Ireland Strategic Investment Fund (ISIF)

ISIF Climate Report 2020

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

Ciste Infheistíochta Straitéisí d'Éirinn
Ireland Strategic Investment Fund

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Introduction and Executive Summary

ISIF invests for commercial and economic impact. Responsible investment has been core to its approach from the outset, with a key focus on climate, both in terms of investment opportunities and managing and mitigating climate risk in both its Irish and Global Portfolios. This Report gives a broad overview of the actions and analysis that ISIF has taken to address climate change.

Introduction and Purpose

The purpose of this Report is to provide an overview of ISIF's overall approach to climate investing and how it is managing and mitigating climate risk in its investment Portfolio.

Investing with impact is key to ISIF's mandate. The Fund's plan to invest €1 bn towards climate related investments over the next 5 years will arguably be where ISIF will have its greatest impact. ISIF's climate strategy envisages investments that help position Ireland for the net zero economy aligned with the national Climate Action Plan. ISIF will also seek to support the resilience of the Irish economy as the global market increasingly pivots towards sustainable business practices.

ISIF is a responsible investment investor and integrating Environmental, Social and Governance (ESG) factors are core to its investment approach. This report focuses on Climate - a priority issue for the Fund. ISIF has been measuring and monitoring a wide range of climate related metrics across both its Global and Irish Portfolios for several years. Both data availability and methodologies differ across both of ISIF's Portfolios and ISIF's approach has changed and evolved alongside evolving measurement frameworks. ISIF expect this to continue. Global[1] and Irish[2] Portfolio metrics are not directly comparable due to the different characteristics of the Irish and Global Portfolios and the different ESG tools required.

ISIF is a founding signatory to the Principles of Responsible Investment (PRI), supporter of CDP (formerly the Carbon Disclosure Project) and endorser of the One Planet Sovereign Wealth Fund (OPSWF) initiative, all of which endorse the Task Force on Climate-Related Financial Disclosures (TCFD)[3].

TCFD recommendations are structured around four thematic areas: Governance, Strategy, Risk Management, and Metrics and Targets and are the key guidance informing ISIF's approach to climate reporting. ISIF is working towards improved integration and disclosures on all four elements to become aligned with the TCFD over the next year.

While this is ISIF's first stand-alone climate Report, ISIF has been disclosing information on its climate journey annually as part of its ongoing commitments to the PRI and OPSWF. Carbon Emissions data is presented as at year-end, 2020. ISIF refers to "carbon" and "emissions" interchangeably throughout this report, meaning all Green House Gas (GHG) emissions.

Finally, this Report focusses on ISIF's investment Portfolio, not the operations of the ISIF business unit. That said, ISIF's emissions are measured as part of the National Treasury Management Agency's (NTMA) footprint and ISIF is committed to the NTMA-wide goal of being an environmentally sustainable and net zero emissions organisation by 2030.

Note:
1. ISIF's Global Portfolio comprises largely publicly listed assets that are subject to significant disclosure requirements, which supports robust data analytics provided by ISS ESG.
2. ISIF's Irish Portfolio comprises largely private unlisted assets. Carbon analysis across this Portfolio is based on averaging methodology – an accepted portfolio emissions modelling approach recommended for use when gaining real, verifiable and comparable data can be challenging.
3. Task Force on Climate-Related Financial Disclosures (TCFD) was established to develop a set of climate-related financial risk disclosures which can be adopted by companies to inform investors.

Executive Summary (1)

ISIF seeks positive climate impact while managing whole of Fund climate risk.

Investing for climate impact

- ISIF's **climate goal** is to actively support the transition to Net Zero emissions in Ireland before 2050, envisaged under the national Climate Action Plan, and be positioned as a transition ready portfolio by 2030 by achieving substantial emissions reduction and increased climate impact.
- **Governance structure** both within the Fund and the organisation support this goal.
- The Irish Portfolio **climate strategy** is targeting a 5 year €1bn investment programme in sustainable infrastructure, new technologies and business models that will underpin the transition to Net Zero.
- ISIF has **committed over €300m** to projects in Ireland in the renewable energy and forestry space, as of 31 December 2020.

Managing and mitigating climate risk

- **Integration** of potential climate risks, as appropriate, as part of ISIF's decision making and portfolio management.
- **Divestment** from global fossil fuel and high carbon companies, supported by exclusion list of 246 companies in which ISIF will not invest and the Fossil Fuel Divestment Act 2018.
- **Active ownership** focussed on supporting and encouraging changes to corporate behaviours which contribute to sustainable returns through enhanced disclosure and action around climate change.
- **Climate metrics** are a key part to measuring progress. ISIF knows these metrics and methodologies continue to evolve. Using today's guidance, ISIF model and measure carbon intensity and emissions across both ISIF's Global and Irish Portfolios.

Executive Summary (2)

Focus on climate metrics

Global Portfolio emissions

- Emissions reduction is a long-term journey for ISIF but, as at year-end 2020, ISIF remains **well on target** to meet its goal of reducing the carbon intensity of its Global Portfolio by 50% by 2025.
- ISIF **has already met the** Global Equity Portfolio carbon reduction target and is on track to reduce carbon intensity of the Global Bond Portfolio, as of year-end 2020.
- **Scenario analysis** maps ISIF's journey by measuring how it aligns with the maximum temperature rise permitted to get to Net Zero. While more needs to be done to reduce the Portfolios' associated temperature increases, both Portfolios are well below broad market indices, which are over 3°C. As of year-end 2020, the Global Equity Portfolio is currently aligned to a 1.8°C temperature rise while the Corporate Bond Portfolio is aligned with a potential temperature increase of 2.2°C by 2050.
- A **revised investment strategy** is currently being implemented for the Global Portfolio. It has a strong focus on climate, both in terms of risk management and potential impact. 2025 Carbon Intensity targets will be reviewed as part of the implementation process.

Irish Portfolio emissions metrics

- The Irish Portfolio's **Weighted Average Carbon Intensity (WACI)** is estimated to be 348k tCO2e per €m revenue as at 31 December 2020.
- The **WACI is a modelled figure** which ISIF uses to prioritise those investments that require deeper climate due diligence, better quality data and sector appropriate emissions targets.
- In response to the COVID-19 pandemic, and in line with its economic mandate, ISIF established a €2 bn **Pandemic Stabilisation and Recovery Fund (PSRF)** to invest in impacted Irish businesses. Some PSRF investments made in 2020 are in traditionally high emitting sectors (e.g. Aviation).
- The **Irish Portfolio is growing** and modelled **absolute emissions** (total carbon emissions) metrics are high, reflecting this (1,110k tCO2e).
- Total **carbon savings or "avoided emissions"** from renewable technologies, such as wind and waste to energy projects, is estimated to be 774k tCO2e. This equates to c. 70% of the estimated absolute emissions from ISIF investees in the Portfolio (at 31 December 2020).

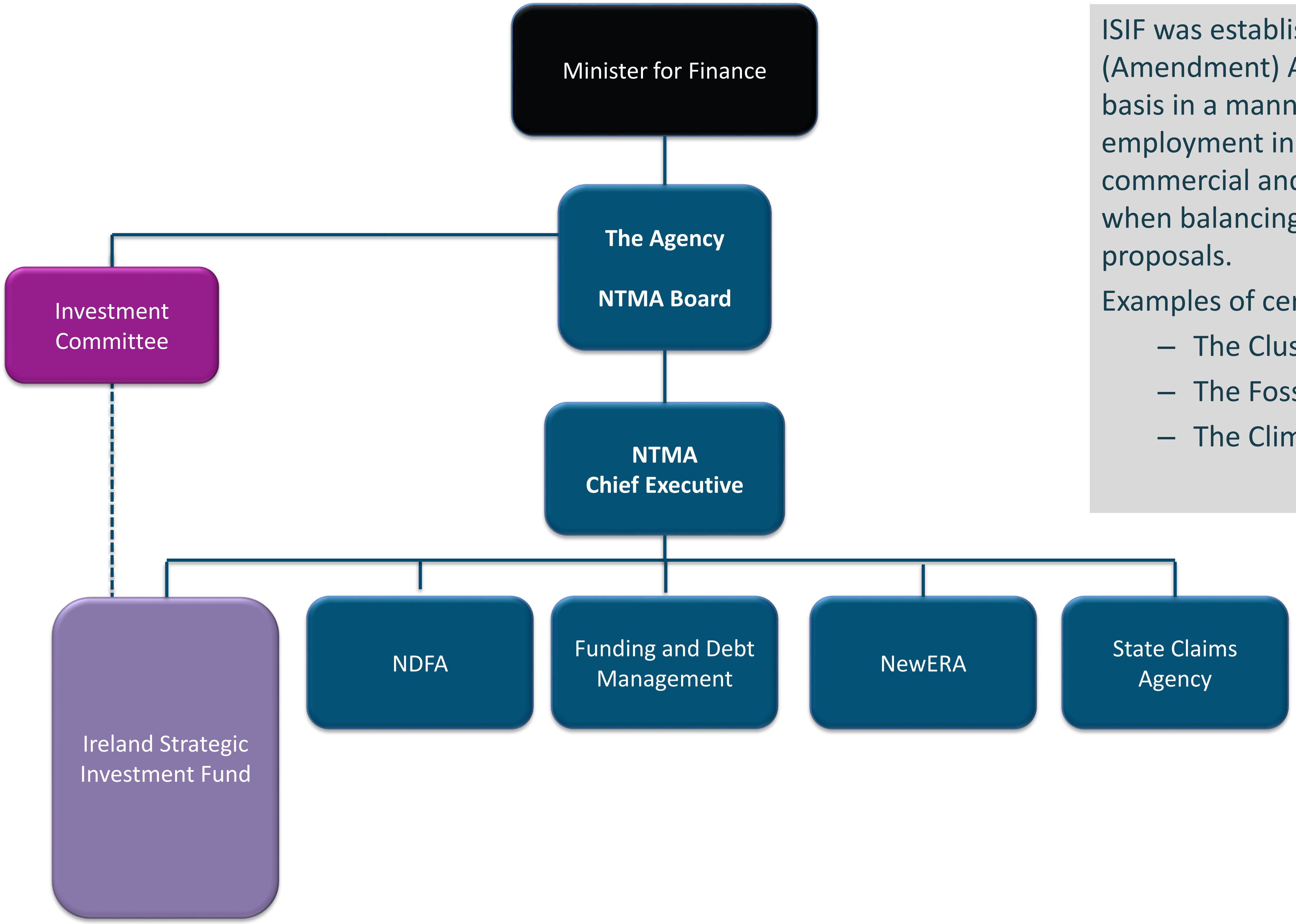
ISIF's Climate Action and Reporting Will Continue to Evolve

ISIF is committed to continuous improvement.

- This Report gives a broad overview of the wide range of actions and analysis that have been taken.
- Both the ISIF Portfolio and TCFD recommendations for Asset Owners are evolving, particularly in the Irish Portfolio where the investments are primarily in private markets, and data gaps do exist. ISIF is on a journey toward full alignment with TCFD.
- While ISIF has made considerable progress in mitigating and managing risk through divestment, active ownership and integration of climate considerations into the Fund, ISIF is only at the start of it's Net Zero journey and next steps will focus on building the relationships, partnerships and network to support delivery of the climate investment strategy.
- ISIF is committed to continuous improvement and some areas where ISIF will focus going forward includes:
  - Reassessing of current metrics and targets - are they future proofed and fit for this next decade given the need for radical reduction of emissions globally?;
  - Portfolio alignment metrics for the Irish Portfolio; and
  - Developing deeper sector or industry expertise in order to allow for robust assessment of climate risk within companies, sectors and sub-sectors, in line with legislative requirements, EU Taxonomy guidelines, the Climate Action Plan and the Climate Action and Low Carbon Development (Amendment) Act 2021 Carbon Budgeting provisions.

