interest in green bonds and green bond funds and in better impact reporting at issuer and fund level.

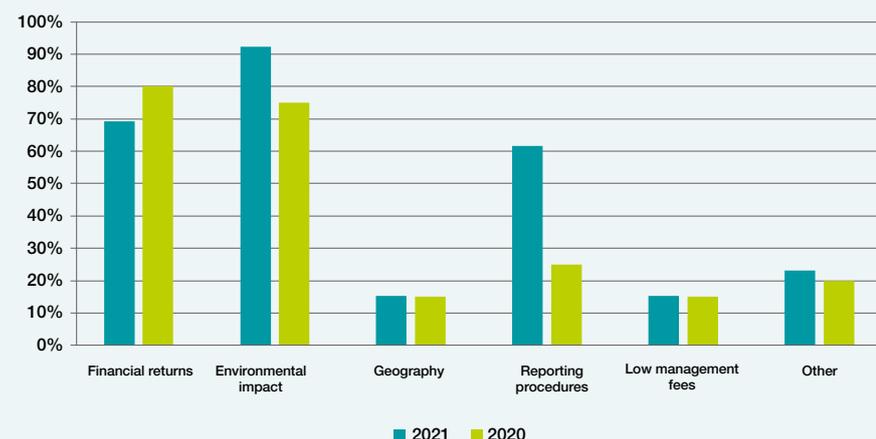
This increased interest can be seen in Figure 12 where investors’ criteria for selecting fund and bond investments show a clear increase in the importance attached to environmental impact – from three quarters in 2020 to more than 90% in 2021 – and an even greater increase in the weight given to impact reporting procedures – from just one-in-four investors in 2020 to more than 60% in 2021.

**CS:** “The pressure to report our own impact is multi fold, our beneficiaries are one of the key receivers of such information and we want to show what benefits and impacts their pension capital has whilst being managed. Overall, it is also Alecta’s mission to have a good portfolio as a proof point for the responsible investments we are doing and we also want to stay ahead of the curve from a regulatory point of view.”

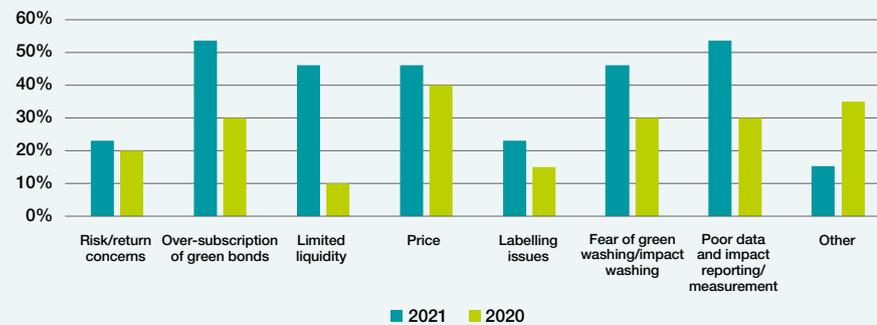
“Now with the disclosure regulations for EU actors we will be compelled to report on principles and adverse impact indicators, so we will be asking for more data.”

**JL:** “Green bond impact reporting is very important to us as it enables us to make our own impact reporting for our clients.”

Figure 12: What are your firm's main criteria when choosing a green bond fund to invest in?



**Figure 13: What challenges or barriers prevent your firm investing more in green bond funds?**



sustainability philosophy, and their reporting and policies behind it. We would then look at all of their exclusions, they will commonly have very detailed documents on these”

“We would look for what proportion of their portfolio is aligned to different frameworks, how they are monitoring this, their internal processes for choosing investments and their impact reporting.”

“I would always interview the fund managers several times across a period to find out their philosophy. Of course financials are also very important to us, but we would also be looking to understand why things are in the portfolio. We would dissect it all, we have an ethical and sustainable team that looks at every single holding within the funds we are looking at to identify potential controversies.”

**CS:** “Investing through funds can give you scale and you can get different exposure as you can use other experiences within the fund managers organisation.”

“The [Amundi] EGO fund stands out as an interesting and attractive example because of the exposure to emerging markets and the transition nature of it, as well as the blended component with the IFC. It does have different risks because you are a step removed from engaging – take the Bank of India and their Adani coal investment last year.”

“The weakness [of investing in green bonds via a fund] is the fact it is indirect, so it is a bit further from our control, but Amundi have really strong processes in place and that is what we assessed when we did the

investment”

In terms of investor appetite for exposure to the green bond market, 12 of our 14 survey respondents said they are interested in increasing their investments in green bonds and green bond funds but, as Figure 13 shows, oversubscription of bonds is seen as a barrier to further investment.

