

cardano

Balancing Profit and Purpose

The Role of Pension Funds in Driving Sustainable, Long - Term Growth

Quarterly report sustainable investing | Third quarter 2024



Introduction

Engaging for Tomorrow: Transitioning to Sustainable Growth



Dennis van der Putten

Chief Sustainability Officer

Sustainable investing is under scrutiny due to concerns over short-term financial returns. Focusing solely on short-term gains can undermine long-term value. We consider **Green growth** as the economic activity that takes place within planetary and social boundaries and requires collaboration between governments, investors, and institutions like pension funds.

Pension funds, with long-term investment horizons, face two key challenges:

- 1. **Risk/ Return:** Ignoring environmental and social impacts increases future risks, turning today's "profitable" investments into tomorrow's losses.
- 2. **Moral Responsibility:** Sustainable investing ensures future generations inherit both financial security and a livable world.

Environmental degradation is already causing trillions in global losses, with biodiversity loss threatening food security and worsening climate change. Focusing only on short-term profits neglects these systemic risks, passing the burden to future generations.

Rather than excluding damaging companies, Cardano advocates for supporting **transitioning companies**—those striving for sustainability. Active shareholder engagement, through **dialogue and voting**, is crucial in accelerating this change. Divestment should be a last resort.

Active shareholding, leadership, and forward-looking investment are vital for driving the transition to a sustainable future and ensuring balanced, long-term growth.

Table of contents

News and trends: Developments in the third quarter	3
Theme in focus: Green growth: a balancing act	5
Stewardship in Practice	7
Investment universe: New inclusions and exclusions	12

News and trends

Developments in the third quarter

In this chapter we describe the latest news and developments in the field of sustainable investing.

UK Stewardship Code Update

In July, the UK Financial Reporting Council (FRC) released the updated list of signatories to its Stewardship Code.

First published in 2010 and reviewed in 2020, the UK Stewardship Code is a voluntary, principles-based code of best practice, which aims to promote responsible investment practices among asset managers, asset owners and service providers. It emphasizes the importance of transparency, accountability, and long-term value creation. Signatories to the code are required to report on their stewardship activities on an annual basis and the FRC confirms the list of signatories after a reviewing process.

Cardano has been a signatory as an asset manager and service provider since 2021 and was successful once again in its application this year. The FRC is currently ongoing a fundamental review of the stewardship code and aims to streamline the reporting requirements on signatories. Cardano is participating in ongoing consultations.



Marie Payne
Responsible Investment Officer



Greta Fearman
Investment Stewardship Lead

Publication of Sustainability report



In July 2024, we published our [Annual Sustainability Report](#), a collaborative effort involving updates and results from multiple teams across the firm.

The report reflects our progress throughout 2023 in integrating sustainability across our activities. It focuses on several key areas such as portfolio emission reductions, progress on water-related objectives, our inclusion and exclusion approach, developments in our private impact strategy, engagement achievements, and our role in advising and supporting clients with their sustainable investment goals. The report also highlights the actions we have taken across key themes of biodiversity, the importance of a real living wage, sustainability data and sustainable finance regulation.

Our 2023 report was enhanced to provide a more data-driven assessment of our progress, incorporating quantitative metrics alongside qualitative updates to give a clearer picture of our achievements and where we stand today.

We're proud of the report and invite all our clients and stakeholders to explore it to learn about our ongoing commitment to sustainability.

News and trends

Developments in the third quarter

Regulatory Update

The EU supervisory authorities have not been idle during the summer period. Several publications have been released, and we provide an update on some of them below.

ESMA fund naming guidelines



In our previous quarterly report, we provided information on the ESMA guidelines which impose investment requirements and mandatory exclusions on investments funds using ESG-related

terms in their name. Following our latest report, these guidelines have been published on the 21st of August on ESMA's website in the official languages of the EU. This formal publication triggers the application timeline of the guidelines: 21 November 2024. Any new funds domiciled or marketed in the EU, established on or after that date should apply the guidelines immediately. Investment funds that are existing prior to 21 November 2024 will have to comply with the guidelines from 21 May 2025.



Maureen Luijk
Sustainable Finance Regulation
Expert

ESMA long-term vision for sustainable investments

More news from ESMA. On 24 July last, it has published an opinion on the EU regulatory framework for sustainable finance. It proposes potential long-term improvements aimed at helping investors gain easier access to sustainable investments. The opinion is based on findings regarding greenwashing and the review of the SFDR. ESMA advocates positioning the EU Taxonomy at the center of the framework as the sole, common reference point for the assessment of sustainability and, in the long term, phasing out the SFDR definition of 'sustainable investment'. Additionally, the development of a social taxonomy is to be prioritised, and the importance of transition investments is emphasised. The opinion also calls for minimum sustainability requirements for all financial products – also those out of scope of the SFDR – and simplified sustainability reporting. For more information, see the full opinion of ESMA .