About Us

The National Treasury Management Agency (NTMA) and the Ireland Strategic Investment Fund (ISIF)



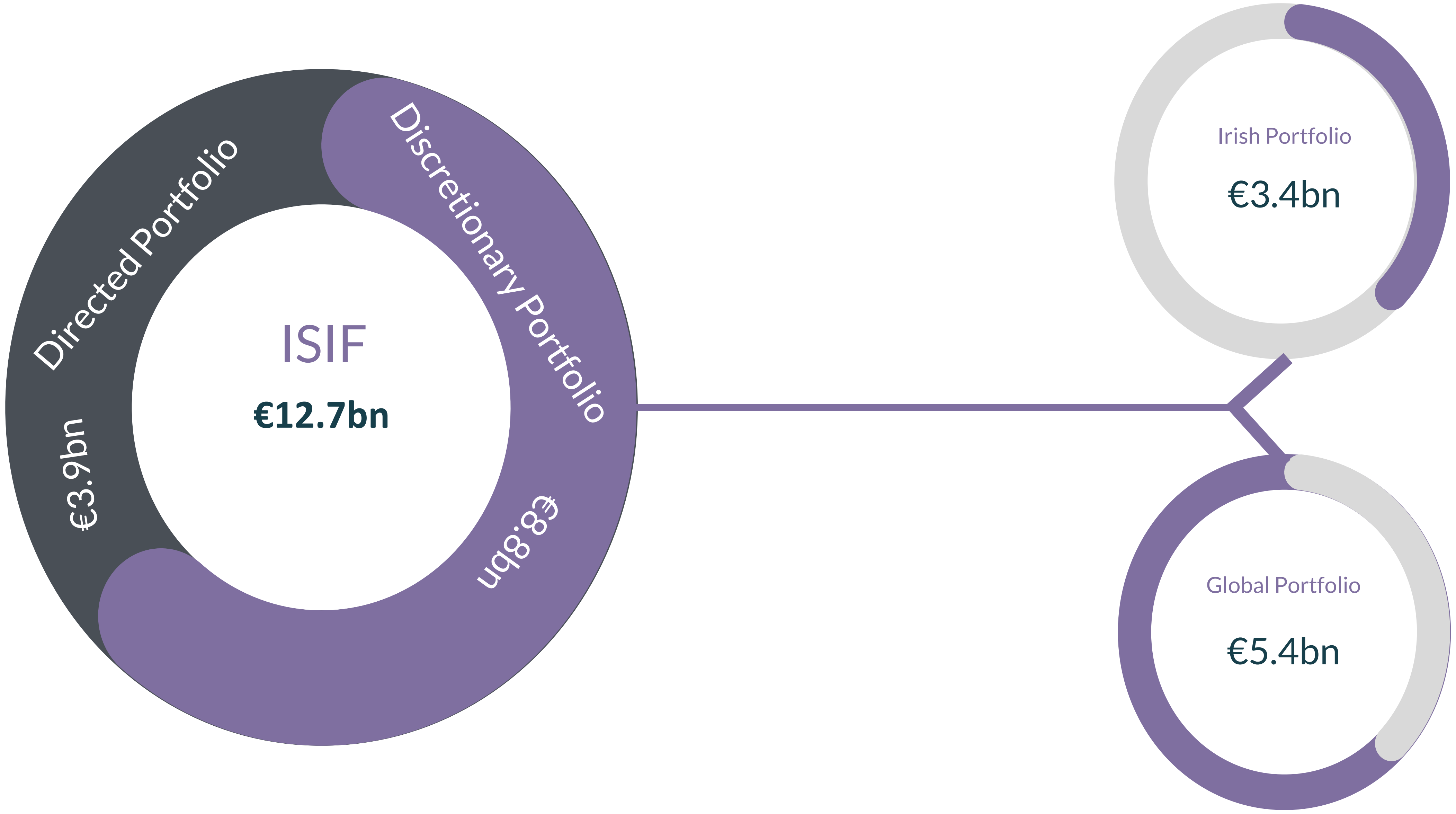
ISIF was established on a statutory basis under the NTMA (Amendment) Act 2014. It has a mandate to Invest on a commercial basis in a manner designed to support economic activity and employment in Ireland. ISIF's statutory mandate which focuses on commercial and economic impact sometimes involves trade offs when balancing ISIF's climate goals in the assessment of investment proposals.

Examples of certain legislation to which ISIF must adhere includes:

- The Cluster Munitions and Anti-Personnel Mines Act 2008;
- The Fossil Fuel Divestment Act 2018; and
- The Climate Action and Low Carbon Development Act 2021.

An Overview of the ISIF Portfolio

as of 31 December 2020



- **The Ireland Strategic Investment Fund (ISIF) is controlled and managed by the National Treasury Management Agency (NTMA),** and is comprised of the Discretionary Portfolio and Directed Portfolio.

- **The Discretionary Portfolio** is comprised of the Irish Portfolio and the Global Portfolio. It has a 'double bottom line' mandate to invest on a commercial basis in a manner designed to support economic activity and employment in Ireland. The Irish Portfolio has evolved to focus on a number of priority themes, including climate change.

- **The Directed Portfolio** contains primarily public policy investments in AIB and Bank of Ireland and is held within the ISIF under direction from the Minister for Finance.

ISIF’s Climate Goal

ISIF has committed to a new, whole of Fund, climate goal to support the long-term transition to Net Zero in Ireland before 2050 by driving substantial emissions reductions and increasing ISIF's climate impact by 2030.

ISIF's Climate Goal

ISIF's climate goal is to support long-term transition to Net Zero in Ireland before 2050 by driving substantial emissions reductions within the ISIF Portfolio and increasing ISIF's climate impact by 2030.

- ISIF will:
  1. Decarbonise ISIF's investment Portfolio in a way that is consistent with achieving Net Zero emissions before 2050;
  2. Allocate capital to investment in assets and businesses that lower emissions and facilitate or take action to mitigate the impact of climate change – Climate Action Projects;
  3. Utilise best practice Investment Frameworks and guidance to achieve Net Zero;
  4. Verify the climate commitments of ISIF's investees and asset managers; and
  5. Support companies and sectors that are leaders in emissions efficiency.

- ISIF will set emissions reduction targets and measure ISIF's progress against them. ISIF acknowledge that metrics to assess investments and measure alignment are continuously evolving across asset classes and ISIF commit to develop its metrics in line with best practices.

- ISIF will conduct climate financial risk assessment in line with Task Force for Climate related Financial Disclosure recommendations (TCFD).

Climate Action 100+

Signatory of: PRI Principles for Responsible Investment

CDP DRIVING SUSTAINABLE ECONOMIES

ONE PLANET SUMMIT SOVEREIGN WEALTH FUNDS

TCFD

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Achieving ISIF's Climate Goal

ISIF aims to both manage the risks and capture the opportunities that climate change presents through climate positive investments and a whole of portfolio approach to engagement and risk mitigation.

Opportunity and Impact: Climate Positive Investment

Investing for a Net Zero World

- Allocating capital to new opportunities across both the Global and Irish Portfolio
- Integrating climate change into investment strategies
- ISIF's climate strategy is to make investments that help position Ireland for net zero.

Engage and Influence

Whole Portfolio Approach

- Engage with external investment managers and investees
- Improve disclosure and transparency
- Engage with companies, stakeholders, government agencies and policy makers
- Climate change is a systemic risk and therefore a whole of Portfolio challenge to be addressed in multiple ways with multiple stakeholders.

Climate Risk Mitigation (including divestment)

Measure, Monitor and Divest

- Divestment from global fossil fuel and high carbon companies, supported by exclusion list of 246 companies in which ISIF will not invest and the Fossil Fuel Divestment Act 2018
- Develop and measure appropriate climate metrics aligned with best practices
- Monitor climate related physical risks, transition risk and scenario analysis
- Ongoing ESG assessment on all investments, including due diligence on climate risks.

ISIF’s Climate Governance

ISIF is committed to climate action at an organisational, Fund and national level through structured decision making.

NTMA Governance Overview

ISIF is committed to climate action at an organisation, Fund and national level.

- The NTMA is supporting various actions contained in the Government's Climate Action Plan 2021 and has put in place a NTMA Climate Action Strategy since 2020 which established NTMA wide actions, including investment. The NTMA works closely with the Minister for Finance and Department of the Environment, Climate and Communications (DECC) in finalising its actions for inclusion in the Climate Action Plan, and is required to report on its progress on a quarterly basis.

- The NTMA recognises the contribution it can make by reducing its organisational carbon footprint and supporting its employees in adopting a low carbon lifestyle through a range of sustainability-related initiatives.

- NTMA's Climate Action Strategy commits the NTMA to be environmentally sustainable and a Net Zero emissions organisation by 2030, in advance of the 2050 timeline set by Government. NTMA has established its baseline emissions from which progress will be measured.

- NTMA climate strategy is delivered at business unit level with the oversight of the NTMA Sustainability Group and support of the Green Team.
  - The NTMA Sustainability Group was established to ensure delivery of NTMA's climate action strategy while also facilitating cross unit collaboration and information-sharing. This group is chaired by the NTMA's Director of Funding and Debt Management and regularly reports on progress to the NTMA Board and Executive Management Team.
  - The NTMA Green Team consists of committed and engaged members of staff who undertake environmentally sustainable initiatives in addition to their other responsibilities. The Green Team assists in embedding new environmentally sustainable behaviours among all employees.
  - From January 2022, the NTMA will have in place at the corporate level a Senior Sustainability Business Manager who will play a central role in enabling the NTMA to build its leadership role in sustainable finance to support the delivery of Government climate action initiatives through its mandates and to be a Net Zero emissions organisation by 2030. A key aspect of the role will be to ensure the integration of climate action into the NTMA's business decision-making.

Legislative Frameworks

Recent climate legislation relevant to ISIF investments

Climate Action and Low Carbon Development (Amendment) Act 2021

- This Act was signed into law by the President of Ireland on 23 July 2021.
- It provides, inter alia, for the approval of plans by the Government in relation to climate change for the purpose of pursuing the transition to a climate resilient, biodiversity rich and climate neutral economy by no later than year-end 2050, and also provides for carbon budgets to provide for a reduction in greenhouse gas emissions.
- It sets a 'national climate objective' which provides that the State shall, so as to reduce the extent of further global warming, pursue and achieve, by no later than the end of the year 2050, the transition to a climate resilient, biodiversity rich, environmentally sustainable and climate neutral economy.
- Embeds the process of carbon budgeting.
- Strengthens the role of the Climate Change Advisory Council.
- Public Bodies, including the NTMA, will be required, in so far as practicable to perform their functions in a manner consistent with, inter alia, the most recent approved national climate plan and other strategies and the furtherance of the achievement of the national climate objective.

Fossil Fuel Divestment Act 2018

- This Act was signed into law by the President of Ireland in December 2018. The Act provides for the divestment by ISIF from fossil fuel undertakings (effectively, companies that derive 20% or more of their revenues from the exploration, extraction and/or refinement of a fossil fuel (oil, natural gas, peat, coal or any derivative thereof intended for use in the production of energy by combustion).
- Ireland was one of the first countries to divest public money from fossil fuel investments and ISIF remains one of a few sovereign development funds globally to implement a fossil fuel divestment strategy.
- ISIF has developed a list of 246 fossil fuel companies in which it will not invest, as determined by criteria within this Act.
- This list is updated on a semi-annual basis in line with methodology which is aligned to the legislation and is available on ISIF's website.