**CS:** “The reason that Alecta aren’t building our green bond portfolio at the pace that we were is that it is quite crowded and oversubscribed. We are strong believers that we do these investments on the same premise as our other investments. So if we see that there is a high greenium then it is not for us.”

### Impact reporting expectations

Figure 13 also highlights the importance of impact reporting to investors with more than half citing poor data and impact reporting as barriers to further investments in green bonds and green bond funds and almost half wary of green and impact washing.

Figure 14 shows a year-on-year increase in the importance attached to impact reporting, with the number of investors rating it as ‘crucial’ increasing from 70% in 2020 to more than 90% in 2021.

This increased emphasis on the importance of impact reports can be seen in the proportion of investors who gather impact reports. The number of investors who have gathered impact reports for at least 75% of their green bond and green bond fund investments has risen from less than half in 2020 to three-quarters

in 2021 (see Figure 15).

**JL:** “Reporting on real world outcomes is going to be even more important moving forward. Equity portfolios have been measuring carbon footprint for some time, but it’s newer to fixed income and there are more challenges to doing it. However, it’s certainly ramping up and we are likely to see more commitments to it [carbon footprint analysis] by the bond market. Green bonds provide a different type of carbon emissions profile to your portfolio and in order to factor them in properly you need the impact data.”

“It’s about transparency, accountability and impact and you can combine those three things together.”

**LL:** “Impact is becoming a more important area. ESG runs the risks of being watered down, as we see a lot of different approaches to fixed income with different types of bonds being issued. Measurable KPI or common language in reporting are important tools to understand actual impact.”

“The Nordic Position Paper (on Green Bonds Impact Reporting) is a good example. A few issuers got together to discuss and develop language around impact and green bond frameworks – that’s possibly one of the better ways to do it. And make it possible to aggregate numbers.”

**CS:** “When engaging with funds and issuers in the future we will be speaking to them about methodology and impact reporting but it’s hard to know how prescriptive we can or should be as an investor.”

**SS:** “We would like to see things moving in a positive trajectory within that fund and look for them to be engaging with issuers. We would expect them to be engaging, not only to improve these metrics, but also the disclosure behind it”

Two-thirds of the investors surveyed still rely on an informal review process of the impact reports they collect, which is a similar proportion to 2020. Similarly, there is little change in the proportion (about 70%) that say they have no minimum impact requirements for their investments. These figures seem to imply that the growing importance that investors say they give to impact reporting (see Figure 14)

has not yet translated into policy.

**CS:** “Up until now we are happy to receive fund impact reports in whatever format they are provided but in the near future... we are trying to really define the metrics that we want to have. We will start small with a few metrics we feel are really relevant to us and then perhaps grow over time. It will likely be some form of questionnaire to be sure that it matches our requirements.”

**SS:** “It is often trickier to compare fund to fund or asset manager to asset manager as it is done in different ways. They often use third party verification and independent consultants, which are helpful, but we also do our own analysis and here it is often challenging to do the comparison.”

“We talk about how we can have the greatest impact. It is much easier to compare year on year in the same fund, you can judge how they are progressing but at the same time you also want to be aware of where and in which industry can I have the biggest impact.”

**Metrics**

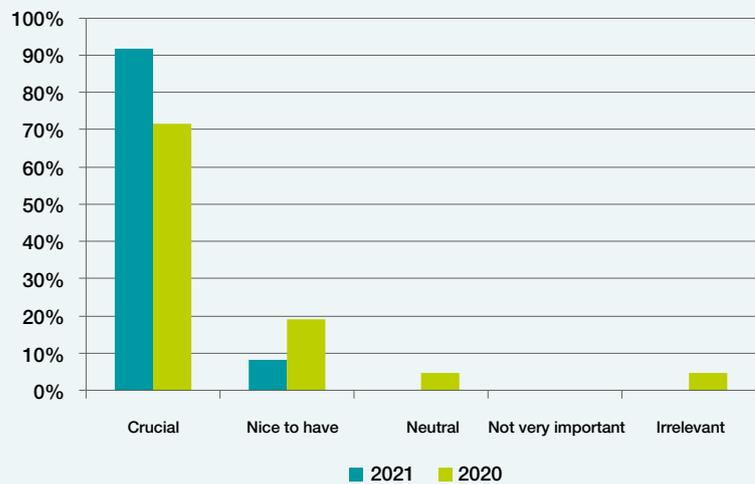
Figure 16 shows the increased interest from investors in most of the metrics and impacts that they monitor.