Theme in focus

Green growth: a balancing act

In the last two years there was a financial underperformance for sustainable funds relative to non-sustainable funds. Looking at a longer time period, there is no significant difference. **Financial returns are rightfully a leading principle for institutional investors. Big question is: returns over what timeframe should we take into account? Related to that: maximum economic growth cannot occur without affecting the environment and society—and vice versa. How do you calculate returns if the damage to people and the environment is not factored in?**

Green growth is ultimately the pinnacle. This means jointly ensuring optimal economic activity within the planet's boundaries while considering a social foundation. It requires an integrated approach and an understanding of multiple sustainable transitions, as well as active involvement from both the government and pension funds.

When investing for pensions, achieving good returns must be a guiding principle. Excluding companies based on various sustainability criteria could potentially jeopardize this objective. At the same time, investing in companies related to negative themes such as climate change, biodiversity loss, and pollution may yield better short-term financial returns, but on a longer-term horizon, it could contribute to larger systemic risks that have far-reaching and irreversible financial impacts. Pension funds, especially those with investment horizons stretching up to 40 years, are uniquely focused on the long term.

Key questions: Risk /return and ethical responsibility

This long-term obligation, along with the duty of care it entails, raises two key questions. The first is from a risk/return perspective: The costs of ignoring negative impacts are enormous. Various studies cite astronomical annual losses caused by environmental destruction. Can a long-term investor contribute to this capital loss while also increasing the risk of disruptive interventions in production methods and products in the future? The "profitable" investments of today could become the "bleeders" of tomorrow. What is the risk to the value of these



Dennis van der Putten
Chief Sustainability Officer

investments when the impact on people and the environment is accounted for? What stance should one take in this regard?

The second aspect concerns the moral part. Ultimately, a pension fund wants its participants to enjoy their pensions. Good health and a livable world are fundamental to this.

We depend on nature

The European Commission stated the following in "The Business Case for Biodiversity" as part of the Green Deal: More than half of the world's GDP—around €40 trillion—depends on nature. The loss of biodiversity and the collapse of ecosystems are among the greatest threats to humanity over the next decade. The economic and social costs of inaction would be enormous. Between 1997 and 2011, an estimated €3.5 to €18.5 trillion in ecosystem services were lost annually worldwide, while land degradation results in an estimated €5.5 to €10.5 trillion in losses each year.

Biodiversity underpins food security in both the EU and globally. The loss of biodiversity threatens our food systems and is closely linked to, and exacerbates, climate change. This loss leads to reduced crop yields, lower fish catches, increased economic losses from floods and other disasters, and the disappearance of potential new sources of medicine. Globally, average yields of rice, maize, and wheat are expected to decrease by 3% to 10% per degree of warming above historical levels. The services provided by ecological systems and the natural capital they generate are crucial to the functioning of Earth's life-supporting systems. They directly and indirectly contribute to human well-being and thus form part of the planet's total economic value.

Investing in companies that focus on short-term profits is at odds with these challenges. It is neither the role nor the expertise of politicians to make investment decisions for pension funds or influence their investment policies. In fact, completely ignoring sustainability may lower relative risk compared to a benchmark, but it increases absolute risk in terms of value in euros.

(article continues on the next page)

Theme in focus

Green growth: a balancing act

Returns or false returns?

In short, higher financial returns are often achieved in the short term because the damage to people and the environment (on the short and the long term) is not included in the cost price. This leads to higher short-term profits but shifts the negative consequences to the future, increasing the long-term risk profile. The burden is thus passed on to future generations. As a result, sustainable investing may sometimes seem to come at the expense of short-term returns, but this return is actually false—since the true costs have not been accounted for.

Excluding damaging Companies?

Should pension funds then exclude all companies that currently produce (partially) damaging products? And only invest in the most sustainable companies? Cardano believes the answer is no. Many pension funds do not do this either. Moreover, the number of companies that already operate perfectly sustainably is too small to create a sustainable society.

Simply excluding entire sectors or activities is a blunt tool that can negatively impact both financial and social returns. These risks excluding companies that are willing and able to transition to sustainable operations. These are precisely the companies that should be supported by shareholders during their transition. Collectively, these companies can significantly accelerate the transition—and that is exactly what is needed. We are heading in the right direction, but far too slowly. We must accelerate the transition to a sustainable society together.