Governance

Climate risks and opportunities are considered as part of ISIF's overall investment approach and decision-making process.

- The NTMA has responsibility for ISIF, including the Sustainability and Responsible Investment Strategy, which has a specific focus on climate. The NTMA consults the Minister for Finance and the Minister for Public Expenditure and Reform when determining and reviewing ISIF’s investment strategy and has regard to any views expressed by the Ministers.
- The NTMA’s Investment Committee (IC), a sub-committee of the NTMA, approves decisions about ISIF’s acquisition and disposal of assets within the parameters set by the NTMA Board, advises NTMA on the investment strategy for the Fund and oversees its implementation. The IC also receives a minimum of two semi-annual updates on ESG and climate related matters across the whole Portfolio.
- ISIF has both a dedicated Responsible Investment team and an ISIF Climate Investment team.
- All investment proposals include an assessment of carbon intensity of the potential investment together with its impact on the overall Portfolio carbon intensity.

ISIF’s Climate Strategy

ISIF’s Irish Portfolio climate strategy is to make investments that help position Ireland for the net zero carbon economy envisaged under the national Climate Action Plan and improve the resilience of the Irish economy as the global market increasingly pivots towards sustainable business practices.

Breaking the Link Between Economic Growth and GHGs

Multi-strand strategy from infrastructure to technology

2030 Transition Portfolio

Capital Intensive Investments, that will help Ireland achieve the 2030 emissions goal

Sustainable Infrastructure
- Less carbon

Enabling Ecosystem
- More efficient

- Aligned with the Climate Action Plan
- Crowd in private capital
- Partner with strategic players to bring best-in-class expertise to Irish market

Net Zero Portfolio

Portfolio of options, investments that will help set Ireland on the path to Net Zero by 2050 or earlier

New Technologies and Business Models
- Decarbonise 'difficult' sectors
- New energy and economic paradigms
- Resilient to climate

- Invest in global platforms to connect Ireland into a world class climate network and attract top emerging companies to Ireland
- Leverage 'test bed' size of Irish economy to prove new solutions and deploy in Ireland
- Big ideas with transformative impact

Opportunity and Impact – Climate Positive Investment

€1bn additional investment is targeted for climate action projects over 5 years.

- **Positive climate investment and impact** - ISIF had committed over €300m to projects in Ireland in the renewable energy and forestry space, as of the end of December 2020. ISIF has continued to invest in this area through 2021.
- ISIF's climate strategy is to make investments that help position Ireland for the net zero carbon economy envisaged under the national Climate Action Plan and improve the resilience of the Irish economy as the global market increasingly pivots towards sustainable business practices.
- The climate strategy encompasses investments ranging from sustainable infrastructure to new technologies and business models that will underpin the transition to Net Zero across each segment of the economy that is heavily reliant on energy and carbon: electricity, transport, buildings, agriculture and wider enterprise.

URBANVOLT

DASOS CAPITAL Enhancing EverGreen.

Shamrock renewable fuels

TEMPORIS INVESTMENT MANAGEMENT

COVANTA Powering Today. Protecting Tomorrow.

Gore Street Energy Storage Fund

NTR

GREENCOAT RENEWABLES

ISIF's Forestry investments are estimated to sequester 39k tCO2e p.a.

(source: Teagasc Forest Carbon Tool)

Whole Portfolio Approach

Demonstrating impact is not limited to investments made specifically under ISIF's climate strategy.

ISIF's other investments also demonstrate strong climate credentials.

Finistere Ventures target investment in early stage Ag-Tech companies via the Irish and Global funds. While the agriculture industry contributes to 20-25% of the world's total green-house gas emissions ag-tech companies can provide sustainable innovative solutions to improve the sector's carbon footprint.

AMCS is a technology company focused on optimising waste management efficiency, ultimately lowering the carbon footprint of the waste management industry and improving the circular economy.

Turmec, in which ISIF invests via Causeway Capital, designs and manufactures complex large recycling plants. It plays an important environmental role, helping its customers to reduce the amount of waste they send to landfill.

Greentech Plastics, which ISIF invests in via Beechbrook Capital, processes and recycles waste plastics from 3rd party manufacturers, improving the circular economy.

Abbey Quarter, in the core of the City Centre of Kilkenny, is the first LEED neighborhood development certified site in Ireland in which potential users will have benefits from location and linkage, green buildings, site facilities and amenities.

Risk Management

ISIF's risk management focuses on engagement and influence, to drive change across all its investees, and, where engagement is not enough, ISIF mitigates Portfolio level climate risk through divestment.

Managing Investment Risk is Key to ISIF’s Mandate

Climate is specified as a strategic risk by the NTMA Board to be factored into ISIF decision making.

- **The NTMA Board expects the organisation to demonstrably factor in Climate Risk to all of its decision making.**
  - The NTMA views Climate Risk as the risk that the NTMA fails to align to Government policy as required, and take the necessary actions to integrate climate action (as appropriate) into its business decisions in the context of delivering its mandates to Government and delivering an environmentally sustainable organisation in line with its Climate Strategy. Possible consequences are reputational damage and/or the NTMA being unable to achieve its objectives.
  - The elevation of Climate Risk as a strategic risk, as agreed by the NTMA Board, underscores the importance the NTMA has already placed on the topic of climate action and the environment and its importance to all key stakeholders. This ensures climate remains a strategic priority.
  - As outlined in the Governance section, the NTMA Climate Action Strategy was formulated to integrate climate action into the NTMA business decisions in the context of delivering its mandates to Government.

- **Primary risk for ISIF is the deviation of actual investment return from expected return.**
  - There are many controls for this risk across ISIF’s investment process of which ESG and Responsible Investment Policies are key including the macro investment strategy considerations of climate change as embedded into the investment appraisal process.
  - Climate risks are identified as part of ISIF’s investment process, from first sight of a potential transaction throughout the investment lifecycle.
  - Climate Risks are separately measured and monitored, through a series of climate metrics modelling and measurements across ISIF's investments, both in-house (Irish Portfolio) and independently through external providers (Global Portfolio).
  - The Global Portfolio is subject to rigorous climate impact assessment including emission exposure, attribution and intensity analysis, together with temperature related scenario alignment, transition and physical risk analysis. Current assessments indicates a high degree of climate related resilience.
  - All Global Portfolio investments are reviewed in accordance with Sustainable Finance Disclosure Regulation (SFDR) requirements.
  - As outlined in the previous section, risk management and mitigation are part of ISIF’s overarching approach to its climate strategy and ISIF use a range of tools including fossil fuel divestment and active ownership.
  - The changing regulatory environment around climate and how it affects its investments is continuously monitored.
  - Data availability is key and the further integration of the EU taxonomy into ISIF’s decision making will be an important factor going forward.
  - Further details on risk metrics and monitoring are provided in the following sections.

Engage and Influence

Over 120 climate related engagements across the Global Portfolio in 2020.

- Global Portfolio Engagement is led by EOS at Federated Hermes on ISIF's behalf.
- They have expanded focus beyond traditional energy intensive sectors, such as energy supply and transportation, by seeking Paris-aligned net-zero strategies at the providers of capital, focusing on the banks and encouraging the shift to sustainable food systems that avoid deforestation and protect biodiversity, among other factors.
- 2/3rds of climate related engagements in 2020 focused on improved disclosures and TCFD alignment from corporates, together with setting climate targets and goals.
- Long-term outcomes: all companies have to have a business model consistent with net-zero emissions and an effective transition plan to achieve this by 2050.
- Near-term corporate objectives include: development of a strategy consistent with the goals of the Paris Agreement and science-based emissions reduction targets.
- EOS support the Climate Action 100+ investor collaboration by acting as the engagement lead for a considerable number of the top systemically important emitting companies.

JP Morgan Chase & Co.	At the annual shareholder meeting, management failed to win majority support for its opposition to a shareholder proposal for a report on Paris Agreement alignment. In response to this, the company stated that it was currently 'working hard to do it right'.
Nestlé	EOS challenged the company to take a more proactive approach to developing a comprehensive, time-bound, strategy for increasing the development and sales of sustainable proteins, pushed for a percentage target for plastic reduction and discussed plans to publish a road map with targets for reducing Scope 3 emissions from dairy.
Barclays	EOS voted in favor of the board's climate-related resolution, which expressed Barclays' commitment to tackling climate change, and voted in favor of share action requisitioned resolution, which emphasizes the timely phase-out of financing to entities that are not aligned to the Paris Agreement goals.
Amazon	EOS asked the company for substantial disclosure, including milestones to measure progress on its climate pledge and Scope 3 embedded emissions.
Citigroup	EOS urged the bank, in conjunction with a large activist investor, to develop a more coherent climate change strategy, encouraging the company to look at the opportunities in climate change lending and financing.

Climate Action 100+

Federated Hermes EOS

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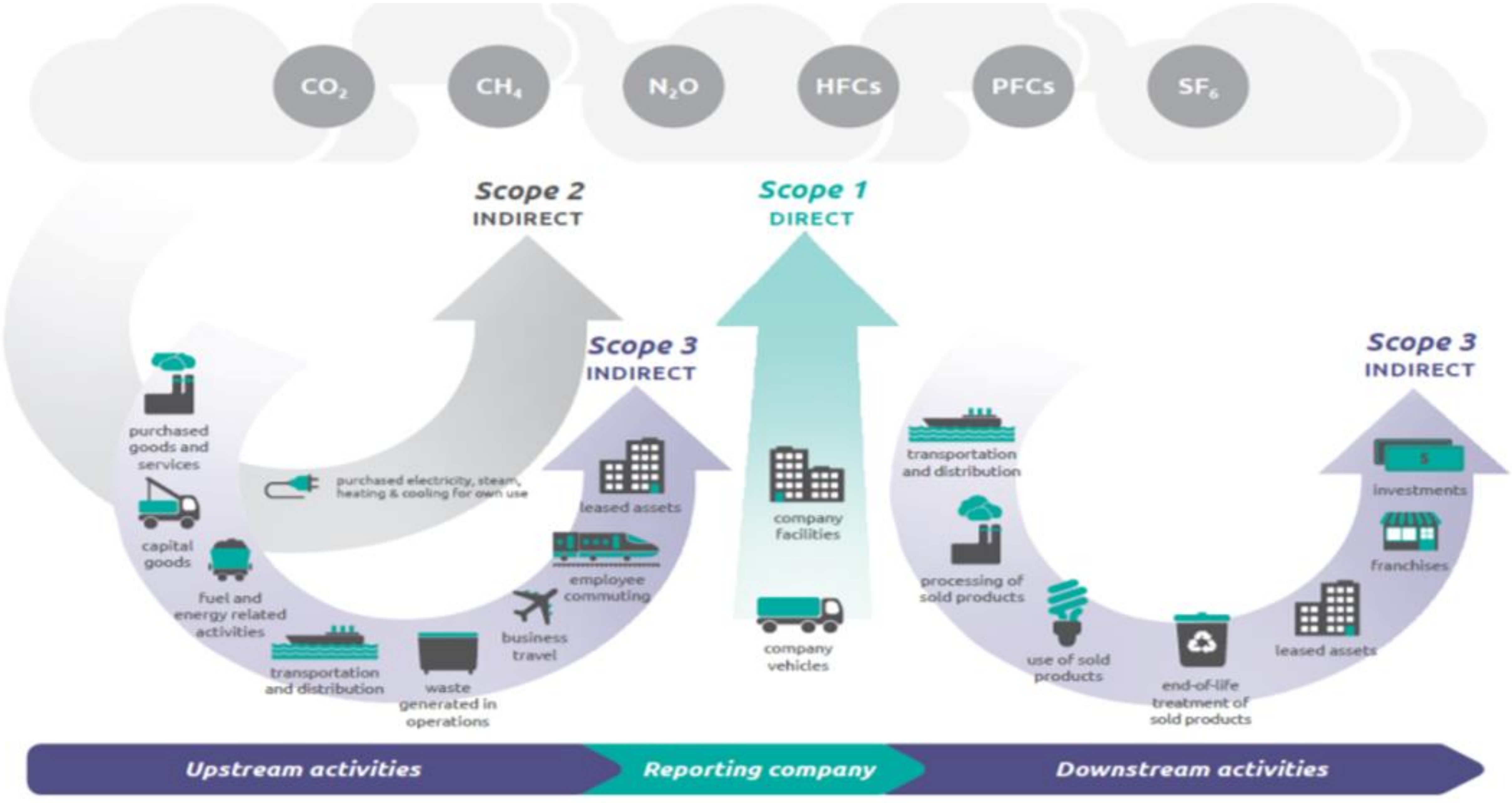
Carbon Metrics – An Introduction

ISIF believes 'you can't manage what you can't measure'. Carbon metrics are key tools to measure climate risk and progress towards ISIF's goals.