The doubling in the percentage of investors interested in carbon intensity as a metric, to almost 80% in 2021, could point to investors’ preferences moving towards metrics which facilitate investment and fund comparisons and portfolio aggregation of impact. Investors are aware that fund-to-fund comparisons of impact performance is difficult as funds differ in mandate, geography, strategy and portfolio but they do look at the year-on-year performance of particular funds.

Figures 16 and 8 compare the metrics reported by funds with the metrics which investors say are of most interest to them. It is striking that, although the chart shapes are similar, the overall numbers show a disconnect. Funds are fulfilling investor requirements on GHG emissions reduced and avoided, along with SDG reporting, but they are falling well short on providing metrics covering biodiversity, alignment to a 2°C warming scenario and social benefits.

**LL:** [Regarding metrics] “For green bonds, it’s about understanding the investments

Figure 14: How important are green bond fund impact reports?



and investment projects, understanding the framework and working out what kind of issuer they are.”

“It’s easy to get caught up looking for a silver bullet metric, but it’s important to at least keep the ambition of finding the most effective KPI. It keeps the train in motion and can be the basis for a fruitful discussion with issuers and allow for raising the bar.”

**JL:** “ESG in general can be subjective at times. We want to standardise elements of it but not prevent a company with unique impacts from reporting them.”

“We would like to see more consistency in the impact metrics across project categories but recognise that there will always be some

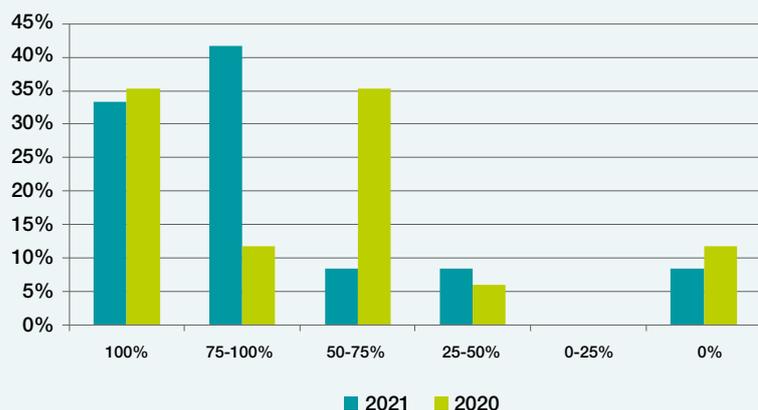
degree of bespoke impact, potentially, and you don’t want to box issuers in too much.”

**SS:** “There is not one right or wrong way of measuring but they [impact metrics] should focus on all environmental and social issues.”

“It’s not always the same when it comes to reporting greenhouse gases but we would expect some form of reporting on carbon reductions. We also like to see that they are thinking about the social aspects and the social transformation they are making alongside environmental benefits”.

“We would like to understand from a report that additionality has been taken into account because they [impact reports] can

Figure 15: What proportion of the green bond funds your firm is invested in have issued impact reports?



be very glossy brochures and outline what has been done. But equally important is what wouldn't have happened without the specific investment?"

"In terms of specific metrics, they vary quite widely across asset managers and we are not even looking at just green bonds. It seems that everyone has impact reports coming out and they often look like a marketing document, very glossy and look very good... We take it all with a pinch of salt and we look at them closely to identify the actual impact being delivered. The clearest way to look at things is by the momentum. How are things changing year on year?"

**CS:** "We talk to the providers about apportioning but we haven't yet come up with a conclusion to it. If you are invested through a fund it is even trickier as the managers have usually already aggregated their whole portfolio and at best have anecdotal reporting of specific cases from an individual fund. We have struggled with that and due to encouraging these kinds of investments we now have a variety, so there is not a common denominator for all of them and it is difficult to aggregate in a meaningful way."

"Reporting must be more standardised, now is the time to set down some minimum requirements."

