

TMX Group Limited

2020 TCFD Climate Report



[tmx.com](https://www.tmx.com)



TABLE OF CONTENTS

Letter from CEO, John McKenzie	3
About TMX Group	5
Introduction	6
1. Governance	7
Board Oversight	7
Management's Role	6
2. Strategy	8
Determining our Climate-related Risks and Opportunities	8
Description of Climate-related Risks and Opportunities	9
Products and Services	14
3. Risk Management	15
Identification and Assessment of Climate-related Risks	15
Management of Climate-related risks	16
4. Metrics and Targets	18
GHG Emissions	18
Transition Risks	19
Physical Risks	20
Climate-related Opportunities	21
Capital Deployment	22
Internal Carbon Prices	22
Remuneration	22
5. Future Priorities	23
Trademarks	24
Forward-Looking Information	25



LETTER FROM CHIEF EXECUTIVE OFFICER



On behalf of TMX Group, I'm pleased to introduce our first TCFD Report that presents our efforts towards implementing the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD) framework.

Addressing climate change has become a pressing global issue and represents a long-term threat to economic prosperity and life on our planet. A changing climate is manifesting itself through extreme weather events, droughts and other changes in our ecosystem, the impacts of which are becoming apparent from a societal, and increasingly, financial perspective. Further, global efforts to transition to a low-carbon economy are intensifying.

At TMX Group, we recognize that we have an important role to play in addressing the climate crisis.

This report is an important step in our journey to communicate our efforts to understand how climate change could impact our business, take steps to integrate climate considerations into our core business activities and outline our future priorities. The TCFD provides a framework in which to share these steps and provide more meaningful disclosure to our stakeholders. In the pages that follow, we detail our approach to identify, assess and manage our climate risks and opportunities, and outline the steps we are taking to reduce TMX Group's greenhouse gas (GHG) footprint.

In 2021, we purchased voluntary carbon offsets utilizing TMX Group subsidiary Trayport's Joule™ platform to neutralize our GHG footprint for all of our 2020 emissions. We intend to achieve carbon neutrality every year going forward.

We also recognize that, given our central position in the capital markets ecosystem, TMX Group has a critical role in supporting Canadian capital markets and our clients through the transition to a low-carbon economy and their environmental, social and governance (ESG) needs.

Earlier this year, our equity exchanges Toronto Stock Exchange (TSX) and TSX Venture Exchange (TSXV) announced a new strategic alliance with IHS Markit to provide issuers with access to a multi-framework ESG reporting and data distribution repository. We have endorsed the IHS Markit ESG Reporting Repository, which facilitates companies' ESG disclosures into leading frameworks and standards, including the TCFD. In November, Trayport, a TMX Group subsidiary, introduced a new global voluntary carbon trading platform using Trayport's Joule™ technology, that will enable our global clientele to access carbon markets easily and efficiently.

We are pleased to see progress across the corporate landscape as more companies are moving to enhance their climate disclosures and making net-zero commitments. TMX Group is a supporting organization to the Canadian Investor Statement on Climate Change, recognizing that climate change presents a major threat to long-term growth and prosperity, and that there is an urgent need to accelerate the transition towards a net-zero economy. This includes the support of robust climate-related disclosures in alignment with the TCFD.

We also recognize the fact that more hard work is ahead.



Moving forward, TMX Group is committed to improving our disclosures and further integrating our climate-related strategy with our corporate strategy, business processes, and investment decisions, including investing in the transition to a low-carbon economy.

We also pledge to continue our collaborative work with stakeholders throughout the Canadian marketplace towards building a climate-resilient economy and a sustainable future for the next generation.

Thank you for your continued support.

Sincerely,

A handwritten signature in black ink, appearing to be 'J. McKenzie', with a long horizontal flourish extending to the right.

John D. McKenzie
Chief Executive Officer
TMX Group Limited



ABOUT TMX GROUP

TMX Group Limited (TMX Group) operates global markets, and builds digital communities and analytic solutions that facilitate the funding, growth and success of businesses, traders and investors. TMX Group's key operations include **Toronto Stock Exchange, TSX Venture Exchange, TSX Alpha Exchange, The Canadian Depository for Securities, Montréal Exchange, Canadian Derivatives Clearing Corporation**, and **Trayport** which provide listing markets, trading markets, clearing facilities, depository services, technology solutions, data products and other services to the global financial community. TMX Group is headquartered in Toronto and operates offices across North America (Montréal, Calgary, Vancouver and New York), as well as in key international markets including London, Hong Kong and Singapore. For more information about **TMX Group**, visit our website at www.tmx.com. Follow TMX Group on Twitter: [@TMXGroup](https://twitter.com/TMXGroup).

Additional Resources

- [2020 Annual Report](#)
- [2020 ESG Report](#)
- [2021 Management Information Circular](#)

Key Statistics (for the year ended December 31, 2020)

1,383	Number of FTEs
\$865.1 M	Annual Revenue
\$42.8 B	Equity Capital Raised (on TSX and TSXV)
\$865.8 M	Average Daily Volume (All TMX equities marketplaces)

TMX Group ESG Reporting Timeline



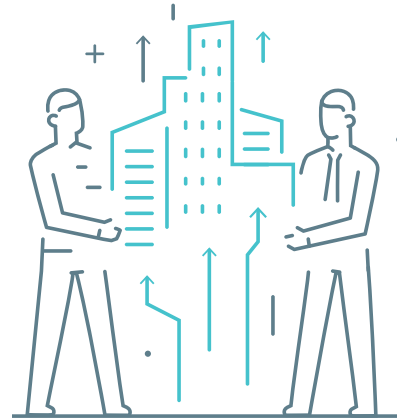


INTRODUCTION

TMX Group is an official supporter of the Financial Stability Board's Task Force on Climate-Related Financial Disclosure (TCFD) and recognizes the TCFD recommendations as a useful framework for assessing and reporting on climate-related risks and opportunities. Our markets and our clients are evolving in response to climate change. We have seen a growing number of net-zero commitments, a doubling of environmental, social, and governance (ESG) exchange-traded funds (ETFs) listed on our markets accompanied by assets flowing into them multiplying sixfold, and our clean and green technology listed companies have performed strongly. We also acknowledge the need for more consistent and robust information on material ESG factors to support investment decision-making and to enable investors to better assess and manage ESG risk exposures through the use of globally recognized frameworks such as the TCFD.

