

# Methanol: **essential** for everyday life

**2022  
SUSTAINABILITY  
REPORT**



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## Letter from Our CEO

### To our stakeholders,

I am honoured to step into the role of President and CEO at this exciting time. Having worked at Methanex for many years, I've seen how our long history of commitment to safety, the environment, and communities—guided by the Responsible Care® Ethic and Principles for Sustainability—has expanded to include broader sustainability topics. I've watched our outstanding team and sustainability culture evolve beyond targets and initiatives to include the embedding of sustainability principles in our business strategy.

### **SAFETY WILL ALWAYS BE OUR NUMBER ONE PRIORITY**

**The safety and well-being of our team members and communities where we do business continues to be our top priority and our goal will always be zero harm.**

I am pleased to present Methanex's Sustainability Report, prepared using the Sustainability Accounting Standards Board framework and Task Force on Climate-related Financial Disclosures guidelines, to communicate our performance for the year 2022.

### 2022 highlights

Our ongoing commitment to sustainability can be seen in the accomplishments of our global team in 2022. A few highlights from the year include:

- Maintaining our excellent safety performance on major projects, including turnarounds in New Zealand and Egypt, and our ongoing Geismar 3 (G3) project. G3 plant construction alone saw over four million hours worked with no Days Away From Work cases.
- Tripling the number of hazard identifications since 2020. This leading indicator measures team member engagement which is a key part of building a strong safety culture.
- Progressing construction on our G3 plant, reaching 75% completion in 2022. G3 will significantly lower the average Greenhouse Gas (GHG) intensity of our asset portfolio, with start up expected in the fourth quarter of 2023. The technology used in G3 supports our commitment to reduce Scope 1 and Scope 2 emissions intensity by 2030.
- Being recognized for our progress on our ESG initiatives and disclosures leading to improved ratings from EcoVadis and MSCI. Our EcoVadis sustainability rating improved from a Silver to Gold Medal. This rating places Methanex in

the top five per cent of all companies assessed. Our MSCI rating improved from BBB to AA.

- Building awareness and momentum around our diversity and inclusion initiatives, including piloting our D&I training program which will launch across the company in 2023. We are focused on taking steps every day to build an inclusive culture across our company.
- Progressing commitments in key environmental, social responsibility and governance areas, including zero significant environmental spills and releases, and 100% completion of annual cybersecurity awareness training sessions.
- Committing to executing efficiency projects that will help us avoid an estimated 100,000 tonnes of CO<sub>2</sub> per year.
- Creating a new role on the Executive Leadership Team, Senior Vice President, Low Carbon Solutions who will be focused on collaborating with our customers and other stakeholders to deliver low-carbon solutions from existing assets and future growth projects.





### Positioning to meet demand for lower-carbon methanol

Methanol is an essential part of everyday life around the world as a critical chemical building block and a cleaner-burning fuel and has an important role to play in the transition to a low-carbon economy. The majority of global methanol production comes from conventional natural gas, followed by coal and currently a very small amount (less than 0.5%) from renewable sources. Our natural gas-based production facilities emit around five times less GHG emissions compared to coal-based production, making natural gas-based production a viable pathway to transition to a low-carbon economy.

Global demand is growing for lower-carbon methanol. Methanex is positioning our assets to meet demand today and we are assessing the feasibility of different opportunities to meet future demand. Currently, we can produce carbon-neutral methanol in Geismar from renewable natural gas.

We are exploring other pathways to produce lower-carbon and carbon-neutral methanol production at our existing sites, including feasibility studies of producing lower-carbon methanol through carbon capture and storage at our Geismar location and incorporating renewable hydrogen produced from electrolysis into existing plants.

We have also committed to reduce Scope 1 and 2 GHG emissions intensity by 10% by 2030 (from 2019 levels). To help deliver on this commitment, our manufacturing teams have identified numerous opportunities to increase plant efficiency while reducing our carbon emissions. We will invest \$15 million in these projects over the next two years, helping us avoid approximately 100,000 tonnes of CO<sub>2</sub> per year once completed. In this way, we can meet growing methanol demand with a lower GHG footprint while lower-carbon technologies and renewable feedstocks advance to commercial viability.

### Momentum for methanol as a marine fuel

Methanol as a cleaner-burning marine fuel can support the shipping industry in meeting their decarbonization goals.

Waterfront Shipping (WFS), a subsidiary of Methanex, has proven the feasibility of methanol as a cleaner-burning marine fuel, operating and bunkering methanol-fueled ships since 2016. As of January 2023, approximately 60 per cent of WFS' fleet is methanol dual-fuel vessels.

Conventional methanol as a marine fuel significantly reduces air emissions from combustion such as SO<sub>x</sub>, NO<sub>x</sub>, and particulate matter, and blending conventional methanol with lower-carbon or carbon-neutral methanol offers a viable and comparatively cost-effective pathway for shipping companies to further reduce their carbon emissions.

Leading shipping companies around the world are taking notice of methanol's positive attributes as a marine fuel, with more than 100 methanol or dual-fuel vessels currently operating or on order. Based on the number of dual fuel ships in use or ordered to date, potential demand grows from approximately 300,000 tonnes today to three million tonnes by 2027. This is adding momentum to the demand for methanol as a shipping fuel and we are in discussions with multiple shipping companies regarding how we can work together to support their CO<sub>2</sub> reduction goals.

### Looking forward

Building on our strong foundation as the global leader in the methanol industry, I look forward to executing on Methanex's strategy. I am excited to work with the exceptional team at Methanex to advance all of our sustainability initiatives, including opportunities to promote methanol's role in the transition to a low-carbon economy. I am proud of our continued focus on safety, and I am committed to my role in protecting people and the environment as we execute our strategy.



**Rich Sumner**  
*President & Chief Executive Officer*

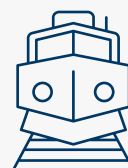




1,891

beneficiaries supported through our four-year partnership with the International Labour Organization in Damietta, Egypt.

7<sup>th</sup> CONSECUTIVE



Grand Slam Award from the Association of American Railroads for our 2021 rail performance in North America.

50%

of independent directors on our Board are women.



# 2022 Highlights

We are proud to share some of our 2022 accomplishments, made possible by the hard work and collective effort of our team members. During this year, we progressed our planning for the transition to a low-carbon economy, expanded our methanol dual-fuel fleet and continued to demonstrate our unwavering commitment to safety and the communities where we operate.

75%

of construction of our G3 expansion project completed by the end of 2022, with first production expected in Q4 2023. We estimate G3's CO<sub>2</sub> emissions intensity will be one of the lowest in the industry.



Gold

We were awarded a gold medal sustainability rating from EcoVadis. This means Methanex is in the top 5 per cent of chemical companies assessed by this globally recognized sustainability rating service.

5

new dual-fuel vessels were added to Waterfront Shipping's fleet, for a total of 18. This represents 60 per cent of Waterfront Shipping's 30-ship fleet.



100,000  
TONNES PER YEAR

Estimated annual GHG reductions from efficiency projects to be executed over the next three years.

+4 MILLION

hours worked with no Days Away From Work cases at our G3 expansion project.



We received the Chemistry Industry Association of Canada Award For Canada's Safest Chemistry Employer.



# About Methanex

In the last thirty years, we have grown from a single production facility to the world’s largest producer and supplier of methanol.

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Methanol is increasingly being used around the world in innovative applications to meet our growing energy demand.

# Methanol is Essential for Everyday Life

## 125 PORTS

Available at more than 125 of the world's largest ports

## SHIPPING FUEL

As a cleaner-burning marine fuel, methanol can reduce emissions of SO<sub>x</sub> and PM by more than 95 per cent, NO<sub>x</sub> by up to 80 per cent, and CO<sub>2</sub> from combustion by up to 15 per cent.

## METHANOL IS:

- Biodegradable
- Compliant with stringent emissions regulations
- Cost competitive with ultra low sulphur fuel

# ~3 million tonnes

Potential annual methanol marine fuel demand by 2027. See [page 34](#).



# About Methanex

Methanex Corporation is the world’s largest producer and supplier of methanol to major international markets in Asia Pacific, North America, Europe and South America. Our methanol production sites are located in the United States, New Zealand, Trinidad, Chile, Egypt and Canada. Methanex is headquartered in Vancouver, Canada, and the company’s common shares trade on the Toronto Stock Exchange under the symbol MX and on the NASDAQ Global Select Market under the symbol MEOH.

Our subsidiary, Waterfront Shipping\*, is a global marine transportation company specializing in the safe, responsible and reliable transport of methanol and clean petroleum products to major international markets in Asia Pacific, North America, Europe and South America. We operate Waterfront Shipping’s fleet of 30 vessels mostly through long-term time charters, with 50 per cent ownership of five of the 30 vessels.



## WE STRIVE TO BE A SAFE, SUSTAINABLE, SECURE AND GLOBAL METHANOL LEADER

Our vertically integrated global capabilities and commitment to the Responsible Care® Ethic and Principles for Sustainability help us maintain market leadership and drive our competitive advantage: providing a safe, sustainable, and secure supply of methanol to customers around the world.

**Safe:** Our relentless focus on the safety of our team members, customers and communities helps make us a supplier of choice.

**Sustainable:** Our suite of sustainability commitments motivates us to continually improve in key areas including GHG emissions, safety, diversity and inclusion, and risk management.

**Secure:** The scale and location of our operations along with our vertical integration with distribution (Waterfront Shipping), enables us to keep customers supplied and respond in an agile manner to global events.

**Global:** We are the global market leader in the supply of methanol and the only methanol supplier with well-established production facilities and sales in all major regions.

**Now and in the Future:** Methanol is a hard-to-replace chemical building block and a cleaner-burning fuel that is also future proof as it can be produced in a carbon-neutral manner on a lifecycle basis, thus contributing to the transition to a low-carbon economy.

\* Mitsui O.S.K Lines, Ltd. acquired 40 per cent minority interest in 2022.

# How We Create Value

NOTE: All data in tables reflect the year ending December 31, 2022.

KEY RESOURCES

\$6.6 billion

in total assets

~269,000

TJ natural gas/year

~436,000

MWh electricity/year

~22 million

m<sup>3</sup> of water/year

~1,400

employees

BUSINESS ACTIVITIES

Every year, we safely produce, ship and distribute millions of tonnes of methanol.

10.8 million

tonnes of methanol sold\*

PRODUCTION

9.330 million

tonnes/year\*\* annual operating capacity

11

plants\*\*\* at 6 production sites

6

countries with production sites

DISTRIBUTION

11

commercial offices around the world

30

marine vessels, 60 per cent with methanol dual-fuel technology

1,222

rail cars leased and operated

124<sup>†</sup>

global terminals where methanol is loaded/unloaded

\* In addition to the methanol produced at our sites, we purchase methanol produced by others, under methanol offtake contracts and on the spot market.

\*\* Annual operating capacity reflects Methanex's interest in the Atlas facility (63.1 per cent) and Egypt facility (50 per cent).

\*\*\* Our Waitara Valley plant in New Zealand and Titan plant in Trinidad were not in operation during 2022.

† Includes Methanex manufacturing and third-party terminals.

PRODUCT USES

We produce an essential chemical product that goes into hundreds of products in everyday life. Innovative products made with methanol or its derivatives are poised to play an important role in the transition to a low-carbon economy. This includes the use of methanol as an alternative lower-emissions fuel.

DERIVATIVE CHEMICALS

Acetic acid, formaldehyde, methyl methacrylate (MMA), olefins, silicone

USED FOR

– Building materials

– Medical equipment

– Clothing and textiles

– Pharmaceuticals

– High-tech products

– Automotive manufacturing

FUEL AND FUEL ADDITIVES

– Marine

– Vehicle

– Industrial Boilers, Kilns, and Furnaces

– Cooking stoves

– Generator sets (backup power sources)

For details on how methanol is essential to everyday life, see [pages 7, 12, 18](#) and [86](#).

VALUE CREATED

We contribute to local economies by employing people directly and indirectly, purchasing goods and services from local suppliers, and contributing time and financial investments to the communities where we live and work.

\$4.3 billion

in revenue

\$219 million

for employees (wages and benefits)

\$1.9 billion

for suppliers

\$1.3 million

for communities (community investments)






# Our ESG Ratings Profile

We believe that providing decision-useful environmental, social and governance information to our shareholders enables informed investor decision making. We seek to continually improve our disclosure to support broader understanding of our ESG activities and efforts.

\* Due to the timing of the Sustainalytics and ISS Corporate Rating assessments, our 2021 Sustainability Report disclosure was not rated prior to the release of this report.