"Carbon metrics can be reductions, absolute numbers or avoidance... it is not easy to make a fair and comprehensive comparison. It is a real challenge"

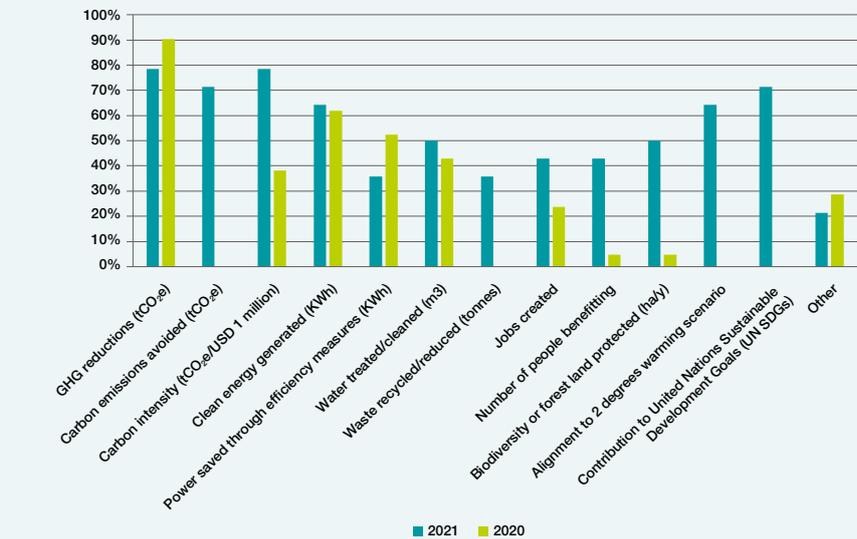
"Going forward investors will be more picky about the shade of green, based on reliable data."

"Greenwashing is always a risk and you need to be realistic. From a large portfolio perspective, it is interesting to understand if there are assets of ours that can really contribute to real economy reductions."

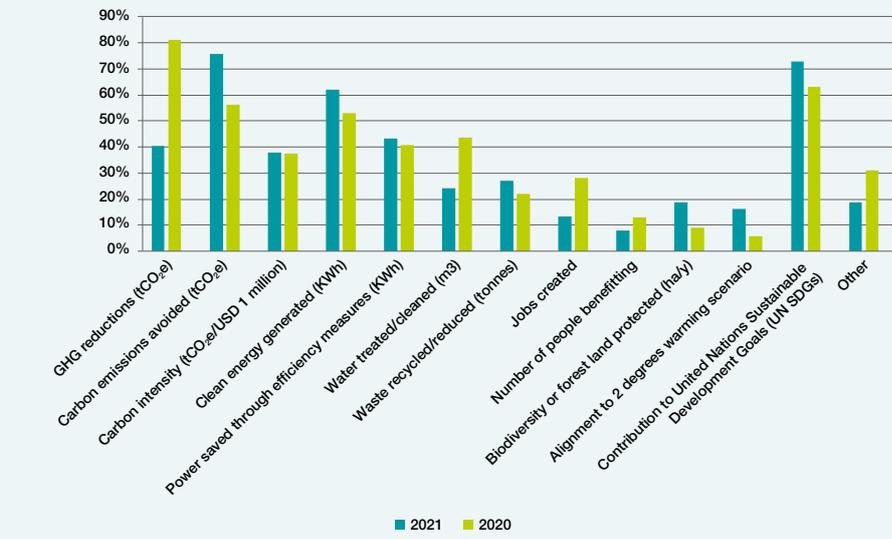
The proportion of investors tracking their alignment to the SDGs targets has remained steady since our 2020, with about 75% of respondents saying they have specific SDG targets in mind when making an investment.

One in three investors are tracking their contributions to all 17 SDGs and all the investors surveyed are tracking Goal 13:

**Figure 16: Investor survey – What environmental metrics are your firm most interested in?**



**Figure 8: Fund manager survey – What environmental metrics does your impact report cover?**



Climate Action. Figures 17 and 9 confirm that, overall, funds are reporting the SDGs that are most commonly being tracked by investors.

**CS:** "SDGs are an interesting metric, but they can be very abstract and from our perspective they can be difficult to measure. Especially when you work with DFIs (Development Finance Institutions) I think that it is very close to their operations, and some do report in a meaningful way on such indicators."

**LL:** "Just by mapping your portfolio, and including social bonds, you can

broaden your ESG footprint and just communicating that is big progress for many investors. It's not a big leap, but it's small steps - just understanding that you have an impact as an investor, even if you are not fully measuring what it is. Just by looking at the SDGs and realising that, by adding a social aspect to the environmental aspect, you have broadened your ESG footprint ... from a high-level perspective you can start to understand your impacts."

**JL:** "As part of our impact reporting and mapping process for green bonds, our Global Responsible Investment and Governance team validates the SDG

alignment of issuers and issues to our internal SDI taxonomy. Together with other global asset managers, we have developed our own methodology for assessing different investment projects and how they map to our taxonomy.”

