University of Toronto
Asset Management Corporation

Responsible Investing Report

2021

Advancing Sustainability

How we support U of T's commitment to responsible investing and a net zero future

Since our founding in 2000, UTAM has managed the assets of the University of Toronto in ways that help advance the aims of Canada's largest university – including U of T's longstanding commitment to sustainability.

Our responsible investing journey became increasingly focused in 2016, as we began applying a more rigorous environmental, social and governance (ESG) framework in our investment and risk management. In the same year, UTAM became a signatory to the United Nations–supported Principles for Responsible Investment, which have guided our subsequent integration of ESG factors into all areas of our investment process, from the selection and oversight of external managers to our research, analysis, decision-making, and reporting and disclosure.

When the University committed to significantly reduce the carbon footprint of long-term assets by 2030, UTAM achieved this nearly a decade ahead of target. Then in October 2021, U of T President Meric Gertler announced ambitious new carbon-reduction goals for the Endowment portfolio. UTAM is once again turning these goals into realities. And in doing so we're reinforcing our leadership role in responsible investing – through our own practices and in collaboration with other institutional investors.

This 2021 Responsible Investing Report details our continued progress in supporting U of T's multi-year effort to advance positive social change, foster environmental sustainability and help achieve a net zero future.

Going forward, UTAM will no longer publish a responsible investing report as a separate document. Instead, we will integrate a comprehensive responsible investing review into the UTAM Annual Report. The first such integrated report, covering the 2022 calendar year, will be available in 2023.

Message from the University of Toronto's President

The evolution of responsible investing

I am pleased to provide an opening message to UTAM's sixth – and final – Responsible Investing Report. Beginning in the spring of 2023, a comprehensive yearly update on responsible investing activities will be incorporated into the Annual Report. This transition marks an important strategic change in UTAM's reporting, and it conveys a significant message.

In the March 2016 report, Beyond Divestment: Taking Decisive Action on Climate Change, I called upon UTAM to deepen its commitment to responsible investing and formalize the consideration of environmental, social, and governance (ESG) factors in its investment processes. At the time, UTAM was a pioneer among university asset managers in the responsible investing space. The annual Responsible Investing Report served a dual role. It was an instrument of institutional accountability, describing the actions UTAM had taken and the results achieved. The report was also an educational tool and an advocacy document, explaining the rationale behind responsible investing, its core principles and why it was important.

Today – as Chuck O'Reilly, UTAM's President and Chief Investment Officer, notes – ESG considerations are widely accepted as critical to building and managing investment portfolios over the long term. Responsible investing is no longer novel or exceptional, but has become an integral part of good investment practice. Accordingly, it is appropriate that UTAM's reporting on responsible investing practices and initiatives should assume a regular place in the Annual Report.

Indeed, helping to establish and normalize responsible investing practices, particularly within the Canadian post-secondary education sector, has been one of UTAM's central accomplishments. The leadership, advocacy and success of the University of Toronto's asset manager have played a significant role in the evolution of the entire sector. When U of T and McGill University led the creation of Investing to Address Climate Change: A Charter for Canadian Universities – a collective pledge to adopt transparent and accountable responsible investing practices – UTAM's approach served as a model for what could be achieved. As this 2021 Responsible Investing Report makes clear, UTAM's continued accomplishments have only made the case stronger. There are now 20 signatories to the Charter, and others are in the process of joining.

UTAM's new approach to reporting continues its long tradition of public leadership and innovation – a tradition that shows no signs of abating. There are many other examples of UTAM's leadership highlighted in this thoughtful report. For instance, in 2021 UTAM helped launch the University Network for Investor Engagement (UNIE) to address climate-related portfolio risks with collective action. And on the global stage, UTAM was the first university-affiliated institutional investor in the world to join the Net-Zero Asset Owner Alliance, described by UN Secretary-General Antonio Guterres as "the gold standard for credible commitments and transparent targets."

This public leadership is matched by UTAM's broader efforts on behalf of the University of Toronto community. An institutional investor's performance is ultimately measured by its ability to advance and support its client's mission. UTAM is dedicated to producing strong investment results over the long term within risk parameters established by the University – and in fulfilling this mandate, it is a model of operational excellence, transparency and accountability.

At the same time, UTAM has responded to the University's deepening commitment to sustainability with characteristic conviction. In October 2021, the University pledged to divest its Endowment portfolio from holdings in fossil fuel companies, to achieve net zero carbon emissions associated with the Endowment by 2050, and to allocate 10% of Endowment assets to sustainable and low-carbon investments by 2025. The analysis in this report shows that UTAM is progressing well on each of those metrics. As global challenges imperil the worldwide effort to meet our Paris Accord obligations, the advances made by UTAM and the University of Toronto provide important confirmation that progress is possible.

I congratulate Chuck and his team on an impressive report and an excellent year.

Sincerely,

Meric Gertler
President, University of Toronto

Message from the President and CIO

Advancing U of T's sustainability goals

In 2021, we reinforced UTAM's leadership in responsible investing as we continued to support and advance the University of Toronto's longstanding commitment to sustainability.

Global efforts to address climate change gained traction during the past year, as the issue became even more prominent on corporate agendas. In the investment realm, it is now widely accepted that considering environmental, social and governance (ESG) factors is a key component of effective long-term portfolio construction and risk management. ESG integration has been part of UTAM's investment approach for many years. We weigh potential ESG impacts at every stage of our investment process, from asset allocation, manager selection and risk management through reporting and disclosure. We also exchange insights and endorse best practices as an active participant in various responsible investing organizations and initiatives, both in Canada and internationally.

Setting bold targets

In October 2021, U of T President Meric Gertler announced a series of bold climate-related targets for the Endowment portfolio managed by UTAM (see page 12). Achieving these targets is our next objective in a multi-year initiative enabled by our responsible investing efforts to date. The University's clear vision of a sustainable future will give those efforts added momentum. Recognizing the importance of President Gertler's announcement and the strategy behind it, we delayed publication of UTAM's 2020 Responsible Investing Report until late 2021. This delay allowed us to highlight the announcement, outline our approach to meeting the University's commitments and report on some initial achievements in a partial period of 2021. The current report therefore contains overlapping information in some areas, augmented by the latest available updates. Going forward, our plan is to integrate a comprehensive responsible investing review into the UTAM Annual Report. The first such integrated report, covering the 2022 fiscal year, will be available to UTAM stakeholders in the spring of 2023.

A long-term commitment

The ongoing work of responsible investing is core to our day-to-day management of the University's assets, as well as our continuous analysis and refinement of our investment processes.

To highlight just one example: U of T, represented by UTAM, became the first university in the world to join the United Nations–convened Net-Zero Asset Owner Alliance (the Alliance), which has established a framework to guide members committed to transitioning their investment portfolios to net zero emissions by 2050. Since joining the Alliance, we've developed our first set of interim targets for the Endowment, in accordance with the Alliance's Target Setting Protocol,* including a new carbon footprint reduction goal. As of December 31, 2021, the Endowment's carbon footprint includes both equities (including equity-like securities)† and publicly traded corporate bonds, as detailed in this report. The addition of corporate bonds – an Alliance requirement – to the carbon footprint measurement this year requires a different methodology to determine the Endowment's ownership of specific issuers' emissions; we've followed guidance from the Alliance's Target Setting Protocol in this regard. Moving forward, we'll coordinate our efforts with other Alliance members as carbon footprint measurement evolves.

At UTAM, we're constantly sharpening our focus and exploring new ways to make our processes more rigorous, transparent and measurable. To that end, in 2021 we engaged PricewaterhouseCoopers LLP (PwC) to validate, through a limited assurance review, the reported carbon footprint. The review process ensures that we're meeting – and wherever possible exceeding – the highest industry standards. As a result of going through this limited assurance review, we've enhanced our disclosures, aiming to provide even greater transparency in our reporting to stakeholders. PwC's opinion is presented on page 15.

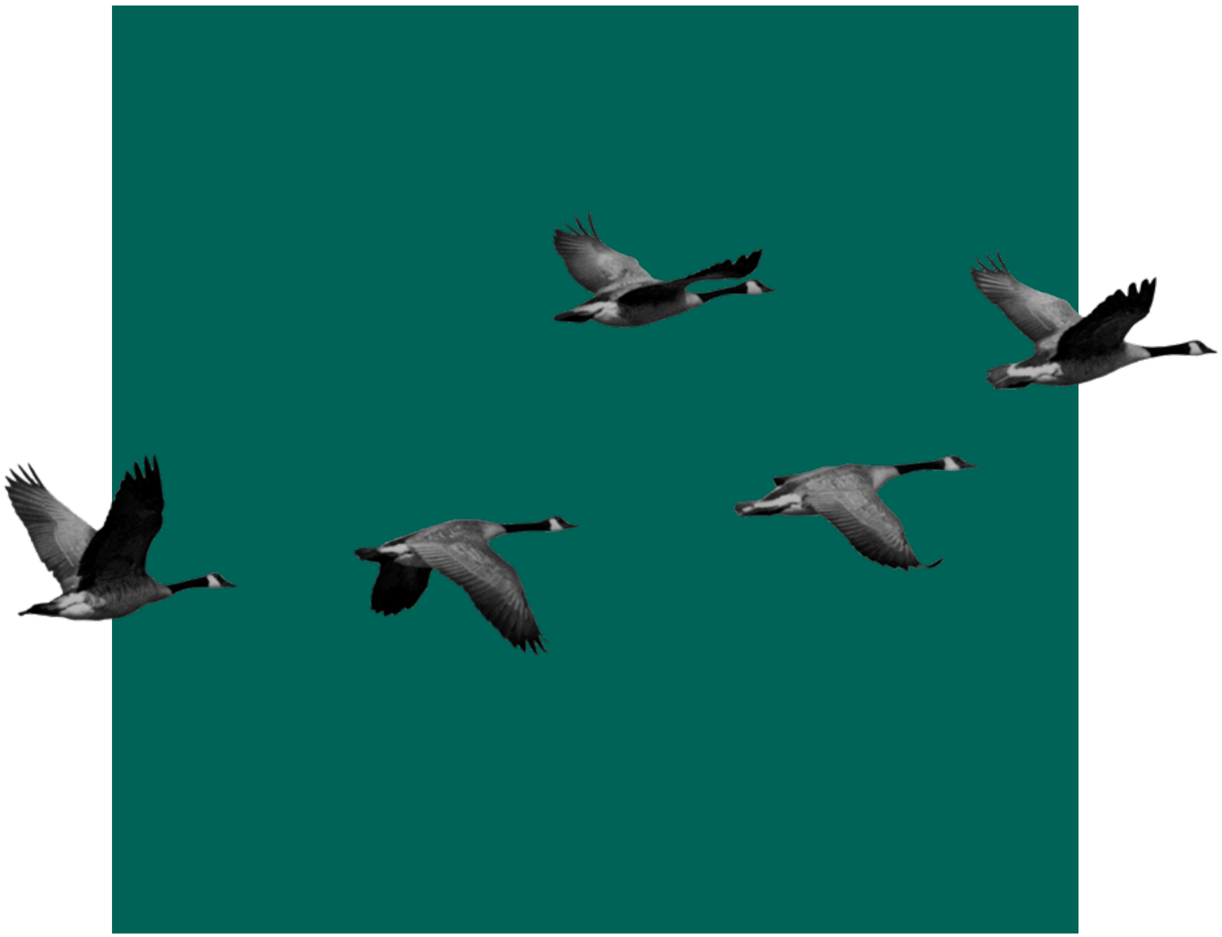
UTAM's responsible investing expertise remains crucial not only to advancing the University of Toronto's sustainability goals, but to delivering on our mission of producing strong investment results over the long term. For us, as for the University, responsible investing is an investment in the future.

Chuck O'Reilly, CFA, CAIA
President and Chief Investment Officer

* The Alliance's Target Setting Protocol explicitly sets out how individual Alliance members should set short-term targets. Alliance members have used IPCC 1.5°C no- and low-overshoot pathways to inform their targets under the Alliance 2025 Protocol. By laying out four different categories of targets: sub-portfolio, sector-level, engagement and financing transition, the Protocol carefully balances scientific ambition, active ownership engagement, and divestment constraints. The inaugural protocol was published in January 2021.

† All public equity holdings (long and short) and equity-like private investments (private equity, private real estate and private infrastructure) as well as publicly traded corporate bonds within the LTCAP portfolio were included in the analysis, except for these holdings in the absolute return hedge fund portfolio. As stated in Methodology (page 19), public market indexes are used to proxy the emissions contributions of the private investments that are included in the Endowment's carbon footprint.

University of Toronto
Asset Management Corporation



Vision

To be one of the world's leading university investment managers.

Mission

To produce strong investment results over the long term, advancing the University of Toronto's goals for its portfolios through skilled investment management, leadership in responsible investing and prudent risk management.

Values

Excellence

- Strive to be the best, continuously learning and improving.
- Set high expectations and achieve ambitious goals.
- Exemplify and advance best practices in investment management.

Integrity

- Always do the right thing.
- Report transparently on our activities and results.
- Meet our commitments and be accountable for our actions.

Collaboration

- Operate as a cohesive team in an open, creative, high-performance culture.
- Work closely with the University, serving as a trusted partner.
- Partner with investment managers, service providers and others to our mutual benefit.

Equity

- Treat people of all identities, talents and perspectives equitably.
- Promote and actively foster diversity and inclusion.
- Respect, value and embrace the power of difference.

Sustainability

- Invest responsibly, applying an ESG lens and guided by a clear set of principles.
- Pursue and promote sustainability in how we invest and how we operate.
- Consider the long-term impact of every decision.

Integrating ESG into our overall investing strategy

By making responsible investing a fundamental part of our investment approach, UTAM has become a leader among university asset managers and other institutional investors.

UTAM's commitment to responsible investing is driven from the top and extends throughout our organization. We weigh the potential impacts of environmental, social and governance (ESG) factors in our investment and risk management processes and apply those insights to the assets under our management. We consider ESG in our research and analysis, in our investment decision-making, in our risk management, in our reporting and disclosure practices, and in stewardship activities such as engagement, proxy voting and advocacy.

As our approach to responsible investing has matured, it has become more ingrained in how we manage the University of Toronto's assets. And now, with the University's pledge to achieve net zero carbon emissions associated with the Endowment by 2050 – including our new carbon footprint reduction target (see page 14) and our commitment to allocating 10% of the Endowment to sustainable and low-carbon investments by 2025 – UTAM's efforts will further intensify across all areas of our investment activities.

UTAM's approach to responsible investing

We consider ESG factors in our investment processes, including decision-making, active ownership (through engagement, proxy voting and advocacy), and reporting and disclosure. UTAM has embraced responsible investing because we believe that significant ESG factors can have a material impact on long-term investment returns.

ESG considerations are an integral part of UTAM's investment analysis and decision-making, particularly in our selection of investment managers. In our public equity portfolios, we cast proxy votes where possible, using an ESG-focused policy. And through various collaborative initiatives over many years, we've actively engaged with corporate issuers to help ensure ESG-related risks are addressed and effectively managed. We also disclose our responsible investing activities on a regular basis, via this report and on our website. Applying an ESG lens to our activities allows us to make better-informed decisions and ultimately results in better outcomes for the assets that we manage on the University's behalf.

Established as a separate corporation by the University of Toronto in 2000, UTAM invests funds according to objectives and guidelines set by the University administration, as well as by the Business Board and the Investment Committee. (For a more detailed explanation of UTAM's governance structure, please see our website.) Our mandate is clear: to serve as a strategic and disciplined manager, realizing the highest possible returns while respecting our sole client's risk tolerance and policies.

