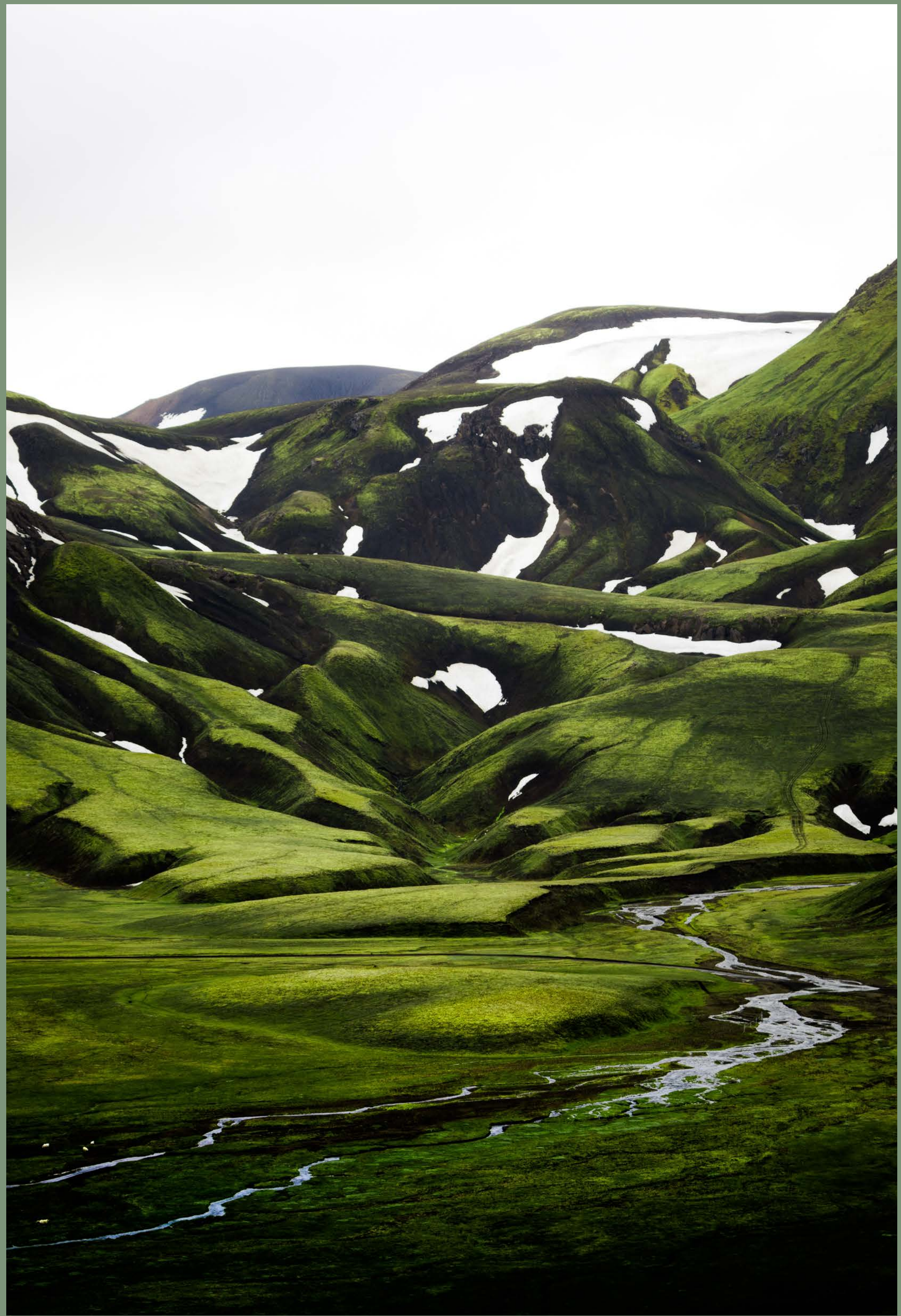
Annual Impact Report
Jan – Dec 2022

WHEB

The age of adoption

whebgroup.com



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A note on data

The data provided in this report was collected during March and April 2023 and covers the period 1 January – 31 December 2022. In certain cases where companies had yet to report 2022 data, we have used data from the prior year. The content and data in this report were correct as at 31 December 2022 and have not been updated since.

Executive summary

WHEB is an investment business on a mission. In this report we set out how in 2022 we have further embedded our mission and values in our business activities. This work alongside our wider governance and polices sets the foundation for our investment activities across an expanding fund range – bringing our investment strategy to a growing range of end-markets. This work is summarised in **Section 1** of this report.

As an impact investor, WHEB's investment strategy delivers positive impact in the real world in two ways. The first is through the processes we use to select and invest in businesses selling products and services that then deliver positive change to a variety of social and environmental issues. These processes enable us to invest 'intentionally' in positive impact business. They sit at the heart of what it means to be an impact investor and are described in **Section 2**.

Having made the investments, we then measure and report in **Section 3** on the associated positive impacts in the real world. Because this impact is delivered by the companies we invest in, we call this the 'enterprise impact'.

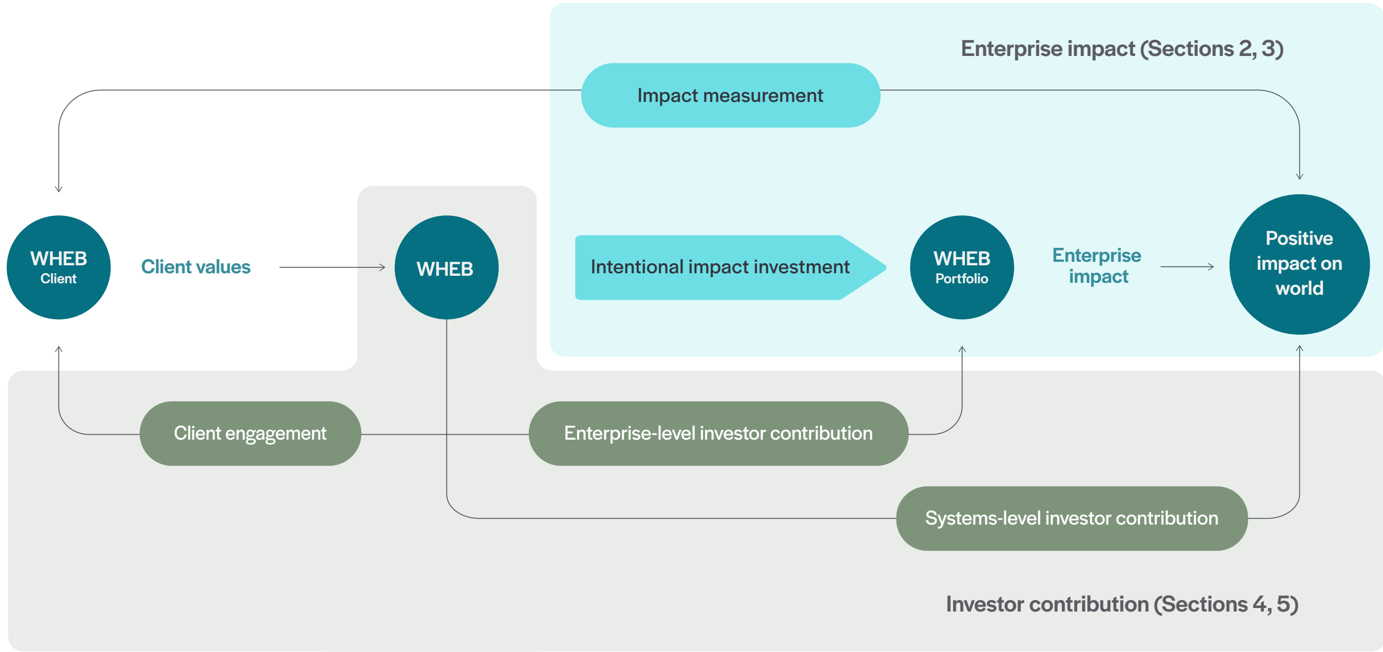
The second route is through WHEB's own 'investor contribution'. For example, we engage with companies to help accelerate the growth of their enterprise impact. We also engage with policy makers to encourage them to adopt regulations and standards that embed sustainability and that accelerate the decarbonisation of the economy. We describe these efforts in **Section 4**.

Section 5 covers the work we do to maximise the positive impact that WHEB can have in how we run our own business.

The steps we take both to support **enterprise impact** and deliver our own **investor contribution** are summarised in WHEB's impact model in Figure 1.

The final sections of the report include a statement from WHEB's independent Investment Advisory Committee summarising their work over the year and their views on the strengths and weaknesses of the report and an outlook for the coming year.

Figure 1: WHEB two routes to impact: enterprise impact and investor contribution



WHEB's commitment to sustainable and impact investing, as well as our policies, philosophy, transparency and impact, have been acknowledged with high industry ratings and awards over the past few years.

Who we are

Senior Management Team

George Latham
Managing Partner

Jayne Sutcliffe
Non-Executive Chair

Seb Beloe
Partner, Head of Research

Ted Franks
Partner, Head of Investment, Fund Manager

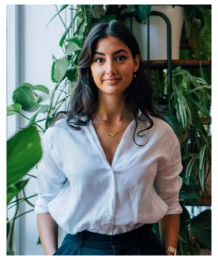
Impact Investment Team

Ben Kluftinger
Senior Analyst

Claire Jervis
Associate Fund Manager

Katie Woodhouse
Climate & Data Analyst[1]

Kavitha Ravikumar
Senior Impact Analyst



Rachael Monteiro
Stewardship Analyst[2]

Seb Beloe
Partner, Head of Research

Ted Franks
Partner, Head of Investment, Fund Manager

Ty Lee
Associate Fund Manager

Victoria MacLean
Associate Fund Manager

[1] 50% of Katie's time is spent assisting the Operations Team.
[2] 50% of Rachael's time is spent assisting the Client Relationship Team.

Client Relationship Team

Fanny Ruighaver
Client Relationship Director Europe

George Latham
Managing Partner

Jaya Govindan
Client Services Manager

Libby Stanley
Marketing Manager (on maternity leave)

Sarah Briscoe
Client Relationship Manager

Susie Winstanley
Marketing Manager (maternity cover)

Operations Team

Danny Smith
Team Assistant

Esther Muschamp
HR Manager

Laura Grenier
Director of Operations

Sandhuni Correa
Management Accountant

Sarita Kashyap
Risk & Performance Manager

Investment Advisory Committee

Abigail Rotheroe
External Adviser

Alice Chapple
External Adviser

Carole Ferguson
External Adviser

Jayne Sutcliffe
Non-Executive Chair

Martin Rich
External Adviser

An investment business on a mission

01

Introduction

Welcome to WHEB's annual Impact Report covering 2022. We are confident that this, our ninth report, represents another step forward in terms of quality and insight. We hope that readers will find it useful and, as always, we remain very open to feedback.

2022 was a challenging year for financial markets, and particularly for those, like WHEB's, focused on delivering positive impact through global equities. The war in Ukraine has been particularly shocking and has created understandable anxiety in markets across the world. This conflict, along with supply-chain shocks, inflation and the lingering effects of the COVID pandemic served to divert attention away from the critical challenges of sustainable development.

Last year I wrote that a key focus for WHEB in 2022 would be on building a strong culture to underpin our activities and development. I am pleased to report that the team has made substantial progress in this respect. Notable achievements were a clear set of values that support our mission and a deferred equity plan for team members.

Through the year the Impact Investment Team has focused its time on identifying critical new trends in the sustainability agenda and in investing in the companies helping to solve these challenges. This report provides a high-level summary of this work – and the resulting impact. But more detailed commentary on everything from heat pumps to haematology is regularly published on our website (🌐 **whebgroup.com/our-thoughts**).

During the year we have also redoubled our investment in WHEB's team. We have extended the range of resources available to the Impact Investment Team ranging from behavioural analytics tools and expert networks to new colleagues supporting our impact research and stewardship activities. We have also scaled up our Human Resources function across the organisation.

This investment is all in service of providing our clients with higher-quality and more impactful investment solutions. The quality and ambition of WHEB's offering is reflected once more in the awards and labels that we received in 2022. Our ambition is also evident in our commitment to maintaining Article 9 status for our funds sold into Europe, and for the equivalent designation in the UK market once this is finalised.

Whether it is in responding to the UK's regulatory proposals for Sustainability Disclosure Requirements (SDR) or developments in the EU Taxonomy, WHEB is also focused on helping to build the foundations for the wider market. For a small business, we exert considerable resources engaging with regulators and policymakers as well as standard setters and other market participants. A case in point is our work with the Global Impact Investing Network (GIIN) to help shape guidance for impact investing in listed equities.[3]

As we finish the first quarter of 2023, it is clear that we can expect plenty more turbulence in financial markets. WHEB, however, remains on course in our ambition to build the highest-quality, mission-driven investment organisation.

With best wishes,

Jayne Sutcliffe
Non-Executive Chair,
WHEB Asset Management

[3] https://thegiin.org/research/publication/listed-equitiesworking-group/

WHEB as part of a broader movement

WHEB Asset Management is an investment business that serves a wide variety of clients, ranging from large pension funds and institutional investors to small retail investors. We serve these clients through our mission, which is to advance sustainability and create prosperity through positive impact investments. This mission is our 'lodestar', and together with our values, it guides our development as a business.

We are, however, part of a much broader movement encompassing our investors and peers as well as other businesses, NGOs, communities and individuals. Together we seek to fully integrate sustainability into economic systems that deliver positive social and environmental impacts at scale across the global economy.

Figure 2: WHEB's core values

Passionate about impact
Our intention is to have a positive impact on people and planet in all that we do.

Integrity
Strong ethical principles guide all areas of our work. We are honest in our approach and treat all stakeholders fairly.

Teamwork
We build relationships based on trust and mutual respect. We promote an environment that enables our team to thrive and drives client success.

Leadership
We are creating a movement for positive change, within our company and beyond.

Continuous improvement
We foster a sense of purpose and a passion for progress, and we share what we learn along the way.

One core investment process focused on delivering positive impact

We are positive impact investors, focused on the fundamental connection between long-term positive change and long-term growth. Our investment strategy is to invest in companies that enable – and thereby benefit from – the transition to a net zero carbon (NZC) economy and that protect and enhance quality of life. This core strategy underpins all WHEB's investment funds.

Figure 3: WHEB's core fund range

	FP WHEB Sustainability Fund	WHEB Sustainable Impact Fund	WHEB Environmental Impact Fund	Pengana WHEB Sustainable Impact Fund	iMGP Sustainable Europe Fund
Domicile	UK	EU	EU	AUS / NZ	EU
Sustainability classification	N/A	Article 9	Article 9	N/A	Article 9
Industry ratings and certifications[4]	CDP Climetrics Five leaves ratings / 1st quartile RSMR SRI rated fund			ERIG 1st Quartile Lonsec recommended Zenith recommended	

[4] Ratings listed here are limited to public ratings and do not include proprietary ratings issued by investment consultants.