This report is TMX Group's first disclosure aligned to the TCFD recommendations and, except where indicated otherwise, covers the financial year ended December 31, 2020. Our responses to the TCFD recommendations are organized into sections that align with the TCFD framework: (1) Governance, (2) Risk Management, (3) Strategy, and (4) Metrics and Targets. To inform this report, we engaged a cross-functional working group from the organization throughout the entire process from input to review and validation, including materiality interviews with select members of the Board of Directors and senior management team.

TMX Group is taking a phased approach to implementing the TCFD recommendations. Our first report reflects the work we have done to date to integrate climate in the way we run our business. Our disclosures will evolve as we take action to improve our resilience of climate-related risks and capitalize on opportunities.



TCFD framework:

- (1) Governance
- (2) Risk Management
- (3) Strategy
- (4) Metrics and Targets



1. GOVERNANCE

Board Oversight

Our Board of Directors works with our Chief Executive Officer to ensure that TMX Group fulfils its responsibilities to stakeholders. This includes overseeing the development and execution of our strategic plan and our ESG and climate objectives and ensuring that we have policies, processes and systems in place to identify and manage key risks (including climate-related risks specifically) and objective certainty. We assess climate-related risks in relation to our ability to achieve our strategic objectives as part of our Objective Centric Risk Management (OCRM) approach to enterprise risk management.

Over the past two years, our Board of Directors and its committees have been focused on overseeing TMX Group's integration of ESG objectives into our business strategies, processes, risk management system and operations. The Board of Director's primary responsibility is to provide governance and stewardship to TMX Group, and to oversee our strategy, business operations, risks, and management.

Members of our Board of Directors are equipped with the skills and experience to oversee the impacts of climate change to our business, and are responsible for approving and monitoring the achievement of any climate-related objectives. This past year, five directors participated in our climate-focused materiality analysis (described further under "Strategy - Determining our Climate-related Risks and Opportunities - Climate-focused Materiality Analysis" below) and the entire Board of Directors participated in an education session on climate change, including TCFD.

Our Board of Directors is responsible for approving TMX Group's risk management framework and, with the support of its Finance and Audit Committee (FAC), is responsible for assessing enterprise risk management activities and findings, risk management policy and risk appetite statements, including those related to climate change. The Board of Directors receives an update on our ESG activities from management on a quarterly basis.

The FAC meets quarterly to review risk management reports and makes recommendations to the Board of Directors regarding TMX Group's risk profile and risk appetite. Our Governance and Regulatory Oversight Committee (GROC) is responsible for overseeing our ESG reporting activities and receives bi-annual updates from our ESG reporting team on our initiatives and progress in this area.

Management's Role

Our ESG strategy efforts, including those related to climate, are led by our Enterprise Sustainability and Investor Relations Team which reports into our Chief Financial Officer and the GROC. As part of these efforts, our Sustainable Finance Team, composed of business leaders from across the organization, focuses on developing new products and services that support our clients' ESG needs for both issuers and investors. In addition, four members of our senior management team participated in our climate-focused materiality analysis (described further under "Strategy - Determining our Climate-related Risks and Opportunities" below).

Our Strategy and Risk Management Committee (SRC), which comprises the Chief Executive Officer and key members of the senior leadership team, is responsible for implementing and monitoring the enterprise risk management program. The Chief of Enterprise Risk and Compliance, who heads the Enterprise Risk and Compliance Management group, has a reporting line to the Chair of the FAC. The Chief of Enterprise Risk and Compliance regularly contributes to the FAC and is a member of the SRC.



2. STRATEGY

Determining our Climate-related Risks and Opportunities

Our key climate-related risks and opportunities are informed by (i) our risk management processes (set out under “Risk Management”), (ii) our climate-focused materiality assessment (described further below), and (iii) regularly engaging with a diverse set of stakeholders who have an interest in or are affected by our business. From these activities, we have identified the climate-related risks and opportunities that could materially impact our business directly (through our operations) and indirectly (through the effects of climate change on our issuers and client base). This will help guide and inform our approach to embedding sustainable practices in our operations. The climate-related risks and opportunities discussed in this report have provided a foundation upon which we are integrating climate into our overall enterprise strategy.

As part of our continual stakeholder engagement process, we seek guidance and feedback from investors, issuers, clients, ESG rating agencies and other organizations, all of which provide external perspectives on our climate-related risks, opportunities and disclosures.

Climate-focused Materiality Analysis

Our materiality assessment process was facilitated by an independent sustainability consultancy. In addition to performing industry research and benchmarking, we conducted interviews with (i) three TMX Group investors, (ii) five members of the Board of Directors, and (iii) four members of the senior management team. Interviewees were asked to rank the importance of various climate topics by the level of risk, opportunity and impact for TMX Group and were asked to assign a time horizon for when each topic was deemed likely to materialize if the risk was to remain unmitigated or the opportunity was actioned.

The results of the materiality analysis were presented to the Board of Directors and the senior management team and illustrated that currently,

our climate-related opportunities are perceived to be more material than our climate-related risks. As described in further detail below under “Description of Climate-related Risks and Opportunities”, capitalizing on new products, services and markets was consistently rated as TMX Group’s most material opportunity. Market and reputational risks were seen as the top climate-related direct risks for TMX Group while policy and legal risk and the opportunity cost of not transitioning to the low-carbon economy were ranked as the top climate-related risks for TMX Group and its issuer base.

