

# Federated Hermes Impact Opportunities Equity

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**Impact Annual Report 2023**

**Federated  
Hermes**  
Limited



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For professional investors only



# 2023 highlights

Using our proprietary Federated Hermes Impact Database, we are able to estimate the total impact of the companies in which we are invested.

We present highlights below:

**350** million MT of CO<sub>2</sub> avoided, with only **7.8 million MT** released

**81.2** million MWH of clean energy generated

**1.9** billion metres<sup>3</sup> of water saved, vs. **318 million metres<sup>3</sup>** consumed

**361** million patients treated, and **2.2** million lives extended

**430** thousand tons of waste recycled (through product solutions) plus a further **1 million** through recycling programmes in operations.

Source: Net Purpose, Federated Hermes Impact calculations. As at December 2023.





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## SECTION 1

## Strategy philosophy

**We aim to outperform the broad global equity market by:**

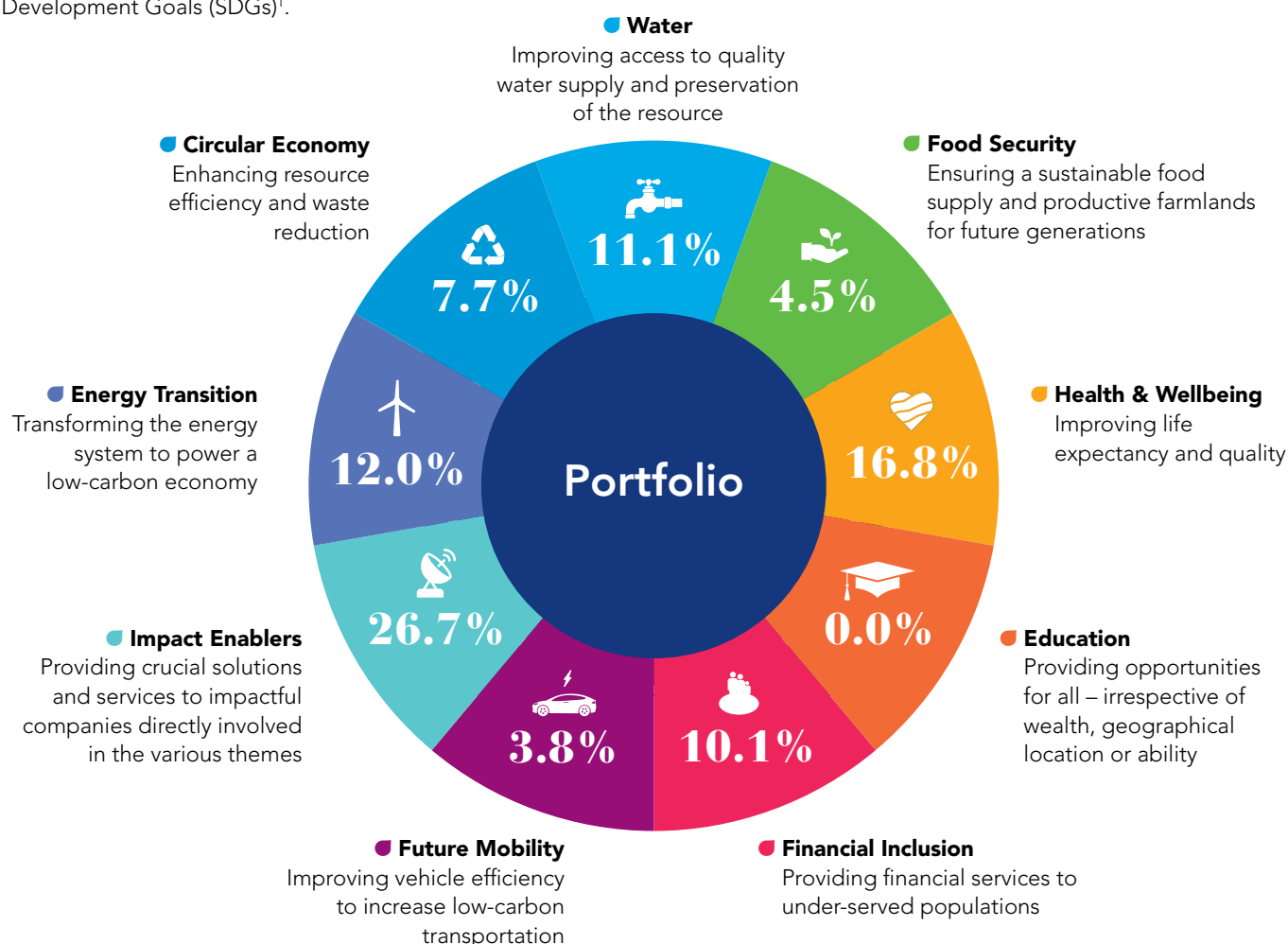
**Investing in** companies that provide solutions that have a positive impact on people and the planet

**Identifying** emerging growth opportunities that meet a structural, under-served need

**Taking advantage** of market inefficiencies in pricing long-term change



**A thematic approach:** Our holdings fit into one or more of the nine themes that are aligned with the UN Sustainable Development Goals (SDGs)<sup>1</sup>.