A transition classification

Cardano classifies companies based on their ability and likelihood to contribute to the transition to a sustainable society, as well as the sustainability of their operations. This specifically concerns topics that are financially material to a company. If a company can (or is willing to) adapt, investing in it can be a wise choice, provided risk and financial return frameworks are met. But if adaptation is too big a step, posing an unacceptable risk to investment portfolios and having a negative societal impact, avoidance or exclusion is a logical next step.

Activist or active shareholder?

To maximize the chances of success in the necessary transitions, investors must make their expectations clear. Passively following developments is not enough. Stewardship plays a central role here. As large shareholders, pension funds—or their designated investors like Cardano—actively engage in dialogue with the companies they invest in and vote at shareholder meetings. The "engagement topics" during such conversations vary by company and can cover financial, organizational, and sustainability opportunities and risks. For investors, failing to consider these sustainability risks is a risk in itself. If these risks materialize and are not adequately mitigated, participants will certainly take action - ranging from just complaints to potential lawsuits. So, does this make one an activist or an active shareholder? Expressing expectations, with well-founded justification, fits an active role—especially when it concerns long-term risks and associated company performance.

Engagement and voting as powerful tools

Within its stewardship activities, Cardano highlights the risks and opportunities arising from ongoing transitions. Our stewardship approach is closely aligned with the Cardano Sustainability Framework—as outlined in our Sustainable Investment Policy—to ensure that our investments help companies contribute to and thrive in a sustainable future. Engagement and voting are our active, powerful tools, and they interact with each other. Divestment is Cardano's last resort, used when a company consciously decides to abandon or significantly delay its transition. This approach results in a universe of companies that already operate sustainably and companies that contribute to the transition to an economy with healthy growth, within planetary boundaries. In other words, green growth.



Stewardship in practice

Stewardship to Address Increasing Global Plastics Consumption



Mariët Druif
Responsible Investment Officer

Building on this report's 'theme in focus' of managing systemic sustainability risks, Cardano's stewardship efforts play a crucial role in driving the transition and achieving sustainable growth. We aim to create a more resilient portfolio by addressing challenges like climate change, biodiversity loss, pollution, human rights issues, and public health through our engagements.

The following case studies highlight examples of our stewardship work from the first three quarters of 2024 and demonstrate how we have engaged across two of our priority themes: biodiversity and health. Our aim with these engagements is to encourage the necessary shifts across different sectors

Stewardship to Address Increasing Global Plastics Consumption

Global plastics consumption has increased more than six-fold since 1980. This is causing high and rapidly increasing levels of plastic pollution, which poses serious risks to human health and biodiversity. Plastics injure and kill marine wildlife, damage soils and poison groundwater. Additionally, plastics are responsible for around 3% of global emissions, contributing to climate change. Biodiversity loss and climate change in turn can have a negative impact on local communities. For example, they can threaten global food production and consequently the availability and affordability of (healthy) food for lower-income groups. Concerningly, plastic waste is projected to almost triple by 2060, with less than a fifth being recycled, according to the OECD's Global Plastics Outlook.¹

Plastic pollution therefore represents a growing threat which exacerbates system-level risks. These systemic risks may impact the overall economic system and portfolio stability, thus demanding urgent collaboration by all actors. For these reasons, Cardano participates and supports a variety of initiatives working with different actors to address the plastic pollution crisis.

Corporate engagement

As responsible, long-term investors, we believe that companies with sound policies to reduce plastics may enjoy competitive advantages, including stronger brand performance and consumer trust, as customers are increasingly concerned about the impact of plastic products in the environment. Given the increase in new regulations and the rising number of lawsuits against firms, these companies will also be better prepared for upcoming regulations and legislative action.

At the corporate engagement level, Cardano actively participates in two initiatives. We are part of the Plastic Solutions Investor Alliance coordinated by the American NGO As You Sow, where we lead and support engagements with companies in the North American region. We also joined the Plastic Pollution program of the Dutch association VBDO, where we lead and support engagements with European companies. Both initiatives call for urgent action to reduce intensive use of plastic packaging. Being active in both these initiatives allows us to broaden our scope on companies and benefit from local investor and NGO expertise on plastics.

(article continues on the next page)

¹ The Global Plastics Outlook: Policy Scenarios to 2060, OECD 2022



Stewardship in practice

Stewardship to Address Increasing Global Plastics Consumption

For instance, in the EU there are more stringent regulations to address plastic pollution compared to the US, exposing companies operating in Europe to more regulatory risks.

