ISIF CLIMATE UPDATE

IRELAND STRATEGIC INVESTMENT FUND

PUBLISHED - 23 DECEMBER 2022

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

Ciste Infheistíochta Straitéisí d'Éirinn
Ireland Strategic Investment Fund

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INTRODUCTION

The Ireland Strategic Investment Fund ("ISIF" or the "Fund") invests on a commercial basis in a manner designed to support economic activity and employment in Ireland. Responsible investment has been core to its approach from the outset, with a key focus on climate 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 OVERVIEW

This report aims to provide an update on ISIF's 2020 Climate Report regarding ISIF's climate investing and how it is managing and mitigating climate risk in its investment portfolio in 2021.

Investing with impact is key to ISIF's mandate. ISIF prioritises using its capital and resources to address strategic challenges and focus on making transformational investments across its impact themes, including climate. ISIF has commenced a €1 billion five-year climate action investment programme. This will be where ISIF will have its most significant impact. The ISIF climate strategy encompasses all areas of the economy where carbon emissions are present such as energy, transport, built environment, waste and enterprise, and incorporates other thematic investment areas that will be key to transitioning to a Net Zero economy.

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 various climate-related metrics across its Global and Irish portfolios for several years. Both data availability and methodologies differ across ISIF's portfolios, and ISIF's approach has changed and evolved alongside evolving measurement frameworks. ISIF expects 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)**, a supporter of CDP (formerly the Carbon Disclosure Project) and an endorser of the **One Planet Sovereign Wealth Fund (OPSWF)** initiative, all of which endorse the Task Force on Climate-Related Financial Disclosures (TCFD).[3] 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 of the year-end 2021.

TCFD recommendations are structured around four thematic areas: Governance, Strategy, Risk Management, and Metrics and Targets and are the critical 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.

Finally, this report focuses on ISIF's investment portfolio, not the operations of the ISIF business unit. ISIF's emissions are measured as part of the National Treasury Management Agency's (NTMA) footprint. ISIF is committed to the NTMA-wide goal of being an environmentally sustainable and net zero emissions organisation by 2030. ISIF refers to "carbon" and "emissions" interchangeably throughout this report, meaning all Green House Gas (GHG) emissions.

1. ISIF's Global portfolio comprises publicly listed assets 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 accurate, 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 companies can adopt to inform investors.

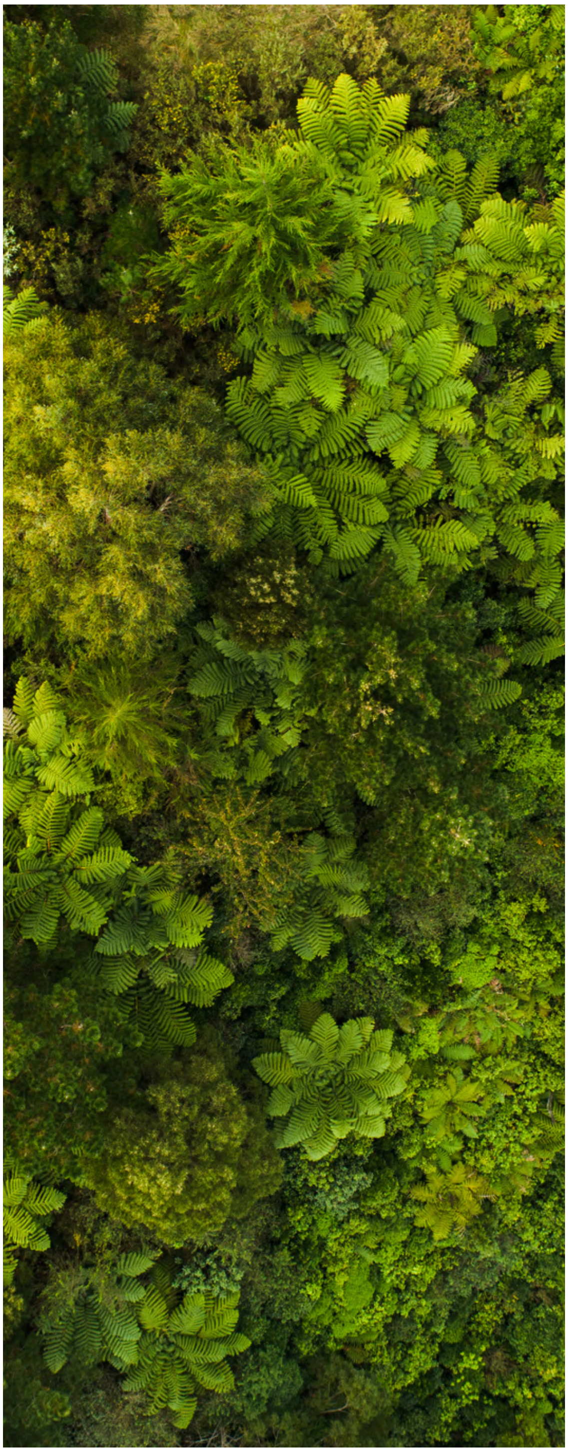
ISIF'S CLIMATE ACTION AND REPORTING WILL CONTINUE TO EVOLVE

This report gives a broad overview of the various actions and analyses undertaken by ISIF. ISIF's 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 exist. ISIF is on a journey toward full alignment with TCFD.

While ISIF has made 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 its Net Zero journey. The following steps will focus on building relationships, partnerships and networks to support the delivery of the climate investment strategy.

ISIF is committed to continuous improvement, and some areas where ISIF will focus going forward include:

- Reassessing current metrics and targets to become future-proofed and fit for this next decade, given the need for a radical reduction of emissions globally.
- Portfolio alignment metrics for the Irish portfolio.
- Developing more sector or industry expertise 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.



ISIF'S CLIMATE GOAL

ISIF is committed to supporting the long-term transition to Net Zero in Ireland before 2050 by driving substantial emissions reductions and increasing ISIF's positive climate impact by 2030.

ACHIEVING ISIF'S CLIMATE GOAL

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

- Decarbonise ISIF’s investment portfolio in a way consistent with achieving Net Zero emissions before 2050.
- Allocate capital to invest in assets and businesses that lower emissions and facilitate or take action to mitigate the impact of climate change.
- Utilise best practice investment frameworks and guidance to achieve Net Zero.
- Assess the climate commitments of ISIF's investees and asset managers.
- Support companies and sectors that are leaders in emissions efficiency.
- Set emissions reduction targets and measure ISIF's progress against them.
- Conduct climate financial risk assessment in line with TCFD recommendations.

PRI Principles for Responsible Investment

CDP

ONE PLANET SUMMIT SOVEREIGN WEALTH FUNDS

TCFD TASK FORCE ON CLIMATE-RELATED FINANCIAL DISCLOSURES

ACHIEVING ISIF'S CLIMATE GOAL

ISIF aims to manage the risks and capture the opportunities that climate change presents through climate-positive investments and a whole 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 Portfolios.
- 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 policymakers.
- Climate change is a systemic risk and, therefore, a whole portfolio challenge to be addressed with multiple stakeholders.

CLIMATE RISK MITIGATION (INCLUDING DIVESTMENT)

MEASURE, MONITOR AND DIVEST

- Divestment from global fossil fuel and high carbon companies, supported by an exclusion list of 260 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 risks 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.

GOVERNANCE

The NTMA, is the manager and controller of ISIF. The NTMA has responsibility for the implementation of the investment strategy for ISIF including the Sustainability and Responsible Investment Strategy, which focuses 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.