Based on our materiality assessment, we anticipate that climate-related opportunities and risks will play a more prominent role in informing our overall enterprise strategy going forward.

We continue to proactively consider climate opportunities in our short-, medium- and long-term corporate strategy and objectives. Our materiality assessment provided foundational building blocks to understanding the climate risks and opportunities in our business and we expect to build upon this work by continuing to engage with our clients, investors and stakeholders.

We are closely engaged with organizations within the climate finance community and are members of the following groups:

- Canadian Standards Association Transition Finance Taxonomy Technical Committee
- Institute for Sustainable Finance Research Advisory Committee
- Responsible Investment Association
- UN Sustainable Stock Exchanges
- World Federation of Exchanges Sustainability Working Group
- Climate Engagement Canada
- Canadian Champions for Global Sustainability Standard¹

¹ Letter from the Deputy Prime Minister to the Chair of the Board of Trustees of the IFRS Foundation



Through our industry engagement, our understanding of the potential physical and transitional impacts of climate change will continue to evolve. Our future climate-related initiatives will also be informed by: the new International Sustainability Standards Board by the International Financial Reporting Standards (IFRS) Foundation (which will maintain a core office in Montreal)³ and the Canadian Securities Administrators' recent proposal on climate disclosure⁴.

TMX Group is a supporting organization to the **Canadian Investor Statement on Climate Change**, recognizing that climate change presents a major threat to long-term growth and prosperity, and that there is an urgent need to accelerate the transition towards a net-zero economy. This includes the support of robust climate-related disclosures in alignment with the TCFD.²

Description of Climate-related Risks and Opportunities

Consistent with the TCFD recommendations, we are assessing the potential impact of physical and transition risks and opportunities from climate change based upon time horizons of short-term (2 years), medium-term (5 years) and long-term (10 years). In our assessment, we have identified the time horizons in which the risk is deemed to likely materialize if the risk was to remain unmitigated.

TMX Group Climate-related Risks and Initial Assessments

Physical Risk Type	Description of Risk	Initial Assessment of Impact	Timing
Acute <i>Increased severity of extreme weather events such as flooding or heat waves</i>	Power supply disruptions to key infrastructure such as data centres	Market outages have a high impact on our business. However, these events are low in probability and typically short in duration.	Ongoing / Short-Term
	Inability of employees to physically access office locations	During the COVID-19 pandemic, approximately 95% of our workforce transitioned to remote working which suggests that such events will have a low impact.	

² Canadian Investor Statement on Climate Change

³ IFRS Foundation announces International Sustainability Standards Board, consolidation with CDSB and VRF, and publication of prototype disclosure requirements

⁴ Consultation Climate-related Disclosure Update and CSA Notice and Request for Comment Proposed National Instrument 51-107 Disclosure of Climate-related Matters



Physical Risk Type	Description of Risk	Initial Assessment of Impact	Timing
Chronic <i>Changes in long-term climate conditions such as changing patterns of precipitation, temperature and/or wind</i>	Changes in long term climate conditions may affect businesses in locations in which TMX Group or its clients operate	This may result in disruptions to production or operations of our listed issuers impacting their financial performance, which may adversely affect our business.	Medium-Term

Transition Risk Type	Description of Risk	Initial Assessment of Impact	Timing
Policy & Legal	Increased pricing of GHG emissions	The federal government of Canada has announced a carbon pollution pricing schedule whereby the price of carbon will rise to \$170/tonne by 2030 ⁵ . While this may have a low impact on TMX Group (which is not a large emitter of GHGs), it may impact our listed issuers in energy intensive sectors, which may adversely affect our business.	Medium-Term
	Enhanced climate reporting obligations	<p>Mandated ESG disclosure obligations will have a varying impact on our issuers depending on the construct and timing of the requirements (e.g. public versus private, and proportionate application for small-cap issuers). Enhanced public company reporting obligations may result in a decrease in attractiveness in listing publicly due to increased compliance costs. A decrease in new listings or increase in de-listings may adversely affect our business.</p> <p>Broad adoption of a comprehensive global baseline of high-quality sustainability disclosure standards, such as that proposed by the IFRS, is likely to have a neutral impact on our business.</p>	
Reputation	Perception of the role of exchanges in the climate transition	Given our central position in the capital markets ecosystem, TMX Group has a critical role in supporting Canadian capital markets and our clients through the transition to a lower carbon economy as well as addressing other ESG needs. Failure to address this shift and demonstrate leadership may impact our reputation and the attractiveness of our markets to Canadian and global investors. This could have an adverse impact on our cost of capital.	Medium-Term

⁵ Update to the Pan-Canadian Approach to Carbon Pollution Pricing 2023-2030



Transition Risk Type	Description of Risk	Initial Assessment of Impact	Timing
Market	Shift in consumer preferences and sectoral stigmatization	<p>Canada has a strong primary resource-based economy which includes energy and mining. This may create a perception amongst investors that investing in our markets is carbon intensive and may obscure the changing nature, composition and weighting of TSX and TSXV's issuer base.</p> <p>For example, a segment of investors may no longer be able to invest in some parts of the oil and gas sector, notably upstream producers, due to their ESG screening practices. The oil and gas sector represents 6% of TMX Group's issuer base, in terms of market capitalization⁶. Upstream producers represent 5% of the total market capitalization and are in the oil and gas sector. This may impact the decision-making of investors on allocating funds to our markets, which may adversely impact our listings and trading revenue.</p> <p>We note however, that certain Canadian oil and gas producers have publicly committed to net-zero emissions targets by 2050⁷. Additionally, the energy sector will play a key role in lowering GHG emissions within the economy, while the mining sector will provide the metals and minerals that will power the global transition to a low-carbon economy.</p> <p>The Canadian economy is also diversifying in sectors such as innovation including clean technology. We note that our listed issuer composition is shifting organically, changing the weight of some industries within the overall issuer base.</p> <p>Trayport's technology underpins a significant amount of energy trading in Europe for power, gas, coal, and refined oil and other products on its Joule platform. A substantial decrease in trading in these products may adversely affect demand for the Joule platform.</p>	Medium-Term

⁶ TSX/TSXV Market Intelligence Group Report (MiG) - September 2021

⁷ Canada's largest oil sands producers announce unprecedented alliance to achieve net zero greenhouse gas emissions



TMX Group Climate-related Opportunities and Initial Assessments

While we have conducted an initial assessment of climate-related opportunities relevant to our business, we continue to evaluate the time horizons in which these opportunities will materialize if actioned.