While we see progress in achieving some of our key goals, we also encounter challenges in our engagements on plastics.

Amazon, for example, has made progress on several of our objectives since the engagement began in 2022 and the company is open to dialogue, visiting our Rotterdam office in March 2024 to discuss its plastics policy. However, Amazon is not willing to disclose its internal plastic reduction targets and will only report on progress once they have achieved milestones. This makes it challenging to understand the company's structural commitment to tackle plastic pollution.

At Coca-Cola Europacific Partners (CCEP)², the investor group, including Cardano, has requested the company to increase its share of refillable bottles and set targets, as reusable packaging in the form of refillable bottles will replace significant numbers of single-use PET bottles, reducing plastic pollution. CCEP, however, has not committed to set a 2030 refillable goal, unlike the Coca-Cola Company, which has implemented a 2030 goal. The investor group continues to encourage these companies to implement the key asks and will consider escalation if no further progress is made.

² CCEP is the largest independent Coca-Cola bottler by revenue

³ Petrochemicals are chemicals made from petroleum

Policy engagement

On the policy and sovereign engagement level, we further support several initiatives. Currently, the UN-led plastics treaty negotiations are ongoing where countries are aiming to agree on a legally binding treaty. Cardano believes a legally binding ambitious plastics treaty is essential to address the plastic pollution crisis, as this will create a level playing field, making it easier for countries and companies to scale solutions. To support an ambitious legally binding treaty, we have been a member of the business coalition for a global plastics treaty since December 2022, which advocates for such a treaty. In April 2024, we also signed a statement calling on member states to agree on an ambitious treaty that sets a clear objective to end plastic pollution and that is supported by binding rules and obligations for governments to address the full life cycle of plastic.

However, during the latest round of treaty negotiations, petrochemical companies have opposed any cut to production to control plastic pollution and pushed back against the inclusion of (plastic) polymer production within the treaty.

In July 2024, we therefore signed the investor statement calling petrochemical³ companies that produce plastic polymers to take stronger action towards plastics circularity. [This statement](#) was signed by 70 investors with combined assets of USD 6.8 trillion, sending a strong signal to petrochemical companies that all actors across the plastics value chain must take action to end the plastic pollution crisis.

By using different tools and targeting diverse actors to address plastic pollution, Cardano aims to address the systemic risks of climate change, biodiversity loss, human rights and health, which fits our broader sustainability goal to encourage companies to operate within planetary boundaries and respect the social foundations of wellbeing, below which no-one should fall.

Stewardship in practice

Stewardship to Address Risks to Biodiversity from Pesticide Use

Cardano's Sustainable Investment Policy defines how we as an investor can help guide the transition towards a sustainable society. The ongoing biodiversity crisis poses significant social, environmental, and economic risks, impacting public health, human rights, agricultural productivity, and natural resources. As a central part of the industrial food system, pesticide use is contributing significantly to biodiversity loss and must be addressed. Cardano has set objectives with the overall aim of contributing to the reversal of biodiversity loss and to a biodiversity-positive situation. One of the objectives is for the companies we invest in to be pollution and waste neutral by 2050. Companies are encouraged to identify safe threshold levels for pollution from all sources and set science-based targets for reducing impact on biodiversity loss and ecosystem functions. Priority sources of pollution include excess use of fertilizers, pesticides, and highly hazardous pesticides (HHPs), leading to nutrient loss in soil.