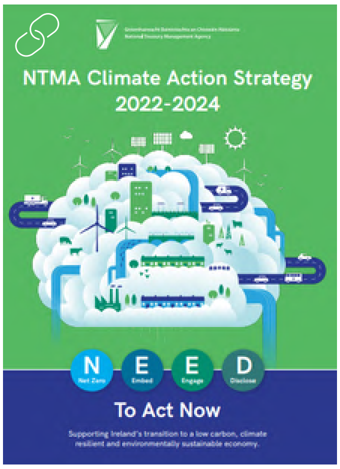
The NTMA's Investment Committee (a sub-committee of the NTMA), approves decisions about ISIF's acquisition, and disposal of assets within the parameters set by the NTMA Agency Board, advises NTMA on the investment strategy for the Fund and oversees its implementation. The Investment Committee also receives a minimum of two semi-annual updates on ESG and climate-related matters across the portfolio.

ISIF has a dedicated Responsible Investment team and an ISIF Climate Investment team. All investment proposals include an assessment of the carbon intensity of the potential investment together with its impact on the overall portfolio carbon intensity.

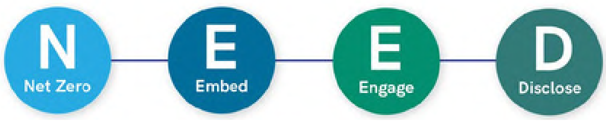
Climate risks and opportunities are considered part of ISIF's overall investment approach and decision-making process.

NTMA GOVERNANCE

The NTMA supports various actions contained in the **Government's Climate Action Plan (CAP) 2021** with the **NTMA Climate Action Strategy 2022-2024**. The overarching objective of NTMA's climate strategy is to ensure that the NTMA builds on its leadership role in sustainable finance to support the delivery of the Government's climate action initiatives through its mandates and to be a Net Zero emissions organisation by 2030.



To do so, the NTMA commits to integrating climate action into its business decisions, including investment, in the context of delivering its mandates to the Government and being an environmentally sustainable and impactful organisation. As per the NTMA Climate Action Strategy, the NTMA's climate goals comprise external and internal deliverables to be achieved through its business mandates, processes and systems. The four goals, Net Zero, Embed, Engage and Disclose, reflect the current work with targets to further enhance the NTMA's drive to support the government's climate action commitments. The goals also commit the NTMA to be environmentally sustainable, reflecting the "NEED To Act now."



The oversight and monitoring of the NTMA's Climate Action Strategy is a priority for the NTMA's Board and Executive Management Team (EMT). The Chief Financial and Operating Officer (CFOO), with the support of the Senior Business Manager Sustainability (SBMS), is responsible for coordinating combined climate action efforts across the NTMA.

The NTMA Sustainability Group, established in 2019, oversees the delivery of the NTMA Climate Action Strategy while facilitating cross-unit collaboration and information sharing concerning climate-related activities. Alignment with the Public Sector Climate Mandate (July 2021), a CAP21 action, is also a key consideration for this group. The NTMA has also established an employee-led Green Team to support the aim of the NTMA to be a recognised leader in sustainable workplace practices in Ireland. The Green Team assists in embedding new environmentally sustainable behaviours among all employees and consists of committed and engaged employees who undertake sustainable initiatives in addition to their other responsibilities.

KEY LEGISLATIVE FRAMEWORKS

Climate Action and Low Carbon Development (Amendment) Act 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, among other things, the most recent approved national climate plan and different 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. ISIF remains one of the few sovereign development funds globally to implement a fossil fuel divestment strategy.
- ISIF has developed a list of 260 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 a methodology which is aligned with the legislation and is available on ISIF's website.

Sustainable Finance Disclosure Regulation (SFDR)*

- The Sustainable Finance Disclosure Regulation (SFDR) (Regulation (EU) 2019/2088) came into force on 10 March 2021 and imposes disclosure requirements for financial products as defined under SFDR. These requirements include disclosing sustainability-related information for financial products that (i) promote (among other characteristics) environmental and/or social characteristics (Article 8 products) or (ii) have a sustainable investment objective (Article 9 products), both as defined under SFDR.

(*ISIF is not subject to SFDR but certain ISIF Investment managers are.)

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 GHG EMISSIONS

Multi-strand strategy from infrastructure to technology. ISIF will target investments and partnerships that can materially advance the decarbonisation of the Irish economy (and contribute to decarbonisation initiatives throughout the world) in the short, medium, and long term.

2030 Transition Portfolio

Capital intensive investments, that will help Ireland achieve the 2030 emissions goal

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

Net Zero Portfolio

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

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

OPPORTUNITY & IMPACT - CLIMATE POSTIVE INVESTMENT

€1 billion additional investment is targeted for climate action projects over five years.

JUST CLIMATE

SDCL

Activate capital

- Positive climate investment and impact - ISIF committed over €134m in the energy transition and climate technology space during 2021. ISIF has continued to invest in this area through 2022.
- 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 economy segment heavily reliant on energy and carbon: electricity, transport, buildings, agriculture and the broader enterprise.

ISIF's Forestry Investments support 10,310 hectares of Forestry which contribute to Ireland's carbon removals target

WHOLE PORTFOLIO APPROACH

Demonstrating impact is not limited to investments explicitly made under ISIF's climate strategy. ISIF's other investments also show strong climate credentials.

ELIGHT

eLight is an Energy Efficiency Service company which provides commercial customers with immediate energy and cost reductions with zero upfront investment. It is an underlying investee in the Beach Point Capital portfolio.

AMCS

The company continued to grow its waste and recycling business, focusing on optimising efficiency and lowering carbon impacts. The firm is also broadening its reach into environmental services more broadly, focusing on resource efficiency. This year, ISIF invested additional capital in the firm to support a significant acquisition in the EHSQ/ESG sector.

GRID BEYOND

Leading technology platform for managing distributed and flexible energy resources. It is an underlying investee of Claret Capital, a new fund ISIF backed earlier this year.

ABBEY QUARTER

Development works underway by the Kilkenny Abbey Quarter Partnership to deliver The Brewhouse, a 45,000 sq ft LEED Gold accredited modern commercial office building under a significant refurbishment programme while retaining the existing concrete structure thereby reducing the embodied carbon of the building.

PLENTY

Through ISIF Finistere Ventures investment in 2021, Plenty raised USD $140 million in new funding 2021. The company is a world leader in fully automated vertical farming indoors of soft fruits and salad leaves. It is in the process of commissioning the largest such facility in the world. The company has a 350x the yield of fresh produce achievable on conventional farms with reduced water and chemical use whilst growing fresh produce all year round.

RISK MANAGEMENT

ISIF's risk management focuses on engagement and influence to drive change across all its investees.

MANAGING INVESTMENT RISK IS KEY TO ISIF'S MANDATE

Climate is specified as a strategic risk by the NTMA Agency Board and is factored into ISIF decision-making.

The NTMA Agency Board expects the organisation to demonstrably factor in climate risk to all of its decision-making.

- The elevation of climate risk as a strategic risk, 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 that climate remains a strategic priority.
- The NTMA defines climate risk as the risk that the NTMA fails to take the necessary actions to integrate climate action (as appropriate) into its business decisions in the context of delivering its mandates to the Government and delivering an environmentally sustainable organisation in line with its climate strategy.

Risk Appetite Statement for NTMA climate risk - As a public body, the NTMA must support Ireland's transition to a low-carbon, climate-resilient, and environmentally sustainable economy. The NTMA has a 'low' risk appetite for climate risk, and monitors this risk via key risk indicators which are reported to the appropriate NTMA governance committees.