Source: Federated Hermes Limited, as at 31 December 2023.

**This document does not constitute a solicitation or offer to any person to buy or sell any related securities or financial instruments. The value of investments and income from them may go down as well as up, and you may not get back the original amount invested. Any investments overseas may be affected by currency exchange rates. Past performance is not a reliable indicator of future results and targets are not guaranteed.**

<sup>1</sup> **Sustainable Development Goals (SDGs):** The SDGs are a set of 17 interconnected goals that were adopted by all UN member states in 2015. They are a universal call to action to end poverty, protect the planet and improve the lives and prospects of everyone, everywhere, by 2030. Learn more here: <https://www.undp.org/sustainable-development-goals>.

## Impact performance, 2023

### Total company level impact of stocks held, 2023

(Harmonised for calendar year Impact, and backdated to 2018)

Using our proprietary Federated Hermes Impact Database, we are able to present our impact data on an aggregated, cross-company basis. Put simply, and drawing on data from company, sector and impact industry reports, it depicts our estimation of the total impact that the companies in which we are invested have delivered in 2023.

**350m MT**

of CO<sub>2</sub> avoided, with only

**7.8m MT** released



MW installed renewable capacity

**32,046**



**40.3m**

people given financial access



**\$8.5bn**

SDG enabling R&D funded (excluding Healthcare)



**\$16.7bn**

Healthcare R&D funded



Average female manager and board representation of

**23.4%**

and

**25.9%**

respectively



**81.2m MWH**

of clean energy generated

**1.9bn m<sup>3</sup>**

of water saved vs



**318m m<sup>3</sup>**

consumed

**361.4m**

patients treated and

**2.2m**

lives extended



**65k**

students enrolled

Employee Turnover (%)

**6.6%**



# incidents (accidents)/ one million hours worked

**2.4**



Metric T waste generated

**1,628,553**



**430k MT**

of waste recycled (through product solutions) plus a further

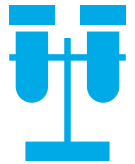
**1m MT**

through recycling programs in operations



**16.2k**

labs enabled



**28.9m MT**

of food waste avoided

**1.6m**

Hectares forest or land restored or conserved



Biodiversity Footprint Avoided (BII Adj. Hectares)

**1,196,555**



Biodiversity Species Loss Avoided (Species \* Yr)