Opportunity Type	Climate-related Opportunities	Initial Assessment of Opportunity
Products & Services	Development and/or expansion of low emission goods and services	<p>Trayport is the primary network and data platform for European wholesale energy markets. The rise of renewable energy sources has an impact on energy generation and trading. Trayport has the opportunity to help clients meet the increasing demand in spot power and gas markets with new trading tools, including algorithmic trading capabilities.</p> <p>In addition, voluntary carbon markets present a growth opportunity that is well suited to TMX Group's technology solutions and client base given Trayport's strong position in the European energy market.</p> <p>Execution of this opportunity would create opportunities to increase Trayport's subscription base, as well as adjacent data, derivatives and index products for the enterprise resulting in expansion to new markets or revenue growth opportunities.</p>



Opportunity Type	Climate-related Opportunities	Initial Assessment of Opportunity
	<p>Shift in consumer preferences including:</p> <ul style="list-style-type: none"> • Increased demand for low-carbon/sustainable products and services that increases demand for low-carbon commodities • Increased demand for clean technology and renewable energy • Growth in sustainable/ ESG funds and ETFs 	<p>The global transition to a low-carbon economy is creating demand for new technologies, such as electric vehicles, rooftop and utility scale renewables, energy efficient and low-carbon products and services.</p> <p>This may drive investment into our existing, and attract new, green and clean-tech sector companies to our markets. This trend would create significant demand for metals and minerals that are produced by many of the over 1,100 mining firms that are listed on TSX and TSXV. Together these create opportunities for new listings, increased equity trading, as well as derivative products and services.</p> <p>We are also seeing strong growth in sustainable ETFs that allow retail clients to invest in these trends. This creates listing, trading and data opportunities, though the effect will be dependent on whether funds and trading in these themes are net-new or reallocated from other ETFs and funds.</p>
<p>Markets</p>	<p>Access to new markets:</p> <ul style="list-style-type: none"> • Sustainable commodity trading represents the opportunity to enter new markets or strengthen positioning in existing expansion markets 	<p>Given demand forecasts for low-carbon metals and minerals, combined with the number of listed mining firms, TSX and TSXV could become a key global focus for investment in the transition to a low-carbon economy.</p> <p>This may drive interest in, and investment from, markets and investors who have not traditionally included Canada in their portfolios. It may also facilitate the expansion of our listed issuers into new markets to supply inputs to the low-carbon economy.</p>



Products and Services

We support capital raising for sustainable growth initiatives, as well as products and services that facilitate ESG investing and improved ESG disclosure by our listed issuers:



IHS Markit ESG Reporting Repository

TSX has entered into an agreement to endorse the IHS ESG Reporting Repository™, which facilitates the disclosure of issuer ESG information into a variety of frameworks and standards, such as SASB and TCFD, and creates a centralized database for investors and data consumers to access issuer reported ESG information.



MX ESG Derivatives

Montreal Exchange (MX) offers ESG index futures on both the S&P TSX 60 ESG Index* and S&P TSX Composite ESG Index*. In addition, individual equity options and share futures are offered on all constituents of these indices and the S&P/TSX 60 Fossil Fuel Free Index* and S&P/TSX 60 Carbon Efficient Index*.



Sustainable ETFs

TSX-listed ESG funds that enable investors to integrate ESG considerations into their investing.



Sustainable Bond Trading

Green, social, transition, sustainability-linked and sustainable bonds from government and quasi-governmental and supra-national organizations are made available for trading to retail investors.



Sustainable Indices

ESG indices are calculated through our partnership with S&P Dow Jones Indices and provided to TMX Datalinx™ index data clients on a subscription basis, with end of day levels publicly available on TMX Money™.



Sustainable Bond Portal

The Sustainable Bond Portal provides a repository of information related to the sustainable bond issuances offered for trade on TSX.



Trayport Carbon Markets

Trayport's Joule platform provides access to all major inter-dealer brokers and energy exchanges in the EU emissions market.



3. RISK MANAGEMENT

Identification and Assessment of Climate-related Risks

Effectively managing risks is fundamental to successfully executing our enterprise and business strategy. It is important to note that for TMX Group, climate-related risks are fundamentally associated with not achieving and appropriately executing on our strategic objectives in an effective and efficient manner, rather than direct and material impacts to TMX Group's operations or risk profile. Climate-related risks and opportunities are effectively managed through TMX Group's integrated strategy and approach to risk management as described below.

Our Objective Centric Risk Management (OCRM) approach addresses opportunities, uncertainties and threats to the successful achievement of our objectives rather than managing our risks in isolation. This approach does not change the risks faced by our organization. Instead, it anchors the risk management process to our objectives which ensures the integration of our objectives, risks, risk treatments, and performance as well as supports the appropriate allocation of resources across the enterprise in a way that maximizes the likelihood that we will achieve our objectives. This holds true for ESG, including climate-related opportunities and threats. Further description of our OCRM approach is contained in our [2020 ESG report](#)⁸ as well as our [2020 Annual MD&A](#)⁹.

