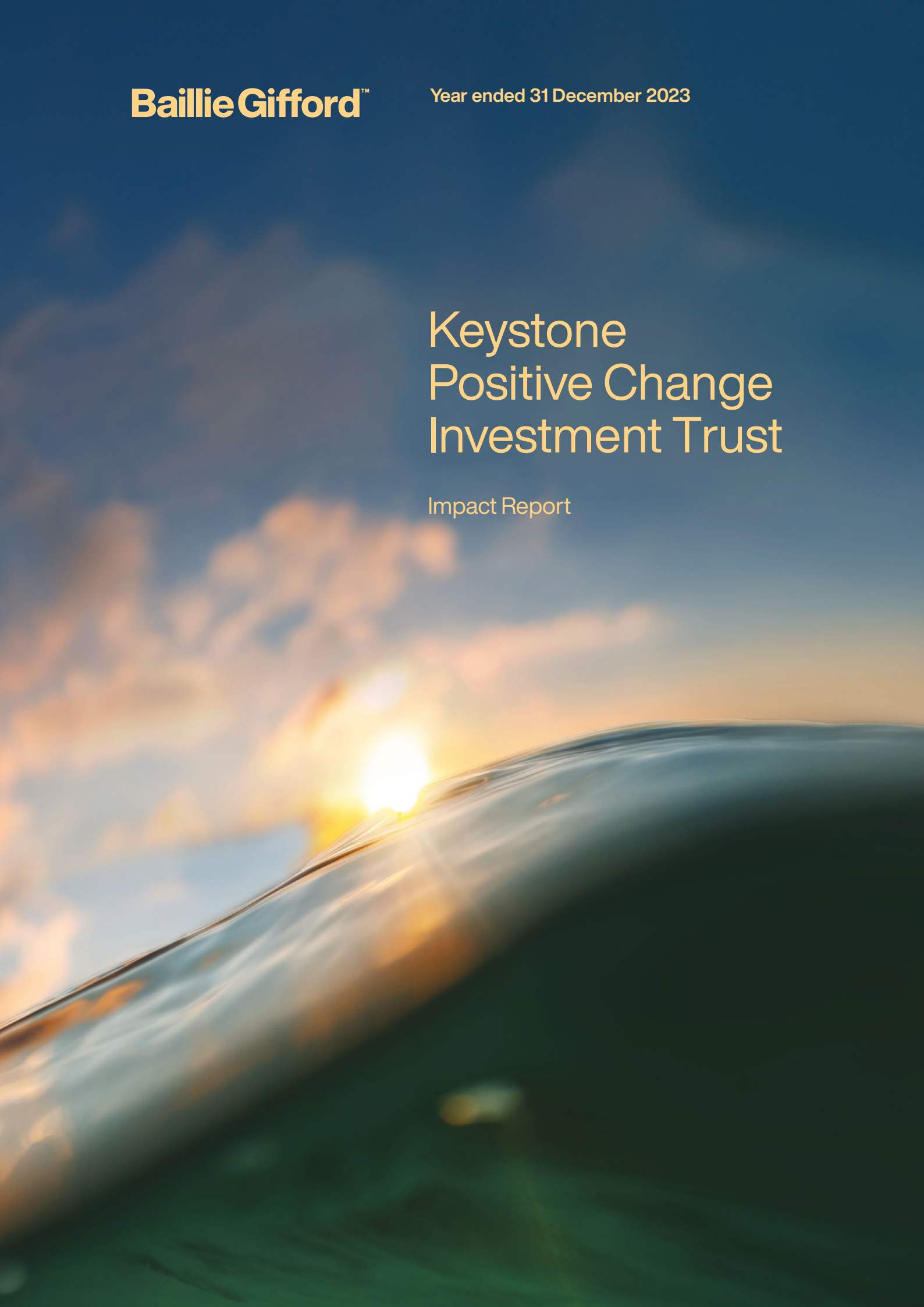


**Baillie Gifford™**

Year ended 31 December 2023

# Keystone Positive Change Investment Trust

Impact Report



## **Risk factors**

The views expressed should not be considered as advice or a recommendation to buy, sell or hold a particular investment. They reflect opinion and should not be taken as statements of fact nor should any reliance be placed on them when making investment decisions.

This communication was produced and approved in July 2024 and has not been updated subsequently. It represents views held at the time of writing and may not reflect current thinking.

This article contains information on investments which does not constitute independent research.

Accordingly, it is not subject to the protections afforded to independent research and Baillie Gifford and its staff may have dealt in the investments concerned.

As with any investment, capital is at risk.

The Trust invests in companies whose products or behaviour make a positive impact on society and/or the environment. This means the Trust will not invest in certain sectors and companies and the universe of investments available to the Trust will be more limited than other funds that do not apply such criteria. The Trust therefore may have different returns than a fund which has no such restrictions.

The Trust invests in overseas securities. Changes in the rates of exchange may also cause the value of your investment (and any income it may pay) to go down or up. The Trust invests in emerging markets where difficulties in dealing, settlement and custody could arise, resulting in a negative impact on the value of your investment.

The Trust's risk could be increased by its investment in private companies. These assets may be more difficult to buy or sell, so changes in their prices may be greater.

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For a Key Information Document for the Keystone Positive Change Investment Trust, please visit our website at [bailliegifford.com](http://bailliegifford.com)

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All investment strategies have the potential for profit and loss, your or your clients' capital may be at risk. Past performance is not a guide to future returns.

This communication contains information on investments which does not constitute independent research. Accordingly, it is not subject to the protections afforded to independent research, but is classified as advertising under Art 68 of the Financial Services Act ('FinSA') and Baillie Gifford and its staff may have dealt in the investments concerned.

All information is sourced from Baillie Gifford & Co and is current unless otherwise stated.

The images used in this communication are for illustrative purposes only.

# **Baillie Gifford™**

<b>Contents</b>	Letter from our managers	02
	Our beliefs	03
	What's in our report?	04
	A guide to company pages	05
	Headline impact data	06
●	Social inclusion and education	09
●	Environment and resource needs	20
●	Healthcare and quality of life	32
●	Base of the pyramid	42
	Significant SDG contributions	50
	Negative SDG contributions	51

# Letter from our managers

We are delighted to welcome you to our third Keystone Positive Change Investment Trust impact report.

Years of investing for Positive Change has taught us many things. Perhaps the most important lesson has been to remain resolute on our two objectives and consistent in our investment approach, however unsettling the backdrop or gloomy the day's news.

This has been our focus in 2023, a year in which global crises compounded and market headwinds endured for growth stocks.

Now more than ever, we need companies with novel solutions to persistent global challenges to be ambitious and allocate capital to innovations that can shift the world onto a more sustainable and equitable pathway.

We also need investors who care about profit and impact equally, advocate for long-term thinking and encourage responsible business practices. More details of our approach to company engagement in 2023 can be found in this year's **Keystone Positive Conversations**.

From vaccines to smart water meters, digital platforms and electric vehicles, this impact report showcases the portfolio of companies whose products tackle global issues within our impact themes. The challenges being addressed by these themes range from climate change to environmental sustainability, healthcare and social inequality. Most are leveraging the latest technological advances, such as artificial intelligence, and are pioneering mega-trends, such as digitisation and the energy transition.

In this report, we explain why we believe each company in our portfolio is poised to address the world's most pressing challenges in the coming years and how they are performing against both our impact and investment objectives. Short-term pressures have hit the impact of some, but most portfolio companies continue to perform well on our impact objectives and on business fundamentals.

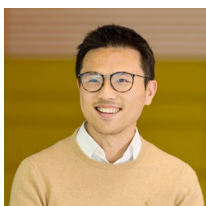
With 2023 marking the midpoint in the global 2030 Agenda for Sustainable Development and the UN Sustainable Development Goals (SDGs), their fulfilment is 'in peril', according to the UN General Assembly. Conflict, geopolitics and self-interest have directed attention away from some of the greatest struggles of our time, and decades of societal progress are at risk of reversal.

Our attention is unwavering and the beliefs that underpin our strategy are unchanged – companies which make it their business to address some of the greatest environmental and social challenges of our time will be rewarded.

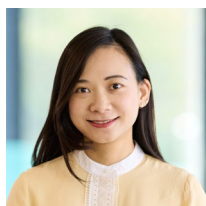
We welcome the opportunity to share our Impact Report. Every year, we endeavour to improve our reporting and better understand the positive change companies can create in the world. We hope you find the report enlightening.



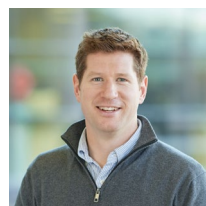
Kate Fox



Lee Qian



Thaiha Nguyen



Edward Whitten



Apricot Wilson

# Our beliefs

Businesses and investors have the ability – indeed, the responsibility – to help steer our world onto a more sustainable path. Government funding and philanthropic donations, though hugely welcome, will be insufficient: trillions, not billions, of investment will be required to address the numerous challenges our world is facing.

We believe that inclusive capitalism is a part of the solution which can improve lives. In our bid to help our clients make attractive investment returns, we seek to harness the beneficial impact of human entrepreneurial spirit, while contributing towards a better world for current and future generations.

Change takes time. Social and environmental challenges such as persistent poverty and climate change cannot be solved with a short-term mindset. If the financial capital required to solve these issues is to be effective, we will need to be patient. By taking a long-term approach to investing we aim to support companies in making decisions and taking actions that will be beneficial for their business, society and the environment in the coming decades. That's why we believe:

- companies whose core business activities are addressing global challenges will experience rising demand for their products and services: they will be growth businesses.
- that a subset of those companies will enjoy sustainable competitive advantages such as loyal customers and motivated employees: they will be high-quality companies.

- that owning shares of exceptional businesses whose products and services are having a positive impact on society is a more effective way of delivering positive change than avoiding those doing harm: we take a positive and proactive approach.

Based on these beliefs, the Keystone Positive Change Investment Trust has two objectives of equal importance:

1. To deliver attractive long-term investment returns (2 per cent per annum ahead of the MSCI ACWI net of fees over rolling five-year periods)
2. To contribute towards a more sustainable and inclusive world.

There are no compromises – each holding must be able to deliver on both objectives. We pursue these objectives in line with the active, long-term growth investment philosophy that has been tried and tested over Baillie Gifford's history since 1908.

Core to our philosophy is a belief that investment returns and impact are complementary, so both are considered throughout our decision-making process.

Over time, we have enhanced our process and continue to seek ways to improve, but one thing that won't change is our philosophy. Our team is passionate about our dual objectives and the role that our investment strategy has in helping drive positive change.

# What's in our report?

**In this annual impact report, we illustrate portfolio companies' contribution to addressing some of the world's greatest challenges across our four impact themes:**



We introduce each of the portfolio's four themes, identifying some of the persistent challenges within them. In these introductions, we also seek to put the portfolio companies into the context of these challenges, summarising their contribution to solutions.

Within each theme section, we include **company pages** for the companies held in the Keystone Positive Change Investment Trust portfolio on 31 December 2023. These company pages form the main part of this report and reflect our impact monitoring process. They illustrate some of the evidence we gather each year to test and measure our 'Positive Change hypothesis' for each company's products and services.

To supplement the company pages, this report also provides further detail on the impact of companies in the Keystone Positive Change Investment Trust portfolio, including:

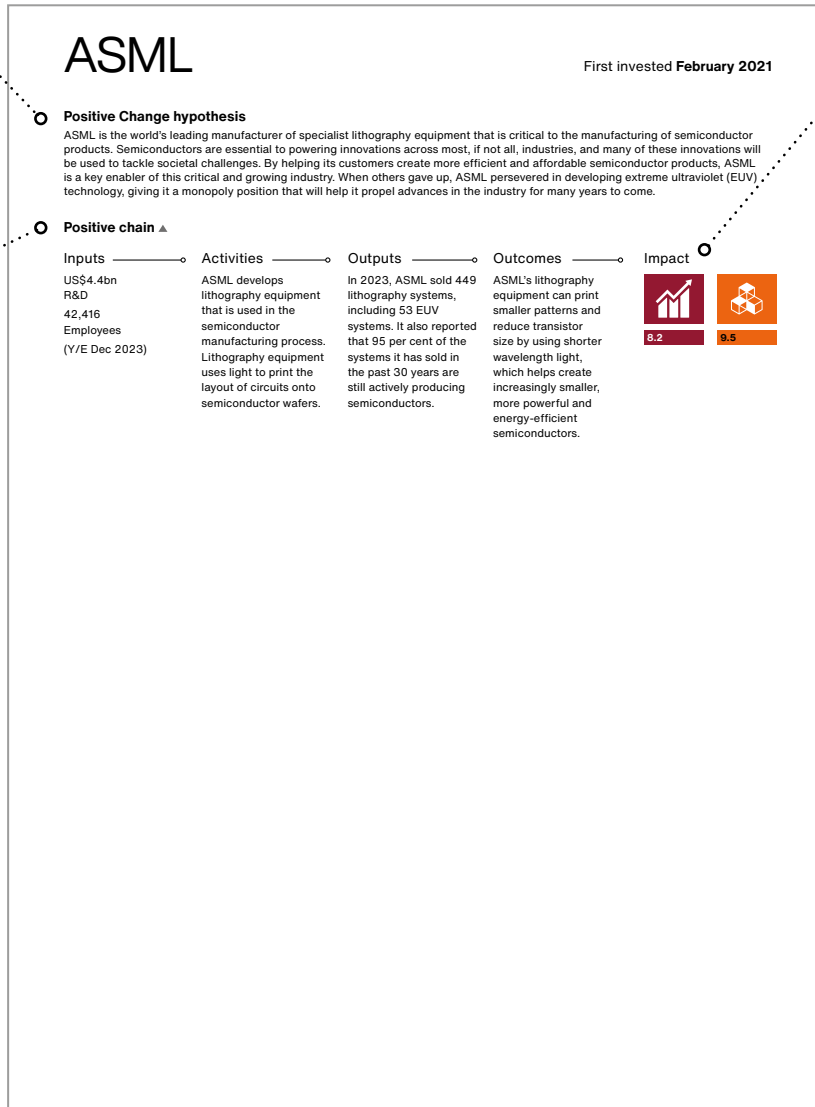
- where monitored impact metrics are comparable, we aggregate data for multiple portfolio companies to produce **Headline impact data** (page 06). This data gives an indication of the scale of impact delivered by portfolio companies' products and services.
- for each company we identify the UN Sustainable Development Goal (SDG) targets that they contribute to through their products and services. These can be found in each of the company pages, but we also provide a portfolio snapshot of how companies map to the SDGs on the **Significant SDG contributions** (page 50). This assessment is independent from how companies report their own SDG contributions.
- considering companies' negative contributions to the SDGs is an important part of our impact analysis. Where we have identified companies whose negative contributions we deem significant in our monitoring, we list these in the **Negative SDG contributions** (page 51).

We continue to seek independent limited assurance on some aspects of this report from KPMG LLP. Sections marked with a ▲ are under assurance standard ISAE (UK) 3000 which is the assurance standard for nonfinancial information. KPMG has issued an unqualified opinion over the selected information. Please refer to the statement on page 52.

# A guide to company pages

The **Positive Change hypothesis** outlines how we expect companies' products and services to deliver a positive impact and to be a good investment opportunity.

The **Positive Chain** is a logic model based on the Theory of Change, which we use to evidence a company's progress in delivering positive change. Data in this report are based on companies' publicly reported data for the financial year 2023 or through company engagement.



Company impact through products and services is rigorously mapped to relevant **UN Sustainable Development Goals (SDGs)** and underlying targets.

# Headline impact data<sup>^</sup>

In 2023, in their provision of products and services, companies that Keystone Positive Change Investment Trust has invested in are estimated to have:

Provided access to education and/or training to  
**227 million**  
registered learners

Coursera 142m

Duolingo 85m

Allowed customers to save close to  
**1.7 trillion**  
litres of water

Ecolab 856bn

Xylem 800bn

Provided access to online marketplaces for  
more than  
**10 million** sellers

MercadoLibre 10m

Shopify\*

Allowed customers to save over  
**210,000**  
tonnes of waste

Ecolab 29.0k

Chr. Hansen 181.4k

Helped farmers engage in better farming  
practices on close to  
**163 million**  
hectares of land

Chr. Hansen 5.8m

Deere 157m

Through products in use and/or sold during the  
year, enabled the avoidance of close to  
**33 million tonnes of CO<sub>2</sub>e**

Ecolab 3.8m

Novozymes\*

Ørsted\*

Tesla 20m

Umicore 8.7m

Xylem\*

\*In compiling our headline impact data, we have included all relevant companies, recognising their contributions to the overall highlighted impact. However, due to year-on-year variations in reporting by companies, we were unable to obtain precise figures for some entities, indicated in grey. This approach ensures our estimates remain conservative while highlighting the impact all portfolio companies are delivering. In time we hope to be able to encourage companies to increase their reporting.



Contributed to healthier lifestyles for close to  
**41 million people**

---

**Discovery 40.5m**

Enabled  
**5.2 million people**  
to send, save and spend money on healthcare services

---

**Safaricom 5.2m**

Provided treatment and disease management solutions to over  
**2.3 million patients**

---

**Alnylam 5.1k**

---

**Dexcom 2.3m**

---

**Moderna\***

Provided close to  
**31,000**  
instruments for scientific research

---

**10x Genomics 6k**

---

**Illumina 25k**

Provided access to financial services to close to  
**523 million people**

---

**Bank Rakyat Indonesia 173m**

---

**HDFC Bank\***

---

**MercadoLibre 218m**

---

**Nubank 93.9m**

---

**Remitly 5.9m**

---

**Safaricom 32.1m**

Enabled borrowing for over  
**95m borrowers**

---

**Bank Rakyat Indonesia 36.9m**

---

**HDFC Bank\***

---

**MercadoLibre 45m**

---

**Nubank\***

---

**Safaricom 13.4m**

Data for carbon dioxide equivalent (CO<sub>2</sub>e) saved is based on company reporting which is either in CO<sub>2</sub> or CO<sub>2</sub>e; the aggregate data is presented as CO<sub>2</sub>e as this is the most conservative approach.

Data related to healthier lifestyles, healthcare services including treatment and disease management and instruments for scientific research is presented to date, covering multiple years.

# Social inclusion and education





# Introduction

**‘Leave no one behind’ – that’s the pledge adopted by the United Nations’ 193 member states in the 2030 Agenda for Sustainable Development.**

This commitment highlights the importance of addressing social exclusion. While living standards, literacy rates and life expectancy have been improving for centuries, they are not evenly distributed across the globe or within countries.

Communities, governments, international agencies and institutions each have a part to play in improving how people and groups participate in society.

Unaddressed, social exclusion can result in limited education, poor employment outcomes and mental and physical ill health. As well as affecting people’s quality of life, at a national level it can constrain economic growth and lead to social unrest.

It can be challenging to determine which groups benefit from the products and services of the companies we analyse and to measure the long-term effects on people’s lives. However, as company reporting improves, assessing and identifying which companies are providing solutions to reduce inequalities becomes easier.