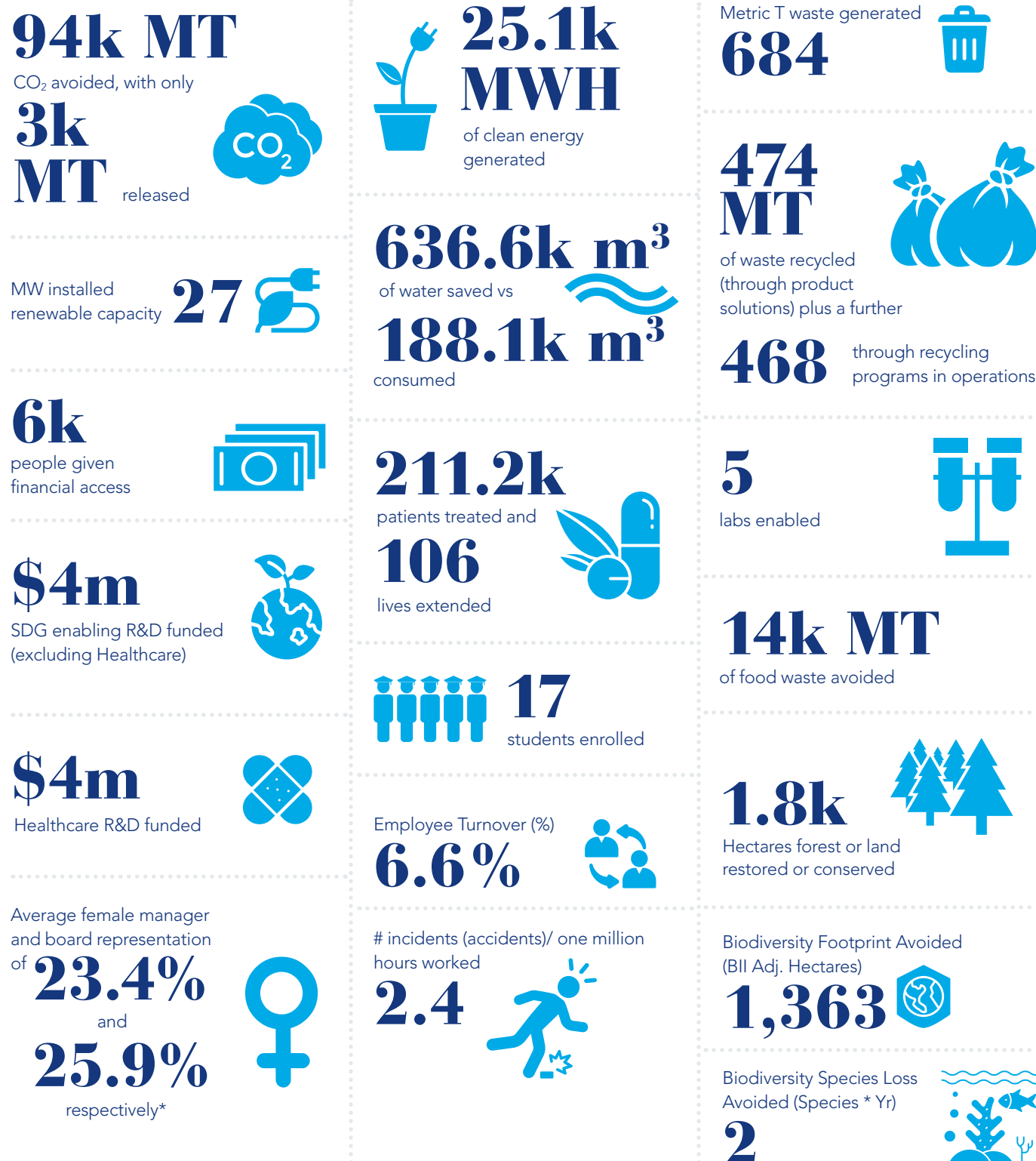
**2,580**



## Total owned impact of stocks held, 2023

(Harmonised for calendar year impact, adjusted based on ownership at end of Q4 2023)

As well as producing company-level impact, our database allows us to report on the impact of our strategy's assets under management. Put simply, we scale the metrics to demonstrate the impact accomplished through the capital we deploy on behalf of our clients, thereby reflecting our ownership of each company held in our strategy.





## SECTION 2

## Market performance

In a stark reversal from 2022, global equity markets ended 2023 in positive territory. However, while markets rose, there was considerable volatility throughout the year with both the banking crisis in March and fears over the Chinese property market in the third quarter sending markets lower. Nevertheless, the year ended strongly as investors increasingly priced in a shift in US Federal Reserve monetary policy and anticipated a series of rate cuts in 2024, on the back of moderating inflation data.






One of the most prominent features of 2023 was the lack of market breadth, with indexes being driven by a small number of mega-cap tech-focused stocks. The so-called 'Magnificent Seven' group of stocks – Microsoft, Apple, Tesla, Amazon, Meta, Alphabet and Nvidia – were up 74% in 2023, while the broader market returned 12%<sup>1</sup>. These are names that do not pass our rigorous impact assessment, primarily on the grounds of intentionality and additionality.

There was also a major inflection from growth into value, which was particularly evident outside of the US. Although, excluding big tech, the preference for value was also evident in the US as the performance of growth was concentrated towards this extremely narrow band of Stocks.

Performance review<sup>2</sup>




The extremely narrow market proved particularly challenging for much of the year, but, after the Fed turned more dovish in Q4 of 2023, the relative performance of the strategy improved markedly as the market broadened.

Sector allocation detracted from relative returns, with the Health Care overweight and underweights to Information Technology and Communication Services having a significant influence, and far outweighing more modest contributions from being underweight Consumer Staples and having no exposure to Energy. Stock selection was the main driver of relative returns, however, driven mainly by Health Care, Industrials, Materials and Information Technology.

Top three contributors	Primary Impact theme	
<b>Novo Nordisk</b>	 Health and Wellbeing	Novo Nordisk has benefited from strong demand for its obesity drug, Wegovy, while studies found that the drug also reduced the risk of chronic kidney disease, heart attacks and strokes, further aiding sentiment towards the stock.
<b>Kingspan</b>	 Energy Transition	The company issued a positive trading update and increased guidance for H1 2023 and FY 2023. It saw strong demand in energy efficiency and lower carbon products.
<b>Ansys</b>	 Impact Enablers	Ansys reported better-than-expected earnings and guidance, driven by demand for simulation software. Its share price gained further after it emerged that Synopsis was in talks to acquire the company.