In fulfilling our mandate, UTAM typically allocates capital to third-party investment managers, following what is known in the investment industry as a manager-of-managers approach. We select investment managers that we believe are best in class, empowering them to invest on our behalf. As part of our evaluation process, we consider each manager's approach to ESG integration and stewardship activities, as we believe that applying this additional lens to our investment process will lead to better outcomes for our client over the long term.

Collaborating closely with U of T's administration and the Investment Committee, we focus exclusively on investing university-owned assets. At the beginning of 2021, we managed three portfolios for the University:

Endowment – known formally as the Long-Term Capital Appreciation Pool and consisting primarily of certain endowment assets, but also including other funds invested for the long term.

EFIP – or Expendable Funds Investment Pool, consisting of University funds that can be invested over the short to medium term, and principally comprising the University's working capital.

Pension – the assets of the University's employee Pension plan, officially called the University of Toronto Master Trust.

The University of Toronto Pension Plan (U of T Plan) was converted into the University Pension Plan Ontario (UPP) and ownership of the U of T Plan assets was transferred to the UPP Board of Trustees effective July 1, 2021. These assets, which included units of the University of Toronto Master Trust, are referenced in this report as the "Pension portfolio," "Pension assets" or simply "Pension."

As of July 1, 2021, the UPP Board of Trustees assumed administration of the University of Toronto Master Trust. Under an agency agreement extending from that date until April 1, 2022, the University of Toronto continued to provide investment services in relation to the Master Trust assets as agent of the UPP Board of Trustees. UTAM provided those investment services as agent of the University.

Because the Pension assets have formed part of the UPP trust fund since July 1, 2021, we have omitted details regarding these assets from this report. However, to provide context, we have retained some historical information relating to periods prior to July 1, 2021.

Putting our principles into action

UTAM is a signatory, on behalf of the University of Toronto, to the United Nations–supported Principles for Responsible Investment (PRI), a set of commitments adopted by institutional investors around the world as they integrate ESG considerations into their investment processes. The PRI framework has guided the development of our Responsible Investing Policy and informs the regular deliberations of our Responsible Investing Committee.

ESG factors defined

Environmental

Factors relating to a company's interactions with the physical environment. These include but are not limited to climate change; greenhouse gas emissions; biodiversity loss; deforestation; air, water or resource depletion or pollution; waste management; change in land use; and ocean acidification.

Social

Factors relating to business practices that have an impact on the rights, well-being and interests of people and communities. These include but are not limited to human rights; labour standards in the supply chain; child, slave and bond labour; workplace health and safety; freedom of association and freedom of expression; human capital management and employee relations; diversity; relations with local communities (including indigenous communities); activities in conflict zones; health and access to medicine; consumer protection; and controversial weapons.

Governance

Factors relating to the governance of a company. These include but are not limited to board structure, composition, size, diversity, skills and independence; executive pay; shareholder rights; stakeholder interactions; transparency; business ethics; bribery and corruption; internal controls; and conflicts of interest.

We're guided by the PRI framework

UTAM undertakes, where relevant and material, the following non-exhaustive list of actions, all of them aligned with the PRI framework for responsible investing:

01

PRI principle

We will incorporate ESG issues into investment analysis and decision-making processes.

UTAM actions

- Assess ESG-related risks and opportunities across all portfolios.
- Integrate consideration of ESG factors into all relevant policies and processes.
- Implement an ESG rating framework for investment strategies across asset classes.
- Support industry-wide development of ESG-related tools, metrics and analyses.
- Encourage academic and other research on ESG integration into investment practices.
- Provide internal training and encourage the pursuit of external training on ESG matters for all staff involved in investment decision-making, i.e., investment and risk management professionals, as well as staff engaged in operational and legal due diligence.
- Endorse the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).
- Establish a target to decrease the carbon footprint of the Endowment portfolio.

02

PRI principle

We will be active owners and incorporate ESG issues into our ownership policies and practices.

UTAM actions

- Adopt a proxy voting policy that takes into account ESG considerations and apply this, where possible, to all public equity segregated account mandates, as well as to public equity funds in which our client portfolios are the only investors.
- Encourage our investment managers to adopt proxy voting policies that take into account ESG considerations.
- Implement a comprehensive program of collaborative engagements and engagements conducted by service providers; the program may also include direct engagements.
- Encourage our investment managers to engage with companies held in their portfolios on ESG matters.
- Engage with governments, regulators and other policy-makers on ESG matters, which we refer to as advocacy.
- Support policy-maker initiatives that contribute to improved ESG practices, including reporting and disclosures.

03

PRI principle

We will seek appropriate disclosure on ESG issues by the entities in which we invest.

UTAM actions

- Discuss ESG risks in investment manager portfolios and in relation to particular securities held.
- Ask investment managers to report on ESG-related engagements with companies held in their portfolios.
- Ask investment managers to report on ESG incidents with companies held in their portfolios.
- Support initiatives promoting corporate ESG disclosure.
- Support the CDP's disclosure campaigns for climate, forests and water.

We're guided by the PRI framework

(cont'd)

04

PRI principle

We will promote acceptance and implementation of the Principles within the investment industry.

UTAM actions

- Encourage investment managers to become signatories to the PRI.
- Communicate our ESG expectations to investment managers.
- Support the development of tools for benchmarking ESG integration.
- Support legal, regulatory and policy developments that enable implementation of the Principles.
- Assume leadership roles in respected responsible investment organizations.
- Present at conferences and webinars, and publish or contribute to articles in support of the Principles.

05

PRI principle

We will work together to enhance our effectiveness in implementing the Principles.

UTAM actions

- Support and participate in responsible investing networks to share information and resources and stay informed about best practices.
- Address relevant emerging issues collectively with other asset owners and investment managers.
- Identify and support appropriate coalitions whose beliefs are aligned with the Principles.

06

PRI principle

We will each report on our activities and progress towards implementing the Principles.

UTAM actions

- Disclose how ESG considerations are integrated into our investment process.
- Disclose active ownership activities (e.g., voting, engagement and advocacy).
- Communicate with stakeholders on ESG issues and the Principles.
- Report on progress and achievements relating to the Principles.
- Publish our PRI transparency and assessment reports.
- On an annual basis, publish the details of our responsible investing framework, our activities and progress.
- Provide reporting consistent with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD).

Our PRI Scorecard

Since becoming a signatory in 2016, we've regularly participated in formal PRI assessments of our responsible investing activities. We announced the results and shared our PRI assessment and transparency evaluation in UTAM's responsible investing reports, as well as on our website.

PRI assessment results are usually available in midsummer for the previous calendar year. In 2021, for reporting on 2020 calendar year activities, PRI piloted a new framework intended to better capture signatories' responsible investing activities. This framework encountered issues related to its structure, the wording of questions and the functionality of the online reporting system. As a result, the release of assessment and transparency reports for calendar year 2020 was delayed until September 2022. The PRI also decided to bypass the 2021 calendar year entirely: reports on 2022 calendar year activities will be released in 2023.

We received our 2021 PRI assessment report (for calendar year 2020) in September 2022. The PRI requires that, in order to be published, the assessment results must be presented along with signatories' final scorecards with benchmarking. As these are not yet available, we are unable to include assessment results in this report, but we will publish them in our 2022 Annual Report.

Divestment from fossil fuels

As part of the University of Toronto's engagement in the global fight against climate change, UTAM has committed to divesting from investments in fossil fuel companies in the Endowment portfolio. This process began in October 2021 with two related divestment commitments announced by President Gertler:

- The Endowment portfolio will be fully divested from all direct investments in fossil fuel companies within one year of the divestment announcement.
- For those investments made indirectly – typically through pooled and commingled vehicles managed by third-party fund managers – UTAM will divest the Endowment from its investments in fossil fuel companies by no later than 2030, and sooner if possible. We will also report regularly to stakeholders on our progress towards this goal.

UTAM has achieved the first commitment – having eliminated direct exposure to fossil fuel companies – and has already made significant progress towards the second. Notable changes implemented to date include:

- We made a new allocation to an active global equity manager that is a recognized leader in sustainable investing.
- We made a new commitment to the most recent fund launched by a sustainability-focused private equity manager.
- We partnered with our active corporate bond manager to seed a new strategy that excludes fossil fuel companies from its investment universe. This strategy is benchmarked to the newly launched FTSE All Corporate Ex Fossil Fuels Enhanced Bond Index.
- We transitioned the majority of our passive fixed income and equity exposure to benchmark indexes that exclude fossil fuels.

We continue working to identify new low-carbon strategies that exclude investments in fossil fuel companies. We also consider low-carbon strategies managed by our existing managers and/or work with those managers to launch new strategies that will further reduce the Endowment's exposure to carbon and fossil fuel companies.

To better align our efforts with the University's divestment initiative, we will transition the Reference Portfolio's "standard" benchmarks to those that exclude fossil fuels. This process began effective October 1, 2022, when we transitioned the fixed income benchmarks to newly launched indexes that exclude fossil fuels. As of the same date, the Reference Portfolio's equity benchmark began transitioning to the MSCI All-Country World Index ex Fossil Fuels; we expect this process to be completed by October 1, 2024.

Lastly, although President Gertler's divestment initiative is focused on the Endowment, UTAM has also implemented changes to EFIP to align its investment strategy with the University's climate objectives. These changes have eliminated all material direct and indirect exposure to fossil fuel companies in EFIP.

Investment in sustainable and low-carbon strategies

When President Gertler unveiled the University's divestment initiative, he also announced that UTAM would allocate at least 10% of the Endowment portfolio to sustainable and low-carbon investments by 2025. We've made progress toward this commitment as well. We continue to identify and investigate new sustainable and low-carbon strategies for their potential fit in the Endowment portfolio. We're comfortable that this commitment will be achieved ahead of the 2025 target date and will provide an update on our progress in UTAM's 2022 Annual Report.

Taking decisive action on climate change

A key component of the University of Toronto's 2021 climate announcement is the commitment to net zero emissions in the Endowment portfolio by 2050. As we've reported, this commitment coincided with UTAM joining the Net-Zero Asset Owner Alliance. The Alliance has established a framework setting interim targets on various decarbonization initiatives to guide members in achieving net zero emissions in their portfolios by 2050. In accordance with the Alliance's Target Setting Protocol, UTAM has established interim targets with respect to emissions, engagement and transition financing:

Emissions targets

UTAM has reduced the carbon footprint of the equity (and equity-like) securities component of the Endowment portfolio by more than 40% – meeting our reduction target almost a decade ahead of schedule.

We continue moving forward by setting ambitious new reduction targets and sustainability goals, informed by the Alliance's Target Setting Protocol. Our carbon footprint target is now a further 50% reduction by 2030, measured against a 2019 baseline.

Sub-Portfolios and footprint methodology

Since joining the Alliance, we've reassessed our footprint methodology to align with its Target Setting Protocol. The Alliance defines a sub-portfolio as the asset classes within an asset owner's total portfolio that are included in the carbon footprint calculation. When Alliance members set an overall carbon reduction target, they're also required to establish comparable targets – where credible methodologies and sufficient data coverage exist – for each asset class in the sub-portfolios.

Under the Alliance's Protocol, public equity and publicly traded corporate bonds are expected to be included in carbon footprint calculations for the LTCAP Sub-Portfolio. Therefore, beginning with UTAM's 2021 carbon footprint (for the period ending December 31, 2021), we've included publicly traded corporate bonds along with equities and equity-like securities in the Sub-Portfolio. In prior years, equities and equity-like securities were the only asset classes included in the footprint calculations.

Emissions included

Alliance members are expected to set targets on the Scope 1 and Scope 2 emissions of their sub-portfolios. Historically, carbon footprints calculated by UTAM have included both Scope 1 and Scope 2 emissions. At the present time, the Alliance does not require Scope 3 emissions to be included in the carbon footprint calculation. The collection and reliability of Scope 3 data continues to be an issue due to data limitations, double-counting and the lack of a consistent measurement standard. However, we began tracking Scope 3 emissions in 2022 and will be evaluating how the data may be used going forward. We will also monitor changes in Alliance requirements for Scope 3 emissions.

The Alliance recommends that members report emissions for underlying holdings in CO_2 equivalent (CO_2e), which provide a relative measure of the impacts of other GHGs – such as methane (CH_4) and nitrogen oxides (NOx) – versus the climate impact of CO_2.

Emissions ownership methodology

The calculation of sub-portfolio emissions exposure requires determining how much of an issuer's emissions is attributable to the asset owner. In the past, when only equity (and equity-like) securities were included in LTCAP's carbon footprint, UTAM used a calculation that divided LTCAP's dollar value of exposure to an issuer by the issuer's market capitalization. While this methodology is relevant and widely recognized for calculating the carbon footprint of an equity sub-portfolio, it is not a best practice for sub-portfolios that include different asset classes (e.g., equities and corporate bonds). For sub-portfolios with multiple asset classes, the Alliance recommends using enterprise value including cash (EVIC) to determine an asset owner's proportional share of an issuer's emissions. Beginning with UTAM's 2021 carbon footprint calculation, we now use the EVIC methodology to determine LTCAP's ownership of the emissions in its equity and corporate bond sub-portfolio. To provide historical context, we've also calculated the footprint of the LTCAP Sub-Portfolio for 2019 and 2020 using the EVIC approach.

* In 2021, UTAM engaged PwC to conduct a limited assurance review of the reported carbon footprint.

New carbon footprint targets

UTAM has set a target end date of 2030 and a baseline year of 2019. Although the Alliance publishes targets on a five-year cycle, to coincide with the cycles of the Paris Agreement, members who join the Alliance mid-cycle have flexibility to adjust the length of their initial target period.

After taking into account all the portfolio considerations discussed above, UTAM's new carbon footprint target is a 50% reduction by 2030, using 2019 baseline levels.

Engagement targets

We share with the Alliance the belief that engagement is a critical tool to drive the transition to net zero in the real economy. Engagement is the only target-setting pillar that is mandatory for all members.

Engagement has been an important component of UTAM's responsible investing framework for many years and it will continue to be significant going forward. Therefore, consistent with the Alliance's Target Setting Protocol, we're committing to the following engagement targets by 2025:

- To engage – through collaborative initiatives, as well as via our investment managers and EOS, our engagement service provider – with 20 public companies, focusing on those that are the world's largest corporate GHG emitters and those that contribute to the most owned emissions in the Endowment portfolio.
- To continue engaging with incumbent and prospective investment managers, and to participate in manager engagements led by the Alliance.
- To contribute to industry-wide engagement developments such as the creation of Alliance position papers.

Financing transition targets

The Alliance's Target Setting Protocol includes a pillar addressing Financing Transition. This focuses on assessing climate solution investments, as well as enhancing the supply side of climate solutions and supporting the growth in climate solution investments within Alliance members' investment portfolios.

Our targets in relation to this pillar are qualitative. Having joined the Alliance's work track on Financing Transition, we support its objectives and stay well informed about this rapidly evolving initiative. Going forward, we'll continue to assess climate solution investments for the Endowment portfolio.

PwC limited assurance review

In August 2021, UTAM engaged PwC to undertake a limited assurance review of the calculation of the 2021 carbon footprint of the LTCAP Sub-Portfolio. The Limited Assurance Review examined the calculation and reported outcomes based on the 2021 carbon footprint results. PwC's independent opinion of the reported carbon footprint is provided beginning on page 15.