Governance and a policy of 'radical transparency'

WHEB is intensely aware of the scrutiny that is rightly applied to products and services that claim to deliver an environmental or social benefit. It is for this reason that we have formulated a detailed set of policies to govern our investment approach and our activities as a business. We combine this with independent oversight and a policy of 'radical transparency': sharing unprecedented levels of detail about our investments, our approach and our wider business activities.

Our goal is for our clients and other stakeholders to be excited by our approach to investment and the companies that we hold in our portfolios, and to help shape a broader movement by showing leadership in our approach. Transparency is intended both to ensure alignment and strengthen this relationship with key stakeholders.

Figure 4: WHEB's governance and policies

Senior Management Team
(Non-exec Chair, Managing Partner, Head of Investments, Head of Research, Director of Operations)

Investment and Risk Committee
(Non-exec chair, Managing Partner, Risk & Performance Manager)

Impact Investment Team
(Investment Team and Impact Research Team)

Independent Investment Advisory Committee
(independent external sustainable investment experts)

Policies

Mission and values: underpinning our culture and direction whebgroup.com/about

Net zero carbon policy (operations): sets out our policy for becoming a net zero carbon business whebgroup.com/investing-for-impact/sustainability-policies

Diversity and inclusion: reinforces our commitment to providing equality and fairness to all in our employment whebgroup.com/investing-for-impact/sustainability-policies

Responsible Investment policy: covers our investment philosophy and approach whebgroup.com/investing-for-impact/sustainability-policies

Engagement policy: details our approach to engaging with portfolio companies and other stakeholders whebgroup.com/investing-for-impact/sustainability-policies

Voting policy: sets out policies for voting at company general meetings whebgroup.com/investing-for-impact/sustainability-policies

Net zero carbon policy (portfolio): sets out our policy for achieving net zero carbon emissions from our investment portfolios whebgroup.com/investing-for-impact/sustainability-policies

Investment Process document: describes WHEB's investment process and approach. Key features of the investment process document are available at whebgroup.com/investing-for-impact/how-we-invest

Investment Committee Terms of Reference

Transparency

- Annual impact report
- Quarterly investor reports
- Annual stewardship report
- Annual net zero carbon report
- Quarterly full portfolio holding information sheets
- Eurosif Transparency Code

- Triannual summary minutes

Impact intentionality

02

What intentionality means at WHEB

At the core of what it means to be an impact investor is the concept of 'intentionality'. Specifically, when making an investment, the investor needs to intend for the investment to contribute to positive impact. At WHEB, the investment rationale and the investment decision itself need to be explicitly rooted in the positive impact that the business delivers. We call this the 'enterprise impact' of the investee company, and it needs to be a central part of the investment case.

At WHEB we have identified nine investment themes that specifically target nine key social and environmental challenges. For each, we have articulated the problem that our investments are helping to solve, as well as additional detail on the specific mechanism by which they tackle the problem. Together, these nine themes reflect the 'theory of change' that shows how the products and services sold by WHEB portfolio companies connect with the problems that we are seeking to solve.

Figure 5: Applying WHEB's theory of change in practice

Two new companies purchased for the strategy in 2022 were Spirax-Sarco Engineering plc and Genmab A/S. The theory of change for these two companies is set out below.

	The global economy currently consumes resources at a rate that is unsustainable. WHEB's investment strategy invests in companies that sell products and services that provide solutions to these challenges and that protect and enhance quality of life.	
Investment theme	**Resource Efficiency** Limiting global warming to <1.5°C requires the global economy to increase energy efficiency by c.4% per year.	**Health** Preventing and treating illness and disease is central to protecting and enhancing quality of life.
	spirax sarco	Genmab
Company level	**Spirax-Sarco** operates two businesses that directly support improved resource efficiency and decarbonisation. **Steam Specialties** supplies a range of products including steam traps, control and bellow valves, and heat exchangers. Combined with a direct sales team which provides consultancy, the company enables clients to generate and use steam more efficiently. **Electric Thermal Solutions** supplies a range of electrically powered heating technologies, boilers and heat trace products that often replace fossil-powered technologies and result in lower carbon and more efficient thermal energy management for industrial purposes.	**Genmab** is a biopharmaceutical company that specialises in developing next-generation antibody-based therapies for treating cancer and other health conditions. The impact of Genmab's therapies includes complete or partial remission from cancer and reduced symptoms associated with diseases such as thyroid eye disease (TED) and multiple sclerosis (MS). The company co-develops its medicines but is currently only generating revenues from royalties linked to medicines sold by third parties.
KPIs	**tCO_2e avoided** In 2021[5] the company's Steam Specialties business helped avoid 18MmtCO_2e.	**No. of people benefiting from healthcare** Data is only available for Genmab's cancer therapies, which were used to treat over 37,000 patients in 2021.[6]

5. 2022 data was unavailable as of April 2023.
6. Ibid.

Figure 8 on pages 20-21 details the nine investment themes, the related problems, and the solutions that we invest in. The table also lists out the complete set of companies that WHEB holds across its fund range[7] and the KPIs that are tracked to ensure that real-world impacts are occurring in line with the investment objectives.

As an impact investor, WHEB has developed a systematic approach to assessing the impact 'intensity' of different products and services. This tool, which we call the 'Impact Engine' (see Figure 6), provides us with a basis on which to compare the positive impact of companies doing very different things, from developing life-saving cancer therapies to supplying solar modules and wind turbines. By enabling a systematic approach to comparing companies, the Impact Engine enables the Impact Investment Team to make structured decisions about which companies to include in our investment portfolios, taking into account risk, return and impact. Further details on how we assess different portfolio companies is available at **www.whebgroup.com/investing-for-impact/our-portfolio**

Figure 6: The Impact Engine – assessing product and service impact

The impact engine assesses the impact 'intensity' of products and services across three dimensions. Each dimension is assessed based on two subsidiary questions. Detailed guidance has been developed by WHEB to help the analyst team make repeatable and systematic assessments across a vast array of different products and services. Further detail on the methodology is available at **www.whebgroup.com/investing-for-impact/our-portfolio**

[7] Holdings were correct as of 31/12/2022.

The impact assessment is complemented by an analysis of the 'fundamental quality' of each business. This incorporates the analysis of the environmental, social and governance (ESG) management and performance as part of a detailed assessment of the fundamental quality of the company, covering market attractiveness, competitive position, value-chain analysis, management quality and growth strategy. We publish and regularly update an impact 'map' plotting the position of each company in the strategy. The fundamental quality score is plotted on the y-axis while the impact score is on the x-axis. Figure 7 illustrates the portfolio for the FP WHEB Sustainability Fund at the end of 2022, highlighting the scores of companies purchased and sold during the year. We have also illustrated the aggregate impact of portfolio changes on the quality and impact scores – demonstrating a very marginal decline in impact for a much more significant improvement in fundamental quality. We sold the two lowest impact-scoring companies during the year (AO Smith and Intertek), but this was offset by sales of high impact companies where we had lost investment conviction. This included two businesses focused on elderly care LHC Group and Orpea and a generic medicine manufacturer, Hikma Pharmaceuticals.

Figure 7: The impact map of WHEB's strategy during 2022

Applying the Impact Engine: SolarEdge Technologies Inc.

SolarEdge's mission is to create a world powered by clean, sustainable energy. The company's main business is in manufacturing components such as DC optimisers. These are used on solar photovoltaic (PV) panels to increase power generation. The company also manufactures other solar-PV related components as well as energy storage products and charging equipment for battery-electric vehicles.

SolarEdge's impact score is calculated based on the scores given in the figure on the next page multiplied by the proportion of revenues coming from the relevant applications.

'As an impact investor, WHEB has developed a systematic approach to assessing the impact 'intensity' of different products and services.'

Impact Engine Question	Answer	Score	Impact Score Formula	SolarEdge Impact Score
Importance of outcomes 1. How vulnerable is the beneficary?	We consider the beneficiary to be society at large including vulnerable and secure communities.	2	(Q1 + Q2)	5
2. How critical is the outcome to the beneficiary?	Limiting climate change to less than 1.5°C is considered essential in order to ensure negative impacts remain manageable.	3		
			X	X
Changes in outcomes 3. How large is the impact compared to the baseline?	String inverters are the dominant technology and represent the baseline. On average, DC optimisers offer a modest 10-15% efficiency improvement compared to string inverters.	1	(Q3 + Q4)	3
4. How widely applicable is the product?	DC optimisers are part of electricity generating systems that are very widely applicable. However, DC optimisers themselves are generally only used on commercial and residential systems.	2		
			X	X
Contribution to outcomes 5. How central is the product impact in the outcome?	While DC optimisers are an important part of the solar power generation system, other parts are the active generation technology.	1	(Q5 + Q6)	4
6. How unique is the product contribution?	SolarEdge has a strong patent position on DC optimisers and is part of an effective duopoly in their largest market (the US).	3		
Negative product impacts	SolarEdge produce a range of electrical components that themselves use electricity and create waste electrical equipment at the end of their lives.		(not currently scored)	-
			/	
			Maximum score (216)	28 (60/216)
			X	
			Proportion of revenues	100%
			=	
			Impact score	**28%**

Figure 8: The problems we are helping to solve

WHEB Investment Theme	Education	Health	Safety	Well-being
The problem we are solving	A lack of education limits individuals' ability to access opportunities and slows social development.[9]	Preventing and treating illness and disease is central to protecting and enhancing quality of life.	Safety hazards that cause injuries or death in the home, travelling or at work.	Unhealthy lifestyles contribute to chronic diseases that account for 61% of all deaths.[10]
How companies provide solutions	– Providing education and training – Publishing and education technologies	– Cutting health costs – Enabling medical research – Providing diagnostics – Improving access to healthcare – Providing medical devices and therapies – Providing preventive care	– Ensuring that products are safe – Directly protecting people	– Providing care for vulnerable groups (eg the elderly) – Enabling good exercise and diet – Improving hearing, visual and oral health
WHEB portfolio holdings[8]	– Grand Canyon Education	– Agilent – bioMérieux – CSL – Danaher – Evotec – Fisher & Paykel – Genmab – Getinge – Globus Medical – Hamamatsu Photonics – Icon – Lonza Group – Novo Nordisk – Sartorius – Siemens Healthineers – Thermo Fisher Scientific	– MSA Safety – Intertek – Steris	– Cooper Companies – HelloFresh – Sonova
Key performance indicators	– Days of tertiary and vocational education	– No. of people benefiting from healthcare	– No. of people with improved well-being	– No. of people with improved well-being
UN Sustainable Development Goals	4 QUALITY EDUCATION	3 GOOD HEALTH AND WELL-BEING	11 SUSTAINABLE CITIES AND COMMUNITIES	3 GOOD HEALTH AND WELL-BEING

WHEB Investment Theme	Cleaner Energy	Environmental Services	Resource Efficiency	Sustainable Transport	Water Management
The problem we are solving	Limiting global warming to <1.5°C requires global power sector emissions to decline by nearly 60% by 2030.[11]	Human activities are causing loss of biodiversity that is undermining ecosystems supporting human life.	Limiting global warming to <1.5°C requires the global economy to increase energy efficiency by c.4% per year.[12]	Limiting global warming to <1.5°C requires all transport emissions to fall by 3% per year to 2030.[13]	Overuse and contamination of freshwater creates water insecurity, and 47% of the global population suffers from water scarcity.[14]
How companies provide solutions	– Reducing emissions through the use of renewable and low carbon power	– Increasing circularity in material use – Developing more sustainable materials – Reducing pollution – Carrying out environmental consulting and monitoring	– Making buildings more efficient – Making manufacturing more efficient – Making energy efficient products	– Reducing emissions per km travelled through mass transit – Reducing emissions by using electric vehicles	– Increasing the efficiency of water use – Treating and recycling wastewater
WHEB portfolio holdings[8]	– Alfen – First Solar – SolarEdge – Vestas	– Arcadis – Croda International – DSM – Lenzing – Linde – Smurfit Kappa – Sweco – Tomra Systems	– Ariston – Autodesk – Ansys – Belimo – Daifuku – Daikin – Dassault Systèmes – Hexagon – Keyence – Kion – Power Integrations – Silicon Labs – Spirax-Sarco Engineering – Trane Technologies – Trimble	– Aptiv – Infineon – JB Hunt – STMicroelectronics – TE Connectivity	– Advanced Drainage Systems – Ecolab – Xylem
Key performance indicators	– MWh of renewable energy generated – tCO_2e avoided	– Tonnes of waste materials recycled	– tCO_2e avoided	– tCO_2e avoided	– Litres of waste water treated – Litres of water saved
UN Sustainable Development Goals	7 AFFORDABLE AND CLEAN ENERGY	12 RESPONSIBLE CONSUMPTION AND PRODUCTION	9 INDUSTRY, INNOVATION AND INFRASTRUCTURE	11 SUSTAINABLE CITIES AND COMMUNITIES	6 CLEAN WATER AND SANITATION

8. Whole strategy holdings as of 31/12/22.
9. http://eprints.gla.ac.uk/154654/
10. https://www.un.org/en/chronicle/article/lifestyle-diseaseseconomic-burden-health-services

11. https://iea.blob.core.windows.net/assets/deebef5d0c34-4539-9d0c-10b13d840027/NetZeroby2050-ARoadmapfortheGlobalEnergySector_CORR.pdf
12. https://www.iea.org/data-and-statistics/charts/primary-energyintensity-improvement-2011-2021
13. https://www.iea.org/reports/transport
14. https://www.nature.com/articles/s41545-019-0039-9

Fund performance in 2022

Our 2022 outlook, originally written in December 2021, had already started out with a gloomy prospect. By the time we had finalised our Impact Report in April, we were clear that our original forecast had not been gloomy enough. And so it transpired. 2022 was a deeply challenging year for the global economy and specifically WHEB's investment strategy. Geopolitical tensions between liberal democracies and authoritarian states finally cracked. Russia's invasion of Ukraine and the largest land war in Europe since 1945 was deeply shocking and has continued to exact a dreadful humanitarian toll. Xi Jinping's consolidation of power in China has further deepened rifts with Western-oriented economies. Two decades of uneasy but profitable openness have now come to an abrupt halt.

These challenges present a major headwind in the fight for sustainability. 2022 also presented immediate economic challenges. Energy prices rose fiercely. The global supply chain buckled, raising input prices. Labour shortages emerged in many markets. Inflation rose to record levels, prompting rapid increases in interest rates from central banks.