What Are GHG Emissions and How Does ISIF Measure Them?

Green House Gas (GHG) emissions are converted to a carbon equivalent and expressed as tCO2e. When ISIF use the word "carbon" or "emissions" ISIF mean all GHG emissions (tCO2e).



Scope 1 and Scope 2 emissions are the primary emissions reported by businesses. These are direct emissions from owned or controlled sources, like company vehicles and facilities, and indirect emissions from generation of purchased energy.

However, there is increased acknowledgement that the majority of a company's footprint is actually in its supply chain and / or in how its product is distributed and used (Scope 3).

Best practice is to try and also measure Scope 3 emissions.

Irish Portfolio: measures Scope 1, Scope 2 and upstream Scope 3 emissions.
Global Portfolio: measures Scope 1&2 and Scope 3 - For reporting purposes Scope 1&2 emissions are disclosed.

The Question Determines the Appropriate Carbon Metric

There are different ways of measuring carbon risk within portfolios.

Question	Metric	Description	ISIF Formula
What is my portfolio's total carbon footprint?	Total Carbon Emissions	The Absolute GHG emissions associated with each company within a portfolio expressed in tons CO_2e.	∑ (Sector GHG Intensity x Investee Revenue)
What part of my portfolio's carbon footprint do I "own"?	Attributed Carbon Emissions	The sum of the proportional amounts of each investee company's emissions "owned"(equity share) expressed in absolute terms or tons CO_2e/€M invested.	∑ (Absolute Emissions x % of Equity invested by ISIF)
How efficient is my portfolio in terms of total emission per unit of output?	Carbon Intensity	Volume of carbon emissions per million euros revenue expressed in tons CO_2e/€M revenue. It is a relative metric used to compare company emissions across industries.	∑ (Sector GHG emissions/€m revenue)
What is my portfolio exposure to carbon intensive companies?	Weighted Average Carbon Intensity (WACI)	Portfolio exposure to carbon-intensive companies expressed in tons CO_2e/€M revenue	∑ (Sector GHG emissions/€m revenue) x (% of Portfolio)

ISIF adopts each of these metrics across the Global and/or Irish Portfolio's as appropriate to the investment type.

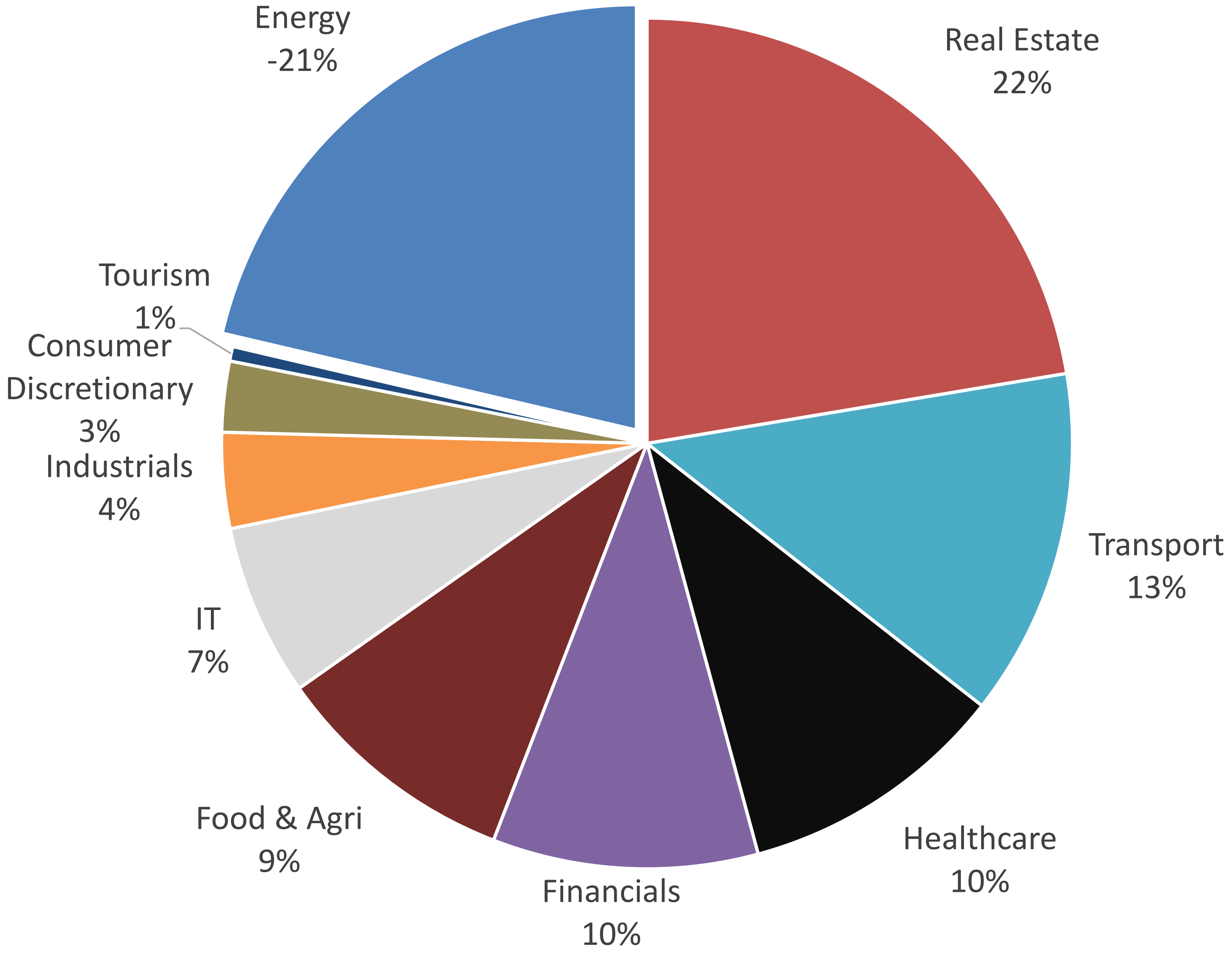
Irish Portfolio GHG Emissions Modelling

ISIF measures and monitors climate risk within the Irish Portfolio with a particular focus on the Portfolio's WACI, in line with TCFD recommendations.

Weighted Average Carbon Intensity (WACI)

The 2020 WACI will be used as the base line comparison for all new ISIF transactions for H2 2021 to assess potential impact on Portfolio level carbon emission intensity.

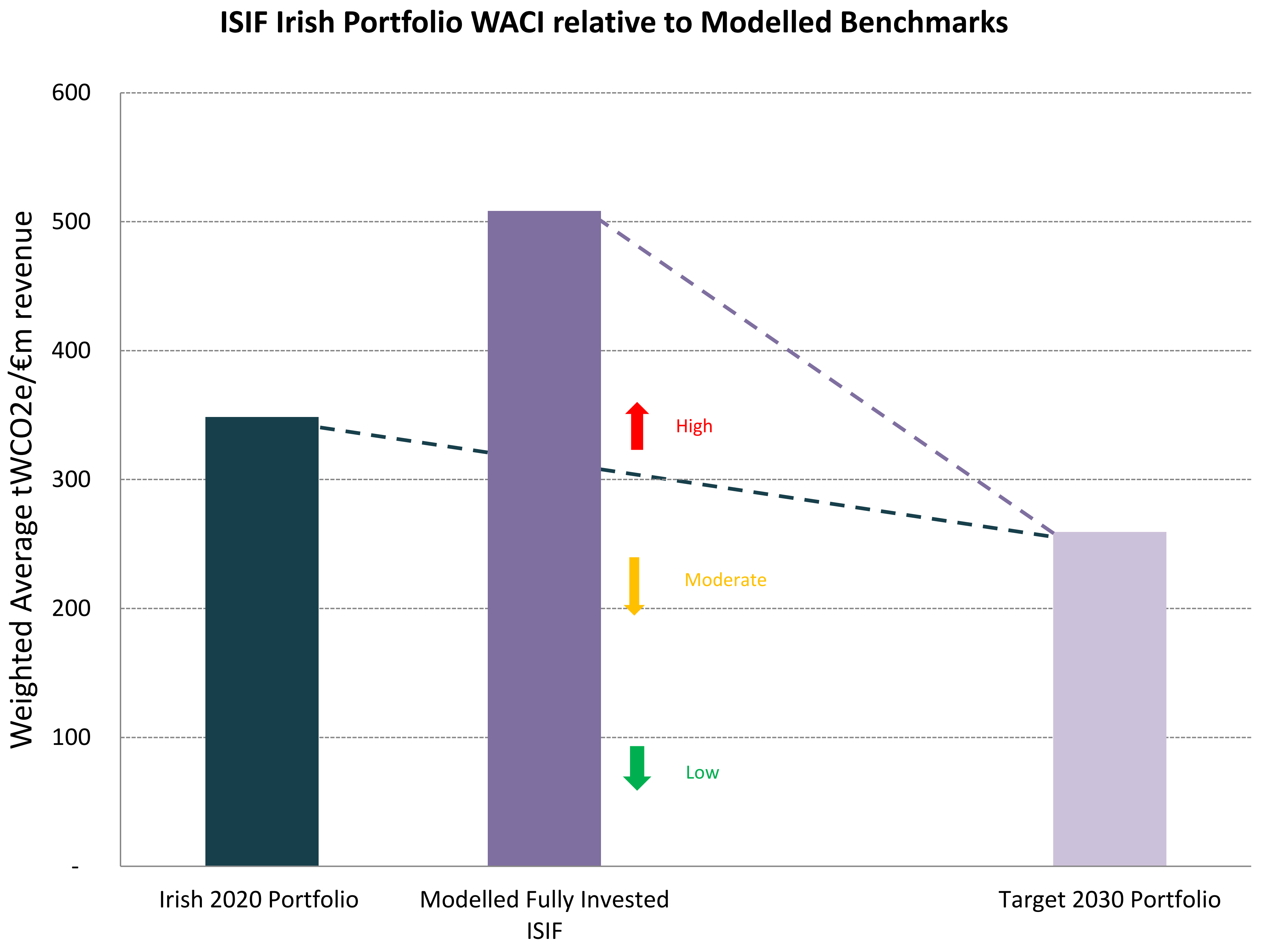
ISIF WACI by Sector contribution as at end 2020



- The ISIF Irish Portfolio WACI as at 31 December 2020 is estimated to be c. **348 tCO_2e** per €m revenue. All Irish companies are assessed on scope 1, 2 and upstream scope 3.
- The WACI is an additional whole of portfolio overlay metric based on the modelled carbon intensity metrics.
- ISIF aim to reduce the WACI over time, but have not yet set explicit targets due to the modelled nature of this calculation at present.
- The Pandemic Stabilisation and Recovery Fund (PSRF) investments in sectors that were impacted by the COVID-19 pandemic, some of these are in high emitting sectors (e.g. Aviation). ISIF must always invest in line with its statutory economic impact mandate.
- ISIF's priority is to use WACI and other metrics to identify areas of higher climate risk exposure within the Portfolio, to engage further with the most relevant investees on their climate strategy and to obtain actual emissions data where possible.
- WACI components by sector demonstrate how the size of commitments made across sectors contribute to the overall portfolio result.