Independent practitioner's limited assurance report

on the select performance metrics of University of Toronto Asset Management Corporation (UTAM) as presented in the 2021 Responsible Investing Report

To the Board of Directors and Management of UTAM:

We have undertaken a limited assurance engagement of select performance metrics (the subject matter) as presented in University of Toronto Asset Management Corporation (UTAM)'s 2021 Responsible Investing Report as at December 31, 2021.

Our limited assurance engagement was performed on the following select performance metrics:

Performance metrics	2021
Absolute emissions	132,991 tCO_2e
Carbon footprint	45.2 tCO_2e/$M invested

Management's responsibility
Management is responsible for the preparation of the subject matter information in accordance with the applicable criteria established in Exhibit 1. Management is also responsible for such internal control as management determines necessary to enable the preparation of the subject matter information that is free from material misstatement, whether due to fraud or error.

Our responsibility
Our responsibility is to express a limited assurance conclusion on the subject matter information based on the evidence we have obtained. We conducted our limited assurance engagement in accordance with Canadian Standard on Assurance Engagements (CSAE) 3000, *Attestation Engagements Other than Audits or Reviews of Historical Financial Information*. This standard requires that we plan and perform this engagement to obtain limited assurance about whether the subject matter information is free from material misstatement.

A limited assurance engagement involves performing procedures (primarily consisting of making inquiries of management and others within the entity, as appropriate, and applying analytical procedures) and evaluating the evidence obtained. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the decisions of users of our report. The procedures are selected based on our professional judgment, which includes identifying areas where the risks of material misstatement, whether due to fraud or error, in preparing the subject matter information in accordance with the applicable criteria are likely to arise.

The extent of our procedures included but was not limited to inquiries, observation of processes performed, inspection of documents, analytical procedures, evaluating the appropriateness of quantification methods and reporting policies, and agreeing or reconciling with underlying records. Given the circumstances of the engagement, in performing the procedures listed above we:

- reviewed the UTAM methodology and evaluated whether UTAM's methods for determining the boundaries and quantification of the subject matter was appropriate and consistent with the applicable criteria;
- through inquiries, obtained an understanding of UTAM's control environment and the information systems relevant to the subject matter quantification and reporting. Our procedures did not evaluate the design of particular control activities, obtain evidence about their implementation or test their operating effectiveness;
- evaluated whether UTAM's methods for developing estimates are appropriate and consistently applied;
- for a limited sample of assets, reconciled the subject matter data back to the underlying records; and
- reviewed the subject matter disclosure in UTAM's 2021 Responsible Investing Report to ensure consistency with our understanding and procedures.

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

Our independence and quality control
We have complied with the relevant rules of professional conduct/code of ethics applicable to the practice of public accounting and related to assurance engagements, issued by various professional accounting bodies, which are founded on fundamental principles of integrity, objectivity, professional competence and due care, confidentiality and professional behaviour.

The firm applies Canadian Standard on Quality Control 1, *Quality Control for Firms that Perform Audits and Reviews of Financial Statements, and Other Assurance Engagements*, and, accordingly, maintains a comprehensive system of quality control, including documented policies and procedures regarding compliance with ethical requirements, professional standards and applicable legal and regulatory requirements.

Inherent limitations
Emissions data are subject to inherent limitations given the nature and the methods used for determining such data. The selection of different but acceptable measurement techniques can result in materially different measurements. The precision of different measurement techniques may also vary.

Conclusion
Based on the procedures we have performed and the evidence we have obtained, nothing has come to our attention that causes us to believe that UTAM's select performance metrics as at December 31, 2021 are not prepared, in all material respects, in accordance with the applicable criteria.

Purpose of statement and restriction on distribution and use of our report
The subject matter information has been prepared in accordance with the applicable criteria to report on the selected performance metrics in accordance with the criteria.

As a result, the subject matter may not be suitable for another purpose. Our report is intended solely for UTAM. We neither assume nor accept any responsibility or liability to any third party in respect of this assurance report.

We acknowledge the disclosure of our report, in full only, by UTAM, at its discretion, in the 2021 Responsible Investing Report without assuming or accepting any responsibility or liability to any other third party in respect of this report.

PricewaterhouseCoopers LLP

Chartered Professional Accountants

Vancouver, British Columbia
October 28, 2022

Exhibit 1

Carbon Footprint ("Subject Matter") and Criteria

1. Carbon Footprint

Scope: Total carbon emissions for the below investment portfolio measured by tonnes of CO_2 equivalent (tCO_2e) in absolute terms and per million dollars invested.

Methodology: Scope 1 and Scope 2 GHG emissions are allocated to investors based on an equity ownership approach as described under methodology for Total Carbon Emissions. The Enterprise Value including Cash (EVIC) is used to normalize the data.

Investment portfolios:

- Endowment (Long-Term Capital Appreciation Pool).

Asset classes: public equity, private equity, real estate equity, infrastructure equity, fixed income (corporate bonds only).

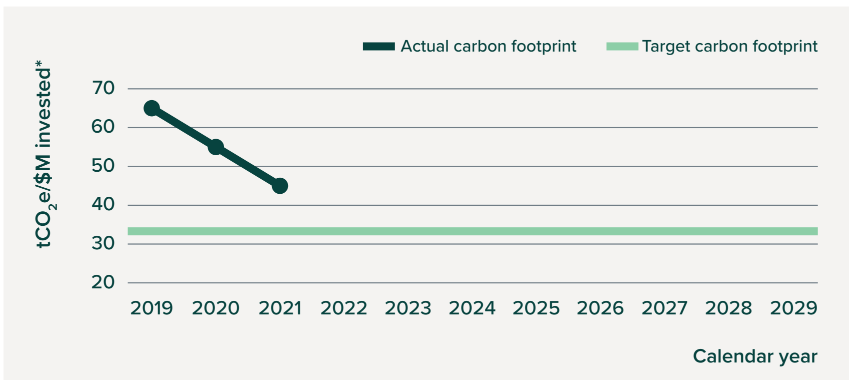
The reporting criteria against which the Subject Matter will be assessed is as follows:

- Management's internally developed criteria as outlined in UTAM's 2021 Responsible Investing Report.
- Task Force on Climate-Related Financial Disclosures. Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures. Supplemental Guidance for the Financial Sector, Asset Owners.
- Greenhouse Gas Protocol, Portfolio Carbon Initiative, Guidance for financial institutions to assess the climate impact from investing and lending activities. Available at: https://ghgprotocol.org/portfolio-carbon-initiative.

Portfolio carbon footprint

Starting point 2019[1]	Results 2021	Change
Absolute emissions	Absolute emissions*	Absolute emissions
145,404.2 tCO_2e	**132,991.1** tCO_2e	**-8.5%**
Carbon footprint	Carbon footprint*	Carbon footprint
64.4 $tCO_2e/\$M$ invested	**45.2** $tCO_2e/\$M$ invested	**-29.8%**

Carbon footprint over time compared to 2030 target



$tCO_2e/\$M$ = tonnes of carbon dioxide equivalent per million dollars invested

By calculating the annual reduction in the carbon footprint of the LTCAP Sub-Portfolio, we're able to track the tangible impact of our efforts over time. One of the virtues of this approach is that the impact will be felt not only in high-emitting sectors but across all sectors within the portfolio. By identifying the climate-related risks associated with actual and prospective investments – as part of our broader responsible investing framework, and also through our active ownership activities (proxy voting, engagement and advocacy) – we expect the carbon footprint of LTCAP's investments to decrease over time. As the companies in the LTCAP Sub-Portfolio adopt more sustainable practices, their collective carbon footprint should shrink, and as a result, the portfolio should become more resilient to climate-related risks.

At the end of 2021, the carbon footprint of the LTCAP Sub-Portfolio was 45.2 $tCO_2e/\$M$ (based on total emissions of 132,991.1 tCO_2e). This calculation follows the EVIC ownership approach[2] for the Sub-Portfolio and includes the impact of carbon contributions from equities (including equity-like assets) and corporate bonds.[3] The same EVIC approach was used to calculate the historical carbon footprints for 2019 and 2020 for the LTCAP Sub-Portfolio. These results, summarized in Table 1, differ from the footprint results reported in prior years because a new methodology and baseline year have been used.

Table 1
Carbon Footprint of the LTCAP Sub-Portfolio

Year	tCO_2e	$tCO_2e/\$M$	Cumulative change in tCO_2e	Cumulative change in $tCO_2e/\$M$
2019	145,404.2	64.4	-	-
2020	143,188.2	55.7	**-1.5%**	**-13.5%**
2021	132,991.1*	45.2*	**-8.5%**	**-29.8%**

Since 2019, the LTCAP Sub-Portfolio's carbon footprint has realized a cumulative decrease of 29.8%. While this overall reduction is substantial, it does reflect in some measure the economic slowdown caused by the COVID-19 pandemic. As the economy recovers, and as countries and industries once again operate in a more historically typical environment, we expect some of these reductions will reverse. In terms of total emissions, the decrease over the same period was 8.5%. The significant difference between the reduction of the footprint and the absolute level of emissions is driven by the denominator effect in the footprint calculation; the dollar value of investments in the LTCAP Sub-Portfolio increased considerably over this period, driven primarily by the strong performance of equity markets between December 31, 2019, and December 31, 2021. This difference highlights how sensitive the carbon footprint (calculated in $tCO_2e/\$M$) is to the market value of the LTCAP Sub-Portfolio.

* We engaged PricewaterhouseCoopers LLP, an independent third party, to conduct a limited assurance engagement on reported values indicated by an asterisk.

[1] UTAM has set a target end date of 2030 and a baseline year of 2019. Although the Alliance publishes targets on a five-year cycle, members who join the Alliance mid-cycle have flexibility to adjust the length of their initial target period.

[2] For sub-portfolios with multiple asset classes (e.g., equities and corporate bonds), the Net-Zero Asset Owner Alliance recommends using enterprise value including cash (EVIC) to determine an asset owner's proportional share of an issuer's emissions.

[3] All public equity holdings (long and short) and equity-like private investments (private equity, private real estate and private infrastructure) as well as publicly traded corporate bonds within the LTCAP portfolio were included in the analysis, except for these holdings in the absolute return hedge fund portfolio. As stated in Methodology (page 19), public market indexes are used to proxy the emissions contributions of the private investments that are included in the LTCAP Sub-Portfolio.

Sector and country contributions

Sector attribution

Table 2 shows the carbon emission contribution by the different sectors in the Sub-Portfolio (denoted in the table as Share of market exposure). Nearly 90% of emissions came from four sectors: Materials, Energy, Utilities and Industrials.

Table 2
Total Emissions and Carbon Footprint by Sector 2021

Sector	Share of emissions	Share of market exposure
Materials	36.6%	4.0%
Energy	25.3%	4.0%
Utilities	16.4%	1.6%
Industrials	9.3%	11.3%
Information Technology	3.6%	20.6%
Consumer Staples	2.7%	4.8%
Consumer Discretionary	2.7%	11.7%
Financials	1.1%	12.9%
Health Care	1.0%	9.9%
Communication Services	0.7%	8.8%
Real Estate	0.6%	3.8%
Cash and Others	0.2%	6.7%
Total	**100%**	**100%**

Country attribution

Table 3 shows the top 10 countries (based on securities' place of issue) that contribute most to the LTCAP Sub-Portfolio's emissions. These countries account for 82% of the Sub-Portfolio's market value and account for approximately 79% of its emissions.

Table 3
Total Emissions and Carbon Footprint by Country 2021

Country	Share of emissions	Share of market exposure
United States	26.2%	52.7%
China	11.4%	6.7%
Canada	10.6%	8.7%
Switzerland	7.4%	1.8%
France	5.1%	1.7%
United Kingdom	4.2%	3.6%
Australia	4.1%	1.1%
Russia	4.0%	0.3%
Japan	3.4%	4.6%
Ireland	2.9%	0.8%
Total for Top 10	**79.3%**	**82.0%**

Carbon footprint methodology and limitations

UTAM's carbon footprint calculation follows a systematic process grounded in current leading practices within the investment industry.

Methodology

- We use a carbon footprint calculation methodology based on the following:
  - The Global GHG Accounting and Reporting Standard for the Financial Industry (November 2020), developed by the Partnership for Carbon Account Financials (PCAF).
  - Implementing the Recommendations of the Task Force on Climate-Related Financial Disclosures (October 2021), published by the Task Force on Climate-Related Financial Disclosures (TCFD).
  - Target Setting Protocol, second edition (January 2022), published by the Net-Zero Asset Owner Alliance.
  - UTAM's internally developed criteria for year-end carbon footprint calculations. We typically use emissions data available one month after the reporting date.
- The total emissions and carbon footprint metrics reported by UTAM follow the financed emissions approach: a portfolio's share of emissions is calculated based on proportional ownership relative to a company's enterprise value including cash (EVIC).
- Both Scope 1 and Scope 2 emissions are currently included in the footprint calculations and results.
- The PCAF standard provides guidance on how to score the quality of emissions data. We obtain position data from our risk aggregator, State Street's truView, and emissions data from MSCI Inc (MSCI). On this basis, we estimate the average data quality score for public equities and public fixed income to be 2 and 3, respectively. For private assets where public equities are used as proxies, an average data quality score of 5 is implied.
- All assets classified within the Equity component of the Reference Portfolio,[†] as well as publicly traded corporate bonds in the Canadian Corporate Bonds component of the Reference Portfolio, are included in carbon footprint calculations.
- For private market investments, primarily in private equity and private real estate investments, we use public indexes to proxy the emissions contributions to the LTCAP Sub-Portfolio.

Limitations

- The methodologies used in UTAM's carbon footprint calculation, as well as the scope of assets covered, will continue to evolve. As new methods and data become available, we will evaluate how they can best be incorporated into our calculation process. For example, private equity and real estate assets were added to the footprint calculation in 2018, while corporate bonds and the EVIC approach were integrated for 2021 year-end calculations.
- We also recognize that there are limitations to the footprint metrics themselves. Calculated results can be affected by factors outside UTAM's control, including lags in emissions reporting or missing emissions data, as well as shifts in foreign exchange rates and changes in the market values of the securities included in the LTCAP Sub-Portfolio. We endeavour to use the most recently available information in our calculations and have adopted a standardized approach to both data gathering and the treatment of missing data. For the 2021 carbon footprint results, emissions data available by January 31, 2022, was used in the calculations.
- Carbon footprint metrics are not a forward-looking measure of the LTCAP Sub-Portfolio's exposure to climate risk (i.e., its climate risk sensitivity). By the nature of the calculations and data used, metrics are snapshots at one point in time of the Sub-Portfolio's attributed emissions.

† The Reference Portfolio is a benchmark (currently 60% equity exposure and 40% fixed income) that serves as an objective yardstick for measuring active risk and value gained or lost through investment management activities. It is developed jointly by UTAM and the University's Investment Committee.

Responsible investing milestones

We are constantly evolving and enhancing our responsible investing approach. The following timeline shows significant events in our responsible investing journey, beginning in 2016. For ongoing updates, please visit our website.

2022

In accordance with the Net-Zero Asset Owner Alliance Target Setting Protocol, added corporate bonds to the carbon footprint calculation and adopted the EVIC methodology for determining the Endowment's ownership of the emissions attributable to specific corporate issuers.

Announced a new carbon footprint reduction target of 50% by 2030, using the December 31, 2019, baseline and including publicly traded corporate bonds in addition to equity and equity-like securities.

Eliminated direct exposure to fossil fuel companies in the Endowment and all material exposure to direct and indirect fossil fuel companies in EFIP.

Partnered with RPIA to develop an actively managed credit strategy that excludes fossil fuel exposure and is benchmarked against the newly launched FTSE Canada All Corporate Ex Fossil Fuels Enhanced Bond Index.