# Positive Change — part of the solution

**Keystone Positive Change Investment Trust aims to improve how people and groups participate in society by investing in companies that drive social inclusion through their products and services. This could be through removing barriers, enabling connectivity, and providing education and training.**

## The Challenges

The United Nations Development Programme (UNDP) identifies five key factors contributing to social exclusion. These are:

- **Discrimination** based on gender, religion, age, disability, sexual orientation, ethnicity or migratory status contributes to social exclusion. In 2022, a staggering 129 million girls globally are out of school, and 17.1 per cent of black people in the US were below the poverty line.
- **Geographic location** affects access to essential services and infrastructure, leading to inequality. It can lead to differences both between and within countries. For example, the number of people with income below the poverty line in Mexico is 20 per cent higher in rural areas than in urban areas.
- **Socio-economic status** can lead to deprivation and disadvantages in income, life expectancy and education. In Brazil, healthy life expectancy in the wealthiest quintile is 20 per cent longer than for those living in the poorest quintile.
- **Governance structures** can hinder social inclusion if they are ineffective, unjust or unaccountable. While a company cannot address global or national governance structures directly, its business practices should not exacerbate them.
- **Shocks and fragility:** From Covid-19 to extreme heatwaves and conflicts across the globe, climate change, natural disasters and health emergencies exacerbate inequalities. For example, Covid-19 pushed 47 million more women and girls into extreme poverty.

## Removing barriers

Providing affordable housing and accessible finance are two means by which companies can remove barriers to social inclusion in underserved communities or identity groups.

Reducing inequalities in home ownership can make a significant contribution to good health and wellbeing. We previously held Indian mortgage lender **HDFC Ltd.** This year it merged with **HDFC Bank**, significantly expanding the potential of the combined company to enable quality home ownership in India.

The high fees and poor customer service of Brazil's traditional banks have created barriers to financial inclusion. In contrast, **Nubank**, a Brazilian digital bank, offers free bank accounts on an efficient digital platform to 93.9 million customers. For nearly six million of its customers, this is their first credit card or bank account.

In Latin America, **MercadoLibre's** payments ecosystem is helping drive financial inclusion. The United Nations (UN) believes that financial inclusion is crucial to achieving at least eight of its 17 SDGs, citing its potential positive impact on gender equality, poverty, health and education.

## Enabling connectivity and innovation

Approximately 5.5 billion people (67 per cent of the global population) had access to the internet in 2023, leaving 2.6 billion behind. Reducing this figure will help more people access information, services and commerce to improve their lives.

**ASML** manufactures the high-end extreme ultraviolet (EUV) lithography systems used in the world's most powerful semiconductor chips, such as those produced by **TSMC**, the world's largest chipmaker. These two companies play a crucial role in lowering the cost and increasing the accessibility and functionality of modern technologies, such as smartphones.

**PsiQuantum** develops components and technologies that help produce quantum computers. Quantum computers have enormous potential to help solve complex environmental and social problems that were previously limited by the computational power of traditional computer systems.

Digital connectivity is the bedrock by which our holdings in companies such as **Shopify** and **MercadoLibre** drive change.

For example, Shopify provides merchants, primarily small- and medium-sized enterprises (SMEs), with access to payments and inventory management and many other online business services. Doing so enables them to compete with larger, established players and supports the livelihoods of their owners and employees.

MercadoLibre is committed to fostering entrepreneurship and social mobility through its ecommerce platforms which enables millions of SMEs to reach customers across Latin America.

## Education and training

According to UNICEF, in 2021, only two in three children globally attended lower or upper secondary education, and only one in two children attended upper secondary or higher education. Companies that can facilitate low-cost, high-quality, accessible learning could, therefore, radically transform individuals' prospects.

**Coursera** is an online platform that hosts various educational content, from massive open online courses (MOOCs) to guided projects, professional certifications and online degrees. In an ever-changing job market, the company has an important role to play in providing affordable, accessible and relevant qualifications.

Language learning app **Duolingo's** mission is to develop the best education platform and make it universally available. Learning a language can improve people's economic and cultural prospects. The company has also launched literacy, maths and music apps and today it has 85 million monthly active learners using its platform.

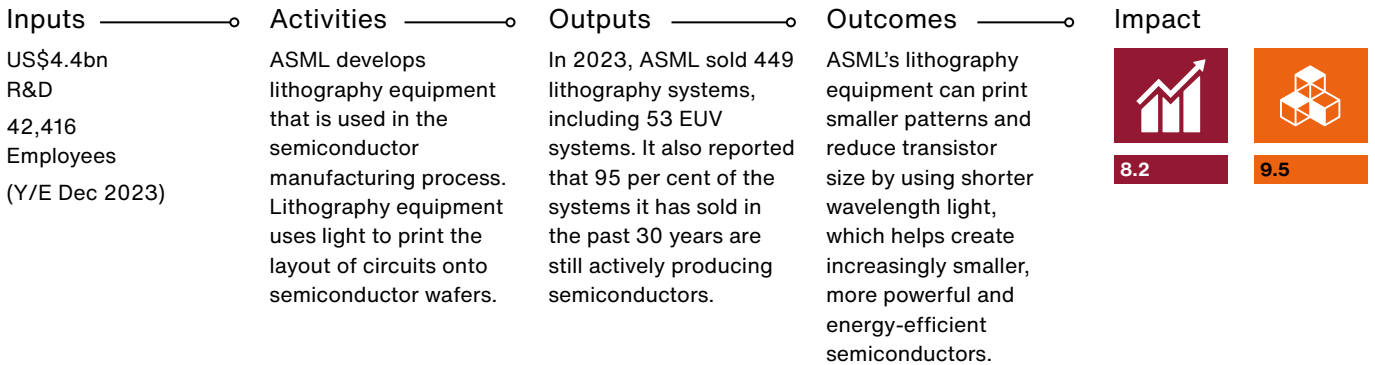
# ASML

First invested **February 2021**

## Positive Change hypothesis

ASML is the world's leading manufacturer of specialist lithography equipment that is critical to the manufacturing of semiconductor products. Semiconductors are essential to powering innovations across most, if not all, industries, and many of these innovations will be used to tackle societal challenges. By helping its customers create more efficient and affordable semiconductor products, ASML is a key enabler of this critical and growing industry. When others gave up, ASML persevered in developing extreme ultraviolet (EUV) technology, giving it a monopoly position that will help it propel advances in the industry for many years to come.

## Positive chain ▲



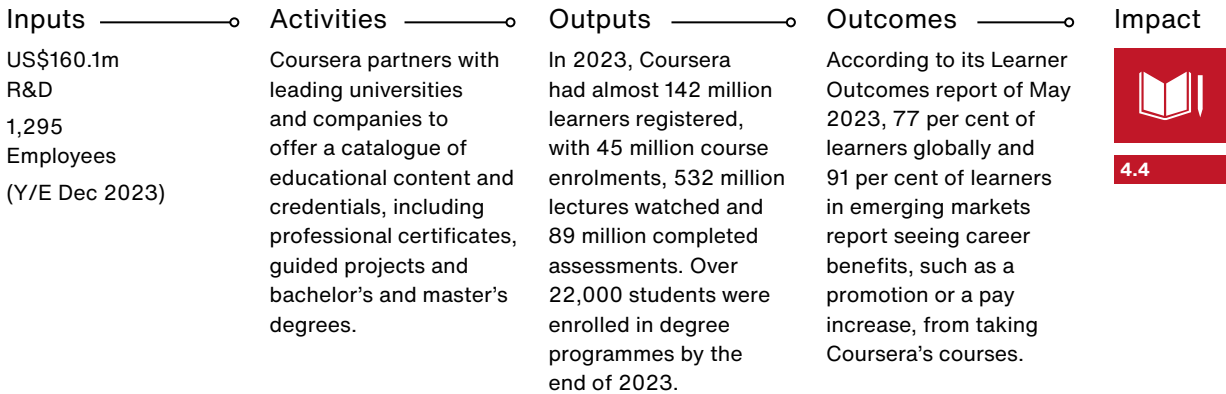
# Coursera

First invested **March 2021**

## Positive Change hypothesis

Coursera is an online learning platform hosting education content including short courses, guided projects, professional certification and online degrees. Coursera will benefit from network effects, as its large user base will help to attract more academic and corporate partners, which in turn attracts more learners. The company’s innovative products should engage learners and overcome resistance in the slow-moving education market. Success should lead to significant value for society by improving the accessibility of education and providing learners with relevant skills for an ever-changing job market.

## Positive chain ▲



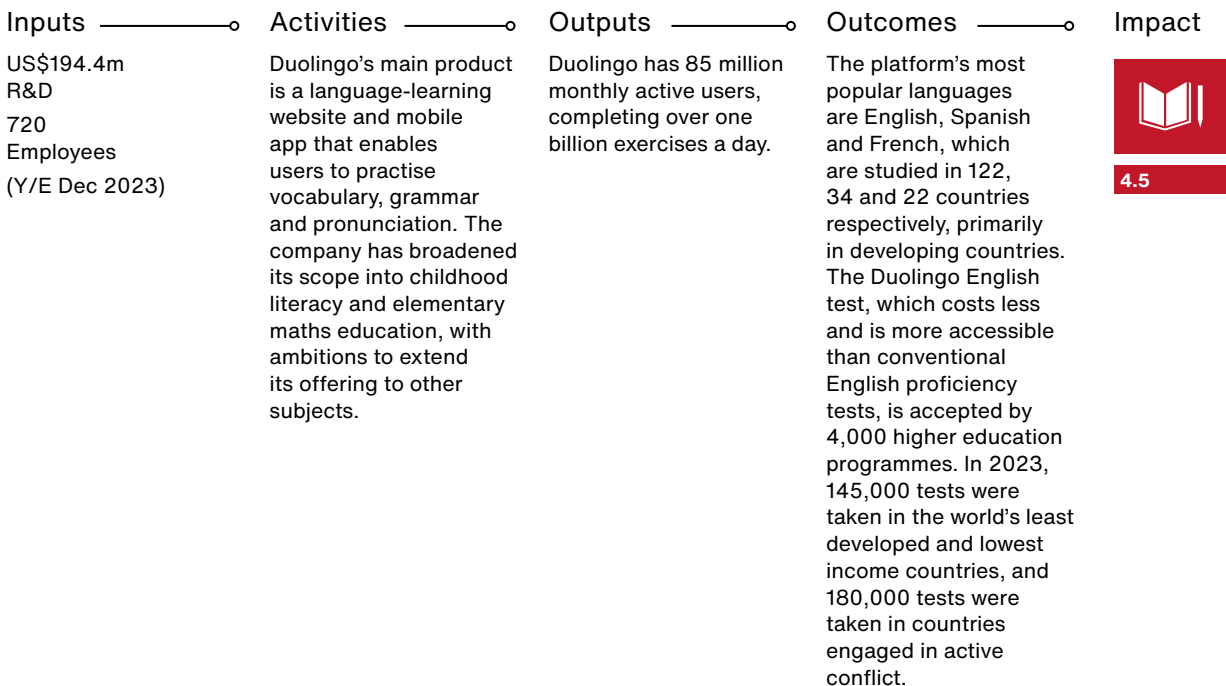
# Duolingo

First invested **November 2021**

## Positive Change hypothesis

Duolingo’s mission is to develop the best education in the world and make it universally available. Having started with a fun and engaging app to help people learn languages, it has since moved into English language testing, and recently launched separate literacy and maths apps. Through further content and product developments as well as new pricing strategies, it will be able to grow the user base and importantly, increase the paid conversion rate. Duolingo is run by a thoughtful and mission-obsessed co-founder, Luis von Ahn, who we believe will manage to strike the right balance between delivering on the mission and improving monetisation.

## Positive chain ▲



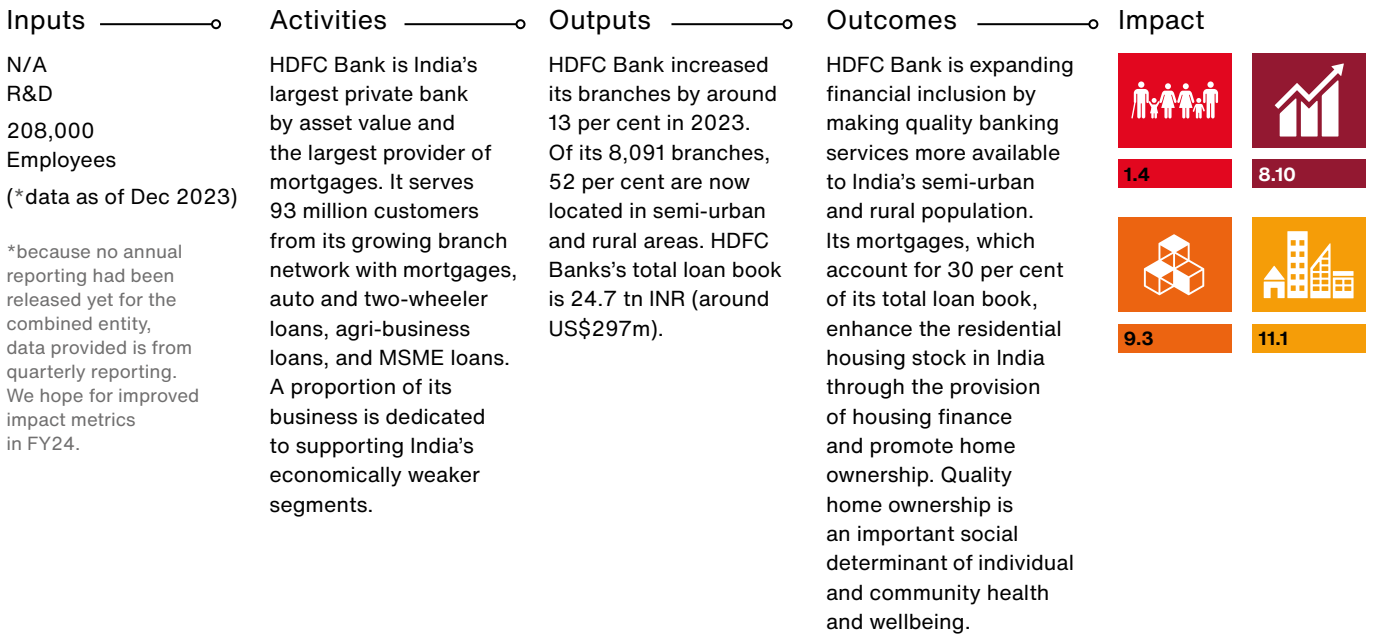
# HDFC Bank

Following HDFC merger with HDFC Bank July 2023

## Positive Change hypothesis

Following the merger of HDFC Bank with its parent company, HDFC Ltd, the combined bank will leverage its long-held reputation for quality lending to support the financial needs of India's emerging middle classes. The merger will accelerate the distribution of housing finance, which will deliver positive social outcomes, such as improved health and wellbeing. The bank's products include everything from savings accounts to education and small agricultural business loans. These products will support households and micro-, small- and medium-sized enterprises (MSMEs) in improving their financial resilience and capturing the economic opportunities that come from financial inclusion. HDFC Bank continues to expand its footprint, especially in semi-urban and rural areas, which will distribute its products to new populations and take share from inefficient state banks. At the same time, the Bank is leaning into digital banking to meet the demands of India's growing digital natives.

## Positive chain ▲








# MercadoLibre

First invested **February 2021**

## Positive Change hypothesis

MercadoLibre is Latin America’s largest ecommerce platform and is emerging as a leader in the region’s financial technology (fintech) industry. Ecommerce penetration is still low in Latin America, which should support high growth for some years. MercadoLibre provides a range of online and mobile payment solutions and financial services. These enable small businesses and consumers to access and transact financial services more easily and affordably than before, supporting economic resilience and opportunity. The fintech market is nascent, but MercadoLibre has enormous potential to contribute to supporting livelihoods and financial inclusion for millions, and we believe it has a competitive advantage by leveraging its ecommerce business.

## Positive chain ▲

Inputs	Activities	Outputs	Outcomes	Impact
<p>N/A R&amp;D 58,313 Employees (Y/E Dec 2023)</p>	<p>MercadoLibre operates across 18 countries in Latin America. Its main services include MercadoLibre (ecommerce), Mercado Pago (payments), Mercado Crédito (loans) and Mercado Envíos (logistics).</p>	<p>In 2023, MercadoLibre had 218 million unique active users (47 per cent more than in 2022), more than 10 million merchants, including over 574,000 SMEs across its platforms.</p> <p>As of December 2023, Mercado Pago had 68.8 million unique users. In 2023, over US\$13.6bn worth of loans were provided to individuals and businesses, a 35 per cent increase compared to 2022. MercadoLibre granted over 45 million loans to entrepreneurs and SMEs in 2023.</p>	<p>SMEs are the backbone of the Latin American economy, representing around 60 per cent of employment. MercadoLibre provides SMEs with access to online marketplaces, payment solutions and credit, supporting livelihoods and productivity. In 2023, MercadoLibre commissioned an impact study which found that 1.8 million families depended on its platform for their main source of income, and more than half of its SMEs could have access to credit through Mercado Pago for the first time.</p>	<div style="display: flex; flex-direction: column; align-items: center;"> <div style="display: flex; justify-content: space-around; width: 100%;"> <div style="text-align: center;">  <p><b>1.4</b></p> </div> <div style="text-align: center;">  <p><b>8.1, 8.10</b></p> </div> </div> <div style="margin-top: 10px; text-align: center;">  <p><b>9.3</b></p> </div> </div>