A primary risk for ISIF is the deviation of actual investment return from the expected return.

- The ISIF's investment process incorporates many controls for this risk, including the consideration of climate risk which is embedded into the investment appraisal process, and the application of ESG and responsible investment policies.
- Climate risks are identified as part of ISIF's investment process from the 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 climate impact assessment, including emission exposure, attribution and intensity analysis, temperature-related scenario alignment, transition and physical risk analysis. Current assessments indicate a high degree of climate-related resilience.
- All Global Portfolio investments are reviewed per Sustainable Finance Disclosure Regulation (SFDR) requirements. (*ISIF is not subject to SFDR but certain ISIF Investment managers are.)
- Risk management and mitigation are part of ISIF's overarching approach to its climate strategy. ISIF uses various 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 critical, and further consideration of the EU taxonomy into ISIF's decision-making will be an essential factor in the future.

ENGAGE AND INFLUENCE

OVER
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Climate related engagements across the Global portfolio in 2021.

- EOS Federated Hermes leads Global portfolio Engagement with ISIF.
- They have expanded focus beyond traditional energy-intensive sectors, such as energy supply and transportation, by seeking Paris-aligned net-zero strategies at the capital providers, focusing on the banks and encouraging the shift to sustainable food systems that avoid deforestation and protect biodiversity, among other factors.
- Climate-related engagements in 2021 focused on several areas, including alignment to Net Zero, emissions, climate strategy, TCFD, disclosures, science-based targets, Paris Agreement etc.
- Long-term outcomes: all companies must have a business model consistent with net-zero emissions and an effective transition plan to achieve this by 2050.
- Near-term corporate objectives include the development of a strategy consistent with the goals of the Paris Agreement and science-based emissions reduction targets.
- EOS Federated Hermes supports the Climate Action 100+ investor collaboration by acting as the engagement lead for many of the top systemically important emitting companies.

Climate Action 100+

Federated Hermes EOS

ENGAGE AND INFLUENCE

Examples of climate related voting disclosure and engagements from 2021.

TITLE	DETAILS
Australia & New Zealand Banking Group (Australia)	EOS Federated Hermes recommended support for the advisory shareholder resolution asking for information demonstrating how the company will manage its fossil fuel exposure in accordance with a scenario in which global emissions reach net zero by 2050. This should include a commitment to no longer provide financing where the proceeds are explicitly intended for new fossil fuel projects.
SSE (UK)	EOS Federated Hermes recommended a vote in favour of all agenda items at this UK energy company. EOS Federated Hermes previously challenged the company on the lack of short-term targets and to develop a roadmap to deliver its existing targets. In 2022, EOS Federated Hermes supported its resolution to approve its report setting out the new strategy for becoming a net zero company by 2050 or sooner, consistent with limiting average global temperature increase to 1.5C with low or no overshoot.
Burberry (UK)	Continued our dialogue with the head of sustainability, discussing Burberry's responsibility agenda. The company is on track to meet its 2022 targets and in July announced a new commitment to become climate positive by 2040. This includes accelerating its goal to reduce emissions across its extended supply chain by 46% (from a previous target of 30%) by 2030. This means the company's science-based targets will be aligned with the 1.5°C pathway set out in the Paris Agreement.
Engie (France)	EOS Federated Hermes Federated Hermes had a call with the company to discuss updates to its climate strategy. Engie has significantly reduced its exposure to coal over the last five years and has brought forward its coal phaseout date in line with OECD guidelines. It has set a net-zero target for 2045 for all three scopes of emissions. It is working on a separate methodology for how it tracks avoided emissions from its customers.
BASF (Germany)	EOS Federated Hermes co-signed a ShareAction letter to the company asking it to strengthen its climate change ambitions. This asked BASF to include relevant Scope 3 emissions in its net zero by 2050 commitment and to set more ambitious intermediate targets. We also asked it to set out plans to achieve emissions-neutral feedstock by 2050 and to make a time-bound commitment to zero emissions from energy consumption through electrification and 100% renewable energy.

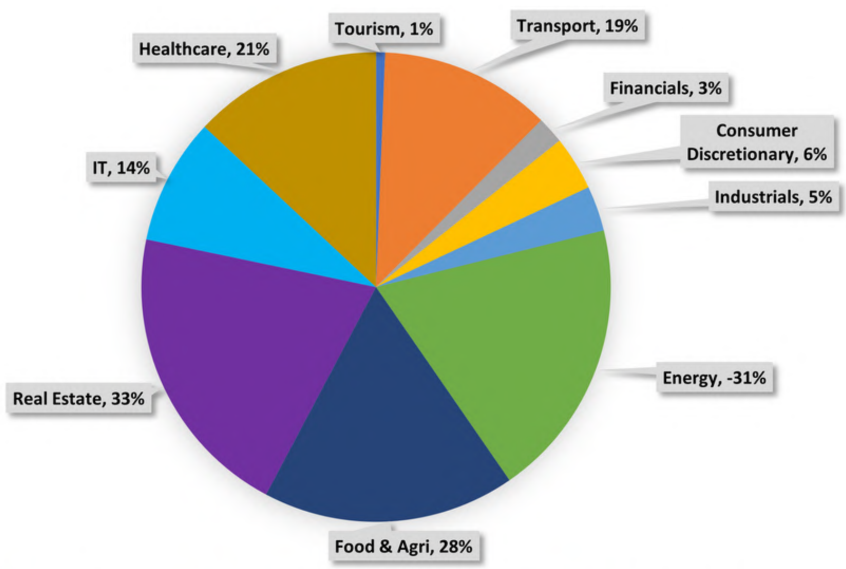
IRISH PORTFOLIO GHG EMISSIONS MODELLING

ISIF measures and monitors climate risk within the Irish Portfolio, focusing on the portfolio's Weighted Average Carbon Intensity ("WACI"), in line with TCFD recommendations.

WEIGHTED AVERAGE CARBON INTENSITY

WACI means tonnes of carbon dioxide equivalent (tCO2e) per €m revenue

ISIF WACI BY SECTOR CONTRIBUTION AS AT END 2021

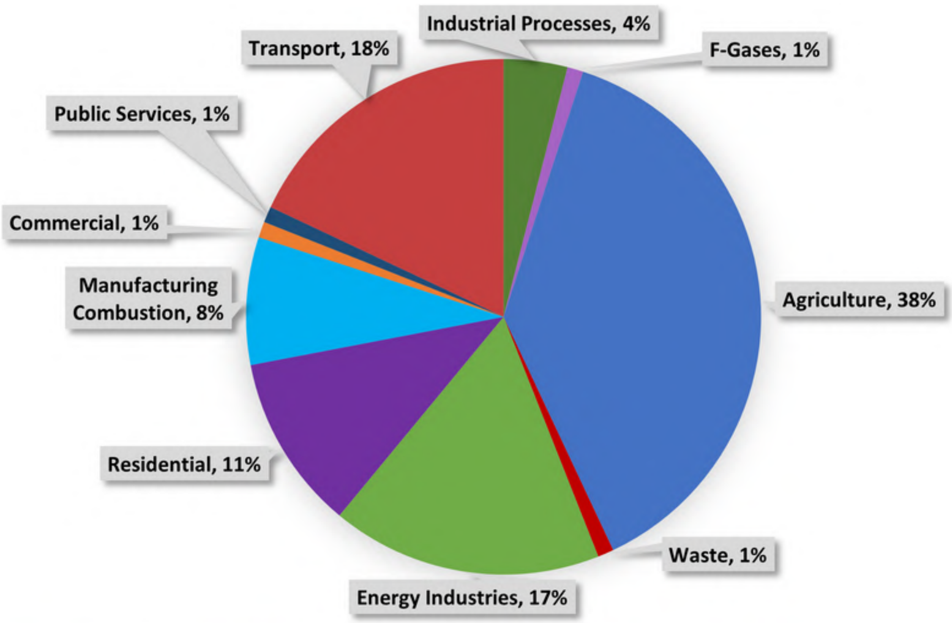


- ISIF's Irish portfolio WACI as of 31 December 2021 is estimated to be c. 335 tCO2e per €m revenue. All Irish companies are assessed on scopes 1, 2 and upstream scope 3. (See Appendix for further information.)
- The WACI is an additional whole of portfolio overlay metric based on the modelled carbon intensity metrics.
- ISIF aims to reduce the WACI over time but has not yet set explicit targets due to the current modelled nature of this calculation.
- 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 industries contributes to the overall portfolio result.