<sup>1</sup> Bloomberg, as at 31 December 2023.

<sup>2</sup> Past performance is not a reliable indicator of future returns.

Top three detractors	Primary Impact theme	
AbCellera	 Impact Enablers	AbCellera became detached from its fundamentals, trading in response to interest rate expectations. It also reported lower-than-expected revenues in Q3. However, the underlying partner programme remains strong, and we remain confident in the long-term potential of the company.
Tomra Systems	 Circular Economy	The company reported disappointing results in 2023, driven by poor margin management, weakness in its food division and slower recycling markets. In addition, the French government decided that it would try to achieve its recycling target without a deposit return system, which also hit sentiment.
Qiagen	 Impact Enablers	Qiagen's share price correlated with the downturn in the life sciences sector in Q3, despite its diagnostics exposure.

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## SECTION 3






## Activity highlights





The Strategy remains a high-conviction portfolio, focused on bottom-up selection of impactful companies. Over the period, we have developed our impact qualification process to include a broader range of sub-themes, allowing us to look at a greater diversity of names, creating potential to invest in a wider array of business models, qualities, and end market exposures. Conversely, we have also sought to rationalise the portfolio's lower conviction tail.



Looking forward, we continue to focus on quality-growth business models, with a tilt on quality rather than growth. We also continue to broaden our thematic exposure as we refine our impact qualification process and seek greater diversification. The areas currently undergoing research are

Financials, water, education and impactful tech. We remain open minded about new sub-themes within impact sectors and are increasingly seeking impact in a broader range of sectors, rather than seeking performance in conventional areas alone.

Trading – Purchases	Impact theme	
<b>Lenzing</b>	 Circular Economy	Lenzing is a manufacturer of wood-based cellulosic fibres, an alternative to man-made synthetic fibres such as polyester and nylon, as well as other natural fibres like cotton. The company qualifies for our circular economy theme. It only uses sustainably sourced wood, while man-made products, such as polyester, are difficult to recycle. It also helps combat the threat to biodiversity from cotton farming.
<b>Masimo</b>	 Health and Wellbeing	Masimo is the global leader in pulse-oximetry, the measurement of oxygen in one's blood, which can provide one of the most accurate indicators of the underlying condition of a patient, whether that be in a chronic or acute setting. The impact case is centred around the additive value that its products and software bring to healthcare systems around the world.
<b>Advanced Drainage Systems</b>	 Water	Advanced Drainage Systems is a manufacturer of plastic pipe, stormwater and onsite septic wastewater solutions. It is one of the largest plastic recycling companies in North America, ensuring over half a billion pounds of plastic is kept out of landfills every year and its water management solutions are designed to last for decades.
<b>Cintas</b>	 Circular Economy	Cintas is the largest uniform and auxiliary products rental company in the US. The company promotes circular practices by enabling low-cost alternatives to single-use products. The company is a well-managed, high-quality compounder and has established a dominant market position.
<b>Rentokil</b>	 Health and Wellbeing	Rentokil is the world's leading pest control and hygiene and wellbeing services company. Its business is underpinned by structural growth drivers such as shifting demographics, urbanisation and an evolving climate, which should increase demand over time. The company plays a critical role in protecting public health, food and property, and is uniquely positioned to have a positive impact by preventing pest-borne diseases, protecting biodiversity, and reducing property loss and food waste.

Trading – Sales	Impact theme	
<b>Blackbaud</b>	 Impact Enablers	Blackbaud closed after it rejected a takeover bid, which we thought was attractive. The increase in the share price provided an attractive exit point.
<b>Orsted</b>	 Energy Transition	We exited due to lower conviction in the management's strategy and their cautious line between growth and balance sheet conservatism. We also saw near-term pressures in US projects.
<b>Bright Horizons</b>	 Education	There were question marks around the business given the shifts in working practices, with working from home and hybrid working being the new normal. The stock rallied 50% YTD on re-opening, which offered an attractive exit point.
<b>Ballard Power</b>	 Future Mobility	The company remains well capitalised and well positioned in the hydrogen market, but it became apparent that the trajectory of orders over the next five years is underwhelming.
<b>Carl Zeiss Meditec</b>	 Health and Wellbeing	The company had come under pressure from destocking that built up during the Covid-19 pandemic, particularly in China which represents a significant portion of revenues. In addition, slowing demand in the US and increased competition have created a difficult backdrop for the company.
<b>Illumina</b>	 Impact Enablers	Illumina was impacted by weakness in the biopharma market, a decline in sales of Novaseq consumables and pricing pressure in China, which pushed earnings expectations lower.