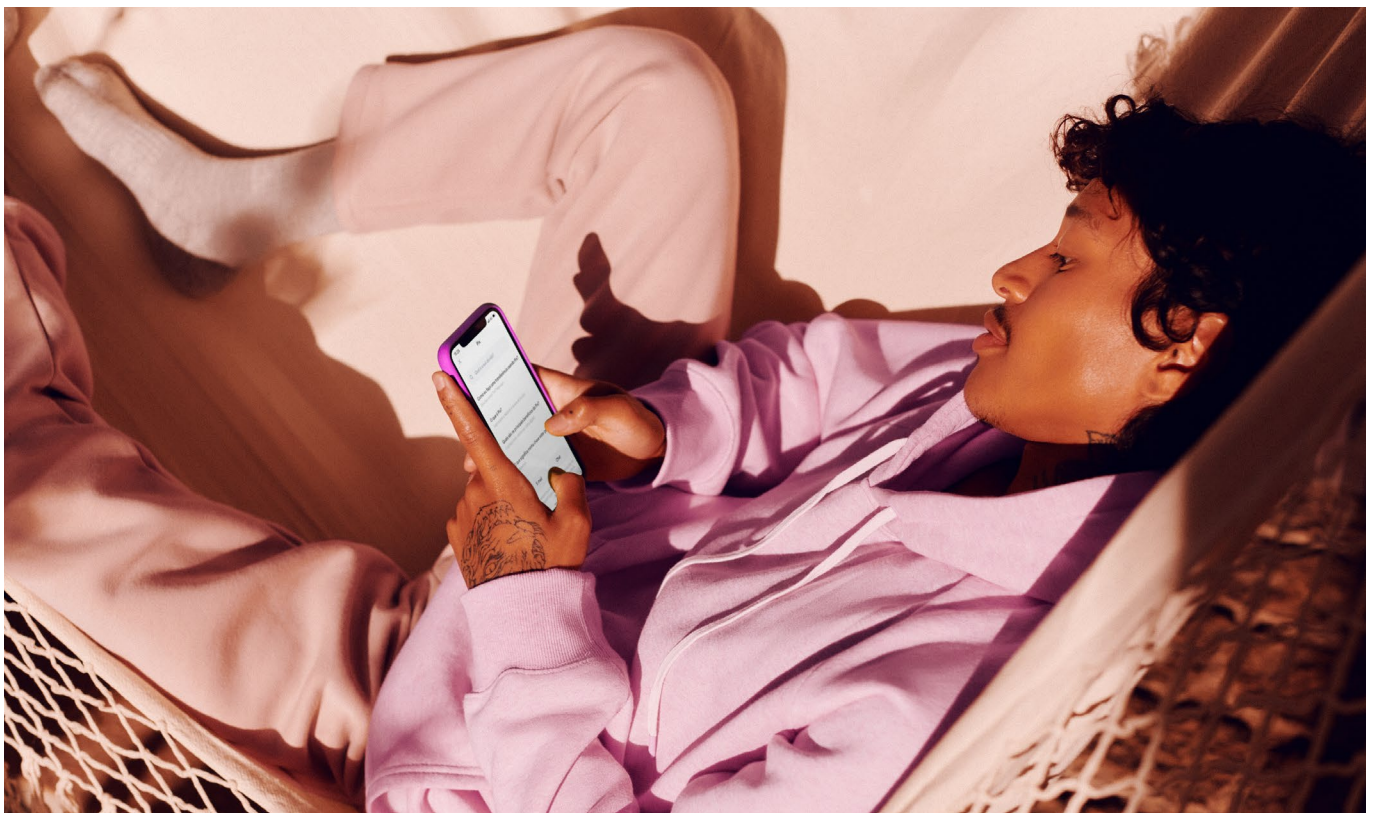
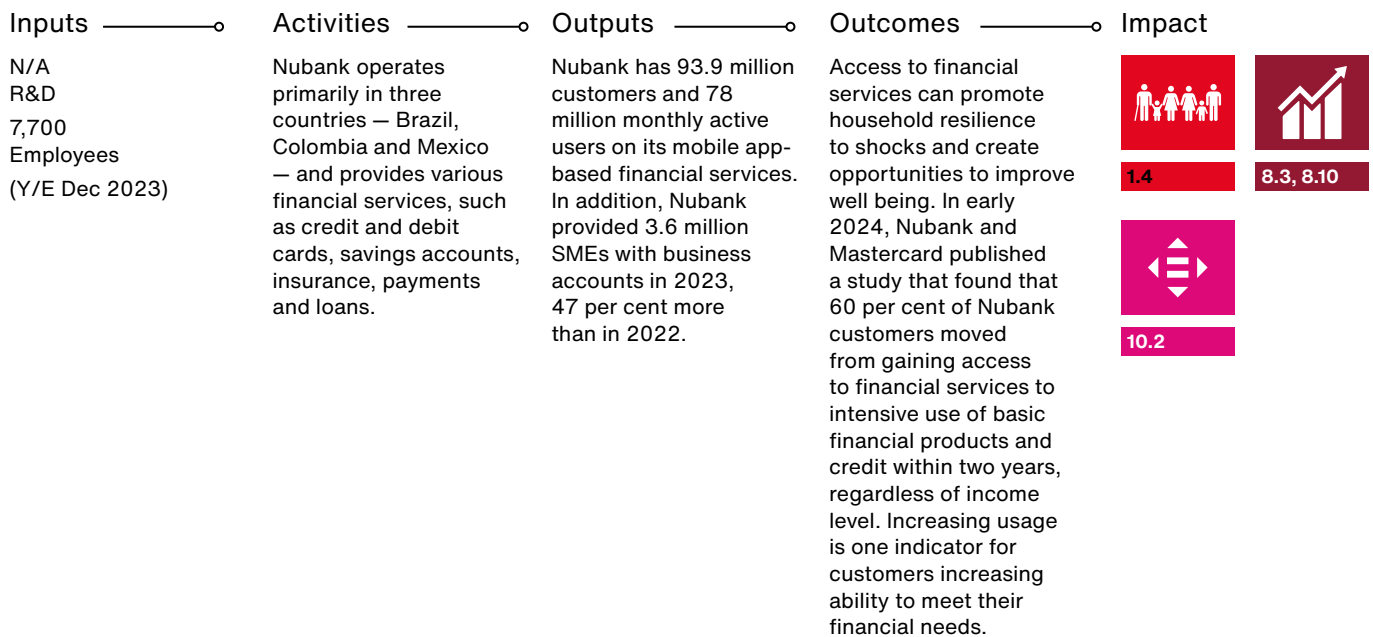
# Nubank

First invested **December 2021**

## Positive Change hypothesis

Nubank is a Brazilian digital bank that aspires to reshape the Latin American financial system. In Latin America, many customers are poorly served by traditional banks which have been able to earn far higher returns than in many markets – a consequence of the historically volatile conditions and a degree of regulatory capture. Nubank has managed to acquire tens of millions of customers across Brazil, Colombia and Mexico through simple but desirable products and importantly at lower costs. Growth will come from continuing to grow its customer base and building deeper relationships with them to extract higher wallet share. We believe that Nubank’s long-term and customer-oriented culture, along with durable cost and underwriting advantages, and a highly motivated and experienced leadership team will lead to high growth and profitability in the next five years.

## Positive chain ▲



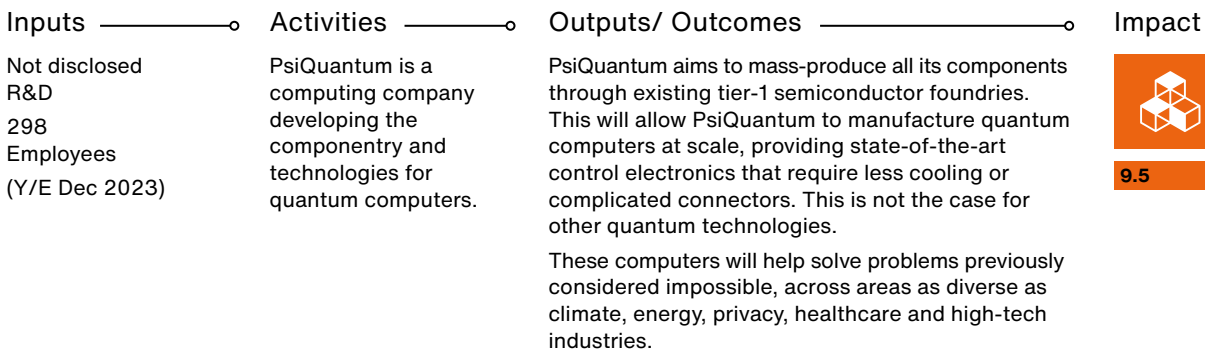
# PsiQuantum

First invested **May 2021**  
Private holding

## Positive Change hypothesis

PsiQuantum aims to build a large-scale, error-corrected, general-purpose quantum computer using conventional silicon chips. Although it may be initially more challenging to develop than the other quantum computing technologies being explored, this approach holds more promise in performance and manufacturing scalability. If successful, the unparalleled power of quantum computing could transform every aspect of modern technology by running models that are too complex for conventional computers, leading to breakthrough applications such as green fertilisers, large protein folding and in-silico drug development.

## Positive chain ▲



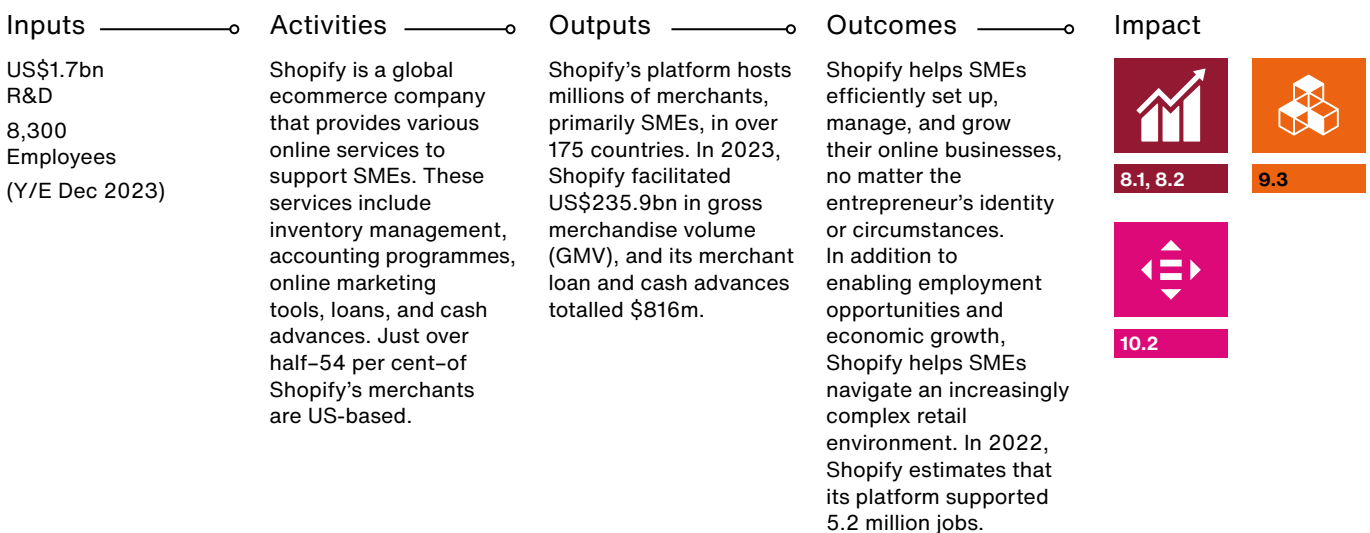
# Shopify

First invested **February 2021**

## Positive Change hypothesis

Shopify enables small businesses to set up and sell products online by providing a one-stop shop of simple-to-use and low-cost tools including hosting, fulfilment, advertising and payment services. Integrating these tools with each other and across platforms and channels can enable entrepreneurs from all backgrounds to start businesses, compete and expand quickly. This reduces inequalities of opportunity, promoting economic diversity and job creation. The company has grown rapidly in recent years but still appears to be at the very early stages of tapping into the huge opportunity ahead of it.

## Positive chain ▲



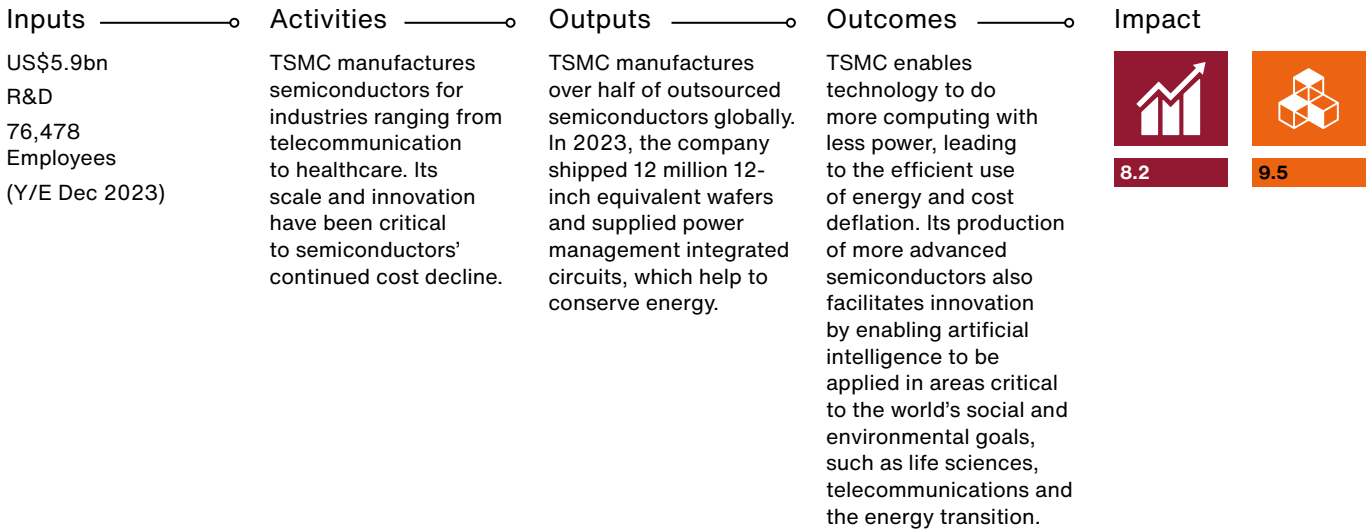
# TSMC

First invested **February 2021**

## Positive Change hypothesis

TSMC is the world's largest integrated circuit foundry. The company's scale, technology and efficiency will continue to enable price declines for semiconductors, enabling innovation and environmental and social impact across many industries. The capital intensity of the foundry industry is continually increasing, and TSMC, being a trusted long-term partner and the largest company, can invest in the latest equipment to maintain its cost advantage. These advantages should enable TSMC to benefit from the long-term growth of the semiconductor industry while generating attractive returns.

## Positive chain ▲









# Environment and resource needs





# Introduction

**Human activity has significantly impacted our planet, increasing greenhouse gas (GHG) emissions and stress on the Earth's systems.**

Despite the challenges, we are optimistic that human ingenuity and business leadership can address these issues, promoting a sustainable future.

Over the coming decades, every sector of the economy will need to decarbonise and rebalance its relationships with nature. This will bring enormous opportunities to scale the past decade's emerging technologies, revolutionise existing industries and commercialise new ones.



# Positive Change — part of the solution

The Keystone Positive Change Investment Trust portfolio focuses on three key areas to address environmental and resource challenges: the energy transition, sustainable resource use and transforming agriculture. These areas will support a sustainable future for our planet and its inhabitants.

## The Challenges

- Since 1990, GHG emissions have surged by 54 per cent. Therefore, to achieve the Paris Agreement's goal of limiting global warming to 1.5C, emissions will need to be reduced by 45 per cent from their 2022 levels.
- As we transition to renewable electricity generation, the 'energy trilemma' involves finding a balance between the sustainability, affordability and reliability of energy supply.
- Human activity is causing the most extensive loss of plant and animal life since the dinosaurs, necessitating solutions to prevent habitat destruction from industrial activities.
- Resource efficiency is critical for addressing environmental challenges, with a need for technological, digital and behavioural solutions to conserve and preserve water, food, energy and minerals.

## The energy transition

Recent years have seen remarkable advances in renewable energy development, marking a shift from traditional fossil fuel dependency to a more varied and sustainable global energy mix. At the same time, technological advances are also playing a crucial role in the electrification of energy demand, paving the way for a cleaner, more sustainable future.

Transport is one of the largest sources of energy use in the economy. **Tesla** helps to tackle this, with its best-selling Model Y, and more than five million electric vehicles (EV) on the road. The company's commitment to reducing prices and expanding its product range into pickup trucks and lorries is encouraging greater EV adoption.

**Northvolt** aims to support this transition to electric transport by using renewable energy and recycled and sustainably sourced materials to produce batteries in Europe.

Yet cars are not the only form of transport that can contribute to the energy transition. **Joby** is producing innovative electric vertical take-off and landing (eVTOL) aircraft (helicopters) and is involved in the development of hydrogen aircraft to replace medium- and long-haul flights.

**Ørsted** is a pioneer in renewable energy, covering everything from offshore wind to green hydrogen. In 2023, Ørsted generated over 13.1 terawatt-hours (TWh) of power from wind and solar.

These renewable energy sources only generate electricity when conditions are right and solutions are required to store energy when it's generated and release it when demanded. Here, Tesla's battery storage systems make it possible to store energy for the grid and the home, safely and reliably.

**Autodesk's** architecture, construction and engineering design software enables engineers and architects to make informed decisions on the energy use and embedded environmental footprints of buildings and



infrastructure. Addressing GHG emissions from the built environment – responsible for almost 40 per cent of global energy-related carbon emissions – is an enormous challenge.

This is also why, in 2023, Keystone Positive Change Investment Trust took a holding in **Katitas**.

The Japanese housing developer purchases, renovates and resells pre-owned homes in regional cities and suburban areas that may have otherwise been abandoned.

## Sustainable resource use

Addressing the over-exploitation of natural resources is essential and fundamental to sustaining life and socioeconomic progress.

Global water demand will exceed supply by 40 per cent by 2030. While few companies improving water efficiency are household names, their leadership and commitment to innovation are impressive.

**Xylem** addresses the water challenge by manufacturing equipment that is critical infrastructure for water transportation, treatment and testing.

**Ecolab** is a one-stop shop that provides speciality chemical products, such as hand sanitiser, and through wastewater treatment. Its customers have improved operational efficiency by conserving over 856 billion litres of water annually.

**Umicore** is a leading manufacturer of battery cathodes, a critical component in electric vehicles. It also operates the world's largest precious metals recycling plant and electric vehicle battery recycling plant, building a path to a closed-loop metals system.

**Boston Metal** is also making metal production more sustainable. It will apply its molten oxide electrolysis technology to support the decarbonisation of steelmaking and extract high-value metals from mine waste.

## Transforming agriculture

Food systems contribute more than one-third of total global GHG emissions each year. We must find a way to balance the world's need for food production with environmental conservation and limiting biodiversity loss.

**Deere** is an agricultural equipment company. Its precision technologies help farmers increase their yields while cutting their negative environmental impact. In 2023, the company's See & Spray technology helped farmers reduce their herbicide use by over two-thirds.

By 2030, Deere has set a target for 75 per cent of the acres being actively farmed by its customers to be farmed using sustainable practices. That includes the use of fully autonomous, battery-powered electric tractors, which also help address other negative consequences of farming, such as soil compaction.

**Novozymes**, the world's largest manufacturer of industrial enzymes, creates biological products, which enhance crops' access to nutrients in the soil, meaning farmers can use less artificial fertilisers while maintaining, or even improving, yields.

## Carbon Removal

To maximise our chances of limiting global warming to 1.5C, the world must reduce emissions at an unprecedented speed and remove historical and unavoidable CO2 emissions from the atmosphere.

One way to do this is through Direct Air Capture (DAC). Keystone portfolio holding **Climeworks** is pioneering this technology and aims to remove a gigaton of CO2 from the atmosphere by 2030. In 2024, Climeworks will begin operating its largest facility in Iceland.

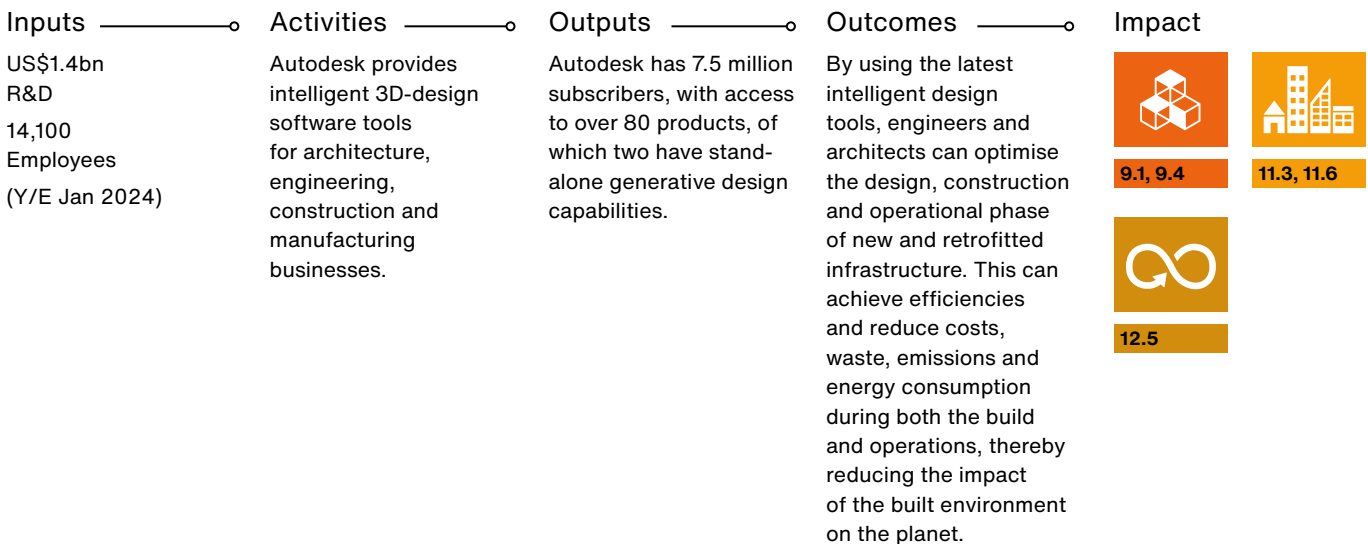
# Autodesk

First invested **December 2022**

## Positive Change hypothesis

Autodesk is a leading 3D design software provider. It provides the latest digital design and building information modelling (BIM) tools for the manufacturing and construction industries. Using intelligent generative design, its cloud-based tools enable architects and engineers to make better, more informed designs in less time and at a reduced cost. In turn, this can reduce the amount of resources needed during the construction and manufacturing stage and the amount of energy consumed during an asset’s operational and use phase.