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	RATING ORGANIZATION	SCALE	2020	2021	2022	DATE
	EcoVadis	Bronze → Silver → Gold → Platinum	Silver	Silver	Gold	November 2022
	Sustainalytics ESG Rating**	← → 100 (severe risk) to 0 (low risk)	25.5	29.6	*	February 2022
	MSCI ESG Rating***	← → CCC to AAA	BBB	BBB	AA	January 2023
	ISS ESG Corporate Rating	← → D to A	C-	C-	*	March 2022
	CDP	← → D to A+	D	D	C	December 2022

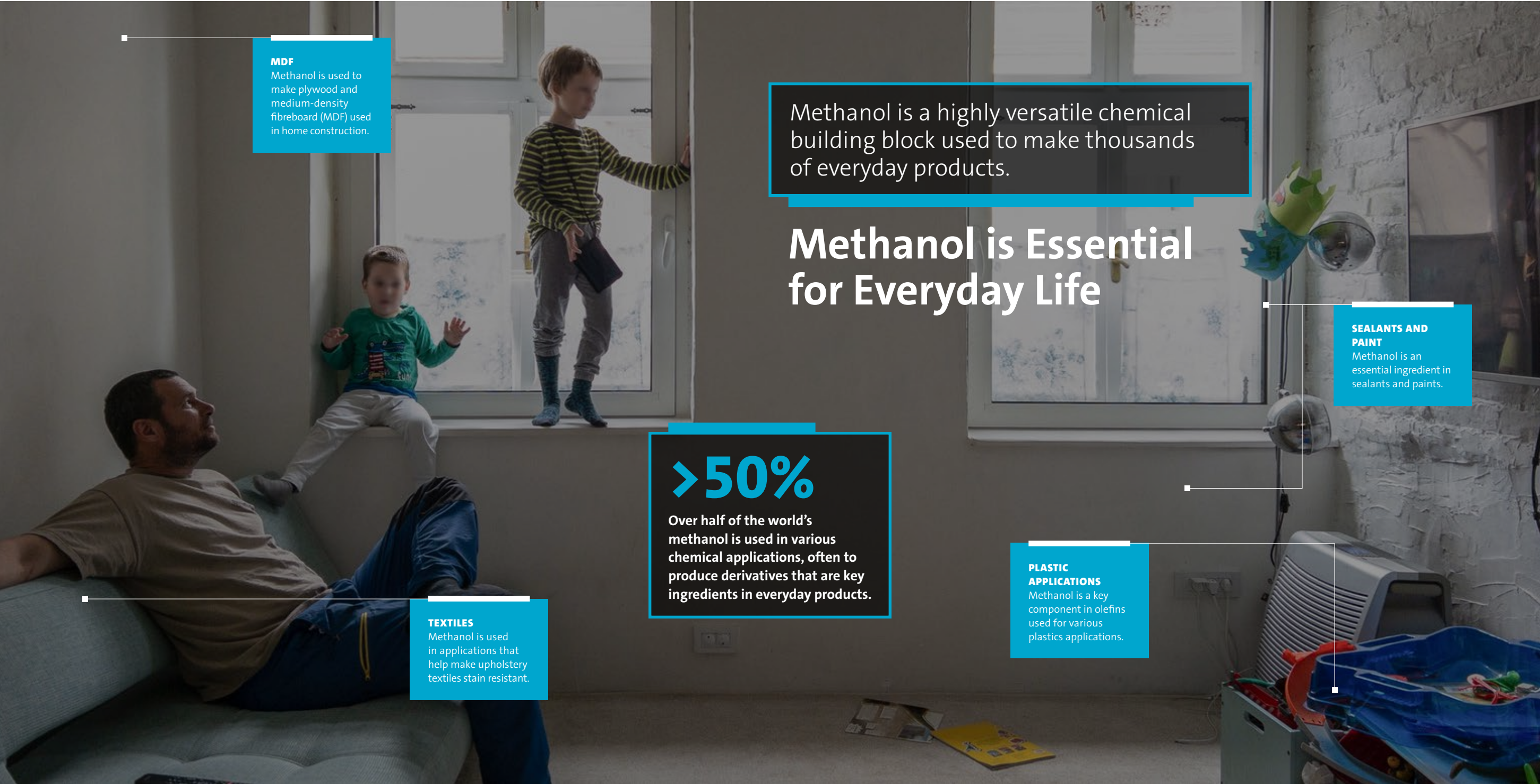


Methanol is essential to everyday life today, and a pathway to a low-carbon future.

# Our Approach

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**MDF**  
Methanol is used to make plywood and medium-density fibreboard (MDF) used in home construction.

Methanol is a highly versatile chemical building block used to make thousands of everyday products.

# Methanol is Essential for Everyday Life

**SEALANTS AND PAINT**  
Methanol is an essential ingredient in sealants and paints.

>50%

Over half of the world's methanol is used in various chemical applications, often to produce derivatives that are key ingredients in everyday products.

**TEXTILES**  
Methanol is used in applications that help make upholstery textiles stain resistant.

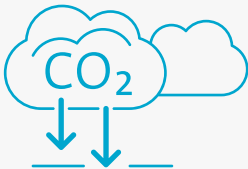
**PLASTIC APPLICATIONS**  
Methanol is a key component in olefins used for various plastics applications.

# Methanol's Role in the Low-carbon Economy

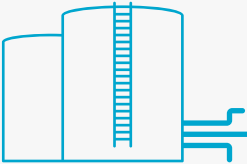
As society and industry commit to decarbonization, the world faces a dilemma: while demand for petrochemicals and global transportation of goods is growing, so are the pressures to reduce or eliminate the GHG emissions from these products and activities.

Methanol can help resolve this dilemma. With wide availability around the world, methanol can help meet the increased demand for petrochemicals-based products and reduce air pollution and GHG emissions from combustion-related fuel applications. Methanol can also be made from renewable sources thereby supporting the long-term decarbonization of the transportation sector and the chemicals that make modern life possible.

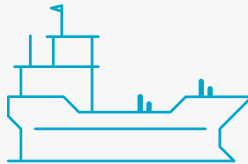
Here are four key reasons why we believe methanol has an important role to play in the low-carbon economy.



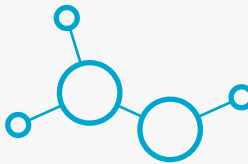
**METHANOL HAS MULTIPLE PATHWAYS AVAILABLE TO SUPPORT THE TRANSITION TO LOWER-CARBON METHANOL**  
Renewable feedstocks, renewable energy sources and new technologies to produce lower-carbon methanol are available and rapidly advancing. For example, biomethanol can be produced today from renewable natural gas using existing assets, as we have proven at our Geismar location. Technologies to produce blue and green methanol are evolving, with carbon capture becoming increasingly commercially viable and electrolysis of water developing.



**METHANOL CAN LEVERAGE EXISTING INFRASTRUCTURE**  
One of the greatest challenges in achieving the transition to a low-carbon economy is the massive investment required in new energy infrastructure. Methanol can leverage existing production facilities, as well as storage and transportation infrastructure. All of our existing production facilities can be used to manufacture biomethanol, and new technologies could be used to gradually convert existing assets to produce methanol with a range of carbon intensities. Methanol is liquid at ambient temperature and pressure, which allows it to make use of existing tankers, storage tanks and pipelines around the world. Finally, engine designs require relatively minor modifications to use methanol as fuel in cars, trucks, and ships, making a transition to methanol relatively easy and more affordable.



**METHANOL CAN SUPPORT THE DECARBONIZATION OF THE SHIPPING INDUSTRY**  
While shipping is the most energy-efficient way to carry cargo (in terms of energy use per tonne-kilometre transported), it accounts for 3 per cent of man-made CO<sub>2</sub> emissions. Transitioning maritime shipping to lower-carbon fuels could have tremendous economic and environmental benefits. Using conventional methanol as a fuel significantly reduces air emissions such as SO<sub>x</sub>, NO<sub>x</sub>, and particulate matter during combustion and reduces carbon emissions by up to 15 per cent from combustion compared to other conventional fossil fuels. The use of biomethanol and e-methanol can be carbon neutral on a lifecycle basis, providing a “future-proof” pathway to global and industry decarbonization goals.



**METHANOL CAN SUPPORT DECARBONIZATION PATHWAYS FOR OTHER COUNTRIES AND INDUSTRIES**  
No matter how it is produced, methanol is the same essential chemical building block. Therefore, blue or green methanol can be used in the same applications, both chemical and fuel-related, and can be blended together with conventional methanol to lower emissions intensity. Along with the availability of existing infrastructure to transport methanol, this capability makes methanol an accessible decarbonization pathway for economies that are expected to transition more slowly away from high-emissions energy sources for vehicle, heavy cargo, and even cooking fuels. Lower-carbon methanol can also support decarbonization goals of downstream chemical producers and help produce lower-carbon consumer and industrial products.



# Our Approach to Sustainability

As the global leader in the methanol industry, we aim to lead the industry in the transition to a low-carbon economy. Our approach to sustainability supports that goal, while creating long-term value for our shareholders, providing solutions for our customers, inspiring our team members and contributing to our communities. Sustainability is integrated into our corporate governance, corporate strategy and risk management processes, and is a key deliverable for senior-level leaders. Accountability for sustainability performance, including climate-related matters, is embedded at the highest levels of our organization. (For details, see [pages 71 to 73](#) and our [Information Circular](#) dated March 9, 2023.)





1

Advancing  
Solutions for  
a Low-carbon  
Future



2

Protecting  
People and the  
Environment



5

Working with  
Integrity



Our  
Sustainability  
Reporting  
Focus Areas

4

Transporting  
Methanol Safely  
and Responsibly



3

Fostering  
Inclusion and  
Community  
Connection





# Our Contributions to the Sustainable Development Goals

We care deeply about the people and the environments in which we live, work and play, and we believe our business should have a positive impact on people’s lives. Methanex supports the United Nations’ Sustainable Development Goals (SDGs) to end extreme poverty, reduce inequality, and protect the planet by 2030. To better align our actions, we conducted an internal assessment to identify the SDGs where we have the greatest potential for positive impact. While we contribute to many SDGs, we report on the SDGs that we support most with Methanex activities. As we progress our sustainability efforts, we will work to maintain alignment with the SDGs in support of the global movement towards a more equitable and sustainable world.

SDG GOAL	PURPOSE		METHANEX'S CONTRIBUTION
<div><div>8</div><div>DECENT WORK AND ECONOMIC GROWTH</div><div></div></div>	Decent work and economic growth	Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all	Fair labour practices that seek to promote safe, meaningful and inclusive work for all: <ul style="list-style-type: none"><li>– Provide competitive wages/salaries and benefits packages</li><li>– Maintain a culture with a strong focus on health and safety</li><li>– Develop internal initiatives to support inclusion and diversity</li><li>– Uphold human rights, including the prohibition of child labour, forced labour, and violence and harassment in the workplace</li><li>– Provide training and educational opportunities to employees</li><li>– Support training initiatives for entrepreneurship, young people, women, and persons with disabilities. See <a href="#">pages 60</a> and <a href="#">61</a> for details.</li></ul>
<div><div>12</div><div>RESPONSIBLE CONSUMPTION AND PRODUCTION</div><div></div></div>	Responsible consumption and production	Ensure sustainable consumption and production patterns through sound management of chemicals and wastes, reduction of releases to air, water and soil, and integration of sustainability information into reporting	Responsible Care and product stewardship activities that promote sustainable production: <ul style="list-style-type: none"><li>– Strive to improve environmental performance of facilities and processes</li><li>– Review the value, impact, and safety of methanol and work with value-chain partners to support product stewardship and safety</li><li>– Disclose our environmental and social impacts in alignment with recognized reporting frameworks (SASB and TCFD)</li></ul>
<div><div>13</div><div>CLIMATE ACTION</div><div></div></div>	Climate action	Take urgent action to combat climate change and its impacts	Investments and initiatives that support decarbonization of our company and other industries, including the global shipping industry: <ul style="list-style-type: none"><li>– Invest in projects that can reduce GHG emissions intensity from our manufacturing process</li><li>– Invest in the development of e-methanol and other technologies to produce lower-carbon methanol</li><li>– Advocate for the positive impact of methanol in the transition to a low-carbon economy</li></ul>
<div><div>16</div><div>PEACE, JUSTICE AND STRONG INSTITUTIONS</div><div></div></div>	Peace, justice and strong institutions	Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels	Promote transparent and ethical behaviour of all employees and contractors: <ul style="list-style-type: none"><li>– Provide clear expectations of all employees and contractors for transparent, respectful, and ethical behaviour, available through our Code of Business Conduct</li><li>– Make grievance and whistleblowing mechanisms accessible to employees</li><li>– Train employees on anti-corruption policies and procedures</li><li>– Maintain a Board diversity policy and transparent executive compensation practice</li></ul>



# Our Commitments

Our suite of sustainability commitments motivates us to continually improve.

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**CAR PARTS**

Methanol is used in plastics to make car parts like plastic body panels, dashboard foam, plastic gears and mouldings, helping make cars lighter and more fuel efficient.

31,000

By the end of 2022, approximately 27,000 M100 taxis (running on 100 per cent methanol), 3,000 heavy duty trucks and 1,000 methanol hybrid passenger cars were operating in China.

**VEHICLE FUEL**

A cleaner burning fuel than diesel and gasoline, methanol is used to fuel cars, buses and trucks.

Methanol is also used to produce fuel additives (MTBE) to help reduce tail-pipe emissions and in the production of bio-diesel which is a diesel substitute.

**ELECTRONIC SCREENS**

Methanol is used to make a chemical derivative used in LCD screens for cars, TVs, watches, phones and computers.

Methanol is Essential  
for Everyday Life

Methanol can support efforts to make transportation more sustainable by making lighter components for vehicles or for use directly as a cleaner burning fuel or indirectly as a fuel additive.



# Looking Forward

## OUR SUSTAINABILITY COMMITMENTS AND PERFORMANCE GOALS

1

ADVANCING SOLUTIONS FOR A LOW-CARBON FUTURE



**COMMITMENT**  
Operate our manufacturing assets to continuously improve efficiency and achieve ongoing greenhouse gas intensity reduction.

- PERFORMANCE GOAL**
- Reduce Scope 1 and Scope 2 GHG emission intensity from manufacturing by 10 per cent by 2030 from 2019 levels.
  - Invest \$15 million of capital into energy efficiency and reliability projects with GHG reduction benefits at existing sites between 2023 and 2024.
  - Target 97 per cent or higher reliability of our existing assets each year, which will maintain or decrease current GHG emissions.

2

PROTECTING PEOPLE AND THE ENVIRONMENT



**COMMITMENT**  
Continuously improve our resource management performance to minimize our impact on the environment.

- PERFORMANCE GOAL**
- Achieve zero significant (major or serious) environmental spills annually.
  - Complete evaluation of opportunities for air quality improvement projects to reduce NO<sub>x</sub> and VOCs at all sites.

3

FOSTERING INCLUSION AND COMMUNITY CONNECTION



**COMMITMENT**  
Embed a culture of inclusion that leverages diversity across our company and strengthens the connection with our communities.

- PERFORMANCE GOAL**
- Execute a three-year Diversity and Inclusion roadmap across all global Methanex sites.
  - Increase our community investments by 30 per cent by 2024 from 2022.

4

TRANSPORTING METHANOL SAFELY AND RESPONSIBLY



**COMMITMENT**  
Maintain the highest industry standards for safe and sustainable methanol transportation.

- PERFORMANCE GOAL**
- Achieve zero reportable transport safety incidents (for methanol that we handle) annually.
  - Complete safety visits on 100 per cent of our time charter vessels, annually.
  - Reach at least 130 organizations through our product stewardship programs to promote the safe and sustainable handling and use of methanol.

5

WORKING WITH INTEGRITY



**COMMITMENT**  
Consistently demonstrate high standards of integrity across our company.

- PERFORMANCE GOAL**
- Conduct a corporate internal Responsible Care audit at each manufacturing location, once every three years.
  - All marketing and logistics regions receive antitrust training annually.
  - All employees and Methanex board members complete ethics/Code of Business Conduct and Respectful Workplace training annually.
  - All employees complete cybersecurity training annually.

# Looking Back

## OUR 2022 SUSTAINABILITY SCORECARD

We are proud of our work in 2022 to progress our environmental, social and governance (ESG) practices and performance, presented in our scorecard (below). Details about our initiatives and performance can be found in the rest of this report.