Began transition of Reference Portfolio benchmarks from "standard" indexes to indexes that exclude fossil fuels.

Lisa Becker, our Chief Operating Officer, appointed to the Environmental & Social Committee of the Canadian Coalition for Good Governance (CCGG).

Responsible investing milestones

(cont'd)

2021

- University of Toronto, in respect of its Endowment and represented by UTAM, became the first university in the world to join the United Nations–convened Net-Zero Asset Owner Alliance.
- Partnered with Impax Asset Management to launch a new sustainability-focused investment vehicle.
- Signed the Canadian Investor Statement on Climate Change as a founding signatory.
- Became a founding participant of Climate Engagement Canada (CEC).
- Chuck O'Reilly joined the Intentional Endowments Network's (IEN) net zero endowment steering committee.
- Participated in the CDP Non-Disclosure Campaign.
- Signed the CDP Science-Based Targets (SBTs) Campaign.
- University of Toronto announced its commitment to divest from investments in fossil fuel companies in the Endowment portfolio by 2030 (including divesting from direct exposure to fossil fuel companies by the end of October 2022), to achieve net zero carbon emissions associated with the Endowment by 2050, and to allocate at least 10% of the Endowment portfolio to sustainable and low-carbon investments by 2025.
- Joined the University Network for Investor Engagement (UNIE).
- Signed the 2021 Global Investor Statement to Governments on the Climate Crisis.
- Shortlisted for an International Corporate Governance Network (ICGN) 2021 Global Stewardship Award.

2020

- Joined the ICGN and endorsed the organization's Global Stewardship principles.
- Announced our goal to reduce carbon footprint for the University's long-term assets by 40% (compared to 2017 levels) by 2030.
- Endorsed the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) on behalf of U of T – the first Canadian university to do so with respect to its Endowment or Pension funds.
- Received the highest possible scores (A+) in our third PRI assessment, above median in all six categories.
- Signed the RIA's Investor Statement on Diversity & Inclusion.
- Included in the Institutional Limited Partners Association (ILPA) ESG Roadmap and Resources, a compilation of best practices that limited partners can consider implementing to advance environmental, social and governance (ESG) investing efforts at their organizations.
- Shortlisted for an ICGN 2020 Global Stewardship Award.
- Finalist in the first Pension Leadership Awards sponsored by Canadian Investment Review, in the category of Sustainable Investing.

2019

- Received five A+ scores and one A in our second PRI assessment.
- Became a signatory to the Global Investor Statement to Governments on Climate Change.

2018

- Lisa Becker, Chief Operating Officer, joined the board of the Responsible Investment Association (RIA).
- UTAM received four A+ scores and one A in our first PRI assessment.
- Published the first carbon footprint report for the Endowment and Pension portfolios.
- Joined the 30% Club Canada and its Investor Group.
- Joined the Intentional Endowments Network (IEN).

2017

- Doug Chau, Chief Risk Officer, joined the PRI's Asset Owner Technical Advisory Committee.
- Representation on the Investor Stewardship Committee of the Pension Investment Association of Canada (PIAC).
- Signed the Montréal Carbon Pledge.
- Published our Responsible Investing Policy.
- Published first annual Responsible Investing Report, covering 2016.
- Joined Climate Action 100+.

2016

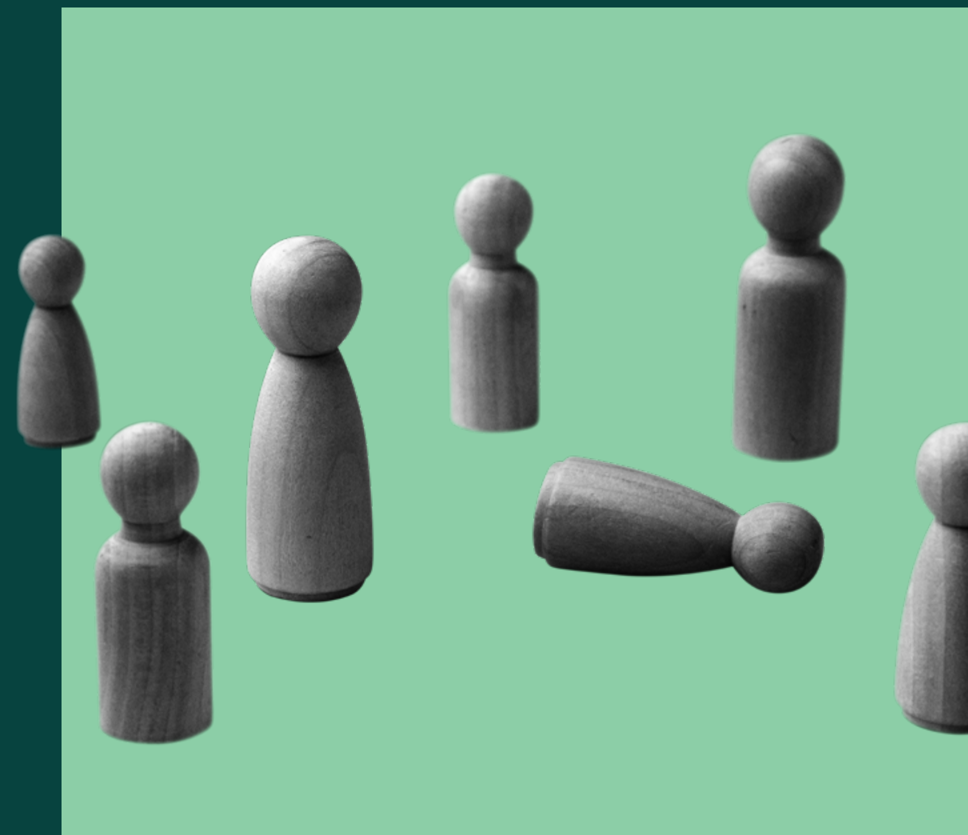
- Institutional Shareholder Services' Sustainability Policy implemented where possible for proxy voting.
- Became a signatory to the Principles for Responsible Investment (PRI) on behalf of U of T's Endowment and Pension Plan.
- Became a signatory to CDP (formerly known as the Carbon Disclosure Project).
- Joined the Responsible Investment Association (RIA).

Choosing the right investment managers

UTAM follows a consistent and rigorous process to select, monitor and evaluate our external investment managers. This process ensures that managers' consideration of ESG factors in their strategies and processes aligns with our disciplined approach.

We take a highly analytical approach to assessing and selecting UTAM's external investment managers. Our vetting process includes close scrutiny of potential managers' understanding of, and commitment to, the principles of responsible investing. As we monitor their performance over the long term, we factor in ESG-related data, including – where possible – carbon footprints, alongside other key investment metrics.

The results of our collaborations reflect the University's commitment to responsibly managing its investments.



Selecting and evaluating our managers

As UTAM's approach to responsible investing continues to evolve, we've become more systematic in weighing ESG considerations when we select and monitor investment managers. Below, we offer a more granular view of the many ESG-related factors that we typically take into account, where appropriate to the mandate.

When considering a potential investment manager, we discuss and evaluate the following, as applicable:

- Responsible investing approach
- Quality of investment and responsible investing policies
- Firm-level versus product-level approach to responsible investing
- Efforts to promote responsible investing practices in the investment industry
- Investment team and dedicated RI staff (if any) with respect to their ESG awareness, knowledge and integration into the strategy's investment process
- Current governance and management of responsible investing activities including how ESG implementation is enforced
- Involvement in collaborative and direct ESG-related engagements with investee companies
- Responses to due diligence questions related to ESG issues
- ESG materiality standards
- Process for defining and communicating ESG incidents
- Proxy voting policy and processes (where UTAM would not direct voting)
- Principles for Responsible Investment (PRI) signatory status, as well as any other relevant initiatives and organizations
- Responsible investing reporting to clients and/or the public and our reporting expectations
- Coverage and quality of ESG-related research used and issued
- Approach to incorporating ESG factors, as well as ability to identify and manage ESG-related issues
- ESG-related characteristics and carbon footprint of the investment portfolio
- Impact of ESG factors on specific investment decisions
- Securities in the investment portfolio that appear to have material ESG risks and high carbon emissions
- ESG practices at the corporate level of the investment manager, such as equity, diversity and inclusion policies and programs

We incorporate a review of all these considerations in our internal recommendation framework, including our internal ESG rating of the investment manager.

To monitor our investment managers, we discuss and evaluate the following, as applicable:

- Responsible investing as a standard agenda item at update meetings with existing managers
- Continuing evolution of manager's approach to responsible investing
- Examples of good responsible investing practices by other investment managers, where relevant
- Participation in responsible investing initiatives and organizations engaged in promoting responsible investing practices
- Participation in collaborative projects with other investors
- Responsible investing and ESG incident reporting
- Any changes in responsible investing approach and updates on current research
- ESG-related characteristics and carbon footprint of the investment portfolio
- Integration of ESG considerations in specific investment decisions
- Securities in the investment portfolio that appear to have material ESG risks, specifically those with higher carbon emissions
- Proxy voting policy and processes (in cases where UTAM would not direct voting), and proxy voting record
- Corporate-level ESG practices such as equity, diversity and inclusion issues
- Any ESG incidents on the largest investment portfolio holdings
- Our internal ESG rating of the investment manager and strategy

Manager spotlight: EMK Capital

EMK Capital
Enterprise Management Knowledge

UTAM recognizes that ESG factors can affect the long-term risk and return of our investments. ESG considerations are therefore integral to our investment decision-making, both within our team and in partnership with our external investment managers. In the past, we've highlighted the ESG integration approaches of various public market managers we work with. In this report, we're spotlighting EMK Capital (EMK), a private equity manager based in London, UK, to illustrate how we partner with managers in private markets that also have robust and progressive approaches to responsible investing. EMK was founded in 2015 to invest in European mid-market private companies. UTAM's partnership with EMK began in 2020. Here, EMK outlines its approach to incorporating ESG considerations into the investment process.

Investment philosophy and ESG strategy

EMK invests in companies that it believes can shape a more efficient, sustainable and just future economy – or in companies where EMK sees an opportunity to add value and transform a business by elevating sustainability as a key strategic priority. EMK does not invest in companies that could significantly cause harm to society or the environment. Through its investment process, EMK seeks companies that are already contributing to the transition to a low carbon economy, or that show potential to realize efficiency gains in their own operations and on behalf of their customers. As of December 31, 2021, over 50% of EMK's assets under management were invested in companies that actively contribute to the decarbonization of the economy.

ESG integration

EMK's approach to ESG is formalized through its Responsible Investment Policy, which is based on the UN Global Compact and the Principles for Responsible Investment. The firm's Managing Partners and its Head of ESG & Impact, as well as its individual investment leads, are all responsible for implementing EMK's proprietary ESG framework.

Due diligence

EMK's investment team conducts ESG-related due diligence prior to investing in any company. This includes assessing ESG risks and opportunities, as well as the company's ESG maturity compared to EMK's framework. All investments must be approved on both a financial and an ESG basis by EMK's Investment Committee.

Onboarding

Fulfilling baseline ESG requirements and developing sustainable business strategies are key drivers of value for companies that EMK invests in. The firm forges close partnerships with investee management teams and develops an ESG action plan after acquisition. This plan aligns investees' ESG practices with EMK's baseline requirements while encouraging continuous improvement to adopt industry best practices over the long term. The ESG action plan formalizes key goals and targets for objectively measuring progress. Importantly, EMK has begun linking the implementation of ESG action plans to investees' management remuneration.

Monitoring against the ESG framework

Using its own action plan as a guide, EMK monitors the ESG performance of all portfolio companies against key indicators. The ultimate objective is to achieve high and improving standards of ESG performance while implementing evaluation processes that will continue for each company after it has left the EMK portfolio. As a significant investor, EMK has access to timely reporting on investees' ESG initiatives. The firm can also engage management and provide incentives to make implementing ESG action plans a priority.

Reporting

EMK reports publicly on its own responsible investment performance as a signatory to the United Nations–supported Principles for Responsible Investment. The firm also produces an annual ESG Review Report for its investors, along with ESG Spotlight Reports providing deeper insights into investees' ESG performance, as well as aspects of its responsible investing and ESG approaches. EMK believes in transparency, reporting any ESG incidents to its investors immediately. The firm supports the Paris Agreement and the Task Force for Climate-related Disclosures (TCFD), committing itself to better, more complete reporting of climate-related financial information.

The drive to net zero, and science-based targets in action

EMK works with its stakeholders to support emission reduction and to build resilience to climate change impacts. EMK is a signatory to the initiative Climat International (iCI), a global community of private equity investors that seek to better understand and manage climate change risks while reducing the climate-related impact and carbon intensity of their investments.

In 2021, EMK engaged an emissions calculation provider to collaborate on calculating the tCO_2e (scopes 1–3) of portfolio companies held for 12 months or longer.

In 2022, EMK also ran a series of workshops for investees on net zero, GHG emissions calculations and how to set science-based targets. As a result of these efforts, the majority of EMK's portfolio companies now have decarbonization plans. Four of 13 portfolio companies have submitted targets to the Science Based Targets initiative (SBTi), an alliance of private-sector organizations. And one of EMK's investees, Cardo, became the first company in Israel to publish a science-based target. More EMK companies are expected to submit targets later in 2022.

EMK investment showcase: Reconomy Group

Reconomy Group improves sustainability outcomes for its customers, helping them deliver zero waste, environmental compliance and reduced emissions through intelligent reuse logistics.

Reconomy Group

Through a strategic buy and build strategy, EMK has supported Reconomy in its transformation from being a general waste management provider, at point of acquisition, to a circular economy solutions provider.

Reconomy's asset-light, tech-enabled model has now expanded and operates within three symbiotic verticals of the circular economy: recycle, comply and reuse. Across these three complementary verticals, the company provides a comprehensive range of solutions to its clients on an outsourced basis. Reconomy's innovative business model has transformed the management of housebuilding, construction, commercial and industrial waste in the UK, as well as compliance and returns management across Europe.

Reconomy's Sustainability Policy outlines its commitment to operating efficiently, protecting the environment, and engaging with the community and it has developed a clear framework with group-wide and divisional KPIs to deliver Reconomy's sustainability strategy.

Decarbonization Plan

Helping customers reduce waste also helps reduce emissions. For example, of the 2 million tonnes of non-hazardous construction and demolition waste that Reconomy processed for customers in 2021, 96% was diverted from landfill. And in its Reuse vertical, Reconomy achieved a 50% reduction in emissions per parcel (tCO_2e), compared to 2019. In 2021, having already reduced carbon intensity against revenue by 51% in the previous year, Reconomy mapped out a pathway to reduce GHG emissions and environmental impact. The plan includes initiatives such as 100% renewable energy sourcing, improving biodiversity at offices, continued development of an electric vehicle fleet, and customer-specific zero waste plans. The company also set industry leading objectives for working with clients and suppliers to reduce materials use and develop circular solutions. To deliver net zero by 2028, Reconomy set science-based targets, which will be submitted to the SBTi later in 2022.

Social impact, diversity and inclusion

EMK recognizes that it can directly influence the social aspects of ESG by improving diversity and inclusion (D&I), both within the firm and among the companies it invests in.

EMK engages with investees' management teams around D&I issues to understand how they may affect company performance. For example, since EMK's investment, Reconomy has championed inclusion programs in its own organization and across the sectors it serves. Program priorities include employing members of disadvantaged groups.

Before EMK's initial investment, there were virtually no women in senior leadership roles at Reconomy and approximately 70% of managers were men. By 2021 – through talent acquisition, internal development and business acquisitions – 40% of leadership and management roles across the company were held by women, up from 25% in 2020.