ISIF'S SECTOR EMISSIONS MIX IS DIFFERENT TO IRELAND'S SECTOR MIX

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

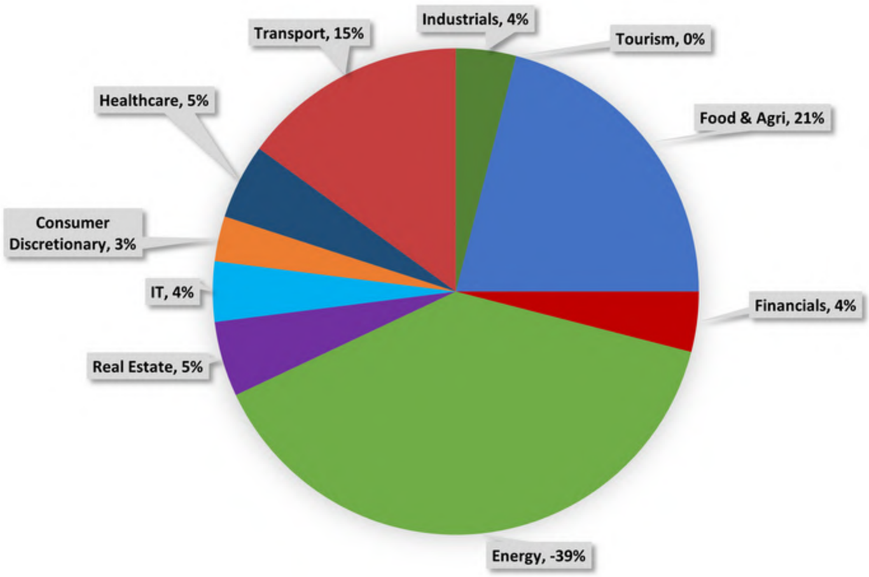
IRELAND EMISSION MIX - 2021



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

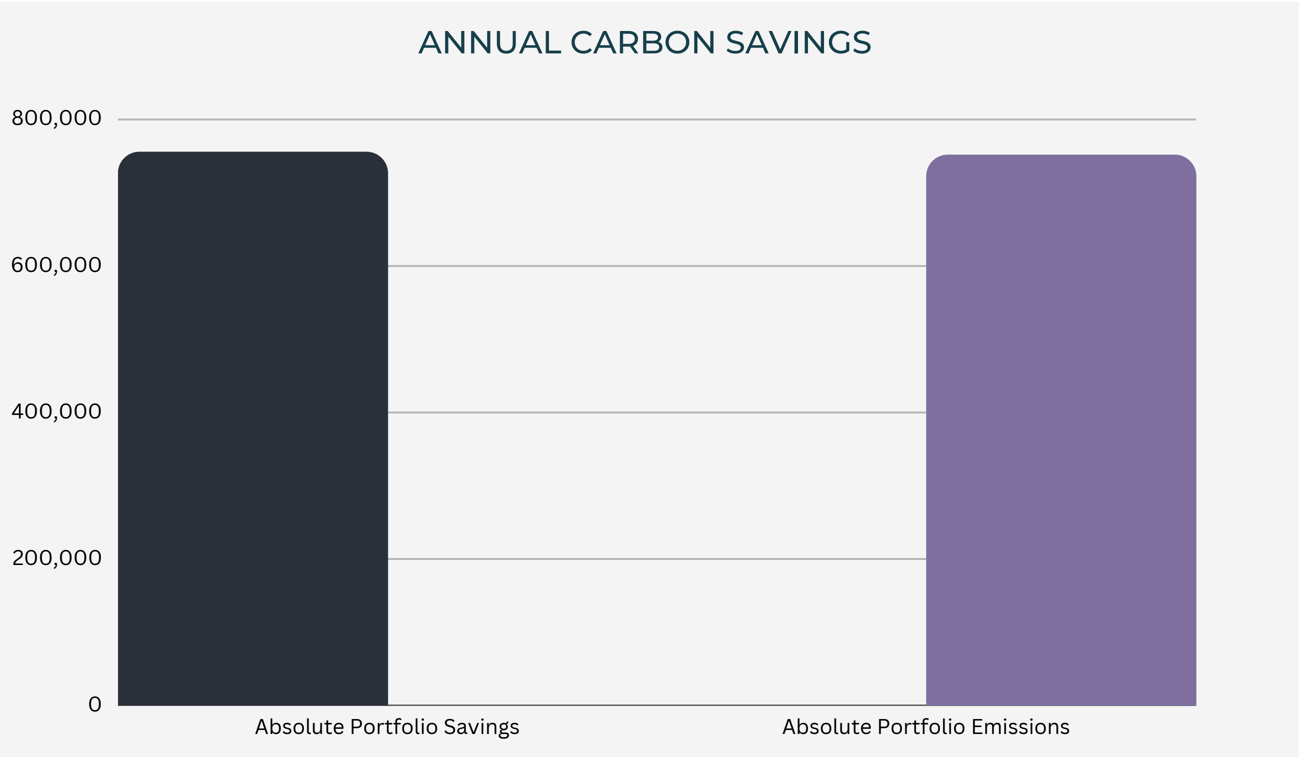
Similarly, transport and food and agriculture are the highest emission sectors in which ISIF invests. However, ISIF's energy investments are net negative emitters.