OUR COMMITMENT	PROGRESS
Reduce Scope 1 and Scope 2 GHG emissions intensity from manufacturing by 10 per cent by 2030 from 2019 levels.	<div></div>
Complete evaluation of additional opportunities for greenhouse gas (GHG) reduction projects at all existing sites by 2022 and incorporate capital spend in annual capital cycle, beginning in 2023.	<div></div>
Target 97 per cent or higher reliability of our existing assets, which will maintain or decrease current GHG emissions. For details, see <a href="#">page 26</a> .	<div></div>
Invest \$1 million in resources and capital in 2022 for research and feasibility studies of methanol plant design improvements with lower emissions intensity than existing plants.	<div></div>
Complete a feasibility study for carbon capture, utilization, and storage (CCUS) for our North American assets where it can materially reduce GHG emissions by up to 90 per cent.	<div></div>
Actively pursue offtakes with green methanol projects in support of downstream markets, with a willingness to pay required green premium.	<div></div>
Achieve zero significant (major or serious) environmental spills.	<div></div>
Develop a three-year Diversity and Inclusion roadmap in 2022 to be implemented across all global Methanex sites.	<div></div>
Annually lower our recordable injury rates with the aspirational goal to achieve zero harm. For details, see <a href="#">page 39</a> .	<div></div>
Achieve zero Severe Injury or Fatality (SIF) incidents annually.	<div></div>

TCFD: METRICS AND TARGETS (C)

AchievedOn TrackNot Achieved

OUR COMMITMENT	PROGRESS
Achieve zero major incidents for process safety (i.e., Tier 1) annually by continuing to implement robust process safety programs. For details, see <a href="#">page 45</a> for details.	<div></div>
Achieve zero reportable transport incidents (for methanol that we handle) annually.	<div></div>
Work with governments to advance initiatives that support the transition to a low-carbon economy, including the benefits of methanol.	<div></div>
Ensure at least 40 per cent of independent Board members are from diverse groups.	<div></div>
Ensure all employees, as well as directors and officers of Methanex and its wholly owned subsidiaries, complete ethics/Code of Business Conduct and Respectful Workplace Training annually.	<div></div>
Ensure all targeted marketing and logistics employees receive antitrust training annually.	<div></div>
Ensure all employees complete cybersecurity training annually.	<div></div>
Conduct a corporate internal Responsible Care audit at each manufacturing location, once every three years.	<div></div>
Complete safety visits on 100 per cent of our time charter vessels annually.	<div></div>
Ensure all vessels have a plan in place to meet decarbonization regulations set by the International Maritime Organization’s Marine Environment Protection Committee by 2023, in partnership with the technical managers of our time charter vessels.	<div></div>



**COMMITMENT**  
Operate our manufacturing assets to continuously improve efficiency and achieve ongoing greenhouse gas intensity reduction

**COMMITMENT**  
Invest in opportunities and new technologies to enable lower-carbon methanol solutions

# Advancing Solutions for a Low-carbon Future

IN THIS SECTION

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Our Approach to a Low-carbon Future	23





# How We Produce GHG Emissions

Our operations generate greenhouse gas (GHG) emissions directly and indirectly through the production, distribution, and use of our product.

## GHG EMISSIONS FROM MANUFACTURING

Natural gas combustion in the reforming stage of our manufacturing process represents the primary source of CO<sub>2</sub> emissions from our operations. Specifically, the chemical reactions required to produce methanol require energy and high heat, up to approximately 900°C-1000°C.

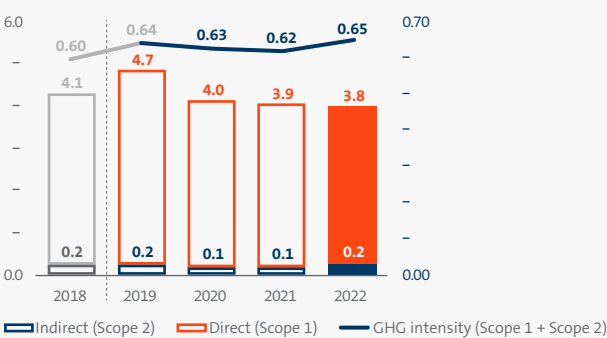
The majority of the methanol industry today uses coal or natural gas as its energy source. Methanex only uses natural gas in our production process, which generates a CO<sub>2</sub> emission intensity that is, on average, five times lower than methanol produced with coal.



Multiple factors determine the emissions intensity (CO<sub>2</sub>/tonne of methanol) of our manufacturing process from year to year. These include reforming technology, process efficiency, fuel composition, age of catalyst, natural gas supply, the source of purchased electricity and steam, and the age, design and reliability of our facilities.

We continually work to reduce GHG emissions from our production so we can meet growing global demand for lower-emission intensity methanol. Read the following pages for details on our approach to reduce our emissions.

GHG EMISSIONS FROM MANUFACTURING (EQUITY SHARE)  
million tonnes CO<sub>2</sub>e | tonnes CO<sub>2</sub>e/tonne methanol



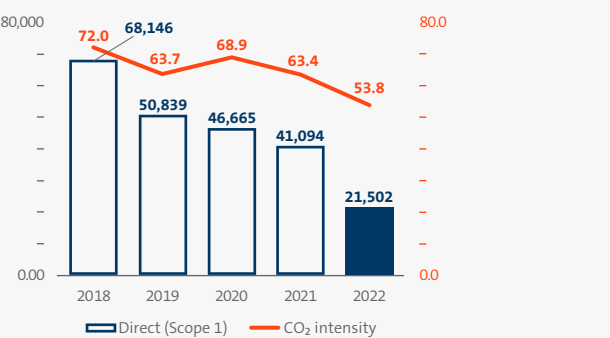
Our GHG intensity increased slightly in 2022 due to a change in production volumes from our plants and several unplanned plant outages, in addition to two planned turnarounds in New Zealand and Egypt.

## GHG EMISSIONS FROM METHANOL SHIPPING

Waterfront Shipping (WFS) is a subsidiary of Methanex Corporation that specializes in the safe, responsible and reliable transport of methanol and clean petroleum products such as gasoline and ultra-low sulphur diesel oil. WFS transports approximately 85 per cent of Methanex's produced methanol to customers around the world and is a key component of our integrated global supply chain.

When WFS transports methanol to our customers worldwide, the vessels generate CO<sub>2</sub> emissions. Marine transport carbon intensity (CO<sub>2</sub> emissions per tonne of cargo shipped) is influenced by numerous factors, including the distance of trade routes for our methanol cargo, as well as ship technology and operating efficiency. For details on how we work to reduce emissions from shipping, see [page 27](#).

GHG EMISSIONS FROM WATERFRONT SHIPPING (EQUITY SHARE)  
tonnes CO<sub>2</sub> | kg of CO<sub>2</sub>/tonne of cargo shipped



Lower emissions in 2022 mainly result from replacing older ships in the fleet with newer, more efficient ships, a shorter average distance per voyage sailed and the use of methanol as a fuel. In addition, MOL acquired 40 per cent of Waterfront Shipping in 2022, impacting our equity share of emissions. Excludes non-CO<sub>2</sub> emissions.

# Methanex's Approach to a Low-carbon Future

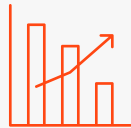
We are committed to playing an active role in the transition to a low-carbon economy by leveraging our existing production assets and collaborating with government and industry. Our objective is to drive solutions that can meet the growing demand for our product in ways that support the environmental commitments of our company, industry and customers.

Three priorities guide our approach to the transition to a low-carbon economy: reducing emissions from conventional methanol, producing lower-carbon methanol, and growing markets for methanol.

## REDUCING EMISSIONS FROM CONVENTIONAL METHANOL



Efficiency



Reliability



Catalysts



Lower-intensity growth projects

## PRODUCING LOWER-CARBON METHANOL



Carbon capture and storage



Renewable natural gas



Alternative feedstocks, renewable energy and new technologies

## GROWING MARKETS FOR METHANOL



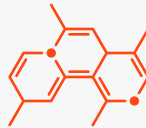
Marine fuel



Vehicle Fuel



Thermal applications such as industrial boilers and cooking stoves



Lower-carbon methanol as a feedstock for chemical applications



# I. Reducing Emissions from Conventional Methanol

Methanex is taking concrete steps to achieve our 10 per cent GHG intensity reduction target by 2030, exploring multiple pathways to reduce the carbon intensity of our existing methanol plants. We continue to focus on plant efficiency, plant reliability and the use of catalysts, and are identifying ways to upgrade our existing facilities to improve energy efficiency and lower CO<sub>2</sub> emissions. Methanex is also creating an internal roadmap to better understand our impact and areas of influence for sources of Scope 3 emissions.



**PERFORMANCE GOALS**  
Invest \$15 million of capital into energy efficiency and reliability projects with GHG reduction benefits at existing sites between 2023 and 2024.  
  
Reduce Scope 1 and Scope 2 GHG emission intensity from manufacturing by 10 per cent by 2030 from 2019 levels.



**1. EFFICIENCY PROJECTS**  
For the last two years, we have taken a systematic approach to identifying, evaluating and implementing efficiency and emissions reduction projects. After considering estimated emissions reductions, cost, and timing considerations (e.g., they require a plant turnaround\* to complete), we began implementing a suite of projects in 2022. Four have been completed and several others have been incorporated into our capital budget for the next two years. We anticipate the process or equipment upgrades from projects completed in 2022 will help us avoid approximately 30,000 tonnes of CO<sub>2</sub>e per year. See [page 25](#) for details.



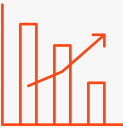
To further our emissions reduction efforts in New Zealand, Methanex has committed to a multi-million-dollar investment in technology improvements to our distillation towers in Motunui. This two-year project is anticipated to reduce carbon emissions by more than 50,000 tonnes annually. We anticipate completing this work in 2024. This project is one of several we are currently implementing to bring us closer to our 2030 emissions reduction goal.

\* A turnaround is a planned outage at a manufacturing plant to conduct major maintenance, replace equipment and change catalysts.









2. RELIABILITY

To reduce our emissions intensity, we focus on maintaining a high level of reliability. Reliable plants run continuously at full operating rates to optimize natural gas efficiency and are critical to managing emissions. The safe start-up and shutdown of methanol production facilities requires the flaring of some natural gas from the system, which results in increased emissions. We are tracking the impact of process decisions made during startups and shutdowns to identify process changes that can help reduce emissions.

To keep our plants running continually and minimize unplanned shutdowns, we focus on preventive maintenance, condition monitoring for critical assets, and risk-based inspection for static equipment. Reliability measures the time a plant is in operation without unplanned shutdowns, excluding days lost for business-related reasons (e.g., interruptions in utility supply or lack of feedstock). Our 2022 global plant reliability was 95.6 per cent, below our reliability target of 97.0 per cent. Our manufacturing regions experienced several outage events, including longer than scheduled turnarounds, which collectively impacted our overall reliability. Our four-year reliability average is 94.7 per cent.



**PERFORMANCE GOAL**  
Target 97 per cent or higher reliability of our existing assets each year, which will maintain or decrease current GHG emissions.

The chemical reaction process to produce methanol requires the use of catalysts. Catalysts degrade over time and, depending on the technology, need to be changed every three to six years. We replace catalysts as part of our turnaround process.

Our Medicine Hat facility is currently operating with a new methanol synthesis catalyst from our supplier Johnson Matthey. Its lower deactivation rate can improve overall efficiency, lower emissions and potentially optimize the timing of our plant turnaround cycles. The initial performance of the new catalyst looks promising, and we are evaluating the potential for application at other sites.



<0.40

tonnes of CO<sub>2</sub>/tonne of methanol

ESTIMATED FOR G3

0.63

tonnes of CO<sub>2</sub>/tonne of methanol

METHANEX FIVE-YEAR AVERAGE INTENSITY

<<3.2

tonnes of CO<sub>2</sub>/tonne of methanol

COAL-BASED METHANOL

Methanex only uses natural gas as a feedstock in our production facilities.

Construction on Methanex's G3 facility continues on schedule, with first production anticipated in Q4 2023. We estimate G3's CO<sub>2</sub> emissions intensity to be less than 0.4 tonne of CO<sub>2</sub> per tonne of methanol, one of the lowest in the industry.



3. REDUCED-INTENSITY GROWTH PROJECTS

We look for opportunities to simultaneously grow production and reduce CO<sub>2</sub> intensity by using our existing assets in innovative ways. By using auto-thermal reforming (ATR) technology—which has lower energy requirements resulting in less CO<sub>2</sub>—and injecting excess hydrogen from G1 and G2 steam, our growth project in Geismar is expected to have one of the lowest CO<sub>2</sub> emissions intensity profiles in the methanol industry. Once in operation, G3 will be capable of producing 1.8 million tonnes of methanol annually. Budgeted at \$1.25-1.30 billion, G3 is adjacent to our existing G1 and G2 plants with shared infrastructure that creates material capital and operating cost advantages.

We aim for our future growth projects to contribute to our emission reduction goals.





**MANAGING EMISSIONS FROM METHANOL SHIPPING**

Waterfront Shipping works to reduce CO<sub>2</sub> emissions from shipping in three ways:

**Methanol-fueled vessels that exceed stringent emission regulations** – As part of our ongoing vessel replacement program, we regularly replace older vessels with newer, more fuel-efficient vessels. As society transitions to a low-carbon economy, we are also prioritizing innovation in methanol as marine fuel. As of January 2023, Waterfront’s fleet includes 18 dual-fuel vessels that can run on either diesel or methanol. This means that approximately 60 per cent of Waterfront Shipping’s vessel fleet can now be powered by methanol. To read about the benefits of methanol as a marine fuel see [page 7](#) of this report.

**Optimized shipping by carrying backhaul cargo** – After delivering methanol to its intended destination, our ships can also carry “backhaul” cargo (e.g., petroleum products such as gasoline or diesel) on their return voyage, rather than returning empty.

By carrying cargo on both legs of the voyage and using fuel as efficiently as possible, we reduce our CO<sub>2</sub> emissions intensity.

- Ship modifications or improvements** – We also employ the following strategies to reduce emissions generated by our shipping activity:
- Propeller boss cap fins: A small propeller is installed on the cap of the boat’s large propeller, which increases efficiency while providing the same power. This reduces fuel consumption by close to 3 per cent per ship. A total of 18 Waterfront vessels will have this technology installed by the end of 2023, seven of which are new dual-fuel vessels.\* We are now recommending that our time charter vessel operators install this technology.
  - Speed reductions: We reduce vessel speed, when possible, to improve fuel efficiency and reduce emissions.

\* Waterfront Shipping received two dual-fuel vessels in 2021, five in 2022 and one in January 2023. One of these vessels, which has a propeller boss cap fin, is on loan to Trafigura under a time-charter agreement for 2023.