Against this recessionary backdrop, global financial markets contracted. There was a very marked style rotation between 'growth' and 'value' strategies. 'Growth' companies justify their valuations on future prospects. With interest rates rising, the cost of waiting for those growing profits rose, and the share prices of these types of companies consequently fell. Meanwhile, 'value' companies, which can point to near-term cash flows, came into favour.

Higher energy prices buoyed energy producers, whether renewable or fossil. Otherwise, recessionary fears benefited defensive sectors such as utilities, consumer staples and financials. Smaller or mid-sized companies also underperformed their larger peers, which are seen as a 'safe haven' in times of economic stress.

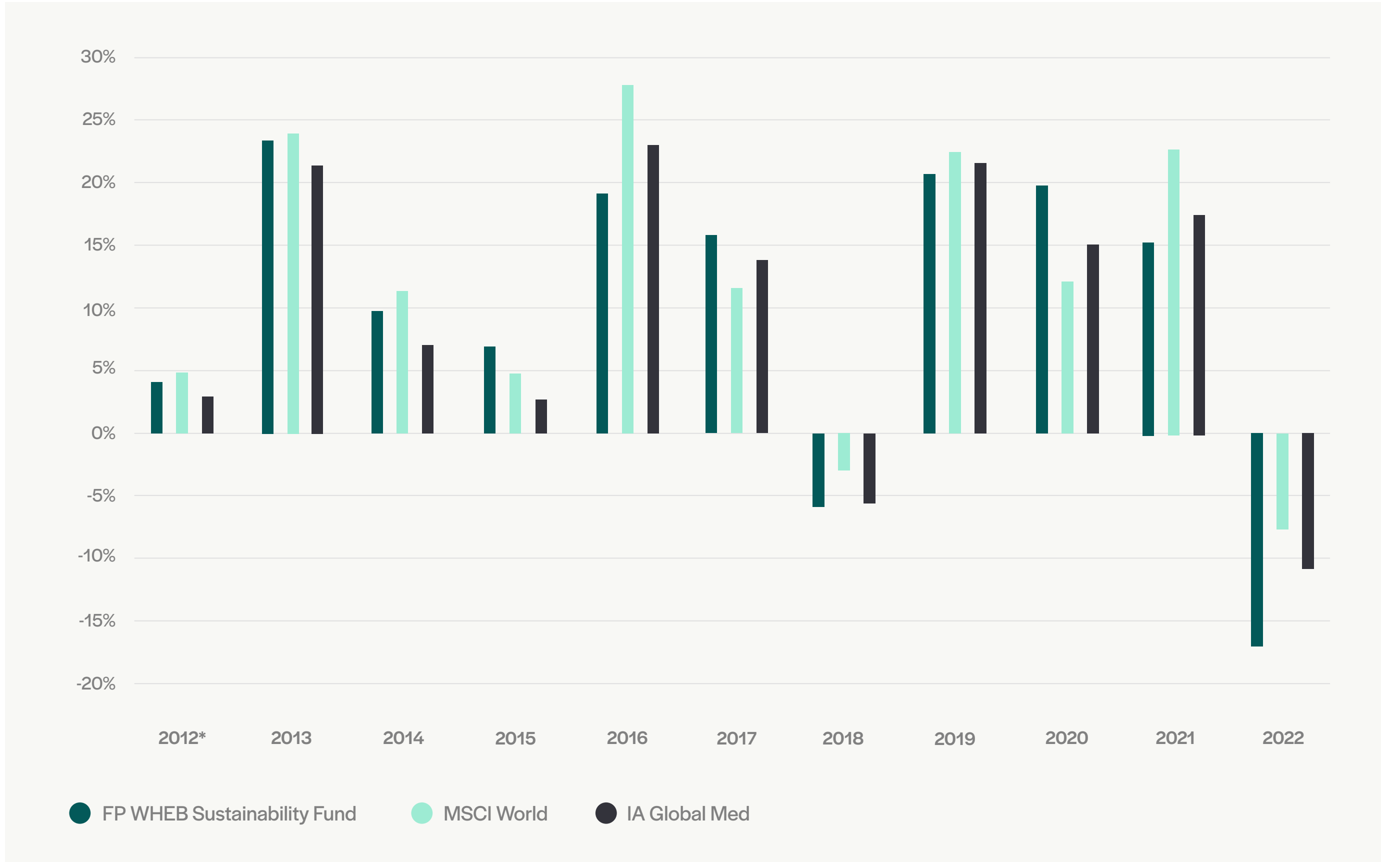
Figure 9: Fossil fuel energy dominated markets in 2022

The FP WHEB Sustainability Fund

In this market environment, the FP WHEB Sustainability Fund, our flagship UK-domiciled vehicle for WHEB's strategy, struggled for investment performance. The strategy is focused on investing in solutions to sustainability challenges. These are typically found in mid-sized businesses growing faster than the wider market. Furthermore, the strategy is entirely absent from the oil and gas sector, which was the stand-out performer of the year (see Figure 5).

Consequently, WHEB's strategy fell by more than both the IA Global Equity median and the MSCI World over the year. The worst performance in the period came from companies in the Resource Efficiency theme. These are companies with good long-term growth prospects, but they can be cyclical. In the face of falling business confidence, many of these companies struggled – including computer-aided design companies Autodesk and Ansys, semiconductor manufacturer Silicon Labs, and industrial efficiency companies Spirax-Sarco, Keyence and Daifuku.

Figure 10: FP WHEB Sustainability Fund vs IA Global vs MSCI World (2012-2022)



While companies in the Resource Efficiency theme faced falling business confidence, companies in the next-weakest theme, Well-being, suffered from pressure on consumers. This was particularly felt by the worst-contributing stock in the theme, HelloFresh.

HelloFresh is the world's leading meal kit delivery company. It provides a healthier alternative to ready-prepared food and is also helping to decarbonise the food supply chain. Despite relatively resilient underlying operational and financial performance, HelloFresh's shares were hit by fears over falling consumer spending. Nevertheless, we continue to think that the company is well placed for continued profitable growth.

Weakness in the Well-being theme was also contributed to by the poor performance of Orpea, a European care home operator. In the early part of the year, allegations emerged of poor-quality care in France. Unfortunately, these allegations, and more damagingly, management's response to them, fell far below the standard we expect of our companies, so we sold our position.

On the other side of the ledger, the best-performing theme was Cleaner Energy. First Solar, SolarEdge and Vestas in the theme all performed strongly. The war in Ukraine has further highlighted the need to move away from volatile and politically costly fossil fuels. A landmark piece of legislation from the USA, the Inflation Reduction Act (IRA), also drove strong share price performance.

The IRA was a key change in 2022 and sets the United States on the path to global leadership in the energy transition. It also ramps up pressure on other economies to follow suit. We discuss this as well as other features of our outlook in Section 7.

Enterprise impact:

How our investments contribute to sustainability

03

WHEB's investments are made with the intention of delivering a positive social or environmental impact. For the past seven years we have sought to quantify the positive impact that is associated with each of our investments and with the strategy as a whole. In previous years we have collected this data ourselves and then had it reviewed by an independent consultant. This year we have instead chosen to source impact data through a third party.[15] Entirely independent of WHEB, this group collects and/or estimates the positive impact data associated with the products and services sold by companies held in WHEB's strategy. While data is broadly equivalent, we have nonetheless restated the impact figures for 2021 in Figure 11 to make them more directly comparable to this year's numbers.

Selection of impact metrics

The impact metrics reported on the next page have been selected based on the theory of change that we have identified for each investment and the relevant UN Sustainable Development Goal (SDG) that this is related to (see Figure 8). Each indicator is aligned with the relevant SDG as well as with other commonly used metrics such as IRIS+.[16]

In 2022, overall assets under management were down on the previous year which reduced the positive impact associated with the strategy as a whole. Figure 11 on the next page provides details on the year-on-year comparison of the total impact of the strategy from 2021 to 2022.

15. https://www.netpurpose.com/
16. IRIS+ is a set of indicator metrics developed by the Global Impact Investing Network (GIIN) (https://iris.thegiin.org/).

[17] Impact figures have been restated for 2021 using the Net Purpose data set that we have started to use in 2022.
[18] The restated figure no longer includes a contribution from China Everbright Environment Group as we no longer consider waste to energy to be investable as a solution to solid waste management.
[19] This category includes people benefiting from improved hearing, visual and oral health and improved workplace safety.
[20] This figure represents the amount of money invested in R&D products and services supplied by companies in the WHEB strategy.

Figure 11: Impact associated with WHEB's investment strategy (2022)

Indicator	2021[17]	2022	Explanation
Assets under Management (AuM)	£1.6bn	£1.4bn	Lower AuM contributed to a decrease in impact figures across the strategy.
CO_2e avoided (tonnes)	331,000	271,000	Decrease also due to the sale of Wabtec (Sustainable Transport). CO_2e avoided per £1m invested fell from 231tCO_2e in 2021 to 201tCO_2e.
Renewable electricity generated (MWh)	431,000	424,000	AuM decline partially offset by new Cleaner Energy investments. MWh per £1m invested increased from 301MWh in 2021 to 314MWh in 2022.
Waste recycled (tonnes)[18]	17,000	25,000	Increased investment in Smurfit Kappa and the addition of Tomra to the portfolio boosted tonnes of waste recycled. Waste recycled per £1m invested increased from 12 to 19 tonnes.
Water treated (litres)	10.7bn	3.8bn	Substantial decline due to reduced sales by Xylem of water treatment equipment.
Water saved (litres)	0.8bn	1.5bn	Increased due to higher contribution from Xylem's smart meters. Per £1m invested, water saved increased from 550k litres in 2021 to 1.1m litres saved in 2022.
No. of people benefiting from improved healthcare	397,000	50,000	Sale of Cerner dramatically reduced numbers of people benefiting from healthcare. COVID tests no longer reported.
No. of people with improved well-being[19]	67,000	80,000	Increased due to inclusion of data from Sonova (hearing aids) and MSA Safety (equipment for workplace safety).
Education (no. of days)	266,000	104,000	Sale of Strategic Education reduced exposure to education.
US$ of R&D enabled[20]		$29,350,000	New metric covering money spent on R&D equipment and services supplied by WHEB portfolio companies to develop positive impact products and services.

The Impact Calculator

Figure 12: The positive impact associated with owning £1m in the strategy in 2022

In addition to the total impact associated with the strategy, we also report data on the positive impact that is associated with £1m invested in the strategy (see Figure 12). Figures associated with each of WHEB's investment funds is available on our website. This includes an interactive version of this calculator, which has been updated with 2022 data and is available in different currencies. **impact.whebgroup.com/impact-calculator/**

As we have previously stressed, these reported impacts cannot be equated with the personal impacts that we all have through our own daily activities. You cannot, for example, offset the negative impacts associated with an airline flight with an investment in WHEB's strategy. This is because the positive impact that is reported here is ultimately owned by the end user of the product or service in question, not by the investor in WHEB's strategy.

Even the companies we invest in do not themselves own this impact. Vestas, for example, does not 'own' the avoided carbon emissions associated with its wind turbines. Instead, the avoided emissions are correctly attributed to the end consumer of the renewable energy that is generated by the wind turbines. While the impact is not owned by the investor, by investing in Vestas, the WHEB strategy is clearly aligned with – and part of the supply chain that enables – this positive end impact. This is why we report this impact as 'associated' with the investment strategy.

Resource Efficiency

Avoiding

201 tonnes

of CO_2e emissions.

Equivalent to the energy use of 70 average European residential homes for one year and saving £7,950 in avoided carbon costs.[21]

Environmental Services

Recycling

19 tonnes

of waste materials.

Equivalent to the waste produced by 23 UK households per year, saving £1,873 in reduced landfill costs.[22]

Education

Students receiving

77 days

of tertiary and vocational education.

Cleaner Energy

Generating

314 MWh

of renewable energy.

Equivalent to the annual energy use of 21 European households.

Water Management

Treating

2.8 million

litres of wastewater.

Equivalent to the total annual wastewater generated by 27 European households.

Water Management

Saving

1.1million

litres of water.

Equivalent to the water used by 18,020 showers.

Healthcare

Providing

37 people

with improved healthcare treatment.

Well-being

Providing

60 people

with improved well-being.

R&D

$18million

spent on R&D equipment and services supplied by WHEB portfolio companies to develop positive impact products and services.

[21] Based on a weighted average global carbon price of US$47.89 per tonne.
[22] Based on a landfill tax of £98.60 per tonne of waste, which is equivalent to the UK's landfill tax in 2022.

Negative product impacts

The positive impact associated with the products and services of investee companies is a critical focus of our impact reporting. It is central to the investment case for each holding in the WHEB strategy and is the focus of our Impact Engine (see Section 2).

However, this is only a partial picture. Almost all products and services also have some negative impacts that need to be acknowledged and mitigated. As part of our impact analysis, we capture information on the key negative impacts associated with products and services supplied by investee companies. In many cases, these impacts are not routinely acknowledged by the companies themselves. Where they are acknowledged, they are typically described qualitatively. It is rare for companies to have developed clear management plans and targets on negative impacts associated with their products and services. The only exception is reporting of greenhouse gas (GHG) emissions associated with product use. There are two main types of negative impacts that we consider: product-in-use impacts and end-of-life impacts.

Product-in-use impacts

Across the portfolio there are a variety of negative impacts associated with the use of products and services provided by companies held in the strategy. These can include negative health or social impacts from faulty medical devices or the impact on employment from greater automation. One issue that we have focused on in 2022 has been the manufacture of hazardous chemicals by portfolio companies. We are working with these companies to encourage them to reduce the number of hazardous chemicals they use and the number of applications they are used in. According to the NGO ChemSec, the three companies that we own that manufacture hazardous chemicals are scored in the top half of their ChemScore analysis.[23] Two out of three have shown year-on-year improvements in their scores. We are engaging with all three to encourage further progress.

Over a third of the companies held in WHEB's strategy supply electrical equipment including automation equipment, components for electric vehicles, software tools, and heating, ventilation and air conditioning (HVAC) equipment. We invest in these businesses because their products and services avoid the emissions associated with less-efficient equipment. However, they still collectively use a lot of electricity, which in turn is linked with significant GHG emissions. As we report in our NZC report (see page 34), Scope 3 emissions (which include emissions from the use of products) increased dramatically this year, due to the inclusion of Trane Technologies and because of fuller reporting of Scope 3 emissions. Trane Technologies and Daikin Industries, both major HVAC manufacturers, together report Scope 3 emissions of over 600mtCO_2e. While emissions would otherwise have been even higher without Trane and Daikin's products, Scope 3 emissions are nonetheless increasing year-on-year and clearly represent a major challenge.