## Positive chain ▲



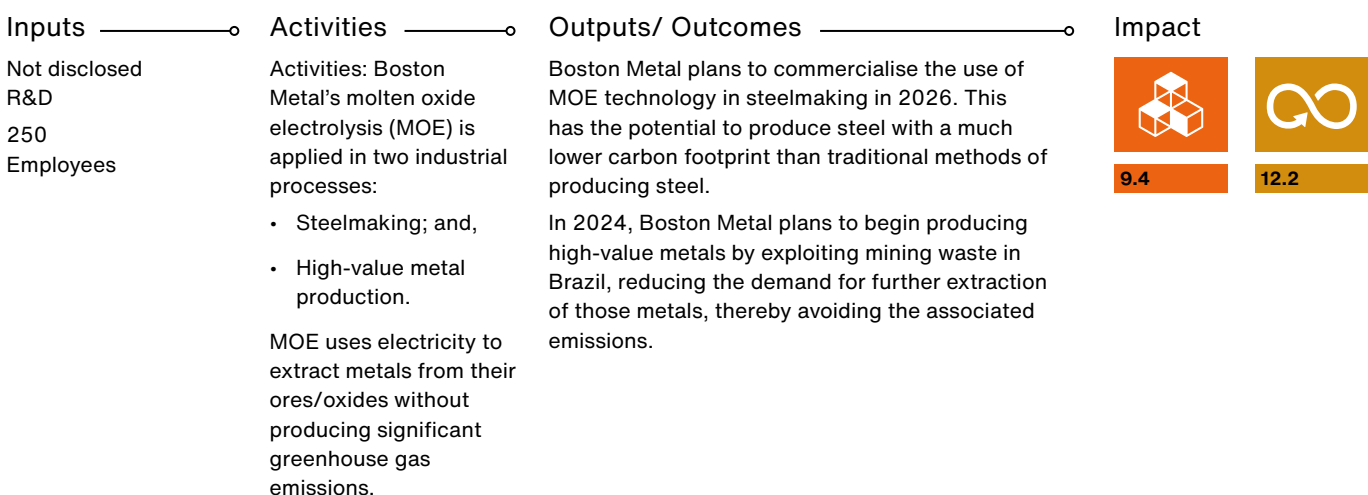
# Boston Metal

First invested **August 2023**  
Private holding

## Positive Change hypothesis

Boston Metal will successfully scale up its molten oxide electrolysis (MOE) technology for recycling high-value metals and steel production, supporting the steel industry’s decarbonisation and improving resource efficiency for certain metals. For steel production, this novel approach should prove to be more competitive than green hydrogen because it can use low- to mid-grade ores, eliminate the need for chemical reductants, and is more modular. Boston Metal’s research and expertise for inert anodes will provide a durable competitive advantage. Boston Metal will build, own and operate facilities for high-value metal recycling and license out the MOE technology to steel companies, providing substantial opportunities for future growth.

## Positive chain ▲



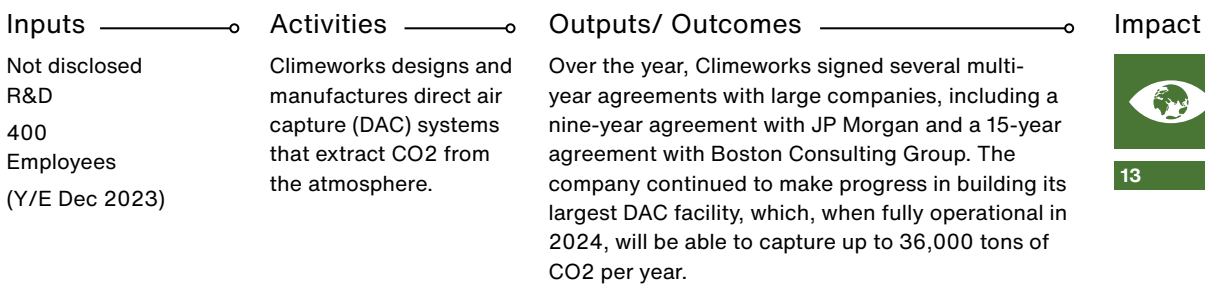
# Climeworks

First invested **April 2022**  
Private holding

## Positive Change hypothesis

While reducing greenhouse gas emissions is essential to our fight against climate change, durable carbon removal solutions are also necessary to help us remove historic emissions and those from hard-to-abate sectors. Founded in 2009, Climeworks is a leading direct air capture (DAC) company. Its Orca facility in Iceland has an annual capacity to remove 4,000 tons of CO2 from ambient air, and it's currently constructing its next facility with an annual capacity of up to 36,000 tons. The carbon removal industry is still nascent and is currently supported by government funding and companies willing to pay for high-quality carbon removal. For Climeworks to succeed, it needs to rapidly reduce its cost base to become a viable option without subsidies and find the right business model to widen its customer base. We have been impressed by the management team across numerous interactions and from talking to multiple industry sources. We believe they could be the team that unlocks this opportunity.

## Positive chain ▲



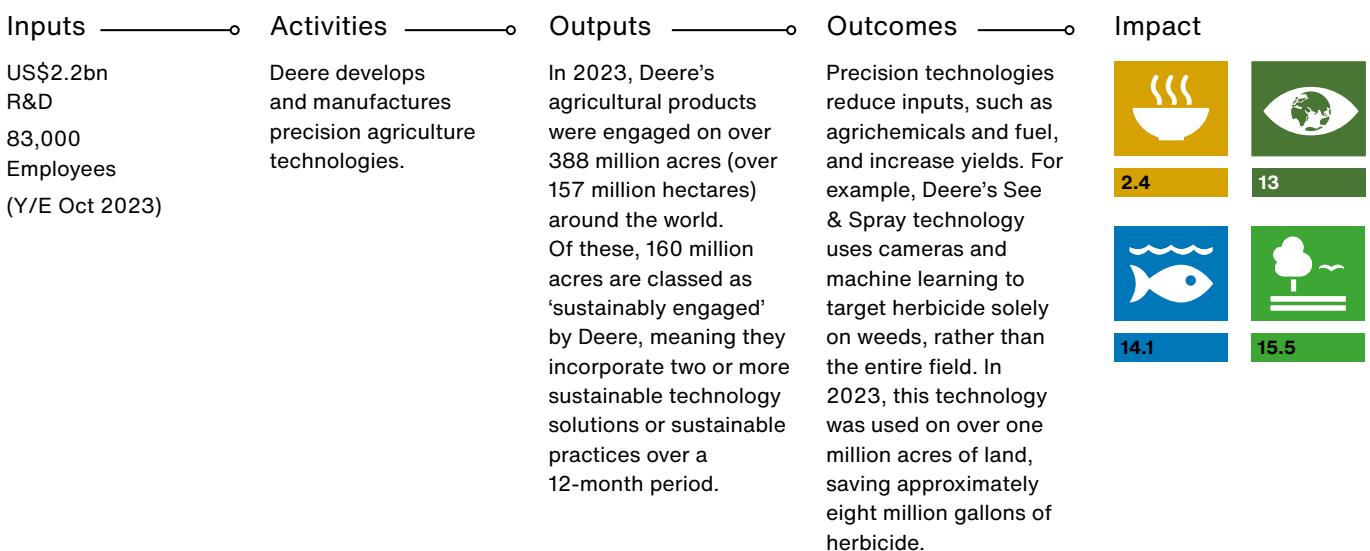
# Deere

First invested **February 2021**

## Positive Change hypothesis

There is an urgent need to address the harmful environmental impact of industrial farming while increasing agricultural output to feed a growing global population. Precision agriculture technologies will be an essential part of the solution, driving higher farming productivity and reducing the negative environmental impacts of agriculture. As the largest farming equipment manufacturer, Deere will use its scale, the vertical integration of its technology development, and its close relationships with dealers and farmers to encourage the uptake of precision agriculture technologies. In doing so, Deere will emerge as the leader in precision agriculture, driving profitable growth and helping improve the sustainability of farming.

## Positive chain ▲



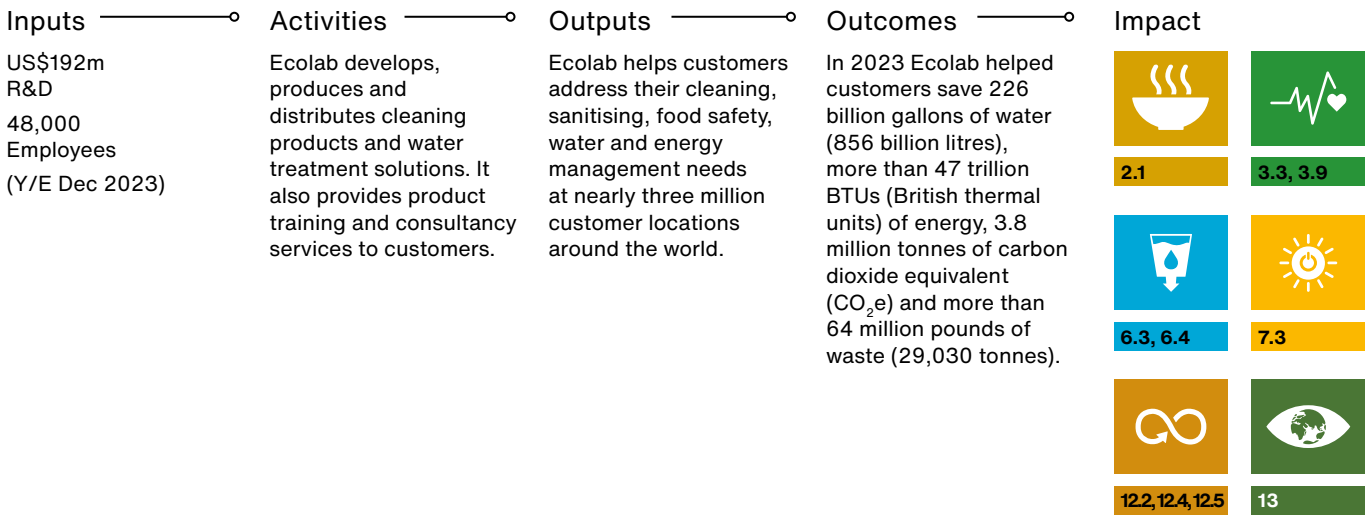
# Ecolab

First invested **February 2021**

## Positive Change hypothesis

Across hundreds of industries, Ecolab's thousands of products help minimise harm to human health from infection, protect local water resources and mitigate climate change. Ecolab is the partner of choice for millions of companies striving to achieve safer, more efficient and more sustainable operations. This trend will continue to be a tailwind for Ecolab's growth for many years, supported by share gains in growing markets, further acquisitions, digitalisation and innovative product lines.

## Positive chain ▲



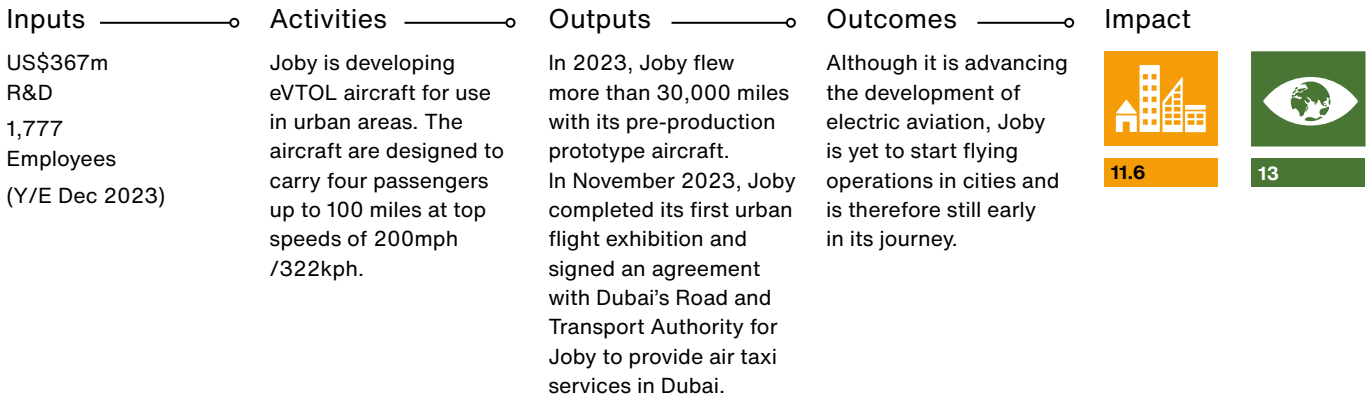
# Joby Aviation

First invested **August 2021**

## Positive Change hypothesis

Joby develops electric vertical take-off and landing (eVTOL) aircraft. This new form of transport could bring substantial environmental benefits by bypassing fossil fuel-powered transport systems and social and economic improvements by reducing congestion. Joby aims to make its service cost-competitive relative to transit and on-demand transportation, which could unlock a market worth hundreds of billions of dollars annually. Achieving this vision will require Federal Aviation Administration (FAA) certification, scaling manufacturing, building infrastructure and designing front-end service.

## Positive chain ▲



© Joby Aviation.

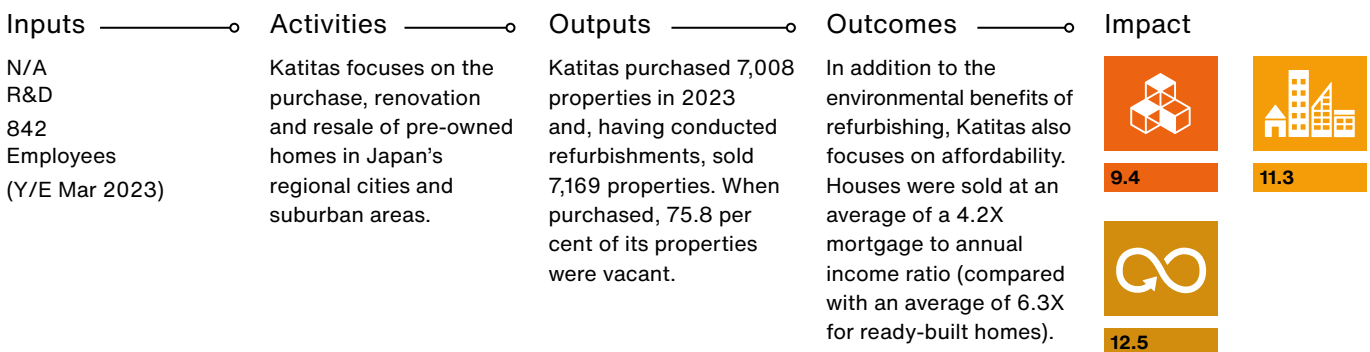
# Katitas

First invested **December 2023**

## Positive Change hypothesis

The Japanese housing market is distinctive, with buyers overwhelmingly preferring to purchase new-builds over existing housing stock. This preference, along with an ageing demographic and declining rural populations, has resulted in a marked trend for abandoning old homes ('akiya', which translates as 'empty house') rather than re-selling. Katitas is trying to solve this problem by refurbishing vacant homes to a high standard before selling them to first-time buyers at affordable prices. In doing so, it addresses societal (affordability, regional prosperity) and environmental (avoiding emissions, encouraging circularity) issues. Katitas's model is poised to benefit from structural changes - not least the unsustainability of solely building and buying new homes. Additional drivers include younger generations' openness to second-hand purchases and governmental incentives to reduce akiya volumes. Katitas's scale and unique expertise enables it to dominate the pre-owned market, and we are excited about its ability to grow its top and bottom lines as it increases the productivity of its sales force.

## Positive chain ▲



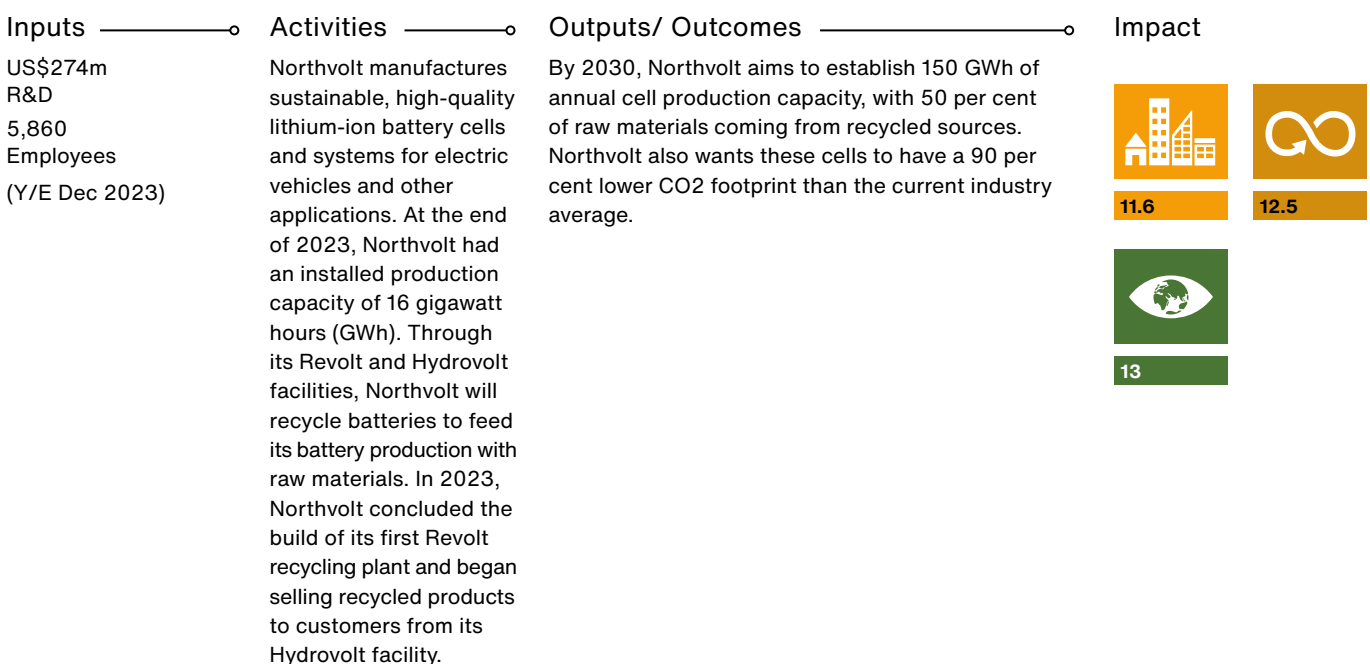
# Northvolt

First invested **June 2021**  
Private holding

## Positive Change hypothesis

Northvolt is a leading battery manufacturer whose ambition is to scale up Europe's sustainable battery production. The demand for batteries will grow significantly, and meeting this demand will be crucial for tackling climate change and improving air quality. Its competitive advantage initially comes from Northvolt's ability to attract talent and access to low-cost renewable electricity. This should develop into more durable advantages in scale, customer relationships, sustainability credentials, and the vertical integration of cathode manufacturing and battery recycling. The potential investment returns could be very attractive if the company successfully executes its strategy.