**WATERFRONT SHIPPING FLEET READY FOR NEW EMISSIONS CERTIFICATION**

Waterfront Shipping’s continual efforts to modernize and reduce emissions from our fleet has positioned us to meet the International Maritime Organization’s new mandatory [carbon intensity measures](#) in 2023.

Starting in January 2023, ships of 400 gross tonnage and above are required to measure and report their energy efficiency using a standardized global process. Based on their performance, ships will receive an annual energy efficiency rating that will be entered into a global system. Ships with higher ratings will be given preference by administrations, port authorities and other stakeholders.

The measures are aimed at achieving sector decarbonization goals by incentivizing ship owners to improve carbon intensity of their vessels.

The mandatory measures apply to almost all of Waterfront’s vessels. Our vessels will be ready for certification within the time frame outlined by the IMO.

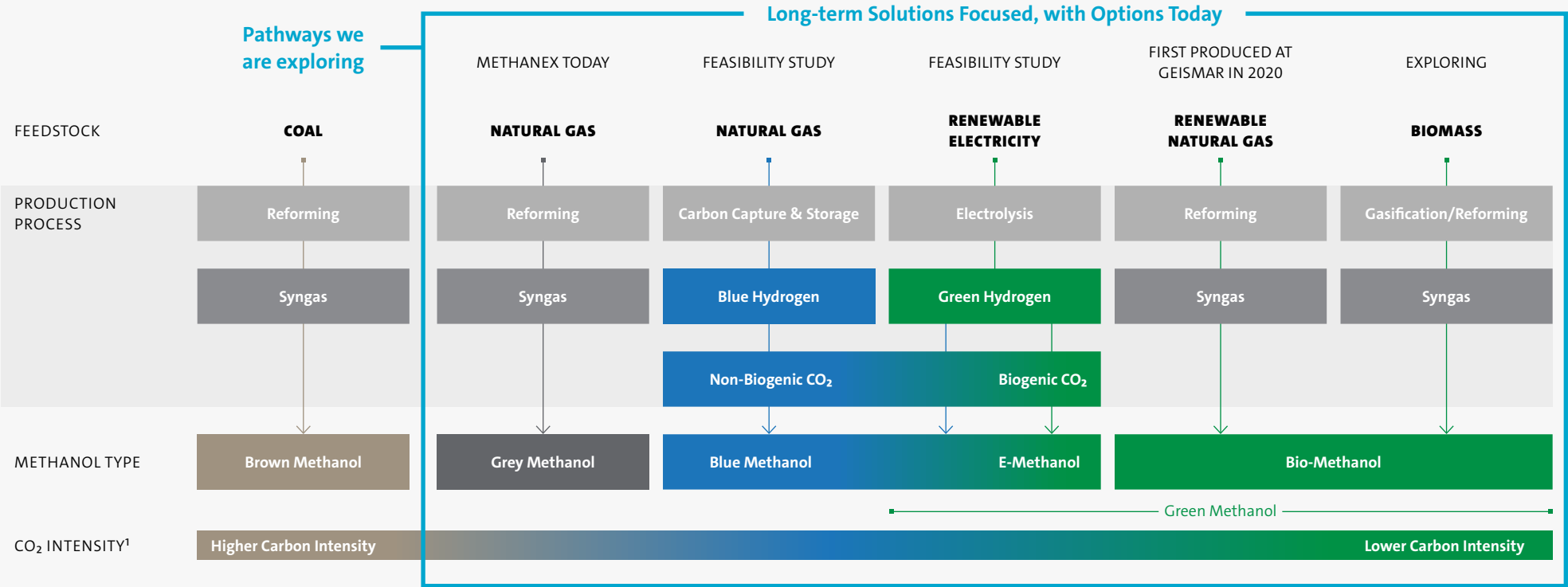
## II. Producing Lower-carbon Methanol

While today we produce methanol from natural gas, methanol can also be made from renewable sources, such as renewable natural gas, biomass, and green hydrogen combined with recycled carbon dioxide. We are committed to pursuing opportunities to make incremental, staged investments that could facilitate the transition of our existing assets, where feasible, to produce lower-carbon methanol.

Our manufacturing facilities have a lifespan of several decades, and the process to make methanol remains largely the same regardless of feedstock used. For these reasons, modifying existing assets to produce lower-carbon methanol is more cost effective and can have a lower environmental impact than building new facilities. In addition, pursuing staged investments allows us to adjust production based on product demand and feedstock availability. Our approach to these pathways, outlined below and in the next few pages, will position us to meet our customers' needs as demand for lower-carbon methanol develops.



- PERFORMANCE GOALS**
- By the end of 2023, invest \$2 million to evaluate the feasibility of:
- Carbon capture and storage (CCS) for our North American assets
  - Lower emissions intensity options for future plants
- Integrating e-methanol technology into our existing assets
- By the end of 2023, purchase or produce carbon-neutral methanol to supply at least two methanol sales contracts.



While methanol can be produced from different feedstocks and by using different energy sources, the resulting methanol is always chemically identical and can be used for the same applications.

**Brown Methanol:** from coal, a non-renewable feedstock, which is ~5 times higher in carbon intensity than methanol produced using natural gas.

**Grey Methanol:** from natural gas, a non-renewable/fossil fuel feedstock.

**Blue Methanol:** conventional methanol process with an integrated carbon capture and storage (CCS) scheme, or a process which uses green hydrogen as a fuel but does not incorporate a renewable source of CO<sub>2</sub>.

**Green Methanol can be:**  
**E-Methanol:** Green hydrogen (i.e., hydrogen produced with renewable electricity) is combined with CO<sub>2</sub> captured from renewable sources (e.g., via bioenergy with CCS or Direct Air Capture).

**Biomethanol:** from renewable natural gas (sourced from landfills, sewage plants or animal manure farms) or biomass. Potential sustainable biomass feedstocks include but are not limited to (i) forestry and agricultural waste/by-products, (ii) municipal solid waste and (iii) black liquor from the pulp and paper industry.

Modified from: IRENA. Reflects common terminology at the time of publication.





**1. CARBON CAPTURE AND STORAGE**

Conventional methanol production coupled with carbon capture and storage (CCS) produces what is known as blue methanol. CCS is the process of capturing CO<sub>2</sub> from fuel combustion or industrial processes, purifying and compressing the CO<sub>2</sub>, and transporting it via pipeline to be stored underground in deep geological formations (see Figure 1). Some industrial processes, such as the production of methanol, also have the option to reuse the captured CO<sub>2</sub> as feedstock, known as carbon capture, utilization and storage (CCUS). Carbon capture technology holds the greatest near-term potential to materially reduce emissions from the production of methanol as it can reduce an estimated 90 per cent of Scope 1 GHG emissions.

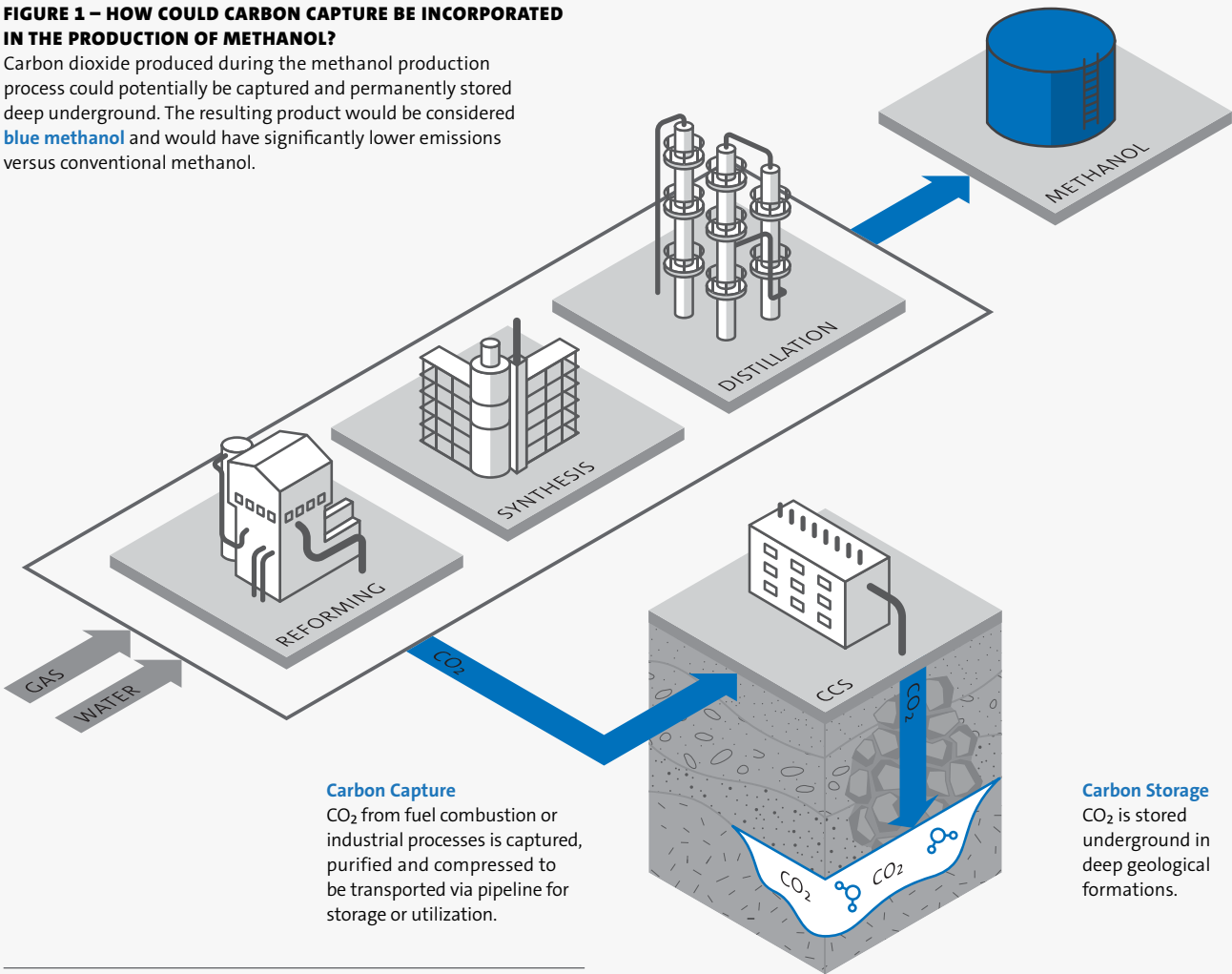
In 2022, Methanex confirmed the technical feasibility of carbon capture and storage at our Geismar and Medicine Hat sites – the most promising locations for implementing this technology. For 2023, we have prioritized further study at Geismar due to two key advantages: existing infrastructure for the transport and geological storage of CO<sub>2</sub>, and the expanded tax credit for carbon capture and storage contained in the U.S. Inflation Reduction Act. For our Medicine Hat site, we will continue to monitor the development of supportive conditions for a carbon capture investment, including government incentives, as well as carbon transportation and storage infrastructure in the region.

Methanex takes a disciplined approach to capital allocation, and we will follow our existing capital project processes to support any investment decision related to carbon capture. This includes ensuring that critical conditions are met at each stage of our capital project process before moving forward for increased engineering definition. Based on our current assumptions, we would require a price premium for methanol to support a capital investment of hundreds of millions of dollars for carbon capture.

- We plan to invest an additional \$1 million in 2023 to refine the potential scope and increase certainty around key assumptions for a CCS investment in Geismar. Specifically, this includes:
- Selecting carbon capture technology and defining the plant and key equipment size requirements.
  - Progressing discussions with third-party service providers for carbon transportation and storage.
  - Working with customers on demand and pricing for lower-carbon methanol.

**FIGURE 1 – HOW COULD CARBON CAPTURE BE INCORPORATED IN THE PRODUCTION OF METHANOL?**

Carbon dioxide produced during the methanol production process could potentially be captured and permanently stored deep underground. The resulting product would be considered **blue methanol** and would have significantly lower emissions versus conventional methanol.



Note: This diagram is for illustrative purposes only and represents how carbon capture could potentially be applied at a steam-reforming methanol plant.



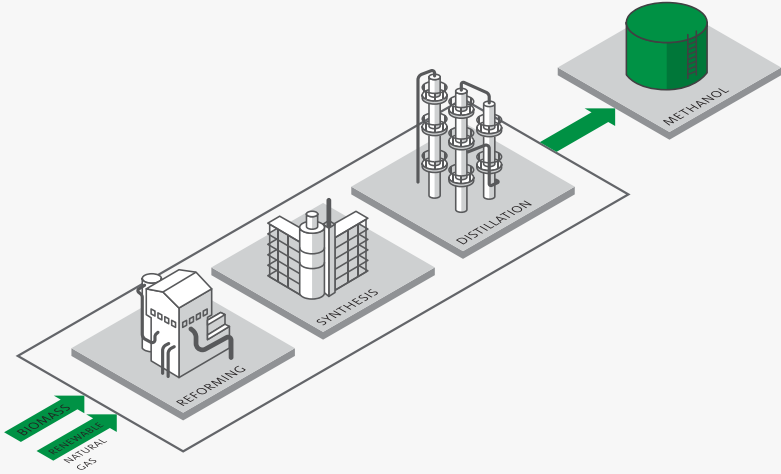
2. RENEWABLE NATURAL GAS

Using renewable natural gas or biomass in a conventional methanol process results in a form of green methanol called biomethanol. We have received International Sustainability & Carbon Certification (ISCC) for biomethanol production at our Geismar site in the U.S. This certification enables sales to European fuel customers under the Renewable Energy Directive II (RED II), which sets targets for energy from renewable sources, as well as chemical customers globally to produce low-carbon products like bio-based polymers.

While renewable natural gas costs significantly more than conventional natural gas feedstock, making biomethanol more expensive to produce, this process requires no incremental improvements or capital investments to our manufacturing facilities. Our Geismar plant remains positioned to respond to customer demand and produce biomethanol using renewable natural gas.

FIGURE 2 – HOW COULD RENEWABLE NATURAL GAS BE USED TO PRODUCE METHANOL?

Renewable natural gas (from landfills, sewage plants or animal farms) or biomass (from forestry and agricultural waste/by-products, municipal solid waste and black liquor from the pulp and paper industry) could be used for methanol production, reducing the lifecycle emissions from the resulting **biomethanol**.



Note: This diagram is for illustrative purposes only and represents how renewable natural gas could be applied at a steam-reforming methanol plant.