**SS:** “When the SDGs came out there was some worry in parts of the industry that they would be used for green washing. While in some cases they are, I would still like to see them and see them acknowledged. We certainly expect green bond fund managers to be aware of the SDGs, but whether they have done a mapping of holdings to them is not essential for us. We have our own themes that are aligned to the SDGs but we have been doing this for a long time, as have a lot of asset managers, so now they are retrofitting them to the SDGs.”

**Impact report preferences**

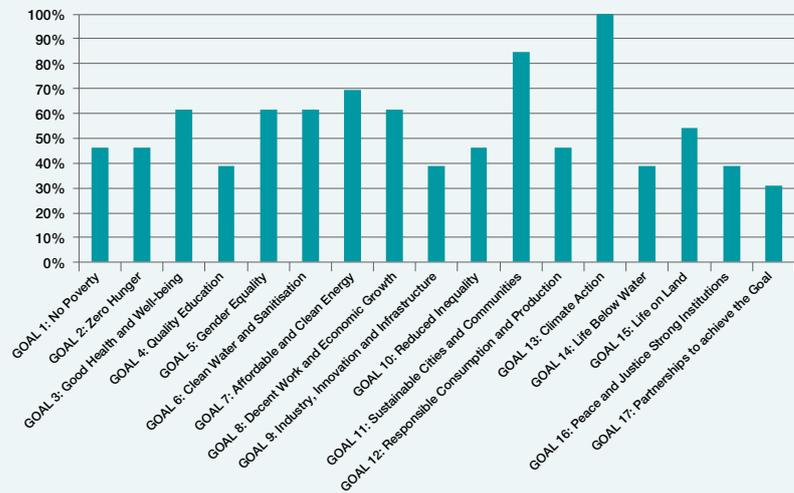
Investors’ preference for the frequency of funds’ impact reporting is still predominantly annual (more than 70% in both 2020 and 2021). As Figure 18 shows, a short report including granular impact metrics and numbers remains the preferred format. Standalone impact reports are still preferred to integrating impact reporting into annual reports by a majority of investors.

Impact report auditing is ranked as ‘important’ or ‘very important’ by nine out of ten investors, up from two-thirds in 2020. There was also a sharp increase in the number who thought third-party verifiers should audit impact reports, up from one in five in 2020 to almost two thirds in 2021.

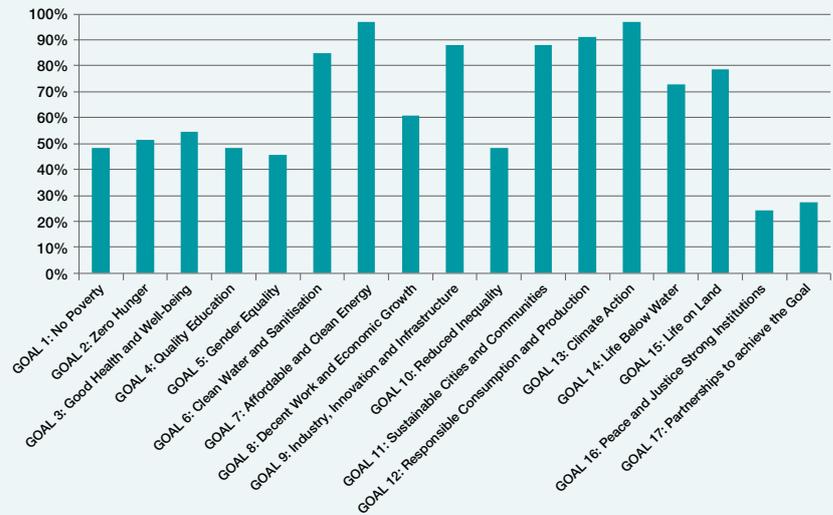
Investors’ views on impact reporting practices at a bond and fund level have not improved over the past 12 months. In 2020, two-thirds of investors surveyed thought that impact reporting practices were inadequate, while three-quarters expressed that view in 2021. This may not necessarily mean that impact reporting practices have not improved; it may point to higher expectations of investors.

When asked how fund-level impact reporting could be improved, the most common demand was for greater standardisation of metrics and reporting standards. There were also calls for making impact data more accessible and for increased awareness of metric materiality.

