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Cardano ACTIAM's Annual Stewardship Report 2022

Stewardship Report

Reporting period, 2022.
Submitted, April 2023

Cardano Risk Management Limited and ACTIAM

April 2023

Stewardship Report

Our submission

This document has been prepared by Cardano Risk Management Limited (hereafter, "Cardano") and ACTIAM to comply with the UK Stewardship Code.

Cardano is a UK Stewardship Code signatory, successfully applying to the revised stewardship code in April 2021 and again in April 2022.

In January 2022, Cardano acquired ACTIAM, a sustainable investor, with 30 years' sustainability-related experience, and a dedicated team of sustainability professionals with expertise in sustainability issues, environmental, social and governance (ESG) data and research, and stewardship. ACTIAM was one of the first asset managers in the world to incorporate sustainability issues in fund and asset management, incorporating concepts such as planetary boundaries and social foundations.

In Q2 2022, we merged our sustainability teams. In Q3 2022, we published a revised group-wide sustainability policy. We see ourselves as one company, offering a range of services to asset owners across Europe and the UK, with a leading sustainability edge.

Prior to 2022, Cardano did not invest directly in companies. We did invest directly in governments and supranationals, a limited number of corporate credit investments, and derivative equity investments. However, our investments in companies were typically via indices or third-party managers.

This changed in 2022. We began investing in direct investment grade credit, and through our acquisition of ACTIAM, direct equity and direct credit, as well as private impact debt. As such, our approach to stewardship has evolved considerably through the course of 2022, which is reflected in this year's submission.

Following discussion with the FRC, our submission reflects our new combined capabilities.

As well as incorporating examples from our new combined capabilities, we have also reflected on our September 2022 outcome letter, where the FRC identified areas where our response meets expectations and areas where our response needs improvement. We have taken steps to address the FRC's feedback and we resubmit our response.

Cardano is a fiduciary manager and investment advisor to UK asset owners, including pension schemes and endowments. ACTIAM is an investment manager to UK, Dutch and European asset owners, including pension schemes and insurance companies. We therefore adhere to both:

- Principles for Asset Owners and Asset Managers (because we are an asset manager), and
- Principles for Service Providers (because we are an investment advisor)

In the rest of this document, we set out our compliance with these principles, one by one.

As noted in our previous submissions, there is significant overlap between four of the five Principles for Service Providers with the more comprehensive Principles for Asset Owners and Asset Managers. We have set out our compliance following the 12 Principles for Asset Owners and Asset Managers and incorporated the additional scope (Principle 5 for Service Providers) within our response to Principle 6.

Across our response we have sought to limit repetition, and we encourage readership of the report as a whole. While at times we may refer to ourselves as "ACTIAM" or "Cardano ACTIAM", our default will be "Cardano". Our approach to stewardship applies to our group as-a-whole.

Kerrin Rosenberg
CEO, Cardano Investment

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Introduction

About Us

Founded in 2000, Cardano is a privately-owned, purpose-built pensions advisory and investment specialist with a leading-edge sustainability offering.

We are widely recognised as a market leader in the provision of specialised services to private-sector and collective pension schemes in the United Kingdom and the Netherlands. Our c. 550 professionals strive to deliver better and more secure financial outcomes.

- Advisory: A pensions covenant, investment, sustainability, corporate finance and risk advisory business serving approximately 400 scheme and corporate clients. Our scheme clients have aggregated assets of over £300bn

- Investment Management: A purpose-built asset and fiduciary management provider, with a leading-edge sustainability offering, serving pension schemes, insurance companies, banks and distribution partners with £40bn of assets under management and £32bn of assets under advice as at 31 December 2022

- Defined Contribution (DC) Pension Provision: We manage over £15bn in DC assets across the UK and the Netherlands. In the UK, we operate NOW: Pensions, an award-winning UK workplace pension provider, serving 2 million members and tens of thousands of employers from a wide range of industry sectors

At Cardano ACTIAM, we bring a distinct approach to advisory and investment management that challenges the status quo. By bringing together cognitively diverse teams with a mix of perspectives and skill sets, we reduce blind spots and open up new possibilities, delivering tailored solutions for our clients.

Our Approach to Sustainability

Sustainability has always been at the core of our culture and how we run our business. Indeed, ACTIAM was one of the first asset managers in the world to incorporate sustainability issues in fund and asset management.

Our clients are overwhelmingly pension schemes and insurance companies in the UK and Europe. Their members and beneficiaries are representative of society across industries, income levels, age groups and cultural and ethnic backgrounds.

The youngest members of these pension schemes may be over 50 years away from retirement. Many of them will have families who will live into the next century. We recognise that society is at a crossroads. Climate change, increasing inequalities in prosperity, security concerns, nature loss, biodiversity loss and resource scarcity are among the global challenges society and economies worldwide face.

We believe that our clients' members and their dependents should enjoy a quality of life similar to or better than that possible at present. This should be in a sustainable and less polluted environment within a fairer society where they can enjoy financial security.

We can contribute to achieving this in the way we invest and manage their assets; it is our responsibility to do so. Sustainable investment is core to our corporate values and is right for our business, our society, and our world.

There are compelling reasons to invest and operate sustainably, to:

- Maximise risk-adjusted return
- Identify new investment opportunities associated with the transition towards a sustainable society
- Align with client and beneficiary sustainability preferences
- Anticipate policy and regulation, technological developments and consumer preferences
- Achieve real-world sustainability impact.

We believe that sustainable investment can contribute to more sustainable capital markets – and a more sustainable world.

Definitions

We use the following definitions of sustainability and stewardship taken from the United Nations Bruntland Commission and the UK Financial Reporting Council to inform our approach.

"Sustainability is meeting the needs of the present without compromising the ability of future generations to meet their own needs."

"Stewardship is the responsible allocation, management and oversight of capital to create long-term value for clients and stakeholders, leading to sustainable benefits for the economy, the environment and society."

We define sustainable investment as follows:

"Sustainable investment generates positive real-world impact and / or reduces negative real-world impact, while seeking to maximise risk-adjusted returns over the long-term, leading to sustainable benefits for the economy, the environment and society."

We define real-world impact as:

"Meeting the needs of the present without compromising – and, in fact, we actively seek to support – the ability of future generations to meet their own needs."

Model of influence

We believe that current economic behaviour is putting the planet and society at risk. We believe that all investment activities have real-world impact, and as such, we should maximise our positive real-world sustainability impact and minimise our negative real-world sustainability impact.

When we invest or advise, we have two simultaneous objectives, known as "double materiality":

1. Maximising risk adjusted return, which includes sustainability-related risks and opportunities
2. Maximising influence and impact, which considers the real-world sustainability impact of our investments

Our Model of Influence guides how we approach real-world sustainability impact. We explained our Model of Influence in our 2022 submission to the UK stewardship code. For further details, see our sustainability policy, page 6.

Having a thorough framework for our thinking about real-world sustainability impact helps us to engage effectively and efficiently: it helps us be better stewards.

Social foundations and planetary boundaries

Our starting point is that sustainable companies and countries operate within planetary boundaries and respect social foundations. This is where:

- Environmental pressures do not overshoot planetary boundaries (in other words, do not exceed the earth's regenerative ability)

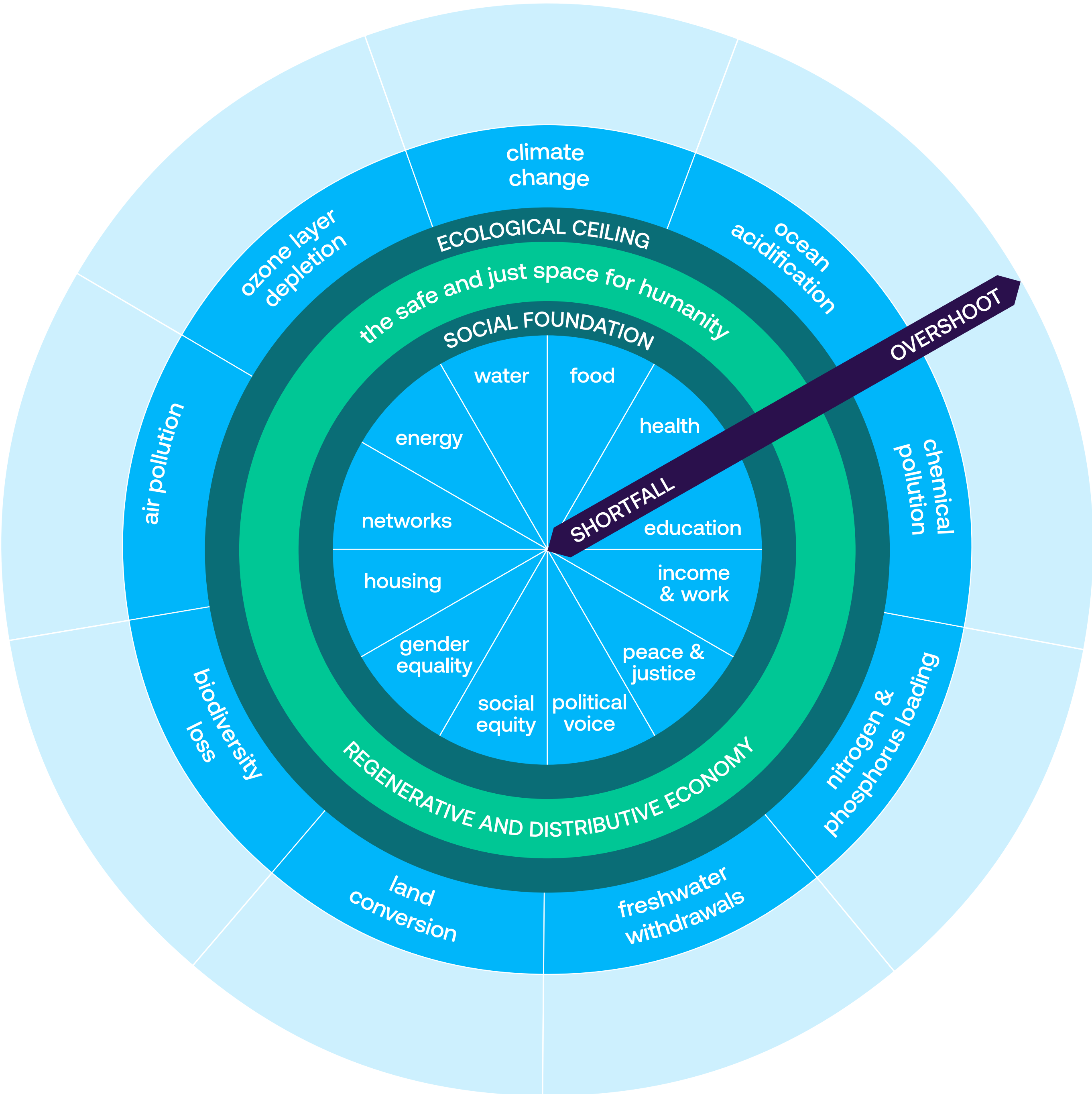
- Society wellbeing does not fall short on minimum universal social and governance norms affecting people's health, wealth and wellbeing, for current and future generations as established through international conventions, agreements and law

This includes companies and countries that are, for example, climate neutral; have science-based decarbonisation strategies; that do not contribute to deforestation; do not contravene international standards; and provide their employees or citizens with a safe working and living environment.

We consider this the safe and just operating zone for humanity. Using the frameworks by Rockström et al (2009) on Planetary Boundaries and Raworth's Doughnut Economy (2018), this can be visualised as two concentric circles, that together form a ring, or "doughnut". The inner circle reflects social foundations, the outer circle planetary boundaries. Both boundaries have been established through various international treaties and agreements.

This concept underpins how we understand sustainability-related risks and opportunities, and therefore, our investment and stewardship decisions.

The safe and just zone for humanity in the doughnut economy.



Additional updates in 2022

Since last year's submission, Cardano ACTIAM has published a number of sustainability-related publications relevant to our submission, including:

- Our end of year sustainability report
- Our annual letter to third-party managers. The latest letter sent, focused on developing a plan to support the transition to a sustainable economy and leveraging influence via collaborative engagement opportunities.
- Publications on our website, including a piece on shareholder resolutions
- We co-authored a report by the Finance Biodiversity Foundation on biodiversity engagement
- Articles in the press:
  - Interview by Environmental Finance on "Why differences in ESG ratings are a good thing"
  - ESG Investor: Why Policy Matters?
  - Environmental Finance – on greenwashing
  - Net Zero Investor – on real world change
- We have also responded to a range of public policy consultations in the UK, EU and US, as well as meetings with FCA, FRC, TPR, DWP, and European policy makers.

Where we have not updated our processes, we mirror responses in last year's submission, updating examples. Where we have updated our processes, we have sought to address the FRC's feedback. We encourage readership of the report as a whole.

Purpose and Governance

Principle 1:

Signatories' purpose, investment beliefs, strategy, and culture enable stewardship that creates long-term value for clients and beneficiaries leading to sustainable benefits for the economy, the environment and society.

Our Purpose

Founded in 2000, Cardano is a privately-owned, purpose-built pensions advisory and investment specialist with a leading-edge sustainability offering. We are widely recognised as a market leader in the provision of specialised services to private-sector and collective pension schemes in the United Kingdom and the Netherlands. Our c. 500 professionals strive to deliver better and more secure financial outcomes.

- **Advisory:** A pensions covenant, investment, sustainability, corporate finance and risk advisory business serving approximately 400 scheme and corporate clients. Our scheme clients have aggregated assets of over £370bn.

- **Investment Management:** A purpose-built asset and fiduciary management provider, with a leading-edge sustainability offering, serving pension schemes (and non-pension scheme clients with similar risk management requirements) with £50bn of assets under management.

- **DC:** We manage over £15bn in DC assets across the UK and the Netherlands. In the UK, we operate NOW: Pensions, an award-winning UK workplace pension provider, serving 2m members and tens of thousands of employers from a wide range of industry sectors.

Our world deserves better financial solutions – that are more resilient and sustainable. At Cardano, we bring a distinct approach to advisory and investment management that challenges the status quo. Rather than repeat the same outdated models, we think bigger about the world around us. By bringing together cognitively diverse teams with a mix of perspectives and skill sets, we reduce blind spots and open up new possibilities, delivering tailored solutions for our clients.

Investment Beliefs

Our mission is to deliver better long-term savings solutions that benefit everyone.

We believe that steady, predictable and sustainable returns are in our clients' long-term interests, and that these can be achieved through strong risk management and by incorporating sustainability into the core of our business, and the products and services we offer our clients.

Our approach to risk management involves:

- Hedging low-rewarded risks (e.g. LDI risks for DB pension funds)
- Diversified asset allocation (balancing outcomes across economic scenarios)
- Deliberate use of "protective" assets, such as options
- Actively managing the asset allocation to protect the downside and capture the upside
- Access to diversified manager skill

Sustainability Beliefs

We define sustainable companies and countries as operating within planetary boundaries and respecting social foundations.

This includes companies and countries that are, for example, climate neutral, with science-based decarbonisation strategies, that do not contribute to deforestation, do not contravene international standards, and provide their employees or citizens with a safe working and living environment.

As such, we believe that sustainable companies and countries are where:

- Environmental pressures do not overshoot planetary boundaries (in other words, do not exceed the earth's regenerative ability)

- Society wellbeing does not fall short on minimum universal social and governance norms affecting people's health, wealth and wellbeing, for current and future generations as established through international conventions, agreements and law.

We consider this the safe and just operating zone for humanity. Various international agreements and science-based initiatives outline transition pathways for companies and governments to follow in order to make the transition towards the safe and just operating zone.

This can be visualised as two concentric circles, that together form a ring, or "doughnut". The inner circle reflects social foundations, the outer circle planetary boundaries. Both boundaries have been established through various international treaties and agreements. The safe and just zone for humanity combines the frameworks of the Planetary Boundaries (Rockström et al., 2009) and the Doughnut Economy (Raworth, 2018).

Rockström et al. identify nine planetary boundaries, reflecting the earth's capacity to maintain the planetary life support systems essential for human survival and to maintain resilient production and livelihoods. Through human behaviour, some of the boundaries are breached or likely to be breached, endangering future growth and prosperity. The doughnut economy, is a framework described by Raworth's book, "Doughnut Economics".

In the long-term, operating outside the safe and just zone is untenable and leads to inequalities, social breakdown, and environmental degradation, which hinders economic development, and as such, risk-adjusted returns. By operating within the safe and just zone, we will make progress necessary to achieve the Sustainable Development Goals, adopted by all United Nations member states in 2015.

The concept of the safe and just operating zone, within planetary boundaries and respecting social foundations, underpins how we understand sustainability-related risks and opportunities, and therefore, our investment and stewardship decisions. We believe that companies and countries that are not operating within the safe and just operating zone are subject to ESG-related financial risks in our portfolios or do not lead to sustainable benefits for the economy, the environment and society.

Sustainable Investment Strategy and Culture

Sustainability has always been at the core of our culture and how we run our business. We believe that sustainable investing can contribute to more sustainable capital markets – and a more sustainable world. Our Sustainability Policy sets out our approach. To improve on our sustainability governance as a combined group, we have made changes to existing committees and internal groups that oversee our sustainability activities:

Sustainability Policy Committee:

- It is responsible for setting our overall sustainability strategy and approving sustainability policies and frameworks, prepared by our Sustainability Team

- This committee meets quarterly

- Members are: Kerrin Rosenberg (Chair), Darren Redmayne, Keith Guthrie, Hilde Veelaert, Dennis van der Putten and Will Martindale

Sustainability Categorisation Committee:

- It is responsible for determining how entities (companies and governments) are classified under our sustainability policies and frameworks, as well as the detailed methodologies that determine ESG scores, exclusions and our approach to stewardship
- This committee meets quarterly
- Members are: Dennis van der Putten (Chair), Will Martindale, Hilde Veelaert, Bart van de Kamer, Rik Klerkx and Keith Guthrie

Sustainability Investment Committee:

- The Sustainability Investment Committee, a part of the Investment Committee, is responsible for implementation of sustainability policies and frameworks into investment strategies and decision-making
- This committee meets monthly
- Members are: Hilde Veelaert (Co-Chair), Keith Guthrie (Co-Chair), Will Martindale, Dennis van der Putten, Marino Valensise, and all Heads of Investment teams

Impact on stewardship, investment strategy and effectiveness

For our direct and indirect investments, we undertake stewardship across our investment activities, engaging the companies we own, in our equity investments voting at shareholder AGMs, and engaging our third-party managers, counterparties, regulators and policymakers.