3. ALTERNATIVE FEEDSTOCKS, RENEWABLE ENERGY AND NEW TECHNOLOGIES

Alternative feedstocks and renewable energy can provide pathways to produce lower-carbon or carbon-neutral methanol on a lifecycle basis. Methanex is exploring pathways to gradually decarbonize our existing plants, including opportunities to use alternative fuels or renewable electricity at our facilities.

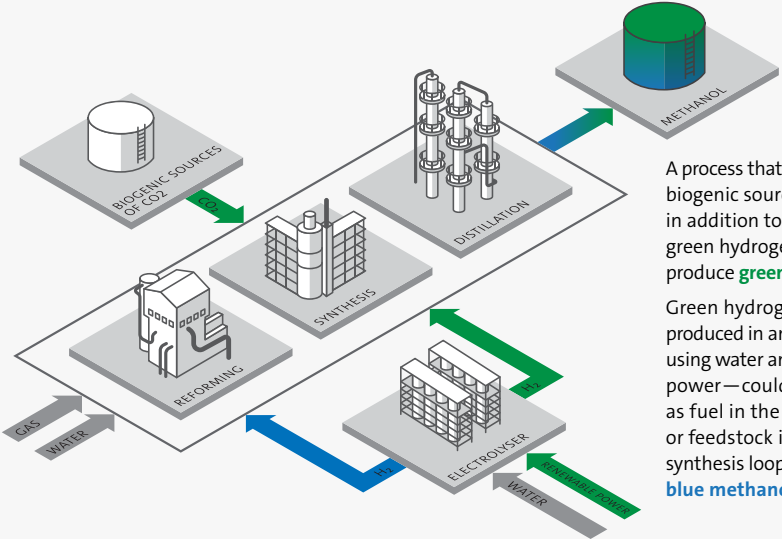
Green hydrogen feasibility study

In 2023, we will conduct a technical and economic feasibility study of using green hydrogen at existing plants to produce methanol with a lower carbon intensity. If the concept proves viable, lower-carbon methanol could be produced alongside conventional methanol at some of our sites, to match the growing market needs for low-carbon methanol.

In the future, biogenic sources of CO<sub>2</sub> could also be incorporated into the process which, if used in conjunction with green hydrogen, could produce green methanol. See Figure 3.

FIGURE 3 – HOW COULD ALTERNATIVE FEEDSTOCKS AND RENEWABLE ENERGY BE USED TO PRODUCE METHANOL?

The increasing availability of alternative feedstocks and renewable energy is opening up multiple potential pathways to produce lower-emissions methanol from existing assets and produce methanol with varying carbon intensities.



A process that incorporates biogenic sources of CO<sub>2</sub> in addition to the use of green hydrogen could produce **green methanol**. Green hydrogen—produced in an electrolyzer using water and renewable power—could be used as fuel in the reformer or feedstock in the synthesis loop to produce **blue methanol**.

Note: This diagram is for illustrative purposes only and represents how alternative feedstocks and renewable energy could be applied at a steam-reforming methanol plant.



Support for e-methanol technology developers

In 2013, Methanex made a pioneering investment in green e-methanol technology developer Carbon Recycling International (CRI) based in Iceland. The CRI demonstration plant was used to prove their emissions-to-liquids (ETL) technology, recycling CO<sub>2</sub> from a nearby geothermal power plant and using renewable energy to produce renewable methanol. In 2022, CRI reached a milestone with the start-up of the world’s largest CO<sub>2</sub>-to-methanol plant in Anyang, China based on CRI’s ETL technology. Methanex increased its support for CRI in 2022, with an increase in \$1 million in equity, converted from a portion of a mezzanine loan, and an extension of the remaining mezzanine loan.

Planning for future-proof growth

Our design team considers emissions-lowering features when planning growth projects for the near term. For example, by planning for carbon capture when designing a growth project—even if the region does not yet have carbon storage capacity or infrastructure—we are able to incorporate that technology more easily in the future should the infrastructure become available.

Looking further into the future, we are also considering design solutions that are many years away from being proven or implemented. In 2022, Methanex committed \$1 million to support internal research on design improvements that could potentially halve the carbon intensity of future plants compared with current best-in-class designs such as G3. We are continuing this research in 2023.

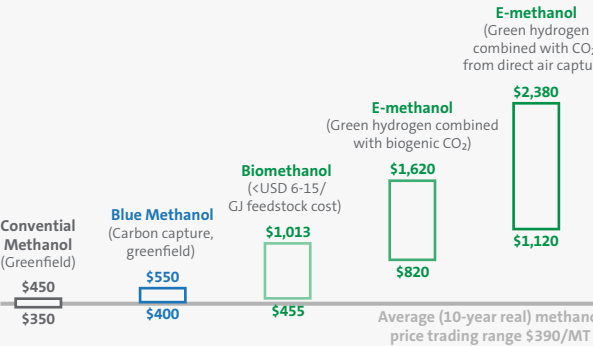


THE “GREEN PREMIUM” CHALLENGE

“The green premium” refers to the gap between the cost to produce lower-carbon methanol and what customers are willing to pay for it. While we are seeing the gap narrow, this remains a key challenge to scaling production of blue or green methanol. (See Figure 4).

Team members from across our business and around the globe are working together to develop concepts, test feasibility, and liaise between customers and suppliers. As markets and regulations shift and government incentives evolve, we are continually working to understand what solutions our customers want, gauge their willingness to pay a premium for blue or green methanol, and facilitate the supply needed to meet customer needs.

FIGURE 4 – METHANOL PRICE RANGE REQUIRED TO UNDERPIN INVESTMENT  
USD \$/tonne of methanol



Range of current capital and production costs for different forms of methanol. Source: 2021 Irena Report and internal estimates. Exchange rate used USD 1= EUR 0.9





## III. Growing Markets for Methanol

Methanex is committed to growing markets for methanol as a chemical feedstock and fuel. We continue to promote the emissions benefits of methanol and leverage our investments and existing assets to develop a market for conventional and lower-carbon methanol as a “future-proof” fuel for a low-carbon economy. This also includes evaluation of green methanol-offtakes to meet customer interest as this demand grows.

Received **FIVE** new methanol dual-fuel vessels in 2022.



### 1. METHANOL AS MARINE FUEL

The market for methanol as a marine fuel is a significant opportunity for Methanex. Methanol is a safe, proven, cost-competitive marine fuel for the commercial shipping industry, and can meet or exceed current and planned emissions regulations.

Shipping accounts for nearly 3 per cent of global GHG emissions. Increasingly stringent measures to reduce carbon intensity and emissions such as SO<sub>x</sub>, NO<sub>x</sub> and particulate matter from shipping are being reflected in growing global demand for lower-emission marine fuel.



### PERFORMANCE GOAL

Sign at least three new commercial agreements to supply methanol as a marine fuel by 2025.

With methanol available at over 125 of the world's largest ports, its use as a marine fuel can help the shipping industry meet these increasingly strict air emissions regulations. Methanol also provides a pathway to help meet global and industry decarbonization goals with several pathways available to produce green methanol.



### WHY METHANOL AS A MARINE FUEL?

**95%**

Methanol can reduce SO<sub>x</sub> and PM emissions by more than 95 per cent, and NO<sub>x</sub> by up to 80 per cent compared to conventional marine fuels.

**15%**

Conventional methanol can reduce CO<sub>2</sub> emissions during combustion by up to 15 per cent compared to conventional fuels.

### Carbon Neutral

The use of biomethanol and e-methanol can be carbon neutral on a lifecycle basis.

**125+**

Methanol is available at more than 125 of the world's largest ports.

- As a liquid product, methanol is safe to transport, store, and bunker using regular safety procedures.
- Dual-fuel engine technology is already available.
- Green methanol (includes biomethanol and e-methanol) is compatible with current methanol dual-fuel engine technology, offering a clear pathway to decarbonization without future investment or compatibility issues.



# Pioneering Methanol as Marine Fuel

Methanex and our subsidiary Waterfront Shipping (WFS) have been demonstrating the feasibility and safety of using methanol as marine fuel since 2013.

**Proving feasibility in our own ships** – WFS began supporting MAN Energy Solutions’ development of dual-fuel engine technology in 2013. WFS has been operating methanol dual-fueled ships since 2016, accumulating more than 130,000 operating hours while running on methanol. Having proven that methanol technology is safe and reliable, we continue to expand our dual-fuel fleet. By January 2023, approximately 60 per cent (18 vessels) of our operating fleet will be dual-fuel vessels.

**Demonstrating bunkering safety** – Since 2016, Waterfront Shipping has been bunkering methanol from most of our production sites, and we continue to demonstrate methanol bunkering in an increasing number of ports that have methanol infrastructure, including Houston, USA; Ulsan, Korea; and Taicang, China. In 2021, we led the first barge-to-ship methanol bunkering operation at the Port of Rotterdam in the Netherlands, proving that methanol is safe to ship, store, handle and bunker using procedures similar to those used for conventional marine fuels.

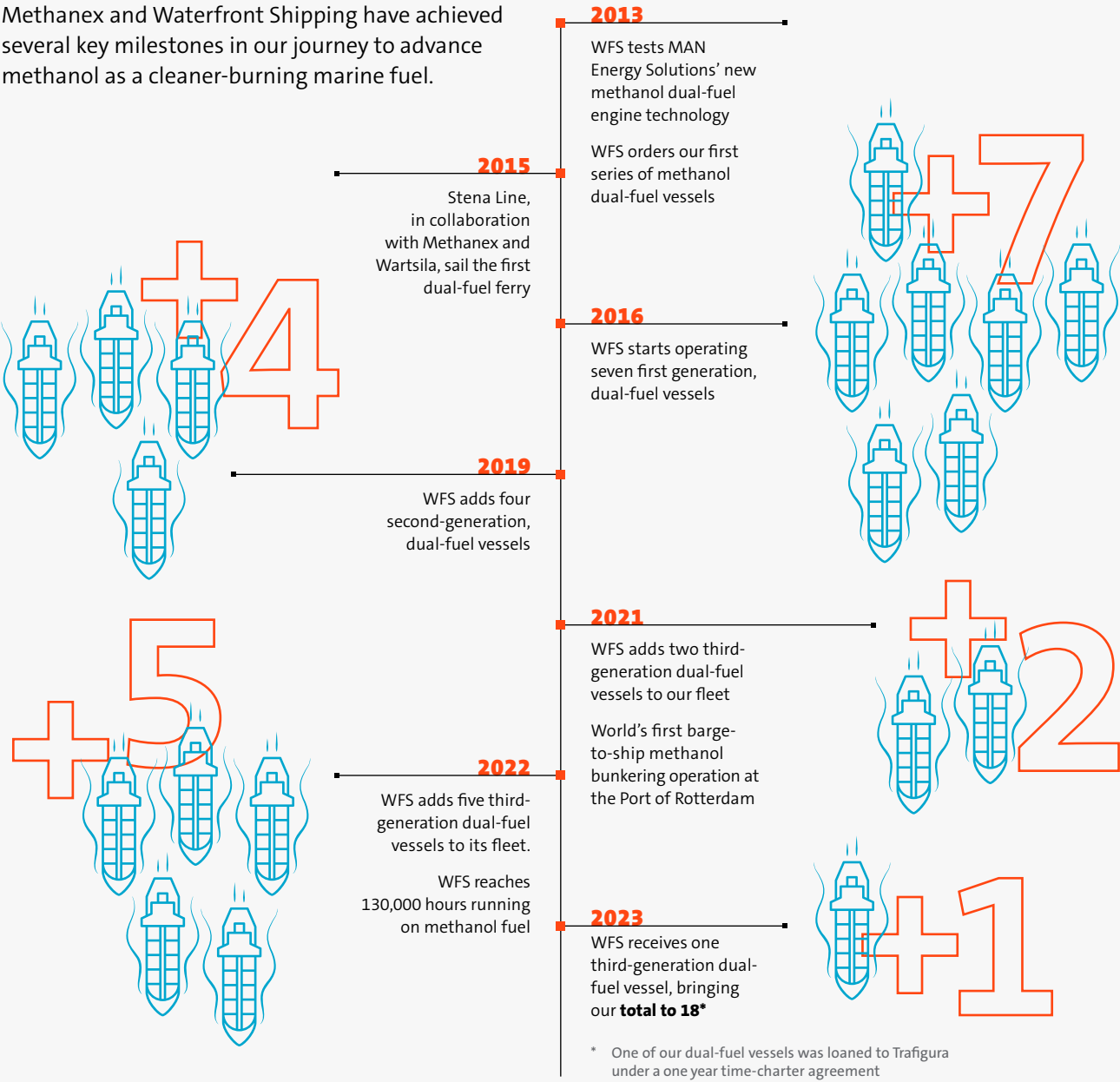
**Supporting the commercialization of methanol as a marine fuel** – In 2021, Methanex was invited to participate on a review panel to help develop safety guidelines in China for ships using methanol or ethanol fuels. The 2022 publication of these safety guidelines was a critical step towards the commercialization of methanol as a marine fuel in China. We have also partnered with the China Waterborne Transportation Research Institute to support an evaluation of the technical and operational requirements for the use of methanol as a marine fuel.

**Collaborating towards wider adoption** – Methanex is a partner in FASTWATER, a consortium of 14 organizations advancing the use of methanol in waterborne transportation. The consortium recently launched a pilot boat demonstration in Sweden and a harbour tug conversion and demonstration (the Methatug) in Belgium. Methanex was also chosen as the methanol supplier for the Methatug through an independent procurement process.

Methanex has partnered with the National Energy Corporation in Trinidad and Tobago on a feasibility study and demonstration project of methanol as reduced-emissions marine and vehicle fuel for the region, and Waterfront Shipping recently signed a one-year time-charter agreement for one of its dual-fuelled vessels with Trafigura, one of the world’s largest physical commodity trading groups, another example of Waterfront Shipping’s leadership in supporting the growing demand for methanol as a marine fuel.

## A DECADE OF PIONEERING METHANOL AS MARINE FUEL

Methanex and Waterfront Shipping have achieved several key milestones in our journey to advance methanol as a cleaner-burning marine fuel.