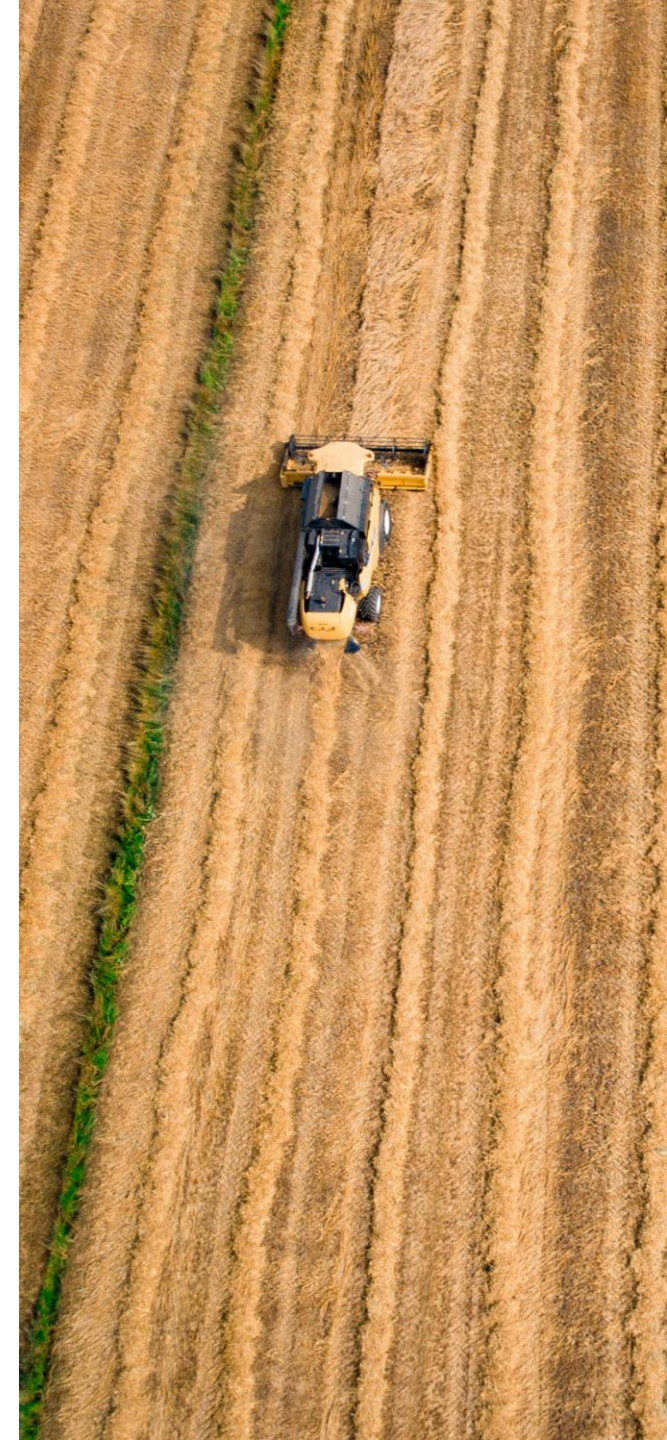
The role of institutional investors

Along with a group of investors, Cardano recently joined ShareAction's pesticides initiative, which was created to address the immense risks to biodiversity posed by the pesticides industry. The engagement program focuses on companies that dominate the global pesticides market: BASF, Bayer, FMC Corporation, Syngenta, Corteva and UPL. These companies do not yet effectively address biodiversity risks posed by the chemicals they produce, many of which are associated with high-profile adverse environmental and human health impacts.



Ivana Sabbatini
Stewardship Reporting Specialist

In August 2024, Cardano pre-submitted a question in advance of UPL's AGM and attended the meeting virtually. The question asked was whether UPL would commit to reducing the biodiversity risk associated with its pesticide products by 50 percent by 2030, in line with Target 7 of the Kunming-Montreal Global Biodiversity Framework. The company provided only a high-level response, so we requested a follow-up meeting in October 2024 to delve further into its strategy. This engagement with UPL is important as it produces and sells the highest number of HHPs of all companies assessed above by ShareAction. The pesticides industry, including UPL, must commit to phasing out high-risk pesticides and adopt credible strategies to reduce their impact on biodiversity.



Stewardship in practice

Stewardship to Address Health as a Financial and Systemic Risk

To achieve the third UN Sustainable Development Goal—ensuring healthy lives and promoting well-being for all, integrating health considerations into responsible investment decisions is crucial. Health is part of the social foundations that need to be protected and a key theme for Cardano’s stewardship efforts.

HEAL – Engaging Companies in the Restaurant Industry on Access to Healthy Diets

Growing obesity rates worldwide represent a long-term systemic risk, with cost of healthcare linked to this health crisis being a strain on the economy. The role of companies in this crisis are not ignored by governments, who are introducing legislation to try and address the issue. Health is therefore also a legal and financial risk to companies in the food industry.

Cardano has been engaging food manufacturers on the topic via the Access to Nutrition Initiative (ATNI) and the Long-term Investors in People’s Health (LIPH) program, but recently decided we wanted to do more. Recognising the need to expand work on the topic, we started working with three other Dutch investors and created the [Health Engagement Alliance \(HEAL\)](#), which officially launched in September 2024. The group recognises the role the financial sector must play in enhancing health worldwide and has started to engage six companies in the out-of-home food sector, which include restaurant chains, cafes and catering companies. These companies were not yet engaged on the topic of health, and recent [research](#) shows that they contribute to higher calorie intakes than food prepared at home, due to large portion sizes and menus that are typically higher in fat, sugar and salt.