23. The three companies are DSM, Ecolab and Linde. Further details on the scores are available at https://chemscore.chemsec.org/reports/

End-of-life impacts

Given the focus on electrical equipment, a related challenge is the need to address electrical waste at the end of a product's life. This is a topic that we raise with portfolio companies and which represents an area of increasing focus for our engagement. Some companies are already well advanced in their response to this challenge. First Solar, for example, recycled 42,000t of solar modules that had reached the end of their lives, up from 36,000t in the previous year. Vestas also announced in early 2023 that they have developed a new solution that will enable them to recycle the materials used in their wind turbine blades and reuse these materials in new blades. Previously, wind turbine blades have had to be incinerated or landfilled.[24]

Other companies are reporting progress as well. For example, a key issue that we have engaged HelloFresh on has been the use of plastic packaging in their meal kits. In 2022 the company announced that they have reduced packaging weight by 12% and that plastic packaging per meal fell by 34%.[25]

Mitigating product impacts

These types of negative impacts, along with more systemic impacts, remain a key focus of our engagement activities. It is clear that individual companies are making progress on specific issues, but it is still difficult to access comprehensive data to provide a clear picture of overall trends. This is an area that we will continue to work on and we hope to provide clearer reporting in the future.

Environmental, social and governance (ESG) performance

Alongside the impact delivered through the products and services supplied by companies in the WHEB strategy, we also report here on the ESG profile of portfolio companies. The ESG issues documented here relate primarily to issues associated with company operations.

We utilise our own research frameworks to analyse ESG performance and do not rely on any third-party ESG ratings provider.[26] Over the past four years we have taken an ESG 'snapshot' of the portfolio at the end of each year across 15 ESG factors. We use data supplied by Impact Cubed for this purpose which is based on actual outcome data rather than on an assessment of company policies or declarations. The chart in Figure 13 compares the strategy's profile against that of the MSCI World, the strategy's principal benchmark. Stronger performance is shown as the lines reach closer to the outside of the diagram.

With a five-to-seven-year holding period, the overall shape of the strategy does not typically change dramatically year-on-year. This remains the case this year (see Figures 13 and 14). The proportion of the strategy invested in companies creating environmental and social good, according to Impact Cubed's definitions, has marginally increased this year, although it is substantially below the levels we believe are exposed to these areas. According to our own more detailed assessment, we believe that 100% of the strategy is invested in companies that deliver positive social or environmental impact.[27] The strategy's exposure to companies creating social or environmental harm has been entirely stable over the four years when we have done the analysis, at 0% in each category.

Compared to the MSCI World, the strategy performs dramatically better than the index on the product and service-related measures in Impact Cubed's analysis. This is consistent with the objective of the strategy. In addition, we are pleased that the broader ESG profile is also ahead of the benchmark on 9 of the 11 other dimensions. Scope 3 GHG emissions are, as expected, behind the benchmark due to investments in Trane Technologies and Daikin Industries, as explained on the previous page. Gender diversity is also behind, although much improved year-on-year: from 22% of board and senior management positions filled by women in 2021 to 26% in 2022. Both of these dimensions reflect the strategy's sectoral biases towards industrial and technology focused businesses which typically employ fewer women.

24. https://www.vestas.com/en/media/company-news/2023/vestasunveils-circularity-solution-to-end-landfill-for-c3710818
25. https://ir.hellofreshgroup.com/download/companies/hellofresh/Annual%20Reports/ENG_HelloFresh_Non-Financial_Report_2022.pdf
26. We have been critical of the use of ESG ratings. For example see https://www.whebgroup.com/wheb-insights/esg-ratings-a-quickfix-or-a-bodged-job/
27. Impact Cubed's definition of positive impact products and services is necessarily high-level and based on a company's aggregate revenue streams. In contrast, WHEB's analysis is more granular and based on an analysis of a company's actual activities.

Figure 13: ESG profile of WHEB's investment strategy

Key

MSCI World — WHEB Strategy — Society — Environment — Governance — Products & Services

Figure 14: ESG performance

Absolute change (yoy)

Proportion of data reported %

		Absolute change (yoy)	Proportion of data reported
WEIGHTED AVERAGE CARBON INTENSITY	71 tonnes CO_2e/$1m of revenue	↓	82%
SCOPE 3 CARBON EFFICIENCY	1,515tCO_2e/$1m of revenue	↑	62%
WASTE EFFICIENCY	9.57 tonnes/ $1m of revenue	↑	60%
WATER EFFICIENCY	2,000m^3 of fresh water/$1m of revenue	↑	53%
GENDER EQUALITY	26% of board and top management positions are occupied by women	↑	95%
EXECUTIVE PAY	66x ratio of executive-level pay to employee pay	↑	81%
BOARD INDEPENDENCE	79% of board members are independent	↑	97%
ENVIRONMENTAL GOOD	32% of portfolio invested in environmental solutions	↑	100%
SOCIAL GOOD	30% of portfolio allocated to help alleviate social issues	↑	100%
AVOIDING ENVIRONMENTAL HARM	0% of portfolio in environmentally destructive industries	=	100%
AVOIDING SOCIAL HARM	0% of portfolio in industries that aggravate social issues	=	100%
ECONOMIC DEVELOPMENT	$45,000 - median income of portfolio-weighted geography of economic activity[28]	↓	100%
AVOIDING WATER SCARCITY	2.5 – Geographic water use[29]	=	100%
EMPLOYMENT	5.8% – Unemployment in portfolio-weighted area of economic activity	↓	100%
TAX GAP	3% - estimated % of tax avoided by corporate tax mitigation schemes	=	100%

[28] A lower figure demonstrates that the portfolio is more exposed to activities in lower income communities.

[29] Based on the World Resources Institute scale of 0-6 from most to least water scarce areas.

Net zero carbon (NZC) report

Investing in solutions to climate change

What is it?

NZC means cutting all GHG emissions to as close to zero as possible, with any remaining emissions reabsorbed from the atmosphere, by oceans and forests for instance.[30]

Why does it matter?

In order to avoid the worst impacts of climate change and maintain a liveable planet, global temperature increase needs to be limited to 1.5°C above pre-industrial levels. The earth's atmosphere is already about 1.1°C warmer than it was in the late 1800s, and emissions continue to rise.

How does WHEB's strategy contribute to NZC?

Five of WHEB's investment themes are focused on companies that sell products or services that enable other parts of the economy to reduce GHG emissions and/or adapt to inevitable climate change. This includes companies that manufacture renewable energy equipment, components for battery electric vehicles, heat pumps and other technologies that improve energy efficiency and reduce resource use.

Figure 15: WHEB's investment themes that are focused on reducing GHG emissions

Cleaner Energy	Sustainable Transport	Resource Efficiency	Environmental Services	Water Management
– Solar power – Wind power – Cleaner energy infrastructure	– Bus, rail & bicycles – EV – EV infrastructure	– Energy-efficient products – Efficient buildings – Efficient manufacturing	– Environmental consulting & monitoring – Sustainable materials – Pollution control – Circular economy	– Efficient water use – Wastewater treatment & water provision

Together these companies help avoid GHG emissions. We aggregate the annual positive impact of these products and services, and in 2022, owning £1m in WHEB's investment strategy was associated with:[31]

Cleaner Energy

Generating

314 MWh

of renewable energy.

Equivalent to the annual energy use of 21 European households.

Resource Efficiency

Avoiding

201 tonnes

of CO_2e emissions.

Equivalent to the energy use of 70 average European residential homes for one year and saving £7,950 in avoided carbon costs.

[30] Net zero carbon is different to carbon neutral for example because carbon neutral can cover a defined part of business operations and typically accounts only for CO_2 emissions, but not other greenhouse gases. Net zero on the other hand means that a company reduces all greenhouse gas emissions across its whole supply chain.

[31] Further detail on these figures is available in section 3. Investors in WHEB's strategy are aligned with these impacts by investing in companies that form part of the crucial supply chains that manufacture these products and provide these services. WHEB's investments contribute to the attainment of the impact, however, they are not solely responsible. The impact is therefore referred to as "associated".

Portfolio greenhouse gas (GHG) metrics

Approximately 60% of WHEB's investments provide solutions to climate change. At the same time, all the investments in the strategy generate GHG emissions in their day-to-day operations. We work with the management of our investee companies to encourage them to set demanding NZC targets and then to assess these targets and monitor the absolute CO_2e reductions across the portfolio on an annual basis.

Many of WHEB's portfolio companies have announced commitments to achieving NZC emissions. Over 90% of portfolio companies with targets have already had these approved – or are committed to having them approved – by the Science Based Targets initiative (SBTi). We plan to further scrutinize the credibility of these targets in 2023.

Furthermore, the thematic structure of our strategy means that since the inception of the current investment strategy in 2012 we have been entirely absent from parts of the economy such as fossil fuel exploration and production that are most at risk from a transition to a NZC economy.

The data over the past three years across Scopes 1-3 for the FP WHEB Sustainability Fund is reported in Figure 16 below.

Figure 16: Portfolio carbon emissions 2020-2022

Indicator	2020	2021	2022	Explanation
Scope 1[32]+2[33] carbon total emissions (tCO_2e) Total amount of carbon that is associated with WHEB's investments in portfolio companies.	169,532	38,038	40,680	Small increase in financed emissions due to selling lower-emitting companies in 2022 and investing in more energy-intensive companies. Of companies held over 2021 and 2022 we saw an average increase in Scope 1+2 emissions of 4.7%.
Carbon footprint (tCO_2e/£1m invested) Total carbon emissions for a portfolio normalised by the market value of the portfolio.	161	24	30	Slight increase due to increase in scope 1 and 2 financed emissions, and small decrease in assets under management.
Carbon intensity (tCO_2e/£1m sales) Measure of average carbon intensity of investee company operations.	380	95	65	Because sales increased faster than emissions we saw an average decrease in carbon intensity at company level of $4.45tCO_2e$.
Weighted average carbon intensity (tCO_2e/£1m sales) Measure of a portfolio's exposure to carbon-intensive companies by including the portfolio weighting in carbon-intensive companies.	202	87	71	Companies which showed the greatest improvement in carbon intensity were DSM, Silicon Laboratories and ICON.
Scope 3[34] carbon emissions (tCO_2e/£1m sales) Measure of the carbon intensity of the whole value chain (incl. product) emissions.	983	991	1,515	Our investment in Trane Technologies was the main cause of the year on year increase, contributing to 50% of WHEB's financed scope 3 emissions. The remainder of the increase comes from more companies reporting more categories for scope 3.

[32] Scope 1 emissions covers emissions from sources that an organisation owns or controls directly.

[33] Scope 2 emissions includes emissions that a company causes indirectly (i.e. buying electricity).

[34] Scope 3 emissions are emissions that are not produced by the company itself, and not the result of assets owned or controlled by them. Scope 3 emissions include all sources not within scope 1 and 2 including emissions from all products still in use.

Figure 17: Top five emitting companies within WHEB's strategy (financed emissions)

TOP 5 EMITTERS	% OF SCOPE 1+2 FINANCED EMISSIONS[35]	NZC TARGET DATE	SBTI[36]
Linde	28.10%	Net zero by 2050	Yes
Smurfit Kappa	27.39%	Net zero by 2050	Yes
J.B. Hunt Transport Services	9.23%	No target set	N/A
First Solar	4.36%	Net zero by 2050	Yes
Advanced Drainage Systems	3.84%	N/A	Yes[37]

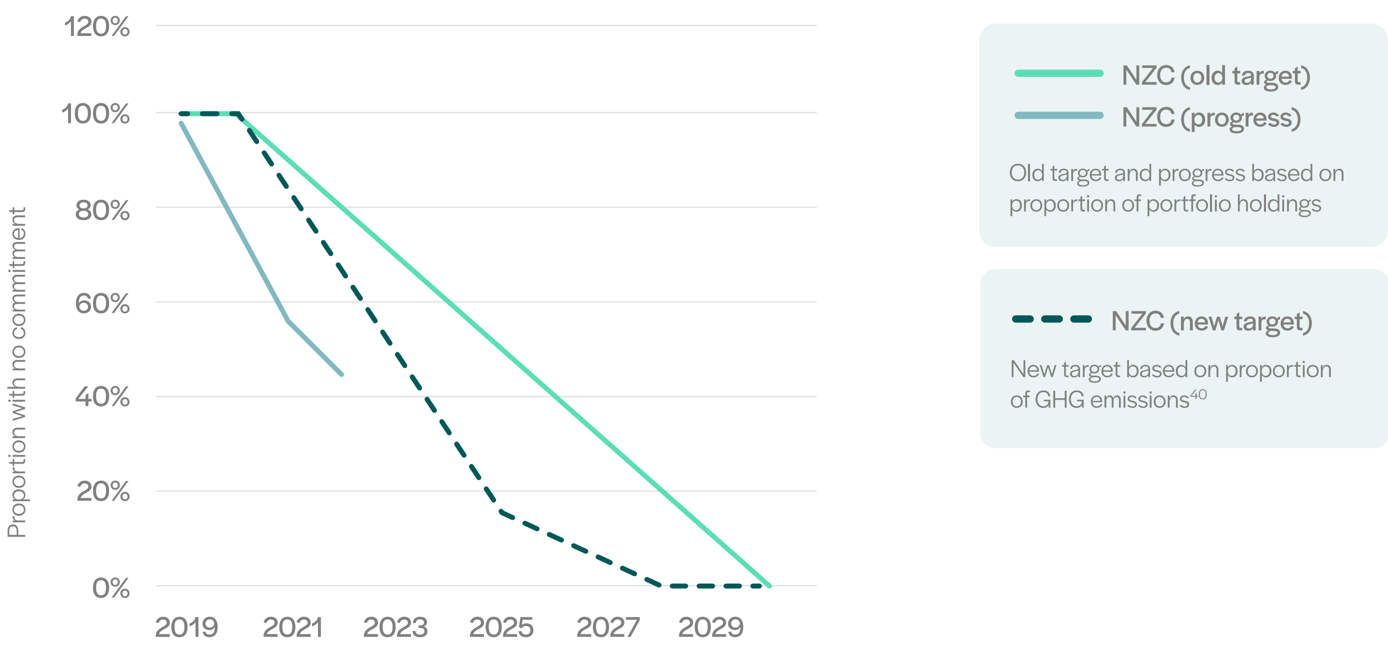
Portfolio Scope 1 and 2 emission targets and reductions[38]

The Scope 1 and 2 emissions associated with WHEB's investments (known as financed emissions) can change in two ways. First, investing in and divesting from companies will change the total tonnes of CO_2e associated with the strategy. For example, in 2021 we sold China Everbright Environment Group, which dramatically reduced our financed emissions. The second way is through actual real-world changes in annual emissions from portfolio companies. Our reporting is intended to reveal both of these dynamics, as shown in Figure 19.

In 2022 financed emissions remains well ahead of target. Actual emissions, however, ticked up 4.7% year-on-year.