## Outlook

With the polls too close to call in the US Presidential election, uncertainty is likely to remain elevated until confirmation of the result. However, there are several reasons to remain optimistic. Firstly, the interest rate environment should be favourable for the strategy, which has a growth bias and tends to outperform in declining or stable rate environments. Secondly, in contrast to the extreme narrowness in 2023 and H1 2024, markets should start to broaden, which should benefit the portfolios' mid-cap bias. We also remain confident in the portfolio fundamentals, and an environment where investors focus more on fundamentals should provide a favourable backdrop.

Over the longer term, the UN Sustainable Development Goals (UN SDGs) should provide an enduring source of demand. According to the latest report from UN, we have only achieved 16%<sup>1</sup> of SDG targets. If we want to meet the targets, investment into the solutions providers will have to accelerate, benefiting our portfolio that seeks to identify genuinely impactful companies whose products and services help people and the planet.



<sup>1</sup> <https://dashboards.sdgindex.org/chapters/executive-summary>

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## THEMATIC FOCUS:

## Is the end in sight for animal testing?

Animal testing is an issue that resonates with consumers and investors alike. However, investment approaches have been mainly values-based to date, and the significance of the related risks overlooked.

**Setting the scene**

**Companies are often reluctant to disclose the extent of their involvement with animal testing. But a changing regulatory and risk backdrop, coupled with the growing advantages of alternatives, indicate that treating pharmaceutical animal testing only as an ethics-based issue is unsustainable.**

**Effective governance and management of pharmaceutical animal testing and preparing for a transition to alternatives are critical for the protection and creation of long-term shareholder value. Companies that welcome the integration of alternatives into their research programmes, and make investments to support the transition, will be well placed to take market share in an animal testing-free future.**

Animal testing is a contentious issue that continues to resonate with consumers and investors, but mainstream coverage tends to focus on the ethics of the practice, and its use for cosmetic and personal care products.



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Pharmaceutical animal testing is less well understood. This is where animals are used in research to develop and study the safety and efficacy of medical products in preclinical development.

While there is little remaining support for the use of animal testing in cosmetics, public opinion is divided on its application in medicine. Support tends to be contingent on the practice being carried out humanely and only where no alternatives are available.<sup>1</sup>

Involvement in pharmaceutical animal testing for product development exposes companies to a multitude of risks. Policy shifts in Europe and North America reflect the likelihood of a long-term phase out of the regulatory requirement for pharmaceutical animal testing, and the development, validation, and adoption of promising alternatives is well underway. Once pharmaceutical animal testing is no longer required by law or science, companies may choose to continue the practice, but at the risk of losing their social licence to operate.

We want companies to have robust governance and risk management structures where testing must continue, and to leverage opportunities created by the alternatives transition, to drive long-term value creation. Every pharmaceutical company should focus on the three Rs: replacement, reduction, and refinement.

<sup>1</sup> Moral Issues | Gallup Historical Trends, Nanos Report EN (ccac.ca), Normal dot (Rev02 January 2009) (ipsos.com), Cruelty Free Europe – Animal testing in the EU – Savanta Europe, Survey report on public awareness concerning the use of animals in scientific research in Japan (jst.go.jp)



## Global policy perspectives

Pharmaceutical animal testing requirements exist to some extent in all developed markets, but vary greatly by region. The use of alternatives in pharmaceutical research is considered standard practice in the EU and UK, and animal use is only permitted where its scientific necessity can be demonstrated. In 2021, the European Parliament called for the development of an EU-wide action plan to phase out requirements for animal testing under chemicals legislation, which includes coverage of human and veterinary medicines. The European Commission announced its intention to accelerate this phase-out in 2023.<sup>2</sup>

The North American market is still in the early stages of its alternatives transition, but the changes are palpable. Legal protections for animals used in pharmaceutical research, and funding for alternative technologies, have steadily increased in recent years. In 2023, the Food and Drug Administration (FDA) Modernization Act 2.0 was enacted in the US, removing several longstanding requirements for drugs to be tested on animals where certain alternatives are available.<sup>3</sup> Although the replacement of animals in the product development process is still treated as the exception, not the rule, its introduction incentivises companies to reduce their reliance on the practice.

Other countries, such as China and Japan, acknowledge the importance of the three Rs within regulatory regimes but continue to require animal testing in pharmaceutical product development. Asian governments' approaches to ensuring laboratory animal welfare and safety are also known to be less stringent than those of the Western world.<sup>4</sup>

The lack of global harmonisation has led to inconsistency and redundancy, hindering any single region's efforts to move towards greater use of alternatives. However, recent approvals of animal-free pharmaceutical research strategies by intergovernmental bodies such as the OECD should help to improve standardisation of the alternatives allowed in the future.<sup>5</sup>

## Risk landscape

Pharmaceutical research is commonly performed on rodents and fish, but rabbits, dogs, cats, non-human primates, and other animals are also used. Recent events regarding the use of non-human primates (NHPs) demonstrate the risks.