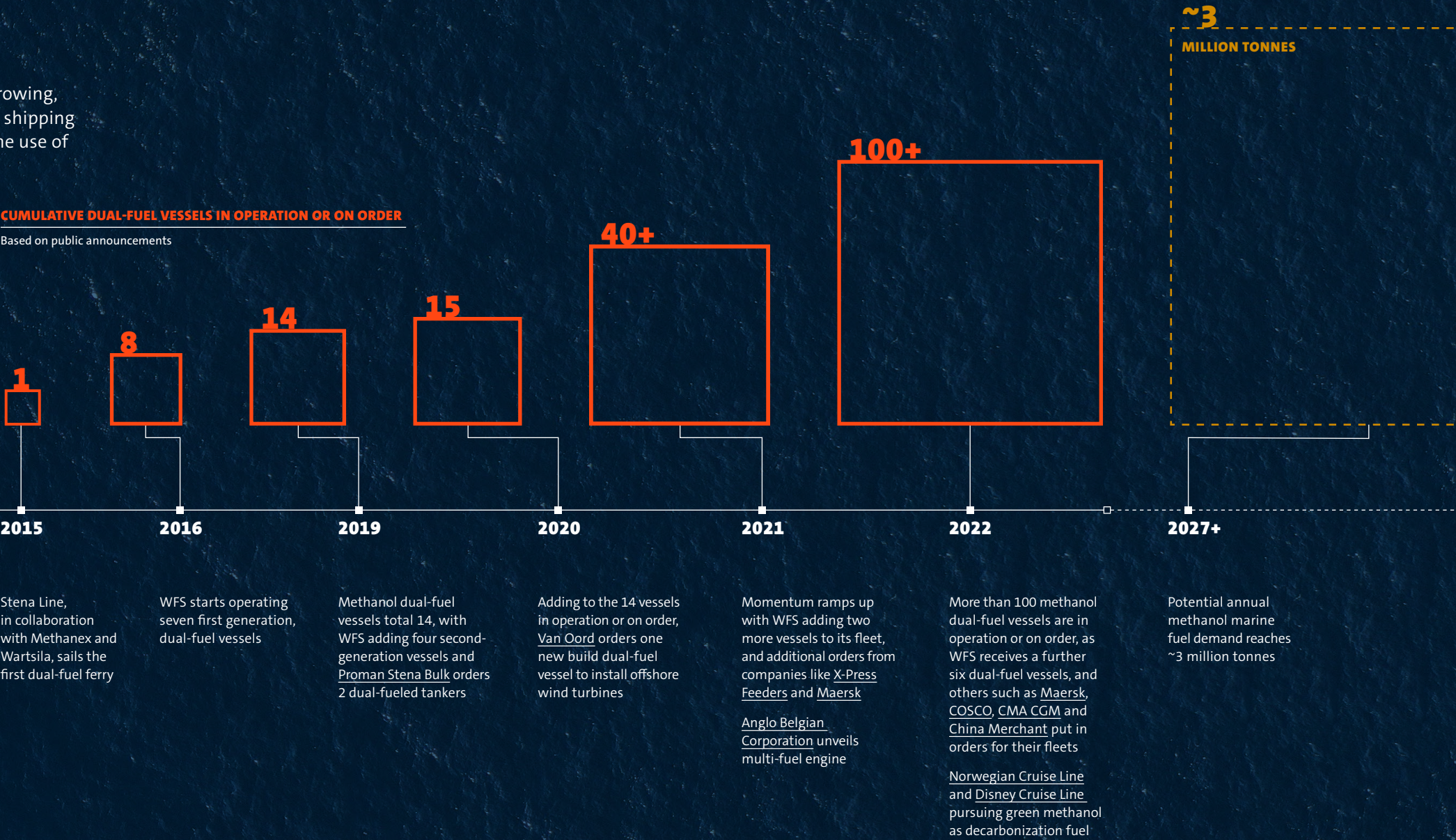
# Growing Momentum

## METHANOL AS MARINE FUEL

Industry interest in methanol as a marine fuel is rapidly growing, leading to commitments from some of the world’s largest shipping companies. Methanex has been the leader in advancing the use of methanol in the shipping industry for over a decade.



CUMULATIVE DUAL-FUEL VESSELS IN OPERATION OR ON ORDER  
Based on public announcements







In December 2022, the Guizhou provincial government launched a methanol hybrid police vehicle fleet using [Geely's Emgrand](#) to serve the capital city of Guiyang. Today, Guizhou has over 18,000 methanol vehicles running and 70 filling stations operating, making it the world's largest integrated methanol vehicle system.



2. PASSENGER AND CARGO VEHICLE FUEL

Methanol is an affordable substitute for gasoline and diesel in countries looking to transition away from fuels that contribute to high levels of air pollution. Methanol's efficient combustion, safety, ease of distribution and wide availability around the world make it an attractive alternative fuel for transportation. Methanol can be used as a transportation fuel in three ways:

Additives or fuel blends

Methanol is used to produce alternative fuels such as biodiesel and to manufacture methyl tertiary-butyl ether (MTBE), which is a gasoline additive that reduces tailpipe air emissions. By 2025, the average output of biodiesel and similar fuels is anticipated to increase by 30 per cent from 2019 levels\*.

Methanol is also used in gasoline blends around the world at high-volume (50-100 per cent), mid-volume (15-30 per cent), and low-volume blends (3-5 per cent). An early adopter, China has been using methanol and methanol blends since the 1980s. Both India and Denmark launched methanol-blend fuel stations in 2022, and other countries—including Israel, Germany, India, New Zealand, the U.K., and Italy—are at the assessment or near-commercial stage for low-level methanol fuel blending.

Fuel for passenger vehicles

In China, increasingly stringent air quality standards support the adoption of methanol as a cleaner-burning vehicle fuel. By the end of 2022, approximately 110 M100 (100 per cent methanol fuel) filling stations were operating in China's Shaanxi, Shanxi, Gansu, and Guizhou provinces to service approximately 27,000 M100 taxis (running on 100 per cent methanol). There were also 1,000 methanol hybrid passenger cars built by the [Geely Group](#) operating in China. Collectively, this demand represents approximately 520,000 tonnes of methanol per year.

Fuel for heavy-duty vehicles

Methanol is a diesel substitute for heavy-duty vehicles. Commercial trucks are another emerging opportunity in China, where [Geely Auto Group](#) has developed the world's first pure methanol combustion heavy-duty truck. As of 2022 there were 3,000 methanol heavy-duty trucks in operation in China. Geely has [ambitions\\*](#) to manufacture and market up to 30,000 such trucks by 2025, representing methanol demand of approximately 300,000 tonnes per year.

\* IHS Markit. Methanol World Analysis, 2022



3. CLEANER-BURNING THERMAL APPLICATIONS

Methanol can be used as a fuel for thermal applications, including industrial boilers, kilns, heating furnaces and cooking fuel. When used in thermal applications, it has significantly lower local air pollutant emissions (i.e., NO<sub>x</sub>, SO<sub>x</sub> and PM) than coal or other fossil fuels.

Industrial uses, heating and potential for power generation

Growing demand for methanol as an industrial boiler and kiln fuel has been driven largely by China, where boilers are used extensively to generate heat and steam for various industrial and commercial applications. Boilers have traditionally been coal-fueled in China. However, environmental regulations being phased in by the Chinese government have led to a transition to cleaner-burning fuels (including methanol) that can reduce impacts on local air quality and related human health. Chinese residential buildings, restaurants and homes are also using methanol as an affordable, lower air emission heating alternative to burning coal. Methanol is also being used in a demonstration power plant in Israel.

Cooking fuel

For the past two decades, methanol has been used as a cleaner-burning cooking fuel in Africa, China, and India. A 2020 study by the China Association of Alcohol and Ether Clean Fuel and Automobiles\* found that more than half of China’s use of methanol as energy (excluding MTBE and MTO) is for cooking fuel. With 2.6 billion people\*\* around the world relying on solid biomass, kerosene, or coal as their primary cooking fuel, methanol could play a role in scaling access to cleaner cooking fuels.

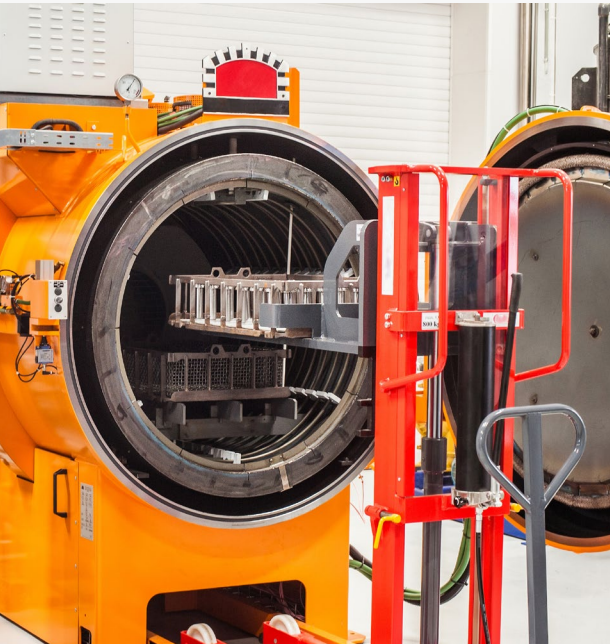
Methanex recently worked with industry partners to draft a group standard for cooking fuel, which was officially published by China Association of Rural Energy Industry (CAREI) in November 2021. The standard, implemented in January 2022, is used by local governments to supervise the use of methanol-fueled cooking stoves. We have previously supported similar efforts in the development of standards for industrial boilers and kilns.



4. LOWER-CARBON METHANOL FOR TRADITIONAL CHEMICAL APPLICATIONS

Lower-carbon methanol can also support decarbonization goals of downstream chemical producers and help produce lower-carbon consumer and industrial products.

In late 2022, Methanex reached an agreement with a key customer to supply green methanol for use in their recently launched product. Using green methanol to manufacture this product would generate 50 per cent lower CO<sub>2</sub> emissions (per kilogram of product). We believe that demand for lower-carbon methanol for use in chemical applications will increase as customers advance their renewable content goals.



\* China Association of Alcohol and Ether Fuel and Automobiles (CAAEEFA). 2021. [https://www.methanol.org/wp-content/uploads/2020/04/China-Methanol-Fuel-Report-2020\\_final-1.pdf](https://www.methanol.org/wp-content/uploads/2020/04/China-Methanol-Fuel-Report-2020_final-1.pdf)  
\*\* International Energy Agency. 2022. <https://www.iea.org/reports/net-zero-by-2050>



# Working Towards a Low-carbon Future

## 2022 ACTIVITIES

We continue to explore capital investment opportunities to reduce emissions from conventional methanol and that could allow our existing facilities to produce methanol from multiple feedstocks, including renewables. Pursuing staged investments in lower-carbon methanol ensures we remain disciplined in our capital allocation and allows us to adjust production as needed based on product demand and feedstock availability.

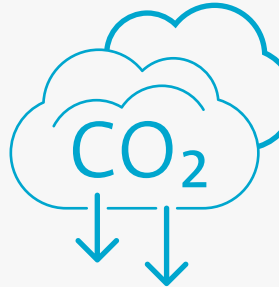
**~30,000**  
tonnes CO<sub>2</sub>e/  
year avoided

### Efficiency Projects

Delivering on our commitment to identify and incorporate GHG reduction projects at our existing sites, Methanex implemented four projects in 2022 that we anticipate will help us avoid more than 30,000 tonnes of CO<sub>2</sub>e per year. These are the first of 20 approved carbon-reducing projects to be implemented by 2024.

**UP TO  
\$1M**

for economic feasibility study



### Carbon Capture Feasibility Study

Methanex is progressing its feasibility study for carbon capture and storage (CCS) at our Geismar site, which has available carbon transportation and storage infrastructure. The feasibility study includes selecting the appropriate technology, defining the plant size and utilities required, and assessing the demand and required product premium.



Geophysical  
feasibility



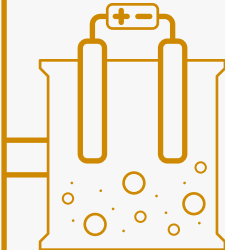
Technical  
feasibility

**UP TO  
\$1M**

for feasibility  
study

### Green Hydrogen Feasibility Study

We are studying multiple pathways to reduce the carbon intensity of our existing methanol plants. In 2023, we will be conducting a feasibility study of the potential to gradually convert an existing asset to produce lower carbon intensity methanol using green hydrogen. See [page 30](#) for details.



### Reduced-intensity Expansion Projects

Construction is on schedule for Methanex's G3 plant in Geismar, Louisiana, with first methanol production expected in the fourth quarter of 2023. The G3 project is adjacent to our existing G1 and G2 plants. By using auto-thermal reforming (ATR) technology—which has lower energy requirements resulting in less CO<sub>2</sub>—and injecting excess hydrogen from G1 and G2 steam, G3 is expected to have one of the lowest CO<sub>2</sub> emissions intensity profiles in the methanol industry.

**\$1.25 – 1.3B**

budget

**<0.40**  
tonnes of  
CO<sub>2</sub>/tonne  
of methanol  
(estimated  
G3 intensity)



# Protecting People and the Environment

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**COMMITMENT**  
Continuously improve our personal and process safety performance, striving to achieve zero harm

**COMMITMENT**  
Continuously improve our resource management performance to minimize our impact on the environment



# Employee and Contractor Safety

## EMPLOYEE SAFETY

We have comprehensive health and safety programs to protect the safety of our team members and contractors. Our goal is to do the right thing, the right way, every time. Our safety management initiatives include:

### Fostering safe behaviours

Safety is critical across our business, particularly at our manufacturing sites, where more than 75 per cent of our employees work. New employees at our manufacturing sites participate in a Switch On to Responsible Care workshop after joining the company and employees receive regular refresher sessions. Our Switch On to Responsible Care program is a driving force in our safety culture, connecting the reasons that motivate our employees to work safely (such as going home to loved ones) with conscious efforts to behave safely. We focus on quality investigation reviews and sharing learnings from incidents to help raise awareness and prevent these types of incidents from occurring.