Our purpose, investment and sustainability beliefs influence our stewardship activities. The below text describes why we do stewardship:

Managing systemic risk

As a globally diversified (index fund) investor aiming to maximize risk-adjusted returns there is a benefit to us using stewardship to reduce systemic risk.

These include among other climate change and biodiversity risk, as well as financial and social stability risk

Maintain investments while pushing for improvements

For companies we see as adaptive and capable of providing long-term value – but have not yet transitioned – we use influence to engage the company to change.

Real world sustainability outcomes

We use stewardship to contribute to positive real-world sustainability impact.

Improving long term risk-adjusted returns

By using stewardship activities to encourage improvements to reduce sustainability risks (like climate change) and improve economic resiliency it lowers our systematic portfolio risk and improves our risk-adjusted returns.

Our stewardship preferences are set out as follows:

- **Collaboration –** engagement is more efficient and impactful when managers collaborate, not just for the investors, but for the companies too (who will field fewer, but higher conviction, engagements from their investors)
- **Quality over quantity –** we are interested in meaningful engagements, seeking tangible results with strong reporting
- **Long-term –** we encourage long-term relationships with companies. Successful stewardship can take many months, maybe even years
- **Real world impact –** we are interested in engagement on topics that contribute to positive real-world sustainability impact and address systemic issues (such as, reduction in absolute carbon emissions)
- **Innovation –** we encourage innovation, for example, our satellite-based engagement towards zero-deforestation
- **Integrated –** stewardship contributes to investment decisions
- **Goal-oriented –** we set objectives and work towards those; if progress is not meaningful we will consider escalation including voting against board members or changes in capital allocation
- **Transparency –** some engagements, perhaps even many, will be unsuccessful

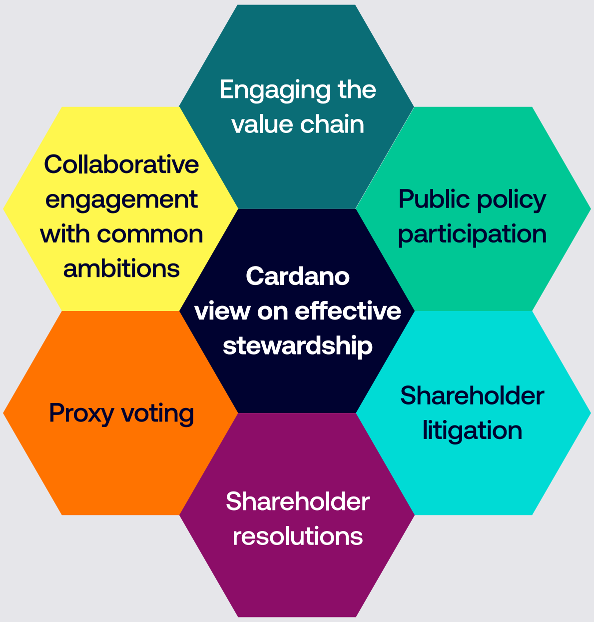
More details on our engagement activities and case studies for 2022 are described in the later principles.

Principle 2:

Signatories' governance, workforce, resources and incentives support stewardship.

Stewardship at Cardano

We combine all of these stewardship tools deliberately, to reinforce each other and effectively escalate where needed:



Engaging the value chain includes our oversight of third-party managers and our engagement of counterparties.

To prioritise our activities, we consider the following factors:

- Our sustainability driver goals and targets
  - Net zero 2050
  - Net zero deforestation 2030
  - Water neutrality 2030
  - Zero waste 2050
  - Social capital and human capital goals
  - Human Rights due diligence
- What initiatives exist that align and/or what gap do we want or need to fill ourselves to meet our goals?
- Which companies have we determined based on our assessments to be highly exposed to the issue?
- Which companies do we hold and which are already being heavily engaged or still should be targeted?

Our governance and oversight framework

To oversee our sustainability activities for the new combined Cardano ACTIAM group, we have implemented the below sustainability governance structure. This is a repeat from our answer to Principle 1, which we include here for completeness:

Sustainability Policy Committee:

- It is responsible for setting our overall sustainability strategy and approving sustainability policies and frameworks, prepared by our Sustainability Team
- This committee meets quarterly
- Members are: Kerrin Rosenberg (Chair), Darren Redmayne, Keith Guthrie, Hilde Veelaert, Dennis van der Putten and Will Martindale

Sustainability Categorisation Committee:

- It is responsible for determining how entities (companies and governments) are classified under our sustainability policies and frameworks, as well as the detailed methodologies that determine ESG scores, exclusions and our approach to stewardship
- This committee meets quarterly
- Members are: Dennis van der Putten (Chair), Will Martindale, Hilde Veelaert, Bart van de Kamer, Rik Klerkx and Keith Guthrie

Sustainability Investment Committee:

- The Sustainability Investment Committee, a part of the Investment Committee, is responsible for implementation of sustainability policies and frameworks into investment strategies and decision-making
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- Members are: Hilde Veelaert (Co-Chair), Keith Guthrie (Co-Chair), Will Martindale, Dennis van der Putten, Marino Valensise, and all Heads of Investment teams

Resourcing stewardship activities

Our thematic stewardship activities are carried out by dedicated stewardship professionals and are supported by the whole sustainability team, which comprises around 20 professionals, as well as our portfolio managers who speak to companies on a regular basis on a range of topics, including sustainability topics.

Our stewardship professionals are specialised by topics and oversee all activities relevant to stewardship for their area of expertise. They manage our relationship with investor collaborations, lead company engagements, carry out voting activities, do co-filing, participate in investor statements and other activities which are linked to stewardship.

We also use a provider, Sustainalytics, to support our engagement activities. Sustainalytics works collaboratively with its clients to foster constructive dialogues with target companies. The use of these services helps us achieve ESG engagement outcomes on more companies and topics whilst promoting and protecting long-term shareholder value.

Alongside Sustainalytics, we are part of many collaborative engagement initiatives as well as working groups. We see collaboration as part of the way we can contribute to a more sustainable financial system. By coalescing around common themes and methodologies, we benefit from external expertise as well as sharing our own expertise too. This year, we are members of, and have contributed to, a number of sustainability initiatives including:

Initiatives where we play an active or leading role in a direct company engagement:

- Access to Nutrition – Supporting investor on the 2022 UK Retailer Index
- Access to Medicine – Supporting investor
- Climate Action 100+ – We co-lead the engagement with one of the largest global agricultural commodity suppliers
- Dutch Climate Coalition – We lead the engagement with two Oil & Gas companies
- Investor Alliance for Human Rights, part of the Interfaith Center on Corporate Responsibility (ICCR) – We contribute to the Human Rights programme area and lead an engagement with a Tech company on human rights due diligence for product use
- Platform for Living Wage Financials – Cardano is an active member of the Garment workgroup, leading on two company engagement trajectories
- Satellite-based engagement towards zero deforestation – We launched this innovative, award-winning collaborative engagement programme which focuses on ending deforestation in companies' commodity supply chains
- ShareAction. Cardano actively participates in Good Work Coalition and Healthy Markets Initiative – We have been involved in engagement dialogues, co-filing resolutions and investor letters
- Valuing Water Finance Initiative – We are a contributing member of the Task Force and co-lead engager with two companies in the food / restaurant sector and active in an engagement with one company in the beverage sector
- VBDO Responsible Mining workgroup – We are a contributing member to the working group and increasing our expertise on issues related to the sector including water, biodiversity and social issues

Initiatives where we play an active role in a working group:

- Finance for Biodiversity – Cardano is a member of the Finance working group and represented in the advisory board
- Institutional Investors Group on Climate Change (IIGCC) – We participate in the Derivatives and Hedge Funds Working Group (co-chaired by Cardano) and Policy Working Group (co-chaired by Cardano)
- Investment Consultants Sustainability Working Group (ICSWG) – We participate in the Steering Committee, Stewardship Working Group, Policy Advisory Group
- Net Zero Asset Managers Initiative
- Partnership for Carbon Accounting Financials (PCAF) – We participate in the Sovereign Bonds Working Group
- Pensions for Purpose – We joined in November 2021
- Principles for Responsible Investment (UN PRI) – We participate in the SDGs Advisory Group, the Legal Framework for Impact Reference Group and the Global Policy Reference Group
- The Diversity Project
- The Green Bond Principles

In early 2023, through a rigorous process, we were selected to participate in the PRI and Thinking Ahead Institute (TAI)-led Stewardship Resourcing Technical Working Group. The main objective of the group is to develop a calculation methodology to estimate the appropriate levels of resources that investors should dedicate to stewardship activities. We highly look forward to making contributions to this group in 2023 and beyond.

Engagement by Portfolio Managers
Finally, our portfolio managers also perform engagement activities by addressing ESG topics during their conversations with companies. For example, our portfolio managers will address issues such as:

- The effectiveness of a company's ESG strategy, policies, and metrics
- Verify, clarify and receive an update on controversies
- Identify and understand potential vulnerabilities, regulatory impacts/threats and identify how the company tend to deal with them
- Company's disclosures on certain metrics/policies

As an example, our portfolio managers have regular discussions with Italgas. In 2021 different topics were discussed with the company, including their board composition. During that same period, the company also started having more constructive discussions around ESG topics with MSCI. Since then, independence of the board of the company has improved, they have split the roles of CEO and Chair and named a fully independent chairperson.

Our approach to stewardship

We undertake stewardship across our investment activities, engaging the companies we own, in our equity investments, voting at shareholder AGMs, and engaging our third-party managers and counterparties.

Also, as a repeat to Principle 1, we set out our stewardship preferences in our sustainable investment policy as follows:

- **Quality over quantity:** We're interested in meaningful quality engagements, with strong reporting (rather than, being interested in the quantity of votes). We want managers to prioritise the highest sustainability impacts in their portfolios
- **Long-term:** We encourage managers to form long-term relationships with companies. Successful stewardship can take many months, maybe even years
- **Real world impact:** We're interested in engagement on topics that contribute to positive real-world sustainability impact (such as, reduction in absolute carbon emissions)
- **Transparency:** Some engagement, perhaps even most engagement, will be unsuccessful. We're realistic, and we'd prefer transparency from managers
- **Collaboration:** Engagement is more efficient when managers collaborate – not just for the managers, but for the companies too (who will field fewer, but higher conviction, engagements from their investors). We encourage managers to participate in collaborative initiatives, such as Climate Action 100+
- **Innovation:** We welcome innovation, for example, third-party tools to independently assess a company's conviction on sustainability topics
- **Integrated:** We're interested in how stewardship contributes to the investment thesis and whether managers link their stewardship to other engagement activity (for example, policy engagement)

Examples

Case Study 1: Living Wage and Sainsbury's

One recent and successful example of our stewardship activities is the co-filing of a resolution at UK supermarket Sainsbury's at their 2022 AGM.

It was the first living wage-related resolution in the UK and asked the company to become accredited as a Living Wage Employer with the UK living wage foundation. Accredited employers pay their direct employees the real living wages set by the foundation every year and they also commit to ensure that third party contractors receive the same rate.

This resolution was co-filed with the ShareAction Good Work Coalition, which engages companies to push for better working practices. The work of this coalition aligns with our sustainability framework and how we see the management of human capital as a sustainability driver.

There is a strong business case to say that companies with strong labour rights, policies and practices, including the provision of a real living wage have a competitive advantage to attract and keep skilled employees. It also contributes to real world impact promoting a fairer and more inclusive society, particularly in the current cost of living crisis. The World Economic Forum also identifies the cost-of-living crisis and increased inequality as a systemic risk.

During the engagement discussions with Sainsbury's, the company announced a rise in its hourly rates for London based employees. As a result, in 2022 all Sainsbury's direct employees were receiving, at the minimum, the real living wage rates for that year. This announcement meant a pay rise for around 19,000 workers. Although the pay rise was a welcome commitment from Sainsbury, the group of co-filers decided to keep the resolution on the company's upcoming AGM agenda to signal that we are still looking at the company to become accredited with the foundation. Accreditation means following the yearly rates set by the foundation, ensuring long-term security for all employees. It also commits the company to provide real living wage rates to their third-party contractors, which are a very vulnerable group of workers, for which we had very little data from Sainsbury's (number of such contracts used and their pay rates). It is also a strong signal to the market and the sector that as investor we expect companies to provide real living wage to their employees and subcontractors.

The resolution gathered 17% of shareholder support at the AGM. Although it may seem low, we still regard this as a success for two main reasons. It is not such a low percentage if we consider that it was the first resolution on the topic in the UK. A second success of the co-filing of the resolution at Sainsbury's is the acceleration of the dialogue we had with the company.

Case Study 2: Hewlett Packard Enterprise (HPE) – Downstream due diligence and application of the United Nations Guiding Principles on Business and Human Rights (UNGPs)

In 2021, Cardano ACTIAM joined the Investor Alliance for Human Rights ICT working group, which engages companies in the ICT sector on human rights. Respect for human rights is key to our sustainable framework, with companies expected to respect social foundations and retain their social license to operate.

The group of investors wrote to several technology companies, including HPE, because of potential involvement in the surveillance of the Uyghur population in the XUAR region in China. In an initial call held in November 2021, HPE informed the group of investors that, after investigation, no evidence was found of its products being used for surveillance. This was a first positive outcome of this engagement.

The discussions carried on moving towards a more general discussion on application of the UNGPs by HPE, specifically around downstream due diligence and responsible use of products, i.e. the human rights abuses that can occur from the sale of HPE's products. HPE described what it did on the topic and took investors' feedback.

The group agreed to contact HPE again in 2022 after their publication of their update Living Progress Report and Human Rights Policy. A call was held in November 2022 to go over the new disclosure and updates from HPE on their work around human rights. Questions were asked around the monitoring of sales partners, including the work HPE is conducting with BSR (Business for Social Responsibility), their due diligence checks and the application of the newly adopted US Uyghur Forced Labour Act.

Between the call held at the end of 2021 and the one in 2022, we witnessed the below improvements from HPE:

- Better disclosure of their application of the UNGPs on responsible use of product
- Training of sales staff on the topic, including in conflict regions such a Myanmar.
- Broadening of the screening of their business relationships
- Mandatory human rights training for all employees
- Commissioned research by BSR (Business for Social Responsibility), including one which took the form of recommendations for the whole industry.

Case Study 3: Engagement with third-party managers

These examples show some of the successes of our management research team, engaging third-party managers on ESG integration across different asset classes:

Strategy	Current ESG Rating	Engagement Outcomes
US Equity Long/Short	High Focus | Poor	• Provided company engagement examples • Provided most significant vote examples
Systematic	Low Focus | Poor	• Implemented as default, a voting approach which uses the sustainability voting recommendations from a well-recognised proxy voting advisor
Credit	High Focus | Strong	• Became UNPRI signatory • Selected MSCI ESG research as ESG data provider • Introduced exclusions in the portfolio • Regular carbon reporting and reporting on engagement • Targeting for the portfolio to be better rated than the benchmark
Global Equity Long-Only	High Focus | Standard	• Became UK Stewardship Code signatories • Report carbon intensity of aggregate portfolio on a quarterly basis • Considered partnering with Sustainalytics to help bolster engagement activities (Cardano introduced idea)
Real Estate	High Focus | Standard	• Implemented an annual ESG Report in 2021 (Cardano referenced as the LP who drove initiative) • In 2022, established an ESG Task Force to identify ESG investment and asset management opportunities, and to establish ESG best practices • Responsible Investment Policy also adopted in 2022

Training

All employees of Cardano are provided with regular updates and information on sustainability.

ESG information, education and know-how is regularly circulated on a dedicated sustainability distribution list, accessible by the investment team. ESG factors are also regularly discussed at quarterly investment committee meetings.

Cardano has actively encouraged several employees to undertake formal training in sustainable investing through the CFA. Members of the Equity team completed the CFA ESG certificate in 2022.

In 2022, we invited and heard from the following external sustainability experts:

- PRI Stewardship team
- Inevitable Policy Response Programme
- Transition Plan Taskforce
- UK Financial Reporting Council

In 2022, we also held a number of internal workshops on diversity, equaliity and inclusion.

The "Get to Know Cardano" programme launched for new joiners included a dedicated portion to sustainability. One of our stewardship team members held a workshop introducing new employees to the sustainability framework including planetary boundaries, our stewardship approach and an interactive exercise on how companies are assessed on sustainability criteria for our investment funds.

Improvement

Cardano recognises the importance of sustainability – but also the challenges involved in 'doing it well'. We continue to develop and evolve our policies to reflect sustainability challenges. This reflects the evolution of our thinking on sustainability and the changes underway in the financial services sector, and society more broadly.

We are always seeking areas where we can improve our approach and processes around sustainability.

Principle 3:

Signatories identify and manage conflicts of interest to put the best interests of clients and beneficiaries first.

At time of submission, the Cardano and ACTIAM conflicts of interest policies are not merged, and so we will respond to this Principle in two parts.

Managing Conflicts of Interest

Cardano

Cardano has a detailed Conflicts of Interest Policy which is reviewed and updated annually. The policy is supported by a Conflicts of Interest Register and a Conflicts of Interest Inventory which are updated with details of conflicts of interest when they arise and the mitigation activity undertaken. A summary of our Conflicts of Interest Policy can be accessed here.