How Does a WACI of 348 tCO_2e Compare

ISIF's Irish Portfolio WACI is lower than current reference benchmark and will reduce overtime.



Note: High, moderate and low WACI classifications are indicative only.

ISIF's mandate and portfolio composition mean there are no comparable market benchmarks for measuring the portfolio's emissions intensity.

The **ISIF Portfolio's WACI**, is lower than the expected emissions of the ISIF Portfolio based on the broad sectors in which it invests, the modelled benchmark.

The **Modelled ISIF Benchmark WACI** is calculated based on current targeted sector exposure and estimated sector emissions intensity **(Scope 1, 2 & upstream Scope 3).**

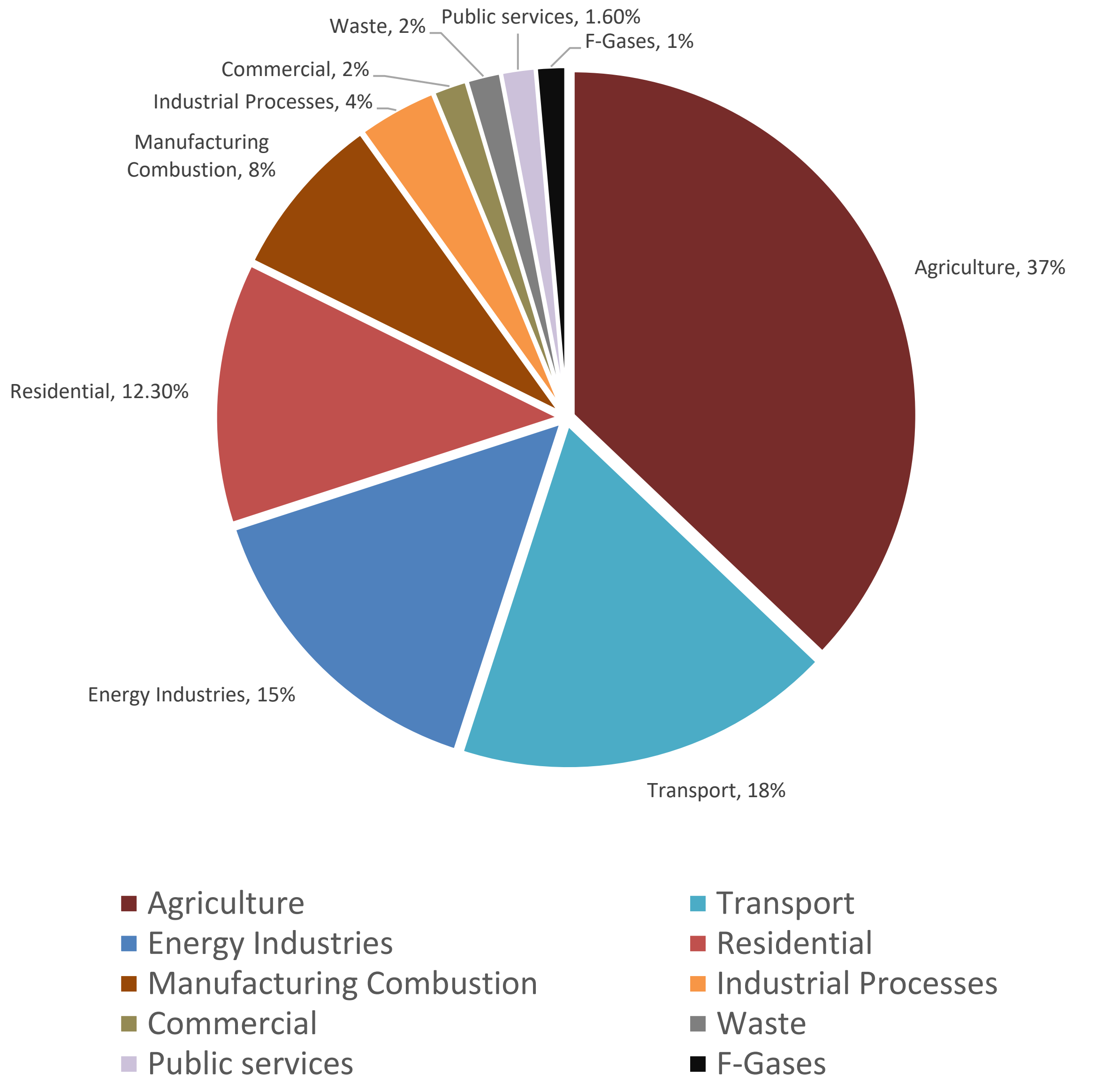
Setting an appropriate emissions reduction target for ISIF Portfolio in line with 51% target emission reduction at economy wide level:

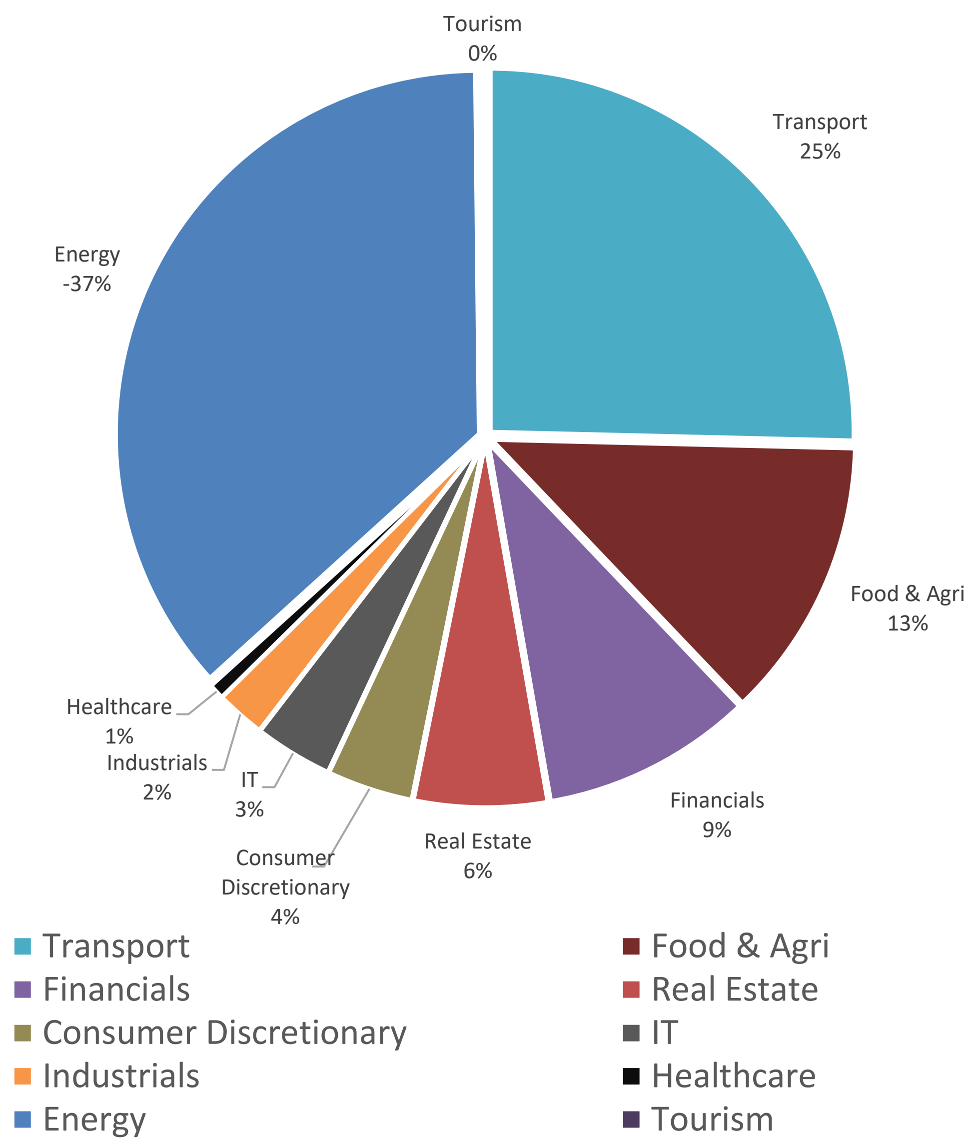
- The Target 2030 Portfolio WACI is a 51% intensity reduction based on a fully invested fund in line with the current ISIF strategy and sector exposures, which may change over time.
- ISIF strategy and sector exposures are currently being revised and this will be finalised in 2022.
- ISIF will align its sectoral emission targets with those set out by Carbon Budgets and new Climate Action Plan 2021 as applicable to its mandate.
- ISIF will revise the 2030 target to reflect these developments together with ISIF's sectoral exposure as compared to broad sector mix of Irish economy.

ISIF's Sector Emissions Mix Is Different to Ireland's Sector Mix

At an economy level Ireland is targeting a 51% emission reduction by 2030, with agriculture and transport being the key challenges.

Similarly, transport and food and agriculture are the highest emission sectors in which ISIF invests. However, ISIF's energy investments are net negative emitters.





Source: Greenhouse gas emissions share by sector in 2020: Environmental Protection Agency, Ireland (September 2021)

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Irish Portfolio Carbon Savings - Avoided Emissions

ISIF invests in renewable technologies which can help avoid emissions by offering a clean energy alternative to coal and fossil fuels. Measuring avoided emissions provides further context to ISIF's positive climate journey alongside its carbon footprint.

Measuring Avoided Emissions or Carbon Saved

The impact of renewable energy investments can be expressed as carbon emissions avoided by not burning fossil fuels.

Key Performance Indicators

- Total carbon savings from renewable technologies in 2020 equated to **774k tCO2e.**
- This equates to **70%** of the estimated total carbon emissions from ISIF investees in the Portfolio (at year-end 2020).
- At a high level, these figures help provide some further context to ISIF's positive climate journey alongside its carbon footprint.
- Carbon savings have been achieved entirely through wind and waste to energy projects to this point.
- Assets need to be operational to be included, therefore other renewable investments not yet generating power are not included in these results.
- Avoided emissions are **not a carbon offset**.