The price per animal for NHPs rose from roughly US\$5,000 in 2020 to US\$30,000 in 2023 due to a shortage driven by China's export ban.<sup>6</sup> The country was previously the largest exporter of NHPs worldwide. The NHP shortage threw a spanner into drug development pipelines at the onset of the Covid-19 pandemic and continues to cause study delays on a global

scale. After receiving subpoenas in connection with a federal investigation of an NHP smuggling operation, the share prices of two major US contract research organisations – Charles River Laboratories and Inotiv – tumbled.<sup>7,8</sup>

While sourcing complications are possible with any product, they are particularly problematic for live animals, as life-sustaining care and facilities must be provided throughout the supply chain.

Failure to maintain the appropriate conditions during transport and at research facilities can have a major impact on the livelihood of animals and their suitability for research. Companies found in violation of laws relating to laboratory animal welfare may lose external funding, face facility shutdowns, or incur other legal and financial penalties.



The potential for damage to a company's social licence to operate is more tangible with animal testing for cosmetics, or farm animal welfare. Consumers dissatisfied with a company's animal use practices can easily change their shampoo or fast-food selection. However, anonymity granted to companies through the use of contract research organisations for pharmaceutical animal testing, and patent exclusivities in medical products, create challenges for consumers seeking to identify or boycott brands based on their treatment of animals.

The societal backlash regarding pharmaceutical animal testing is perhaps best illustrated by the US government seizure of thousands of beagles from an Envigo breeding and research facility due to welfare concerns in 2022. In 2024, Envigo's parent company was ordered to pay a fine of over US\$35m, the largest in US history for an Animal Welfare Act case.<sup>9</sup>

<sup>2</sup> Texts adopted – Plans and actions to accelerate a transition to innovation without the use of animals in research, regulatory testing and education – Thursday, 16 September 2021 (europa.eu), Commission acts to accelerate phasing out of animal testing (europa.eu)

<sup>3</sup> Top national pharma markets by market share 2022 | Statista, S.5002 – 117th Congress (2021-2022): FDA Modernization Act 2.0 | Congress.gov | Library of Congress

<sup>4</sup> Legislation & Regulation In Asia | FRAME

<sup>5</sup> World's first toxicology testing strategy without animal testing adopted by OECD | Givaudan

<sup>6</sup> Monkey Business Threatens U.S. Drug Discovery – WSJ

<sup>7</sup> Animal Testing for Vaccines Relies on a Cruel Monkey Supply Chain (bloomberg.com)

<sup>8</sup> <https://www.washingtonpost.com/science/2023/03/01/monkeys-cambodia-research/>

<sup>9</sup> Office of Public Affairs | Animal Breeder Pleads Guilty to Animal Welfare and Pollution Crimes and Will Pay More than \$35M, Including Record Fine in an Animal Welfare Case | United States Department of Justice



## Nature-related impacts – species under threat



**The impacts and dependencies relating to animal testing should be considered as part of a company's biodiversity strategy. While some animals used in testing appear to be in abundant supply, the same cannot be said for other animals commonly used in pharmaceutical research.**

Following China's export ban on non-human primates (NHP), a rapid shift in sourcing locations occurred, contributing to major increases in NHP poaching. In 2022, the International Union for Conservation of Nature (IUCN) issued endangered status to one species of NHP frequently used in pharmaceutical animal testing, the long-tailed macaque. Hunting and trapping were previously a threat to the population and poaching has become rampant due to the heightened demand and price. The species is also threatened by habitat deforestation and degradation.<sup>10</sup>

Horseshoe crabs are used in pharmaceutical animal testing due to the properties of their distinctive blue blood. The crabs are typically caught and released back into the sea after a portion of their blood has been extracted, but improper handling and aftercare techniques are common, putting their continued livelihood at risk. The American and tri-spine horseshoe crabs are classified as vulnerable and endangered by the IUCN, respectively. Horseshoe crab eggs are also a food source for fish, birds, and other wildlife, and their shells serve as a habitat for smaller species.<sup>11</sup>

We want to see companies support efforts to phase out the use of NHPs. Where they are a necessity, we would like to see commitments to not use any NHPs that are endangered or that are caught in the wild.