The key points are as follows, however we recommend reviewing the policy in full:

- The conflicts of interest policy identifies actual and potential conflicts arising within Cardano and procedures for managing those conflicts. Everyone in Cardano (including contractors and any other person directly or indirectly linked to us by control) involved in the provision of investment services to Cardano's clients must adhere to the policy

- Cardano has established and implemented the Conflicts of Interest Policy which is appropriate to the investment services that Cardano provides and takes into account its client base. The Conflicts of Interest Policy takes into account any circumstances, of which Cardano is or should be aware, which may give rise to a conflict of interest, including as a result of the structure and business activities of the other members of the Cardano Group

- Cardano is required to take all appropriate steps to identify and to prevent or manage conflicts of interest that may adversely affect the interests of a client. Each person in Cardano involved in providing investment services to clients must be aware of potential conflicts of interests

- Conflicts of interest, once identified, must be managed in a way which ensures that clients' interests are not adversely affected. This means that the conflict should be managed in such a way that all clients are treated fairly and Cardano conducts its business with integrity and according to proper business standards

As well as the Conflicts of Interest Policy, other policies, including the Personal Account Dealing Policy, Market Abuse Policy, Anti-Bribery Policy, Inducements Policy, and Best Execution Policy ensure that certain conflicts of interest are avoided.

All colleagues receive induction and periodic training on their obligations in respect of conflicts of interest under Cardano policies and also the regulatory system. This includes:

- The obligation to take all appropriate steps to identify conflicts of interests that arise, prevent conflicts of interest from adversely affecting the interests of our clients and where we are not able to ensure this, Cardano must clearly disclose the nature of conflicts of interest to the client before undertaking business on its behalf; and

- As it is not possible to ensure that colleagues are not made party to inside information by managers and other third parties, colleagues are trained on what constitutes inside information and their obligations in respect of insider lists, not disclosing inside information and trading activity

This approach is designed to ensure that conflicts of interest between clients of Cardano and between Cardano and one or more clients are managed appropriately.

We encourage an active stewardship strategy by managers and we retrospectively monitor the extent of stewardship activity and stewardship results. We will not ordinarily request that a manager undertakes specific stewardship activity or give a view on a stewardship decision to be taken. Therefore, conflicts of interest will not ordinarily arise as a result of us voting or influencing voting on matters affecting a client or parent company.

In the unlikely event that a conflict does arise due to Cardano giving a view to a manager on a stewardship decision in respect of an investee company that is either connected to a client of Cardano or a Director of a Cardano Company, as required by the Cardano Conflicts of Interest Policy, the issue will be escalated to our Compliance Officer to oversee that the conflict is managed appropriately. This will involve consultation with our Legal function, Chief Investment Officer and Chief Executive Officer as appropriate. As it is likely that more than one client will have exposure to the investment in question, in order not to favour one client over another and to stay within its mandate, we will ordinarily push for the course of action that maximises the likely return under the stated strategy of the manager. We will aim to be transparent with the client that it is in the conflicted position with, however, this may not be possible depending on the extent to which we are an insider or subject to non-disclosure obligations.

There is no conflict of interest between our offering of advisory or delegated solutions to clients in respect of our stewardship approach, as the same assessment and reporting of ESG activity by managers is applied to both advisory and delegated services.

ACTIAM

ACTIAM applies a consistent conflict of interest policy in order to safeguard the interests of its clients in a balanced manner. For that, procedures are implemented to identify and manage any potential conflict of interest situation, also, taking into consideration applicable laws and regulations for financial institutions. ACTIAM N.V. ('ACTIAM') is an authorised Alternative Investment Fund Manager regulated by the Netherlands Authority for Financial Markets as referred to in Article 2:65 of the Financial Supervision Act (Wet op het financieel toezicht - Wft). In addition, ACTIAM is authorised to provide asset management services and investment advice as well as to receive and transmit orders on behalf of its clients as referred to in Article 2:67a (2a, b and d) (Wft). The execution of these activities can result in conflicts of interest situations.

The Conflict of Interest Policy defines how ACTIAM identifies, prevents, manages and monitors conflicts of interest in order to safeguard the interests of investors in funds that ACTIAM manages and the interests of clients who otherwise make use of ACTIAM's services. The Conflict of Interest Policy complies with the relevant requirements of the Alternative Investment Fund Manager Directive ('AIFMD'), the Undertakings for the Collective Investment in Transferable Securities (UCITS), the relevant requirements2 of the revised Markets in Financial Instruments Directive 2014/65/EU dated May 15 2014 ("MiFID II"), the MiFID II Commission Delegated Regulation 2016/2398 dated 25 April 2016 (the "Delegated Regulation"), and the Capital Requirements Directive IV ('CRD IV').

The policy is applicable to all activities that are carried out by ACTIAM and thus extends to both the asset management activities and the fund management activities.

Principle 4:

Signatories identify and respond to market-wide and systemic risks to promote a well-functioning financial system.

Managing market-wide and systemic risks

Our clients are exposed to several market-wide and systemic risks, including:

1. Interest rate risks
2. Inflation risks
3. Equity market risks
4. Credit market risks
5. Currency risks
6. Geopolitical risks
7. Longevity risks
8. Macro level sustainability risks including climate change, biodiversity loss, water scarcity, cost of living crisis and other environmental, social and governance risks

Our investment approach seeks to consciously manage the first six of these risks through diversification, the use of "protective" assets and active asset allocation. We regularly use scenario analysis to understand the potential impact of market-wide and systemic risks.

We have investigated longevity risk for several of our clients, and many of them use specific tools, including longevity swaps and buy-ins to manage those risks.

Regarding macro level sustainability risks, while in 2021 we focused on climate change as a systemic risk, in 2022, we published a new Cardano Group level sustainability policy incorporating the ACTIAM approach for sustainability investing. The policy's starting point is based on the understanding that we face a diverse yet interlinked set of macro level sustainability risks which impact our entire portfolio and that we have a responsibility in addressing. We use the concept of the "safe and just zone" and planetary boundaries as the starting point of our sustainability framework. We expect that companies and countries operate within the planetary boundaries and respect social foundations. We developed a Model of Influence to guide how we address these systemic risks and to encourage the entities in which we invest to transition towards operating within the planetary boundaries.

Our goal with stewardship is to help reduce market-wide systemic sustainability risks, and achieve real world positive outcomes which will improve overall economic system resiliency. In relation to macro level issues, we defined quantitative portfolio goals including reaching:

- Net zero climate emissions by 2050
- Net zero deforestation by 2030
- Water neutrality by 2030.
- Although more difficult to monitor quantitatively, we have also set a goal for zero waste by 2050 and human rights and social capital goals for our portfolio.

We invest globally and need to protect the long-term value of our diverse portfolio. To do this we combine stewardship activities and tools to most effectively encourage improvements for addressing sustainability risks and opportunities. We encourage companies to address their externalised social and environmental costs, which are an outcome of insufficient regulation and market failures in having companies account for them as part of their own balance sheet calculations.

Case Study 1: Cost of living crisis case study

One example of our response to market-wide risks is related to the cost of living crisis. It was identified as the number one risk for both severity and likelihood of impact on our society in the coming two years by the World Economic Forum in 2023. When applying this to our portfolio, we have considered how we can respond with tangible action in line with our Model of Influence.

- **Identification of tangible action**

We are actively involved in an engagement with Sainsbury's, a UK based supermarket company operating over 600 supermarkets and 800 convenience stores. It has a reported 171,000 employees. The engagement objective is for Sainsbury's to pay its staff and third party contractors a Real Living Wage.

- **Collaboration with other investors**

We undertake the engagement in collaboration with a group of investors to increase our impact and bring weight to our recommendations made to the company.

- **Partnership with external experts and NGOs**

On the topic of living wages, we play an active and leading role in ShareAction's Good Work Coalition, which helps us build expertise on the topic and to learn from other experts on how to address the cost of living crisis and ensure companies pay a living wage throughout their value chains. Separate to the engagement with Sainsbury's but also on the topic of living wage, we play a leading role within the Platform Living Wage Financials group, where we lead engagements with multiple retail companies. As part of the group's work we also bring in experts such as the IDH Sustainable Trade Initiative, Solidaridad and Fair Wear Foundation, to our workgroup discussions to deepen our knowledge.

- **Use of shareholder resolution as an escalation point**

For Sainsbury's, we escalated the dialogue by co-filing a shareholder resolution asking the company to become an accredited Living Wage employer. The dialogue in combination with the filed resolution led to tangible results. In January 2022, Sainsbury's updated its wage rate to align with the Real Living Wage for 2022. It also committed to paying its staff outside of London a Real Living Wage. Open asks from our engagement are for Sainsbury's to become accredited to ensure that the living wage is maintained over the coming years, providing its employees with certainty in the future.

- **Building awareness**

While the engagement itself led to concrete outcomes, there is also an anticipated "spill-over" effect to the rest of the industry. The resolution received a minority 17% of voting support, but still can be seen as significant being the first of its kind resolution to make it to ballot. Details about the engagement and resolution were widely reported by media, with quotes included from one of our stewardship colleagues in a Responsible Investor article – speaking about cost of living as a systemic risk impacting the economic system. The webinars and press contributions are a conscious decision to bring awareness to our activities and promote the concept of living wage more broadly as a social issue and for other companies in the sector to follow progress.

This was one example of how we combine multiple stewardship tools to address macro risks and encourage a resilient economy while aligning with our own portfolio goals.

Case study 2: Focus on climate change

There is a high likelihood that climate change will lead to widespread disruption to the economic system. Despite recent momentum, government action to tackle the crisis has so far been highly insufficient. Climate change is now a widely established and socialised concept within financial markets – both as a financial risk, due to transition and climate-related risks, and an investment imperative, because the way in which we direct capital and use our influence will support (or hinder) the reaching of climate targets.

In 2021, we published our climate crisis action plan, including decarbonisation target-setting. Through the course of 2022, we updated a climate target & strategy implementation plan for our direct investments. The plan is in place to implement our intermediate and long term climate goals.

We commit

We support the Paris Climate Agreement of limiting global warming to +1.5°C versus preindustrial levels. We do this by committing our investment portfolios to net zero carbon emissions by 2050.

At the group level we support global emissions reduction of 50% by 2030, with baseline of end 2019. This informs our asset-class decarbonisation targets. The targets also apply to our direct investments.

Prior to merging our sustainability policies, we submitted our target – as ACTIAM – to the Science-Based Targets Initiative (SBTi), and were pleased to achieve this approval being one of the first asset managers to do so.

The climate implementation plan for our direct investments details levers for change and how we will use different activities to meet our goals. We define key performance indicators to guide our progress on our intermediate and final targets. They include:

- Using stewardship activities to stimulate issuers to reduce GHG emissions, by identifying priority sectors and encouraging companies within them to set science-based targets
- Investing in solutions
- Divesting from non-adaptive issuers in our direct investments. Excluding high impact activities including thermal coal with an increasingly strict threshold and electricity generation derived from fossil fuels with emissions over a certain level, among others

We measure

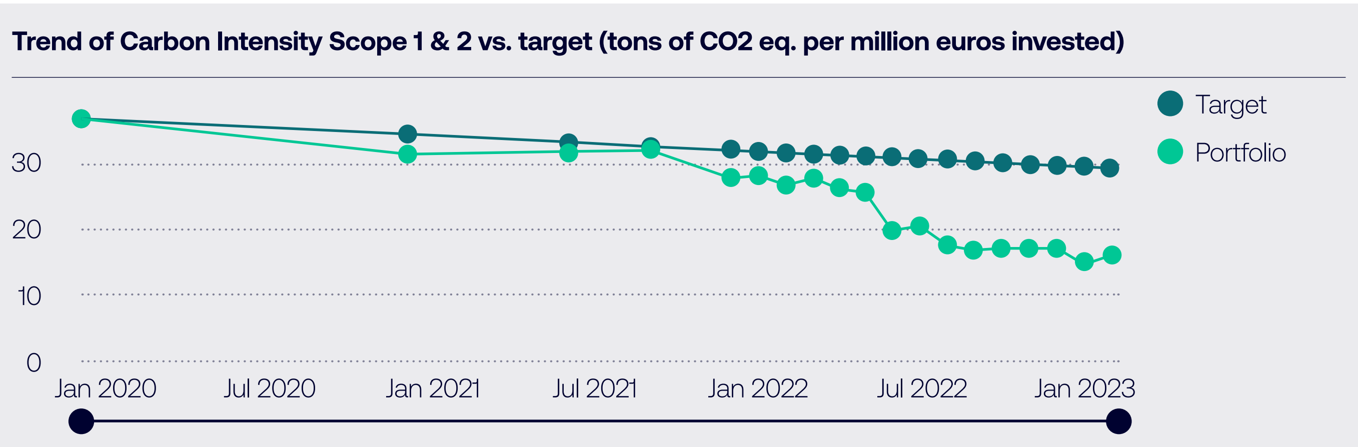
We are measuring our investments' carbon footprint, its current greenhouse gas emissions, and its contribution to climate change. We use a range of data providers, including MSCI and Sustainalytics.

We do this to measure:

- Our financial risks, including transition risks, physical risks and environmental opportunitie
- Our real-world impact, to align our capital allocation and engagement with our commitment of limiting global warming to 1.5°C

We measure our portfolio financed emissions per pound invested, based on enterprise value including cash (EVIC). This is the primary measure that we will use to set targets and decarbonise our portfolios' carbon footprint over time.

Chart: Tracking the greenhouse gas emissions of Cardano's direct investment portfolio (for illustrative purposes only)



Climate justice is critical to the success of the Paris climate agreement. For government bonds, we favour CO2e per capita for carbon foot-printing. In addition, we look at historical emissions, 'fair share' carbon budgets, and how emissions will evolve over time.

We believe scenario analysis helps inform our investment decisions.

Our three favoured scenarios are:

- A 1.5°C degrees Paris-aligned transition – this is our goal, how we direct our capital and how we engage. This assumes measures are taken that will keep the rise in temperature limited to 1.5 degrees

- A 2°C degrees late transition (or, 'inevitable policy response') – this is our forecast of what we think will happen

- A 3°C slow transition – this is our "hot house" scenario

We engage

Last year, we provided an example of how we evaluate and engage external managers on the alignment of their stewardship activities with the goals of the Paris climate agreement, with the case of challenging a voting rationale for Duke Energy, a high emitting US-based electric and gas company.

This year, we're providing examples related to our engagements with direct equity and credit investments.

- **Climate Action 100+ engagement lead**

We participate actively in several climate initiatives and lead on dialogues with multiple companies. We are an active member of the Climate Action 100+ and the co-lead engager for a large global agriculture company whose scope 3 emissions (stemming from deforestation) represent the vast majority of its total emissions. The company is a key player in the food sector, being considered a 'mega-trader' of soy and palm. It plays a major role in the decarbonisation of the food value chain by encouraging the farmers and suppliers it sources from to use sustainable land use practices and prevent deforestation to protect vital carbon sinks. We are focused on achieving tangible results with this engagement and have seen successes in the past year.

- **Summary of the engagement and shareholder resolution filed in the latter half of 2022:**

We have been engaging the company for several years and have seen some successes with the company's progress, such as the publication of medium term science-based targets in 2021 for scopes 1, 2 and 3. We were pleased with this progress, but still observed a lack of board oversight for climate and deforestation progress by the relevant committee members. Due to this, we decided to vote against the members of this board committee during the 2022 voting season.

Following further engagement, we co-filed a shareholder resolution towards the end of 2022 with the other lead engager, asking the company to set net zero targets. The company had set a medium term emissions reduction target but wasn't clear how it would decarbonise towards 2050 aligned with a 1.5 degrees scenario. We decided to withdraw the resolution after multiple constructive conversations. We also received a written commitment that the company would develop a transition plan aligned with a 1.5°C scenario in the second half of 2023 and publicly announce this in its 2023 proxy statement. The company will involve participation from our investor group and Ceres as an outside expert. There is not yet a commitment to set a net zero target, which is what the resolution asked for but we see the commitment to publish a transition plan a critical step on this path to credible and science based net zero targets. Because of our resolution, there was an acceleration of timelines by the company and an escalation to the board for developing the plan. We were pleased to achieve concrete outcomes with this engagement.

- **Oil and Gas sector engagements**

We have very few direct investments in the Oil and Gas sector, as we do not see the companies moving fast enough to decarbonise, nor are they implementing sufficiently ambitious climate transition plans. While the sector is starting to invest in developing renewables and low-carbon solutions, the rate and capacity at which they invest in these solutions is not at the pace we expect. In general there is little clarity on when companies in the sector will phase out of high emission fossil fuels production, presenting too large a risk to our portfolios and a significant impact on climate change.

While no company in the sector has demonstrated true Paris-alignment – also based on what external benchmarks such as the Climate Action 100+ and Transition Pathway Initiative find - there are a small minority that have more detailed plans and some ambition to move there. For now, these are the select few that we hold and also have engagements with, because there is the potential for them to transition and play a key role in providing for long term energy needs in a sustainable way.

Our goal with these engagements is to encourage - with the greatest level of ambition and urgency possible - the companies to implement transition pathways aligned with a 1.5°C warming pathway.

We have held multiple dialogues with Repsol, Equinor and OMV in 2022 about their energy transition strategies and sent letters with our recommendations signed by multiple investors to their CEOs.

We acknowledge that there have been steps taken to align their strategies with the goal of limiting global warming to 1.5°C, by setting scope 1, 2 and 3 intensity emissions reduction targets for the short, medium and long-term, but their absolute reduction targets cover only scope 1 and 2. Absolute scope 3 reductions are key to achieving real- world impact on climate and managing it as systemic risk. We will continue to press for progress on our objectives into 2023.

- **Oil and Gas public statement**

Public statements are one of the tools to support our direct corporate engagement to increase our impact and respond to market-wide risks. In October 2022, we jointly published a statement calling on the sector to "Prove its commitment to Paris". The statement called for action in three areas: greenfield oil phase-out, natural gas as a transition fuel and only when necessary, or as a replacement for dirtier alternatives such as coal, and an increase of low-carbon solutions.