Marie Payne
Responsible Investment Officer



Ivana Sabbatini
Stewardship Reporting Specialist

Cardano believes the sector has an important role to play and can make progress on addressing health as a risk and opportunity. The goals of the engagement are set on an assessment framework, which looks at whether the company has a policy in place on healthy diets, efforts on labelling and accessibility of nutrition information, responsible marketing practices and alignment with lobbying efforts. Initial calls took place in Q2 and Q3 2024 and the assessment framework will be used to track progress.

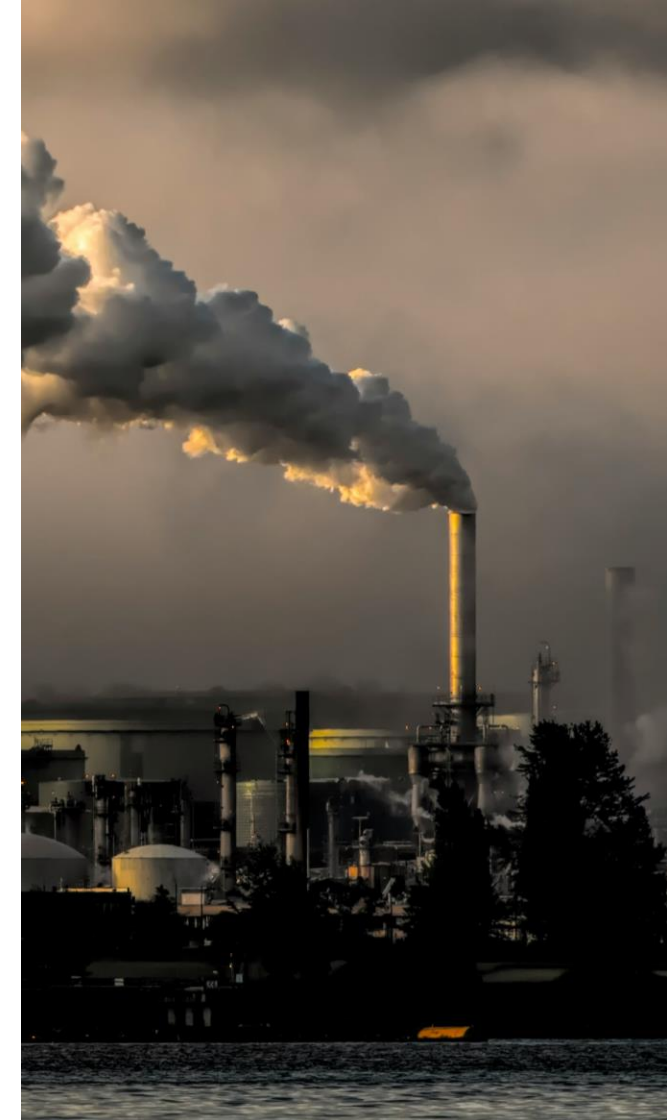
Recent Investor Statements Supporting Health as a Sustainability Topic

As part of our stewardship efforts, Cardano recently signed several public investor statements on the topic of health. These contribute to communicating our commitment to broader stakeholders and influencing corporate and public behaviour.

Investor Air Quality Statement

Air pollution is a major issue affecting public health and the performance of businesses and the economy. It is responsible for many economic costs, including healthcare, environmental damage, and loss of work productivity. Recognising the importance of the issue for the transition to a sustainable society, Cardano signed a joint [Investor Air Quality Statement](#) in September 2024, coordinated by ShareAction. The statement highlights investor support for public action on the topic, and encourages companies to better measure, disclose, and manage air pollution related risks.

(continues on the next page)