Our business unit and corporate function leaders own the objectives, including ESG and climate-related objectives and therefore, remain accountable for the effective management of risks assumed in their activities. The enterprise risk management (ERM) team facilitates and supports our leaders in their pursuit of their objectives and ensures that an appropriate framework is in place to identify, assess, measure, manage, monitor and report risks so that the outcomes of these activities are transparent and understood, consistent with our risk appetite, appropriately

balance risk and reward, and serve as inputs into the enterprise strategy. TMX Group employs a Five Lines of Accountability model as part of the ERM framework, which enhances the traditional Three Lines model by recognizing the role of senior management and the Board of Directors in risk management (see "Governance - Board Oversight" above for further information). We sufficiently define these roles and responsibilities and associated levels of authority across the enterprise.

In addition to our ORCM approach, we proactively monitor for emerging risks and opportunities, including climate-related ones, through internal analysis and various external engagements such as discussions with clients, policy makers and regulators, and participation in sustainability industry forums and issuer groups. Our ERM program, which is reassessed regularly, also includes disaster recovery, crisis management and business continuity for critical functions and systems, to protect personnel and resources and allow us to continue critical business functions if a natural disaster occurs.

In 2021 we conducted a robust climate materiality analysis to identify and qualitatively assess the climate-related risks and opportunities that could materially impact our strategic and operational objectives, as well as indirectly impact TMX Group through our issuers and client base (see "Strategy - Climate-focused Materiality Analysis and Description of Climate-related Risks and Opportunities" above for more details). In line with the TCFD recommendations, we consider climate risks to be physical climate risks (acute and chronic) and risks associated with the transition to the low-carbon economy (transitional).

⁸ "Risk Management" - pages 26 to 29.

⁹ "Enterprise Risk Management" - pages 68 to 89.



Management of Climate-related Risks

The table below captures the actions we take/are taking to actively manage the risks.

Physical Risk Type	Mitigation Measures and Approach
Acute and Chronic (Direct)	<p>We have a robust Business Resilience Management program to respond to disruptions when they arise. TMX Group's Business Continuity Plan, which we have relied on during the COVID-19 pandemic, is designed to ensure continuous operations in the face of natural disasters and other physical risks associated with climate change. It is reviewed, at minimum, on an annual basis and more frequently if required.</p>
Transition Risk Type	Mitigation Measures and Approach
Policy & Legal (Indirect)	<p>TMX Group has developed products and services to support issuers in addressing evolving stakeholder expectations on climate and ESG disclosures, recognizing that comprehensive and robust disclosures are critical to overall market resilience and capital markets investor protection. For example, our new strategic alliance with IHS Markit provides issuers with access to multi-framework environmental, social and governance (ESG) reporting and data distribution. For more information, please refer to our 2020 ESG Report¹⁰.</p> <p>Through our Regulatory Compliance management process, client engagements, regulatory interfaces and industry forum participation, we continue to monitor new and emerging climate-related requirements and update our processes, policies and frameworks as necessary.</p> <p>TMX Group will continue to advocate on how the Canadian capital markets are addressing climate change, as well as the specific issues faced by public market participants such as bringing alignment on specific issues (e.g., mandatory ESG/ climate disclosure, harmonization of standards, use of forward looking information) across various Canadian market stakeholders.</p>
Market (Indirect and Direct)	<p>We have defined our business growth objectives to include business development and sales efforts focused on expanding our geographic footprint to attract international clients across all sectors and accelerating growth in targeted sectors (including the innovation sector which incorporates clean technology and renewable energy companies) where we are uniquely positioned, while maintaining our resource sector franchise.</p>

¹⁰ "Issuer Education & Engagement" - page 13.



**Reputation
(Direct)**

While we continue to integrate climate change considerations into our strategic and investment considerations, we actively manage climate risks and opportunities through our enterprise risk management practices.

We recognize the unique position of TMX Group in Canadian capital markets and the role we play in supporting our issuers as public companies promoting strong sustainability practices. Hence, we have taken or are planning the following steps in an ongoing effort to demonstrate our commitment to climate action, support issuers to address climate change and further investor confidence in Canadian capital markets:

- Publishing annual ESG and TCFD-aligned reports that explore the growth and evolution of Canadian markets and how we are addressing climate risks and opportunities for our business
- Endorsing both the SASB and TCFD standards for ESG and climate-related disclosure
- Improving education and information available to our issuers to support the marketplace with consistent, material and decision relevant ESG disclosures using leading disclosure standards

We remain focused on enhancing and standardising our processes to consider climate-related risks and opportunities in our strategic and investment decisions (new business initiatives, products, acquisitions and third-party engagements) and strengthening the alignment and integration of our climate-related approach within our corporate planning, risk management process and risk appetite overall.



4. METRICS AND TARGETS

We use metrics to measure and monitor our exposure to climate-related risks and opportunities. Given our position in the capital markets ecosystem, we consider both direct and indirect exposures, including the climate-related risks and opportunities of our issuer base through TSX and TSXV which may in turn affect our business.

We are currently in the process of developing methodologies to measure and monitor our exposure to climate-related risks and opportunities. As such, we expect our metrics to evolve over time and we will continually refine our approach to assessing and managing our exposure to climate-related risks and opportunities.

GHG Emissions

The main source of our GHG emissions are our facilities which include our data centres and our offices across Canada, Europe and Asia. We consider the resource efficiency of the office buildings we occupy to minimize our environmental impact. As of December 31, 2020, 75% of TMX Group's office space was LEED® platinum certified.

We engaged a third-party consultant to calculate TMX Group's scope 1, 2 and 3 emissions for 2019 and 2020. All major TMX Group offices and facilities were covered, as were GHG emissions associated with business air travel¹¹. Our GHG inventory follows the "operational control" consolidation approach of the Greenhouse Gas Protocol Corporate Standard. Under this approach, it is required to account for 100% of the emissions from operations, facilities, and sources over which TMX Group has operational control.