Figure 18 also shows the extent to which portfolio companies have set and published NZC targets and/or absolute emission reduction targets. In 2022, three years earlier than originally expected, we achieved our original target of having more than 50% of portfolio companies committed to NZC by 2050. Consequently, we have set a new target to have 85% of portfolio emissions covered by a NZC target by 2025 and 100% by 2028.

Figure 18: WHEB portfolio NZC targets[39]



35. 'Financed emissions' refer to the emissions associated with WHEB's specific level of investment in the investee company.
36. Science-Based Targets Initiative: https://sciencebasedtargets.org/
37. Advanced Drainage Systems have committed to having a near-term target approved by SBTi.
38. We have not yet set a scope 3 emission target as the data is still too incomplete. We plan to keep this under review with a plan to set a target once data is more complete.
39. The chart purely relates to the commitments companies have made, not actual GHG reductions.
40. The new target is focused on the actual carbon emissions from the strategy (financed emissions) rather than the proportion of investments covered. This target will be more volatile as it depends on the enterprise value of the portfolio company, as well as the value of WHEB's investment in the company, both of which are constantly changing. Consequently, we use a rolling 12-month average of the financed emissions data point to provide a clearer trend.

Figure 19: WHEB portfolio emission targets & reductions[41]

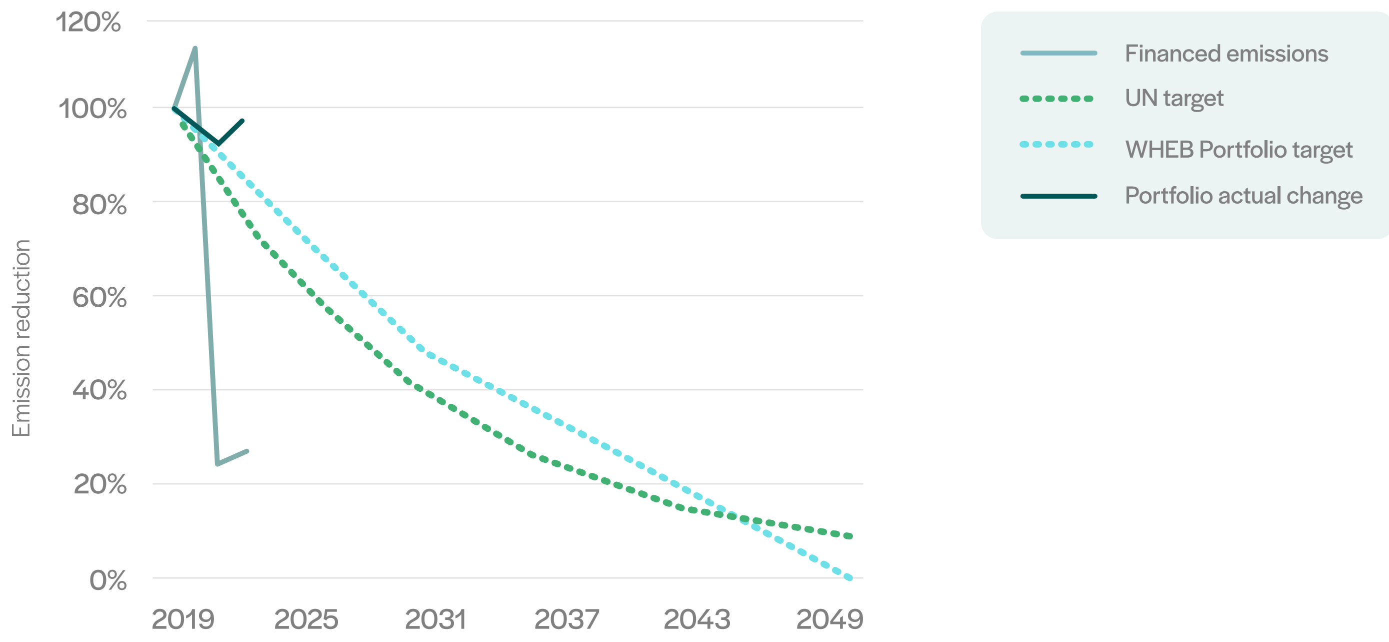


Figure 20: WHEB's portfolio carbon reduction targets

TARGET	TARGET YEAR
85% of financed Scope 1+2 emissions covered by a NZC target of 2050 or sooner	2025
100% of financed Scope 1+2 emissions covered by a NZC target of 2050 or sooner	2028
15% reduction in absolute portfolio emissions (compared to a 2019 baseline)	2025
7.6% portfolio company level absolute reductions year-on-year[42]	2030
50% reduction in portfolio carbon emissions (compared to a 2019 baseline)[43]	2030
100% reduction in portfolio carbon emissions (compared to a 2019 baseline)	2050

Fourteen companies in the strategy have not yet set a NZC target or an absolute emission reduction target. 13 of these together account for less than 4% of the strategy's total Scope 1 and 2 carbon emissions. The fourteenth is J.B. Hunt which accounts for just under 10% of total emissions. The company remains a key target for further engagement on this topic.

Memberships and affiliations

WHEB works with several investor coalitions to collaboratively engage companies, policymakers and standard setters to accelerate progress on decarbonisation. For example, WHEB was a founder member of the Net Zero Asset Managers initiative and has been a long-term supporter of the Institutional Investors Group on Climate Change.

41. The reduction seen in 2021 is due to the sale of China Everbright Environment Group which contributed 75% of the portfolio's total emissions.
42. According to the UN the economy as a whole has to decarbonise by 7.6% per year to 2030 (https://www.unep.org/news-andstories/press-release/cutglobal-emissions-76-percent-every-yearnext-decade-meet-15degc)
43. It is important to note that this does not mean that all companies across the portfolio will necessarily have achieved the target reduction in carbon emissions. It is, however, a commitment that, taking into account sectoral and geographical biases inherent in our investment strategies, emission reductions across the portfolio will be consistent with the global reduction target.

Guest interview: Avoided emissions - smoke and mirrors or the next frontier?

The concept of 'avoided GHG emissions' is central to the proposition behind the products and services of many of WHEB's portfolio companies. However, the measurement of avoided emissions is complex and contested. We spoke to Stephen Russell, Director, Climate Practice North America, at Anthesis, a global sustainability consulting firm. Stephen helps advise clients on climate strategy and was previously at the World Resources Institute (WRI), a global NGO. At the WRI Stephen was the author of a seminal paper on avoided emissions.

Stephen Russell
Director, Anthesis

Stephen, what are avoided emissions and why was it important to produce the guidance at WRI?

Avoided emissions represent the emissions benefit of a product, calculated relative to the use of an alternative product. For example, an appliance might avoid emissions if it has lower emissions across its life cycle, from raw-material extraction to product disposal, compared to some competing product that would otherwise have been used by a customer.

Unfortunately, there are no global standards for estimating and reporting avoided emissions. This has caused a lot of uncertainty about best practices, potentially exposing companies that claim to generate avoided emissions to reputational risk.

You wrote the paper in 2019; how have things developed since then?

We have obviously seen pretty dramatic progress in terms of regulatory and legislative mandates to disclose Scope 1 and 2 GHG emissions (and in some cases Scope 3) from the EU and the US as well as the UK. There has also been progress on avoided emissions. Several organisations have published frameworks on the topic, including Carbone 4[44] and Mission Innovation.[45] Most recently, this March, the World Business Council for Sustainable Development (WBCSD) and Net Zero Initiative published guidance that integrates and evolves earlier work.[46] This publication provides more granular recommendations on how to estimate and disclose avoided emissions and on when companies should not make such disclosures.

The importance of avoided emissions has been further cemented by the G7 which stressed the need to develop a 'shared international standard for measuring avoided emissions' at the leaders' Summit in Japan in May 2023.[47]

44. https://www.carbone4.com/en/publication-nzi-pillarb
45. https://misolutionframework.net/pdf/Net-Zero_Innovation_Module_2-The_Avoided_Emissions_Framework_(AEF)-November_2019.pdf
46. https://www.wbcsd.org/contentwbc/download/15909/229494/1
47. The full text of the G7 statement is available at www.meti.go.jp/information/g7hirosima/energy/pdf/Annex003.pdf

That is good to hear – we've used the Mission Innovation work as a foundational document for our approach at WHEB. As the methodologies become more established, what do you see as the value of reporting avoided emissions?

Under existing GHG reporting standards, avoided emissions cannot be included within a company's GHG footprint because that footprint is focused on the emissions from the life cycle of the company's own products. Unlike avoided emissions, Scope 1, 2 and 3 emissions are not calculated relative to the performance of alternative products on the market, so avoided emissions and Scope 1–3 emissions cannot be meaningfully compared.

Yet reporting avoided emissions can provide an important complementary perspective on the actions a company is taking to address climate change. For example, by increasing the energy efficiency of a product, a company may avoid the higher emissions associated with a competing product with lower energy efficiency. This benefit cannot be reflected in a corporate GHG inventory (and may even lead to an increase in the company's Scope 3 emissions!). More broadly, attaining a global 1.5°C target will require considerable technological innovation, and avoided emissions accounting helps us quantify the potential effects of this innovation.

Avoided emissions metrics are particularly helpful for investors looking to guide their investment strategies to fund and scale decarbonising solutions. They also enable companies to differentiate products for customers, build a brand image for the public, inform policymakers about the potential consequences of policy and regulatory choices, and guide product R&D.

And what are the key issues with reporting this kind of data?

The calculations can be quite complex. Perhaps most importantly, it is not always clear what 'baseline' a company's solution should be compared against. Should this be a conventional product, the best available technology, or something else? There may also be effects that occur outside of a product's life cycle but that are difficult to quantify. Rebound effects are a good example – a customer might save money by using a more energy-efficient machine, but then choose to use that machine more often. Finally, companies may face greenwashing risks when they market multiple products, but claim avoided emissions for just a small subset of their products. At the same time, it can be prohibitively costly to accurately estimate avoided emissions across a large product portfolio.

What is your advice to clients? Is it too early for companies to report avoided emissions?

It is not too early! Delivering on a 1.5°C global target requires accelerated innovation and clarity on avoided emissions impacts, in addition to reductions of a company's Scope 1–3 sources. We advise companies to use the most probable conservative baseline and to tailor the specificity of that baseline to their reporting objectives. For example, enabling product differentiation for customers may require a more specific baseline than early-stage product R&D assessments. We also recommend transparently reporting on the assumptions and limitations of an avoided emissions assessment.

How do you think approaches will evolve over the next few years?

Some changes in reporting practices have already occurred over the past several years as companies' understanding of the issues has matured. More companies are providing more information on how they calculate avoided emissions, while fewer companies are committing to avoided emissions targets that lack credibility. In particular, fewer companies try to compare apples to oranges by committing to avoid 'x' times more emissions than the Scope 1–3 emissions they emit. As I explained earlier, because avoided emissions are measured relative to something else, they cannot be netted off against Scope 1–3 emissions.

Looking ahead, there will undoubtedly be growing scrutiny of the credibility of avoided emissions claims. In response, I expect that additional sector-specific guidance will be developed to provide more specific direction on best practices, including on the issues I mentioned earlier. There will also be further clarification and standardisation of what information companies should include in external disclosures, including around the verification of claims and the broader scope of a company's climate change strategy. The WBCSD and Net Zero Initiative's publication provides a useful starting point for understanding existing best practices in these areas.

WHEB's investor contribution:

Stewardship and engagement

04

Our intention to invest in companies that provide solutions to sustainability challenges through their products and services (the 'enterprise impact') is central to our ambition to support positive impact in the real world. But as an impact investor, we want to do more and ensure that WHEB itself is catalysing change to advance sustainability. We call this our 'investor contribution', and it covers both stewardship and engagement as well as the direct impact of our own business activities.

Stewardship is defined as 'the responsible management of money on behalf of savers and pensioners, to create sustainable benefits for the economy, the environment and society.[48] As investors, WHEB believe we have a responsibility – and an opportunity – to advocate for progressive change at the companies in which we invest. Done well, we believe this will benefit the companies as well as society more generally. For WHEB, this is achieved through:

1) **Capital allocation decisions:** We focus on investing in solutions to sustainability challenges.

2) **Proxy voting:** We exercise our voting rights at company meetings.

3) **Company engagement:** We enter into dialogue with investee companies bilaterally and/or collaboratively, escalating where necessary.

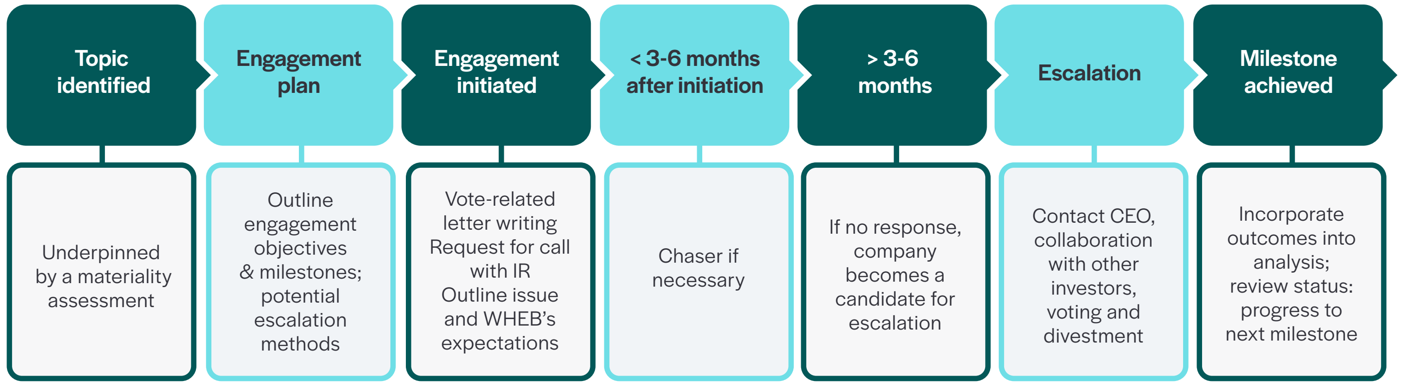
4) **Public policy and industry engagement:** We urge a greater focus on sustainability in the wider financial system, indirectly supporting positive impact businesses.

5) **Reporting:** We communicate efforts back to investors and other stakeholders.

Stewardship is firmly embedded in our investment process, which assesses investee companies' positive impact on social and environmental challenges, as defined by our nine sustainable investment themes. Engagement and voting activity with portfolio companies is undertaken directly by the Impact Investment Team and underpinned by our views on the materiality[49] of key sustainability issues for the investees business. Our focus is on engagement that underpins the long-term success of the businesses that we invest in.

48. https://www.frc.org.uk/getattachment/5aae591d-d9d3-4cf4-814ad14e156a1d87/Stewardship-Code_Dec-19-Final-Corrected.pdf
49. Our views on the materiality of sustainability issues for different business activities are informed by guidance from the International Sustainability Standard Board and other relevant guidance.