Recognition

EMK was selected as the 2021 winner of the Excellence in ESG Award, among firms with over £1bn in assets under management, by the British Private Equity & Venture Capital Association. The award recognized EMK for its response to the COVID-19 pandemic across its investments, as well as for providing strong evidence of ESG achievements in its portfolio companies.

Managing the risks of climate change

As the impacts of climate change grow more urgent each year, UTAM has developed increasingly sophisticated processes for measuring and managing climate-related investment risks.

Over the past several years, concern has continued to grow over the actual and potential impacts of climate change. As the public health threat from COVID-19 now recedes in many countries, the need to reduce our collective carbon footprint is increasingly apparent to governments, institutions, companies and individuals. And therefore it is top of mind for all strategic investors.

UTAM has been working for several years to deepen our understanding of climate-related risks and opportunities. As we gain added insights into this rapidly evolving area, we continuously adjust how we manage investments and measure performance.

In early 2020, we committed to reducing the carbon footprint of equity (and equity-like) investments in the Endowment and Pension portfolios by at least 40% relative to 2017 levels by the end of 2030. In 2022, we took further steps by setting a new carbon footprint reduction target alongside fossil-fuel divestment initiatives.

To provide transparency to our process, we also announced in 2020 our support, on behalf of the University of Toronto, of the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). U of T became the first Canadian university to adopt the TCFD recommendations for reporting on endowment and pension assets. We began including the recommended disclosures with our 2019–2020 Responsible Investing Report and have continued in this report.

In short, we take a structured approach to the incorporation and analysis of climate risk.

Recommended climate-related financial disclosures

The TCFD recommendations are structured around four thematic areas that represent core elements of how organizations operate: Governance, Strategy, Risk Management, and Metrics and Targets. Below are UTAM's disclosures for each area.

Governance

a) **Describe the board's oversight of climate-related risks and opportunities.**
Addressing climate-related risks and opportunities is a key priority for UTAM. Our Board of Directors approves our Responsible Investing Policy and overall approach to responsible investing, which includes climate change as well as the carbon footprint reduction target (as discussed in the Metrics and Targets section below). The Board regularly monitors our progress towards the target.

The Board also approves our annual responsible investing reports. There is an annual standing agenda item at Board meetings to discuss climate-related issues, and we bring relevant issues and developments to the Board's attention as they arise.

b) **Describe management's role in assessing and managing climate-related risks and opportunities.**
The Board has delegated the assessment and management of climate-related risks and opportunities to UTAM. These activities are integrated within our investment processes and committees in several ways:

Our **Responsible Investing Committee** (**RIC**), which includes our most senior executives across all teams, sets the tone from the top. This Committee oversees all matters relating to the development and implementation of our responsible investing practices, and it has a mandate to consider climate-related risks and opportunities as part of our broader responsible investing practices. The Committee is composed of the President and Chief Investment Officer (CIO), the Head of Fixed Income, the Head of Private Markets, the Chief Risk Officer (CRO) and the Chief Operating Officer (COO). From time to time, other staff may be invited to join the Committee. This senior and diverse group ensures that the RIC's decisions reflect input and buy-in from the investment team and that our desired approach is implemented. The RIC typically meets quarterly.

We have embedded our approach to ESG and climate change across our firm. More than half of our staff are directly involved in RI activities.

RIC members and others provide ongoing RI training to everyone involved in investment decision-making, which includes investment, risk management and operational due diligence team members. We also encourage staff to pursue external RI training opportunities.

We believe that enhancing our professionals' knowledge of ESG issues is so important that we have included it as a personal development goal for all relevant staff. In addition, RIC members are evaluated on RI-related objectives in their performance reviews.

In conjunction with the RIC, the following internal committees have oversight of climate-related risks and opportunities:

Management Investment Committee (MIC) – This Committee's mandate is to review activities related to investment strategy, investment manager selection and monitoring, asset mix and investment performance. This broad mandate includes responsibility for assessing and managing climate-related risks and opportunities and for carrying out the activities described in the Responsible Investing Policy. The MIC is chaired by the President and CIO and comprises all investment staff and senior members of the Risk and Research and Operations teams. The Committee typically meets monthly.

Management Investment Risk Committee (MIRC) – This Committee is responsible for developing investment risk policies, reviewing risk reports, reviewing client portfolio investment risk positions and addressing all investment-related risk issues. Climate change risk has been incorporated into the regular risk measurement and monitoring process and is reviewed by the committee alongside other investment-related risk issues. The MIRC is chaired by our Chief Risk Officer (CRO) and comprises our Risk and Research team, our CIO and other senior investment staff. The Committee typically meets quarterly, or more frequently as necessary.

Strategy

a) **Describe the climate-related risks and opportunities the organization has identified over the short, medium and long term.**
Climate change has the potential to significantly affect a company's value and risk. As part of our investment management processes, we identify and assess climate-related physical risks and transition risks.

Physical risks can be either acute (related to extreme weather events, such as hurricanes and wildfires, becoming more frequent and more severe) or chronic (related to increasing global temperatures, such as more frequent heat waves and droughts, rising sea levels and changes in weather patterns).

Examples of transition risks that we have identified include policy and legal risks (such as new regulations designed to reduce negative environmental impacts), technology risks (such as pressure on companies to develop technology that lowers product emissions), market risks (changing consumer behaviours in the face of climate change) and reputation risks (changing perception of certain sectors or products amidst growing concern about climate change).

The climate risks noted above could have wide-ranging effects on capital markets and our portfolios, with the impacts likely to play out in different ways and over different time horizons.

In the short term, policy and legal risks are likely to be the most significant transition risks. Physical risks, like acute weather events, may have some near-term impacts but are likely to be amplified over longer time horizons.

In the medium term, all of the risks in the short term will apply in addition to technology, market and reputation risks.

In the long term, physical risks are likely to be more material and will impact certain asset classes (e.g., real estate) more than others. All of the transition risks noted above will be present in the long term and have a more material impact than in the short term.

While climate change creates many risks, it also creates opportunities. In the short term, there are opportunities to benefit from investing in companies that offer products and services that provide solutions for a lower-carbon economy. In the medium and long term, companies that effectively manage their climate-related risks are likely to outperform. In addition, companies operating in less carbon-intensive sectors and countries are likely to be better positioned in the long term.

b) Describe the impact of climate-related risks and opportunities on the organization's businesses, strategy and financial planning.

Responsible investing and sustainability, including climate change, is a strategic priority for UTAM reflected in our Mission and Values, and we devote significant time and resources to it. Over the past several years, UTAM has worked with University of Toronto leadership to strengthen and formalize our shared commitment to responsible investing.

This began in earnest in 2016 when we became a signatory to the United Nations–supported Principles for Responsible Investment (PRI) on behalf of the Endowment and Pension portfolios.

Since then, we have taken an increasingly sophisticated and holistic approach to ESG integration. In 2017, we created the Responsible Investing Committee and we developed a comprehensive Responsible Investing Policy. Consideration of ESG factors is built into our Mission and Values, our Investment Beliefs and our investment decision-making and risk processes. Several members of UTAM's senior management have assumed leadership or advisory roles on various professional committees, boards and associations related to responsible investing (see page 42), and more than half of our staff are engaged in responsible investing activities.

The carbon footprint reduction target described in the Taking Decisive Action on Climate Change section (see page 14) as well as in the Risk Management section below forms a key part of our overall investment strategy.

From an organizational perspective, UTAM has been carbon-neutral for many years, as we have purchased carbon offsets to mitigate the carbon footprint of our business travel, our electricity and gas consumption, and our use of paper.

U of T is also a leader in sustainability amongst global peers. The University has declared its goal of achieving a climate positive St. George campus by 2050 – reducing more greenhouse gas emissions (GHGs) than it emits, thereby creating a net benefit to the community and planet.

c) Describe the resilience of the organization's strategy, taking into consideration different climate-related scenarios, including a 2°C or lower scenario.

To assess the resilience of the Endowment portfolio to climate risk, we use exposure-based reporting and climate scenario analysis tools. Climate risk analysis is directly integrated into our investment risk management framework. Exposure-based reporting provides a quick snapshot of the Endowment portfolio's exposures to sectors and countries that are expected to be especially vulnerable to the effects of climate change.

Scenario analysis complements the exposure-based portfolio resilience assessment by providing information on how the different components of the portfolio could react (negatively or positively) over time under various climate scenarios. We use climate scenarios from several different sources. Our team takes these scenario outcomes and translates them back into financial shocks, which are then applied to the holdings of the Endowment portfolio at a point in time.

Our scenario approach focuses on both transition and physical risk scenarios with portfolio impacts expressed as Value at Risk. This allows us to determine the potential performance impact due to the various climate scenarios and whether the impacts are expected to be temporary or permanent. In addition to internally developed models, we also employ external tools. One such external tool is the Paris Agreement Capital Transition Assessment (PACTA), which allows us to assess the overall alignment of the portfolio with various climate scenarios.

The results of our scenario analysis spur discussion on potential downside shocks to the portfolio and help UTAM's investment and risk teams gauge the resilience of our investment strategy across multiple time horizons. Climate resilience analysis is constantly developing, and we intend to evolve our processes as more data and new techniques become available.

Risk management

a) Describe the organization's processes for identifying and assessing climate-related risks.

Climate-related risks are evaluated by sector, country and company and over various time horizons. Our processes for identifying and assessing climate-related risks are overseen by the MIRC and are carried out by our team of risk professionals under the leadership of our CRO.

For the Endowment, we identify the relevant climate-related risks and their associated time horizons (i.e., when these risks may unfold). We consider transition and physical risks across countries and sectors in an effort to ascertain the parts of the Endowment portfolio that could be most at risk to the effects of climate change. This part of the process leverages country and sector climate scores from various external research groups as described in the Metrics and Targets section.

After identifying the relevant risks, we assess and measure them to promote discussions and to evaluate the potential impacts to the Endowment portfolio. This includes modelling the portfolio's exposure to at-risk sectors, undertaking carbon footprint calculations and performing forward-looking scenario analysis.

Another way that we identify and assess climate-related risks is through engagement with public companies. As explained more fully in section b) below, we undertake engagement primarily through an engagement service provider and collaborative groups.

b) Describe the organization's processes for managing climate-related risks.

Managing climate-related risks is a fundamental part of our investment and risk management approach. We address climate-related risks in different ways and via different tools at various stages of the process. Our risk and investment teams bring any relevant analysis to our internal committees for review and flag any identified risks for discussion. Specific processes for managing climate-related risks include the following:

Target setting

To achieve our carbon footprint reduction goals, we deploy a variety of tools, including shifting assets to lower-emitting countries and sectors, as well as investing in strategies and asset classes with lower carbon emissions. Recently, in late 2021, we committed to divest the Endowment portfolio from investments in fossil fuel companies, which will further reduce the carbon emissions generated by investments in this portfolio. Moreover, as part of our ESG-based framework for responsible investing, we will continue to engage with companies on climate change, including fossil fuel companies, through our collaborative engagement initiatives, and advocate with policy-makers and regulators to act on climate change.

Manager due diligence

Given our belief that ESG factors can have a material impact on long-term investment returns, we incorporate ESG considerations into our investment analysis and decision-making processes, particularly with respect to our selection and monitoring of investment managers. This process starts with talking to managers about their ESG integration practices. Where possible and relevant, these discussions are supplemented by third-party ESG data sets, which UTAM uses to track the E, S and G scores (independently as well as on a combined basis) of manager portfolios over time and compared to a relevant benchmark. Climate change is one of the four themes that determine the E score from MSCI.

Our analysis includes, where possible and relevant, a review of the carbon emissions attributable to the manager's portfolio. These ESG data sets are also used to identify specific holdings in manager portfolios that may have higher ESG risks. For such holdings, we utilize third-party ESG research to better understand the primary ESG risks at these companies, and we use this information as the basis for further conversations with managers. We summarize all analytics and discussions in our investment manager due diligence reports, and we rate each active manager's ESG integration practices, both at the time of allocation and on an ongoing basis. Moreover, post-allocation, we continue to engage with our managers to help them improve their approaches to ESG integration and their management of climate-related risks.

Stewardship

Our stewardship activities are critically important in our efforts to manage climate-related risks. We bring a responsible investing viewpoint to the exercise of shareholder voting rights, our engagement with public companies and our advocacy efforts. We have long supported the stewardship principles of the Canadian Coalition for Good Governance. In 2020, we also endorsed the stewardship principles of the International Corporate Governance Network.

Proxy voting

We have adopted the ISS Sustainability Guidelines for proxy voting. Where relevant, UTAM typically votes on climate-related shareholder proposals according to the following framework:

- Vote for shareholder proposals seeking information on the financial, physical or regulatory risks related to climate change – with regard to a company's operations and investments, or related to how the company identifies, measures and manages such risks.
- Vote for shareholder proposals calling for the reduction of greenhouse gas (GHG) emissions.
- Vote for shareholder proposals requesting a report and/or disclosure of goals on GHG emissions from company operations and/or products.
- Vote for shareholder proposals seeking reports on responses to regulatory and public pressures surrounding climate change, and for disclosure of research that aided in setting company policies around climate change.

Engagement

UTAM actively engages with companies on sustainability matters. Given our size and our practice of investing through external managers, we focus our efforts in collaborative engagement groups and initiatives, such as the International Corporate Governance Network, the Canadian Coalition for Good Governance, Climate Action 100+ and the University Network for Investor Engagement. For details of our affiliations, see page 43.

We believe that the collective influence of like-minded investors with substantial combined holdings will typically lead to better outcomes than we could achieve on our own. The objectives of these engagements include improving the management of material, relevant ESG risks and opportunities at portfolio companies, and aligning company behaviours with the transition economy and achieving a net zero future.

We augment our collaborative engagement efforts through a relationship with EOS at Federated Hermes, a third-party stewardship service provider. EOS has extensive experience and expertise engaging with public companies on a global basis on behalf of its clients, including UTAM. EOS prides itself on having a consultative process with clients when determining its engagement priorities, and UTAM is an active participant in this process. In 2021, EOS engaged with 791 portfolio companies on 3,136 environmental, social, governance, strategy, risk and communication issues and objectives. Environmental topics featured in 27.5% of engagements, and 80.6% included climate change. See page 37 for examples of climate-related engagements conducted by EOS on our behalf.

We are also an active contributor to various CDP initiatives, including the Non-Disclosure Campaign, in which we engage with companies that have not responded to CDP's disclosure requests. In 2021, we sent letters to 1,091 companies in CDP's Non-Disclosure Campaign (either in a lead or co-signer role) to drive further corporate transparency – around climate change, deforestation and water security – by encouraging these companies to respond to CDP's disclosure request. 25% of the companies that UTAM contacted directly responded to our request and submitted their disclosure to CDP.

Advocacy

Advocacy refers to interactions with governments, regulators and other policy-makers on ESG matters. We often work with other investors and with engagement collaborative partners on these initiatives because we believe that our impact is magnified when we join forces.

As part of our advocacy efforts, we encourage policy-makers to place more emphasis on corporate governance and shareholder accountability. We often lend our support to investor statements sent to policy-makers and governments. For example, in 2022, we joined 450 investors in signing the 2022 Global Investor Statement to Governments on the Climate Crisis, which included more detailed requests for government actions and disclosures and new requests on climate financing. Also in 2022, we contributed to comments submitted by our engagement and advocacy partners on the International Sustainability Standards Board's exposure drafts S1 related to General Requirements for Sustainability-related Disclosures and S2 focused on Climate-related Disclosures. Such advocacy is consistent with our PRI commitment and our ESG-integration approach to responsible investing.

c) Describe how processes for identifying, assessing and managing climate-related risks are integrated into the organization's overall risk management.