We see policy engagement as a natural extension of our net zero commitment. We recognise the need to improve the sustainability of the market as-a-whole and that there are clear benefits to us and our clients through well-designed and implemented sustainable investment policy reform.

In particular, we will respond to policy consultations relevant to sustainable investment in the UK, Netherlands and Europe, and we will offer our expertise and experience where it is appropriate to do so.

Participation in policy consultations

This year, we have responded to seven public policy consultations, in the UK, EU and US, covering a range of sustainability topics including social risks and opportunities, climate change and stewardship[14].

In general, we welcome the direction of policy makers on sustainability topics. Highlights include:

Dutch Fund and Asset Management Association (DUFAS)

In 2022, we participated in the DUFAS SFDR Expert Group which involved stakeholders from Dutch investment management firms to provide input on evolving SFDR disclosure-related requirements. We provided our perspective on SFDR template consultations, EU Taxonomy requirements and, as well as fund classifications and definitions.

We participated in a roundtable discussion with the Netherlands Authority for the Financial Markets (Dutch: Autoriteit Financiële Markten (AFM)) where we provided insights about our perception of the SFDR article 8 and 9 fund templates and to give a detailed view on our interpretation of the requirements and how to address missing guidance.

Open letter to the EU Commissioner on the Deforestation Regulation

To achieve our goal of net zero deforestation by 2030 across our portfolios and to increase impact, we look for ways in which to engage on the topic through multiple channels. Beyond the collaborative engagement programme that we initiated we also engaged at the policy level since broader regulation sets the "rules of the game" and encourages the market to move in the right direction.

In November 2022, we co-signed an open letter to the EU Commissioner about the inclusion of the financial sector in the Deforestation Regulation.

We felt it was of high importance that the EU Regulation on deforestation-free products includes due diligence obligations for financial institutions. By doing so, it ensures that the EU's efforts to stop deforestation worldwide are not weakened by enabling the financial industry to finance the same companies that would already be included in the Deforestation Regulation's scope.

International Sustainability Standards Board (ISSB)

In July 2022, we provided our initial reflections on the ISSB general-requirements exposure draft and climate-related exposure draft. Our primary suggestion to the ISSB is that the drafts need to address real-world impact (or "double materiality"), not the current sole focus on enterprise value.

Taskforce for Nature-related Financial Disclosures (TNFD)

In April 2022, following the V0.1 beta release of the TNFD framework, we wrote to the co-chairs to provide feedback and support for further iterations of the framework.

Participation in industry initiatives

As we mentioned in Principle 2, we strongly believe in collaboration and it is one of our defining principles on how to approach stewardship. Collaboration is efficient and effective. It allows us to benefit from external expertise, and we of course contribute our expertise where appropriate to do so.

Collaboration forms a key part of our contribution a more sustainable financial system. By coalescing around common themes and methodologies, we send clear messages to the companies we own – and to our regulators. Collaboration allows for a faster, smoother transition.

We participate in working groups, contribute our input and expertise where appropriate, and listen to and learn from others. We participate across our business so that our sustainability expertise is widely embedded across our investment, manager research, LDI and client teams. In addition, we encourage and assess our third-party managers on their participation in relevant sustainable investment organisations.

In 2022, we were heavily involved in a number of industry initiatives, including the below.

Initiatives where we play an active or leading role in a direct company engagement:

- Access to Nutrition – Supporting investor on the 2022 UK Retailer Index
- Access to Medicine – Supporting investor
- Climate Action 100+ – We co-lead the engagement with one of the largest global agricultural commodity suppliers
- Dutch Climate Coalition – We lead the engagement with two Oil & Gas companies

- Investor Alliance for Human Rights, part of the Interfaith Center on Corporate Responsibility (ICCR) – We contribute to the Human Rights programme area and lead an engagement with a Tech company on human rights due diligence for product use
- Platform for Living Wage Financials – Cardano is an active member of the Garment workgroup, leading on two company engagement trajectories
- Satellite-based engagement towards zero deforestation – We launched this innovative, award-winning collaborative engagement programme which focuses on ending deforestation in companies' commodity supply chains
- ShareAction – Cardano actively participates in Good Work Coalition and Healthy Markets Initiative. We have been involved in engagement dialogues, co-filing resolutions and investor letters
- Valuing Water Finance Initiative – We are a contributing member of the Task Force and co-lead engager with two companies in the food / restaurant sector and active in an engagement with one company in the beverage sector
- VBDO Responsible Mining workgroup – We are a contributing member to the working group and increasing our expertise on issues related to the sector including water, biodiversity and social issues

Initiatives where we play an active role in a working group:

- Finance for Biodiversity – Cardano is a member of the Finance working group and represented in the advisory board
- Institutional Investors Group on Climate Change (IIGCC) – We participate in the Derivatives and Hedge Funds Working Group (co-chaired by Cardano) and Policy Working Group (co-chaired by Cardano)
- Investment Consultants Sustainability Working Group (ICSWG) – We participate in the Steering Committee, Stewardship Working Group, Policy Working Group
- Net Zero Asset Managers Initiative
- Partnership for Carbon Accounting Financials (PCAF) – We participate in the Sovereign Bonds Working Group
- Pensions for Purpose – We joined in November 2021
- Principles for Responsible Investment (UN PRI) – We participate in the SDGs Advisory Group, the Legal Framework for Impact Reference Group and the Global Policy Reference Group
- The Diversity Project
- The Green Bond Principles

In early 2023, through a rigorous process, we were selected to participate in the PRI and Thinking Ahead Institute (TAI)-led Stewardship Resourcing Technical Working Group. The main objective of the group is to develop a calculation methodology to estimate the appropriate levels of resources that investors should dedicate to stewardship activities. We highly look forward to making contributions to this group in 2023 and beyond.

Principle 5:

Signatories review their policies, assure their processes and assess the effectiveness of their activities.

Here we respond to Principle 5 for Asset Owners and Asset Managers. We respond to Principle 5 for Service Providers alongside Principle 6 for Asset Owners and Asset Managers.

Review of policies

Our approach to sustainability has evolved in the past few years and continues to do so as our understanding of science, technology, corporate and investment practice evolves. As such, we have updated our policies periodically to ensure we're at the forefront of thinking on sustainability issues.

During 2022, we reviewed a number of internal policies and several changes and additions made:

- Revised group-wide sustainability policy (2022)
- Climate target implementation strategy (reviewed and updated 2022, published January 2023)
- Water strategy baseline assessment (2022)
- Voting policy and guidelines (updated 2022)
- Year End Sustainability report (2022)
- Sustainability bond assessment process (December 2021)

We have also:

- Written our annual letter to all our third-party managers setting out our sustainability expectations. Our letter sent in March 2023 focused on developing a plan to support the transition to a sustainable economy and leveraging influence via collaborative engagement opportunities.

- Written to all our counterparties setting out our sustainability expectations.

All policies are overseen by the Sustainability Policy Committee.

Additional updates in 2022

Since last year's submission, Cardano ACTIAM has published a number of sustainability-related publications relevant to our submission, including:

- Our end of year sustainability report

- Our annual letter to third-party managers. The latest letter sent, focused on developing a plan to support the transition to a sustainable economy and leveraging influence via collaborative engagement opportunities.

- Publications on our website, including a piece on shareholder resolutions

- We co-authored a report by the Finance Biodiversity Foundation on biodiversity engagement

- Articles in the press:
    - Interview by Environmental Finance on "Why differences in ESG ratings are a good thing"
    - ESG Investor: Why Policy Matters?
    - Environmental Finance – on greenwashing
    - Net Zero Investor – on real world change

- We have also responded to a range of public policy consultations in the UK, EU and US, as well as meetings with FCA, FRC, TPR, DWP, and European policy makers.

Improvements to our voting policy

For our direct investments, we have a standalone voting policy which provides clear guidelines on how we use the voting rights connected to our holdings and clients' capital. The views in our policy are based on international best practice guidelines for sustainability and corporate governance and are also shaped by our sustainability framework and how we want to communicate our views and expectations to investees.

We see voting as central to our stewardship activities. The annual update to this policy is critical in ensuring our votes are cast in a way that encourages an ambitious pace of progress on sustainability topics by our investees.

We annually review the guidelines taking into account evolving developments and in some cases to consider how we can reflect a more strict application of votes. This year we made the following updates:

- **Strengthening of voting guidelines on sustainability topics:**
  - More explicit about potential to vote against directors where there is lack of board oversight and or expertise on company's most relevant sustainability topics
  - Stipulation that we will vote against remuneration plans of energy companies that fail to integrate clear climate goals
  - For 'Say-on-climate' votes we added specific elements of plans we want to see in order to support such proposals
- **Remuneration:**
  - Additional clarity on assessing relevance and strength of sustainability metrics incorporated in remuneration plans and increasing strictness for lack of transparency on links to sustainability factors
  - Clarified cases where there was a low shareholder support the previous year and the board failed to address the concerns
  - Guideline updated to cover CEO to general workforce pay ratio
  - More precise on performance criteria for equity-based remuneration plans
- **Shareholder proposals:**
  - Additional text for shareholder resolutions related to banks and financing the climate transition
  - Added text for shareholder resolutions related to disclosure of lobbying activities

Annual vote audit

This is an annual process and part of our key controls on voting. We generate a list of 45 companies randomly selected from all the shares we own that includes a combination of various regions and sectors. We send this list to our voting execution provider to complete the check to verify that:

- the votes were cast and in a timely manner
- they were cast in an appropriate way aligned with our policy

The control also verifies that ProxyEdge, the electronic voting platform, provides confirmation that these votes were processed, i.e. transmitted to the custodian or sub-custodian banks, who are then responsible for passing them on to the issuers.

The audit is reviewed and approved by The Sustainability Policy Committee.

We voted at 95.97% of all shareholder meetings in 2022. While we aim for 100%, there are typically administrative reasons as to why we don't reach this. In the past year, we did not have the Power of Attorney in place in Brazil given the heightened complexity in that region. We have been working this year with our custodian to make the necessary changes at the sub-account level to have this in place for later in 2023.

A review of our index fund strategy conducted by an external party as part of a due diligence process before an investment was made into our funds, found that our voting records were "largely consistent with other thoughtful and engaged institutions" and that when voting – we take a "relatively tough and independent approach to company recommendations". This review confirmed that our voting results align with what we aim to achieve with our policy.

Improvements to our Third-Party Manager ESG Questionnaire

In 2022, we kept the Third-Party Manager ESG Questionnaire process broadly consistent with what we did in 2021. We made some updates by introducing a more systematic guidance around ratings, as described below:

- We identified a problem when we oversee a multi-asset portfolio for clients. The challenge was ensuring a robust final ESG score when we are taking many types of investment strategies, with different areas of focus, into consideration.
- The solution was to introduce a more granular and systematic rating guidance methodology, to drive consistency. It also allowed our teams to ensure they are capturing the nuances between different investment strategies. The new guidance tagged minimum requirements and listed indicative signals / behaviours associated with each level of our rating, specific to each asset class.
- The outcome of this change was more consistency and robustness in our ratings and a tool to drive challenge across the team.

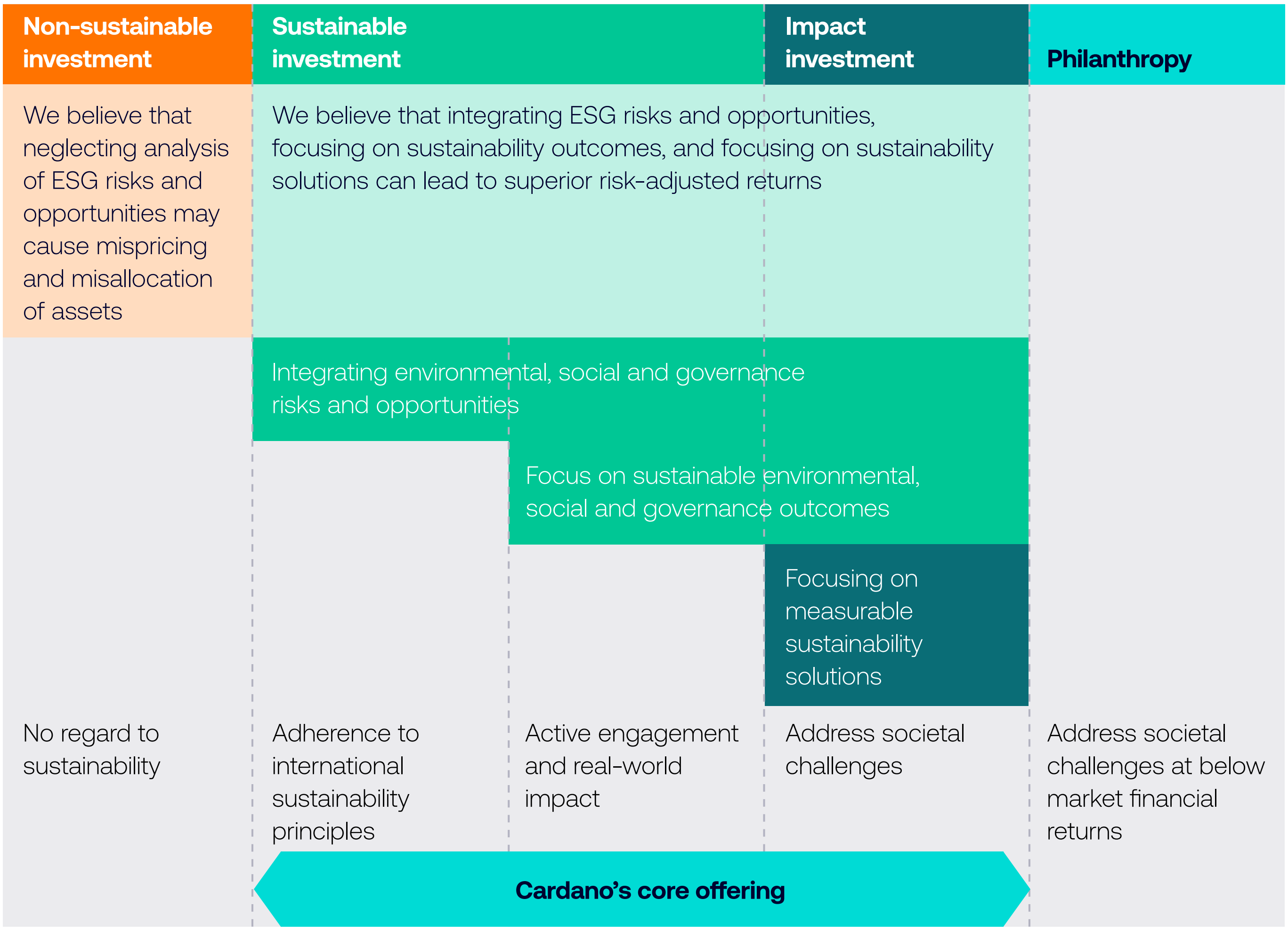
The letter we sent this year and last year to third-party managers can be found here.

New Group Level Sustainability Policy

In September 2022, we published a new Cardano Group level sustainability policy incorporating the ACTIAM approach for sustainability investing.

Sustainability Landscape:

We position our approach within the sustainability landscape as follows:



Model of Influence for Real-World Sustainability Impact

As a fundamental part of our investment process, we consider two investment lenses, we call this 'double materiality':

1. Maximising risk adjusted return, which includes sustainability-related risks and opportunities
2. Maximising influence and impact, which considers the real-world sustainability impact of our investments

Our Model of Influence guides how we approach real-world sustainability impact. We explained our Model of Influence in our 2022 submission to the UK stewardship code. For further details, see our sustainability policy, page 6.

A great example of how this framework works in practice can be shown in how we prioritize collaborative efforts for our engagements (initiatives listed under Principle 4).

As a continuation from our previous submission, we refined due diligence questionnaires and RFP documentation for the third-party managers that we employ. Furthermore, we have reinforced our expectations of third-party managers, clearly setting out our influence model and directing them as to how they can participate in improving stewardship standards.

Investment Approach

Principle 6 of the Principles for Asset Owners and Asset Managers:

Signatories take account of client and beneficiary needs and communicate the activities and outcomes of their stewardship and investment to them.

Principle 5 of the Principles for Service Providers:

Signatories support clients' integration of stewardship and investment, taking into account, material environment, social and governance issues, and communicating what activities they have undertaken.

Client base and objectives

UK

All of our UK clients are institutional investors, with the vast majority being the trustees of defined benefit pension schemes serving the corporate sector. The Cardano UK client base is summarised as follows:

Number of clients	Fiduciary	Advisory	Endowment
>£1bn	4	6	1
£500m - £1bn	2	0	0
£250m - £500m	5	1	0
<£250m	15	1	0
Total	**24**	**8**	**1**

As at 31 December 2022

Typically, our investment objectives are to outperform a gilt or swap-based proxy for the scheme's liabilities by between 1% and 3.5% p.a. Most of our clients have long-term time horizons, typically 5 to 10 years.
Note that the fiduciary and advisory columns includes DB and DC clients.

Netherlands

ACTIAM manages around EUR20 billion in assets. Our key objectives are a financial result, social return and risk management. Our focus on sustainability allows us to structurally lower the risks and increase our opportunities in our investment portfolios. We serve investors through our investment funds (active and passive strategies), impact investing and with mandates. ACTIAM also offers ESG services, helping clients with policy development, active share ownership, research and monitoring, as well as impact measurements and reporting. The ACTIAM client base comprises 52 clients in total.

For ESG services, the breakdown is the following:

Number of clients	ESG-services
>£1bn	9
£500m - £1bn	1
£250m - £500m	0
<£250m	0
Total	**10**

Reflecting clients' needs and reporting

UK

At the outset of a new appointment, we undertake significant fact-finding and initial analysis, to establish our clients' returns requirements, their appetite and tolerance for risk, their comfort with different types of investment and their investment beliefs, including their ESG beliefs and policy. This mandate specification will form the basis of our fiduciary management contract (or investment advisory agreement, in the case of an advisory client).