Figure 21: WHEB's stewardship process supports improvements in company strategy and performance

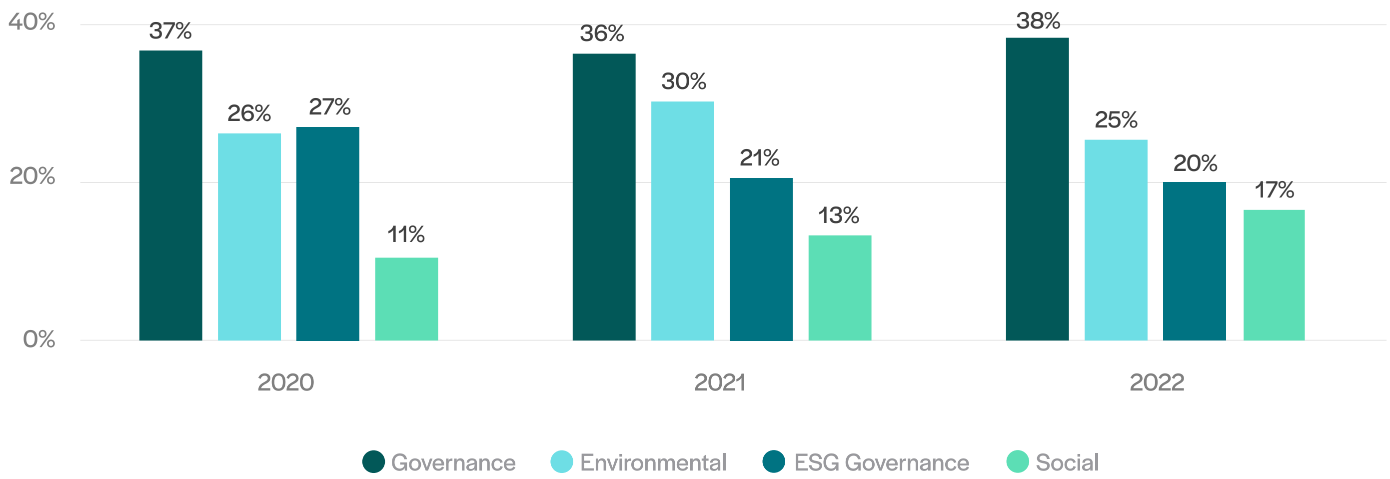


Engagement activity in 2022

During 2022, we engaged over 200 times with 42 companies, representing 62% of all companies held in WHEB funds throughout 2022. This is a near doubling of the number of engagements year-on-year, driven in part by the increased number of companies held in WHEB's portfolios and a larger Impact Investment Team at WHEB.

WHEB's approach involves a combination of proactive and reactive engagement. The objective of our engagement is also often a combination of information-seeking and encouraging long-term behavioural change in investee companies.

Figure 22: Engagement topics 2020–2022



As in previous years, in 2022 Corporate Governance issues continued to be a key focus of WHEB's engagement with investee companies. This includes a focus on executive remuneration. In the US, in 2022, the gap between CEO and median worker remuneration increased to 324x in 2022 up from 299x in 2020.[50]

Efforts on Environmental issues were also significant, due to our NZC commitments, involvement with investor initiatives on hazardous chemicals and ramping up of work on biodiversity. Similarly, gender diversity continues to be a focus of our engagement on Social issues. As in previous years, we have monitored our engagement specifically on the governance of ESG issues. This year, the key issue was sustainability criteria in executive compensation.

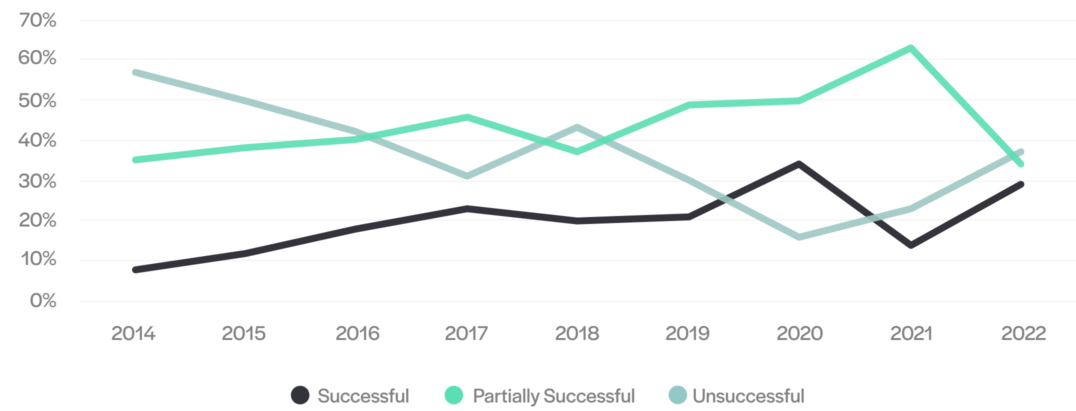
We also engaged extensively with investee companies on the impacts of their products and services. This cuts across both our Social and Environmental themes. Engagement was broadly in line with geographical exposure.

[50] The average pay of the 100 Most Overpaid CEOs as tracked by As You Sow was $38,192,249, up 30.6 percent from last year's average of $29,233,020. https://www.asyousow.org/report-page/the-100-most-overpaid-ceos-2023

Effectiveness, objectives and milestones

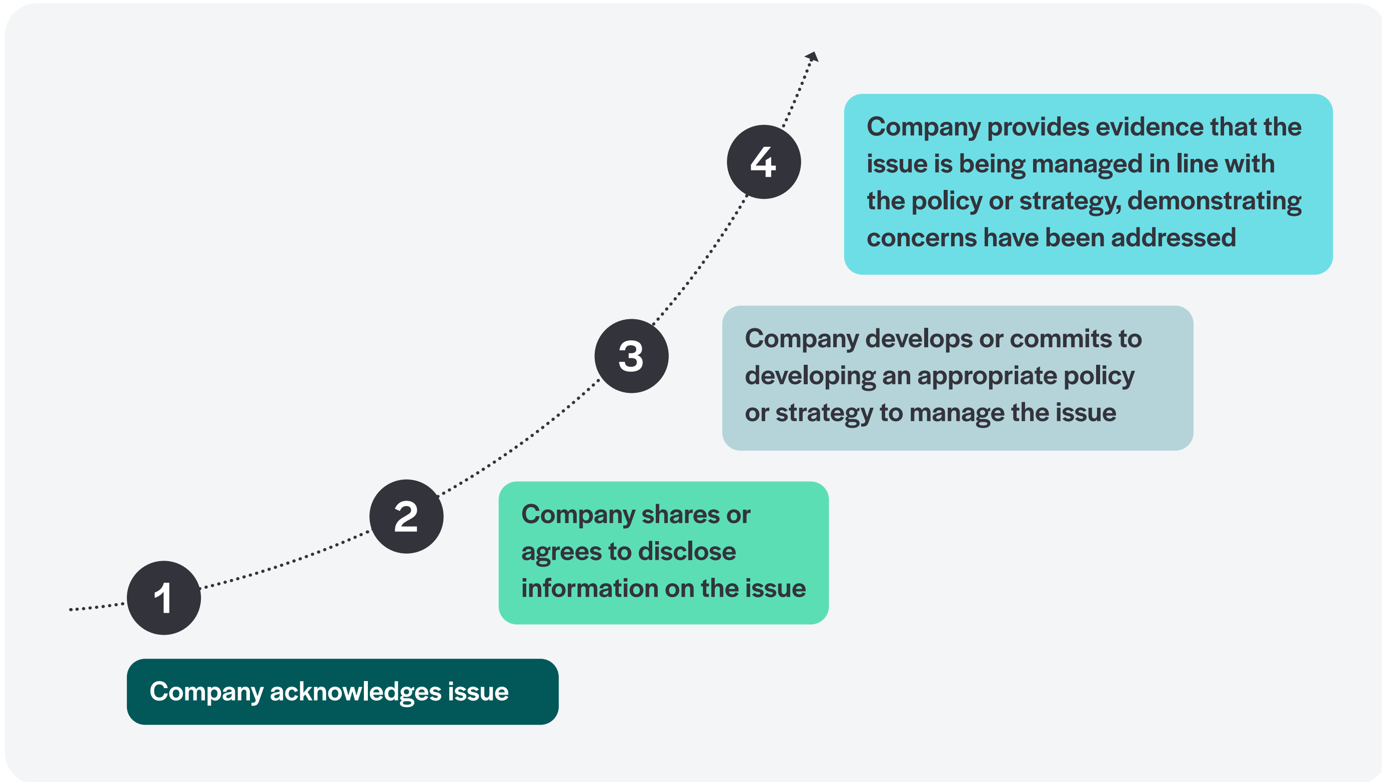
Historically, WHEB has rated engagements as 'successful', 'partially successful' or 'unsuccessful'. Until 2021, the proportion of successful or partially successful outcomes had been increasing and unsuccessful outcomes were decreasing. This changed in 2021, with the majority of outcomes being only 'partially successful'. We attributed this change to the prioritisation of more demanding and long-term engagement objectives – for example, moving from requesting sustainability disclosures to setting NZC targets. In contrast, in 2022 there was a more equally balanced set of outcomes: 27% were successful, 32% were partially successful and 35% were unsuccessful, with 6% still ongoing at the end of the year.

Figure 23: Engagement effectiveness 2014–2022



From 2023, following consultations with our independent Investment Advisory Committee, we have agreed to amend our framework for assessing progress in our engagement with portfolio companies. The new framework is based on milestones as described in Figure 24 and provides greater granularity on the progress being made in each engagement.

Figure 24: Engagement milestones



Collaborative engagement

Collaborative engagement is an important tool institutional investors use to influence both portfolio companies and the financial system as a whole. Where asset managers or owners collaborate with other investors to engage a company to achieve a specific change, or work as part of a coalition of wider stakeholders to engage on a thematic issue, there can be advantages over doing so bilaterally. For example, investors may benefit from additional power, legitimacy and urgency through a unified message, making it difficult for companies to ignore them. This is especially helpful as an escalation tactic. Group members can also share and develop collective expertise and research, supporting knowledge and skills sharing, with wider-ranging effects beyond the scope of the engagement. Finally, investors can achieve efficiency gains by collaborating on engagements with the same company, reducing duplication of work and costs for both investors and issuers.

WHEB collaborates with other investors, including clients and peers, when it aligns with our investment policies and after considering legal and regulatory consequences. This usually involves a joint letter and a follow-up meeting. If we do not succeed in our bilateral engagement with a company, we involve other investors in our engagement activity as part of our escalation policy.

WHEB aims to shape the wider financial system to support positive outcomes by engaging with regulators, policymakers and standard setters as well as clients and advisers. We also participate in industry initiatives promoting sustainable investing, and collaborate on sustainability issues with investee companies through conferences and seminars, as well as our website, blog and wider publications.

Industry networks and associations

2009	2012	2013	2016	2019	2020	2021	2022
UKSIF UK Sustainable Investment and Finance Association	CDP Eurosif FRC PRI Principles for Responsible Investment	IIGCC The Institutional Investors Group on Climate Change	TCFD Certified B Corporation	The Big Exchange	Climate Action 100+ The Net Zero Asset Managers initiative	chemsec GIIN	Finance for Biodiversity Pledge

'WHEB aims to shape the wider financial system to support positive outcomes by engaging with regulators, policymakers and standard setters as well as clients and advisers.'

Case study: Collaborative engagement in 2022

Engaging SolarEdge with a like-minded peer

solaredge

Objective	To encourage the company to develop a strategy to achieve NZC emissions by 2050 at the latest, in line with the SBTi.
Background/issue	SolarEdge is primarily a manufacturer of components for solar panels. It also manufactures electric vehicle charging systems. Despite the company being a key beneficiary of efforts to achieve NZC targets, we had been frustrated with the emissions target the company had set for itself – 30% reduction in emission intensity by 2025. Previously, our efforts to engage them on this topic had not been productive. We therefore took the opportunity to work with the group 'Investors for Sustainable Solar', of which WHEB is a member, to escalate our engagement.
Actions	The process that followed involved the joint preparation of an engagement document by WHEB and the other collaborating investors, in which we outlined our clear expectations for the company. This was followed by a call with SolarEdge's Corporate Secretary, which provided greater insight into the company's progress against both objectives.
Outcomes	**Partially successful/Milestone 2:** Unfortunately, for the time being the company is unlikely to progress from a carbon intensity-based target and set an absolute emissions target. This is due to concerns that such a target might be difficult to achieve in light of the business's growth rate. As a key enabler of solar power, the company is growing at greater than 30% per year. It does, however, plan to set an absolute emissions target once the growth rate has stabilised. We will continue to monitor the company's progress on setting an absolute emissions target as we do not expect a stabilisation of the growth rate for several years. As is often the case when engaging on these topics, our efforts will continue over the long term and will likely span multiple years.

A fuller range of case studies illustrating our engagement activities are available in our annual Stewardship Report
whebgroup.com/reporting-impact-investment/stewardship-reports and on our website

whebgroup.com/investing-for-impact/stewardship/engagement-case-studies

WHEB's view on voting

We endeavour to vote all our shares as per our voting policy, and we use voting to complement our other stewardship strategies to achieve effective outcomes.[51] For example, it is our policy to write to company management when we vote against their recommendations, which often leads to further dialogue.

WHEB's voting policy leads us to proactively use routine proposals, such as the election of the chair, as a way of asserting our views on key governance and sustainability issues. For example, our policy states that if a company does not have a NZC target, we will vote against the election of the chair. This approach differs from most fund managers and proxy advisers, who typically vote on sustainability issues only where they are specifically raised in a shareholder resolution.

Voting activity in 2022

In 2022 WHEB cast votes on 100% of the resolutions at 100% of the company meetings at which we were entitled to vote in that year.

We voted against management on 102 occasions with a pattern similar to 2021.