Inventory Category	Activity	2020	2019	% increase / (decrease)
Scope 1	Natural Gas and Diesel	487.5	608.6	-20%
Scope 2 (Location-Based)	Electricity and Chilled Water	880.6	849.4	4%
Scope 3	Business Air Travel	112.3	642.8	-83%
Total Emissions (tCO₂e)		1,480.4	2,100.8	-30%

In 2019, electricity and gas consumption for powering and heating TMX Group's offices and data centres, followed by business air travel, represented the primary sources of GHG emissions. Scope 2 emissions associated with electricity consumption and chilled water was the single largest source of emissions for TMX Group, followed by scope 3 emissions from business air travel and scope 1 emissions from natural gas and diesel.

In 2020, the main sources of our emissions remained consistent with 2019. However, the largest overall decrease was in our scope 3 emissions, which dropped by over 80%. This was due to the sharp decline in business air travel in 2020.

¹¹ Head and regional offices covered include offices in Calgary, Vancouver, Markham, Toronto, Montreal, London and Singapore. Trayport's Vienna office was excluded from the GHG footprint, however, an additional volume of offsets were purchased to cover the Vienna office's estimated emissions. Scope 3 emissions included in our inventory include business air travel that is directly funded. Other sources of indirect emissions are not considered in this report.



Inventory Category	Activity	2020	2019	% increase / (decrease)
Total Emissions (tCO₂e)	Number of FTEs	1,383	1,287	7%
	tCO ₂ e/FTE	1.1	1.6	-31%
	Revenue (\$million)	865.1	806.9	7%
	tCO ₂ e/Revenue (\$million)	1.7	2.6	-35%

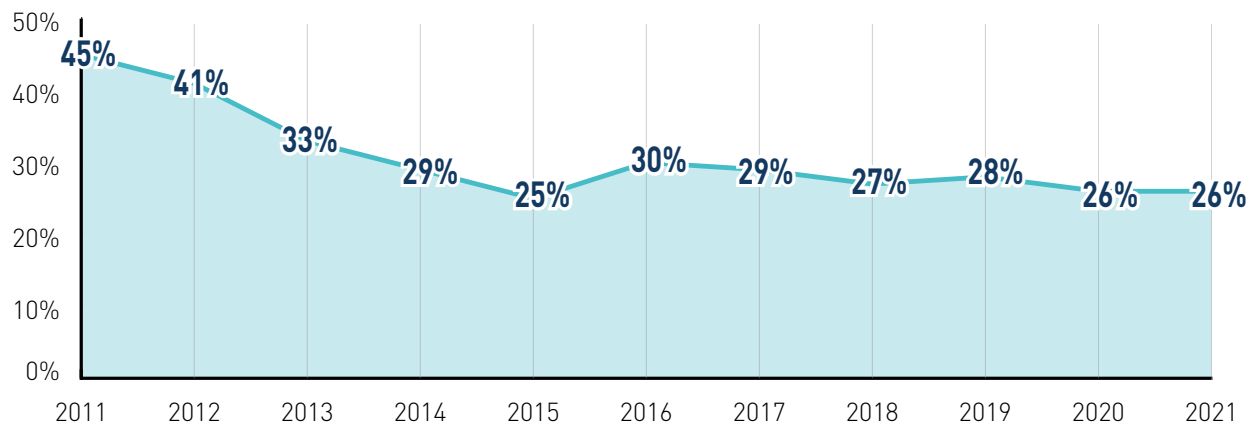
TMX Group has committed to achieving carbon neutrality for 2020 and every year going forward. In 2021, we purchased voluntary carbon offsets utilizing TMX Group subsidiary Trayport's Joule™ platform to neutralize our GHG footprint for all of our 2020 emissions.

In both 2019 and 2020, Scope 2 emissions associated with electricity consumption was the single largest source of GHG emissions for TMX Group. We are actively planning to purchase renewably sourced power equivalent to our global annual consumption to address these emissions in a direct and demonstrable way. We are also in the initial stages of exploring setting a science-based target for our GHG emissions.

Transition Risks

To measure our exposure to resource-related sectors, we aggregate the activities in the following sectors as calculated by our Market Intelligence Group: mining, oil and gas and utilities and pipelines. On TSX and TSXV, the composition of these resource-related listed issuers as a percentage of our overall market capitalization has shifted over time since 2011 as illustrated below.

Resource-based issuer base as a % of total market capitalization (TSX & TSXV)





The complexity and uncertainty of climate-related risks points to the importance of clear, comprehensive, and high-quality reporting by issuers. As set out in Millani's 5th Annual ESG Disclosure Study: A Canadian Perspective, 71% of companies listed on the S&P/TSX Composite Index* released a report dedicated to the disclosure of ESG topics as of August 31, 2021. Currently, 42% of S&P/TSX Composite Index constituents with a 2020 ESG report align their climate disclosures to the TCFD¹². We continue to focus our efforts on supporting our issuers through ESG education and engagement as well supporting the dissemination of ESG disclosure to investors to help attract global capital through our endorsement of the IHS ESG Reporting Repository™.

Risk Metrics	2020	2019
Oil and Gas Sector (Percentage of overall market capitalization on TSX and TSXV) ¹³	4%	7%
Mining Sector (Percentage of overall market capitalization on TSX and TSXV) ¹³	15%	12%
Utilities and Pipelines Sector (Percentage of overall market capitalization on TSX and TSXV) ¹³	7%	10%
Oil and Gas Sector (Percentage of overall volume traded on TSX and TSXV) ¹³	13%	14%
Mining Sector (Percentage of overall volume traded on TSX and TSXV) ¹³	34%	34%
Utilities and Pipelines Sector (Percentage of overall volume traded on TSX and TSXV) ¹³	4%	4%

Physical Risks

We are evaluating relevant metrics to measure and monitor our exposure to which extent our assets or business activities are vulnerable to physical risks.

¹² Millani's 5th Annual ESG Disclosure Study: A Canadian Perspective

¹³ TSX/TSXV Market Intelligence Group Report (MiG) - December 2020 and December 2019.