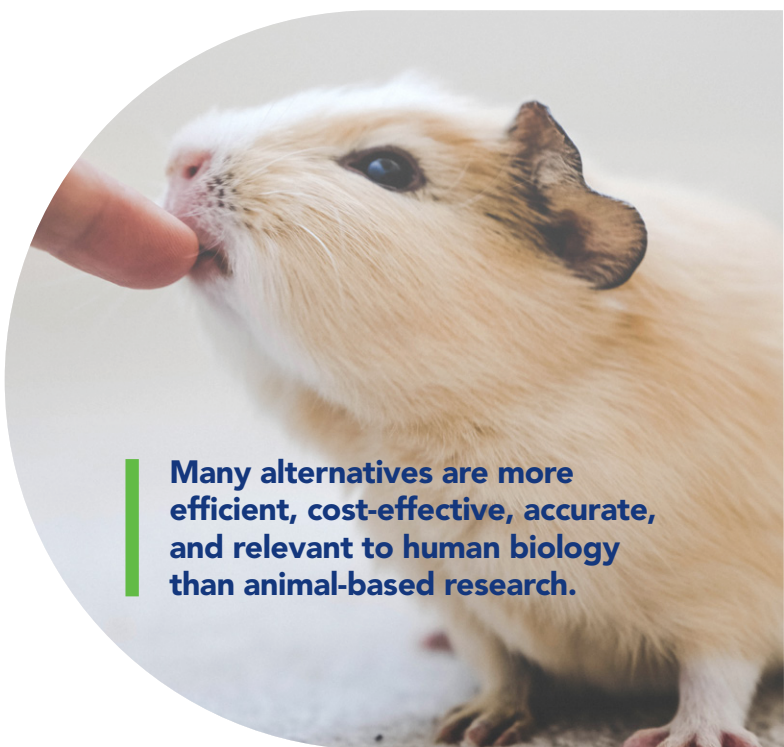
## What alternatives can be used?

Some 90% of drugs that pass preclinical tests ultimately fail, and the biological differences between animals and humans are known to be a contributing factor.<sup>12</sup> The technological evolution in drug testing and alternatives, which can deliver more accurate and efficient results, creates opportunities to switch, to the benefit of society and animals.

Alternatives to pharmaceutical animal testing fall into three segments – those performed using biological molecules (in chemico), those using computational modelling (in silico), and those using cells outside the body (in vitro).

Many alternatives are more efficient, cost-effective, accurate, and relevant to human biology than animal-based research. These advantages are crucial, as alternatives must compete with, and outperform animal-based research to gain confidence and support from industry and regulators.

Major pharmaceutical brands are now partnering with innovators in the alternatives space, as well as investing in alternative technologies development in-house. Even contract research organisations, considered to be the largest proponents of animal testing, have acknowledged the need to reduce their reliance, and are allocating resources to alternatives development and integration.<sup>13</sup>



**Many alternatives are more efficient, cost-effective, accurate, and relevant to human biology than animal-based research.**

<sup>10</sup> [Macaca fascicularis \(Long-tailed Macaque\) \(iucnredlist.org\)](https://www.iucnredlist.org/), [Animal Testing for Vaccines Relies on a Cruel Monkey Supply Chain \(bloomberg.com\)](https://www.bloomberg.com/news/articles/2022-01-12/animal-testing-for-vaccines-relies-on-a-cruel-monkey-supply-chain)

<sup>11</sup> [International Horseshoe Crab Day: a celebration of the flagship species for coastal habitat conservation | IUCN](https://www.npr.org/2022/09/22/1111111111), [Pharmaceutical labs bleed horseshoe crabs for vaccines with little accountability : NPR](https://www.npr.org/2022/09/22/1111111111)

<sup>12</sup> [Why 90% of clinical drug development fails and how to improve it? – PMC \(nih.gov\)](https://www.pmc.nih.gov/press-releases/2022/09/22/90-percent-of-clinical-drug-development-fails-and-how-to-improve-it)

<sup>13</sup> [Charles River Laboratories Launches Alternative Methods Advancement Project to Reduce Reliance on Animal Testing | Charles River Laboratories International, Inc. \(criver.com\)](https://www.criver.com/news/charles-river-laboratories-launches-alternative-methods-advancement-project-to-reduce-reliance-on-animal-testing), [Envigo expands R&D capabilities in non-animal technologies to meet regulatory and market requirements for in vitro assays \(inotivco.com\)](https://www.inotivco.com/news/envigo-expands-r-d-capabilities-in-non-animal-technologies-to-meet-regulatory-and-market-requirements-for-in-vitro-assays)

Despite these efforts, the alternatives market is not yet mature enough to support a total elimination of pharmaceutical animal testing without compromising the integrity of the product development process. To advance the alternatives transition, companies will need to work diligently and collaboratively on technology development and validation, in concert with regulators.

### In silico alternatives

Artificial intelligence (AI) is helping to reduce, refine, and in some cases, replace animal testing. By ingesting vast quantities of human health data and running modelling scenarios, researchers may be able to screen a drug for its applicability to humans more effectively and quickly than testing it on animals first.