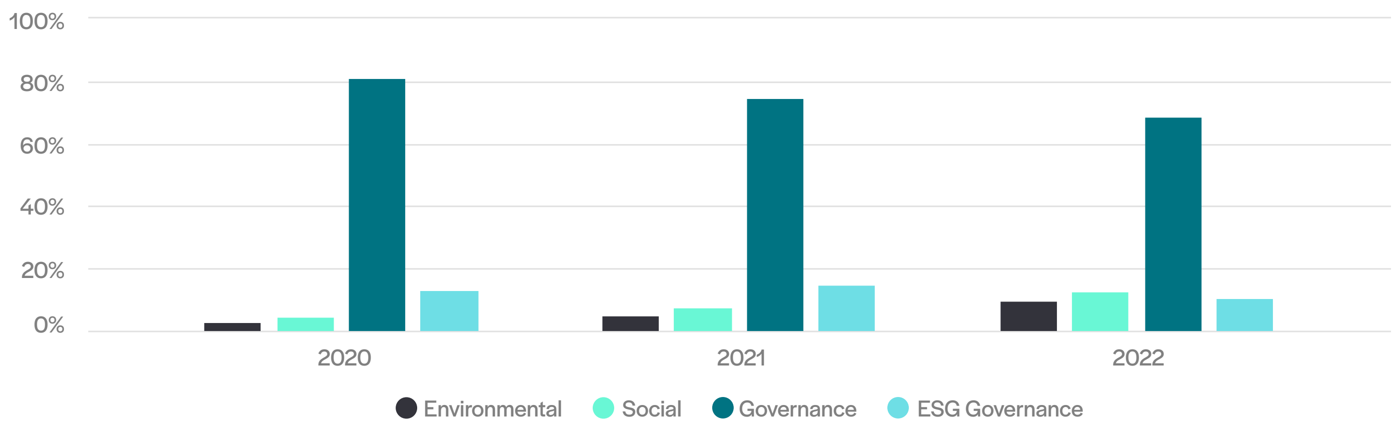
- 68.2% of these votes were on corporate governance issues (especially auditor independence, director independence and executive remuneration).
- 9.4% on environmental issues, mostly carbon reduction targets.
- 12.4% were on social issues, the majority aimed at improving board-level gender diversity.

Our escalation process of writing to company management provides an opportunity to widen the scope of engagement to cover Environmental and Social issues as well.

Figure 25: Voting summary (2022)

Vote topic	Number	Proportion of total
Meetings voted at	45	100%
Meetings w. ≥1 votes against management	36	80%
Votes against management	102	18.5%
Votes with management	441	80%
Did not vote	0	0%
Votes withheld[52]	13	2.4%
Votes abstained[53]	2	0.4%
Resolutions voted	558	100%
Votes against ISS[54]	108	19.6%

Figure 26: Votes against management by topic (2020–2022)



51. https://www.whebgroup.com/assets/files/uploads/20221201-wheb-voting-policy.pdf
52. We withhold or abstain from voting where there is no option to vote against management's recommendations.
53. Ibid.
54. ISS is WHEB's proxy adviser. Our voting policy is stricter than that offered by ISS and so we regularly adopt voting positions that are different to ISS.

Guest interview: Investor engagement - the corporate perspective

Andrew Hedberg
Vice President Investor Relations, Ecolab

Volker Braun
Head of Global Investor Relations and ESG, Evotec

Daniel Bohsen
Corporate Vice President and Head of Investor Relations, Novo Nordisk

Ciaran Potts
Head of Investor Relations, Smurfit Kappa

Mal Patel
Head of Investor Relations, Spirax-Sarco Engineering

Stewardship and engagement have long been core elements of WHEB's approach to delivering positive impact. We often offer a counterweight to the short-termism exhibited by much of the investment community. More recently, stewardship has become more important to a broader group of investors. With this growing emphasis in mind, we interviewed several portfolio companies to find out what it is like being on the other end of investor engagement. Several commented that nobody had asked them to reflect on their experiences before, and for some the process was clearly cathartic.

Our interviewees were drawn from a cross-section of WHEB's portfolios covering different sectors, different sizes and different geographies. For some, the importance of ESG and sustainability was integral to the formation of their role. Volker Braun at Evotec, for example, is formally head of both Investor Relations (IR) and ESG, a decision made by the company to better respond to growing investor interest in these topics. In other companies these roles are split, but in all cases, there is clearly a very active internal dialogue between IR and sustainability.

How much time is spent on sustainability and which of your investors are most interested?

Ciaran Potts (Smurfit Kappa) started working in IR in 2015. Back then, he said, '99.99% of questions were on business fundamentals with almost nothing on sustainability'. This has changed dramatically and 'now there are a significant number of questions on sustainability'. Without exception, everyone agreed that the level of interest in ESG and sustainability has increased dramatically. 'It has just exploded,' said Andrew Hedberg (Ecolab). 'The rapid growth of interest in this area over the last five years has been incredible. We used to have ESG-focused investor calls once a quarter and now they happen almost weekly.'

Some IR teams suggested that the proportion of time spent on ESG is now about 10%. For others it is significantly higher. 'Probably around 20% of all questions are on ESG and sustainability' according to Daniel Bohsen (Novo Nordisk). Andrew (Ecolab) put it even higher, at a third of all questions focused on sustainability. For several interviewees, including at Ecolab and Novo Nordisk, sustainability has been a core part of the equity story for many years. As Daniel (Novo Nordisk) put it, 'We have a strong story, with the 'triple bottom line'[55] integrated into our bylaws since 2004. We want to make sure that the sustainability part of our equity story is understood.'

The range of investors that are interested in ESG is also now very broad. Long-only fundamental investors are a core constituency, but there is still a bias towards European investors. US investors – albeit primarily on the East and the West Coast – have become significantly more active on ESG issues in the last couple of years.

What are the key sustainability topics that investors want to talk about?

Perhaps not surprisingly, given they are all WHEB portfolio companies, the positive impact of products or services is high on the list of investor questions. For several companies, including Evotec, the initial focus was on carbon emissions, but 'this has moved to a stronger focus on social topics, which is an area where [their] products and services have the highest impact.'

Several companies also highlighted the approach of more sophisticated, often long-only investors that focus on material ESG issues for the business. Ciaran (Smurfit Kappa) contrasts this approach with that used by other investors that 'have large ESG teams that are not part of the investment decision-making process'. These groups tend to use 'blanketed generic emails that get sent out to hundreds of companies,' says Andrew (Ecolab), and that do not reflect the reality of very different businesses in very different sectors. 'There is still a huge spread in terms of expertise across the investor base,' says Ciaran (Smurfit Kappa). Volker (Evotec) was more pointed. For some investors, 'it feels like [looking at ESG] is more a duty than a commitment,' he said.

The trend over the past few years has also been towards a much greater range of questions. For Ecolab the questions were 'almost all focused on governance six years ago. Now it is the full [ESG] spectrum.' One of the emerging issues that several respondents pointed to was biodiversity. Another was the circular economy. However, several interviewees made the point that the nature of investor engagement is also changing. Daniel (Novo Nordisk) underlined the importance of moving from a 'checkbox approach where nuances are lost' to an 'ongoing dialogue' that facilitates real learning – both for the company and the investor.

[55] The 'triple bottom line' is an accounting framework encompassing social, environmental and economic dimensions. Business writer John Elkington coined the phrase in 1994 in his book 'Cannibals with forks'.

What do you find most challenging about investor engagement?

Almost all interviewees highlighted the same problems. The first is linked to the 'checkbox approach', which many saw as indicative of a lack of understanding of the company. One interviewee bemoaned the experience of 'having people coming straight out of college picking up positions of influence and adopting a confrontational approach while asking questions that have little relevance to [the] business.' Another bugbear highlighted by many companies was that analysts often do not bother reviewing publicly available information before contacting the company.

The wide range of questions that are often levelled at companies is also seen as a challenge – particularly when these are raised in meetings without time to prepare. 'I'm a big fan of standardisation,' said Daniel (Novo Nordisk). Several companies are supportive of the International Sustainability Standards Board (ISSB) process, which they hope will reduce the variety of questions from investors and rating agencies as well as the risks associated with partial disclosure.

'The lack of clear objectives in terms of what is being assessed' was also highlighted by Mal Patel (Spirax-Sarco). A related point was made by Ciaran (Smurfit Kappa) about the lack of specificity in what investors want to see. 'We only get specific targeted suggestions on the governance stuff. A specific percentage board representation, for example.' And there is always 'the classic "is your CO_2 reduction target SBTi-validated?"'. Too often, investors come with vague open-ended questions which IR teams are ill-equipped to answer without sufficient forewarning and preparation. A particular 'horror story' at one company involved a very large investor threatening to vote against management unless the company completed a detailed questionnaire on the company's carbon strategy – and gave them 24 hours to do so.

Finally, as Mal (Spirax-Sarco) said, the 'disconnect between fund managers and stewardship teams' can be extremely frustrating. Quite often these teams appear not to be well coordinated. They can sometimes even be pushing companies in opposite directions. As one interviewee put it, 'On the rare occasions that you can get both sides in the same room, it's clear they don't talk frequently, and they can even be quite confrontational with each other'.

What does successful engagement look like from the corporate perspective?

While there are clearly many frustrations with investor engagement, companies were also keen to stress the real value of 'good' investor engagement. For Andrew (Ecolab) it is all about seeing the relationship as a partnership. 'I view it as a partnership. Both the corporate and the investors being really open and transparent about what the investors are looking for.' A similar point was made by Daniel (Novo Nordisk): 'I would actually like to have a more ongoing dialogue because that's the way we can best help. Working together we can get better and provide the right information.'

More practically, companies are keen to hear directly from investors rather than just respond to the 'avalanche of questionnaires asking similar questions that all have to be answered individually'. Volker at Evotec advises investors to 'pick up the phone, arrange a zoom call – having more meetings would be much more efficient'.

But the information does not just flow one way. Companies are also interested in learning from their investors. 'Investors can share with us the best practices that they are seeing from other companies,' Andrew (Ecolab) said. 'With a partnership mindset we can learn a lot from shareholder engagement. It has definitely sparked change.' In addition, at WHEB we have often sought to draw attention to emerging issues that portfolio companies have yet to address. This role is seen as valuable. As Ciaran (Smurfit Kappa) put it, 'conversations with WHEB have been very helpful because you asked about things that the company had not focused on, but then became very relevant years later'.

What does the future hold for investor engagement?

Clearly, companies are keen to see more sophisticated dialogue focused on material issues and less checkbox questionnaires. But beyond this, what does the future hold for investor engagement? Perhaps surprisingly, most interviewees were unconcerned about investors claiming credit for positive changes made by their businesses following engagement. Some saw this as inevitable (in part driven by regulatory change), and others saw it as a positive outcome from the 'partnership' type of engagement that companies want to see more of. I don't see any immediate downside', said Ciaran at Smurfit Kappa. 'This is really a win-win as far as I am concerned.'

At WHEB we will use this feedback in honing our own approach to corporate engagement. We believe that these insights align very well with our own approach that:

- approaches corporate engagement in an integrated way with engagement led by the core investment analyst team
- focuses engagement on ESG and impact issues that are material to the company and its stakeholders
- frames engagement around the long-term success of the investee company.

WHEB's investor contribution:

Sustainability at WHEB

05

WHEB's culture

We believe that private enterprise can be a powerful force for positive change in the world. Since 2016, we have been a certified B Corporation, which has been an important element in shaping our culture at WHEB.

A clear set of values underpinning WHEB's culture

In 2022 the WHEB team was involved in a collaborative process to define a set of values for the business. These values help align staff to our purpose and identity and enable stakeholders to understand how we do business. The values underpin everything we do, from strategic decisions to everyday systems and processes. They are important to us and are integrated into the management process that is used to assess the team's performance throughout the year.

WHEB's values are:

Passionate about impact:
Our intention is to have a positive impact on people and planet in all that we do.

Teamwork:
We build relationships based on trust and mutual respect. We promote an environment that enables our team to thrive and drives client success.

Continuous Improvement:
We foster a sense of purpose and a passion for progress, and we share what we learn along the way.

Leadership:
We are creating a movement for positive change, within our company and beyond.

Integrity:
Strong ethical principles guide all areas of our work. We are honest in our approach and treat all stakeholders fairly.

Encouraging an ownership mentality

Another important step taken in 2022 was to set up a deferred equity plan for WHEB team members. Spreading ownership throughout the organisation has been a long-term ambition. We believe that ownership supports a deeper alignment between the interests of individual team members, clients and other stakeholders in our business.

Historically, 40% of WHEB's equity has been held by the Senior Management Team, with the rest held by the company's financial backers. The deferred equity plan uses a proportion of annual profits to make awards across the WHEB team, which are used to purchase equity in WHEB Asset Management LLP from the company's backers. All eligible team members at WHEB chose to participate in the launch of the deferred equity plan.

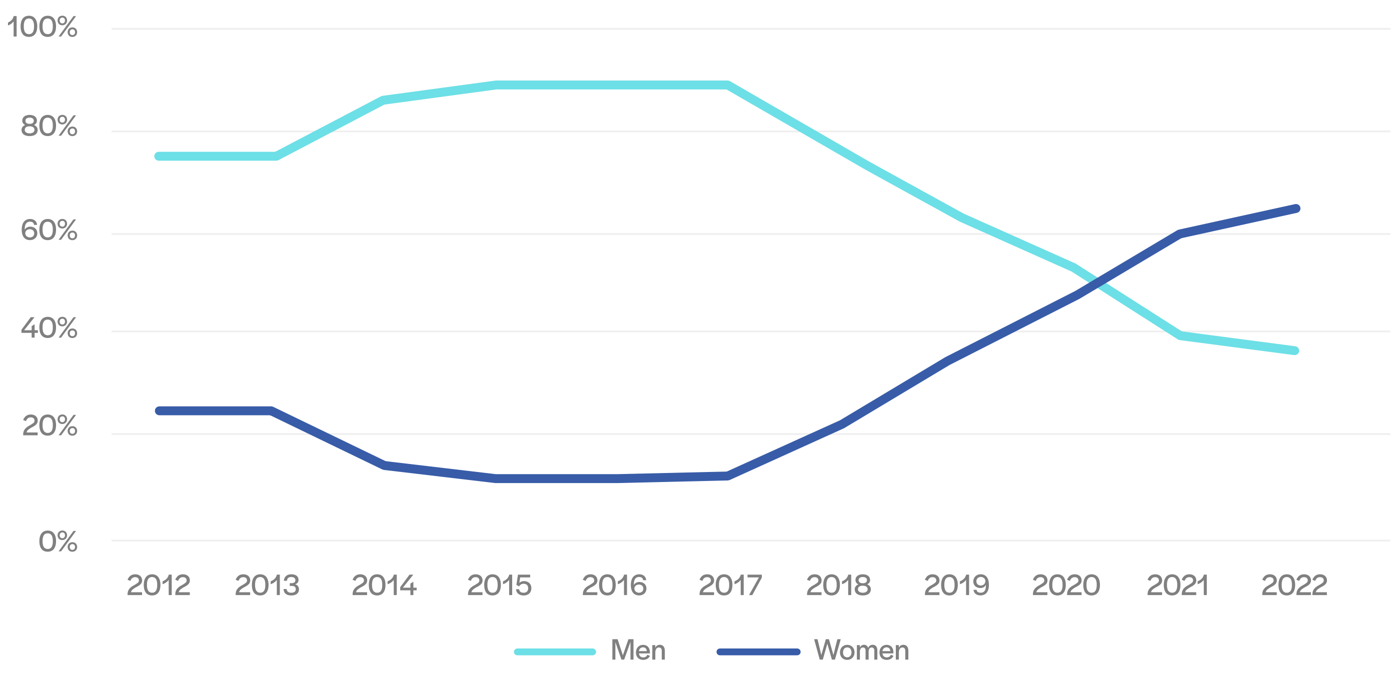
Diversity and inclusion

We have reported previously on our approach to diversity and inclusion including, the formulation of a specific diversity and inclusion policy. This and other WHEB policies covering parental leave, work–life balance and reward are available on our website **whebgroup.com/about/working-at-wheb**.