The mandate specification includes the risk / return requirements and approach to sustainability, including stewardship. The approach is reviewed on a regular basis (usually in conjunction with triennial actuarial valuation cycle) and is supplemented with ongoing sustainability reporting and, where necessary, training. We provide our clients with training and advice in updating their ESG policies and Statement of Investment Principles.

It is the responsibility of the Cardano Client Director to ensure that client specific stewardship and investment policies are correctly reflected in our mandates.

We evaluate the effectiveness of our understanding of client needs by several means:

- Client customer care visit undertaken by a senior colleague who is not part of the client service team
- Survey feedback via independent third parties. Our questionnaire invites trustees to set out their views on a range of sustainability topics, which we synthesise, present and discuss
- Formal annual review of our performance (in the broader sense)

All our portfolios are managed in alignment with our clients' stewardship and investment policies.
We take account of clients' views in several ways:

- Customising our advice (both style and content) to meet their requirements
- Customising our reporting to meet their requirements
- Engaging in client specific research projects (e.g. searching for a new manager to meet specific requirements, or evaluating an investment opportunity at the client's request)
- Providing training on a wide variety of investment topics, including sustainability and stewardship

Our regular quarterly reports include ESG ratings for all fund managers. Voting activity and specific engagement examples are reported annually, to coincide with the Scheme Report and Accounts completion as part of the Implementation Report.

Many of our clients employ specialist and independent advisers to help them review us, and that review will include our activity and reporting on ESG issues.

We make use of the PLSA voting template, as well as the ICSWG engagement reporting guide (discussed below).

Netherlands

As ACTIAM is an asset manager with a MIFID license, the sustainability preferences of our mandate and ESG clients are part of the MIFID suitability test.

As part of the suitability test, we undertake a significant fact-finding and initial analysis, to establish our clients' returns requirements, their appetite and tolerance for risk, their comfort with different types of investment and their investment beliefs, including their ESG beliefs and policy. The mandate specification includes the risk / return requirements and approach to sustainability, including stewardship. The approach is reviewed on a regular basis and is supplemented with ongoing sustainability reporting and, where necessary, training.

We report on our ESG activities to our clients via our ESG dashboard and a quarterly report.

- The ESG dashboard gives ESG results at the fund level with data such as CO2 footprint, water use, exclusions and engagements.

- A quarterly report is also sent to clients. These reports are available on our website. They are currently published in Dutch given the client base of ACTIAM but we are working towards also having an English version in 2023. The report details ESG updates within ACTIAM but also general market updates and trends. It provides data and case studies on engagements as well as twice a year voting data and case studies.

Principle 7:

Signatories systematically integrate stewardship and investment, including material environmental, social and governance issues, and climate change, to fulfil their responsibilities.

Integrating ESG – our Sustainable Investing approach

Our sustainability policy published in 2022 relates to our investment and advisory activity and sets out how we integrate Environmental, Social and Governance (ESG) issues and real-world sustainability impact insights into our investment decision-making, stewardship and policy engagement activities.

As described, in January 2022, Cardano acquired ACTIAM, a sustainable investor, with 30 years' sustainability-related experience, and a dedicated team of sustainability professionals. ACTIAM was one of the first asset managers in the world to incorporate sustainability issues in fund and asset management, incorporating concepts such as planetary boundaries and social foundations.

In Q3 2022, we published a revised group-wide sustainability policy which applies across all of our investments.

ESG issues and real-world sustainability impact are integrated throughout our investment process across asset classes and investment types. When we invest, we consider two simultaneous objectives:

1. Maximising risk adjusted return, which includes sustainability-related risks and opportunities
2. Maximising influence and sustainability impact, which considers the real-world sustainability impact of our investments

We use a "double materiality" view and incorporate both lenses into our investment process. To implement our definition of sustainable investment, the concepts of social foundations and planetary boundaries are central to our approach.

Our starting point is that sustainable companies and countries operate within planetary boundaries and respect social foundations. This includes companies and countries that are, for example, climate neutral, with science-based decarbonisation strategies, that do not contribute to deforestation, do not contravene international standards, and provide their employees or citizens with a safe working and living environment. As such, we believe that sustainable companies and countries are where:

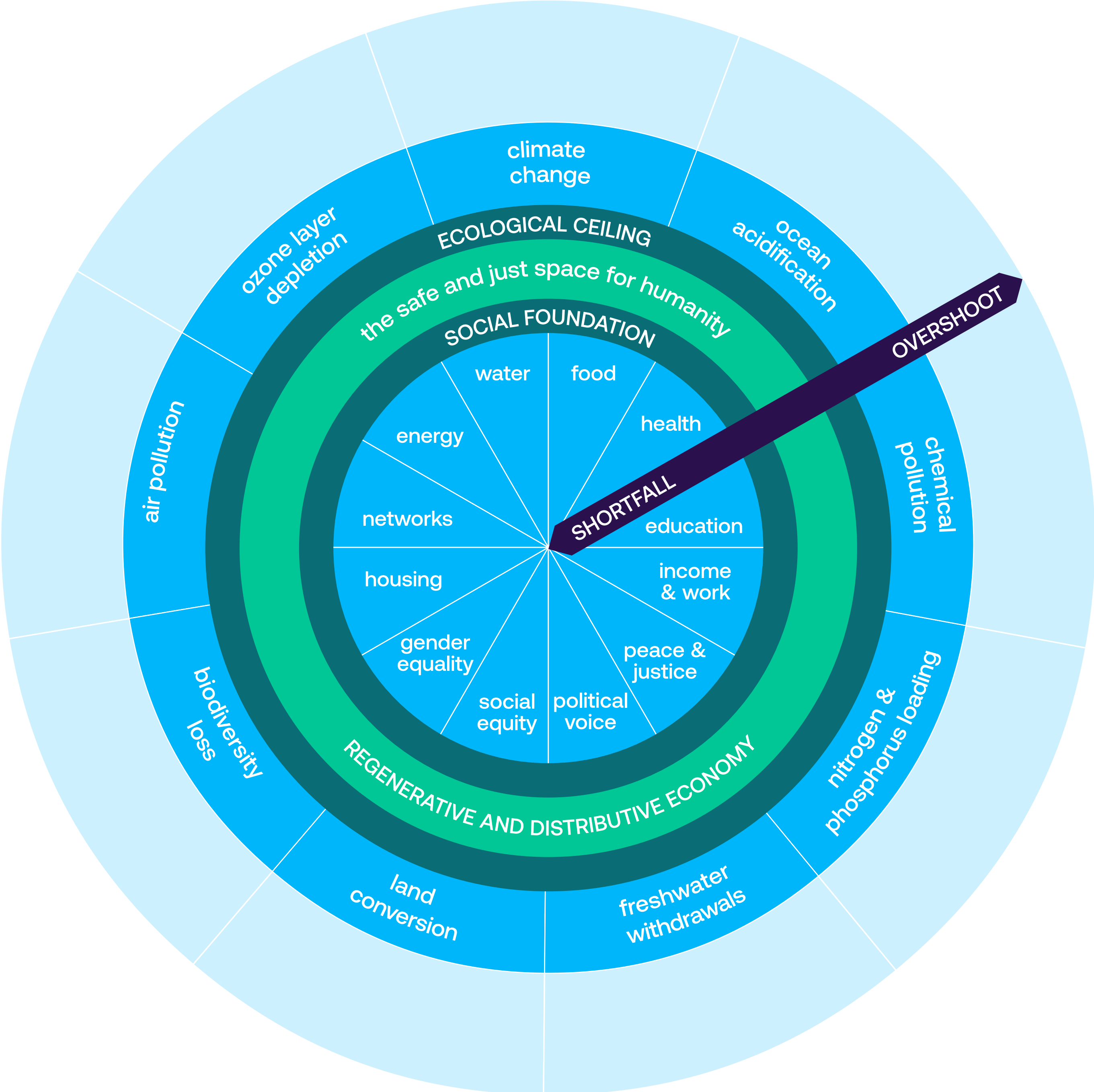
- Environmental pressures do not overshoot planetary boundaries (in other words, do not exceed the earth's regenerative ability)

- Society wellbeing does not fall short on minimum universal social and governance norms affecting people's health, wealth and wellbeing, for current and future generations as established through international conventions, agreements and law.

We consider this the safe and just operating zone for humanity. Various international agreements and science-based initiatives outline transition pathways for companies and governments to follow in order to make the transition towards the safe and just operating zone.

This can be visualised as two concentric circles, that together form a ring, or "doughnut". The inner circle reflects social foundations, the outer circle planetary boundaries. Both boundaries have been established through various international treaties and agreements. The safe and just zone for humanity combines the frameworks of the Planetary Boundaries (Rockström et al., 2009) and the Doughnut Economy (Raworth, 2018).

The safe and just zone for humanity in the doughnut economy.



The concept of the safe and just operating zone, within planetary boundaries and respecting social foundations, underpins how we understand sustainability-related risks and opportunities, and therefore, our investment and stewardship decisions. We believe that companies and countries that are not operating within the safe and just operating zone are subject to ESG-related financial risks in our portfolios or do not lead to sustainable benefits for the economy, the environment and society.

As such for companies, we assess:

- How the company's business model, industry of operation and behaviour exposes them to sustainability risks;
- The company's adaptive capacity to manage these risks. For example, we may be comfortable investing in companies or governments that are highly exposed to sustainability risks but that have a high capacity to adapt.

Based on our assessment, we categorise companies into one of the following categories:

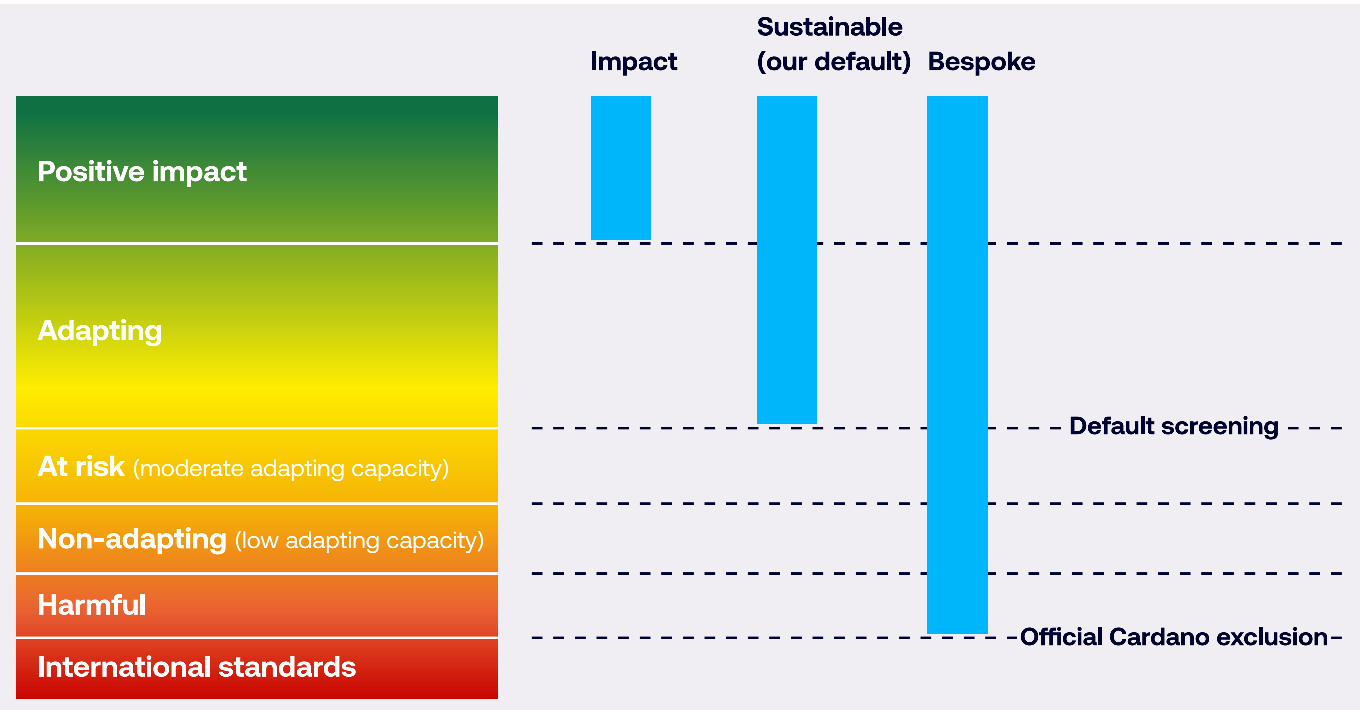
- **Positive impact:** Companies making a positive and intentional contribution to one or more of the Sustainable Development Goals while operating within planetary boundaries and ensuring social foundations. Their economic activities expand the safe and just zone and create positive impact.
- **Adapting:** Companies that are within, or close to, the boundaries of the safe and just operating zone and are sufficiently managing the risks they are exposed to. They have, or there is evidence to demonstrate they will have, science-based verifiable strategies in place to reach the safe and just operating zone within an acceptable time frame.
- **At risk:** Companies operating outside the safe and just operating zone, not transitioning, and, while they acknowledge the sustainability risks, they lack the capacity, and perhaps the will, to adapt.
- **Non-adapting:** Companies operating outside the boundaries, far removed from the required transition pathways, and lacking the capacity and the will to bring risk management up to standards. These entities lack sound management strategies on their material issues, are exposed to high risks and therefore face significant operational risks in the short- to medium-term.
- **Harmful:** Companies operating outside the boundaries, with activities either through their operations or products that are harmful to society or the environment at a threshold inconsistent with our sustainability beliefs. Examples include companies whose primary business is tobacco production.
- **Non-compliant with international norms and standards:** Companies that do not comply with recognised international norms and standards. Examples include companies that manufacture controversial weapons or are in breach of the UNGP on Business and Human Rights.

We work with clients in different ways:

- As an asset manager, we invest directly (direct investment)
- As a fiduciary manager, we invest directly and indirectly, via third-party managers, and, for derivatives, via counterparties
- As an investment advisor. While we believe all clients can benefit from adopting a sustainable approach and can leverage our expertise in this area, ultimately advisory clients will determine their own path.

Direct investment is where we invest directly in companies, either in physical equity or credit, or via derivatives. It does not include indices (whereby we select "off-the-shelf" indices, and as such, their composition is not within our control). It does not include third-party managers which we cover later in this document.

For our direct investments, we use our Sustainable Investment Framework to construct our portfolios, as follows:



Through impact investing funds, we intentionally seek to generate positive, measurable social and environmental impact alongside a financial return. We develop and manage funds that focus on impact investments, with a focus on individual themes such as: the SDGs, financial inclusion and the energy transition. In our default direct investments, we invest in the positive impact and adapting categories. We may include selected at risk companies if we believe the company is likely to be re-categorised as adapting. We may also invest in green, social, sustainable or sustainability-linked bonds of 'at risk' companies if the proceeds are used to address the reasons that have caused the 'at risk' status.

For our fiduciary portfolios, we also invest in market indices and via third-party managers, that will not apply our categorisation process (but will be subject to sustainability-related considerations).

Our focus areas

In order to categorise companies and governments within our sustainability framework, we consider seven material sustainability drivers. The drivers help us assess the level of sustainability of companies' processes and products. For governments, the drivers reflect the alignment of policies, laws and regulations with planetary boundaries and social foundations.

Environmental drivers:

1. Fossil fuel use: Management of fossil fuels use impacting, among other things, climate change, air pollution, energy availability and human health.

2. Water use: Management of freshwater use in water scarce areas impacting, among other things, water availability, water quality, health and food production.

3. Land use: Land conversion management especially for agricultural purposes, impacting climate change, biodiversity loss, and water flows but also local communities and inequalities.

4. Chemicals and waste management: Management of toxic and long-lived chemical substances and hazardous waste and plastics, impacting the environment and human health.

Social drivers:

5. Social capital management: Actions that maintain the licence to operate on which businesses and sovereigns depend, impacting human rights, community relations, social equity and access and affordability of, for example, healthcare, housing and finance.

6. Human capital management: Activities related to labour and union rights, employee health and safety and labour practices, impacting educational opportunities and income, diversity and gender inequality.

Governance drivers:

7. Organisational behaviour and integrity: Actions that create an ethical business environment, impacting community networks, justice and work conditions. For companies this refers to their own business model and also how they treat companies up- and downstream in their value chain. For sovereigns this refers to how they govern human, civic and political rights.

Not all global challenges are equally relevant to each company. The challenge may not have an effect on their operations or results, or the company may not be able to influence the particular sustainability driver. For that reason, for each company, only the material drivers are considered, i.e. that matter to them from a long-term financial point of view or where they have significant real world impact. Drivers are material to a company if their behaviour exposes them, society or the environment, and thereby their investors, to significant risks.

Targets

Based on the aim to have our portfolios operate within, or on, the pathway towards the safe and just zone, we have set targets. In some cases, the targets apply universally, in other cases, they apply to our direct corporate equity and credit investment portfolios only (not, say, liability driven investment). This is because in some asset classes our investment activity is limited to certain assets or geographies, e.g. UK sovereign bonds. The targets align with the required behavioural changes to reach the safe and just zone, within planetary boundaries and respecting social foundations.

- **Fossil fuel use:** We support the Paris Climate Agreement of limiting global warming to +1.5°C versus preindustrial levels. We do this by committing our investment portfolios to net zero greenhouse gas emissions by 2050, known as "net zero". We support global emissions reduction of 50% by 2030, with baseline year 2019. This informs our asset-class decarbonisation targets.

- **Water use:** In our direct equity and credit portfolios, we aim to achieve water-neutrality by 2030. Water neutrality means that businesses consume no more water than nature can replenish, and cause no more pollution or impacts than is acceptable for the health of humans and natural ecosystems. It is predicted that by that time, half of the world will face severe water stress if water is not used more efficiently.

- **Land use:** In our direct equity and credit investment portfolios, we aim to reach net zero deforestation by 2030. This means that any deforestation is replaced with reforestation of similar or higher quality. Deforestation is one of the major causes of biodiversity loss, also impacting water availability and climate changes.