Annual Carbon Savings

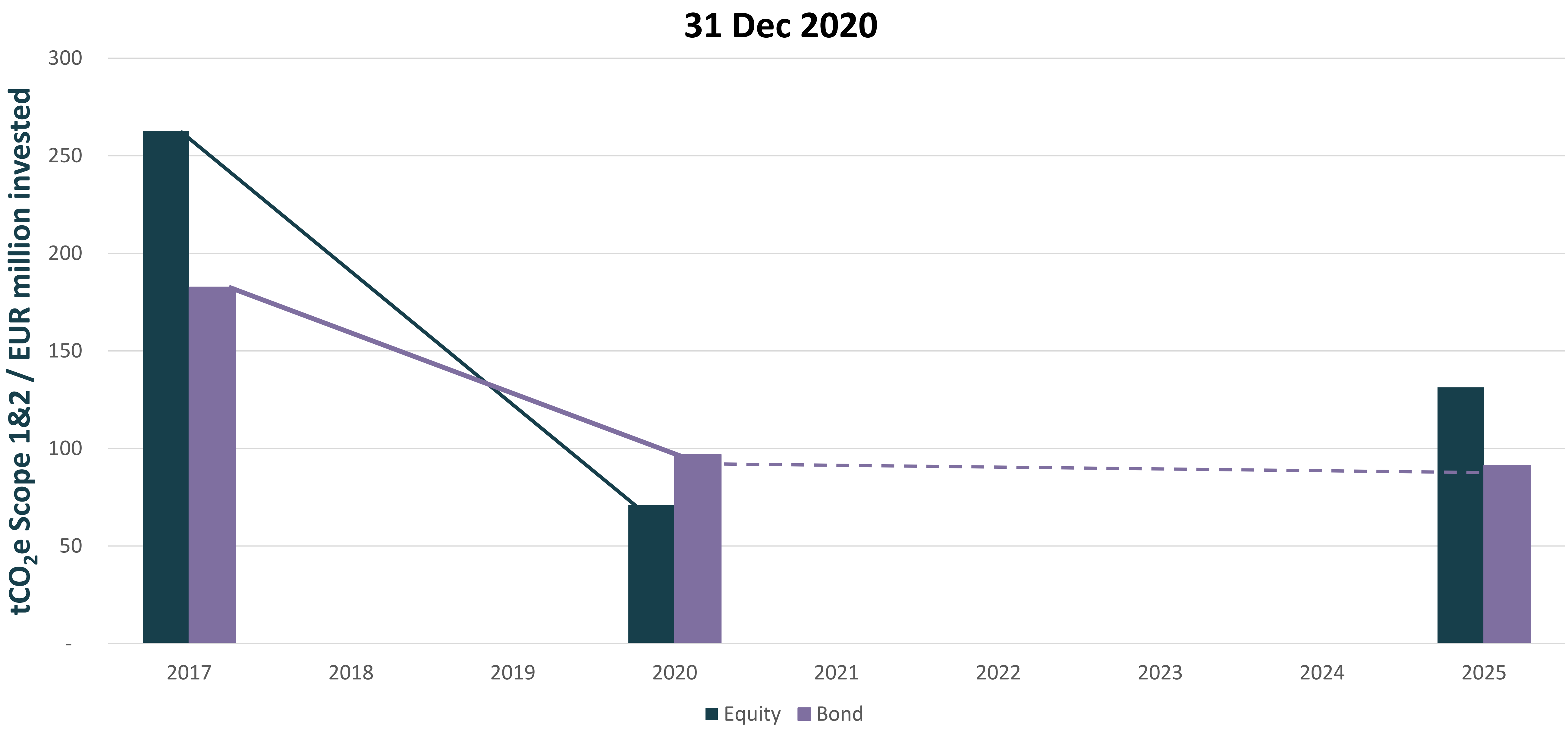
Global Portfolio Climate Analytics

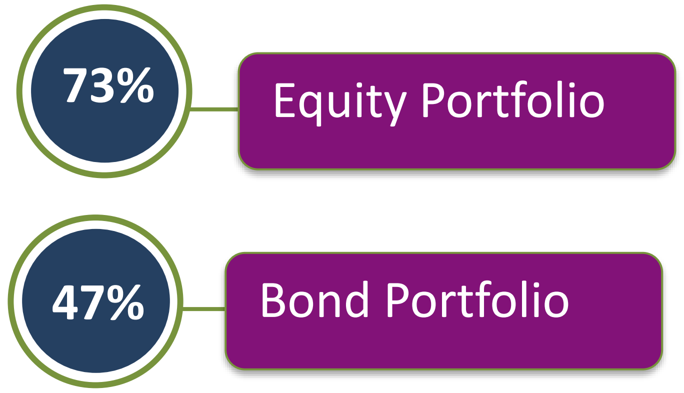
ISIF measures and monitors climate risk within the Global Portfolio, looking at a range of metrics including carbon intensity and how the Portfolio performs in certain scenarios. The results show ISIF has made significant progress towards ISIF's goals.

Emissions Intensity Reductions - Target of 50% Reduction by 2025

ISIF has already met the carbon intensity target of the Global Equity Portfolio and is on target to reduce carbon intensity of the Global Bond Portfolio by 50% by 2025.

This reflects the impact of Fossil Fuel related divestment which commenced prior to year-end 2018



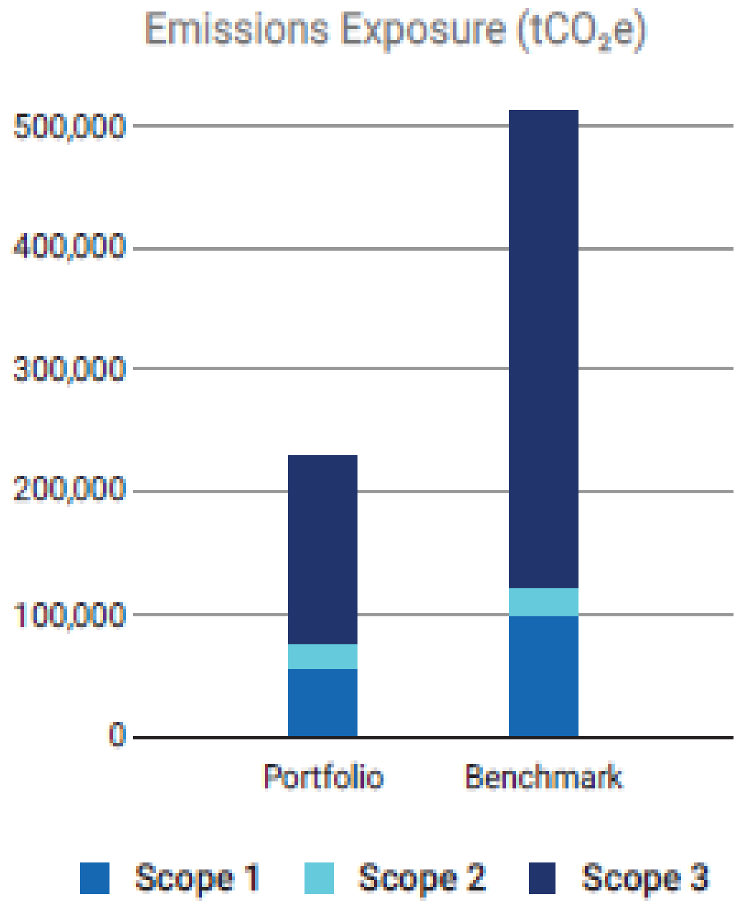


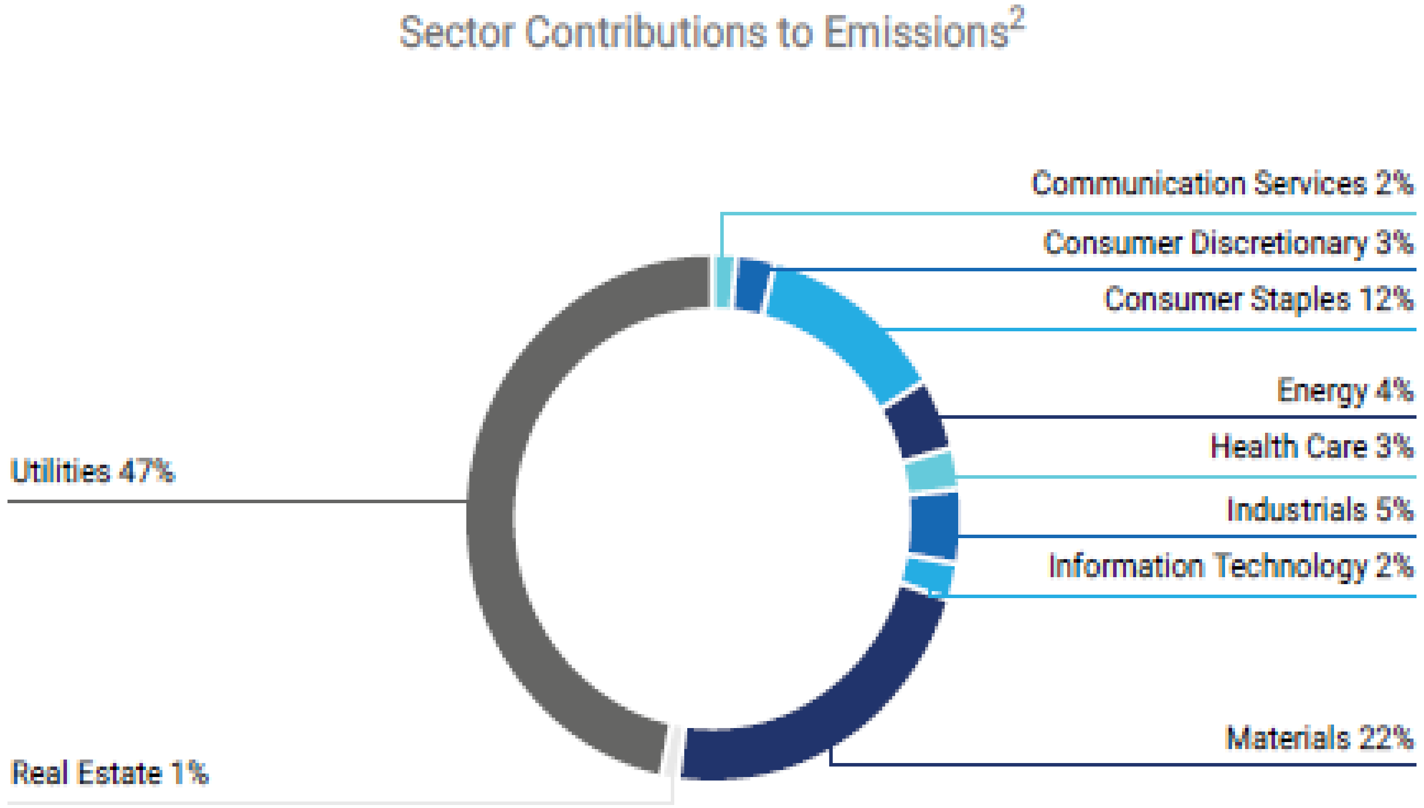
- Progress since 2017 largely due to (a) Fossil Fuel Divestment and (b) material emission reductions in some sectors such as materials and utilities in recent years.

The strategy for ISIF's Global Portfolio was recently reviewed, resulting in a significant changes to the Portfolio since year-end 2020. The revised strategy has a stronger emphasis on Climate and also includes an allocation to a climate thematic strategy or solution to help advance the global climate transition to achieve Net Zero emissions by 2050. Implementation is currently underway and Emission reduction targets will be reviewed in 2022.

Global Equity Portfolio as of 31 December 2020

Emission Exposure and Intensity Analysis





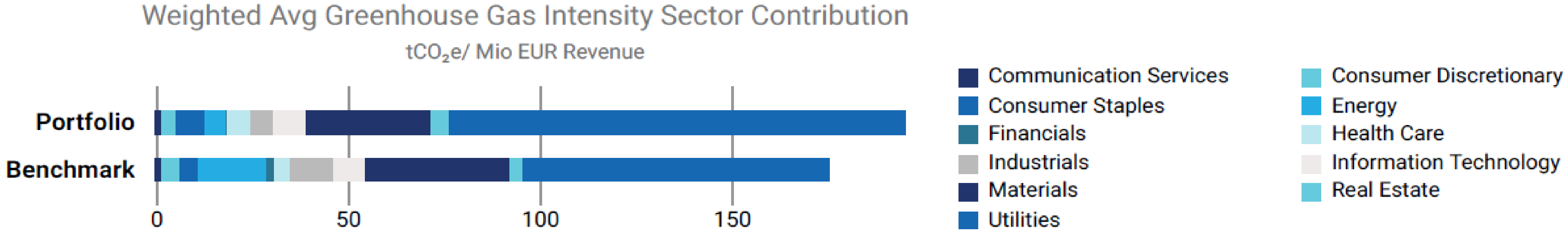
Data sourced from the Dec 2020 NTMA Debt Climate Impact Assessment Report produced by ISS ESG

The benchmark for the Equity Portfolio is the iShares MSCI ACWI ETF

Emissions contributions for all other Portfolio sectors is less than 1% for each sector.