In 2022 we expanded our work on diversity and inclusion through our partnership with CityHive **cityhive.co.uk**. This included becoming a founding member of City Hive's Action, Challenge and Transparency (ACT) framework which supports investment companies creating cultural change towards diversity. As part of this initiative, we support a cross-company mentoring scheme focused on ethnicity and race. We have also undertaken training programmes on diversity, equity and inclusion (DEI) to help employees apply DEI insights in their daily activities. We are also partnering with Insight Outreach **insightoutreach.org**, a social mobility and education charity that works with youth from disadvantaged backgrounds to help them gain access to top universities.

During 2022 we added five new team members (including full and part-time members) bringing the total to 21. In the past three years WHEB has become a predominantly female organisation, women currently comprise 25% of the Senior Management Team and 80% of our independent Investment Advisory Committee.

Figure 27: Gender balance at WHEB (2012-2023)



Operational greenhouse gas emissions

As a boutique investment business with one main office in London, WHEB's direct environmental impact is very small. Nonetheless we work hard to minimise the negative and maximise the positive impacts of our activities. We remain committed to having our NZC targets validated by the SBTi and report here and in our NZC report (pages 34-37) on our GHG emissions from 2022 in line with TCFD recommendations.

We have no Scope 1 emissions and our Scope 2 emissions are solely related to electricity use in our London office.[56] Scope 3 emissions represent the vast majority of our emissions (see Figure 28). Since 2021 we have returned to hybrid working, and this is partly responsible for the decline in emissions associated with remote working. The majority of the decline is, however, attributable to a number of employees switching to green electricity tariffs for their home energy and/or replacing gas boilers with air source heat pumps.

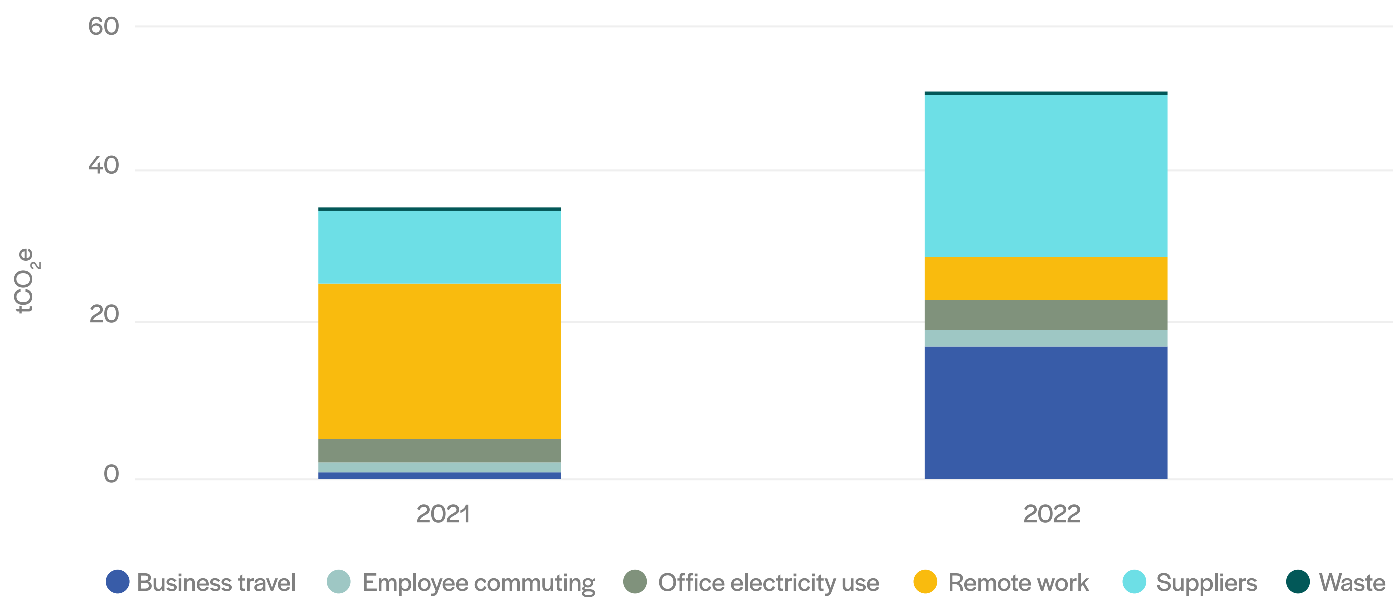
Business travel jumped significantly in 2022 as the economy reopened for business meetings. Our NZC policy stipulates that business travel of less than six hours be made by train. During 2022, 18 journeys were taken by rail in preference to flying, saving over 3,500kms of flying.[57]

Emissions associated with our suppliers also increased year-on-year. This is due in part to better-quality data but also a result of higher spend on supplier services.

Absolute emissions increased from 36tCO_2e in 2021 to 51tCO_2e in 2022. On a normalised basis emissions also increased although more modestly going from 2.57tCO_2e per full-time equivalent employee in 2021 to 2.85tCO_2e in 2022.[58]

While we remain focused on eliminating our emissions, we nonetheless also offset all of these emissions using a combination of high quality carbon removal projects.[59]

Figure 28: WHEB's operational greenhouse gas (GHG) emissions 2021-2022



56. WHEB purchases Renewable Energy Guarantees of Origin (REGO). The aim of REGOs is to ensure that the energy consumed by WHEB is provided from renewable sources. However, in practice, energy companies can purchase REGOs from renewable energy producers but source the energy delivered to homes and businesses from elsewhere. According to the GHG Protocol, WHEB's market-based emissions are 0. However, since our energy provider, SSE, cannot prove that the energy provided to us is sourced from renewable sources, we choose to report our location-based scope 2 emissions of 4 tonnes CO_2e.
57. Our carbon policy also incentivizes team members to travel on holiday by train by offering time off in lieu of the extra time needed to travel overland.
58. We have funded a combination of projects involving the production of biochar and the afforestation of degraded land as part of a package of projects offered by Compensate (https://store.compensate.com/). We prioritise carbon removal projects over carbon offset projects.
59. https://gosupercritical.com.

Investment Advisory Committee statement

06

Statement from WHEB's Investment Advisory Committee

The principal role of WHEB's independent Investment Advisory Committee is to review the composition and integrity of WHEB's investment portfolios. This assessment considers whether the sustainable investment philosophy is applied consistently in terms of theme definition and stock selection.

The committee is composed of four independent members with expertise in sustainability and in investment and is chaired by WHEB's non-executive chair.

The committee met three times in 2022 and summary minutes of these meetings are published on the WHEB website **whebgroup.com/reporting-impact-investment/advisory-committee-minutes**.

During 2022 the committee reviewed 12 new companies for the global strategy. During the year WHEB also launched a European strategy which included sixteen new investments. Each of these companies were reviewed by the committee which concluded that all were consistent with the policies and philosophy of the underlying strategies.

The committee also discussed a wider range of topics. In March, following WHEB's decision to sell its position in Orpea, the committee considered a discussion paper on the investability of companies operating care homes and home care services. In July, the committee held a discussion on the appropriate role for WHEB – and investors more generally – in calling for companies to take progressive positions on contested social issues including on abortion following the ruling of the US Supreme Court. Following a request from committee members, the December meeting focused on a deep-dive into the methodology and application of WHEB's Impact Engine.

Based on this work, the committee believe that WHEB's portfolios are consistent with the stated sustainable investment objectives of the strategy.

The committee also reviewed a late draft of the impact report covering the calendar year 2022 and appreciated the wider perspective offered by third party contributors and the role WHEB plays as part of a community of expertise driving higher standards in impact investing in listed equities.

A key challenge for future reporting is to develop a more complete approach to the negative impacts associated with the products and services sold by investee companies. Some committee members also felt that aspects of the report such as the impact model and metrics are quite high-level and would benefit from some simplification to show more clearly the impacts that WHEB and investee companies are having. Members also look forward to seeing more detailed reporting following the adoption of the new milestones framework for assessing progress with company engagement.

Notwithstanding these areas for further refinement, committee members felt that the report continues to demonstrate WHEB's position as a leader in impact reporting.

Jayne Sutcliffe, Non-Executive Chair, WHEB Asset Management

Alice Chapple, Director, Impact Value, Chair, Investor Watch

Abigail Rotheroe, External Adviser

Martin Rich, Executive Director, Future-Fit Foundation

Carole Ferguson, CEO, Carbon Transition Analytics

Entering the age of adoption

After a hugely challenging 2022, the outlook for the global economy in 2023 is still highly uncertain. Many regions of the world will likely enter into recession this year. Disruptions to global supply chains from the lingering effects of the pandemic, as well as the war in Ukraine, have severely dented consumer and business confidence.

Those same disruptions contributed to real inflationary pressures in 2022. At the time of writing, those pressures appear to be easing somewhat, but the potential for ongoing monetary tightening remains. Even if interest rates do not rise any further, they are likely to already be high enough to have a dampening effect on global investment.

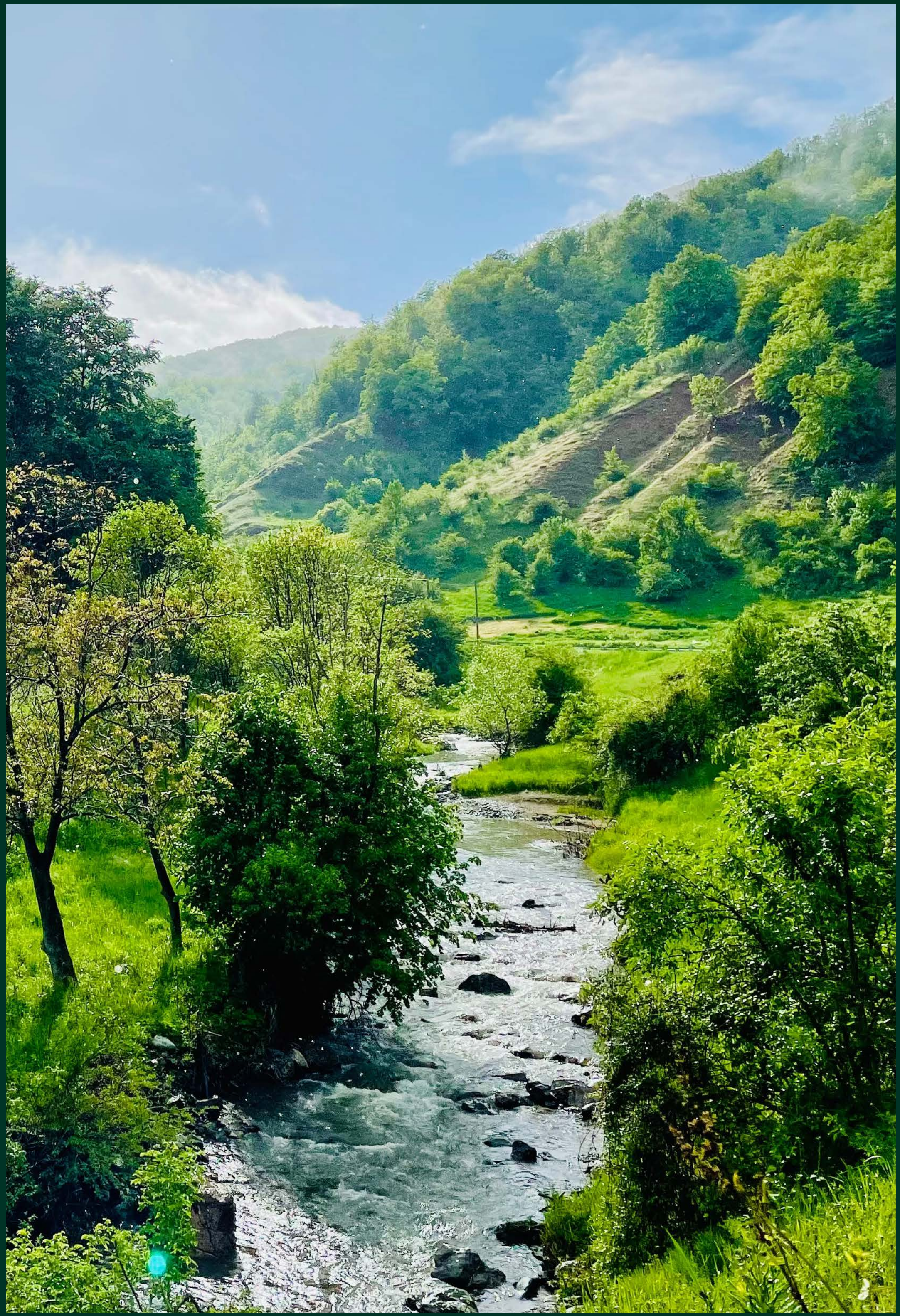
Having said that, there is a case for the stock market to deliver positive returns in 2023. With expectations very low, any resilience in corporate earnings will be well received. Some of the huge shocks in 2022, most obviously the war in Ukraine, are unlikely to be replicated.

Speaking specifically to WHEB's strategy, there are stronger grounds for optimism. The policy backdrop in developed economies towards the energy transition has never been more favourable. This is in part due to the glaring problems with the current fossil energy system, laid bare by the conflict between Russia and the Western world. But it is also due to the continuing rapid cost decreases in clean energy technologies.

The key symbolic policy change in 2022 was the Inflation Reduction Act from the USA. This sets that country on the path towards global leadership in the energy transition and provides a benchmark for the other regional blocks. With positive responses from Europe and China, the potential has never been greater.

There will of course continue to be bumps in the road. We expect a more challenging year for many healthcare companies as budgets stretched by the pandemic take time to recover. Similarly, the cost-of-living crisis may continue to beleaguer the Well-being and Education themes.

Given the new uncertainties in the global economy, we have been working hard to make sure that our portfolio companies still represent compelling investment opportunities. We are confident that they do. Despite the many current crosswinds and challenges, the need to address longer-term sustainability issues has never been greater, and our companies are part of the solution. The global economy has, we believe, now entered an 'age of adoption'. The deployment of low and zero carbon technologies has now become firmly embedded in the economic systems of the world's largest economies.



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Your capital is at risk.

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FP WHEB Sustainability Fund

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WHEB Sustainable Impact Fund

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