For instance, some pharmaceutical companies have developed AI platforms for clinical prediction, and have seen success in their ability to detect drug toxicity in comparison with in vitro and animal-based methods.<sup>14</sup>

### Our engagement approach

Our engagement strategy is centred on the following criteria:

- **Formal commitment to the '3 Rs' principles of replacement, reduction, and refinement.**
- **Evidence of robust governance and management structures to ensure implementation of the '3 Rs', and that all animals are kept in appropriate conditions and treated humanely.**
- **Companies prepare for, and facilitate, the alternatives transition.**

Looking forward, we expect companies to leverage the opportunities for growth created by the alternatives transition to drive long-term shareholder value. EOS (the stewardship arm of Federated Hermes Limited) will monitor the developing geopolitical complexities around animal sourcing and other related risks.



We have collaborated with the FAIRR investor network on various initiatives relating to livestock production.

<sup>14</sup> Merck KGaA, Darmstadt, Germany and Quris-AI Expand ([globenewswire.com](https://globenewswire.com))





Novo Nordisk is a Danish multinational healthcare company with a strong heritage in treatments for diabetes. Founded in 1923, it employs more than 59,000 people across 10 R&D centres, 16 production sites and 80 offices around the world, marketing its products in 170 countries.

Novo Nordisk has received considerable attention thanks to the runaway success of its weight-loss drug Wegovy. The company has been a pioneer in the medical treatment of obesity, helping bring its treatment as an illness into the mainstream. Wegovy's active ingredient is semaglutide, which belongs to the group of medications known as GLP, and acts as an appetite suppressant. Semaglutide is also marketed by Novo Nordisk at a slightly lower dose for the treatment of type 2 diabetes, under the brand name Ozempic.

The company has a strong pipeline of further treatments. These include a second-generation drug for type 2 diabetes called CagriSema, which is already in Phase 3 trials and could be on the market within two years. CagriSema combines semaglutide with a synthetic version of amylin, a hormone secreted along with insulin by the pancreas. Amylin inhibits food intake, delays gastric emptying, and decreases blood glucose levels, further supporting weight loss.

### Why we're invested

Diabetes and obesity are health issues that have a severe impact on both sufferers and wider society. Addressing diabetes is proven to have broader health benefits, including reducing cardiovascular problems and kidney disease, while obesity is strongly linked to heart disease, arthritis and cancer. Novo Nordisk is one of two market leaders in medication for the former, and a trailblazer in medical treatment of the latter.

Most drug companies are eyeing up the obesity market due to its role in other health issues. But, having been a lone wolf in the sector for years, Novo Nordisk has a strong first mover advantage. Its product is extremely popular with patients and practitioners alike, and the company has built up a wealth of clinical evidence to prove its efficacy, safety and broader health benefits. In trials, nearly half of adults taking Wegovy lost 10% or more weight, while 30% of people lost 20% or more.

Meanwhile, the SELECT cardiovascular outcomes trial, which involved 17,604 obese adults with established cardiovascular disease in 41 countries, found a 20% reduced incidence of heart attack, stroke or death from heart disease.

- Patients treated: 40.6m
- Lives extended: 2.1m
- US\$m Healthcare R&D funded: 4,711

### Novo's approach to animal testing

Novo Nordisk is a leader in transparency regarding pharmaceutical animal testing and although it has not made a formal commitment to phase out its use of the practice, the company believes that experiments should only be conducted when there are no suitable alternative methods.

Indeed, it supports and is integrating the "3 Rs" principles into its processes and procedures, demonstrated by it setting up a dedicated unit aimed at accelerating the development of methods that do not involve animals. It also has robust practices to ensure that animal welfare is a high priority.

The company is also embracing technology, having formed a partnership with Valo Health on its AI platform for biological discovery, clinical development and therapeutic design. The company has seen success in identifying a bi-specific mini protein without using animal testing<sup>2</sup>.

Novo will continue to explore other alliances in this area and invest to ensure it has sufficient computing power to achieve its AI ambitions. We will continue to engage in the healthcare space to ensure that AI models are used responsibly and with proper controls in place to eliminate bias.

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<sup>1</sup> Source: Novo Nordisk Capital Markets Day: Data Science & AI presentation, March 2024.

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Our goals are to help people invest and retire better, to help clients achieve better risk-adjusted returns and, where possible, to contribute to positive outcomes that benefit the wider world.

## Our investment and stewardship capabilities:

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- **Fixed income:** across regions, sectors and the yield curve
- **Liquidity:** solutions driven by five decades of experience
- **Private markets:** private equity, private credit, real estate, infrastructure and natural capital
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