ISIF ABSOLUTE EMISSIONS MIX - 2021



MEASURING AVOIDED EMISSIONS OR CARBON SAVED

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



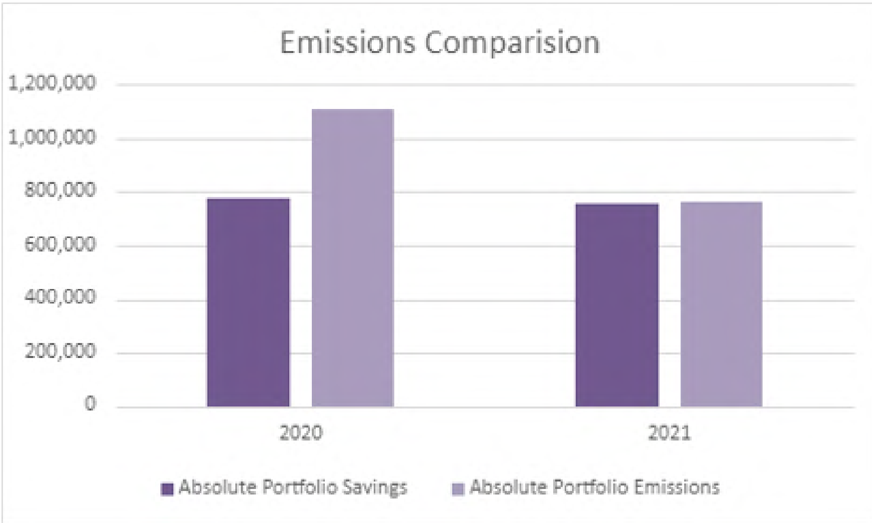
Key Performance Indicators

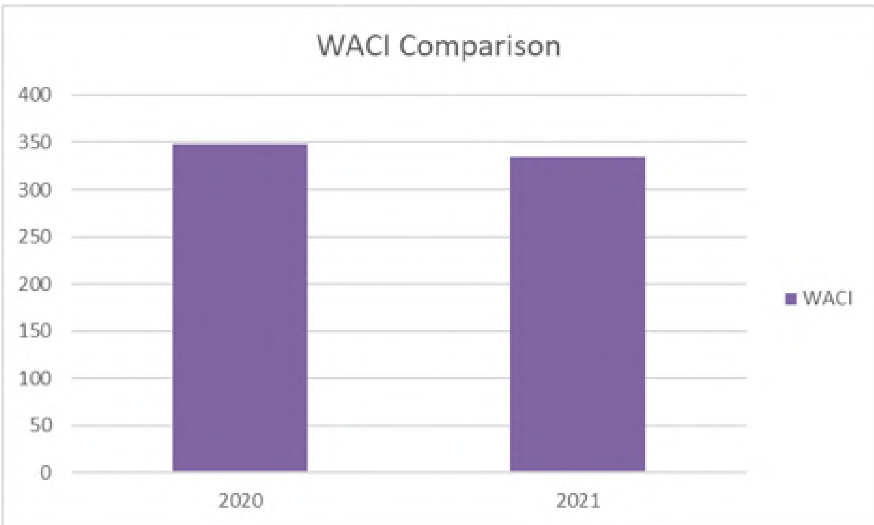
- Total carbon savings from renewable technologies in 2021 equated to c. 754k tCO_2e.
- This equates to 99% of the estimated total carbon emissions from ISIF investees in the portfolio (at year-end 2021).
- At a high level, these figures help provide some further context to ISIF's positive climate journey alongside its carbon footprint.
- Carbon savings have been achieved entirely through wind generation.
- 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.

ISIF TRENDS 2020 V 2021

- The ISIF Irish portfolio WACI as of 31 December 2021 is estimated to be c. 335 tCO_2e per €m revenue compared to c. 348 tCO_2e per €m revenue in 2020. Lower-than-expected emissions from several investees primarily drive this 3.8% reduction.

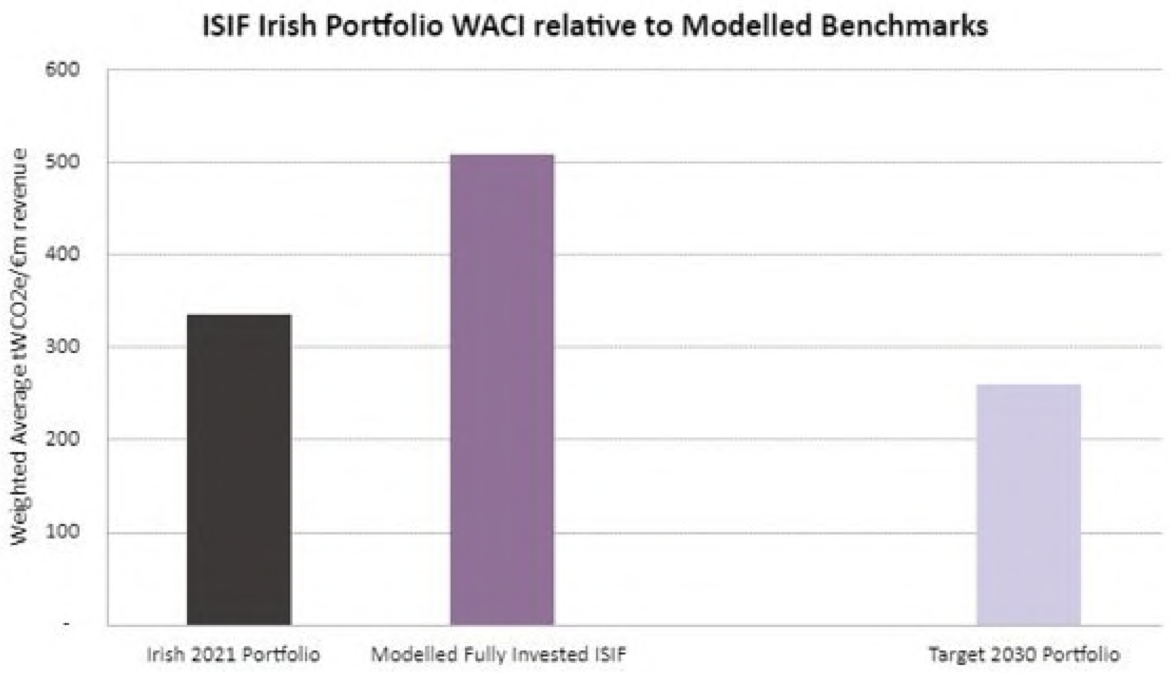
- The drop in absolute emissions from c.1,100k tCO_2e in 2020 to 763k tCO_2e in 2021 is due to the exits from the portfolio and lower than expected emissions from some investees.





HOW DOES A WACI OF 335 TCO2 PER €M REVENUE COMPARE?

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



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 currently targeted sector exposure and estimated sector emissions intensity (Scope 1, 2 & upstream Scope 3).

Setting an appropriate emissions reduction target for ISIF's portfolio in line with the 51% target emission reduction at the 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 will align its sectoral emission targets with those set out by Carbon Budgets and the new Climate Action Plan 2021 as applicable to its mandate.
- ISIF will revise the 2030 target to reflect these developments and ISIF's sectoral exposure compared to the broad sector mix of the Irish economy.

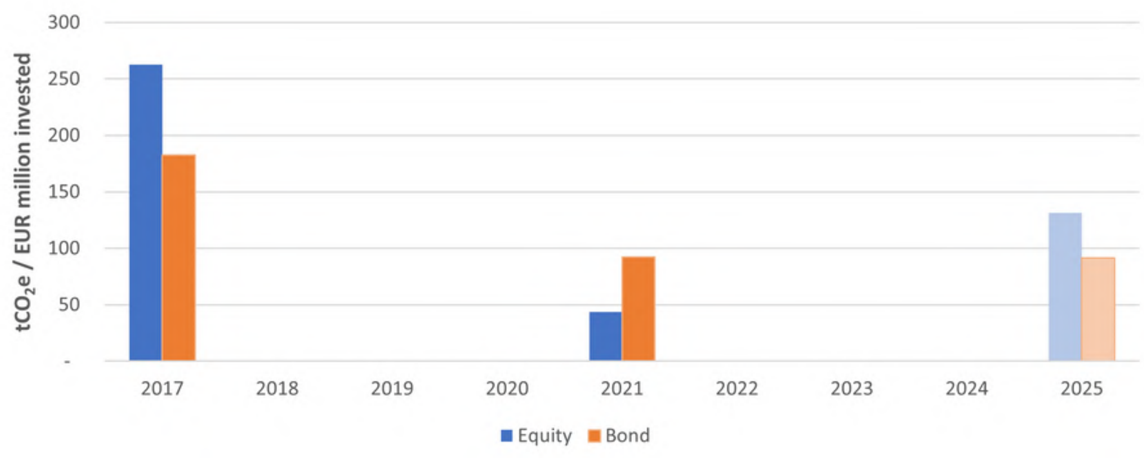
GLOBAL PORTFOLIO CLIMATE ANALYTICS

ISIF measures and monitors climate risk within the Global portfolio, looking at various metrics, including carbon intensity and how the portfolio performs in specific scenarios. The results show that ISIF has made significant progress towards its goals.