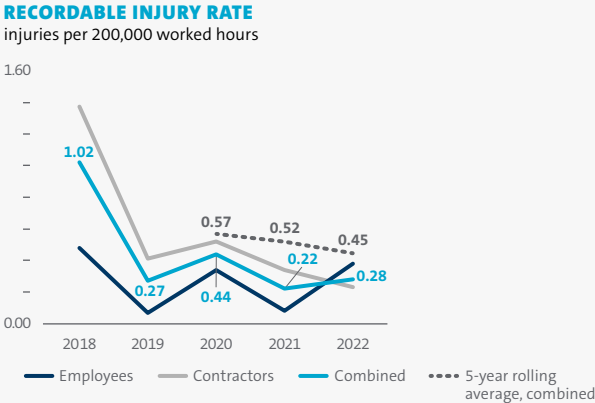
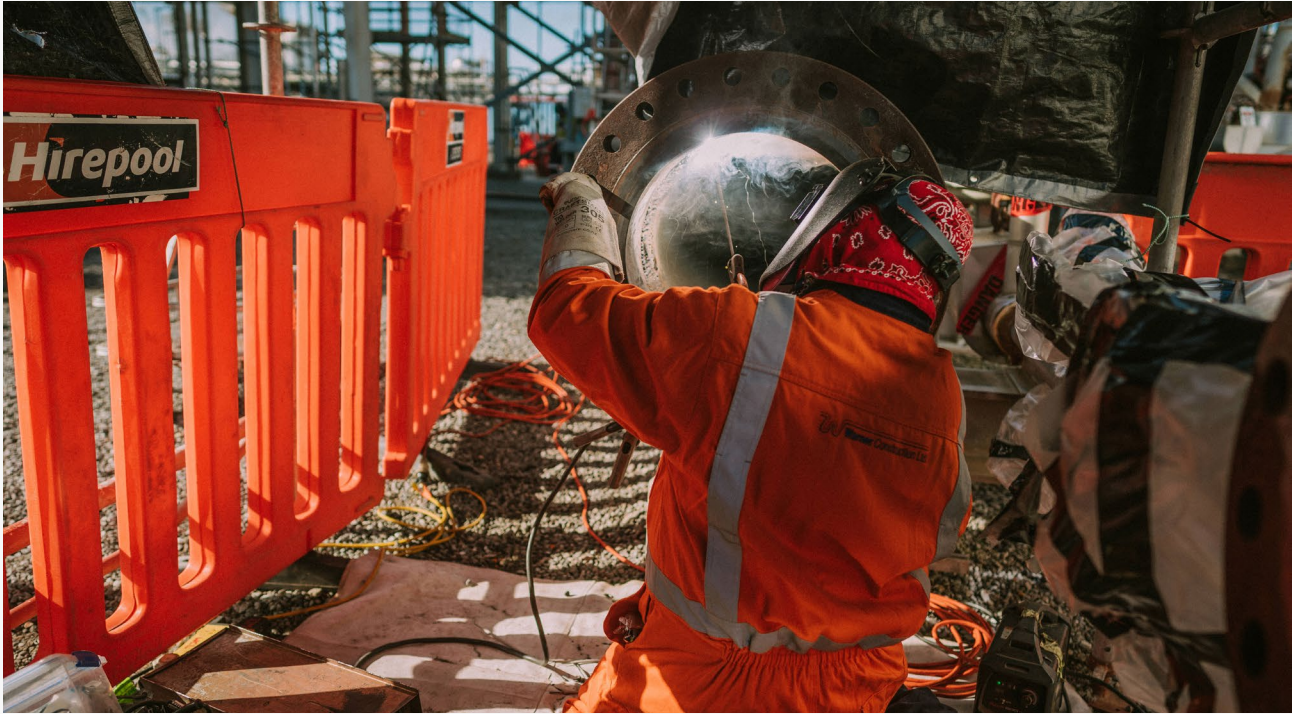
**PERFORMANCE GOALS**  
Continually lower our five-year rolling average recordable injury rate.

### Focusing on critical activities

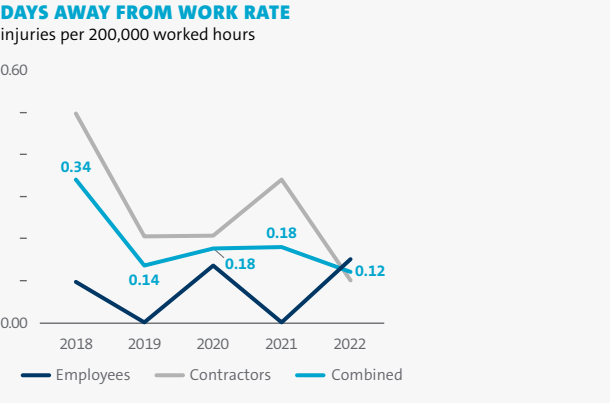
Our Life Saving Rules define the activities that present the greatest risk to workers, and the actions required to work safely and avoid significant injuries. The Life Saving Rules cover seven activities: hot work (such as welding), mechanical lifting, hazardous energy, confined space entry, electrical work, work at heights and excavation. Each manufacturing site incorporates the Life Saving Rules into onboarding training that employees and contractors must take when they join the site. Refresher training is offered at least every three years.

### Maintaining hazard awareness

At our manufacturing facilities, the work supervisor and the work team conduct job hazard assessments to identify and mitigate all hazards associated with the job and the work environment. We also reinforce hazard awareness during our Toolbox Talks (short safety conversations) and encourage intervention and follow-up of any safety concerns. We are encouraging hazard identification at our manufacturing sites and as a result are seeing an increase in engagement and identification of hazards, which supports our safety culture.



We maintained our low injury rates supported by our continued focus on employee engagement and contractor management. Our 5-year rolling average for 2020, 2021 and 2022 is based on our SASB reporting, which started in 2020 and covers data from 2016 onward.



Days away from work rate describes the number of recordable injuries and illnesses that resulted in days away from work, divided by 200,000 worked hours.





**Tracking leading indicators**  
As part of our proactive approach to building our safety culture, we track leading indicators to measure team member engagement. This data allows us to customize our safety culture and engagement programs to ensure we are all switched on to safety and go home safely each day.

LEADING INDICATOR	2020	2021	2022	% CHANGE
Near misses	982	669	1,183	↑20%
Hazard identifications	2,143	4,521	7,348	↑243%
Behaviour-based safety observations	9,843	11,214	84,410	↑758%

Since our 2020 campaign to promote hazard and near-miss identification and reporting, we have seen an increase in the number of these reports and a corresponding reduction in incidents at our manufacturing sites. The significant increase in our behaviour-based observations in 2022 reflects a significant increase in the number of contractors, workhours and shifts for our G3 construction project. We continue to focus on leading indicators and proactive safety behaviours to help us achieve our goal of Zero Harm. We consider near-misses—events that did not have a negative outcome but could have—to be learning opportunities that help prevent future incidents.

**We more than tripled the number of hazard identifications since 2020.**

\* Excludes contract hours on our G3 project.

**OCCUPATIONAL HYGIENE AND WELLNESS**  
We are committed to the well-being of our team members and prevention of work-related injuries and illnesses. In alignment with our Occupational Hygiene Standard, we set requirements for fatigue management, noise reduction and hearing conservation, as well as heat stress and cold stress, where applicable. We also prioritize ergonomics, fitness to work and mental health, holding education sessions on topics such as stress management. Our global health network and Human Resources teams help drive efforts in these areas.

**CONTRACTOR SAFETY**  
Contractors are responsible for approximately 50 per cent of our total worked hours due to their role in turnarounds, large capital projects and ongoing operations.\* Our goal to be a zero-injury workplace is only achievable with their active participation. In 2022, we rolled out our new Contractor Management Standard, which outlines a consistent, site-wide approach for contractor selection and onboarding, on-site supervision and risk management, and offboarding and performance review. Implementing the Standard requires collaboration between our procurement departments, Responsible Care teams and hiring business units. Having completed a gap assessment of pre-existing contractor management processes at all sites, including G3, we have identified areas of improvement and provided training to support implementation of the Standard.



# Major Projects are Switched On for Safety

IN 2022, METHANEX CONTINUED TO DRIVE SAFETY PERFORMANCE THROUGH THREE MAJOR PROJECTS AROUND THE GLOBE

65%

fewer incidents than in our 2018 turnaround

## Visible Safety Results in Motunui

📍 New Zealand

In preparation for turnaround activities, Methanex held a series of “Leading Safely” workshops for front-line leaders, including our contracting partners’ front-line supervisors. At these workshops, a behavioural safety expert shared leading safety practices including the use of psychological principles to positively influence the safety behaviour of others. The workshops reinforced our goal of Zero Harm and contributed to improved safety performance compared to our 2018 turnaround. In recognition of our positive safety culture, Methanex New Zealand won the Health & Safety Excellence Award at the 2022 TSB Taranaki Business Awards.

200,000+

work hours without a significant incident

90%

fewer recordable injuries than in our 2018 turnaround

79

leadership & management site walks

17,800+

hours of Switch On to Responsible Care training

410,000

work hours without recordable injuries

685

interviews completed

## Safe Contractors in Damietta

📍 Egypt

When it comes to turnarounds, safety knowledge is just as important as technical expertise. As part of our screening process for the Damietta turnaround, we conducted safety-related interviews with all potential contractors. Candidates were assessed for their awareness of life-saving rules, work permit requirements and stop-work authority. The interviews helped us identify contractors who had both technical experience and a keen understanding of safety behaviours. This was followed by a tailored RC training and onboarding program covering Methanex rules, standards and procedures, all of which contributed to a safely executed turnaround with zero recordable injuries.

17,000

safety training hours

## A Foundation of Safety at G3

📍 Geismar, Louisiana

The safety program at our G3 project is focused on building a strong safety culture. Through training, inductions, site walks, and audits we laid the foundation for safely executing our G3 project. We continue to use our Switch on to Responsible Care (RC) training program to equip all on-site Methanex and contractor people-leaders with the language and knowledge to have safety conversations with their workers and uphold safety practices across the project.

4 million+

workhours with no Days Away From Work cases



# Process Safety


**Our commitment to Responsible Care is unwavering. We work every day to put our values and safe practices into action to ensure the safety of the employees, contractors, visitors, and communities near our operations.**

Like many chemicals and fuels, methanol has inherent hazards. The process we use to manufacture methanol is also hazardous, requiring the containment of gases and steam at elevated pressures and the use of chemicals, flammable fuels, gas-fired furnaces, and heavy machinery rotating at high speeds. Our process safety programs are designed to manage these process-related hazards and protect our employees, contractors and communities from the potential for fires, explosions, or toxic releases. We further protect our communities by situating our manufacturing sites in rural or low-density industrial locations.



**EXECUTIVE OWNERSHIP OF PROCESS SAFETY**  
Process safety is one of our company’s most critical operational risks and is overseen at the highest level of the organization. Methanex has an Executive Process Safety Steering Committee (EPSSC) that includes the participation of senior executives from each manufacturing region and global process safety leaders. The committee meets on a quarterly basis to review our process safety performance and the execution of strategic improvement plans. The EPSSC also oversees our Major Accident Hazard (MAH) review and appraisal process (described on the next page).

**INTERCONNECTED SAFEGUARDS TO REDUCE PROCESS SAFETY RISKS**  
Process safety management (PSM) is designed to prevent incidents from occurring by using both technical engineering processes and astute operations management to safely and reliably contain process-related hazards. Our PSM program is informed by the Center for Chemical Process Safety’s Guidelines for Risk Based Process Safety. We contain our process safety risks through a combination of risk reduction measures known as “safeguards.” These safeguards take the form of physical infrastructure, management systems and processes, the competence of our team members and a safety culture.

**PERFORMANCE GOAL**  
Achieve zero major incidents for process safety (i.e., Tier 1) annually.

**1. Plant design and physical infrastructure**  
One of our objectives for new plants and upgrades is inherently safe design in which we aim to eliminate or minimize inherent process hazards. When a process hazard cannot be eliminated, we design our equipment and technology (i.e., physical infrastructure) to minimize the potential for harm.

For instance, if there are inherent risks associated with an aspect of the manufacturing process, we physically isolate workers from these risks and protect them via automated pressure-relief equipment and shutdown systems.





## 2. Management system and processes

We aim to design, maintain and operate our assets to ensure best-in-class performance. Our process safety management system includes the following key elements:

- **Major Accident Hazard (MAH) review:** Every five years, we conduct site-level MAH reviews to identify risks of major accidents and evaluate whether existing safeguards are adequate. The MAH review includes a set of facility-wide Process Hazard Analysis (PHA) studies to determine the potential consequences, likelihood and associated level of risk for each process safety risk. Once a site's MAH (including the PHA) is completed, the process and outcome is formally evaluated by an internal Methanex appraisal team, including Methanex's Global Director, Process Safety and our Global Advisor for Process Safety. The EPSSC reviews the implementation timeframe for proposed changes and monitors the progress of recommended actions from the MAH Review. All Methanex sites completed a MAH review between 2021 and 2022 and all subsequent internal appraisals were completed during 2022.
- **Asset integrity management:** We use a formal and systematic program of risk assessments to determine our asset inspection strategies (i.e., risk-based inspections). During these inspections, we evaluate the physical condition of our assets and verify the level of accuracy of our degradation models.

- **Safety Critical Elements maintenance:** Safety Critical Elements (SCE) are specific pieces of equipment at our manufacturing sites that are identified as critical for reducing process safety risks. Due to their importance, we separately track and monitor the routine testing, inspection, and maintenance of these critical pieces of equipment.
- **Management of change:** We use risk assessments, including PHA, to identify and review risks associated with proposed changes to plant components, the manufacturing process or organizational changes. This process helps us identify how potential changes might influence our operating risks (including potential unintended consequences) and determine any necessary safeguarding measures before authorizing a change.
- **Emergency preparedness:** Our emergency response plans are developed to address specific emergency scenarios that could occur at our sites. Ongoing training, drills, exercises, and follow-up evaluations are a central part of the emergency response programs in all our regions, including our plants and our marketing and logistics offices.
- **Performance monitoring:** The Global Manufacturing Team (plant managers from each of our manufacturing locations) and the EPSSC formally monitor our process safety performance. Both groups receive formal briefings on any significant process safety incidents, including investigation findings.





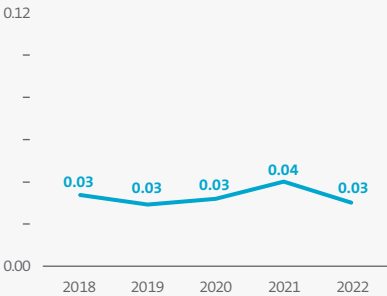


**3. Competence**

Our senior leaders across the business are expected to continually build competencies in process safety, including adherence to Methanex’s Process Safety Handbook. Senior leaders influence decisions around project scope, engineering standards, capital allocation, and maintenance budgets, all of which can directly impact process safety in our operations.

We have built competency assurance into our processes in two key ways. First, we evaluate regional leaders’ comprehension of standards of process safety through the MAH review. Second, in 2022, we piloted and began to roll out a competency assurance program for plant managers. The program is a holistic assessment of the plant managers’ operational knowledge (including process safety), people leadership, Responsible Care aptitudes and Methanex business knowledge, and has a strong focus on continual improvement. As a learning organization, this new interactive competency assurance program reinforces the knowledge and capabilities required for plant managers, helps identify development areas for incumbents and guides the development of succession candidates.

**PROCESS SAFETY INCIDENT (TIER 1) RATE**  
Tier 1 incidents per 200,000 worked hours



Our focus on hazard prevention and high-quality incident reviews by leadership has helped us maintain a low rate of process safety incidents in the last five years. Process safety events are reported consistent with the Center for Chemical Process Safety’s incident classification.