## Positive chain ▲





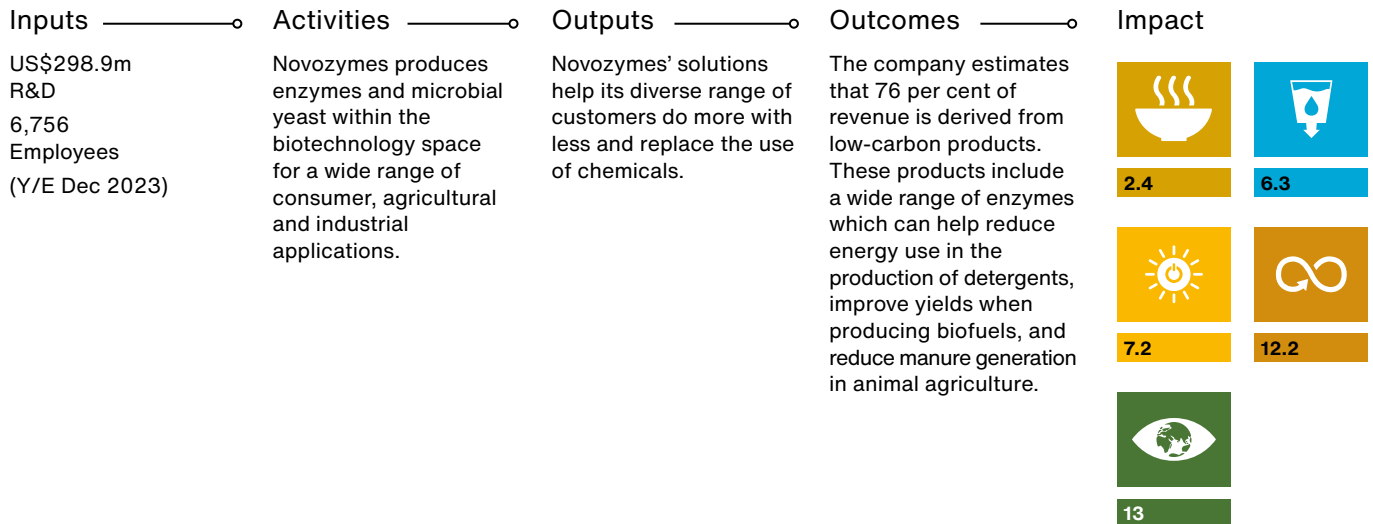
# Novozymes

First invested **February 2021**

## Positive Change hypothesis

Novozymes is the world’s largest manufacturer of industrial enzymes. Its products are used across numerous end markets, aiming to make products or processes more effective, efficient, durable and less resource-intensive. Novozymes’ scale, focus, and commitment to long-term innovation present substantial hurdles to new market entrants and should support superior performance compared with peers, generally divisions of larger organisations. Improved versions of existing products and new applications for enzyme technology mean that Novozymes’ products can continue to make the world a better place while growing revenues and profits at an attractive rate.

## Positive chain ▲



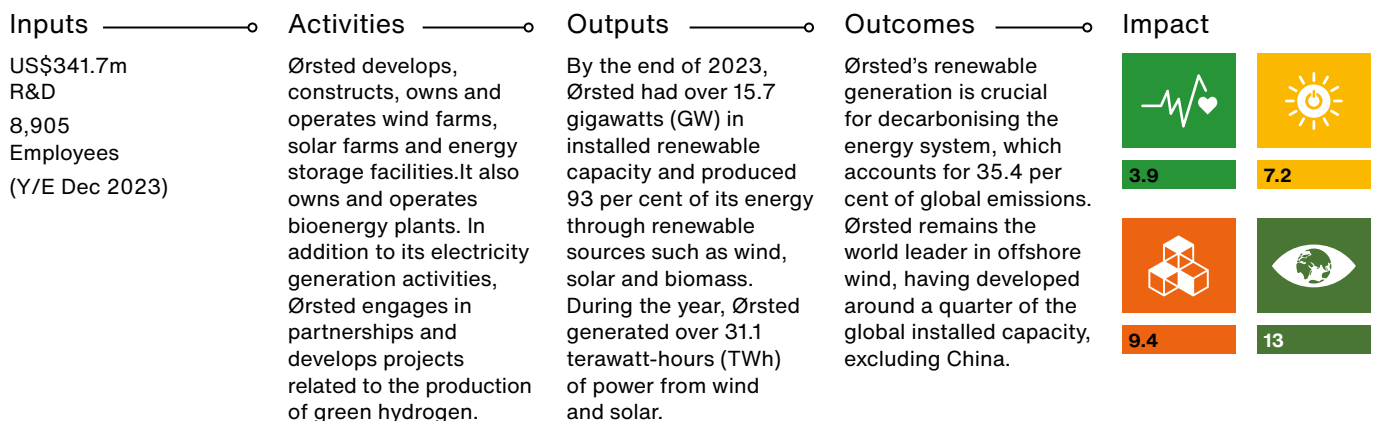
# Ørsted

First invested **February 2021**  
Sold **January 2024**

## Positive Change hypothesis

Ørsted is a renewable energy developer and a global leader in offshore wind energy. Continuing to build out renewable energy infrastructure will be an essential part of tackling climate change, where Ørsted can play a significant role. We believe Ørsted’s reputation and expertise in managing large projects and working with different stakeholders will enable it to earn a return on investment. New growth opportunities, such as green hydrogen, could provide further upside.

## Positive chain ▲



## Update

Our original investment thesis for Ørsted is that offshore wind will become an important source of energy generation for many countries and that Ørsted’s scale and expertise will enable the company to profitably capitalise on this growth opportunity. Unfortunately, recent events have reduced our conviction in Ørsted’s ability to execute. The company incurred significant losses in 2022 due to poor hedging policies and recognised a large impairment in 2023 on its US business. While the growth opportunity remains, we have lost confidence in the management’s ability to allocate capital effectively and generate long-term value for shareholders.

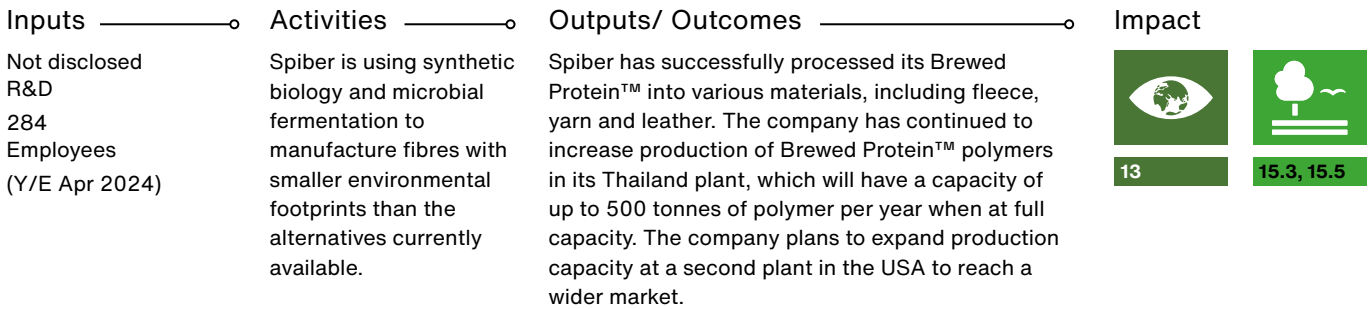
# Spiber

First invested **September 2021**  
Private holding

## Positive Change hypothesis

Spiber is an early-stage innovative Japanese company that applies synthetic biology and material science to create and manufacture novel fibres. While these share the attractive qualities of animal or petrochemical-based fibres, they can be produced in a much more environmentally sustainable way and are biodegradable. Spiber's products could be used in several applications, from apparel to automotive parts. We admire Spiber's vertically integrated approach and established partnerships, helping the company commercialise its products.

## Positive chain ▲



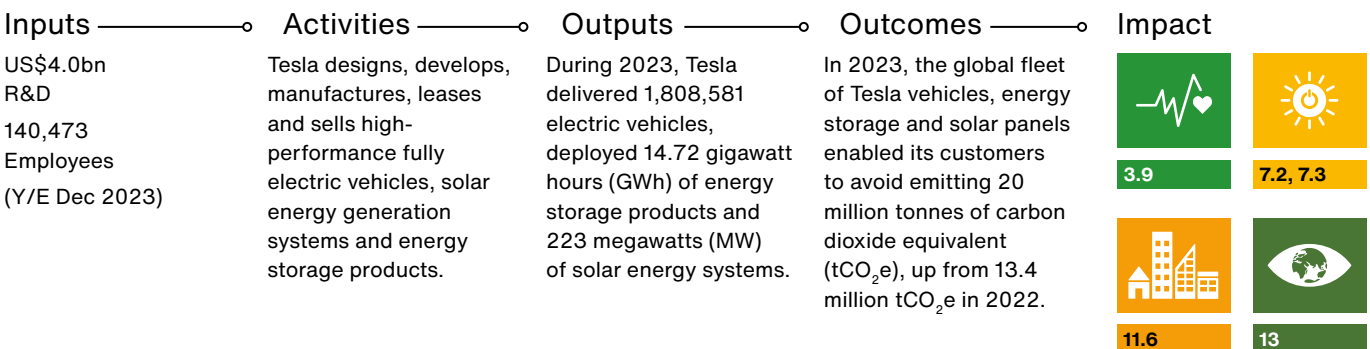
# Tesla

First invested **February 2021**

## Positive Change hypothesis

Tesla aims to accelerate the transition towards a sustainable energy system by developing and commercialising EVs, solar and storage products. The adoption of EVs is rising, driven by decreasing costs, an improved driving experience, regulatory support and consumer awareness of climate change. Similarly, solar energy generation and storage is being driven by technological improvements and economics. We believe Tesla has strong competitive advantages which will enable it to emerge as a winner in the energy transition and generate shareholder value along the way.

## Positive chain ▲





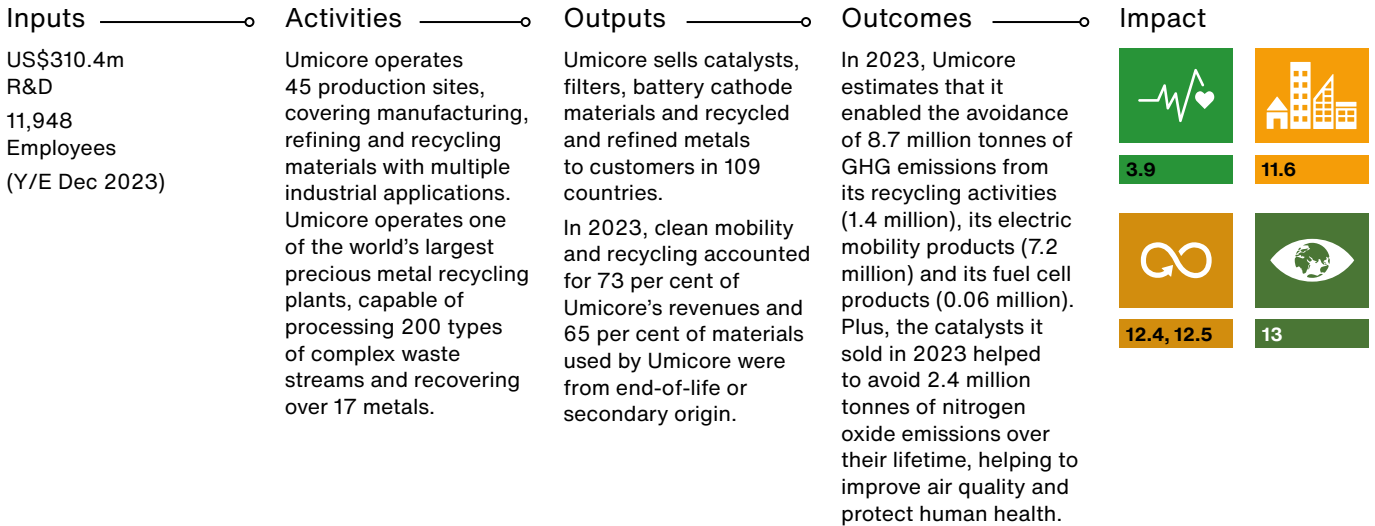
# Umicore

First invested **February 2021**

## Positive Change hypothesis

Umicore is one of the world’s largest manufacturers of automotive catalysts and lithium-ion battery cathodes. These are essential for reducing the negative impacts of poor air quality and electrifying the transport sector. The rising adoption of electric vehicles will support significant growth in demand for cathode materials. The company’s process know-how and relationships with automotive manufacturers should enable Umicore to earn a return in this growing market. This will offset a longer-term decline in the automotive catalysts business. Metal recycling and opportunities in hydrogen fuel cells – both critical enablers of the energy transition – should provide additional upside in investment returns and climate impact.

## Positive chain ▲



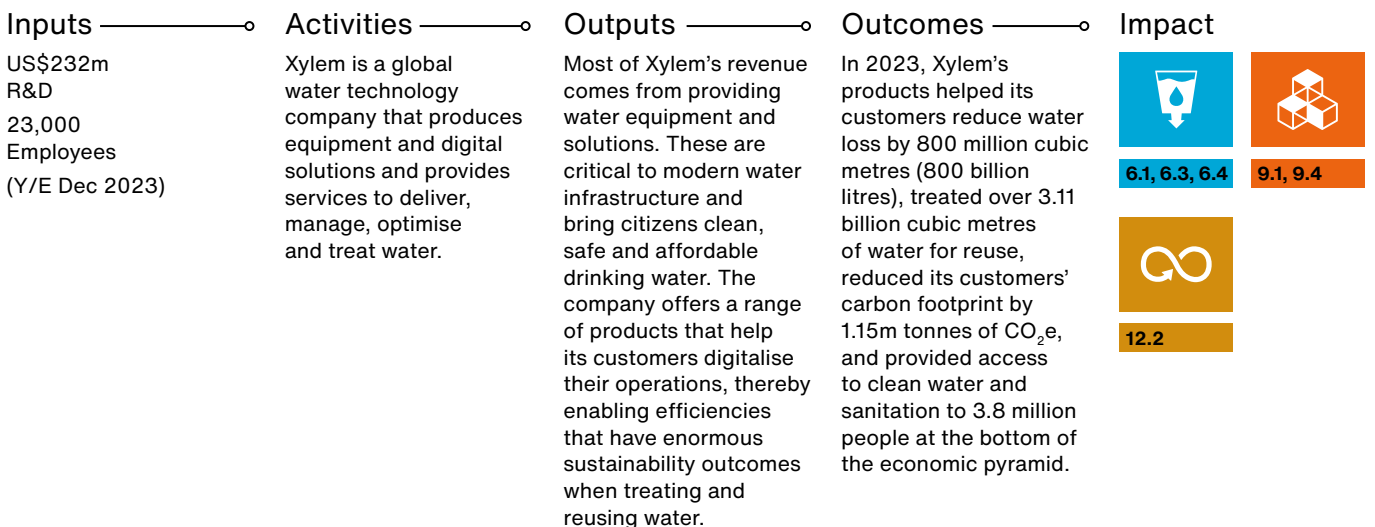
# Xylem

First invested **February 2021**

## Positive Change hypothesis

Xylem manufactures pumps, filters, and treatment and testing equipment for modern water infrastructure. As a very large water company, Xylem’s scale in distribution, research and development, and reputation should give the company an advantage as utilities and governments look for more efficient ways to address water challenges. The need to improve access to clean sanitation, reduce water pollution and upgrade aging infrastructure should support attractive long-term growth prospects for Xylem.

## Positive chain ▲



# Healthcare and quality of life





# Introduction

**The rise in lifestyle and age-related diseases and the challenges associated with complex healthcare systems, rising costs and inequalities mean that there are large opportunities for companies to address.**

Despite the significant challenges that remain in gaining access to healthcare and the global disease burden, there is much to be positive about. Advances in technology, our understanding of biology, personalised treatments and disease prevention provide reasons for optimism.

The Keystone Positive Change Investment Trust aims to support innovative companies pioneering new technologies designed to improve health outcomes around the world, as well as those helping to make quality healthcare and treatments available to more people.



# Positive Change — part of the solution

The Keystone Positive Change Investment Trust portfolio includes companies contributing to improved health outcomes in five ways: improving our understanding of diseases, diagnostics, treatment, disease prevention and efficiency (system enablers).

## The Challenges

- Lifestyle and age-related diseases are on the rise. Each year, 17 million people die from non-communicable diseases before age 70, predominantly in low- and middle-income countries.
- Millions of people still suffer from incurable diseases. For example, over 55 million people globally are living with Alzheimer's, for which there is no known cure. Continued research and innovation are essential to find better treatments and cures for such diseases.
- Rising healthcare costs are a significant concern. The financial strain of healthcare can prevent people seeking the necessary care and medical debt can trap individuals, and their families, in a cycle of financial hardship. Healthcare costs cause financial hardship for around two billion people each year.
- Many people around the world lack access to essential medications and basic healthcare services. The Covid-19 pandemic highlighted the extent of global health disparities and in some cases further exacerbated them.

## Improving our understanding of diseases

Biology is complex, but a convergence of technologies is helping to explore it in increasing detail. Single-cell analysis platforms, advances in imaging and the advent of artificial intelligence are helping scientists to make rapid progress in their understanding of diseases and their root causes.

We invest in **Illumina**. Its genome sequencing technology enables the identification and, in some cases, preventative or targeted treatment of many diseases, including rare cancers.

We also invest in **10x Genomics**, whose machines can be used with Illumina's technology, providing a more detailed analysis of single cells than previously possible. This type of research supports developing of new drugs and treatments for diseases.

## Diagnostics

Our improving understanding of biology enables earlier diagnosis and treatment of disease.

Previously, it might only have been possible to detect a disease when the patient was displaying later-stage symptoms.

In some instances, we can now diagnose disease before a patient is aware of symptoms or when the disease progression is still in its early stages. As well as the obvious benefits for individuals, this can also save costs for the healthcare system from reduced hospitalisations and misdiagnosis, for example.

One example of the progress being made is Illumina's blood test. It can detect over 50 types of cancer at an early stage, making early diagnosis and treatment more feasible.

## Treatment

Treatments should either lead to a cure or substantially improve patient outcomes without compromising their quality of life.

Historically, drug development has taken about 10 years and costs \$1bn per drug, with only a 9 per cent chance of it being approved and commercialised successfully; the process starting again for the next drug.

In contrast, **Alnylam**, whose RNA-interference-based drugs identify and silence faulty genes for rare and more common diseases, has enjoyed a 60 per cent track record of success.