Climate-related Opportunities

In assessing our climate-related opportunities (as described under “Strategy - Determining Our Climate-related Risks and Opportunities” above), we will continue to refine the metrics we use as we develop methodologies to track revenue from products and services designed for lower-carbon economies.

Opportunity Metrics	2020	2019
ESG ETFs ¹⁴	44	17
ESG ETF Assets Under Management ¹⁴	\$2.4 billion	\$0.4 billion
Clean Technology and Renewable Energy Sector (Percentage of overall market capitalization on TSX and TSXV) ¹³	3%	2%
Clean Technology and Renewable Energy Sector (Percentage of overall volume traded on TSX and TSXV) ¹³	3%	2%
100% Low-Carbon Mineral Issuers ¹⁵ (Percentage of overall market capitalization on TSX and TSXV)	1% (8% of Mining Sector)	1% (8% of Mining Sector)
Trayport Carbon Trading - Number of Participating Firms	79	70
Trayport Carbon Trading - Number of Participating Traders	249	202

¹⁴ Source: Market Intelligence Group. ESG ETFs were filtered based on investment strategies that encompass one or all components of ESG.

¹⁵ Represents a subset of the mining sector that produces exclusively metals and minerals used in the transition to a low-carbon economy. (Copper, Aluminum, Chromium, Graphite, Nickel, Iron, Lead, Lithium, Manganese, Molybdenum, Silver, Titanium, U308, Vanadium and Zinc). This information is provided for information purposes only. Neither TMX Group Limited nor any of its affiliated companies represents, warrants or guarantees the accuracy or completeness of this information and we are not responsible for any errors or omissions in or your use of, or reliance on, the information provided.



Capital Deployment

We are evaluating relevant metrics to measure and monitor the amount of capital expenditure, financing, and investment deployed toward our climate-related risks and opportunities.

Internal Carbon Prices

A key source of our GHG emissions is Scope 3, associated with business air travel. In 2019, Scope 3 emissions were our second largest source of emissions. We do not anticipate business air travel returning to pre-pandemic levels but it will likely increase from 2020 levels. To begin to address our Scope 3 emissions, we are planning to introduce an internal carbon pricing program that will assign a carbon price to all business air travel. Proceeds from this internal carbon price, levied on each business unit according to their annual travel, will be used to purchase carbon offsets equivalent to the emissions associated with business air travel.

Remuneration

The human resources committee of the Board of Directors uses a five-step process each year to make sure executive compensation at TMX Group is aligned with our performance, is competitive, and motivates and rewards our executives. Further description of our executive compensation approach is contained in our [2021 Management Information Circular](#).

We are evaluating how we can link ESG including climate considerations in executive compensation in future years.



5. FUTURE PRIORITIES

TMX Group aims to build further capacity for enhancing disclosures against the TCFD recommendations in terms of detail, metrics and complexity of analysis. Our future priorities towards TCFD include:

1

Evaluating the incorporation of a scenario analysis exercise to help us better understand our resilience to climate change and assess the strategic implications of climate opportunities.

2

Continuing our discussions with regulators regarding ESG and climate-related disclosure requirements for both publicly listed and private companies in Canada while advancing our own ESG and climate-related disclosures.

3

Setting ambitious emissions reduction targets by developing a comprehensive net-zero strategy for TMX Group.

4

Continually engaging with our stakeholders including policy makers, regulators, industry players and issuers to support the transition towards a climate resilient Canadian economy.

5

Continuing to work with issuers on ESG engagement and education as well as providing tools, products and services to support our issuer base in addressing climate change and facilitating ESG disclosure.



TRADEMARKS

Groupe TMX, TMX, the TMX design, TMX Datalinx, TMX Group, TMX Money, Toronto Stock Exchange, TSX, TSXV, TSX Venture Exchange, The Future is Yours to See, and Voir le futur. Réaliser l'avenir. are the trademarks of TSX Inc.

Alpha and Alpha Exchange are the trademarks of Alpha Exchange Inc. and are used under license.

Bourse de Montréal, Montréal Exchange and MX are the trademarks of Bourse de Montréal Inc. and are used under license.

Canadian Derivatives Clearing Corporation, Corporation canadienne de compensation de produits dérivés, CDCC and CCCPD are the trademarks of Canadian Derivatives Clearing Corporation and are used under license.

CDS is the trademark of The Canadian Depository for Securities Limited and is used under license.

Trayport and Joule are the trademarks of Trayport Limited and are used under license.

IHS Markit is a registered trademark of IHS Markit Ltd. and/or its affiliates. All other company and product names may be trademarks of their respective owners © 2021 IHS Markit Ltd. All rights reserved.

LEED® (an acronym for Leadership in Energy and Environmental Design™) is a registered trademark of the U.S. Green Building Council®. The Canada Green Building Council is the sole license holder for the LEED® trademark in Canada.

*The S&P/TSX Composite Index, S&P/TSX 60 ESG Index, S&P/TSX Composite ESG Index, S&P/TSX 60 Carbon Efficient Index, S&P/TSX 60 Fossil Fuel Free Index, and all other S&P/TSX Indices referred to herein S&P/TSX Indices are products of S&P Dow Jones Indices LLC or its affiliates ("SPDJI") and TSX Inc. ("TSX"). Standard & Poor's® and S&P® are registered trademarks of Standard & Poor's Financial Services LLC ("S&P"); Dow Jones® is a registered trademark of Dow Jones Trademark Holdings LLC ("Dow Jones"); and TSX™ is a registered trademark of TSX. SPDJI, Dow Jones, S&P, their respective affiliates and TSX do not sponsor, endorse, sell or promote any products based on the S&P/TSX Indices and none of such parties make any representation regarding the advisability of investing in such product(s) nor do they have any liability for any errors, omissions or interruptions of the S&P/TSX Indices or any data related thereto.