- **Chemicals and waste management:** No international pathway has been designed to remain within planetary boundaries. Therefore, until science-based pathways are determined, in our direct equity and credit investment portfolios, we aim to move towards an economy with zero waste by 2050, with an intermediate aim to reduce waste with 50% by 2030. To move towards this point, we expect companies to adapt their processes towards a circular business model that prevents as much as technically feasible chemicals and (hazardous) waste problems.

- **Social and governance targets:** Across our three social and governance drivers, no internationally agreed targets have been set. Therefore, we aim to invest in companies that provide transparency about how they contribute to the living standards of the communities affected by their operations, secure proper wellbeing of their employees, protect against social injustice and inequality, and follow principles of good corporate behaviour, good human capital management and good social capital management.

Examples of integrating sustainability issues and ESG issues into our investment process

Sustainability and Investment team meetings

The sustainability framework for companies and countries described above is our starting point for investment decisions and we assess all direct investments according to the sustainability drivers. To integrate these views further across investment teams, we hold a monthly research meeting that involves our Sustainability Team and the Investment teams. The meetings cover rotating sustainability topics and how these impact our assessments at the company, issue and sector level. The goal of these meetings is to exchange views and systematically integrate our approach across the firm.

The impact of sustainability topics on legislation, technologies, supply chains and the market are discussed. For example, during meetings held in 2022, topics covered included sustainability issues related to the Utilities, Food & Beverage, and the Nuclear energy sector, in addition to how we assess company involvement in Xinjiang and their impact on Human Rights.

Sustainability bond investments

Throughout 2022, we continued to develop our thinking on sustainable bonds, ESG-ratings of issuers and on derivative counterparties. We remain vigilant against greenwashing, and continued to engage with issuers on their sustainable bond frameworks. In 2022, we incorporated ESG-factors into our assessment of counterparties. In Q1, 2022, there was approximately EUR50 billion in new issuance of green, social and sustainable bonds. This continued into the second quarter and, by the end of the third quarter, the investable ESG universe for Cardano's LDI clients increased from approximately EUR450 billion to EUR600 billion.

Innovating for better Biodiversity data

Achieving sustainable supply chains is a key part of the sustainability jigsaw. Cardano is working, together with other investors, on an innovative project to assess progress in this area and push for better data to integrate into our decision making process. We are sponsoring the French company Green PRAXIS to do a pilot study to explore the potential of bio-acoustic technology for monitoring and measuring biodiversity.

Bio-acoustics monitoring, which is a combination of sound recording and machine learning, is a non-intrusive, cost-effective method for gaining insight into the quality of biodiversity in a given region. This technology can provide a baseline to measure biodiversity over time and across different land use intensities (e.g. conservation area versus production plot). The project aims to develop a reliable, affordable, and quick way for our investee companies to monitor and measure biodiversity and then share those insights with investors.

For the initial pilot study, in Autumn 2022, Green PRAXIS conducted recordings within land areas owned by a palm oil producer in Indonesia across both conservation and production plots. The full analysis of the results will be available to us in Spring 2023. While we are waiting for the conclusive results to tell us the "why" behind the sound recordings, there are already notable differences observed between conservation and production plots.

If palm oil and other commodity producers operate more sustainably, they can increase their long-term yields, preserve more forested areas, help preserve biodiversity – and, crucially, reforest deforested areas, also impacting climate change. We are now planning a second pilot study to support the initial findings and support the scaling of this technology.

Dialogue with our managers

We help our clients invest in more than 160 managers across most major markets, asset classes (public and private) and geographies. Our approach, therefore, is flexible – to account for different strategies – without compromising on focus, which we believe drives the best outcomes.

We comprehensively assess and integrate ESG issues at every investment stage. And through granular data and regular dialogue with our partners we learn and adapt; striving to constantly improve.

We expect our managers to:

1. Be aware of financially material ESG issues associated with an investment
2. Take ESG issues into account where they have the potential to materially affect the financial risk and / or return
3. Engage strategically on ESG issues, where possible within the portfolio and externally. We expect all managers to exercise voting rights where possible
4. Weight substance over form – we look for genuine integration of ESG issues

Stewardship approach of third-party managers

Our approach to stewardship starts with data. Granular data drives higher quality discussions. Our ESG questionnaire and manager framework is deliberately detailed and assesses fund managers across four areas: People and policies, ESG integration, stewardship and engagement, and reporting. Where possible, we have aligned our framework with key industry initiatives (see Principle 5).

Engagement

We are passionate about active engagement. We treat managers as partners, feeding back ESG ratings and using these to set specific, time-based milestones for managers to make progress.

From there, we are able to engage with managers further to ensure ESG issues remain at the forefront of their investment decision-making. We regularly discuss ESG related topics as part of our ongoing monitoring throughout the year.

For example

We conducted research into passive managed ESG funds, reviewing:

- all the leading ESG data providers used in ESG index construction
- the spectrum of ESG index solutions available; with a preference for approaches that were broad (addressed E, S, and G issues), and that had strong climate credentials
- passive index managers' ESG capabilities – conducting multiple deep dives into managers' stewardship abilities paying particular attention to voting behaviours

The completion of this research led to us replacing non-ESG equity index exposure with equity exposure that is now ESG-integrated, and has a 50% lower carbon footprint than before and with higher levels of stewardship and engagement.

Current Engagement Examples

Strategy	Current ESG Rating	Engagement Outcomes
US Equity Long/Short	High Focus | Poor	• Provided company engagement examples • Provided most significant vote examples
Systematic	Low Focus | Poor	• Implemented as default, a voting approach which uses the sustainability voting recommendations from a well-recognised proxy voting advisor
Credit	High Focus | Strong	• Became UNPRI signatory • Selected MSCI ESG research as ESG data provider • Introduced exclusions in the portfolio • Regular carbon reporting and reporting on engagement • Targeting for the portfolio to be better rated than the benchmark
Global Equity Long-Only	High Focus | Standard	• Became UK Stewardship Code signatories • Report carbon intensity of aggregate portfolio on a quarterly basis • Considered partnering with Sustainalytics to help bolster engagement activities (Cardano introduced idea)
Real Estate	High Focus | Standard	• Implemented an annual ESG Report in 2021 (Cardano referenced as the LP who drove initiative) • In 2022, established an ESG Task Force to identify ESG investment and asset management opportunities, and to establish ESG best practices • Responsible Investment Policy also adopted in 2022

Aligning to industry best practice

Principles for Responsible Investment (UN PRI)
We believe that a critical part of improving sustainability and stewardship practices requires improved clarity and standardisation (around terminology but also metrics and reporting).

This is why, we have aligned our strategy specific ESG questionnaires – detailed sets of questions we send to all our managers annually – with the UN PRI's reporting framework, the PLSA template and ICSWG resources.

We hope this will encourage managers to align to a single, standardised means of reporting, as well as to become UN PRI signatories themselves.

Investment Consultants Sustainability Working Group (ICSWG)
We are an active participant in the ICSWG – a body made up of 17 investment consultant firms to UK asset owners. The group published in November 2021 guidance designed to improve the engagement reporting by managers, which we have included in our manager ESG questionnaire:

- The ESG Metrics for Asset Managers
- The ICSWG Engagement Reporting Guide

We have given a more detailed explanation of our manager selection process and integration below under Principles 8 and 9.

Principle 8:

Signatories monitor and hold to account managers and/or service providers.

ESG data

Our primary sustainability data source is MSCI's ESG and Climate metrics, including scenario analysis insights and temperature alignment metrics. We use this data to feed into our model to assess our own investments and those of our managers.

We also use Sustainalytics for engagement and voting support.

To ensure the integrity of the data we use for our own research and assessment processes, we have engaged MSCI on several instances about its data quality, consistency and meaningfulness. We have provided input for its development of new data and research products.

In 2022, we provided detailed written input on MSCI's water consumption and withdrawals data. We use this data for calculating the water footprint of our portfolio. We provided feedback as to how the consistency and accurateness of the data could be improved to allow for using it across our entire portfolio. We also provided constructive input on the calculation methodology.

We have also provided input on the MSCI calculations for determining revenues companies derive from oil, gas and power generation involvement, and about the quality and usefulness of its Temperature Alignment metrics.

For Sustainalytics, we were a key contributor to the development of their Stewardship Thematic Engagement themes, including the Biodiversity and Natural Capital programme. We will be beta-testing the prototype Impact Ratings before the product is officially launched and have participated in an "MVP Consultation session" to provide our input on how this research could be integrated into our own investment process and the usefulness of the ratings.

We are seen by the data and research providers that we work with as a front-running investment manager with valuable insights that can help shape their research offerings.

The Letter on the Advancement of Deforestation Data

We supported an engagement with eleven targeted data providers requesting an acceleration on the provision of deforestation-related data for key commodities. As we are focused on the topic of deforestation and its links to biodiversity loss and climate change risks, strong, consistent data on this topic is essential for us.

ESG Rating Framework

All fund managers that we invested in are monitored through our ESG rating framework. Part of this framework focuses specifically on managers' stewardship and engagement and assists our investment team and Manager Research Committee (MRC) in ensuring that investments are being managed in accordance with our expectations around ESG.

Timing of when strategies are rated:

1. Prior to investment: investment proposals for all new investments tabled at the MRC must contain a dedicated section setting out (i) the ESG rating; and (ii) a summary of the rationale used to get to that rating. Managers also need to complete our ESG questionnaire prior to investment.

2. Post-Investment: (i) all strategies' ESG ratings are formally reviewed on an annual basis by the relevant coverage team; and (ii) ESG ratings are updated on an ad-hoc basis: coverage teams speak to all invested managers regularly as part of the overall monitoring process - this will include discussing ESG issues. In 2021, we began using the MSCI ESG data sets to support our initial and ongoing rating of managers. MSCI ESG data provides a good sense for whether managers are implementing their sustainability beliefs.

Each ESG Rating consists of three parts:

Part 1 | High or Low Focus

- Strategies are designated either (i) High Focus (strategies where ESG factors are deemed to potentially materially impact financial risk return and real-world impact); and (ii) Low Focus (strategies where ESG factors are deemed to have less potential to materially impact financial risk return and real-world impact)
- This is based on an internal methodology to ensure a consistent approach

Part 2 | Overall Rating (Strong, Good, Standard or Poor)

- Strategies are assigned an overall rating
- The rating is calculated by aggregating scores from four specifically assessed categories: (i) People and policy; (ii) Process integration; (iii) Monitoring, Stewardship & Engagement; and (iv) Reporting
- Each category score carries with it certain weightings, to reflect areas we deem to be most appropriate in the assessment of ESG within the particular type of strategy

Part 3 | Momentum Score (Up, Down, No Change)

- Each strategy is assigned a momentum score to reflect whether coverage teams are seeing the manager make (or are implementing) changes to enhance their approach to ESG integration

Data Capture

Information to assist in this rating process is gathered from managers as follows:

- **Annual questionnaire** | a detailed questionnaire is sent to all invested managers annually; the questionnaires are tailored to reflect the differences in our core manager strategies (e.g. equity, fixed income, multi-asset, private equity etc.)
- **Quarterly voting information** | we ask all High Focus managers to provide details of their voting records on a semi-annual basis. This includes details on voting against and for management, as well as asking managers to explain their most significant vote in the reporting period
- **Additional information** | added information is gathered by the investment team as part of the formal day-to-day investment monitoring is stored in our databases, throughout the year

Manager Selection

For all managers, but in particular, high focus managers, an assessment of their stewardship approach will be an important component of the initial stages of the manager selection process.

For example, in a project focused on selecting a new active global equity mandate, we put a particular emphasis on appointing a manager with strong stewardship credentials. The manager we selected was able to provide several examples of both reactive and proactive engagements with companies across environmental, social and governance issues. We undertook corporate reference calls with a selection of companies held in the portfolio to cross-check the manager's claims.

Failure to Comply

New Investments

ESG issues and real-world sustainability impact is specifically addressed in investment proposals and extensively discussed at weekly Manager Research Committee (MRC) meetings. Managers that have not met expectations will not progress through the MRC decision-making.

ESG data

Our primary data source is MSCI ESG and Climate Scenario analytics, which we use to assess the sustainability of our own investments and those of our managers. Among other issues, we have engaged MSCI on coverage.

Engagement

Principle 9:

Signatories engage with issuers to maintain or enhance the value of assets.

Engagement for our direct investments

For our direct investments, we engage issuers to maintain or enhance the value of our assets. As good stewardship can be subjective, we have set the below guiding principles for our engagement activities:

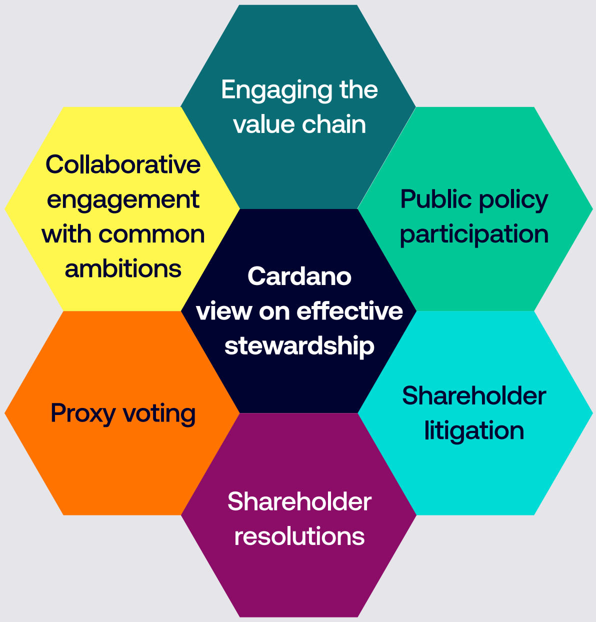
- **Collaboration** – engagement is more efficient and impactful when managers collaborate, not just for the investors, but for the companies too (who will field fewer, but higher conviction, engagements from their investors)
- **Quality over quantity** – we are interested in meaningful engagements, seeking tangible results with strong reporting
- **Long-term** – we encourage long-term relationships with companies. Successful stewardship can take many months, maybe even years
- **Real world impact** – we are interested in engagement on topics that contribute to positive real-world sustainability impact and address systemic issues (such as, reduction in absolute carbon emissions)
- **Innovation** – we encourage innovation, for example, our satellite-based engagement towards zero- deforestation
- **Integrated** – stewardship contributes to investment decisions
- **Goal-oriented** – we set objectives and work towards those; if progress is not meaningful, we will consider escalation including voting against board members or changes in capital allocation
- **Transparency** – some engagements, perhaps even many, will be unsuccessful

Our engagements focus on companies in their transition to the safe and just operating zone and encourage companies to move up to a higher level in our sustainability framework. In many cases, we participate in collaborative engagements with other investors (Tier 1, in our Model of Influence, more details under Principle 10). Where we identify sustainability issues that relate to our targets where there is no collaborative engagement underway, we start our own engagement, such as the Satelligence collaboration (see case study 1 below).

During an engagement process, we set clear targets and milestones in order to monitor changes related to the material sustainability drivers. We use a range of tools in our engagement activities, including escalation with votes against management and co-filing of shareholder resolutions.

An overview of our engagement activities is made public on our website.

Our stewardship approach involves using the full set of tools. We combine all of these stewardship tools deliberately, to reinforce each other and effectively escalate where needed:



Engaging the value chain includes our oversight of third-party managers and our engagement of counterparties.

To prioritise our activities, we consider the following factors:

- Our sustainability driver goals and targets
  - Net zero 2050
  - Net zero deforestation 2030
  - Water neutrality 2030
  - Zero waste 2050
  - Social capital and human capital goals
  - Human Rights due diligence
- What initiatives exist that align and/or what gap do we want or need to fill ourselves to meet our goals?
- Which companies have we determined based on our assessments to be highly exposed to the issue?
- Which companies do we hold and which are already being heavily engaged or still should be targeted?

Here are some case studies to illustrate our progress during 2022:

Case Study 1 – Satelligence

In 2019, Cardano (then ACTIAM) started a collaboration with geodata analytics firm Satelligence. By combining satellite images and Artificial Intelligence (AI), Satelligence provides Cardano with up-to-date information on deforestation incidents triggered by palm oil production. The cooperation enables Cardano to incorporate this data into its investment decisions and engagement conversations. In 2021, the initiative we started which involves twelve other investor organisations called - “Satellite-based engagement towards zero deforestation” proudly won the Environmental Finance “ESG Engagement Initiative of the Year” award and was shortlisted for a PRI Stewardship award as well.

As an asset manager, Cardano focuses on three key environmental drivers in its investment policy: climate, water and land and among other targets we have set one to reach net zero deforestation by 2030. Deforestation contributes to approximately 10% of all human-induced greenhouse gas emissions through the release of carbon as forests are cleared or burnt, thus playing a major role in the contribution to climate change, as well as biodiversity loss. The goal of our initiative is to help Cardano achieve its zero deforestation goal through intensive dialogue with investee companies and other stakeholder groups, including relevant expert NGO organisations.

The data and analytics provided by Satelligence allows Cardano to detect and quantify changes in vegetation cover, caused by plantation expansion or fires in forests, swamps and other natural areas linked to palm oil commodity production.

The engagement targets two groups of companies:

- **Group A:** Those that are not yet disclosing supplier lists for the soft commodities they source. It is not yet possible to connect satellite imagery of deforestation incidents to this group, because of the lack of transparency.

- **Group B:** Companies that do publicly disclose their soft commodity supplier and mill lists. For these companies deforestation rates and incidents captured by satellite imagery can be connected to the companies. Here we receive data from Satelligence to use in our dialogues.

In 2021 and 2022, the collaboration extended the number of companies under engagement to also include Chinese companies who are more nascent to the topic.

Some key take-aways from this collaboration so far are:

- Some leading companies are going well beyond policy and putting in place monitoring and verification systems for their supply chains in addition to having grievance systems specifically for reporting deforestation incidents.