**AbCellera's** portfolio of technologies and services help scientists discover better antibody-based medicines and get them to patients faster.

We also invest in **Dexcom**, whose continuous glucose monitoring (CGM) devices enable diabetic patients to manage their glucose levels better, reducing the risk of complications and preventing more serious disease.

## Disease prevention

Diseases have a negative impact on both individuals and society. One way to reduce harm and save costs is to prevent them occurring in the first instance.

In the face of the world's growing burden of non-communicable diseases caused by environmental and lifestyle factors, a healthy diet and exercise are essential for maintaining good health.

As such, companies that provide products and services that remove the barriers to leading a healthy lifestyle can contribute to disease prevention.

**Discovery's** shared value insurance products incentivise healthy behaviours, such as exercising, healthy eating and moderating alcohol consumption to help prevent illness.

Meanwhile one billion people consume a product with **Chr. Hansen's** ingredients every day – although Chr. Hansen manufactures a range of products, most of them help to promote good health, such as its microbiome-based probiotic health solutions.

Another method of disease prevention, which has historically proved very successful for certain diseases, is vaccination. **Moderna's** application of mRNA technology within its vaccines under development has huge potential to prevent over twenty diseases and potentially many more in the future.

## Efficiency (System enablers)

As the global population ages, healthcare systems must adapt to rising demand while containing costs.

Systemic inefficiencies include the time it takes to develop new drugs, ineffective treatments with severe side effects, misdiagnosis, operational complexity and long waiting times.

**Sartorius** provides single-use equipment for manufacturing biological products such as antibodies and vaccines. It enables the biotechnology industry to operate with greater flexibility, lower costs and to lower the environmental impact of drug development and manufacturing.

Meanwhile, **Wuxi Biologics** supports biotechnology firms in their development of new biologic treatments by providing an outsourced research, development and manufacturing platform – by doing so, it facilitates time and cost savings for its clients.

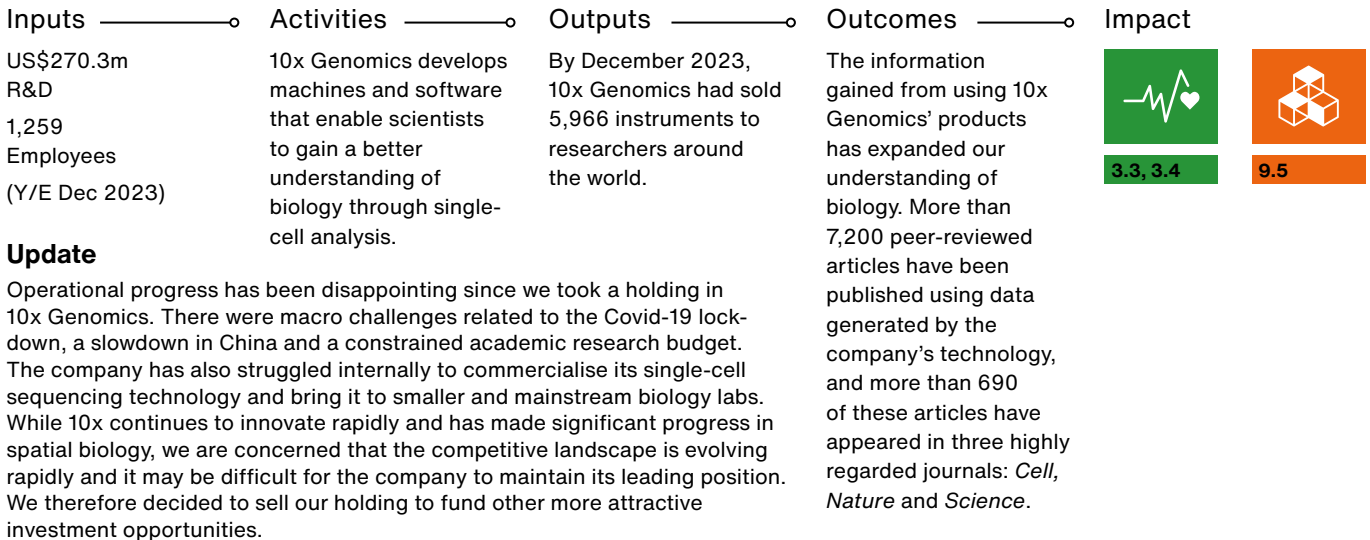
# 10x Genomics

First invested **February 2021**  
Sold **May 2024**

## Positive Change hypothesis

10x Genomics develops tools for single-cell analysis. When combined with next-generation sequencing, these tools provide a far more granular view of biology by enabling researchers to measure and interpret differences between individual cells in a sample. Although still in the early phases of adoption by the medical research community, we believe researchers will increasingly adopt single-cell analysis, thanks to the precision with which it can target individual cells. The company's competitive advantage comes from microfluidic, engineering and software expertise and a culture that emphasises a multidisciplinary approach and closeness to customers.

## Positive chain ▲



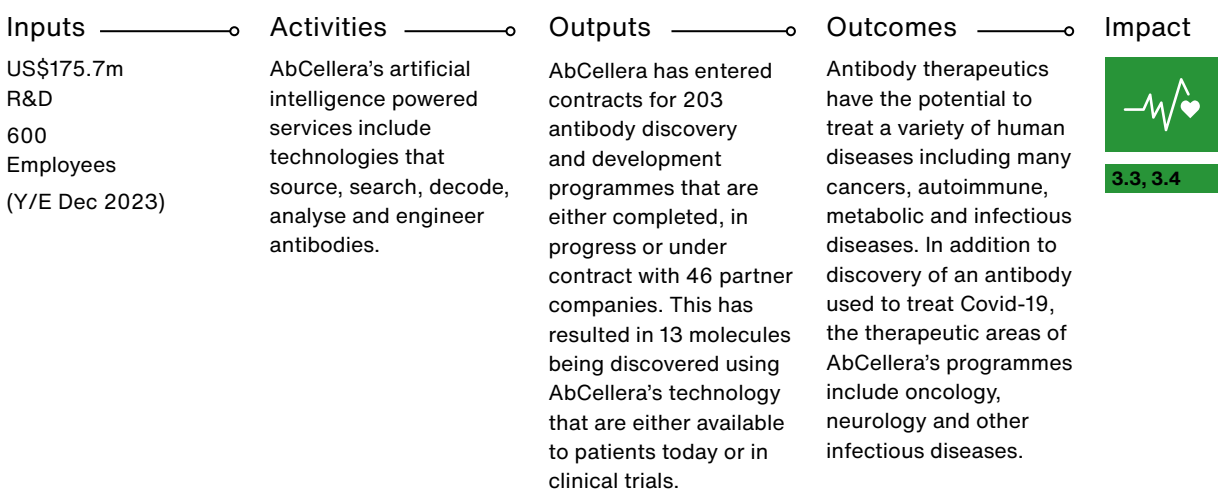
# AbCellera

First invested **March 2021**

## Positive Change hypothesis

AbCellera performs antibody discovery services for pharmaceutical and biotechnology partners. The company has a differentiated technology stack consisting of proprietary immunisation methods, single-cell screening, bi-specific engineering, continuous process improvements, and data and software. This enables AbCellera to speed up the discovery process and develop drugs that have proved hard to develop using traditional methods. The global antibody therapeutics market is expected to reach US\$250–300bn by 2025. As AbCellera monetises, mainly through high-margin milestone and royalty payments, it can capture a meaningful share of the antibody therapeutic market, which could lead to a very attractive investment outcome.

## Positive chain ▲



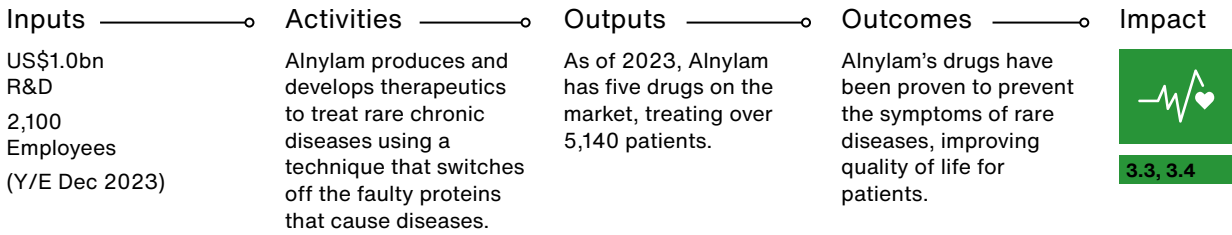
# Anylam

First invested **February 2021**

## Positive Change hypothesis

Anylam is an early-stage biotechnology company. It is developing a new class of highly innovative drugs based on a breakthrough biological discovery known as RNA interference (RNAi). In addition to developing its own RNAi drugs, Anylam has an extensive technology and patents portfolio, which it licenses out to other pharmaceutical companies. The cash associated with these upfront license payments helps fund Anylam’s new treatment pipeline. Early proof of concept data regarding RNAi drugs has been encouraging and significant upside might exist as Anylam uses the technology for future drug approvals.

## Positive chain ▲



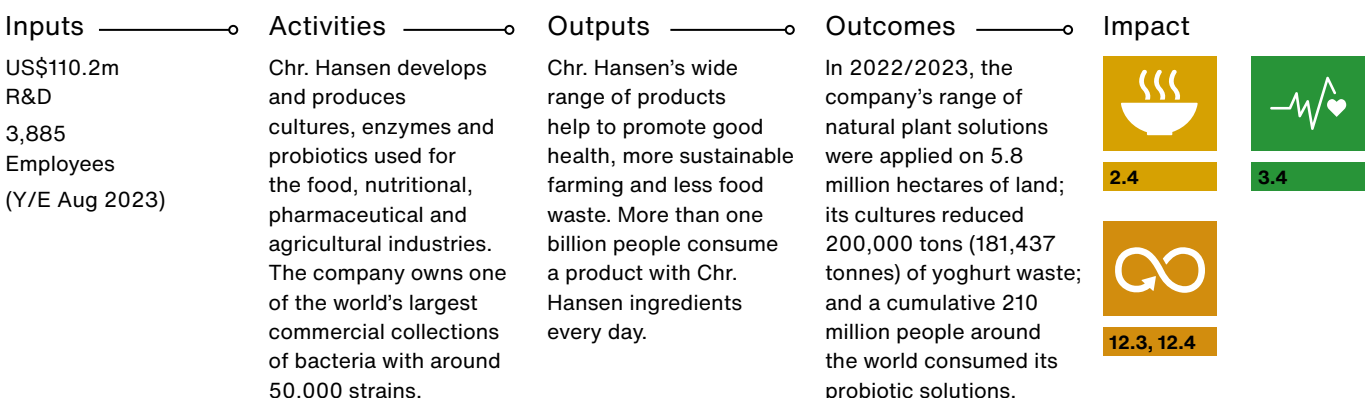
# Chr. Hansen

First invested **February 2021**

## Positive Change hypothesis

Chr. Hansen is a life sciences business that develops and produces nature-based solutions (such as cultures, enzymes and probiotics) to improve our food, our health (human and animal) and agricultural productivity. We expect growing demand for products that will enhance the nutritional content and expand food’s shelf life, reduce our antibiotic dependence and the associated increase in antimicrobial resistance and enable us to grow more food using fewer and better inputs. Chr. Hansen has a vast library of microbial strains from which it can identify and develop products. With over 145 years of experience, it can optimise production and consistently manufacture at scale, earning the company a strong reputation and loyal customers.

## Positive chain ▲



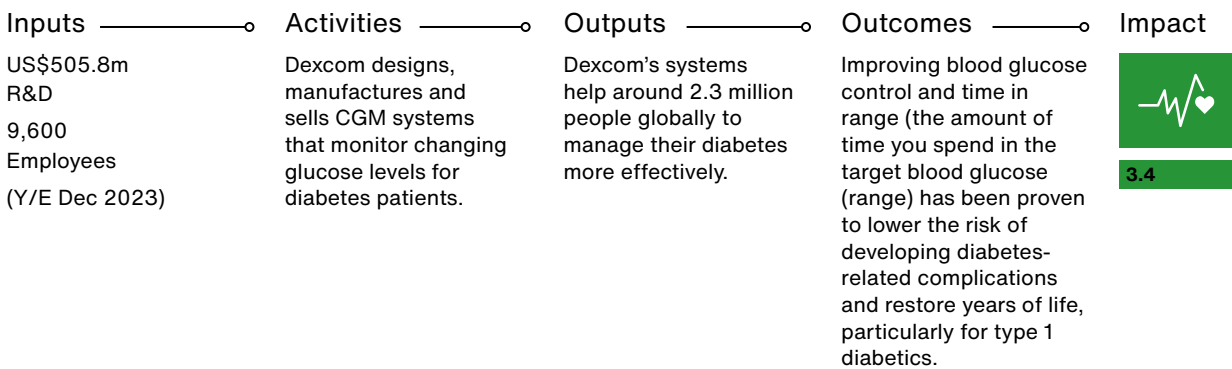
# Dexcom

First invested **February 2021**

## Positive Change hypothesis

Dexcom’s (CGMs) continuous glucose monitors empower diabetic patients, particularly type 1, to manage their condition. Diabetes is a chronic and life-threatening condition that millions of people around the world suffer from. By helping patients manage their glucose levels more effectively than traditional finger prick tests allow, Dexcom is both improving patient lives and helping lower the cost of treating the disease and its associated health complications. We expect CGMs to become the standard of care for insulin-intensive patients and believe that they could also play an important role in the prevention of type 2 diabetes onset. Greater penetration of existing patient cohorts globally and expansion into other patient cohorts provide a terrific growth opportunity for the company. This is a competitive market, but we believe Dexcom’s technological leadership, distribution capabilities and growing brand awareness provide an edge.

## Positive chain ▲



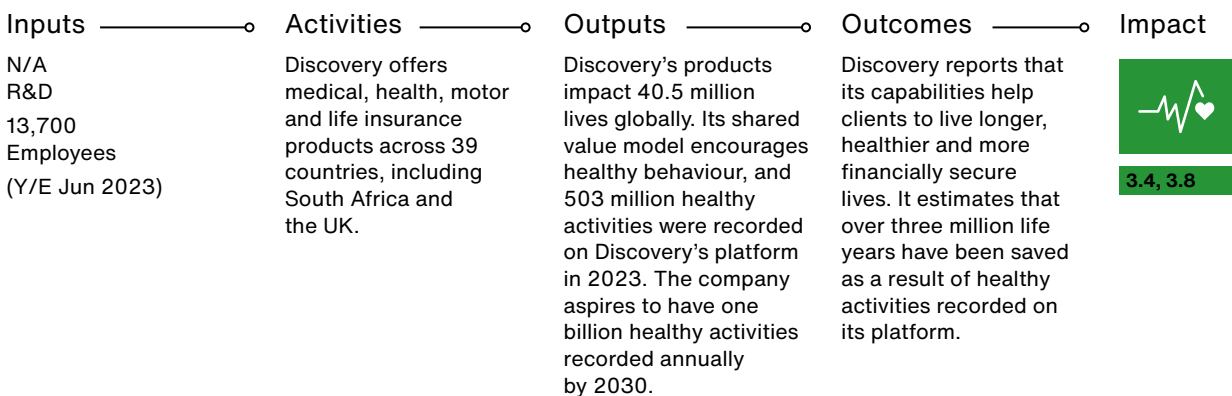
# Discovery

First invested **February 2021**  
Sold **April 2024**

## Positive Change hypothesis

Discovery provides shared-value insurance policies that reward customers for healthy behaviours. This should incentivise activities that lead to better well-being and improved customer health, lower Discovery’s claim expenses, and reduce the pressure on healthcare systems. Demand for Discovery’s policies should grow as more people pay attention to their health. In addition to selling policies in South Africa, the UK and China (in partnership with Ping An), Discovery also licenses its shared-valued platform to insurance companies globally, resulting in high-margin fee income.

## Positive chain ▲



## Update

Based in South Africa, Discovery provides shared-value insurance policies, where policyholders are rewarded for healthy behaviours such as exercising and eating well. The original investment case was based on the hypothesis that a profitable South African business could fund Discovery’s international expansion, where it partners with global insurance companies to offer insurance policies that embed Discovery’s shared-value features. However, a weak macroeconomic backdrop in South Africa and the increasing risk of regulatory intervention from the proposed National Health Insurance (NHI) scheme have created headwinds for Discovery’s domestic business. Furthermore, international expansion is progressing slower than expected, partly driven by the difficulties of navigating the bureaucracy of its global insurance partners. As a result, Discovery is unlikely to offer the attractive levels of growth that Positive Change looks for and we decided to sell the holding.



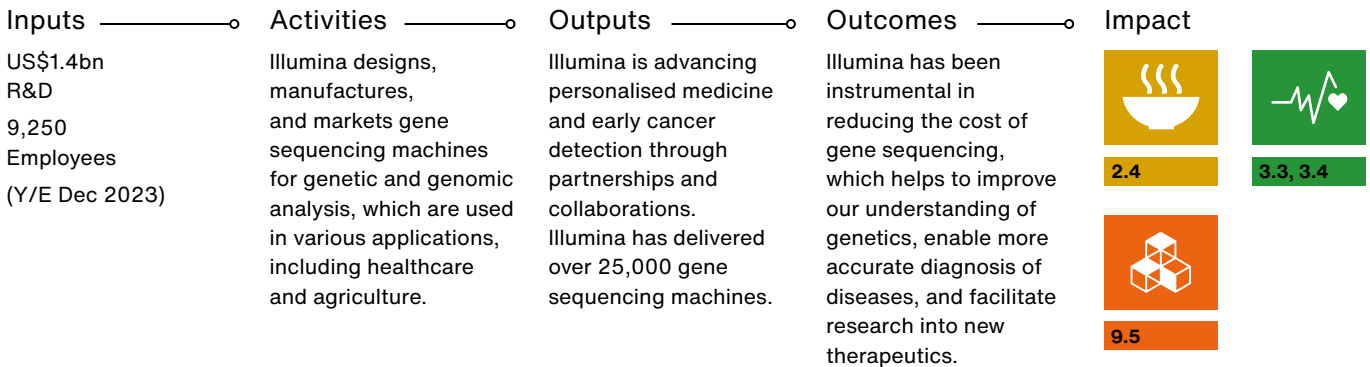
# llumina

First invested **February 2021**

## Positive Change hypothesis

llumina sits at the centre of the genomics revolution. We believe the company’s products are transitioning from being used primarily as research tools to being the foundation that supports the development of a whole host of new clinical applications. These include disease surveillance, therapy selection, pre-natal and genetic disease testing, and cancer screening. Through innovation, the price of sequencing will continue to fall, albeit at a measured pace. This will unlock future demand for genomic testing, especially as our understanding of the human genome improves.