[1] Note: Carbon Risk Rating data is current as of the date of report generation.

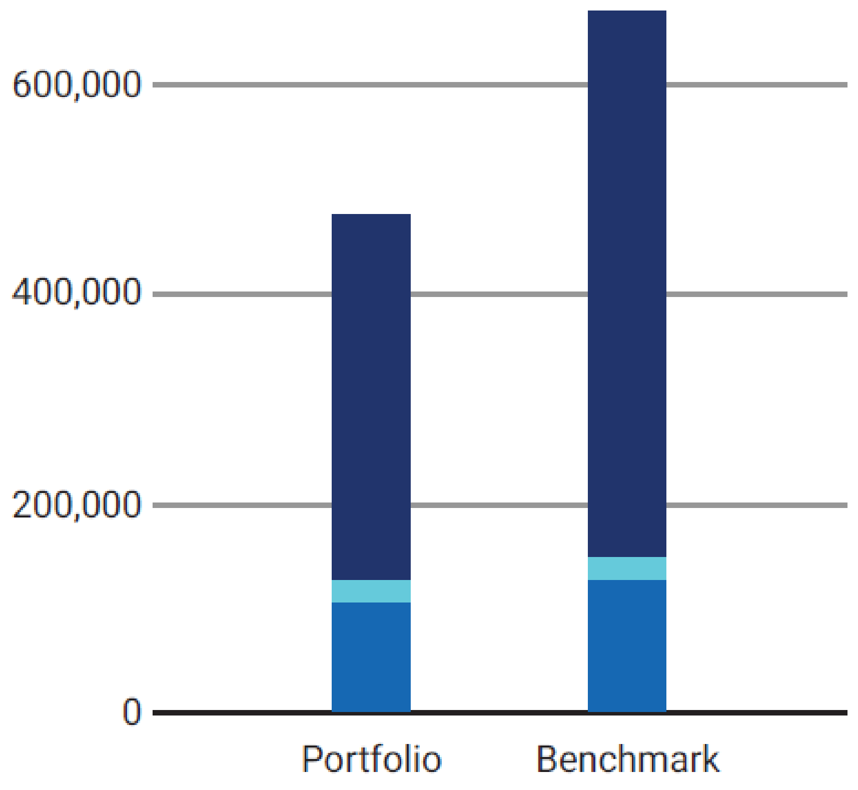
[2] Emissions contributions for all other portfolio sectors is less than 1% for each sector.



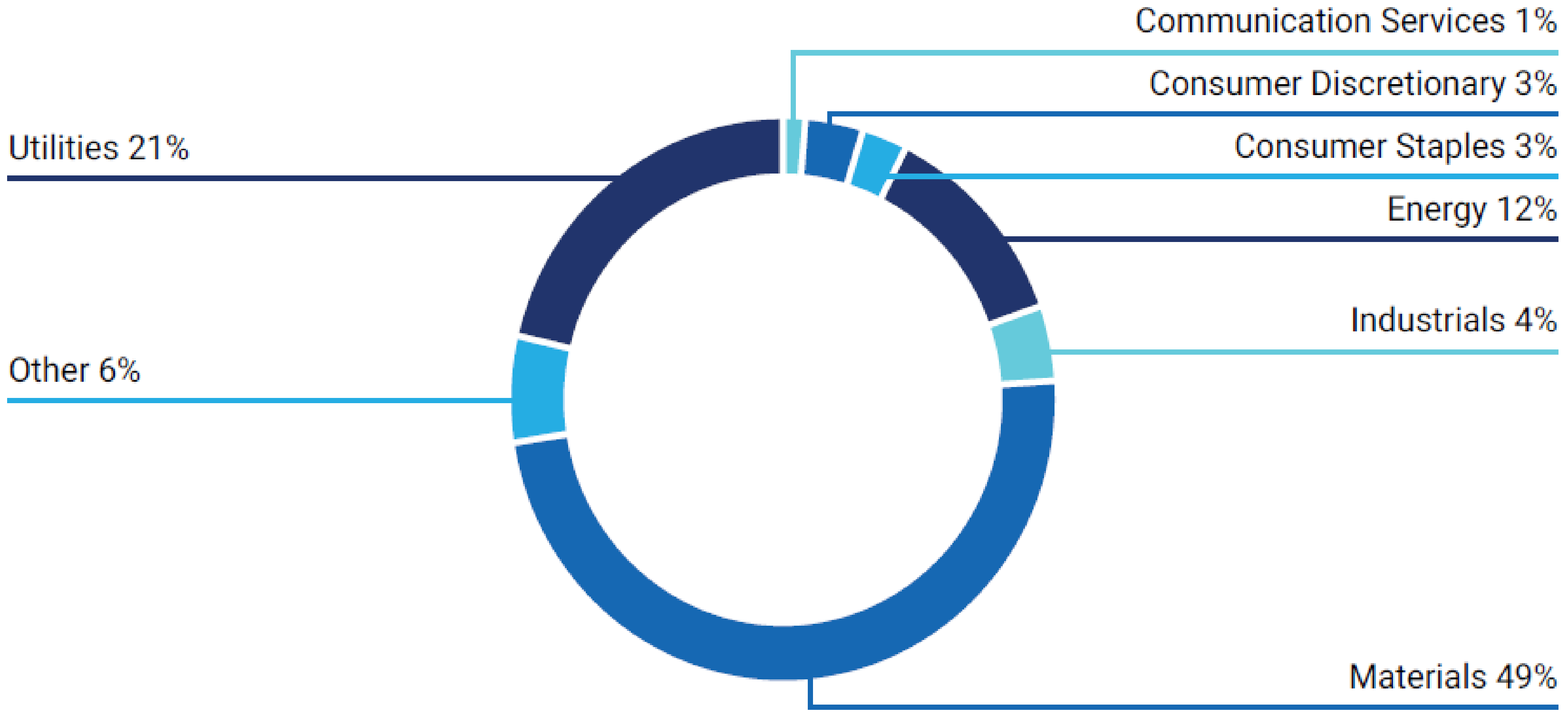
Global Bond Portfolio as of 31 December 2020

Emission exposure and intensity analysis

Emissions Exposure (tCO_2e)



Sector Contributions to Emissions[2]



ISS ESG

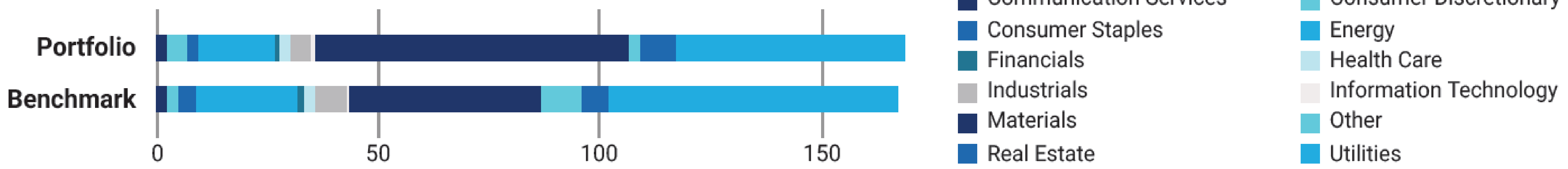
Data sourced from the Dec 2020 NTMA Debt Climate Impact Assessment Report produced by ISS ESG.

The benchmark for the Bond Portfolio is the iBoxx Euro Corporate Overall Total Return Index.

Emissions contributions for all other Portfolio sectors is less than 1% for each sector.

Weighted Avg Greenhouse Gas Intensity Sector Contribution

tCO_2e/ Mio EUR Revenue



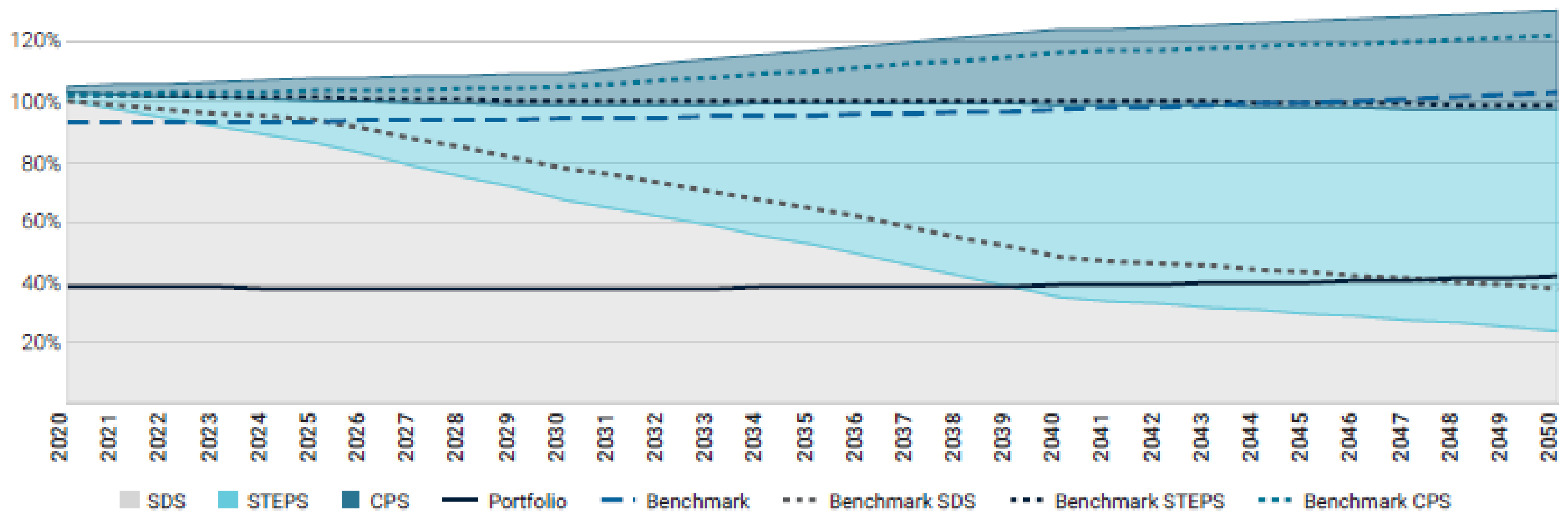
As part of the recent Global Portfolio review, there have been significant liquidations in the Bond Portfolio since year-end 2020.