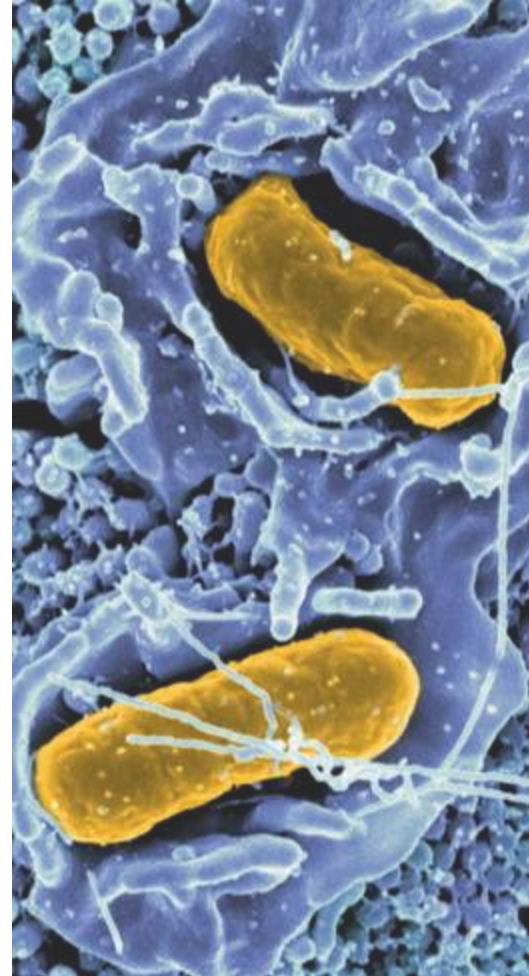
Stewardship in practice

Stewardship to Address Health as a Financial and Systemic Risk



Investor and Banking Statement on Vaping

In September 2024, Cardano signed the Investor and Banking Statement on Vaping, which is part of the [Tobacco Free Portfolios initiative](#), to which Cardano is a signatory. The Statement calls on UN member states to prioritise and implement measures to reduce the appeal and availability of vapes to children, strengthen enforcement around vaping sales, and reduce vaping through stronger legislation, enforcement, education, and support. The statement highlights WHO research on the topic and associated health risks, as well as the environmental impact of vaping products.



Investor Action on AMR (IAAMR) Public Investor Statement

The financial and economic risks linked to antimicrobial resistance (AMR) represent a systemic risk to long term investment returns, the economy and society. In August 2024, 80 investors, including Cardano, together representing over US \$13 trillion in combined assets, signed the [Investor Action on Antimicrobial Resistance \(IAAMR\) Public Investor Statement](#). The statement is the latest call to action from the IAAMR initiative, founded by the Access to Medicine Foundation, the FAIRR investor network and the UK Department of Health and Social Care. The investor signatories are calling on global leaders and policymakers to act on seven critical asks for tackling AMR, including science-based guidance and targets.

Investment universe

New inclusions and exclusions

All investments are examined for environmental, social, and governance (ESG) issues. The assessment criteria for these topics are laid down in the investment policy based on principles related to human rights, fundamental labour rights, corruption, environmental pollution, weapons, animal welfare, and integrity, among others. These principles derive from international treaties, agreements, and best practices. It also assesses whether companies have the capacity to adapt to ongoing transitions toward a more sustainable society. Companies that lack this capacity create financial risks for the investment portfolio and can be excluded from investments.

Countries

No new countries were excluded or included.

Companies

The following companies were excluded this quarter by the Sustainability Categorisation Committee based on periodic screening:

- **Howmet Aerospace Inc.:** Provider of advanced engineered solutions for the aerospace and transportation industries, which derives 15% of its revenue from defence aerospace products. The company is also active as a weapon producer as confirmed by the corporate website.
- **Oil India Ltd.:** Integrated exploration and production company, engaged in providing crude oil and natural gas. It is involved in severe controversies about oil spills and gas fires and performs poorly on all of its key sustainability risks except for carbon emissions compared to its peers.
- **PTT Oil and Retail Business PCL:** Thailand-based company engaged in sales and distribution of petroleum products. Commercial ties with military regime in Myanmar, which raises concerns around (indirect) involvement in human rights violations. Company suspended (part of the) activities but has not withdrawn.



Maud Fraipont
Sustainability Analyst

- **Sichuan Changhong Electric Co., Ltd.:** China-based company principally engaged in the manufacture and distribution of household electronics. Allegations of involvement in forced labour and low performance on controversial sourcing.
- **Al-Rajhi Company for Cooperative Insurance SJSC:** Saudi Arabia-based insurance company. The company completely lacks sustainability policies and initiatives, thereby underperforming on all material sustainability topics.

The following companies have recently been added to the benchmarks of Cardano's funds but are being cautiously excluded from Cardano's overall investable universe. There is currently insufficient information available about these companies to assess their sustainability strategy. Once this information becomes available, we will reassess the companies. For fund-specific benchmarks or restrictions, we refer to the relevant prospectus.