FORWARD-LOOKING INFORMATION

This document contains “forward-looking information” (as defined in applicable Canadian securities legislation) that is based on expectations, assumptions, estimates, projections and other factors that management believes to be relevant as of the date of this document. Often, but not always, such forward-looking information can be identified by the use of forward-looking words such as “plans,” “expects,” “is expected,” “budget,” “scheduled,” “targeted,” “estimates,” “forecasts,” “intends,” “anticipates,” “believes,” or variations or the negatives of such words and phrases or statements that certain actions, events or results “may,” “could,” “would,” “might,” or “will” be taken, occur or be achieved or not be taken, occur or be achieved. Forward-looking information, by its nature, requires us to make assumptions and is subject to significant risks and uncertainties which may give rise to the possibility that our expectations or conclusions will not prove to be accurate and that our assumptions may not be correct.

Important information identifying risks and uncertainties and other factors is contained in TMX Group’s 2020 annual management’s discussion and analysis (the “2020 MD&A”) under the headings entitled “Caution Regarding Forward-Looking Information” and “Enterprise Risk Management” and in TMX Group’s 2021 management’s discussion and analysis for the quarter ended September 30, 2021 (the “2021 Q3 MD&A”) under the heading entitled “Caution Regarding Forward-Looking Information”. The 2020 Annual MD&A and 2021 Q3 MD&A may be accessed at tmx.com in the Investor Relations section under “Regulatory Filings” or at sedar.com under TMX Group’s profile.

Examples of forward-looking information in this document include, but are not limited to, statements regarding: the implementation of the TCFD recommendations; the integration of climate considerations into our core business activities and our future priorities; our assessment of climate-related risks and opportunities; the steps we are taking to reduce our GHG footprint; our goal of achieving carbon neutrality; the integration of our climate-related strategy with our corporate strategy, business processes, and investment decisions, including investing in the transition to a low-carbon economy; our proposed internal carbon pricing program; and our future priorities and goals in connection with the TCFD.

These risks include, but are not limited to: competition from other exchanges or marketplaces, including alternative trading systems and new technologies, on a national and international basis; dependence on the economy of Canada; adverse effects on our results caused by global economic conditions (including COVID-19) or uncertainties including changes in business cycles that impact our sector; failure to retain and attract qualified personnel; geopolitical and other factors which could cause business interruption (including COVID-19); dependence on information technology; vulnerability of our networks and third party service providers to security risks, including cyber-attacks; failure to properly identify or implement our strategies; regulatory constraints; constraints imposed by our level of indebtedness, risks of litigation or other proceedings; dependence on adequate numbers of customers; failure to develop, market or gain acceptance of new products; failure to close and effectively integrate acquisitions to achieve planned economics, including AST Canada, or divest underperforming businesses; currency risk; adverse effect of new business activities; adverse effects from business divestitures; not being able to meet cash requirements because of our holding company structure and restrictions on paying dividends; dependence on third-party suppliers and service providers; dependence of trading operations on a small number of clients; risks associated with our clearing operations; challenges related to international expansion; restrictions on ownership of Common Shares; inability to protect our intellectual property; adverse effect of a systemic market event on certain of our businesses; risks associated with the credit of customers; cost structures being largely fixed; the failure to realize cost reductions in the amount or the time frame anticipated; dependence on market activity that cannot be controlled; the regulatory constraints that apply to the business of TMX Group and its regulated subsidiaries, costs of on exchange clearing and depository services, trading volumes (which could be higher or lower than estimated) and revenues; future levels of revenues being lower than expected or costs being higher than expected.

Forward-looking information is based on a number of assumptions which may prove to be incorrect, including, but not limited to, assumptions in connection with the ability of TMX Group to successfully compete against global and regional marketplaces; business and economic conditions generally; exchange rates (including estimates of exchange rates from Canadian dollars to the U.S. dollar or GBP), commodities prices, the level of trading and activity on markets, and particularly the level of trading in TMX Group’s key products; business development and marketing and sales activity; the continued availability of financing on appropriate terms for future projects, changes to interest rates and the timing thereof, among other things, could positively or negatively impact AST Canada’s accretion to adjusted earnings per share; the amount and timing of incurrence of AST Canada integration costs; the amount and timing of revenue and cost synergies resulting from the AST Canada acquisition; productivity at TMX Group, as well as that of TMX Group’s competitors; market competition; research and development activities; the successful introduction and client acceptance of new products; successful introduction of various technology assets and capabilities; the impact on TMX Group and its customers of various regulations; TMX Group’s ongoing relations with its employees; and the extent of any labour, equipment or other disruptions at any of its operations of any significance other than any planned maintenance or similar shutdowns.

While we anticipate that subsequent events and developments may cause our views to change, we have no intention to update this forward-looking information, except as required by applicable securities law. This forward-looking information should not be relied upon as representing our views as of any date subsequent to the date of this Prospectus or the applicable documents incorporated by reference. We have attempted to identify important factors that could cause actual actions, events or results to differ materially from those current expectations described in forward-looking information. However, there may be other factors that cause actions, events or results not to be as anticipated, estimated or intended and that could cause actual actions, events or results to differ materially from current expectations. There can be no assurance that forward-looking information will prove to be accurate, as actual results and future events could differ materially from those anticipated in such statements. Accordingly, readers should not place undue reliance on forward-looking information. These factors are not intended to represent a complete list of the factors that could affect us. A description of the above-mentioned items is contained in the section “Enterprise Risk Management” of our 2020 Annual MD&A.

For more information

Please contact Investor Relations if you have any additional questions or require further clarification.

Paul Malcolmson

Vice President, Enterprise Sustainability
and Investor Relations

C +1-647-297-8924

paul.malcolmson@tmx.com

Julie Park

Senior Manager, ESG Reporting
and Investor Relations

C +1-437-341-6897

julie.park@tmx.com



tmx.com

Designed by:
[lavadigital](https://lavadigital.com)