Modelling Forward Looking Climate Risk with Scenario Analysis

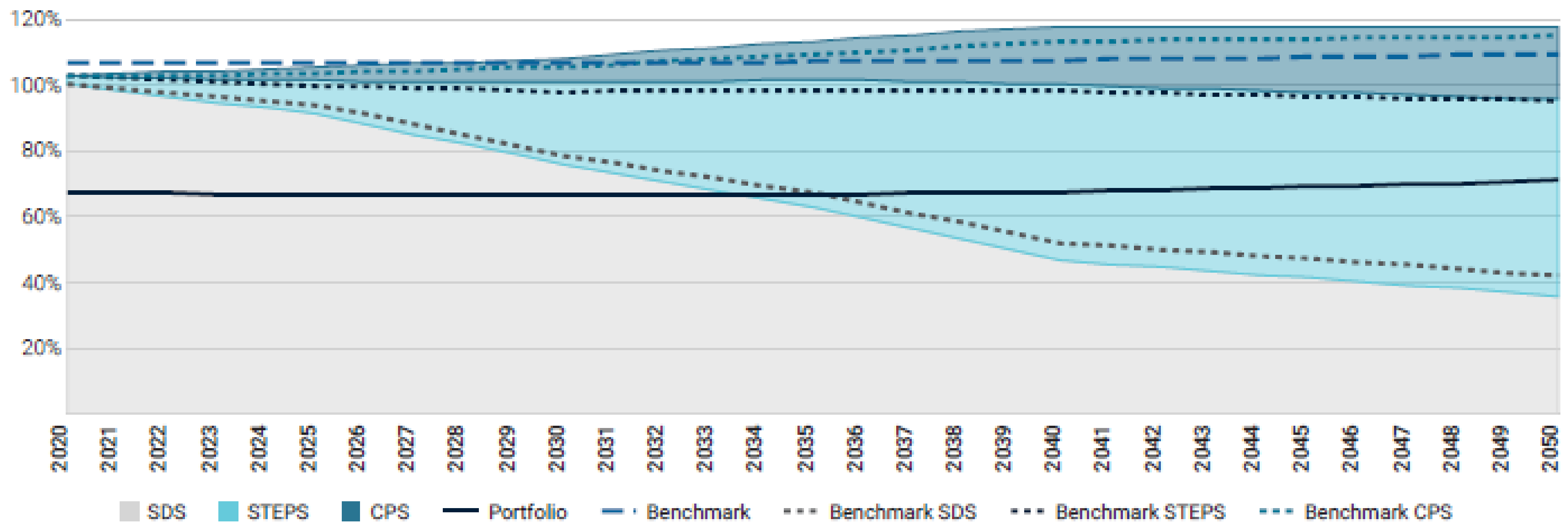
ISS ESG

ISIF's Global Portfolio transition risk is significantly lower than broad market, but not yet aligned with its 2050 emissions budget.

Equity Portfolio Emission Pathway vs. Climate Scenarios



Corporate Bond Portfolio Emission Pathway vs. Climate Scenarios



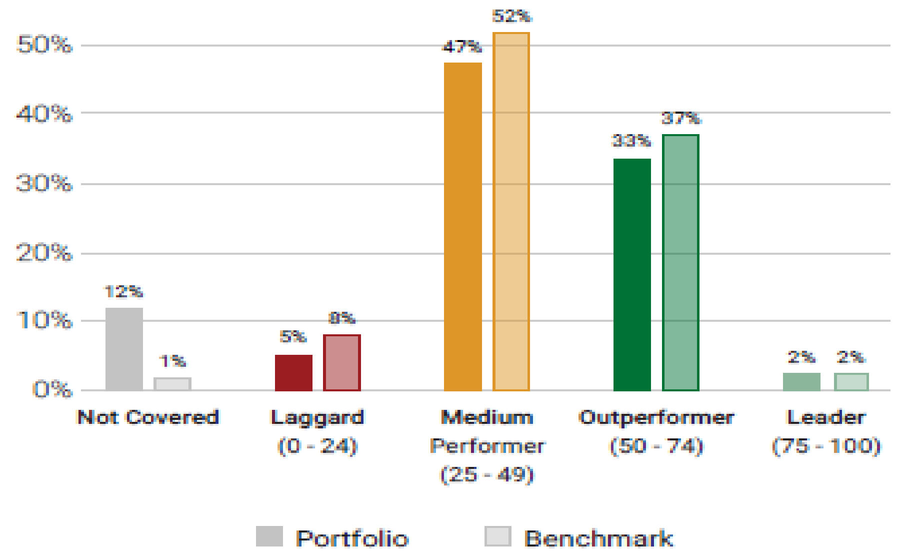
- The scenario alignment analysis compares current and future Portfolio greenhouse gas emissions with the carbon budgets for the **IEA Sustainable Development Scenario (SDS)**, Stated Policies Scenario (STEPS) and the Current Policies Scenario (CPS). Performance is shown as the percentage of assigned budget used by the Portfolio and benchmark.
- ISIF Equity Portfolio remains within its SDS emissions budget until 2039, with a potential temperature increase of 1.8° C by 2050.
- While the Corporate Bond Portfolio remains within its SDS emissions budget until 2033, with a potential temperature increase of 2.2°C by 2050.
- Both perform significantly better than their respective benchmarks.
- TCFD recommend assessing the resilience of the organisation's strategy by taking into consideration different climate-related scenarios, including a 2°C or lower scenario. The Global Portfolio's current strategy demonstrates a high degree of climate resilience and ISIF is committed to it's continuous improvement.

Transition and Physical Risk Analysis

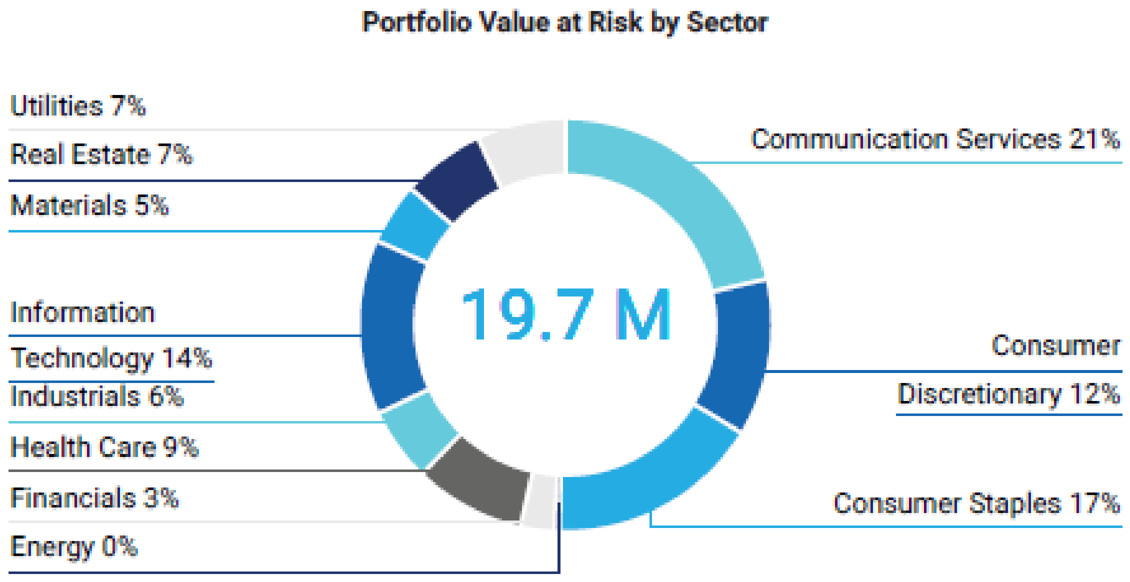
ISS ESG

Forward looking climate risk analysis

Global Equity Portfolio Transition Risk Rating



Global Equity Portfolio Physical Risk

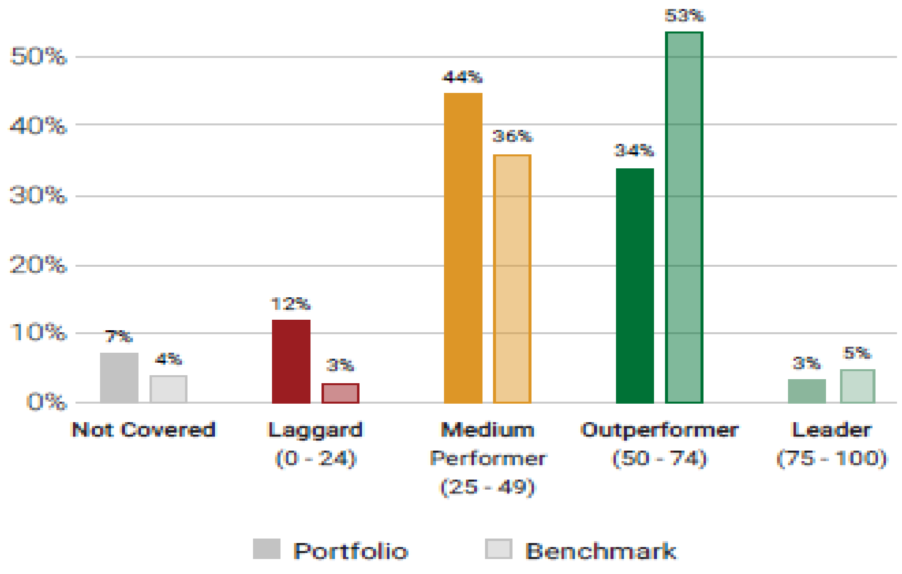


- The Carbon Risk Rating quantifies the company's exposure and management of material carbon issues in its own operations as well as its products and services.
- It provides insights into how issuers are prepared for a transition to a low carbon economy and is a central instrument for the forward-looking analysis of carbon-related risks at portfolio and issuer level.

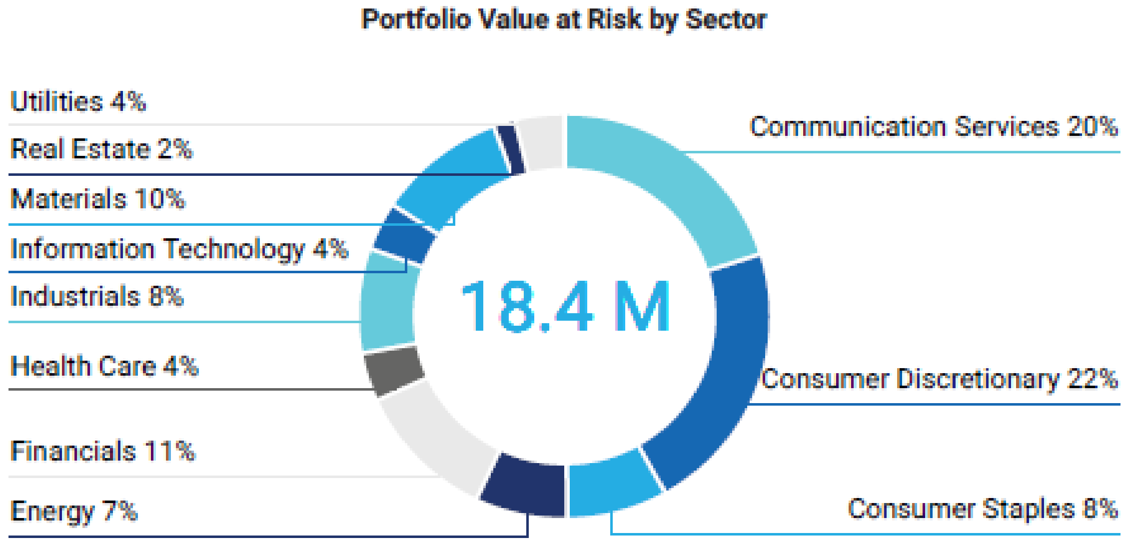
ISIF is currently implementing a revised Global Portfolio strategy with an increased emphasis on climate.

- Physical climate risk may affect the value of a company and a portfolio. The charts quantifies the potential financial implications on a sector level.
- Such financial implications from physical effects of climate change can be addressed by adopting appropriate risk management strategies.

Global Bond Portfolio Transition Risk Rating



Global Bond Portfolio Physical Risk



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For further information please refer to www.isif.ie