## Positive chain ▲



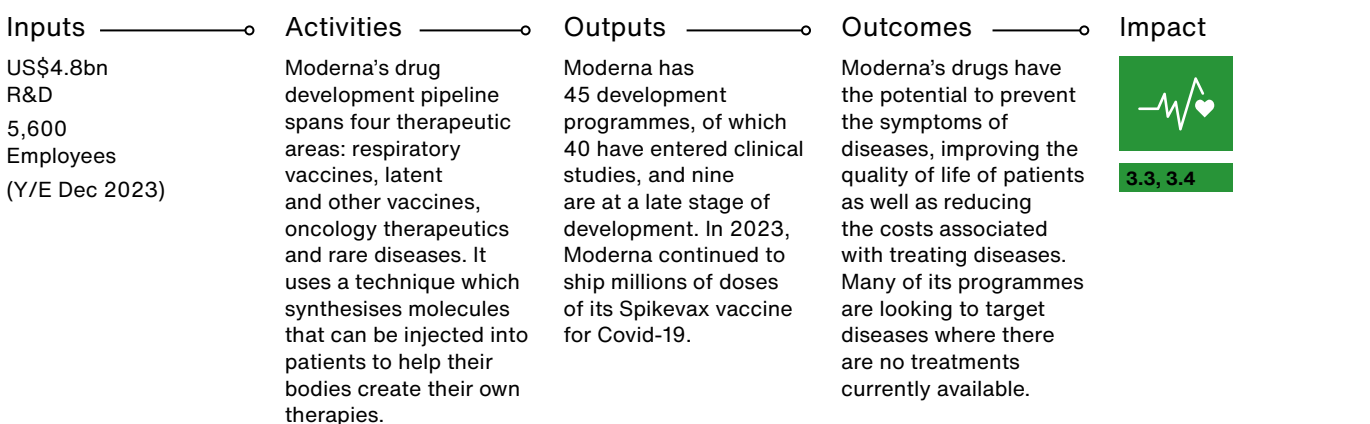
# Moderna

First invested **February 2021**

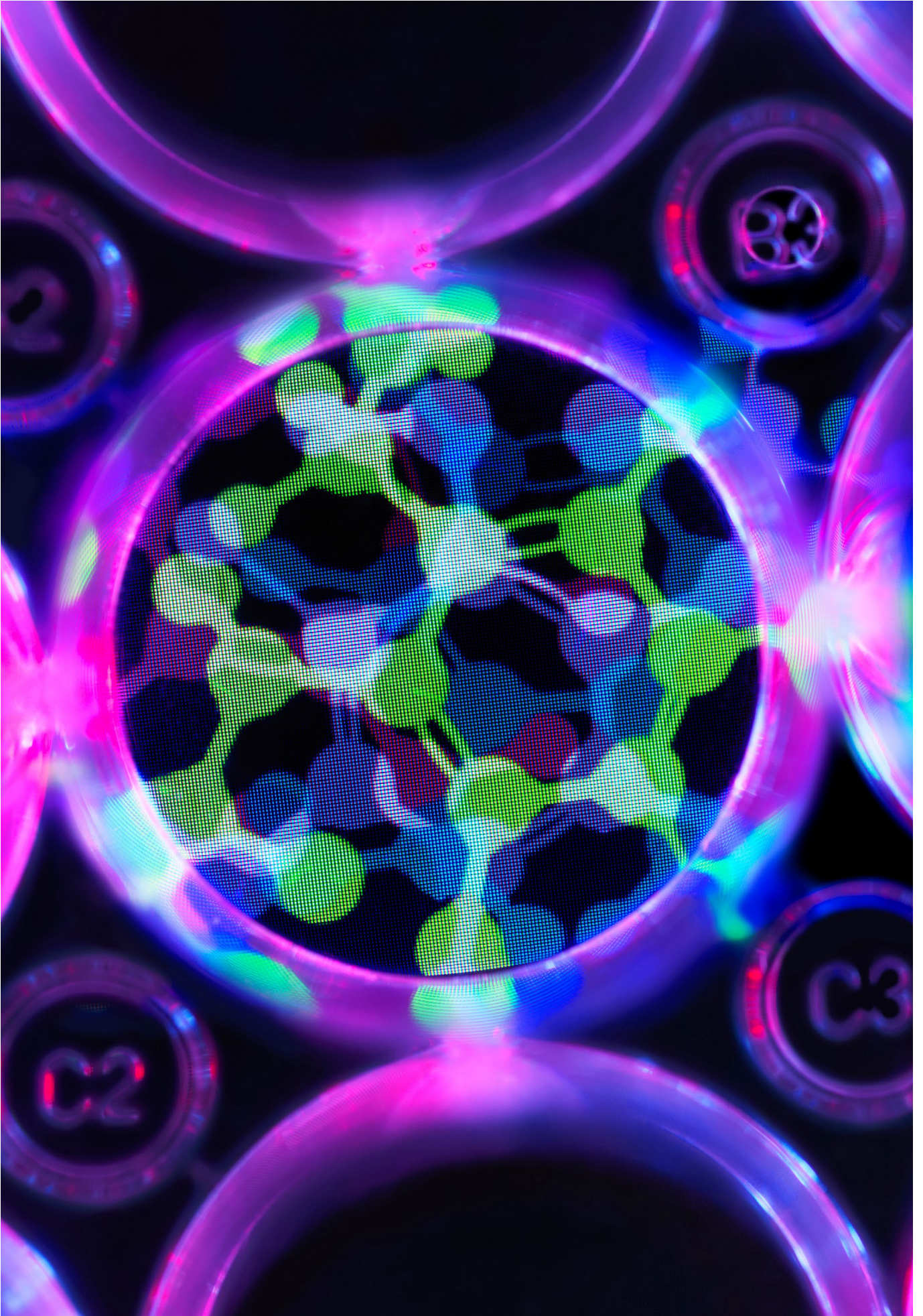
## Positive Change hypothesis

Moderna is creating a new category of medicines by harnessing the power of mRNA technologies. mRNA molecules can teach the body how to make a specific protein to help our immune systems prevent or treat certain diseases. Moderna’s Covid-19 vaccine has proven that mRNA is a safe and effective way of protecting against disease, de-risking the technology and providing significant cash flows that can be used to continue investing in the company’s platform. Through harnessing mRNA’s programmability, Moderna is investing in its technology platform to develop vaccines and treatments for a wide range of viruses and diseases from influenza to cancer. Moderna can potentially improve human health outcomes globally through this new category of medicine.

## Positive chain ▲









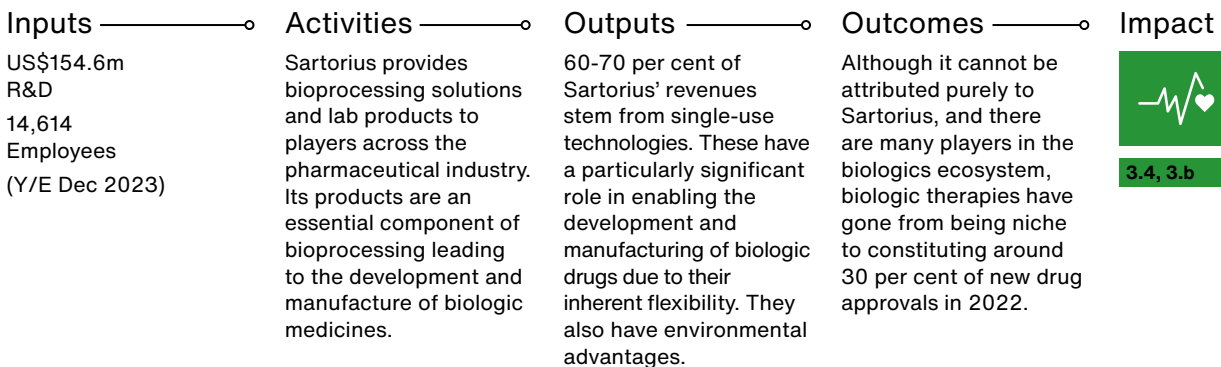
# Sartorius

First invested **February 2021**

## Positive Change hypothesis

Sartorius supplies single-use equipment to biopharmaceutical companies and research laboratories, ranging from bioreactors to storage bags. The company will benefit from growth in the biotechnology industry (across an increasing number of new medicines) and greater adoption of single-use products. Single-use products lower the upfront capital costs for biotechnology businesses, bring productivity gains (shorter set-up times) and require fewer resources (eg energy and water) than stainless steel products. Sartorius is a leading player due to its deep understanding of customer needs and willingness to invest (both organically and through mergers and acquisitions) to ensure it is innovating to meet customer needs. Sartorius is an enabler of the biology revolution.

## Positive chain ▲



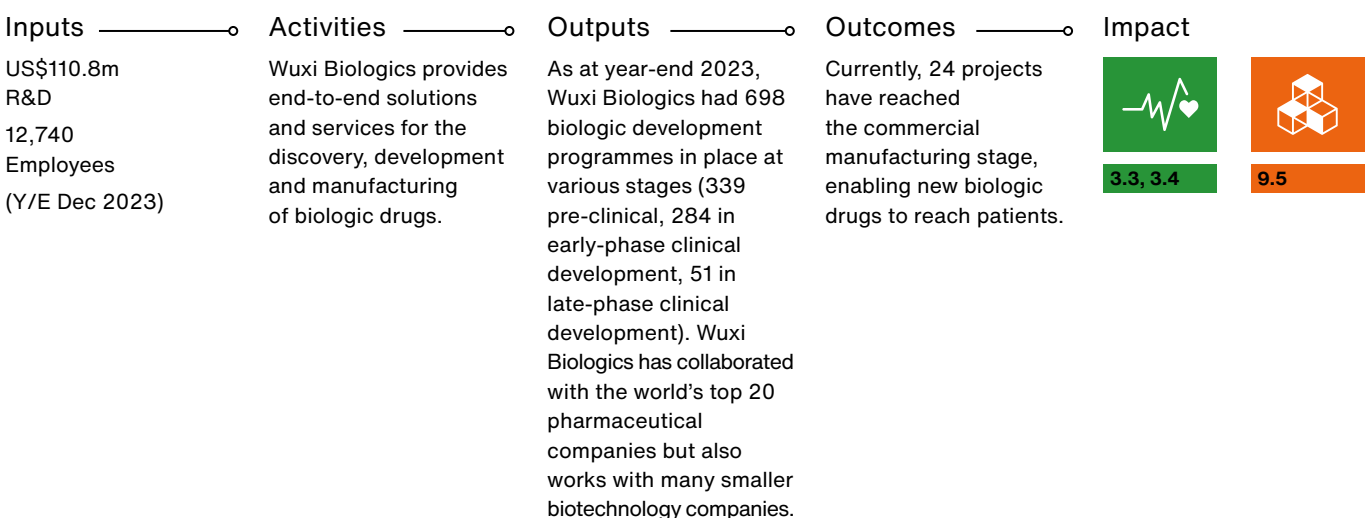
# Wuxi Biologics

First invested **August 2023**  
 Sold **June 2024**

## Positive Change hypothesis

Biologic drugs are expected to grow significantly over the next decade. Drug companies increasingly outsource biologic drug development and manufacturing to contract development and manufacturing organisations (CDMOs) to leverage their expertise and save development time and costs. Wuxi has the potential to gain market share and become the leader in the biologics CDMO industry, thanks to its differentiated business model and its culture that emphasises speed, customer service, lean operations and innovation.

## Positive chain ▲



## Update

We invested in Wuxi because we believed in the growth opportunity of biologics drugs and the outsourcing trend from biotech and large pharma companies to CDMO. We also believed in Wuxi's strengthening competitive advantage and its agile, innovative and entrepreneurial culture. We were aware of the potential geopolitical risks between China and the US but thought that Wuxi's aggressive international expansion strategy could help mitigate the risks. However, since investing, the geopolitical risks have intensified to the point that Wuxi could potentially be sanctioned completely by the US towards the end of the decade. This is hugely unfortunate as we still like the fundamentals of the business, however no longer believe that Wuxi can control its own destiny so decided to sell the holding.

# Base of the pyramid



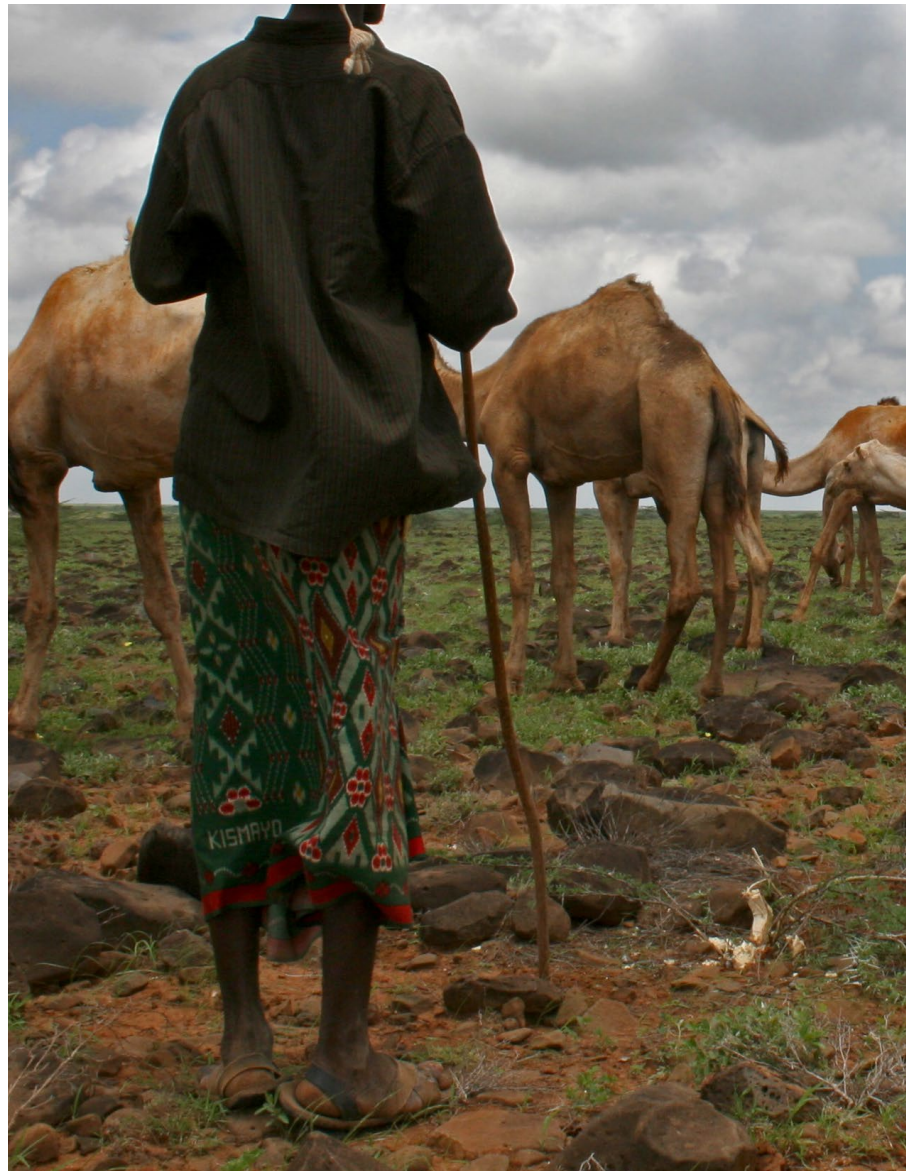


# Introduction

**Despite the significant reduction in poverty over the past two centuries, progress has slowed recently, disrupted by the Covid-19 pandemic, climate change and ongoing conflicts.**

Approximately four billion people, over half of the world's population, live on less than US\$3,000 per year when measured using purchasing power parity (PPP). This socioeconomic population is known as the global base of the pyramid.

Being part of the base of the pyramid will significantly impact the stability, security, safety and quality of an individual's life. Meeting their needs is vital for creating a prosperous and inclusive world.



# Positive Change — part of the solution

Within the Base of the pyramid theme, Keystone Positive Change Investment Trust aims to invest in companies whose core mission is to address the challenges faced by those at living on some of the lowest incomes around the world. However, companies in the portfolio categorised within other themes also contribute to improving the lives of this population and are considered here.

## The challenges

- Many low-income individuals reside in countries with limited socio-economic development. Historically, inclusive economic growth has been essential for alleviating poverty.
- Persistent poverty is a result of a multitude of factors that include geography, poor governance, inadequate infrastructure and connectivity, and barriers to education and healthcare.
- Physical and economic shocks trap people in poverty. Climate change poses significant risks to low-income populations, especially due to increased extreme weather events.
- Poverty is multi-dimensional, with affected individuals facing deprivations such as poor health, lack of education and inadequate living conditions. Low-income individuals often pay more for basic resources and services, including higher credit costs.

## Financial resilience

Some people experience persistent poverty and others transient poverty which may be due to:

- changes in their personal circumstances, such as job loss or ill health
- having a cyclical income, such as a smallholding farmer
- or more widespread economic factors, such as a recession or pandemic.

In such circumstances, the individual's ability to meet their basic needs during an income drop is easier if they have access to financial resources such as credit, savings and insurance.

Two companies that are providing essential financial services to low-income individuals, enhancing their ability to withstand economic shocks, are **Bank Rakyat Indonesia (BRI)** and **Safaricom**.

BRI is Indonesia's largest microfinance provider. With half of adults in Indonesia unbanked, it provides savings, borrowing, insurance and payment services to millions of low-income individuals at a reasonable cost and interest rate.

Safaricom is a Kenyan telecommunications company. It provides a range of financial services including insurance and M-Tiba, a service that allows low-income users to save for healthcare costs. Medical events are one of the most common reasons for people to fall into poverty.

## Financial inclusion

Financial inclusion is seen as critical for reducing poverty and boosting shared prosperity in at least eight of the 17 UN SDGs.

Internet connectivity and mobile phones are expanding first-time access and increasing the range of financial services available to those living on low incomes. Both BRI and Safaricom are benefiting from this trend and are providing inclusive financial services through mobile platforms.



Safaricom's M-Pesa mobile money ecosystem allows over 32 million customers to send and receive money globally. M-Pesa launched in Ethiopia in 2023 but is ubiquitous in Kenya and has had a significant impact on enabling millions to access additional financial services for the first time.

**MercadoLibre**, in the Social inclusion and education theme, enables access to financial services that facilitate transactions, savings and access to credit, creating opportunities for those at the base of the pyramid.

**Nubank**, the Brazilian digital bank, has brought six million Brazilians into the formal financial system. Customers can build their credit history responsibly, with a low spending limit on its starter credit card that gradually increases and allows them access to an increasing menu of financial services.

## Remittances

Remittances are a vital source of income for over a billion people worldwide, with an estimated US\$656bn sent to low- and middle-income countries in 2023. On average, remitters send around 15 per cent of their earnings, and recipient households typically spend this income on meeting their basic needs, such as on food and bills.

At a macro level, remittances help to stabilise household consumption, and correlations have been identified with increased economic growth, reduced poverty and income inequality. Today, the value of global remittances is consistently higher than that of international aid and foreign direct investment, meaning they are a vital source of income for many developing economies.

While remittances can promote financial inclusion, remittance services have historically served users poorly with high and opaque fee structures, slow payments, inconvenient methods and insecure transactions.

**Remitly** is an online remittance company which enables money transfers in over 170 countries. It aims to solve these challenges by offering an affordable, secure and convenient remittance service.

Customers send money digitally via Remitly's app to their choice of bank account, mobile money account or paid as cash. In 2023, Remitly enabled the transfer of \$39.5bn, over 90 per cent of these transactions occurred within one hour of the request being made.

## Access to basic services

Many basic services remain inaccessible or too costly for low-income populations, but companies are improving access to them through new technologies and business models.

In the Environment and resource needs theme, **Xylem** manufactures pumps, filters and testing equipment used in modern water infrastructure in low-income countries. Its goal is to provide at least 20 million people living at the base of the pyramid with access to clean water and sanitation.