We have integrated climate-related risks directly into our investment and risk teams' processes. Our approach considers climate-related risks alongside traditional financial risks.

Our risk management framework consists of three pillars: market and active risk, concentration/credit risk and liquidity risk. Climate risk is directly integrated as a regular component of the market and active risk pillar. In order to incorporate climate risk into our regular reporting processes, we've researched and developed analytics to support total portfolio climate risk analyses. All of this information is presented to and reviewed by our internal risk committee (the MIRC).

Climate-related risks are also integrated into our manager due diligence processes. As discussed in our answer to question b), we consider climate-related risks in our selection and monitoring of external managers. Evaluating managers through an ESG lens, including climate change, is a critically important part of our due diligence process.

Metrics and targets

a) Disclose the metrics used by the organization to assess climate-related risks and opportunities in line with its strategy and risk management process.

The primary metrics that we use are total carbon emissions and carbon footprint (tonnes of CO_2 equivalent per million dollars invested). The Sub-Portfolio's percentage ownership of an issuer's emissions is determined using the EVIC methodology (see page 19).

We also employ a variety of secondary metrics to obtain country- and sector-level climate-related insights. Here, the focus is on the allocation of assets to specific countries or sectors and not individual securities. We evaluate the portfolio's stand-alone scores and identify areas of concern (such as high allocations to poorly scoring countries). We also evaluate these scores against the scores of the Reference Portfolio to identify any active climate risks arising from country/sector over/underweights. Below are secondary metrics that we have identified and used to generate climate analytics. As climate metrics and tools evolve, we anticipate using new or different tools in the future.

Country level

Notre Dame Global Adaptation Initiative Country Index: This index assesses countries' vulnerability to climate change and other global challenges, as well as their readiness to improve resilience.

Germanwatch Global Climate Risk Index: This index analyzes to what extent countries and regions have been affected by the impacts of weather-related loss events (storms, floods, heatwaves, etc.).

Climate Action Tracker: This independent scientific analysis quantifies and evaluates climate change mitigation commitments and assesses whether countries are on track to meet them.

Sector level

MSCI Industry Risk Intensity Scores: These scores measure the aggregate ESG risks of different industries, based on the interplay of key ESG risk issues facing their core business activities.

b) Disclose Scope 1, Scope 2, and, if appropriate, Scope 3 greenhouse gas (GHG) emissions, and the related risks.

The greenhouse gases in our analysis are those covered by the internationally recognized GHG Protocol and include, where available, carbon dioxide (CO_2), nitrogen trifluoride (NF_3), methane (CH_4), nitrous oxide (N_2O), hydrofluorocarbons (HFCs), perfluorocarbons (PFCs) and sulphur hexafluoride (SF_6). All gases are converted to a CO_2 equivalent (CO_2e) to calculate the carbon footprint.

Carbon emissions for the LTCAP Sub-Portfolio have been calculated by determining its share of GHG emissions (Scopes 1 and 2) for equity and equity-like investments (as defined below) as well as public traded corporate bonds. Although Scope 3 emissions are not included due to data limitations, double-counting and the lack of a consistent measurement standard, we began tracking Scope 3 emissions in 2022 and will be evaluating how the data could be used going forward.

LTCAP's share of a company's GHG emissions has been calculated by dividing the market value of the portfolio's investment in a company by the company's enterprise value including cash (EVIC).

c) Describe the targets used by the organization to manage climate-related risks and opportunities and performance against targets.

The carbon footprint reduction target described in the Taking Decisive Action on Climate Change section (see page 14) forms a key part of our overall investment strategy.

Results

The results presented below are for the LTCAP Sub-Portfolio as of December 31, 2021.

Included investments

All public equity holdings (long and short*) and equity-like private investments (private equity, private real estate and private infrastructure) as well as publicly traded corporate bonds within the LTCAP portfolio are included in the analysis, except for these holdings in the absolute return hedge fund portfolio. In total, the investments included in the analysis represented approximately 70% of the LTCAP portfolio's assets as of December 31, 2021.

Source of emissions data

All calculations were completed by UTAM using GHG emissions data from MSCI. We approximated the emissions for private holdings by using emissions for corresponding public equity indexes (e.g., country and/or sector indexes).

* A short position occurs when an investor sells shares of borrowed stock in the open market; the investor hopes to subsequently buy the stock back at a lower price than they sold it for. Emissions from short positions are included as negative emissions. If all investors calculated their total GHG emissions in this way, the sum would match the total GHG emissions of all underlying companies.

Total carbon emissions

Table 4 shows the total absolute carbon emissions in the LTCAP Sub-Portfolio. While 2021 is the first year for which we have calculated the footprint with these asset classes, we have evaluated the historical emissions of the Sub-Portfolio going back to 2019. As the table indicates, total absolute emissions decreased by 8.5% since December 31, 2019.

Table 4
Carbon emissions in the LTCAP Sub-Portfolio

Year	tCO_2e	tCO_2e/\$M	Cumulative change in tCO_2e
2019	145,404.2	64.4	-
2020	143,188.2	55.7	**-1.5%**
2021	132,991.1	45.2	**-8.5%**

Carbon footprint

Consistent with the TCFD recommendations, we calculate the carbon footprint by the total market value of included investments in millions of dollars as shown in the formula below.

Carbon emissions (tonnes CO_2e) per \$million invested

$$\frac{\sum_{i=1}^{n}\left(\frac{Ci}{EVi}\times Ii\right)}{\sum_{i=1}^{n} Ii}$$

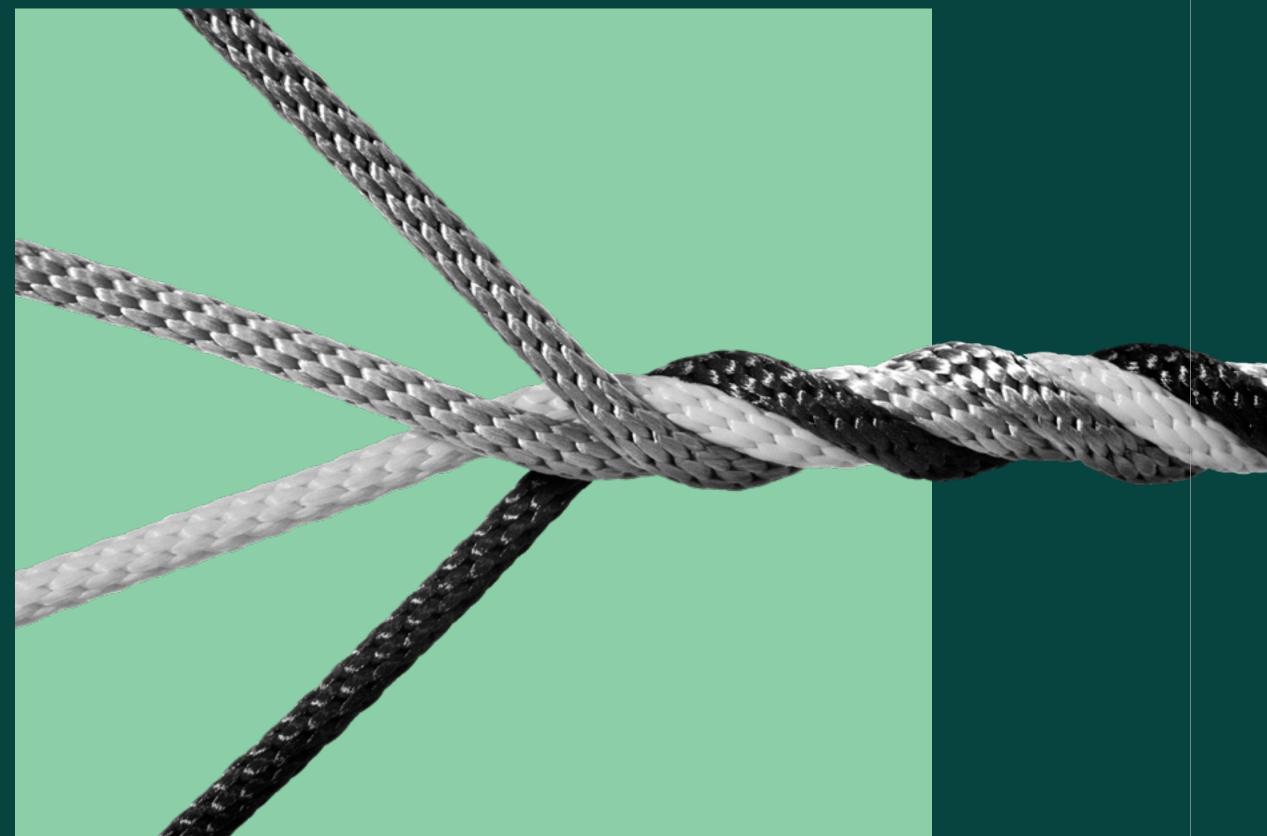
I: Current value of investment in issuer i
EV: Enterprise value of issuer i
C: Carbon emissions of issuer i

The LTCAP Sub-Portfolio's carbon footprint as of December 31, 2021, is 45.2 tCO_2e per million dollars invested.

Engaging effectively with companies

As an active owner, UTAM engages with companies, ensuring we're aligned in how we weigh ESG factors and leveraging our voting rights to influence management responsibility.

A key component of responsible investing is engagement with companies to ensure alignment on ESG-related issues and a net zero future. UTAM engages via collaborations with other institutional investors. We also work with specialized providers of corporate engagement services to extend our global reach. Whatever engagement avenue we pursue, the goal is the same: to seek accountability on ESG matters affecting companies' risk management, ongoing operations and long-term performance. We want to understand companies' assumptions while providing our perspective – with the ultimate aim of improving how ESG risks and opportunities are managed and aligning corporate actions with our net zero goals. We also apply a responsible investing lens to shareholder voting for the public equity securities in our portfolios. Wherever possible, we direct our managers' voting practices with a policy that gives appropriate weight to ESG factors.



Engaging with companies on ESG matters

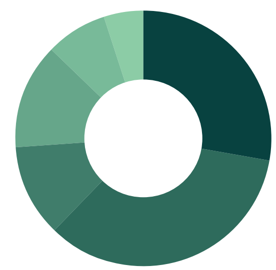
One of the pillars of a best-in-class active ownership approach is engagement with the management and boards of companies on ESG considerations. We believe that engagement influences corporate management teams to more effectively manage ESG risks and opportunities, which is essential for long-term outperformance.

Given our size and our practice of investing through third-party investment managers, we more often participate in collaborative engagement groups and initiatives. We believe that the collective influence of like-minded investors with substantial combined holdings will typically lead to better outcomes than we could achieve on our own. Here are a few examples:

- Since 2008, we have worked in collaboration with other institutional investors through our membership in the **Canadian Coalition for Good Governance** (see page 43), which promotes sound governance practices to the boards and management of issuers in Canada.
- In 2016, we became a signatory to **CDP** (formerly the Carbon Disclosure Project) (see page 43), which operates the global environmental disclosure system. We actively contribute to various CDP initiatives, including its Non-Disclosure Campaign, in which we engage with companies that have not responded to CDP's disclosure requests.
- Through our 2017 commitment to **Climate Action 100+** (see page 44), an initiative to directly engage with the world's largest corporate greenhouse gas emitters, we are active participants in encouraging companies to recognize and address carbon risk in the management of their operations.
- In 2018, we joined the **30% Club Canada** (see page 43), an initiative to promote the inclusion of women on the boards and at the executive management level of public companies. We actively participate in the 30% Club Canada Investor Group, which undertakes direct engagement with S&P/TSX listed companies whose boards have a gender imbalance, and which now promotes consideration of other elements of diversity at the board level.
- In early 2021, UTAM became a founding participant of the **University Network for Investor Engagement (UNIE)** (see page 46), a coalition of Canadian university endowments and pension plans. UNIE's coordinator is SHARE (Shareholder Association for Research & Education), a non-profit investor advocacy organization. In partnership with SHARE, UNIE engages with companies in the investment portfolios of participating universities, with the goals of reducing greenhouse gas emissions and accelerating the transition to a low-carbon economy.
- In the same year, UTAM became a founding participant of **Climate Engagement Canada (CEC)**. This initiative, akin to Climate Action 100+, will identify about 40 of Canada's highest greenhouse gas-emitting corporations and work collaboratively to engage with them and encourage leading practices with respect to climate change risks and opportunities.

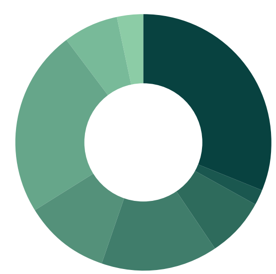
We augment these efforts with the services of specialized engagement service providers. By adding these services to our multi-pronged engagement approach, we leverage the influence of a larger asset base and extend the reach of engagement to represent our ESG concerns to issuers globally.

The following graphics summarize our 2021 engagement activities by our engagement service provider and through collaborative initiatives including the Canadian Coalition for Good Governance, CDP, Climate Action 100+ and 30% Club for companies in our long-term portfolios. All of the case studies that follow relate to 2021 engagement activities.



Companies engaged by country/region 2021

Europe	249
United States	310
Asia Pacific (excluding Japan)	103
Canada	120
Japan	69
Other	44



Companies engaged by issue 2021

Corporate governance	653
Labour standards	39
Environment	160
Strategy, risk and communication	303
Social and ethical	229
Climate change	491
Human rights	144
Business conduct	68

Other statistics

Companies engaged

888

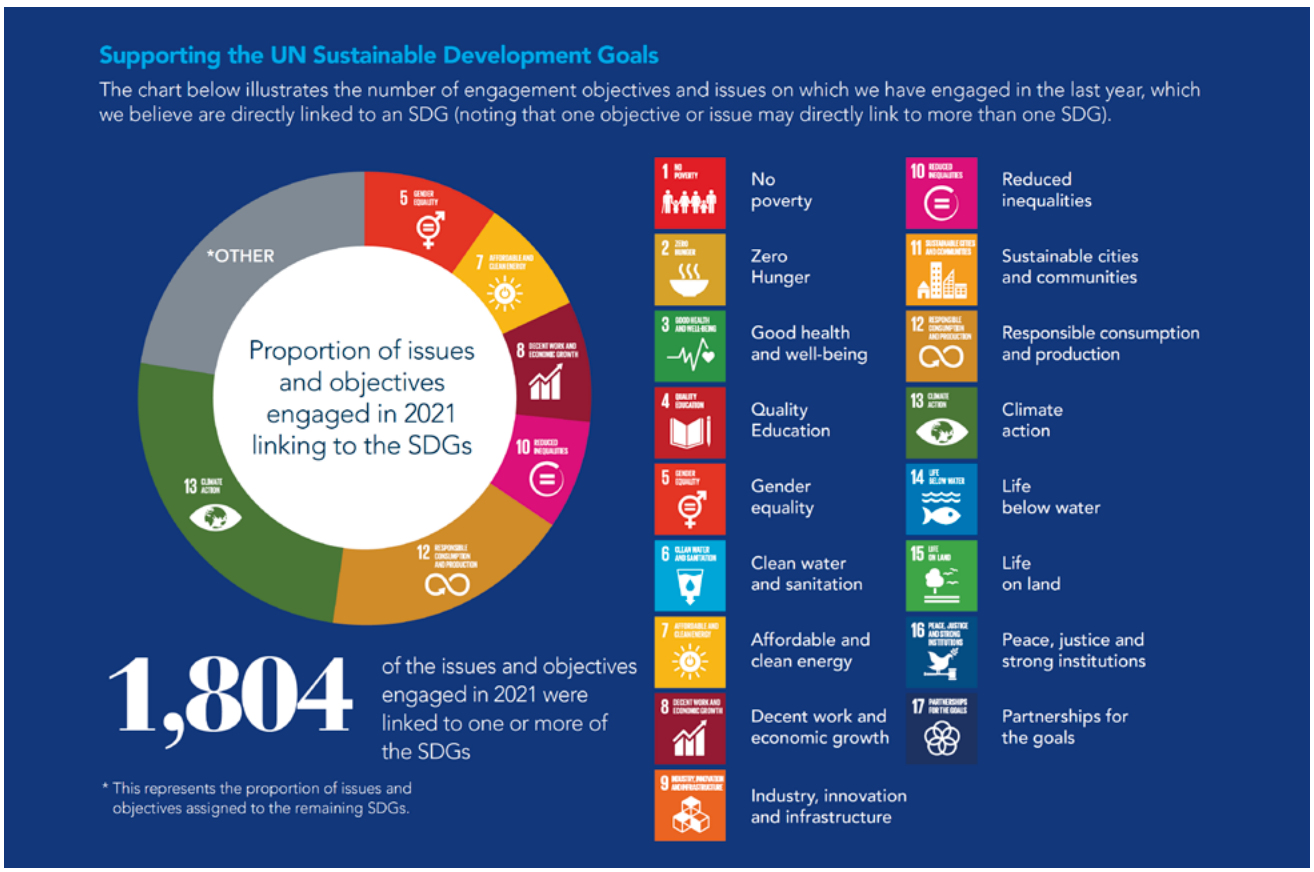
Countries covered

48

Engagement case studies

UTAM works with EOS at Federated Hermes ("EOS"), a leading stewardship service provider whose engagement activities enable long-term institutional investors such as UTAM to be more active owners of the assets they own or manage, through dialogue with public companies on ESG issues. EOS takes a collaborative approach, seeking client input in setting priorities and providing opportunities to participate in select engagements and learn from their experienced engagement professionals.