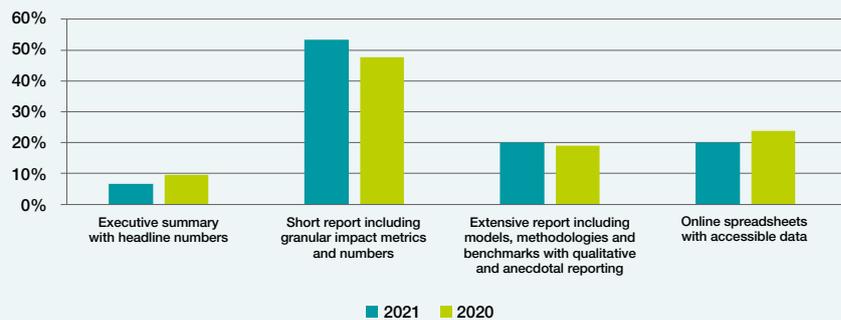
**Figure 17: Investor survey – For which UN SDGs are you tracking your investment contributions?**



**Figure 9: Fund manager survey – For which SDGs are you tracking your fund’s contributions?**



**Figure 18: What format and size would your firm prefer for the impact reports?**



Investors communicated their understanding that green bond impact reporting is still an immature market, however they expressed real concern

that current reporting standards are allowing greenwashing and issuers with low sustainability ambitions to access sustainable finance. ■

# Future trends in impact reporting

## More funds

As outlined in table 2 at least 18 new green bond funds have been launched since the 2020 edition of this report.

This growth in funds mirrors the growth in green bond issuance and both seem set for sustained expansion.

## More metrics

There has been a year-on-year increase in the number of metrics used in fund-level impact reporting and this trend is likely to continue. 23 of the 40 funds surveyed said they intend to include more metrics in future impact reports and 16 plan to include more details on existing metrics.

When asked which additional metrics they would like to include in future reports, fund managers listed: sequestered CO<sub>2</sub>; EU taxonomy related indicators; positive and negative biodiversity effects; additional social metrics; and more sector-specific metrics such as green building certification.

The rapid growth of social and sustainability bond issuance and their inclusion in some green bond portfolios is likely to lead to more social metrics being included in future green bond fund impact reports.

Additionally, it was suggested that metrics covering the percentage of the green bond being used for new projects rather than refinancing would be interesting to track from an additionality perspective.

## The role of databases

Several of the larger green bond fund managers maintain internal green bond and impact databases. They are used to expedite and improve fund level impact reporting, but they require time and resources to update.

Several independent databases of sustainable bonds and ESG data are also being developed. For example, the proposed [European Single Access Point \(ESAP\)](#) aims to act as a hub for sustainability data and there are green bond databases such as [Environmental Finance's Bond Database](#) and others being developed by the [Luxembourg stock exchange](#), [NASDAQ](#) and the [Green Bond Transparency Platform](#). These databases hold information on bonds and issuers and are exploring ways of incorporating green bond impact data in accessible formats.

An early challenge for such centralised data hubs for impact data is data entry. The majority rely on issuer inputted data which creates additional work for issuers who must add their impact data to the database manually. The alternative data entry system involves using an AI algorithm to 'scrape' data from published impact reports but the unstructured and nuanced nature of impact data present challenges for this method.

Katie House of Affirmative Investment Management outlines the reservations some asset managers have regarding database led impact data collection: "There are nuances to how different issuers are reporting ... we

would be concerned that AI would struggle to pull the correct data into the correct fields in the correct way. We would want to do a lot of cross-checking before using data pulled in this way.

"If the issuers are inputting impact and allocation data into databases themselves, you have more comfort that they are inputting the data into the correct fields, but you are increasing the work of the issuer. There may still be issues on comparability based on methodological differences for the same headline KPIs.

"We have always wanted to see the underlying impact and allocation data. I'm sure there will be a solution, in the not too distant future, where we could just give a data provider our portfolio and they could produce an impact report for us. But we would never want to just do that. We'd miss the granularity on the impact attributed to individual holdings.

"For other asset managers, if it is a toss up between not impact reporting [at a fund level] or using a data provider to produce an impact report, then of course it is better to do it in some way rather than not at all. That way as at least you start to get visibility on the impact of the funds."

Databases, both in-house and external, seem set to play a role in helping fund managers gather and aggregate green bond impact data. This could lead to more accurate and less time consuming impact reporting at a fund level, but over burdening bond issuers with data entry must be avoided. ■

# Glossary

## Corporate Sustainability Reporting Directive

The Corporate Sustainability Reporting Directive (CSRD), is a proposal from the European Commission to expand the scope of the existing Non-Financial Reporting Directive. It will require more detailed reporting and apply to more companies.