- Increasingly, we are seeing companies use satellite data themselves to monitor their own supply chains and developing stronger supplier oversight. This is much more robust than using certification alone. We are encouraging others to implement this.

- Companies are increasingly acknowledging the need for transparency and publishing supplier and mill lists which shows they are taking the steps towards full traceability.

- Companies are holding suppliers responsible by suspending those that breach zero deforestation policies or do not make substantive improvements following a breach. Often strategies include direct engagement with suppliers rather than immediate suspension which improves real world impact.

Challenges remain:

- Deforestation is increasingly happening on smallholder farms making it harder to get ahead of. In Indonesia and Malaysia, approximately 40% of palm oil production comes from farms smaller than 50 hectares. Companies cutting off individual suppliers may not yet lead to a significant impact in preventing deforestation; especially if demand for non-certified palm oil remains high. Wider inclusion is important from a social perspective, thus a nuanced and more heavily resourced approach by companies is required. Since this generally means a more costly approach in the short term, it is difficult to convince all companies to move in this direction.

- Virtually every company we spoke with noted that industry-wide initiatives are necessary to reach a level playing field and to see broader impacts; the Consumer Goods Forum's Forest Positive Coalition is one such initiative that is taking a multi-stakeholder approach to create a uniform expectation of sustainable practices to achieve a sector transformation; Regulation that supports deforestation prevention is also key and most companies do welcome the EU regulation requiring due diligence on deforestation-free products.

- While challenges remain with palm oil transparency and the deforestation linked to plantations, this supply chain has seen more transparency improvements than for example, beef or soy; therefore we have expanded our conversations to include risks associated from other commodities to increase the impact of our engagement.

Case Study 2 – Unilever and the healthiness of its portfolio

Cardano sees health as an essential component of a sustainable society, in line with the third UN Sustainable Development Goal (SDG), which promotes good health and well-being. It is also mentioned in the February 2022 Social Taxonomy Report published by the European Union's Platform on Sustainable Finance.

One way we incorporate health in our stewardship activities is to look at the role of food manufacturers and retailers and the healthiness of their product offering. This is to help tackle obesity, a condition affecting more than 1 billion people worldwide. Obesity reduces quality of life, impacts mental health and is linked to many noncommunicable diseases. The link between excess weight and risk of hospitalisation due to COVID has highlighted the importance of healthy diets in reducing inequalities. The microeconomic and macroeconomic impacts of rising obesity figures also have an impact for businesses, such as higher sick leave, lower productivity, increasing health expenditure, lower GDP. This issue is not being ignored by legislators, with sugar taxes and/or mandatory food labelling having been introduced in many countries. The topic therefore also represents a regulatory risk for the companies we hold in our portfolios.

To encourage positive results on the theme of nutrition, Cardano has joined two important investor coalitions: the Access to Nutrition Initiative (ATNI) and the ShareAction Healthy Markets Initiative. Through these coalitions, Cardano works with companies in the food industry to improve the availability of healthier food.

In collaboration with the ShareAction Healthy Markets Initiative, we engaged Unilever to improve its disclosure and ambition on the health profile of their sales portfolio. There were two main goals for this engagement: for Unilever to start disclosing on the healthiness of its portfolio using government-endorsed nutrient profiling models and for them to set a target to improve the healthiness of their portfolio.

During the discussions, the coalition decided to file a shareholder resolution at the 2022 AGM to accelerate the dialogue with the company. Several discussions happened between the group and Unilever during the process and Unilever made commitments both in terms of disclosure and setting a target. The group therefore agreed to withdraw the resolution and to continue discussions with Unilever. In 2022, Unilever delivered the disclosure promised, showing leadership compared to peers and at the end of 2022, it announced a target to grow the proportion of healthier sales, using its in-house nutrient profiling model.

Engagement with Fund Managers

Where we invest indirectly, engagement with underlying issuers is undertaken by the fund managers that we select for our clients.

We believe impactful engagement and effective stewardship flows from high quality dialogue with these managers. We aim to achieve this through:

Education

- We prefer engagement (working with our managers to improve standards) over automatic exclusion

- We actively work with our managers to educate them on what ESG integration and real-world sustainability impact means to us and our clients, as well as the expectations we have of them

- We do this through day-to-day monitoring and discussions with managers which have included bespoke education and know-how sharing sessions around ESG issues, in particular, on our three priority sustainability themes

Granular Measurement
- Each year we gather detailed information on invested funds' practices and approach to ESG issues and real-world sustainability impact (as set out under Principle 7, above)

- Through a detailed review of this information (including the voting track record of the manager) combined with information gathered throughout the year, each fund is assigned an ESG rating and all ratings are debated and agreed by the Manager Research Committee

- The granular nature of this ESG rating process allows us to track managers' practices and processes around engagement through time; enabling us to:
  - focus and set specific goals for managers around ESG issues
  - track a manager's progress against those goals. (For detail on our ESG rating process, please see our published policies)

- We seek to quantify our engagement impact by registering the changes that managers have / are about to make to their policies or practices, as a result of our education and engagement efforts

Consistent Communication
- A critical part of effective engagement is making clear our expectations around ESG issues and real-world impact

- We provide this through:
  - Regular, active dialogue on relevant issues through the day-to-day monitoring that members of the Manager Research Team carry out
  - An annual communication to all invested managers, setting out our beliefs and expectations around ESG issues and stewardship
  - Every year we provide each manager with detailed information on how our rating process works, as well as how they were rated. This transparency is a critical and powerful tool for bringing about change

- We use communication to engage with managers, by articulating clear milestones for specific ESG initiatives to be in place and corresponding implications

- While we prefer to work with managers to bring about change, we are prepared to sell or advise our clients to sell where a manager has consistently not delivered on ESG based milestones

Reflection
- We reflect on the process so that lessons are learned in order to improve future engagement activity

Our framework is specifically designed to focus engagement resource and time on the exposures where ESG factors have the highest potential impact to our clients' risk-adjusted returns. This focus is achieved through classifying (using our proprietary methodology) all invested strategies as either:

- **High Focus** | ESG factors could materially impact the risk and return profile of the strategy (e.g. listed or private equities, corporate credit etc.)

- **Low Focus** | ESG factors are likely to have limited impact on the risk and return profile of a strategy (e.g. macro orientated derivative-based strategies, highly diversified trend following strategies)

Where we select a high focus manager, we set out our expectations regarding the level of engagement we expect the manager to have in relation to the issuers. Specifically, we expect high focus managers to:

- Take account of ESG issues and real-world sustainability impact inherent in each investment

- Engage directly with management of the underlying companies to effect change
- Vote at AGMs
- Work together with industry wide collaborations to effect change, in particular, on our three priority sustainability topics

We see considerable variation in approaches to stewardship across geographies and across manager life-stages (see below). Engagement therefore needs to be customised and prioritised. We do this by developing custom engagement plans for managers.

An example of underlying manager engagement is as follows:

- Manager type: listed equity
- Issue identified: Not a UNPRI signatory. Tier 2 Stewardship status (not the latest stewardship code). No written ESG policy
- Process: the team flagged these items as specific milestones for the manager to improve against in certain time periods, with the risk of material redemptions over the medium term should standards not improve
- Outcome: As a direct result of our engagement:
  - Internal processes were improved upon to allow the Stewardship Rating to increase to Tier 1 Status
  - The manager published a formal written ESG policy
  - The manager is actively considering UN PRI signatory status

Engagement and Stewardship Regarding Private Assets

Where we invest in private market strategies (e.g. private equity, property or private credit) we often have greater ability to engage because:

- Items often require a vote by Limited Partners, which we do on behalf of our clients
- We aim, where possible to gain a seat on the Advisory Board of the manager

We are active in engaging with these managers through Advisory Board seats and will raise any topic we think necessary in respect of protecting and enhancing the value of the investments, including raising questions around their ESG approach, risk assessment, integration and diversity and inclusion.

In one example, we worked actively with a group of other investors in a working party sub-committee of the Advisory Board to implement a restructuring of the fund manager when this became necessary to protect the value of client assets.

Engagement on Non-Corporate Assets

See Principle 10 for details of engagement on Government and Agency bond exposures.

Principle 10:

Signatories, where necessary, participate in collaborative engagement to influence issuers.

Collaboration

We strongly believe in collaboration. Collaboration is efficient and effective. It allows us to benefit from external expertise, and we of course contribute our expertise where appropriate to do so.

We see collaboration as part of the way we can contribute to a more sustainable financial system. By coalescing around common themes and methodologies, we send clear messages to the companies we own – and to our regulators. Collaboration allows for a faster, smoother transition.

In 2022, we also participated in a number of industry initiatives, including the below.

Initiatives where we play an active or leading role in a direct company engagement:

- Access to Nutrition – Supporting investor on the 2022 UK Retailer Index.
- Access to Medicine – Supporting investor
- Climate Action 100+ – We co-lead the engagement with one of the largest global agricultural commodity suppliers
- Dutch Climate Coalition – We lead the engagement with two Oil & Gas companies
- Investor Alliance for Human Rights, part of the Interfaith Center on Corporate Responsibility (ICCR) – We contribute to the Human Rights programme area and lead an engagement with a Tech company on human rights due diligence for product use
- Platform for Living Wage Financials – Cardano is an active member of the Garment workgroup, leading on two company engagement trajectories and supporting another. We are also part of the Management Committee of the Platform
- Collective Impact Coalition for digital inclusion: Advancing ethical and responsible AI – We lead on two companies
- Satellite-based engagement towards zero deforestation – We launched this innovative, award-winning collaborative engagement programme which focuses on ending deforestation in companies' commodity supply chains
- ShareAction – Cardano actively participates in Good Work Coalition and Healthy Markets Initiative. We have been involved in engagement dialogues, co-filing resolutions and investor letters
- Valuing Water Finance Initiative – We are a contributing member of the Task Force and co-lead engager with two companies in the food / restaurant sector and active in an engagement with one company in the beverage sector
- VBDO Responsible Mining workgroup – We are a contributing member to the working group and increasing our expertise on issues related to the sector including water, biodiversity and social issues

Where we invest directly, we take an active role in many of the coalitions we join, participating in discussions on goals for the coalition, signing investor letters, having a leading role or supportive role for some or the companies engaged with, participating in webinars and reporting on the activities on the coalition. Below are some case studies for 2022.

Policy Engagement

This year, we have responded to seven public policy consultations, in the UK, EU and US, covering a range of sustainability topics including social risks and opportunities, climate change and stewardship.

We see policy engagement as a natural extension of our sustainability commitments. We recognise the need to improve the sustainability of the market as-a-whole and that there are clear benefits to us and our clients through well-designed and implemented sustainable investment policy reform.

In general, we welcome the direction of policy makers on sustainability topics. Highlights include:

Dutch Fund and Asset Management Association (DUFAS)
In 2022, we participated in the DUFAS SFDR Expert Group which involved stakeholders from Dutch investment management firms to provide input on evolving SFDR disclosure-related requirements. We provided our perspective on SFDR template consultations, EU Taxonomy requirements and classifications, as well as fund classifications and definitions.

We participated in a roundtable discussion with the Netherlands Authority for the Financial Markets (Dutch: Autoriteit Financiële Markten (AFM)) where we provided insights on perception of the SFDR article 8 and 9 fund templates and to give a detailed view on our interpretation of the requirements and missing guidance.

Open letter to the EU Commissioner on the Deforestation Regulation
In November 2022, we co-signed an open letter to the EU Commissioner about the inclusion of the financial sector in the Deforestation Regulation.

To achieve our goal of net zero deforestation by 2030 across our portfolios, we need to find ways in which to engage on the topic through multiple channels. Beyond the collaborative engagement programme that we initiated we also engaged at the policy level since broader regulation sets the "rules of the game" and encourages the market to move in the right direction.

We felt it was of high importance that the EU Regulation on deforestation-free products includes due diligence obligations for financial institutions. By doing so, it ensures that the EU's efforts to stop deforestation worldwide are not weakened by enabling the financial industry to finance the same companies that would already be included in the Deforestation Regulation's scope.

International Sustainability Standards Board (ISSB)
In July 2022, we provided our initial reflections on the ISSB general-requirements exposure draft and climate-related exposure draft. Our primary suggestion to the ISSB is that the drafts need to address real-world impact (or "double materiality"), not the current sole focus on enterprise value.

Taskforce for Nature-related Financial Disclosures (TNFD)
In April 2022, following the V0.1 beta release of the TNFD framework, we wrote to the co-chairs to provide feedback and support for further iterations of the framework.

IIGCC derivatives and hedge funds PAII working group
As mentioned in our 2021 submission, Cardano is part of the IIGCC Derivatives and Hedge Funds Working Group (co-chaired by Cardano).

IIGCC policy advisory group
Our Co-Head of Sustainability, Will Martindale, co-chairs IIGCC's policy advisory group. The group discusses topics ranging from financial regulation to real-economy policy making. For example, we supported IIGCC's engagement of the European Commission on the inclusion of nuclear and gas in the Taxonomy.

Principle 11:

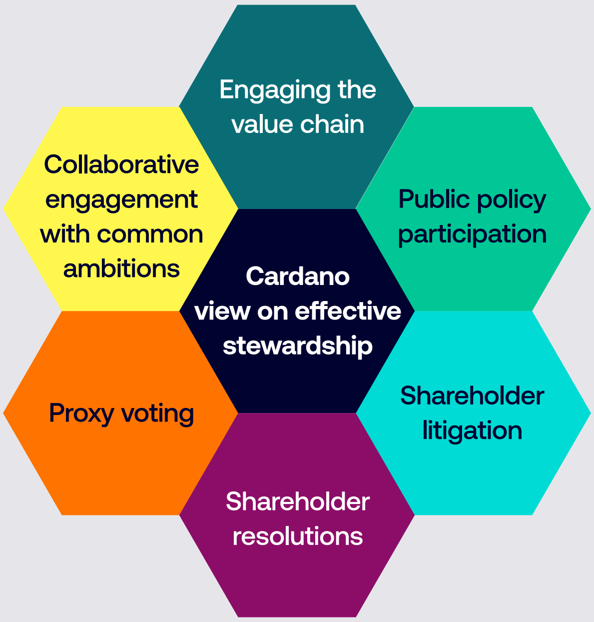
Signatories, where necessary, escalate stewardship activities to influence issuers.

Escalations for our direct investments

We see the use of different tools as the best way to achieve our goals. Setbacks are inevitable when engaging with companies. By having a clear escalation strategy, we can address these situations and try and move forward even when conversations stall.

In our Model of Influence described in our sustainability policy, we describe the different activities we undertake and their contribution to reaching our sustainability goals. Combining modes of influence where possible is part of the model, for example, combining collaborative engagement and co-filing shareholder resolutions (Tier 1) with direct stewardship (Tier 2) and cost of capital influence (Tier 3) when investing in physical equities.

In our view, effective stewardship is done by using a range of tools (shown below).



We use them in a specific order as part of an escalation strategy (illustrated in below figure):

- Screening is our starting point and integrated into our engagement and voting activities. The result of our stewardship activities also helps us form an idea of where the company is at in its sustainability journey and how it addresses its key material risks. These findings are integrated in our screening.
- Engagement: Goals are set in line with our sustainability goals and clearly communicated to the company. Escalation to board level is also used where needed.
- Voting: Our voting guidelines incorporate our sustainable investment approach. As an escalation tool, we use voting against management resolutions and/or supporting shareholder resolutions. In some cases, we declare ahead of the meeting our voting intentions to maximise the impact of our voting decisions.
- Co-filing is also one of the tools of our escalation strategy. We see it as a powerful tool that investors can use in their active ownership strategies. Used constructively, in combination with engagement, it can lead to more senor level discussions and an acceleration of the commitments by the company.

Screening

- A company is classified as Adaptive in our framework
- Identification of key material risks for this company (e.g. role in climate transition)

→

Engagement

- Engage collaboratively as a preference (e.g. via Climate Action 100+).
- Set clear goals for the engagement
- Escalate discussions at board level, if necessary

→

Voting

- Consider voting against board members in case of unsatisfactory engagement discussions
- Consider supporting shareholder resolutions

→

Co-filing

- Shareholder proposal can be filed as an escalation tool
- Continued discussions during co-filing process with the aim to get company to make commitments

Other tools along the way:

- Writing to the company ahead of votes against explaining our rationale
- Pre-disclosing votes to the market with rationale (PRI tool or blog post)
- Report and publicise the case study

Co-filing in 2022

Co-filing is a tool which is part of our Model of Influence under Tier 1, which includes interactions that are most impactful to improve our real-world sustainability impact. It is used as an escalation tool, in combination with engagement discussions.

Below shows our co-filing activities in 2022:

ACTIAM driver	Company	Resolution	Status
Water Use	Chipotle	Report on total water risk exposure as well as policies and practices	Withdrawn following commitments by Chipotle
Fossil Fuel Use	HSBC	Reduce exposure to fossil fuel assets	Withdrawn following commitments by HSBC
Social Capital Management	Unilever	Increase disclosure as well as setting new challenging targets for the sale of healthier products	Withdrawn following commitments by Unilever
Human Capital Management	Sainsbury's	Become an accredited Living Wage employer	On the ballot – Received 17% of support
Chemical and waste management	Amazon	Publish a report looking at how it could reduce its plastic use	On the ballot – Received 48.9% support and majority of outside shares

Case Studies

Case Study 1: Amazon and the management of human capital

Human Capital Management is one of the seven material sustainability drivers in our sustainability framework. We define it as the activities related to labour and union rights, employee health & safety and labour practices, impacting on educational opportunities and on income and gender inequality.

Human capital management represents legal and reputational risks to companies and affects their turnover and productivity rates. The decent and equal treatment of employees also contributes to addressing social stability and therefore the reduction of systemic risk which affects our portfolio in the long term.