In 2021, through EOS, UTAM engaged with 791 companies in our long-term portfolios on 3,136 environmental, social, governance, strategy, risk and communication issues and objectives. Of these, 1,804 were linked to one or more of the UN Sustainable Development Goals (SDGs). The SDGs were adopted in 2015 as a global call to end poverty, protect the planet and ensure that everyone enjoys peace and prosperity by 2030.



Graphics courtesy of EOS at Federated Hermes

EOS's proprietary milestone system tracks progress in its engagements relative to the objectives set at the beginning of interactions with each company:

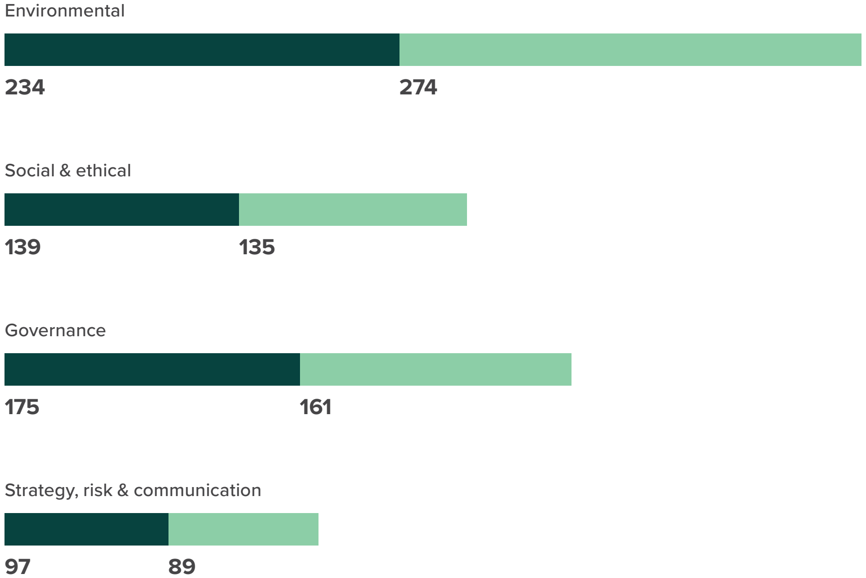
Milestone 1
Concern raised with the company at the appropriate management level

Milestone 2
The company acknowledges the issue as a serious investor concern

Milestone 3
Development of a credible strategy/Stretching targets set to address the concern

Milestone 4
Implementation of a strategy or measures to address the concern

In 2021, EOS made progress in delivering engagement objectives across regions and themes, moving forward at least one milestone for about 51% of objectives.



■ No change
■ Positive progress (engagement moved forward at least one milestone during the year to date)

EOS's engagement plan for 2022 covers 12 key themes and 37 sub-themes that reflect the diversity of issues affecting companies around the globe. Climate change is the top priority for EOS's clients. Last year, climate change was discussed at 80.6% of engagements featuring environmental topics, as shown in the chart below. Further details are available in EOS's 2021 Annual Review.

For 2022, EOS has identified four priority themes:

Climate change action: Many of the world's largest emitters have made net-zero commitments but don't have short- and medium-term emissions targets or targets aligned with the Paris Agreement goals. EOS will emphasize matching long-term commitments with a Paris-aligned strategy and targets.

Human and labour rights: COVID-19 has exacerbated social inequalities, increasing the risk of modern slavery and limiting access to food and medicines. EOS will also focus on indigenous and community rights, and high-risk regions such as disputed territories or conflict areas.

Human capital: EOS will press companies to provide fair wages and benefits, and will emphasize the importance of diversity, equity, inclusion and representation.

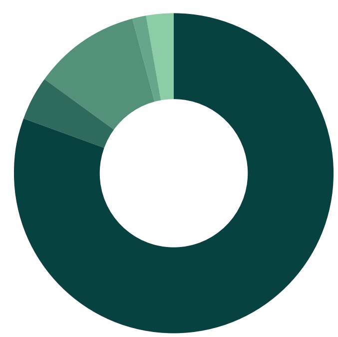
Board effectiveness and ethical culture: EOS will press boards to make improvements to ethnic diversity in line with recent progress on gender diversity. Boards should aim to achieve representation that is reflective of the diversity of the stakeholders they serve.

Issues and objectives engaged

Environmental	27.5%
Social and ethical	20.3%
Governance	37.6%
Strategy, risk and communication	14.6%

Companies engaged by region

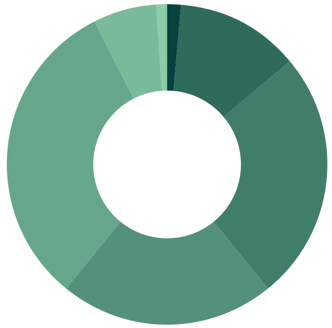
North America	331
Europe	175
Developed Asia	99
Emerging and developing markets	92
United Kingdom	59
Australia and New Zealand	35



Environmental issues engaged

Climate change	80.6%
Forestry and land use	4.5%
Pollution and waste management	10.7%
Supply chain management	1.6%
Water	2.5%

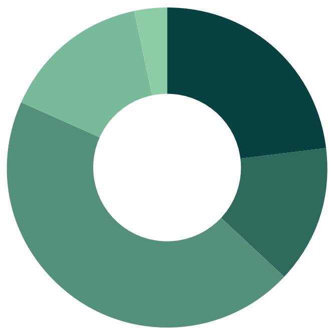
Environmental topics featured in 27.5% of EOS engagements in 2021.



Social and ethical issues engaged

Bribery and corruption	1.4%
Conduct and culture	12.7%
Diversity	25.3%
Human capital management	21.7%
Human rights	31.6%
Labour rights	6.3%
Tax	1.1%

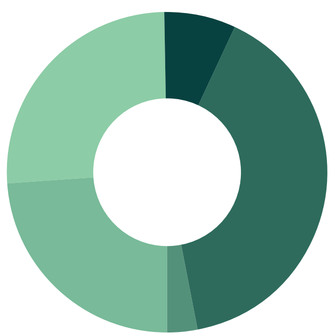
Social and ethical topics featured in 20.3% of EOS engagements in 2021.



Governance issues engaged

Board diversity, skills and experience	23.3%
Board independence	13.8%
Executive remuneration	44.7%
Shareholder protection and rights	14.8%
Succession planning	3.3%

Governance topics featured in 37.6% of EOS engagements in 2021.



Strategy, risk and communication issues engaged

Audit and accounting	7.2%
Business strategy	40.0%
Cyber security	3.1%
Integrated reporting and other disclosure	23.8%
Risk management	26.0%

Strategy, risk and communication topics featured in 14.6% of EOS engagements in 2021.

Below are four examples of effective EOS engagements with companies in the Endowment portfolio.

Daimler

Mercedes-Benz Group AG (Daimler), is a Germany-based automotive engineering company that develops, produces and distributes cars and vans in Germany.

In 2018, EOS led the collaborative Climate Action 100+ initiative to engage Daimler. The following year, the company announced targets for carbon neutral production, and committed to making all new Mercedes-Benz passenger vehicles carbon-neutral in both manufacturing and use by 2039. Daimler Trucks & Buses followed with a similar goal: by 2039, the manufacturer will only supply major markets with new vehicles that are CO_2-neutral in driving operation. Mercedes-Benz Cars & Vans set a Scope 3 emissions reduction target, verified by the Science Based Targets initiative.

Pfizer

As part of ongoing dialogue with Pfizer, a global biopharmaceutical company, EOS has advocated that the company begin reporting in line with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD), enhance its lobbying disclosures, and adopt more ambitious carbon reduction targets. EOS has also raised diversity concerns, starting in 2018, to encourage goals for gender and ethnic minority representation and disclosure of detailed workforce composition data. More recently, EOS engaged with Pfizer on pricing and access for its Covid-19 vaccine.

Over this time period, Pfizer published its first TCFD report and committed to become carbon neutral across its operations by 2030. In early 2020, the company appointed two new female directors with diverse backgrounds and set public goals for diversity in senior management.

JD.com

JD.com is a holding company mainly engaged in e-commerce in China, in online retail and related services, as well as in logistics and asset management services.

EOS began a series of engagements with the company in 2017, focusing on shareholder rights and ESG disclosures. JD.com began holding shareholder meetings and, after further EOS engagement in 2021, published its first ESG report, which included disclosure on corporate governance, data privacy and cybersecurity management, as well as JD.com's commitment to decarbonize.

Samsonite

Samsonite International S.A., a Hong Kong-based company, manufactures luggage, bags, travel accessories and protective cases for personal electronic devices.

EOS began discussions with Samsonite in 2018 on the use of sustainable materials and continues to engage the company on addressing sustainability and circular economy issues in product development.

Initially, the company had no clear public carbon reduction targets or climate change commitments. After discussions with EOS, Samsonite included carbon management commitments and quantitative targets, along with a circular economy commitment, in its 2020 sustainability strategy. In 2021, Samsonite also conducted a pilot to estimate, track and reduce Scope 3 emissions through engagement with key suppliers.

Our voting record as a responsible investor

Proxy voting is one of the most important rights available to public equity investors. UTAM's approach to proxy voting reflects our fiduciary duty to act in the best interest of our client. We also expect our third-party investment managers to act in the best interest of their clients when voting proxies. To that end, we routinely review the proxy voting practices of our public equity investment managers as part of our due diligence reviews. As a responsible investor and PRI signatory, UTAM has adopted the Institutional Shareholder Services (ISS) Sustainability Guidelines for proxy voting. These guidelines are consistent with the objectives of investors who take an integration approach to responsible investing. We apply these guidelines wherever possible. The guidelines, updated annually by ISS, reflect the following considerations:

ISS recognizes the growing view among investment professionals that sustainability or environmental, social, and corporate governance (ESG) factors could present material risks to portfolio investments. Whereas investment managers have traditionally analyzed topics such as board accountability and executive compensation to mitigate risk, greater numbers are incorporating ESG performance into their investment-making decisions in order to have a more comprehensive understanding of the overall risk profile of the companies in which they invest to ensure sustainable long-term profitability for their beneficiaries.

ISS has developed proxy voting guidelines that are consistent with the objectives of sustainability-minded investors and fiduciaries. On matters of ESG import, ISS' Sustainability Policy seeks to promote support for recognized global governing bodies promoting sustainable business practices advocating for stewardship of environment, fair labor practices, non-discrimination, and the protection of human rights.

On matters of corporate governance, executive compensation, and corporate structure, the Sustainability Policy guidelines are based on a commitment to create and preserve economic value and to advance principles of good corporate governance.

In the following section, we provide a summary of proxy voting statistics for public equity mandates where either the ISS Sustainability Guidelines were applied in 2021 or our third-party investment managers provided proxy voting information for the pooled funds in which Endowment assets were invested.

Our proxy voting record

In 2021, UTAM proxy votes were cast at nearly 6,700 meetings, representing over 89,000 proposals and agenda items put forward by either management or shareholders. In 8% of cases, votes were cast against management's recommendations.

Meetings by country/region*

Canada	US	Europe
3.4%	38.9%	36.3%
Asia	**Other**	
15.3%	6.2%	

* Numbers may not add up to 100.0% due to rounding

Working with other responsible investors

UTAM collaborates with other institutional investors through various responsible investing organizations and initiatives, taking a leadership role in establishing best practices in Canada and worldwide.

UTAM continues to expand our leadership role, on behalf of the University of Toronto and its stakeholders, in shaping and advancing the goals of responsible investing. We take on a wide range of board and committee roles with respected organizations in this area, helping to develop and evolve best practices. Over the past year, we once again made presentations at industry events and contributed our perspective on investing responsibly to forums of leading institutional investors. We also collaborated on advocacy initiatives and policy-related discussions in Canada and around the world.

Through these collaborations, we share insights and experiences that we feel will benefit other investors while evolving our own policies and processes. Leading by example, we also encourage better responsible investing practices among the companies we invest in and the managers we work with. And by forging productive alliances with like-minded institutional investors, we magnify our collective impact.

Principles in action: affiliations and collaborative partnerships

International Corporate Governance Network

In February 2020, UTAM joined the International Corporate Governance Network (ICGN), a leading authority on global standards of corporate governance and investor stewardship. The ICGN is led by investors responsible for assets under management of around US$70 trillion in over 45 countries. We also endorsed the ICGN Global Stewardship Principles, which set out ICGN's view of best practices in relation to investor stewardship obligations, policies and processes. In 2020 and again in 2021, we were shortlisted for an ICGN Global Stewardship Disclosure Award.

Canadian Coalition for Good Governance

The CCGG represents the interests of institutional investors in promoting sound corporate governance practices among Canadian public companies. UTAM has been a member since 2008 and has been represented on the CCGG board and its committees, including currently the Environmental & Social Committee.

An Update on Climate Action 100+

In 2017, UTAM, on behalf of the University of Toronto, became a founding participant in Climate Action 100+, an investor-led initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The initiative seeks to achieve its objectives by engaging directly with these companies.

The initiative started by identifying the 100 companies around the world that had the highest combined direct and indirect greenhouse gas emissions, according to data modelled and reported by CDP (formerly the Carbon Disclosure Project). Since then, more companies have been added, bringing the list of focus companies to over 160. These companies represent more than 80% of global industrial emissions. They are either critical to the transition to a net-zero-emissions economy or they are exposed to climate-related financial risks not captured by emissions data.