It is intended to align with the Sustainable Finance Disclosure Regulation (SFDR) and the EU Taxonomy and will be based on mandated sustainability standards, the first of which are expected to be adopted in October 2022.

## EU Green Bond Standard

A voluntary EU Green Bond Standard was proposed by the European Commission in June 2019 “to enhance the effectiveness, transparency, comparability and credibility of the green bond market and to encourage the market participants to issue and invest in EU green bonds”.

The proposal, which was formally adopted by the EU in July 2021, has four key requirements:

- The funds raised by the bond should be allocated fully to projects aligned with the EU Taxonomy;
- There must be full transparency on how bond proceeds are allocated through detailed reporting requirements;
- EU green bonds must be checked by an external reviewer to ensure compliance with the Regulation and that funded projects align with the Taxonomy; and
- External reviewers providing services to issuers of EU green bonds must be registered with and supervised by the European Securities Markets Authority.

Some flexibility is expected to be offered to sovereign issuers.

## EU Taxonomy for Sustainable Activities

The Taxonomy was created as part of the EU’s Sustainable Finance Action Plan to provide a classification system for sustainable activities. It is intended to help investors, issuers and other companies to navigate the transition to a low-carbon, resilient and resource-efficient economy.

The Taxonomy sets performance thresholds for economic activities which:

- Make a substantive contribution to one of six environmental objectives (climate change mitigation, climate change adaptation, protection of water and marine resources, transition to a circular economy, pollution prevention and control, and protection and restoration of biodiversity and ecosystems).
- Do no significant harm to the other five, where relevant; and
- Meet minimum safeguards (e.g. OECD Guidelines on Multinational Enterprises and the UN Guiding Principles on Business and Human Rights).

## Green Bonds

Green Bonds are any type of bond instrument where the proceeds will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible green projects and which are aligned with the four core components of the Green Bond Principles (GBP).

## Green Bond Principles (GBP)

The Green Bond Principles (GBP) are voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the green bond market by clarifying the approach for issuance of a green bond. The GBP have four core components:

- Use of Proceeds
- Process for Project Evaluation and Selection
- Management of Proceeds
- Reporting

## Greenhouse Gases (GHGs)

The UN identifies seven main greenhouse gases (GHGs) that are major drivers of climate change: carbon dioxide (CO<sub>2</sub>), methane (CH<sub>4</sub>), nitrous oxide (N<sub>2</sub>O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs), sulphur hexafluoride (SF<sub>6</sub>) and nitrogen trifluoride (NF<sub>3</sub>).

As CO<sub>2</sub> is by far the most common GHG caused by human activity, it is sometimes used as a shorthand expression for all greenhouse gases.

## Handbook – Harmonized Framework for Impact Reporting

The first Harmonized Framework for Impact Reporting was issued in March 2015 by a working group of four multilateral development banks (the African Development Bank, the European Investment Bank, the International Finance Corporation, and the World Bank).

It outlined core principles and recommendations for impact reporting and included key indicators and reporting templates for energy efficiency and renewable energy projects. Subsequent frameworks have provided indicators and templates for reporting on other categories of eligible projects as identified in the Green Bond Principles.

The handbook, published in June 2019, pulls together all these frameworks into one document with the aim of enhancing their usability. The latest update, in June 2021, added impact reporting metrics for Circular Economy and/or eco-efficient projects.

## International Capital Market Association (ICMA)

ICMA is a not-for-profit association representing more than 600 organisations in 65 countries. They include private and public sector issuers, banks and securities houses, asset managers and other investors, capital market infrastructure providers, central banks, law firms and others.

ICMA serves as the secretariat of the Green Bond Principles (and the related Social Bond Principles, Sustainability Bond Guidelines and Sustainability-Linked Bond Principles).

## IRIS+

IRIS+ is a free, publicly available resource, managed by the Global Impact Investing Network (GIIN), that aims to help investors measure, manage, and optimise their impact.

Among its key features, it includes:

- Sets of core metrics to increase data clarity and comparability. These are backed by evidence and based on best practice across the industry.
- A thematic taxonomy based on generally accepted impact categories and themes.
- A catalogue of standardised social and environmental performance metrics used by leading impact investors.
- Alignment with the SDG Goals and targets.
- Alignment with other major metrics, frameworks, standards and conventions.

GIIN claims that half of all impact investors and the majority of fund managers, banks, and development finance institutions use IRIS+ metrics.

## Nordic Public Sector Issuers: Position Paper on Green Bond Impact Reporting

This paper was first published in 2017 by a group of public sector issuers of green bonds in the Nordic region. A second edition was issued in 2019 and a third in February 2020.