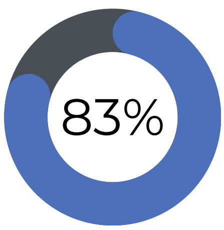
EMISSIONS INTENSITY REDUCTIONS TARGET OF 50% REDUCTION BY 2025

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

31 DECEMBER 2021

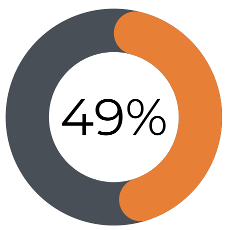


Progress since 2017 largely due to Fossil Fuel Divestment and material emission reductions in some sectors such as materials and utilities in recent years.



EQUITY PORTFOLIO

ISS ESG



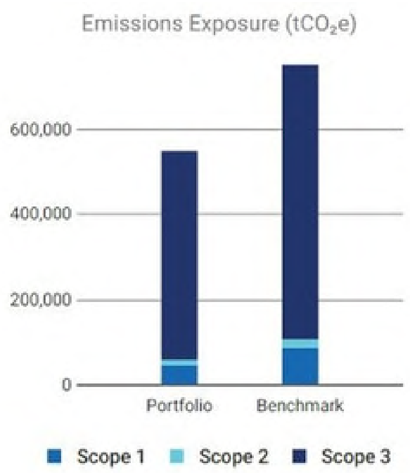
BOND PORTFOLIO

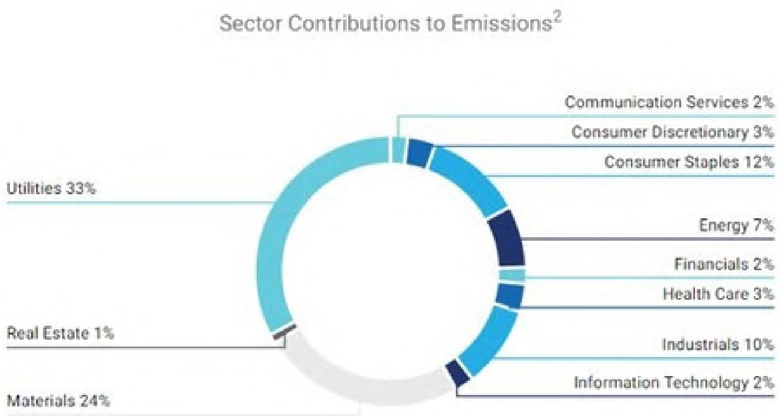
The strategy for ISIF's Global portfolio was recently reviewed, resulting in significant changes since year-end 2020. The revised strategy has a stronger emphasis on Climate. Also, it includes an allocation to a climate thematic strategy or solution to help advance the global climate transition to achieve Net Zero emissions by 2050.

GLOBAL EQUITY PORTFOLIO AS OF 31 DECEMBER 2021

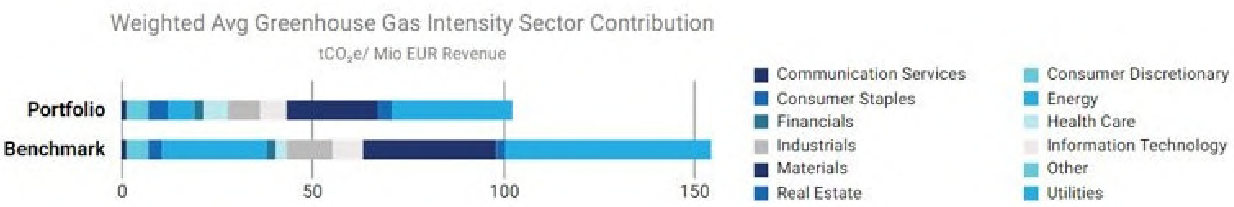
Emission Exposure and Intensity Analysis

ISS ESG





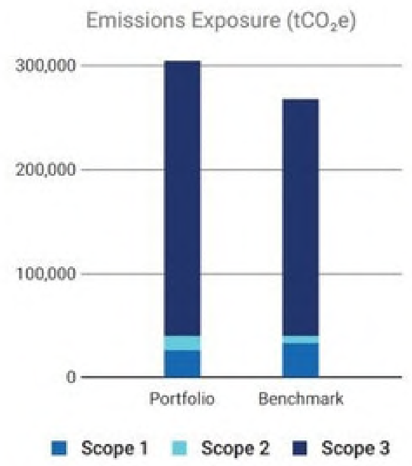
[1] Note: Carbon Risk Rating data is current as of the date of report generation.
[2] Emissions contributions for all other portfolio sectors is less than 1% for each sector.

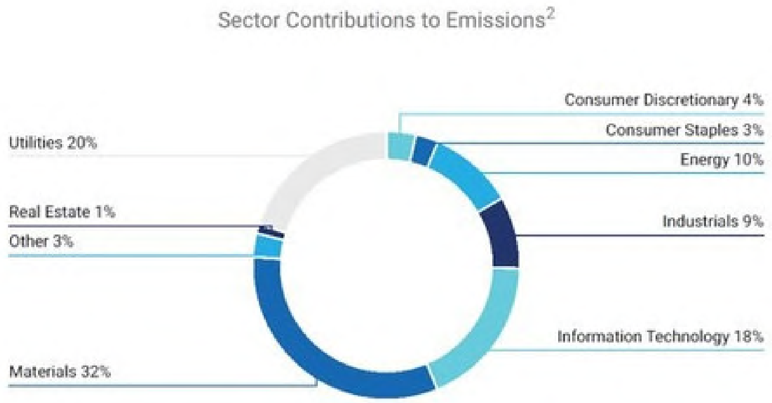


- Data from the December 2021 NTMA Debt Climate Impact Assessment Report produced by ISS ESG.
- The benchmark for the Equity portfolio is the iShares MSCI ACWI ETF.
- Emissions contributions for all other portfolio sectors are less than 1% for each sector.
- Climate Metrics within the global portfolio have been impacted by a combination of structural changes within the Global portfolio as part of a Strategic review and analytical and methodological updates as the industry continuously improves its climate analytic capabilities.

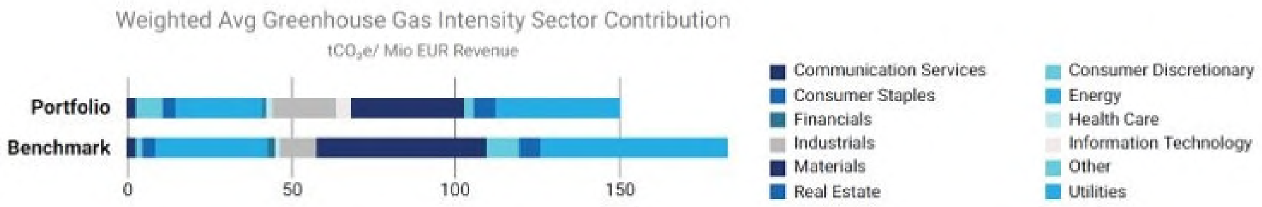
GLOBAL BOND PORTFOLIO AS OF 31 DECEMBER 2021

Emission Exposure and Intensity Analysis





[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.