**Moderna**, in the Healthcare and quality of life theme, is developing vaccines for some of the diseases that disproportionately affect people experiencing poverty, such as Zika and HIV.

In the Social inclusion and education theme, **Coursera** and **Duolingo** are working towards providing universal access to high-quality, low-cost education. Online education removes some of the barriers to traditional education in low-income settings and can help improve people's employment prospects and increase their economic participation. In 2023, 145,000 of Duolingo's English tests were taken in the world's least developed and lowest income countries.

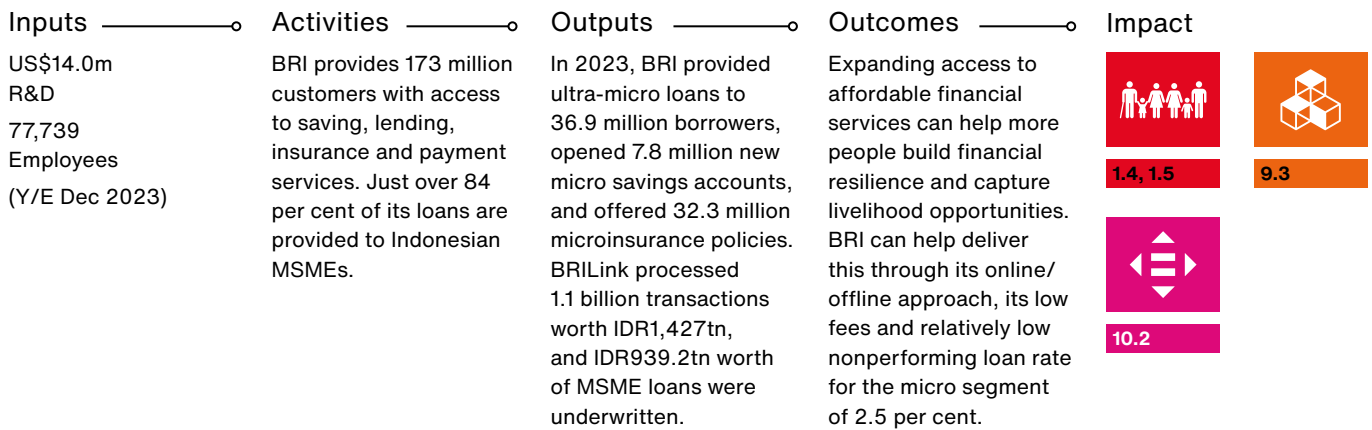
# Bank Rakyat Indonesia

First invested **February 2021**

## Positive Change hypothesis

Bank Rakyat Indonesia (BRI) offers microfinance in Indonesia, where roughly half of the adult population remains unbanked. BRI's competitive advantage in microfinance stems from its vast network of rural branches. Its investment in mobile and agent-based banking increasingly enables it to build trust and customer relationships while providing financial services at low cost. Financial services, which can transform social outcomes, are underpenetrated in Indonesia, offering a long runway for growth and impact.

## Positive chain ▲



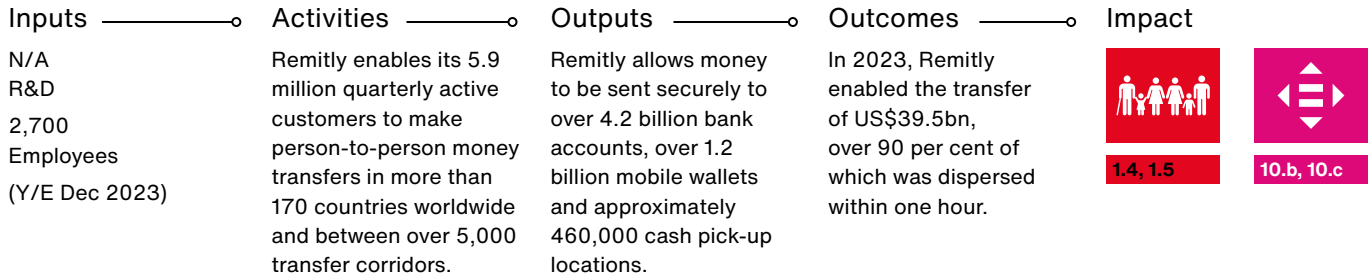
# Remitly

First invested **December 2022**

## Positive Change hypothesis

Remitly provides mobile-based remittance services for migrants. The global remittance market is large and moving online rapidly. Remitly can provide superior services by leveraging mobile technologies, offering peace of mind and contributing to lowering fees. As an early mover in mobile remittances and with a strong operational track record, Remitly has gained market share quickly. Remitly plans to expand to more remittance corridors over the coming years and build out financial services beyond remittances, helping the company to serve more customers and drive strong revenue growth.

## Positive chain ▲



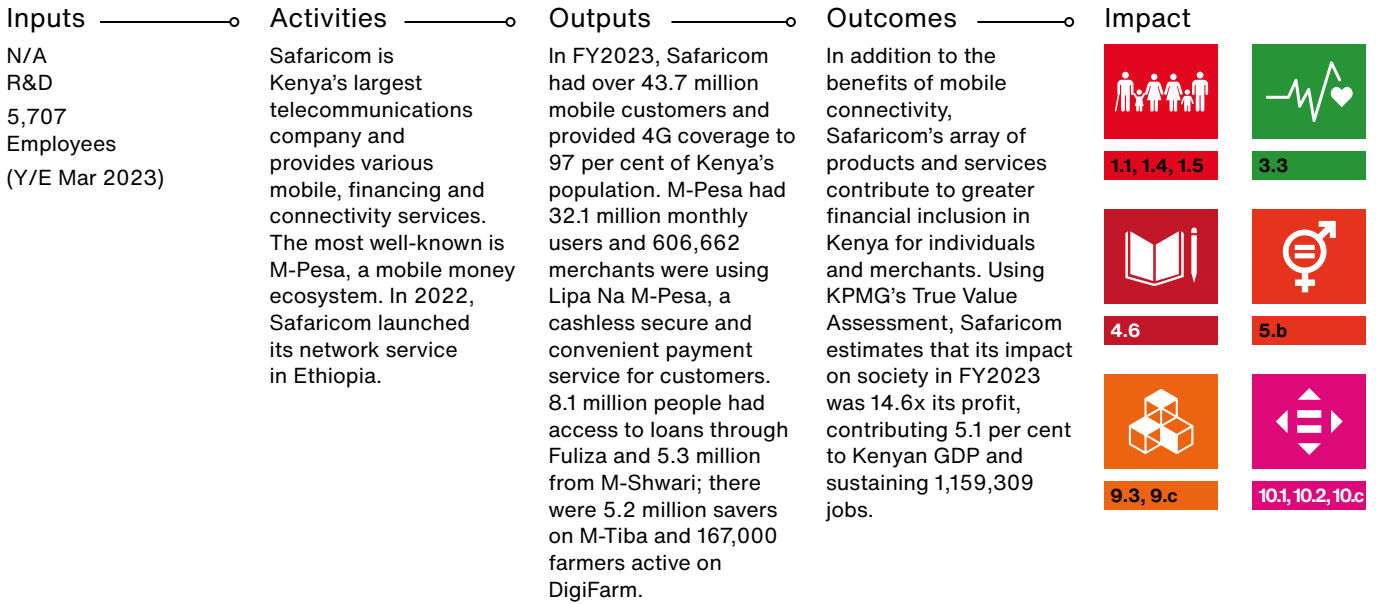
# Safaricom

First invested **April 2021**

## Positive Change hypothesis

Safaricom is contributing to improving lives in East Africa. First, through its construction and provision of mobile networks in Kenya, providing access to information services; second, through the provision of M-Pesa, which promotes financial inclusion; and finally, through the development and provision of complementary services to M-Pesa and Safaricom’s data package, such as microcredit and online commerce. Safaricom has an impressive record of designing financial products that work for its customers, supporting its strong brand and making it uniquely placed to grow in a region with a massive opportunity for rapid digitisation.

## Positive chain ▲







© Getty Images.

# Significant SDG contributions<sup>^</sup>

We analyse each holding in the portfolio and map significant contributions from products and services to the UN SDGs. This allows us to represent the overall contribution of the portfolio to the SDGs.

## Positive contributions





# Negative SDG contributions<sup>▲</sup>

**Just as important as identifying positive impacts from portfolio companies' products and services, is identifying potentially negative contributions. This is a fundamental part of our impact analysis. Here, we highlight company products and services which we deem to be significantly negatively contributing to the Sustainable Development Goals.**

## Autodesk 13

A proportion of Autodesk's revenue comes from industries with a negative environmental impact such as the fossil fuel industry. By providing industry-leading software to these companies, they can develop and implement the latest technologies to improve their efficiency and profitability. It can therefore be argued to have a negative contribution to climate change. Autodesk's positive impact on the construction industry and the built environment more than compensate for the negative impacts it enables.

## Bank Rakyat Indonesia 13 15

Bank Rakyat Indonesia (BRI) has been criticised by NGOs in recent years for its involvement in financing palm oil plantations and coal-fired power plants. However, it must be acknowledged that the extractive and agricultural sectors in Indonesia are extremely large, therefore, it is unrealistic to expect that it would not have any exposure given its role as a state-owned enterprise. We have engaged with BRI regarding its approach to environmental and social due diligence. It has confirmed that it follows government guidelines regarding sustainable banking, which include avoiding companies who are on various government 'black lists', ensuring environmental permitting is in place, and ensuring companies engaged in palm-oil activities have an 'Indonesian Sustainable Palm Oil' or a 'Roundtable on Sustainable Palm Oil' certificate. The amount the bank loans to large corporates is much smaller than the micro loans (RM 1,000 - RM 50,000) it provides for lower-income customers (about two-thirds), and it is the latter that drives the positive change case for the company.

## Deere 13 14.1 15

Modern agricultural practices have been linked to climate change and biodiversity loss through chemical fertilisers, pesticides and equipment emissions. Deere is complicit in enabling these impacts as a producer of agricultural equipment. However, industrial agricultural systems are central to feeding the world. We acknowledge the positive change Deere is bringing through its new technologies, which limit these impacts, and commend the company for the direction it is taking.

### Important notes

Our SDG mapping is underpinned using the 169 targets below the 17 SDGs. SDG mapping is the output of our philosophy and process and will change as the composition of the portfolio changes. We assess that portfolio companies' products materially address 15 SDGs.

Our SDG mapping incorporates significant contributions that companies are making via their products and services only. It does not encompass the business practices of our holdings.

Our aim is to identify and hold companies for their positive contributions. Accordingly, the number of holdings we found to be making a significant negative contribution to the SDGs through their products and services is less than those holdings making positive contributions.

## Ecolab 13

Ecolab no longer provides services for customers in energy exploration and production or any other upstream hydrocarbon processes. However, a proportion of Ecolab's revenues come from its Global Industrial segment, which includes serving customers in the downstream energy, refining and petrochemical industries. In many cases, Ecolab's contribution to these industries is to improve energy efficiency, water management and sustainability, and minimise pollution, therefore providing a positive environmental contribution. In some cases, products are process aids that enable customers to refine fuels and process petrochemicals profitably and reliably. It can therefore be argued as having a negative contribution to climate change by supporting the fossil-fuel industry. The breadth of the positive impact that Ecolab has across the remainder of industries that it works with is considered to more than compensate for the proportion of activities within the energy industry that could be regarded as negative.

## HDFC Bank 13

HDFC Bank is exposed to the thermal coal value chain and petroleum products through the loans and credit it provides. Today the majority of India's energy needs comes from coal as it is the most abundant fossil fuel and this is followed by petroleum-based products. By financing these industries HDFC Bank is directly financing emissions which is negatively impacting efforts to combat climate change. It is estimated that less than 1 per cent of HDFC Bank's loan book is linked to fossil fuels and around a quarter of its wholesale lending is electrical power and oil.

## Ørsted 3 13

While the forward-looking goals of the business are wholly positive, Ørsted currently still operates some fossil fuel facilities given that its transition to renewable power is underway. The green share of energy generation is now at 93 per cent, and Ørsted has a target to eliminate coal-fired power generation by 2025. At this point, its green share of energy generation will be equal to or above 99 per cent of generation. Given the progress that Ørsted has already made, its strong targets for decarbonisation of its energy generation, and the small contribution to revenues that fossil-fuel-fired power generation makes, we are comfortable that Ørsted's overall contribution to the SDGs is positive.

## Sartorius 13

Most of Sartorius's products are single-use and used within the pharmaceutical and laboratory industries. These products are produced with polymers and plastics typically derived from oil. To prevent cross-contamination, normally single-use products are incinerated, emitting pollutants into the atmosphere that can contribute to climate change.



**Independent Practitioner’s Limited Assurance Report to Baillie Gifford & Co**

**Report on Selected Information included in Baillie Gifford & Co’s Keystone Positive Change Impact Report for the year ended 31 December 2023**

**Conclusion**

We have performed a limited assurance engagement on whether selected information in Baillie Gifford & Co’s (“Baillie Gifford”) Keystone Positive Change Investment Trust Impact Report (the “Report”) for the year ended 31 December 2023 has been properly prepared in accordance with the Baillie Gifford Keystone Positive Change Investment Trust Impact Measurement Methodology as set out at <https://www.bailliegifford.com/en/uk/individual-investors/literature-library/funds/investment-trusts/keystone-positive-change-investment-trust/keystone-positive-change-impact-measurement-methodology/> (the “Reporting Criteria”). The information within the Report that was subject to assurance consists of the ‘Positive Chain’ section in respect of each portfolio company together with the ‘Headline impact data’, ‘Significant SDG contributions’ and ‘Negative SDG contributions’ sections and is indicated with the symbol “Δ” (the “Selected Information”).

Based on the procedures performed and evidence obtained, nothing has come to our attention that causes us to believe that the Selected Information has not been properly prepared, in all material respects, in accordance with the Reporting Criteria.

Our conclusion is to be read in the context of the remainder of this report, in particular the “Inherent limitations in preparing the Selected Information” and “Intended use of our report” sections below.

Our conclusion on the Selected Information does not extend to other information (including, but not limited to, any of the ‘Positive Change hypothesis’ sections) that accompanies or contains the Selected Information and our assurance report (hereafter referred to as “Other Information”). We have not performed any procedures with respect to the Other Information.

**Basis for conclusion**

We conducted our engagement in accordance with International Standard on Assurance Engagements (UK) 3000 *Assurance Engagements Other Than Audits or Reviews of Historical Financial Information* (“ISAE (UK) 3000”) issued by the Financial Reporting Council (“FRC”). Our responsibilities under that standard are further described in the “Our responsibilities” section of our report.

We have complied with the Institute of Chartered Accountants in England and Wales (“ICAEW”) Code of Ethics, which includes independence, and other ethical requirements founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour, that are at least as demanding as the applicable provisions of the International Ethics Standards Board for Accountants (“IESBA”) International Code of Ethics for Professional Accountants (including International Independence Standards).

Our firm applies International Standard on Quality Management (UK) 1 *Quality Management for Firms that Perform Audits or Reviews of Financial Statements, or Other Assurance or Related Services Engagements* (“ISQM (UK) 1”), issued by the FRC, which requires the firm to design, implement and operate a system of quality management, including policies or procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

We believe that the evidence we have obtained is sufficient and appropriate to provide a basis for our conclusion.

**Inherent limitations in preparing the Selected Information**

The nature of non-financial information; the absence of a significant body of established practice on which to draw; and the methods and precision used to determine non-financial





information, allow for different, but acceptable, evaluation and measurement techniques and can result in materially different measurements, affecting comparability between entities and over time.

The Reporting Criteria has been developed to assist Baillie Gifford in the preparation of the Keystone Positive Change Investment Trust Impact Report and in reporting selected ESG information to measure its progress against its impact strategy. As a result, the Selected Information may not be suitable for another purpose.

### **Partners responsibilities**

The Partners of Baillie Gifford are responsible for:

- designing, implementing and maintaining internal controls relevant to the preparation and presentation of the Selected Information that is free from material misstatement, whether due to fraud or error;
- selecting and developing suitable Reporting Criteria for preparing the Selected Information;
- properly preparing the Selected Information in accordance with the Reporting Criteria; and
- the contents and statements contained within the Report and the Reporting Criteria.

### **Our responsibilities**

We are responsible for:

- planning and performing the engagement to obtain limited assurance about whether the Selected Information is free from material misstatement;
- forming an independent limited assurance conclusion, based on the procedures we have performed and the evidence we have obtained; and
- reporting our conclusion to Baillie Gifford.

### **Summary of the work we performed as the basis for our conclusion**

We exercised professional judgment and maintained professional scepticism throughout the engagement. We planned and performed our procedures to obtain evidence that is sufficient and appropriate to obtain a meaningful level of assurance over the Selected Information to provide a basis for our limited assurance conclusion. Planning the engagement involves assessing whether Baillie Gifford's Reporting Criteria are suitable for the purposes of our limited assurance engagement. Our procedures selected depended on our judgement, on our understanding of the Selected Information and other engagement circumstances, and our consideration of areas where material misstatements are likely to arise.

In carrying out our engagement, we performed procedures which included:

- obtaining an understanding through inquiry of Baillie Gifford's control environment, processes and information systems relevant to the preparation of the Selected Information, but did not include evaluating the design of particular control activities, obtaining evidence about their implementation or testing their operating effectiveness;
- performing risk assessment procedures over the aggregated Selected Information, including a comparison to the prior period's amounts having due regard to changes in business volume and the business portfolio;
- agreeing all of the Selected Information to the corresponding source documentation, including but not limited to, annual reports, articles, sustainability reports and other external information published by the underlying portfolio companies on their



respective websites, but did not include any further evaluation of that underlying source documentation;

- reperforming all of the manual calculations over the Selected Information including whether the formulae (including unit and conversion factors) were used in accordance with the Reporting Criteria; and
- reading the Report with regard to the Reporting Criteria and for consistency with our findings over the Selected Information.

The procedures performed in a limited assurance engagement vary in nature and timing from, and are less in extent than for, a reasonable assurance engagement. Consequently, the level of assurance obtained in a limited assurance engagement is substantially lower than the assurance that would have been obtained had a reasonable assurance engagement been performed.

### **Intended use of our report**

Our report has been prepared for Baillie Gifford solely in accordance with the terms of our engagement. We have consented to the publication of our report on the Baillie Gifford website for the purpose of Baillie Gifford showing that it has obtained an independent assurance report in connection with the Selected Information.

Our report was designed to meet the agreed requirements of Baillie Gifford determined by Baillie Gifford's needs at the time. Our report should not therefore be regarded as suitable to be used or relied on by any party wishing to acquire rights against us other than Baillie Gifford for any purpose or in any context. Any party other than Baillie Gifford who obtains access to our report or a copy and chooses to rely on our report (or any part of it) will do so at its own risk. To the fullest extent permitted by law, KPMG LLP will accept no responsibility or liability in respect of our report to any other party.

kpmg llp

### **KPMG LLP**

Chartered Accountants

15 Canada Square

London E14 5GL

United Kingdom

30 July 2024

The maintenance and integrity of Baillie Gifford's website is the responsibility of the Partners of Baillie Gifford; the work carried out by us does not involve consideration of these matters and, accordingly, we accept no responsibility for any changes that may have occurred to the reported Selected Information, Reporting Criteria or Report presented on Baillie Gifford's website since the date of our report.









**keystonepositivechange.com**



Calton Square, 1 Greenside Row, Edinburgh EH1 3AN  
Telephone +44 (0)131 275 2000

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