It is intended to complement the Harmonized Framework for Impact Reporting while recognising specific factors relevant to Nordic bond issuers, such as the baseline emissions factor for the Nordic electricity system.

The Nordic authors say their aim is to deliver reporting that can be compared and aggregated between issuers, but they acknowledge the challenges resulting from different methodologies and metrics being used. Hence, they say: “we suggest caution to be exercised when such comparison or aggregation is undertaken”.

## Operating Principles for Impact Management

These Principles were launched in April 2019 to provide a framework for investors to ensure that impact considerations are purposefully integrated throughout the investment life cycle.

They were developed by the IFC in collaboration with a group of asset owners and investment managers and cover the following aspects of impact investing: strategic intent; origination and structuring; portfolio management; impact at exit; and independent verification.

They define impact investing as “investments made into companies or organizations with the intent to contribute to measurable positive social or environmental impact, alongside financial returns.”

## Paris Agreement on climate change

The Paris Agreement is a binding UN agreement to strengthen the global response to climate change by keeping the average global temperature rise this century well below 2°C above pre-industrial levels and to pursue efforts to limit the temperature increase to 1.5°C.

It was agreed at the annual UN climate change summit in Paris in 2015 but entered into force in November 2016.

## Social Bonds

Social Bonds are ‘use of proceeds’ bonds that raise funds for new and existing projects that address or mitigate a specific social issue and/or seek to achieve positive social outcomes.

## Social Bond Principles

Like the GBP, the Social Bond Principles (SBP) are voluntary guidelines that recommend transparency and disclosure and promote integrity in the development of the social bond market. They have the same four components as the GBPs.

## Sustainable Development Goals (SDGs)

The 17 SDGs were adopted by the United Nations in 2015 as the cornerstone of its 2030 Agenda for Sustainable Development. They acknowledge that many environmental and social objectives are interlinked and are increasingly being referenced by companies and investors in their impact reports. The goals are:

- No Poverty
- Zero Hunger
- Good Health and Well-being
- Quality Education
- Gender Equality
- Clean Water and Sanitation
- Affordable and Clean Energy
- Decent Work and Economic Growth
- Industry, Innovation and Infrastructure
- Reduced Inequality
- Sustainable Cities and Communities
- Responsible Consumption and Production
- Climate Action
- Life Below Water
- Life on Land
- Peace, Justice and Strong Institutions
- Partnerships to achieve the Goal

## Sustainable Finance Disclosure Regulation

The EU’s Sustainable Finance Disclosure Regulation (SFDR) imposes mandatory ESG disclosure obligations on fund managers and other financial firms. Some of its requirements were introduced in March 2021 but the remainder are not expected until July 2022.

## Sustainability Bonds

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Sustainability bonds are bonds whose proceeds will be used exclusively to finance or re-finance a combination of both green and social projects. To be labelled as Sustainability Bonds, they must align with the four core components of both the GBP and SBP with the former being especially relevant to underlying green projects and the latter to underlying social projects.

## Sustainability Bond Guidelines

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These voluntary guidelines were issued to help ensure the integrity of the fast-growing market for sustainability bonds. The four core components of the GBP and SBP and their recommendations on the use of external reviews and impact reporting also apply to sustainability bonds.

## Sustainability-Linked Bonds

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Sustainability-linked bonds (SLBs), unlike green, social or sustainability bonds, are not 'use-of-proceeds' instruments. Rather, they are intended to be used for the issuer's general purposes but the terms of the bond (e.g. coupon, maturity, repayment amount) can vary depending on whether the issuer achieves predefined sustainability objectives within a certain time. Those objectives are measured by predefined Key Performance Indicators (KPIs) and

assessed against Sustainability Performance Targets (SPTs).

## Sustainability-Linked Bond Principles

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The Sustainability-Linked Bond Principles (SLBPs) provide guidelines that recommend structuring features, disclosure and reporting for SLBs. The SLBPs have five core components:

- Selection of KPIs
- Calibration of SPTs
- Bond characteristics
- Reporting
- Verification

## Task Force on Climate-related Financial Disclosures (TCFD)

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The TCFD is an industry-led task force created by the G20's Financial Stability Board to develop voluntary climate-related financial disclosures that would be useful to investors and others in understanding material risks.

By September 2021, it had been endorsed by more than 2,600 organisations globally, including more than 1,000 financial institutions responsible for assets of \$194 trillion.

Sources: Environmental Finance, European Commission, Global Impact Investing