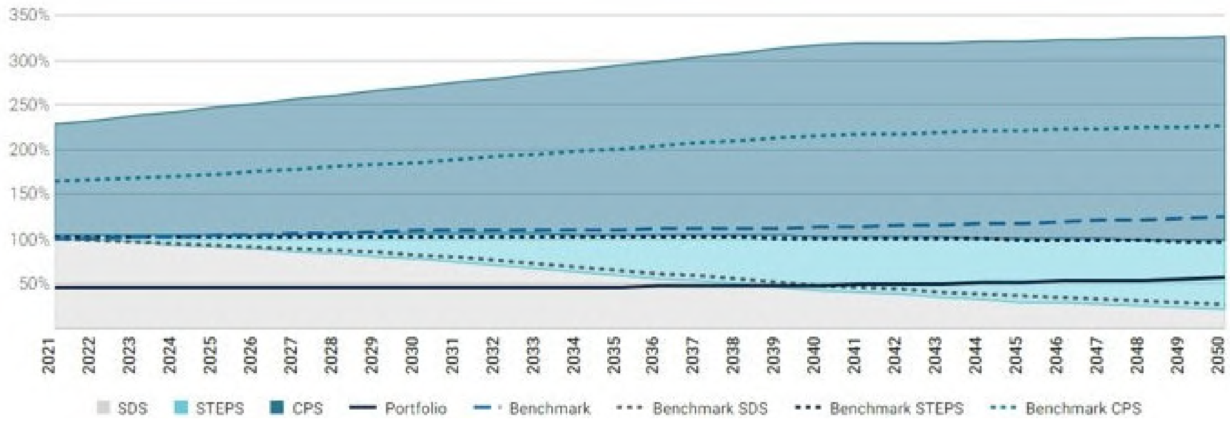


- Data sourced from the Dec 2021 NTMA Debt Climate Impact Assessment Report produced by ISS ESG.
- The benchmark for the Bond portfolio is the iBoxx Euro Corporate Overall Total Return Index.
- Emissions contributions for all other portfolio sectors are less than 1% for each sector.
- Climate Metrics within the global portfolio have been impacted by a combination of structural changes within the Global portfolio as part of a Strategic review and analytical and methodological updates as the industry continuously improves its climate analytic capabilities.

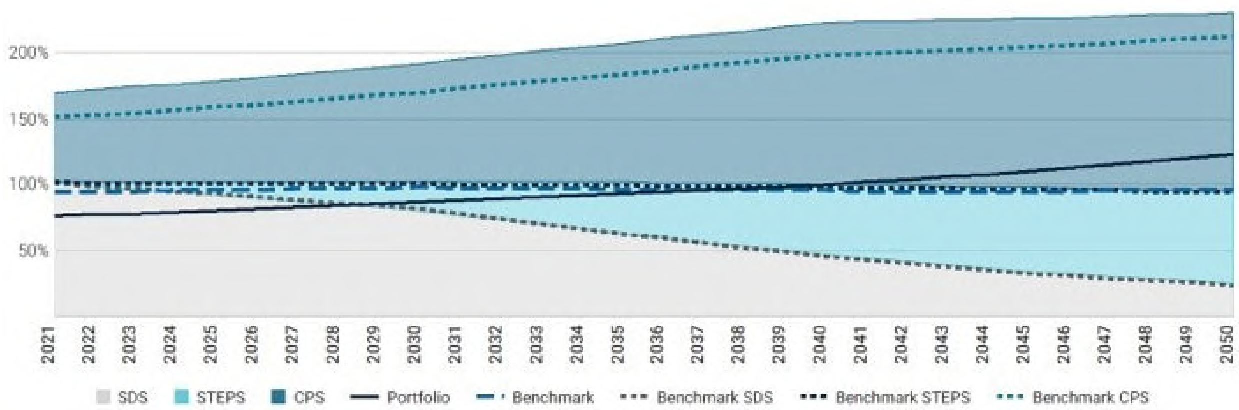
MODELLING FORWARD LOOKING CLIMATE RISK WITH SCENARIO ANALYSIS

ISIF's Global portfolio transition risk is significantly lower than the 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

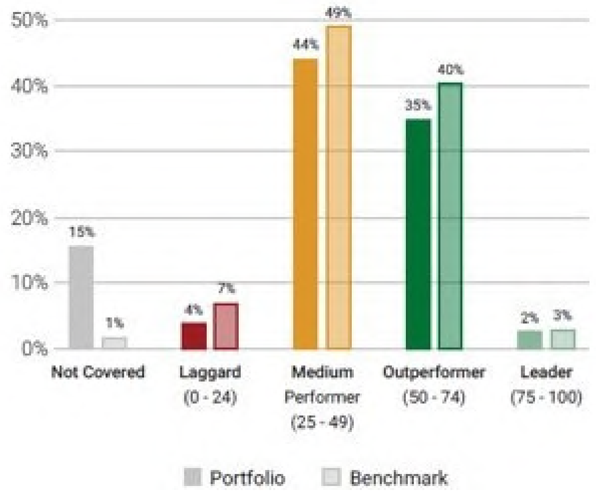


- The scenario alignment analysis compares current and future portfolio greenhouse gas emissions with the carbon budgets for the IEA Sustainable Development Scenario (SDS), Stated Policies Scenario (STEPS) and the Current Policies Scenario (CPS). Performance is shown as the percentage of the assigned budget used by the portfolio and benchmark.
- Climate Metrics within the global portfolio have been impacted by a combination of structural changes within the Global portfolio as part of a Strategic review and analytical and methodological updates as the industry continuously improves its climate analytic capabilities.
- ISIF Equity portfolio remains within its SDS emissions budget until 2039, with a potential temperature increase of 2° C by 2050.
- While the Corporate Bond portfolio remains within its SDS emissions budget until 2029, with a potential temperature increase of 2.8°C by 2050.
- TCFD recommend assessing the resilience of the organisation's strategy by considering 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 its continuous improvement.