Cardano ACTIAM has been following the practices at Amazon as it has several human capital related controversies which go against our sustainability beliefs. Some of these concerns are described in a letter sent by Human Impact partners at the end of 2021. In order to address these concerns, we have been following engagements led by our provider Sustainalytics. We are also part of an ICCR (Interfaith Center on Corporate Responsibility) group sharing knowledge about Amazon and have over the years supported most of their shareholder resolutions.

Given the continuous controversies at Amazon around human capital management, their severity and persistence and the slow progress of the company, we decided to escalate the engagement. In 2022,

- We supported most of the shareholder resolutions on the agenda, including resolution 9 on health and safety, resolution 13 on freedom of association and resolution 16 on working conditions
- We voted against the re-election of the members of the Leadership Development and Compensation Committee for lack of board oversight on these matters
- We wrote to the company ahead of the meeting explaining our votes
- We made use of the PRI tool to disclose our votes
- At the end of 2022, we co-signed a letter wrote by SHARE to highlight our concerns relating to the company's practices regarding Freedom of Association. The lack of satisfactory response by the company has lead us to co-file a shareholder resolution for the upcoming 2023 AGM and we will continue the discussion on the topic with Amazon in the weeks leading to their AGM.

Progress with Amazon tends to be slow, despite the use of multiple tools and escalation techniques. The company often refers back to their existing policies and disclosures and it can be difficult to get new commitments. These setbacks are disappointing but encourages us to keep applying strong active ownership in our relationship with the company. Amazon will continue to be a focus company in 2023. As well as keeping this engagement on human capital management active and one on plastic packaging which is still ongoing, we have joined a new coalition engaging tech companies on their human rights impacts. We will be co-leading the discussions with amazon within this new initiative.

Case Study 2: Water risk at Chipotle

The filing of shareholder resolutions is a powerful tool that can be used in combination with engagement and voting to put important issues on the agenda of a company's board and management.

One of the company's we filed at was Chipotle Mexican Grill (Chipotle) asking it to conduct a thorough water risk assessment of its supply chain. As a food company, Chipotle sources ingredients from producers that require a large volume of water consumption to grow its ingredients ranging from rice to chicken and beef for its menu offerings. A reliable supply of water is vital for its business and some of its suppliers operate in water-stressed regions. In previous discussions with Chipotle, it stated that it had ambitions for conducting a water risk assessment of suppliers to determine where its highest risks were but had not committed to a concrete timeline.

After filing the resolution, the investor group - including Cardano ACTIAM - had multiple calls with the company. Chipotle's team accelerated its efforts on this front and developed a clear timeline outlining the water risk assessment project plan for each quarter in 2022 and what it was hoping to achieve. In April 2022, it made this timeline public on page 50 of its sustainability report:

Chipotle water risk assessment and stewardship timeline

2021 Sustainability Report Update 50

WATER RISK ASSESSMENT AND STEWARDSHIP TIMELINE

RESTAURANTS	Q1 2022	Q2 2022	Q3 2022	Q4 2022
	Review water usage in our operations and facilities using baseline data from previous years to track impacts of future water projects	Consider potential water efficiency opportunities and partners to decrease water usage	Select water impact programs and partners based on water risk assessment results	Propose budget and resourcing strategies for restaurant efficiency partnerships and projects
INGREDIENTS	**Q1 2022**	**Q2 2022**	**Q3 2022**	**Q4 2022**
	Kick-off a water risk assessment at the ingredient level to determine our topmost water intensive ingredients	Review water usage at ingredient level coordinating across internal teams	Consider current supplier practices in conjunction with their locations, climate, and water risks	Finalize ingredient and sourcing strategies aimed at decreasing water risks throughout our sourcing
SUPPLY CHAIN	**Q1 2022**	**Q2 2022**	**Q3 2022**	**Q4 2022**
	Food supply chain team to pull country of origin and certification data to frame up what water usage looks like in our current supply chains	Develop future scenario risk assessment using the WRI's (World Resources Institute) Aqueduct Tool and WWF's (World Wildlife Fund) Water Risk Filter tools	Develop detailed agricultural input assessment using WRI and WWF tools in order to determine water in our upstream sourcing	Complete Water Risk Mitigation Actions roadmap to determine best course of action to establish water stewardship through our operations and climate working groups

Cardano ACTIAM and the group found that this commitment sufficient to withdraw the resolution but continues to engage Chipotle on progress and to follow-up with an action plan pending the outcome of the risk assessment. We see this positive engagement outcome as one that has real world impacts by encouraging a more sustainable food supply chain - by limiting water use in water-stressed regions, but also encouraging a company to address its material risks and to ensure continuation of its product provision and contribute to food system stability.

Exercising Rights and Responsibilities

Principle 12:

Signatories actively exercise their rights and responsibilities.

Exercise of voting rights for our direct investments

We see the exercise of voting rights as essential to our stewardship activities. We vote at shareholder AGMs to communicate our sustainability views to companies. We have a standalone voting policy which provides clear guidelines on how we use our voting rights that are connected to our holdings and clients' capital. It details how we will vote to promote better oversight of sustainability issues. The views in our policy are based on international best practice guidelines for sustainability and corporate governance and they are also shaped by our sustainability framework and how we want to communicate our views and expectations to investees. If needed, we initiate or support shareholder resolutions on actions necessary for a company's transition towards the safe and just zone. In our Model of Influence, we consider the co-filing of resolutions (filing in collaboration with other investors) to be a Tier 1 form of influence. We aim to link engagement and voting activities together with investment decisions. Our observations made during engagements often inform our voting activities.

Here are a couple of case studies for 2022 reflecting how our voting policy is applied:

Case Study 1: Equinor

The Oil and Gas sector plays a vital role in the decarbonization of our society. The sector can support the lowering of global emissions while producing a broad energy mix that will sustain security levels and healthy living conditions.

The sector is controversial because of its significant impact on climate and there is deliberation about whether these companies deserve a place in a sustainable investment portfolio. This sector is critical for providing low carbon energy solutions to support us in successfully meeting global goals on climate change. We invest in only select companies in this sector that are demonstrating the adaptive capacity to successfully transition. Since they have not fully achieved this transition, we use stewardship activities to encourage them to accelerate progress.

To implement this, Cardano ACTIAM is a member of the Dutch Climate Coalition. The objective of the group is to "encourage carbon intensive investee companies, with the greatest level of ambition and urgency possible, to implement transition pathways aligned with a below 2 degree Celsius, but preferably a 1.5°C, warming pathway". Cardano ACTIAM leads the engagement with Equinor for this group.

As well as active engagement discussions with Equinor, Cardano ACTIAM exercised its voting rights to reinforce the message to the company. At the 2022 AGM:

- We voted against the company's Energy Transition Plan (Resolution 10) as we identified some gaps in its transition plan. Firstly, short-, medium- and long-term GHG reduction targets are not in line with the goal of limiting global warming to 1.5°C. The Transition Pathway Initiative, which evaluates companies' preparedness for the transition to a low-carbon economy, assessed that Equinor's targets are not aligned with sectoral Paris Agreement benchmarks. Secondly, there is no explicit commitment from the company to align capital expenditure plans with its long-term GHG reduction target or the Paris Agreement's goal. Finally, Equinor fails to incorporate metrics relating to climate change in its long-term incentive compensation scheme which we believe is crucial for companies operating in the oil and gas sector.

- We supported the "Follow This" shareholder resolution (resolution 10) asking the company to set short-, medium-, and long-term targets for greenhouse gas (GHG) emissions of the company's operations and the use of energy products (including Scope 1, 2 and 3).

- We voted against the company's remuneration arrangements as ESG metrics had not been incorporated in the company's LTIP, which was also not considered to be performance-based.

Case Study 2: Shareholder Proposals at Tesla

Eight shareholder proposals came to vote at Tesla's August 2022 AGM, of which we supported all but one.

- We voted in favour of proposals seeking greater disclosure of company efforts to prevent harassment and discrimination against protected classes of employees, and the impacts of the use of mandatory arbitration on Tesla's employees and workplace culture. Given the number of controversies that Tesla has faced in recent years on these issues, we believe the additional disclosure sought by the proponents would allow investors to make a fuller assessment of the potential risks.

- We also supported a shareholder proposal seeking a report on Tesla's ongoing water risk exposure, particularly in the context of Tesla's facilities that are situated in water-stressed areas. The company does not disclose water use by location, water reduction targets, mitigation strategies, or the impact of the company's actions in water-stressed areas. Given the significant amount of water that Tesla uses in its manufacturing, we believe that the additional disclosure sought by the proponent would benefit shareholders in their assessment of the associated risks.

Case Study 3: Executive Remuneration

The topic of remuneration continues to be important with concerns over remuneration arrangements being a common reason that led to votes against in 2022, per our voting policy. For example:

- We voted against the remuneration at Norwegian company Orkla ASA. Although the company states that the allocation of awards is subject to the fulfilment of gateway performance criteria, targets are not disclosed, and these only determine the allocation of awards and not the vesting of awards. There are also serious concerns identified regarding the STI/LTI payout balance.

- Another example is Amazon where we voted against the advisory vote on executive remuneration. During the year, the company granted equity awards of almost USD350 million to three individuals, including a grant of restricted shares worth almost a quarter of a billion dollars to its new CEO Andrew Jassy. Not only is the amount excessive but these grants are not subject to any performance conditions.

- We also opposed three remuneration resolutions on the ballot of LVMH Moet Hennessy Louis Vuitton, where concerns were raised around the transparency of performance targets and the pay awarded to the company's CEO.

- At Montea NV, we voted against the remuneration policy because of several concerns, including the lack of disclosure of long-term targets and the excessiveness of the pay of the statutory manager.

Cardano ACTIAM also expects companies exposed to material ESG risks to include in their remuneration programmes ESG metrics to ensure that directors are appropriately incentivised on these issues. Therefore, in line with this part of the policy, we voted in 2022 against remuneration resolution at key sector companies where it was determined that ESG metrics had not been incorporated in remuneration arrangements. For example, this was the case for example at Equinor ASA (see above),

Disclosure of our votes to the market and investee companies

Disclosure of our votes is an important part of exercising our rights.

- Vote Disclosure Website: voting history is available on our website showing votes for the previous year. We are in the process of changing providers to improve this page of our website. In 2023, we want to implement a new website where votes can be updated more regularly and where our vote rationale for voting against can appear.

- Pre-meeting vote disclosure: We use the PRI platform to pre-disclose some key votes on shareholder resolutions in advance of the meeting. For example in 2022, we used the tool for a handful of meetings, including Amazon.com.

- We include bi-annual voting statistics and case studies to our clients in our Q1 and Q3 quarterly reports. These can also be found on our website. These are currently provided in Dutch, given our current client base. With our expansion to other markets, we intend to start publishing these in English as well in 2023.

- Communicating with companies: on a few key votes, we send a letter ahead of the meeting to the company explaining our vote decision. In 2022, we did this for Amazon.com and Shenzhou International and Lonza, for example.

Annual review of the voting policy

We see voting as a central stewardship tool. The annual update to our voting policy is critical in ensuring our votes are cast in a way that encourages an ambitious pace of progress on sustainability topics by our investees.

We annually review the guidelines taking into account evolving developments and in some cases to consider how we can reflect a more strict application of votes. This year we made the following updates:

- Strengthening of voting guidelines on sustainability topics:
  - More explicit about potential to vote against directors where there is lack of board oversight and or expertise on company's most relevant sustainability topics
  - Stipulation that we will vote against remuneration plans of energy companies that fail to integrate clear climate goals
  - Additional clairty on assessing relevance and strength of the sustanability metrics incorporated in the plans
  - For "Say-on-climate' votes we added specific elements of plans we want to see in order to support such proposals
- Remuneration:
  - added text to be stricter in case of lack of transparency on sustainability links
  - clarified cases where there was a low shareholder support the previous year and the board failed to address the concerns
  - guideline updated to cover CEO to general workforce pay ratio
  - more precise on performance criteria for equity-based remuneration plans
- Shareholder proposals:
  - Additional text for shareholder resolutions related to banks and financing the transition
  - Added text for shareholder resolutions related to disclosure of lobbying activities

Annual vote audit

This is an annual process and part of our key controls on voting. We generate a list of 45 companies randomly selected from all the shares we own that includes a combination of various regions and sectors. We send this list to our voting execution provider to complete the check to verify that:

- the votes were cast and in a timely manner
- they were cast in an appropriate way aligned with our policy
- The control also verifies that ProxyEdge, the electronic voting platform, provides confirmation that these votes were processed, i.e. transmitted to the custodian or sub-custodian banks, who are then responsible for passing them on to the issuers.

The audit is reviewed and approved by the Sustainability Policy Committee.

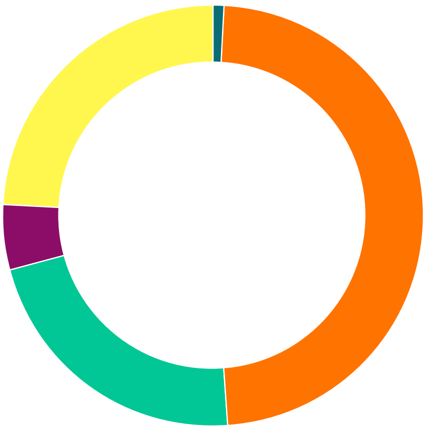
We voted 95.97% of all shareholder meetings in 2022. While we aim for 100%, there are administrative reasons as to why we don't reach this. In the past year, it was mainly related to not having the Power of Attorney in place in Brazil given the heightened complexity in that region. We have been working this year with our custodian to make the necessary changes at the sub account level to have them in place for later in 2023.

A review of our index fund strategy conducted by an external party as part of a due diligence process before an investment was made int our funds, found that our voting records were "largely consistent with other thoughtful and engaged institutions" and that when voting – we take a "relatively tough and independent approach to company recommendations". This review confirmed that our voting results align with what we aim to achieve with our policy.

Voting Statistics

Below are overall statistics on our voting activities in 2022:

In 2022, we voted at 2,452 meetings. The breakdown per region was:

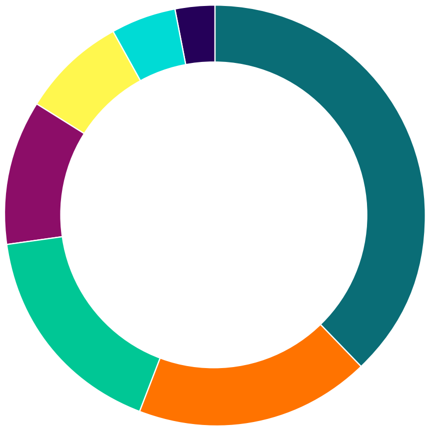


- 1% Africa
- 48% Asia and Oceania
- 22% Europe
- 5% Central and South America
- 24% North America

In 2022, we voted against 2,853 management proposals. The breakdown per category was:

- 11% Audit
- 26% Board
- 19% Capital
- 11% Other
- 33% Remuneration

In 2022, we supported 364 shareholder resolutions. The breakdown per topic was:



- 38% Other
- 18% Board
- 17% Human rights and labour rights
- 11% Climate and energy
- 8% Political activities
- 5% Management compensation
- 3% Diversity

Engagement with Fund Managers

Where we invest externally, we build diversified return-seeking and hedging portfolios on behalf of clients through the use of derivatives, bonds and funds managed by third parties, all of which are subject to ESG and stewardship requirements, as set out in our response to the Stewardship Code.

We believe impactful engagement and effective stewardship flows from high quality dialogue with these managers.

We aim to achieve this through:

Granular Measurement
Each year we gather detailed information on invested funds' practices and approach to ESG issues and real-world sustainability impact (as set out under Principle 7, above).

Through a detailed review of this information, combined with information gathered throughout the year, each fund is assigned an ESG rating and all ratings are debated and agreed by the Manager Research Committee (MRC).

The granular nature of this ESG rating process allows us to track managers' practices and processes around engagement through time; enabling us to:

- focus and set specific goals for managers around sustainability topics
- track a manager's progress against those goals. (For detail on our ESG rating process, please see our published policies).

We seek to quantify our engagement impact by registering the changes that managers have / are about to make to their policies or practices, as a result of our education and engagement efforts

Consistent Communication
A critical part of effective engagement is making our expectations around ESG issues clear.
We provide this through:

- Regular, active dialogue on relevant issues through the day-to-day monitoring that members of the Manager Research Team carry out
- An annual communication to all invested managers, setting out our beliefs and expectations around ESG issues and real-world sustainability impact.
- Every year we provide each manager with detailed information on how our rating process works, as well as how they were rated. This transparency is a critical and powerful tool for bringing about change
- We use communication to engage with managers, by articulating clear milestones for specific ESG initiatives to be in place and corresponding implications

While we prefer to work with managers to bring about change, we are prepared to sell or advise our clients to sell where a manager has consistently not delivered on our sustainability milestones

Our framework is also specifically designed to focus engagement resource and time on the exposures where ESG factors have the highest potential impact to our clients' risk-adjusted returns. This focus is achieved through classifying (using our proprietary methodology) all invested strategies as either:

- **High Focus** | ESG issues could materially impact the risk and return profile of the strategy (e.g. listed or private equities, corporate credit etc.)
- **Low Focus** | ESG issues are likely to have limited impact on the risk and return profile of a strategy (e.g. macro orientated derivative-based strategies, highly diversified trend following strategies)

Where we select a high focus manager, we set out our expectations regarding the level of engagement we expect the manager to have in relation to the issuers. Specifically, we expect high focus managers to:

- Take account of ESG risks and opportunities inherent in each investment, as well as real-world sustainability impact
- Engage directly with management of the underlying companies to effect change
- Vote at AGMs

We require managers to report back to us:

- How they have voted, and in particular where they have voted against management
- Whether voting is carried our directly or through a proxy service provider and, if through a service provider, the level of service in place
- The details of the “most significant” votes cast and their rationale for their inclusion as significant
- The commitments the manager makes to engagement
- Specific case studies of engagement with underlying issuers

We discuss these reports in our regular meetings with the underlying managers and will challenge them if we believe they are failing to adopt a sufficiently engaged stance.

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