- **Galderma Group**
- **Kokusai Electric**
- **Adnoc Drilling Co. PJSC**
- **Inter & Co., Inc.**
- **Nu Holdings Ltd.**
- **Stoneco Ltd-A**
- **XP Inc.**
- **Huaneng Langang River Hydropower Inc.**
- **Victory Giant Technology (Huizhou) Co.**
- **Prestige Estates Projects Ltd.**
- **Rail Vikas Nigam Ltd.**
- **Cadila Healthcare**
- **Grupo Comercial Chedraui SA de CV**
- **Sunway Berhad**
- **Alior Bank Sa.**



cardano

Cardano | Weena 690, 21e etage, Postbus 19293, 3001 BG Rotterdam The Netherlands

T: +31 (0)10 206 1300 | E: info@cardano.com | W: cardano.com

Cardano Asset Management N.V. is part of the Cardano Group
and statutory seated in Rotterdam with the Dutch Chamber of Commerce under number 30143634

Disclaimer

The information contained in this presentation is for discussion purposes and under no circumstances may any information contained in this presentation be construed as investment advice.

The information contained in this presentation reflects, as of the date of issue, the views of Cardano Risk Management Limited ("Cardano") and sources believed by Cardano to be reliable. No representation or warranty is made concerning the accuracy or completeness of any data contained in this presentation. In addition, there can be no guarantee that any projection, forecast or opinion in this presentation will be realised. Past investment performance is not a reliable indicator of future results; no guarantees of future performance are provided.

The views expressed in this presentation, or any factual information contained in this presentation, may change at any time subsequent to the date of its issue.

No information contained in this presentation shall be construed as any sales or marketing materials in respect of any financial instrument, product or service sponsored or provided by Cardano or any of its affiliates or agents.

Cardano accepts no liability to any person for any information contained in this presentation. Any person wishing to invest in any financial instrument identified in this presentation must make their own assessment of the merits of doing so or should seek financial advice from a third party.

References to specific securities are presented solely in the context of industry analysis and are not to be considered recommendations by Cardano.

Cardano and its affiliates may have positions in, and may effect transactions in the markets, industry sectors and companies described in this presentation.

This presentation is not an advertisement and is not intended for public use or additional distribution. Nothing in this presentation shall be construed as tax advice or legal advice.

Cardano only provides services to professional clients (as defined in the Conduct of Business Rules issued by the Financial Conduct Authority).

© Cardano 2024

Cardano Asset Management N.V. and Cardano Risk Management B.V. (collectively Cardano) strive to provide accurate and actual information from reliable sources. However, Cardano cannot guarantee the accuracy and completeness of the information that is given in this presentation (hereinafter called: the Information). The Information can contain technical or editorial inaccuracies or typographic errors. Cardano does not give guarantees, explicitly or implicitly, with regard to the question if the Information is accurate, complete or up-to-date. Cardano is not obliged to adjust the Information or to correct inaccuracies or errors.

The recipients of this Information cannot derive rights from this Information. The Information provided in this presentation is based on historical data and is no reliable source for predicting future values or rates. The Information is comparable with, but possibly not identical to the information that is used by Cardano for internal purposes. Cardano does not guarantee that the quantitative yields/profits or other results with regard to the provided Information will be the same as the potential profits and results according to the price models of Cardano.

It is not permitted to duplicate, reproduce, distribute, distribute or make the Information available to third parties for a fee, or to use it for commercial purposes without the prior express written permission of Cardano.

The discussion of risks with regard to any Information cannot be considered as a complete enumeration of all recurring risks. The here mentioned Information shall not be interpreted by the recipient as business, financial, investment, hedging, trade, legal, regulating, tax or accounting advice. The recipient of the Information himself is responsible for using the Information. The decisions based on the Information are for the recipient's expense and risk.

The Information is exclusively intended for professional and institutional investors within the meaning of Section 1: 1 of the Dutch Financial Supervision Act (Wft) and is not intended for US Persons as defined in the United States Securities Act of 1933 and may not be used for raising investments or subscribing for securities in jurisdictions where it would be unlawful to do so.

With regard to services provided by Cardano:

The Information is solely drafted for information purposes and is explicitly not an offer (or invite) to:

- buy or sell or otherwise transact in financial instruments or other investment products;
- participate in a trading strategy;
- provide an investment service ("verlenen van een beleggingsdienst").

CARDANO ASSET MANAGEMENT N.V. IS REGISTERED WITH AND LICENSED BY THE DUTCH AUTHORITY FOR THE FINANCIAL MARKETS AS MANAGER OF ALTERNATIVE INVESTMENT FUNDS UNDERTAKING FOR COLLECTIVE INVESTMENT IN TRANSFERABLE SECURITIES AND PROVIDE LIMITED MIFID II INVESTMENT SERVICES. CARDANO RISK MANAGEMENT BV IS REGISTERED WITH AND LICENSED BY THE DUTCH AUTHORITY FOR THE FINANCIAL MARKETS AS AN INVESTMENT FIRM.