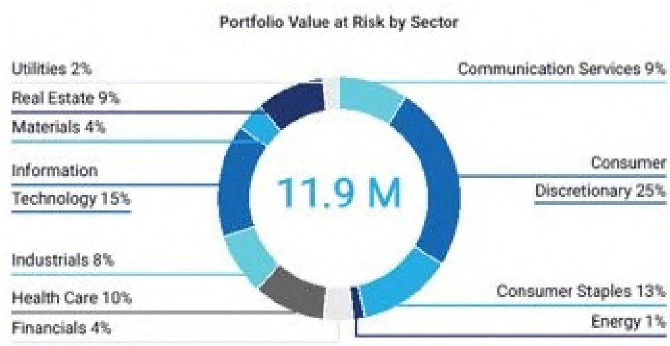
TRANSITION AND PHYSICAL RISK ANALYSIS

Forward looking climate risk analysis

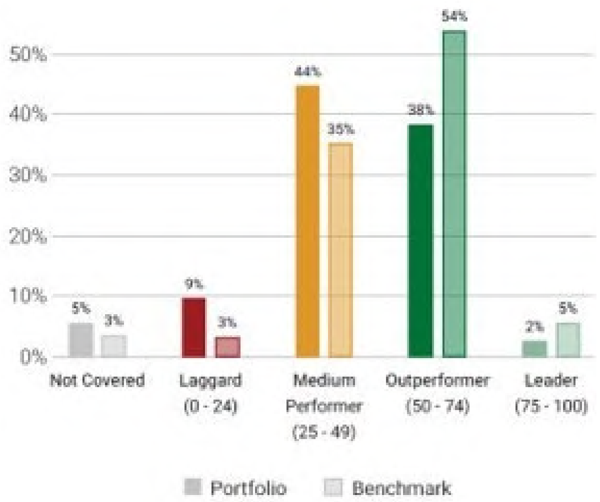
GLOBAL EQUITY PORTFOLIO TRANSITION RISK RATING



GLOBAL EQUITY PORTFOLIO PHYSICAL RISK



GLOBAL BOND PORTFOLIO TRANSITION RISK RATING



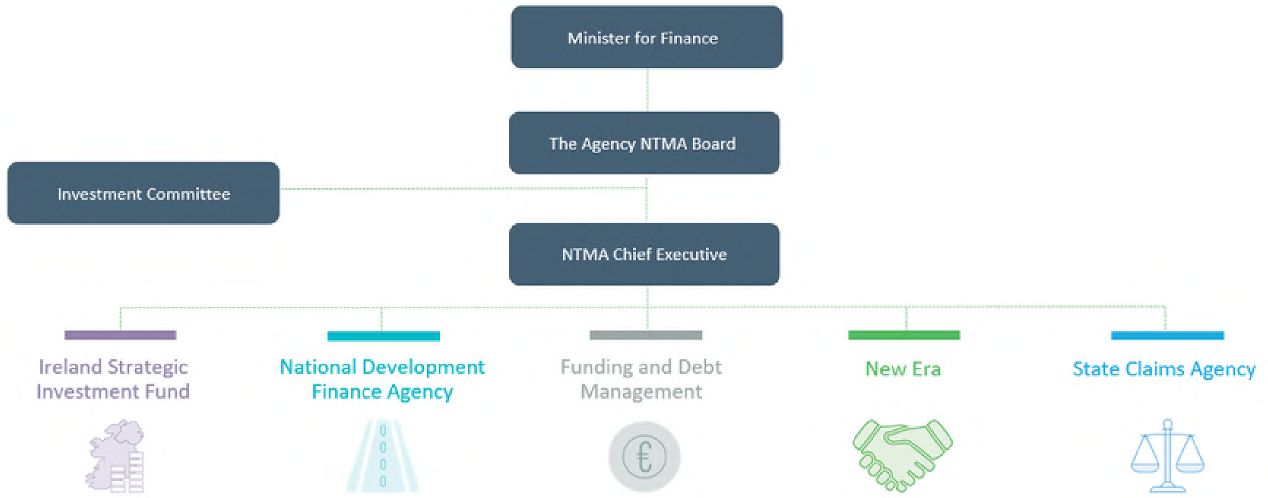
GLOBAL BOND PORTFOLIO PHYSICAL RISK

- The Carbon Risk Rating quantifies the company's exposure and management of material carbon issues in its operations, products, and services.
- It provides insights into how issuers are prepared to transition to a low-carbon economy. It is a central instrument for the forward-looking analysis of carbon-related risks at portfolio and issuer levels.
- 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 quantify the potential financial implications on a sector level.
- Such financial implications from the physical effects of climate change can be addressed by adopting appropriate risk management strategies.

APPENDICES

ABOUT US - IRELAND STRATEGIC INVESTMENT FUND

The NTMA controls and manages the Ireland Strategic Investment Fund (ISIF), which has a statutory mandate to invest on a commercial basis in a manner designed to support economic activity and employment in the State.



The Ireland Strategic Investment Fund is a sovereign development fund with a unique mandate. ISIF's mandate is to invest on a commercial basis to support economic activity and employment in Ireland. Its predecessor was the National Pensions Reserve Fund (NPRF). The Fund is a strategic investor with strong connections in both the public and private sectors. The Fund is uniquely positioned to make connections and drive innovation across multiple industry players developing and delivering innovative opportunities that might otherwise go unrealised.

The ISIF is comprised of the Discretionary portfolio and the Directed portfolio. The Discretionary portfolio 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 Directed portfolio – primarily public policy investments in AIB Group plc (AIB), Strategic Banking Corporation of Ireland (SBCI) and HBFI – continues to be held within the ISIF under direction from the Minister for Finance.

ISIF prioritises the use of its capital and resources to address strategic challenges. ISIF focuses on transformational investments across its impact themes of Climate, Housing and Enabling Investments, Indigenous Businesses, and Food and Agriculture. In addition, ISIF can invest in National and Compelling investments in response to future macro events.

CARBON METRICS

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).

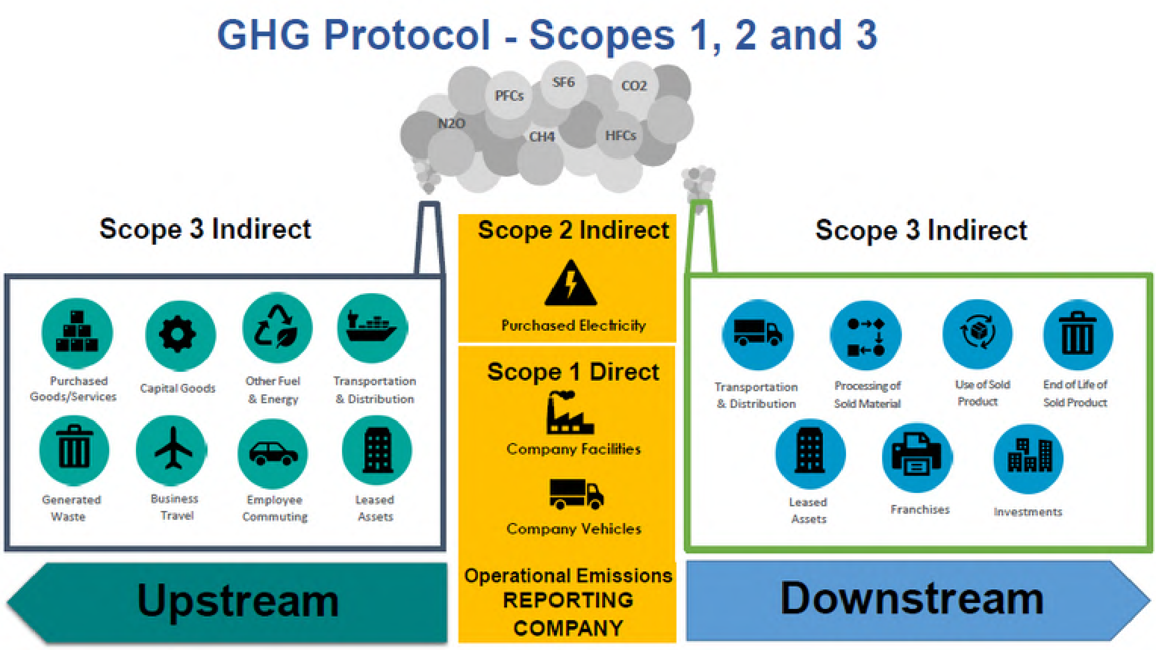


IMAGE SOURCE: © CLEARSTREAM SOLUTIONS 2022

- 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.

Note: Description of GHG Emissions Scopes are as per the GHG protocol guidance https://ghgprotocol.org/

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 CO2e.	∑ (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 CO2e/€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 CO2e/€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 CO2e/€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.

Gníomhaireacht Bainistíochta an Chisteáin Náisiúnta
National Treasury Management Agency

Ciste Infheistíochta Straitéisí d'Éirinn
Ireland Strategic Investment Fund

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