Officially launched on December 12, 2017 – the second anniversary of the Paris Agreement – this initiative seeks the following three commitments from companies on the focus list:

- Implement a strong governance framework that clearly articulates a board's oversight of, and accountability for, climate change risks and opportunities.
- Take action to reduce greenhouse gas emissions across the value chain, consistent with the Paris Agreement's goal of limiting the global average temperature increase to well below two degrees Celsius above pre-industrial levels, aiming for 1.5 degrees (notably, this implies the need to move towards net-zero emissions by 2050 or sooner).
- Provide enhanced corporate disclosure in line with the final recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) and, where applicable, sector-specific Climate Action 100+ has become the largest-ever global investor engagement initiative on climate change, with growing influence and impact. As of October 2022, the initiative reports 700 investor signatories (170% growth in investor participation since launch), including some of the world's largest asset managers. Together, they represent approximately US$68 trillion in assets under management.

Along with other participating investors, UTAM takes part in engagement planning calls and then collaboratively engages with a number of focus companies.

Progress in 2021

Since the launch of Climate Action 100+, we have seen great progress, with numerous companies making public and private commitments that align with the initiative's objectives. In its 2021 Year in Review Progress Update, Climate Action 100+ shared highlights from company commitments made last year, including:

- **Ford Motor Company**, **General Motors**, and **PACCAR**, three major North American automobile and truck manufacturers, each set medium-term Science Based Targets initiative (SBTi) verified targets. Both Ford's and General Motors' Scope 1 and 2 emissions targets are aligned with limiting warming to 1.5°C.

- **LyondellBasell**, one of the world's largest plastics, chemicals and refining companies, announced its ambition to achieve net zero emissions from its global operations by 2050, and to achieve an absolute reduction of 30% in Scope 1 and 2 emissions by 2030.

Climate Action 100+ Net-Zero Company Benchmark

In March 2021, the Climate Action 100+ initiative introduced the Climate Action 100+ Net-Zero Company Benchmark. The benchmark assesses focus companies on their progress in the transition to a net zero future, and it provides investors with a transparent and robust tool to facilitate focus company engagement. The benchmark's key indicators include, among other things, an expectation that companies will set an ambition to achieve net zero GHG emissions by 2050 or sooner, set GHG reduction targets, have a decarbonization strategy, and commit to implementing TCFD measures.

The second round of assessments of focus companies using the benchmark were released in March 2022. We are encouraged to see that 69% of the focus companies engaged by Climate Action 100+ had set 2050 net zero targets in some form, 90% had board-level oversight of climate change and 89% had committed to align their disclosures with TCFD recommendations. There is still work to be done, however: only 17% of focus companies have set medium-term targets aligned with limiting warming to 1.5°C, and only 42% have comprehensive commitments for 2050 or sooner that cover all material GHG emissions, including material Scope 3 emissions.

Looking ahead

Climate Action 100+ will focus on several priorities, in addition to ongoing engagements with focus companies, and projects led by regional engagement working groups. Key priorities include:

- Phase 2 of Climate Action 100+ will launch in 2023 with renewed clarity on goals and a supporting updated strategy to aid ambitious and constructive investor engagement with focus companies. Collectively with other signatories, UTAM will help shape the initiative's engagement strategy and drive its ambitions and goals for Phase 2.
- Signatories will step up the intensity of engagements with focus companies, continuing to push for increased alignment with the Net-Zero Company Benchmark and the publication of more detailed decarbonization strategies.
- The development of sector-based strategies will continue. These strategies look at carbon-intensive sectors and the actions that must be taken to accelerate the pace of the net zero transition. Published strategies for the aviation, steel, food and beverage, and electric utilities sectors will be supplemented with strategies for the diversified mining and trucking sectors.

Other responsible investing activities

We have undertaken a number of additional activities that reflect our commitment to responsible investing, a few of which are highlighted below.

Investor statements

- In June 2021, UTAM joined more than 450 investors, representing US$41 trillion in assets, in signing the **2021 Global Investor Statement to Governments on the Climate Crisis**, urging world leaders to accelerate action to address climate change. The signatories called on governments to undertake five priority actions before the 26th United Nations Climate Conference of the Parties (COP26) in November 2021, including strengthening their Nationally Determined Contributions (NDCs) for 2030 in line with limiting warming to 1.5°C, committing to implementing mandatory climate risk disclosure requirements aligned with the Task Force on Climate-related Financial Disclosures (TCFD) recommendations, and ensuring that COVID-19 economic recovery plans support the transition to net zero emissions and enhance resilience.

- In June 2021, UTAM and more than 70 other institutional investors signed a letter to Canada's Standing Senate Committee on Banking, Trade and Commerce regarding Bill S-216, the **Modern Slavery Act**. The letter asks the committee to strengthen parts of the bill, including widening the scope of human rights risks beyond forced and child labour to include other human rights issues that companies and investors encounter. The signatories share an interest in addressing human rights risks within their investment portfolios. Together, they have $857 billion in assets under management.

Read more UTAM news at utam.utoronto.ca/news

Leadership in responsible investing

UTAM has taken a leadership role in responsible investing, helping to identify, shape and promote best practices. Several members of our senior management, drawn from diverse areas of our organization, have assumed leadership or advisory roles on professional committees, boards and associations that are advancing responsible investing practices.

Our President and CIO, Chuck O'Reilly, joined the steering committee of the Intentional Endowment Network (IEN) and the Communications working group of the Net-Zero Asset Owner Alliance in 2021.

Our Chief Risk Officer, Doug Chau, is a member of the PRI's Asset Owner Technical Advisory Committee, which provides advice, tools and support to asset owners implementing the PRI, as well as insights into the opportunities offered by incorporating ESG factors into investment decision-making. The committee also undertakes engagement with industry stakeholders, including existing and potential PRI signatories, about responsible investment practices. In 2021, Doug joined the Monitoring, Reporting and Verification work track of the Net-Zero Asset Owner Alliance.

Lisa Becker, UTAM's Chief Operating Officer and Chief Compliance Officer, serves on the board of the Responsible Investment Association (RIA). She was appointed Secretary of the Executive Committee in 2019 and subsequently moved to the role of Treasurer. Lisa also served as Chair of the RIA's Governance Policy Committee until June 2020, when she became Chair of the Finance and Audit Committee. The RIA believes that the integration of ESG factors into the selection and management of investments can provide superior risk-adjusted returns and positive societal impact. In June 2022, Lisa was also appointed to the Environmental and Social Committee of the Canadian Coalition for Good Governance (CCGG). The committee helps CCGG provide best-practice guidance, through a governance lens, on environmental and social risks.

Lu Yao, a senior member of our investment team, has been a member of PIAC's Investor Stewardship Committee since June 2020, preceded by Lisa Becker. The committee aims to develop, monitor and promote robust standards and best practices for investor stewardship of pensions in Canada. Activities reviewed by the committee include proxy voting, corporate engagement, governance, integrating ESG factors into the investment process, and advocacy around responsible investing with policy-makers and standard-setters. In 2021, Lu joined the Engagement work track of the Net-Zero Asset Owner Alliance.

UTAM's operations continue to be carbon neutral

UTAM as a corporation continues to be substantially carbon neutral. In 2021, we continued our program of purchasing carbon offsets to mitigate the carbon footprint of our business travel, our electricity and gas consumption, and our use of paper. We recognize that purchasing carbon offsets is not a perfect or complete solution to mitigating the climate impact of our activities. However, we feel it is an important step in the right direction. To cover our activities in 2021, we purchased carbon offsets representing 40 tonnes of CO_2 equivalent. In 2021, as in 2020, our carbon offset purchase was significantly lower than in years past, reflecting reduced travel due to the pandemic.

Our affiliations

30% Club Canada

30% Club Canada members commit to a Statement of Intent that expresses the collective objective to achieve a minimum of 30% women on the boards and at the executive management level of S&P/TSX Composite Index listed companies by 2022.

UTAM actively participates in the 30% Club Canada Investor Group, which coordinates the investment community's approach to promoting diversity on boards and within senior leadership at investee companies. The group also promotes the exercise of ownership rights to effect change, and it encourages all investors to engage on the issue of diversity with board chairs and senior management teams. Activities include direct engagement with S&P/TSX listed companies that have gender imbalance on their boards.

30percentclub.org

Member since 2018

Canadian Coalition for Good Governance

The Canadian Coalition for Good Governance (CCGG) represents the interests of institutional investors in promoting sound corporate governance practices among Canadian public companies.

In 2018, the CCGG published The Directors' E&S Guidebook, which provides practical insights and recommendations for effective board oversight and company disclosure of environmental and social (E&S) factors. We support the CCGG's efforts to assist boards in developing a robust, principles-based approach to the governance and oversight of E&S factors and to bring a deeper dialogue between companies and investors in this area. In 2022, UTAM COO Lisa Becker was appointed to the E&S Committee.

ccgg.ca

Member since 2008

CDP

The CDP, formerly the Carbon Disclosure Project, operates the global environmental disclosure system. Each year CDP supports thousands of companies, cities, states and regions to measure and manage their risks and opportunities on climate change, water security and deforestation.

UTAM is an active contributor to various CDP initiatives, including its Non-Disclosure Campaign, in which we engage with companies that have not responded to CDP's disclosure requests.

cdp.net

Signatory since 2016

Our affiliations

Climate Action 100+

Climate Action 100+ is an investor-led initiative to ensure the world's largest corporate greenhouse gas emitters take necessary action on climate change. The focus companies include the initial 100 "systemically important emitters," identified with the highest combined direct and indirect GHG emissions, and more than 60 other companies critical to accelerating the net zero transition.

We were a founding participant in the initiative and are working with other investors to engage with a number of companies on the list.

climateaction100.org

Signatory since 2017

Institutional Limited Partners Association

The Institutional Limited Partners Association (ILPA) advances the interests of private equity investors globally through education programs, independent research, development of best practices, and opportunities for networking and collaboration.

UTAM has endorsed ILPA's Private Equity Principles, which stipulate that managers should provide investors with portfolio information on all material risks, including those related to environmental, social and governance (ESG) factors. ILPA has included several examples from UTAM in its ESG Roadmap and Resources. The Roadmap includes a compilation of best practices that limited partners can consider implementing to advance ESG investing efforts at their organizations.

ilpa.org

Member since 2002

Intentional Endowments Network

The Intentional Endowments Network (IEN) is a membership organization of like-minded institutions of higher education that collectively seek to advance consideration and implementation of their individual responsible investing initiatives.

Chuck O'Reilly, our President and CIO, is on the IEN's net zero endowment steering committee. We have also participated in a number of IEN webinars, where we have shared our approach to responsible investing.

intentionalendowments.org

Member since 2018

Our affiliations

International Corporate Governance Network

The International Corporate Governance Network's mission is to promote effective standards of corporate governance and investor stewardship to advance efficient markets and sustainable economies worldwide.

UTAM has endorsed the ICGN Global Stewardship Principles, which set out ICGN's view of best practices in relation to investor stewardship obligations, policies and processes.

icgn.org

Signatory since 2020

Montréal Carbon Pledge

By signing the Montréal Carbon Pledge, investors commit to measure and publicly disclose the carbon footprint of their investment portfolios on an annual basis. The Pledge was launched in September 2014 at PRI in Person in Montreal, and it is supported by the Principles for Responsible Investment (PRI) and the United Nations Environment Programme Finance Initiative (UNEP FI).

We have published the carbon footprint of the long-term portfolios on an annual basis.

montrealpledge.org

Signatory since 2017

United Nations–convened Net-Zero Asset Owner Alliance

The Net-Zero Asset Owner Alliance is an international group of institutional investors delivering on a bold commitment to transition their investment portfolios to net zero greenhouse gas (GHG) emissions by 2050.

The Alliance has established a framework to guide its members towards the 2050 net zero objective. The framework includes setting ambitious five-year targets, and members must report regularly on their progress towards these targets. UTAM's membership in the Alliance on behalf of the University's Endowment makes U of T the first university in the world to join the Alliance

unepfi.org/net-zero-alliance

Member since 2021

Our affiliations

Principles for Responsible Investment

The Principles for Responsible Investment (PRI) supports a global network of signatories as they incorporate ESG factors into their investment decisions. The PRI acts in the long-term interests of financial markets, economies, society and the environment.

Doug Chau, our Chief Risk Officer, is a member of the PRI's Asset Owner Technical Advisory Committee, which provides advice, tools and support to asset owners implementing the PRI. The committee also undertakes engagement with industry stakeholders, including existing and potential PRI signatories, about responsible investment practices.

unpri.org

Signatory since 2016

Responsible Investment Association

The Responsible Investment Association (RIA) brings together Canadian mutual fund companies, financial institutions, asset managers, advisors, consultants, researchers and individual investors who believe that integrating ESG factors into investment management can yield superior risk-adjusted returns and positive societal impact.

Lisa Becker, our Chief Operating Officer, serves on the RIA's board. Until June 2020, she served as Secretary of the RIA and Chair of the Governance Policy Committee. She now serves as Treasurer and the Chair of the Finance and Audit Committee.

riacanada.ca

Member since 2018

University Network for Investor Engagement (UNIE)

UNIE is a corporate engagement program for Canadian university endowments and pension plans, launched in February 2021. UNIE is coordinated by Shareholder Association for Research & Education (SHARE), a leading not-for-profit organization in responsible investment services, research and education. SHARE works with a growing network of institutional investors, helping them to become active owners and to develop and implement responsible investment policies and practices.

UTAM is a founding participant of UNIE. Chuck O'Reilly, our President and CIO, represents UTAM and the University of Toronto in this initiative

share.ca/UNIE

Member since 2021

UTAM team

As of September 30, 2022

Our team of professionals works closely with the Board, the expert Investment Committee, the University administration and various governance bodies in our management of the University's assets.

Chuck O'Reilly
CFA, CAIA
President and Chief Investment Officer

Stephanie Zed
Executive Assistant

Investments

Leon Lu CFA, CAIA, MSc
Head of Fixed Income

Jean Potter
Head of Private Markets

Kelvin Hu CFA, FRM, MFE
Associate Portfolio Manager, Public Equities

Lu Yao CFA, CAIA, FRM, MSc, MA
Associate Portfolio Manager, Public Equities

Jonathan Yeung CFA, FRM, MFin
Associate Portfolio Manager, Fixed Income

Victor Zheng CFA, CPA, MBA
Associate Portfolio Manager, Private Markets

Shawn Shangguan CFA
Senior Associate, Fixed Income

Kiana Xu CFA, CAIA
Senior Associate, Public Equities

Logan Li CFA
Associate, Public Equities

Lakshman Namburi MSc
Associate, Private Markets

Grace Hao CFA, FRM
Analyst, Fixed Income

Risk and Research

Douglas Chau CFA, PRM, MSc, PhD
Chief Risk Officer and Head of Research

Ivan Siew CFA, FRM, MFin
Director, Risk and Research

Ayako Dorotheo
Senior Analyst, Investment Systems and Data

Ye Long MMF, PRM
Senior Analyst, Risk and Research

Mavis Ma
Analyst, Risk and Research

Angie Wu
Analyst, Investment Systems and Data

Operations

Lisa Becker FCA (ICAEW)
Chief Operating Officer
Chief Compliance Officer

Zohair Ahmed CPA, CMA, CFA
Director, Operations

Anne Lee
Senior Manager, Investment Operations

Toan Duong CPA, CMA
Manager, Investment Operations

Kane Huang CFA
Senior Analyst, Investment Operations

Zichang Ling
Analyst, Investment Operations

Dillan Eisenhaur CAIA
Senior Analyst, Operational Due Diligence

Diane Jimenez
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