**4. Organization, site, and team culture**

All team members are required to maintain a disciplined approach to safety-critical operations and to adopt a perspective of “chronic unease”—a state of unrelenting watchfulness and healthy skepticism about what people see and do—to protect themselves and those around them. We also provide training to raise hazard awareness and encourage employee and contractor intervention, reporting, and follow-up when they have safety concerns.



FOSTERING A CULTURE OF CONTINUOUS IMPROVEMENT

A key part of our culture is our willingness to learn from mistakes and find better ways to work. Being a learning organization is particularly important when it comes to process safety events (i.e., unplanned or uncontrolled loss of containment of a process-related hazard such as flammable gases or pressure). Due to their potential for catastrophic impacts, we consider all process safety events to be significant. Our manufacturing sites report and investigate all process safety events and monitor the implementation of improvement actions.

Lessons learned from process safety events are shared in Lessons Learned (L2) reviews with senior leaders, including the regional VP or Country Manager, plant manager, and SVP of Manufacturing before being shared across the wider manufacturing business. Our goal is to conduct quality reviews of 100 per cent of serious or major events.

In 2022, we experienced a Tier 1 incident\* at our Geismar site, which involved an ignited gas leak from a manway hatch of a high temperature vessel. Operators safely shut down the plant and made the required repairs. No workers were injured. Through a follow-up investigation, we determined the heat-resistant lining of the vessel had failed, which led to localized heating and a gas leak from the flanged connection of the hatch that subsequently ignited. To prevent reoccurrence, findings from the investigation were shared with leadership from all our manufacturing sites and our various Global Teams, including our Responsible Care experts, Process Safety, Operations and Technical Teams.



\* Tier 1 incidents have the highest consequences of process safety incidents. We report them consistent with the Center for Chemical Process Safety's Incident classification.


CRISIS MANAGEMENT AND EMERGENCY PREPAREDNESS

Our ability to respond effectively to disruptions is essential for safe, continuous operations during a crisis or disaster.

**Crisis Management:** We have crisis management plans and crisis management teams in all regions. Our Crisis Management Plans cover many scenarios and include responses to extreme weather events, pandemics and process safety events. Our regional teams collaborate with our Corporate Crisis Management Team to support business continuity during a crisis or disaster. In 2022, we updated our Corporate Crisis Management Plan with lessons learned from the ongoing COVID-19 pandemic. Guiding global and regional activities during a crisis, this Plan provides clarity around roles and responsibilities, defines when and how crises are escalated, and describes how individual sites work together with our corporate office to ensure business continuity. We also implemented a global Business Continuity Planning Standard, providing the overarching structure for how sites should identify and plan for various natural and man-made crises that could impact business continuity.

**Emergency Preparedness:** We hold regular exercises to test our emergency response procedures. Our exercises include regional emergency simulations and exercises with internal and external emergency response agencies. In 2022, we held 260 emergency response exercises with more than 500 individuals. We also rolled out our Emergency Response Training Standard, which outlines the minimum requirements for training, tabletop and full-scale exercises.

# Air Quality



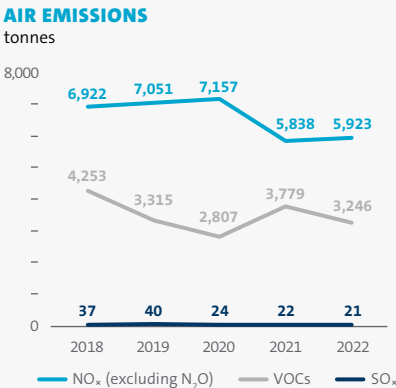
**PERFORMANCE GOAL**  
Complete evaluation of opportunities for air quality improvement projects to reduce NO<sub>x</sub> and VOCs at all sites.

**Good air quality is fundamental to human health and well-being. In alignment with local regulations, we continually work to reduce emissions that could impact local air quality and our communities.**

Air quality is measured by the concentration of pollutants in the air, including nitrogen oxides (NO<sub>x</sub>), sulphur oxides (SO<sub>x</sub>) and volatile organic compounds (VOCs) such as methanol vapours and methane. We aim to reduce emissions associated with our operations through process and equipment improvements as well as our Environment Critical Equipment Standard (see [page 49](#) for details).

**NO<sub>x</sub>:** Our primary source of NO<sub>x</sub> emissions occurs as a byproduct of natural gas combustion during the manufacturing process, primarily from the steam-methane reforming process. A smaller amount is emitted from the use of boilers to generate steam.

- We follow air quality regulations at all our sites and stay within regulatory limits, adopting select regional requirements as global best practices. Over the past 20 years, we have been able to significantly reduce NO<sub>x</sub> emissions from our plants through the use of technology:
- Our plants with newer combined reforming technology emit significantly lower levels of NO<sub>x</sub> emissions compared to plants with older reforming technology.
  - Lower-NO<sub>x</sub> burners prevent the formation of NO<sub>x</sub> in the reformer. We use this technology at two of our plant sites.
  - A selective catalytic reduction process removes approximately 97 per cent of NO<sub>x</sub> from the baseline case. This technology is used at one of our plant sites with older reforming technology located in an area with strict NO<sub>x</sub> emission regulations due to existing local air quality issues.



Changes in NO<sub>x</sub> and VOC emissions are closely linked to production levels in our asset mix. NO<sub>x</sub> emissions have decreased by 14 per cent over the last five years, largely due to the installation of lower-NO<sub>x</sub> burners at one of our plants with older reforming technology.

**SO<sub>x</sub>:** Methanex emits very low levels of SO<sub>x</sub> from the combustion of natural gas. This is because our natural gas supply has low sulphur content. We also remove the sulphur content from the fuel stream before combustion in three of our plants.

**VOCs:** Methanol storage tanks and some processing equipment can release methanol vapour, a type of VOC. To reduce the amount of VOCs that are released into the atmosphere, we have installed floating roof storage tanks and VOC scrubbers at some of our locations. Leak detection and repair programs for pipe fittings, flanges, seals and other connections enable us to minimize the emission of methanol vapours and methane at our plants. We follow air quality regulations at all our sites and stay within regulatory limits for VOC emissions.



# Water

We depend on water for our operations and share this vital resource with the communities where we operate. Through our water stewardship program, we focus on minimizing our water use and protecting water quality in our areas of operation.

We use water in several stages of the production process. While most of our water is used for cooling systems to remove heat, a portion is also consumed as steam during the methanol manufacturing process (see Figure 5). More than 80 per cent of the water we withdraw is seawater from two sites (Chile, Trinidad). The other four sites that rely solely on fresh water have designs that minimize water withdrawals and help us conserve fresh water. The volume of water withdrawn by each site is highly dependent on plant design and the age and technology used.

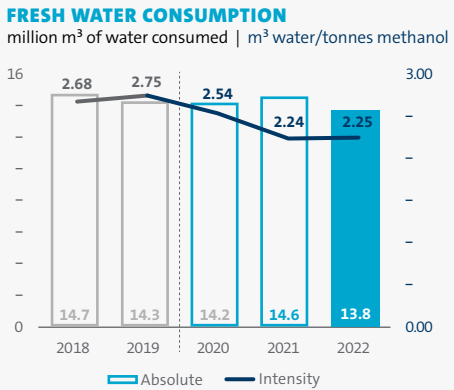
## IMPROVING WATER EFFICIENCY

Because fresh water is a shared natural resource with our communities and the environment, we put the bulk of our water stewardship efforts into conserving and protecting fresh water sources. This is particularly important in regions with potential for fresh water scarcity such as our Damietta, Egypt site.

To maximize efficiency and return as much water to the environment as possible, our facilities have water conservation procedures to minimize, reuse and recycle water. For example, almost all our production facilities reuse condensed steam in different phases of the production process, and over half of our sites reuse the wastewater from distillation columns, reducing the overall volume of water we need to withdraw.

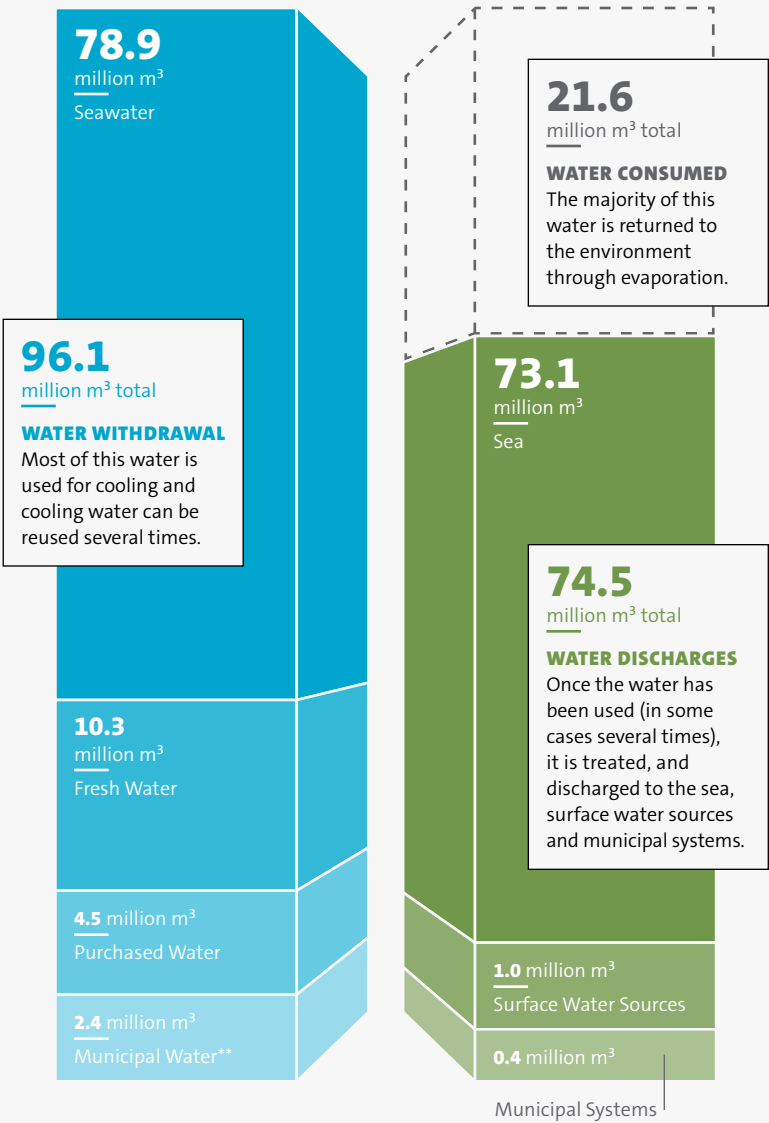
## PROTECTING WATER QUALITY

Water generated from the manufacturing process is treated in accordance with local requirements and analyzed before we safely discharge it back into the environment or to municipal services. The majority of our water is used for cooling: it simply circulates through pipes and heat exchangers and does not contain environmental contaminants requiring treatment before being released.



Fresh water consumption is primarily affected by production volumes in a year. Data for 2020, 2021 and 2022 has been calculated using GRI Standards guidance. Data for 2018 and 2019 is not comparable.

FIGURE 5 – 2022 WATER USE\*



\* Graphic not to scale  
\*\* Municipal water includes desalinated water and fresh water



**UNDERSTANDING OUR WATER RISK**

Being good stewards of water means we are as efficient as possible with this important shared resource, especially in areas experiencing high water stress. We used the World Resources Institute’s (WRI’s) Aqueduct Water Risk Atlas tool to measure and map our water risks at each site. The results show 4 per cent\* of our total withdrawal was from Egypt, which is defined as a high water stressed area (where water withdrawal is 40 to 80 per cent of available renewable supplies). Our other locations were rated as low baseline water stress (i.e., in an area with less than 10 per cent withdrawal from the supply).

**REUSING MORE WATER FOR COMMUNITY IRRIGATION**

We focus on water efficiency at all our sites, particularly in Egypt where we continue to provide clean effluent water to irrigate community gardens in New Damietta, Egypt. This innovative project is a partnership between Methanex Egypt and the New Damietta Development Authority to help the community conserve water from the Nile River.

In 2022, we delivered approximately 400,000 m<sup>3</sup> of clean effluent to New Damietta for irrigation. This amounts to approximately 10 per cent\* of our water withdrawn in Egypt and is double the amount delivered in 2021. Recently, the city of Damietta expanded their community gardens and green space, adding additional piping to receive more water. Our system has the capacity to deliver additional volumes of water and we will continue to work with authorities to support their increased irrigation needs.

**REDUCING FRESH WATER USE THROUGH CHEMICAL OPTIMIZATION**

We started implementing chemical optimization projects at our Geismar and Damietta sites that we estimate may reduce our total annual fresh water withdrawals by ~230,000 m<sup>3</sup> per year, which is approximately 3 per cent of our consumption at these two sites. Chemical optimization also reduces the cost of purchasing fresh water, and costs associated with chemical purchase, storage and transport.

Chemical optimization refers to the customization of chemicals added to treat the water we use, to keep the water in the production cycle for as long as possible. The longer water stays in use, the less fresh water needs to be withdrawn to replace it. For instance, our production process includes a step in which some water evaporates, leaving the remaining water with higher concentrations of minerals and other substances that can cause corrosion and other production challenges.

By using the right chemicals in the right amounts, we can prevent these negative impacts on our facilities and keep using the water for as long as possible. The type and amounts of chemicals used depend on the water source. For example, New Zealand water is naturally soft and requires less treatment/chemicals to prevent corrosion.

\* Our Egypt plant was shut down for a turnaround in 2022 and withdrew less water than is typical. To support historical comparability, this number was calculated using volumes of water withdrawn during normal operations.



## Spills and Releases

Methanex safely manages large volumes of liquids every day. We have rigorous controls and containment measures in place, along with a comprehensive spill monitoring and prevention program. We are committed to delivering rapid response and remediation in the event of a release.

### SPILL PREVENTION

Given the nature of our operations, our most significant potential spills relate to methanol, petroleum fuels and lubricants for machinery on site, and water treatment chemicals. We use water treatment chemicals to treat seawater and fresh water. Seawater used in our manufacturing process requires desalination, filtering and ion exchange, while the fresh water requires filtering treatment, ion exchange and pH adjustments.

**Zero significant environmental spills and releases in 2022.**



We use three complementary strategies to address spill prevention:

- **Environmental Critical Equipment (ECE):** All sites must comply with our internal Environment Critical Equipment (ECE) standard, which applies to equipment that, in the case of failure, may result in environmental consequences to air, land or water. The standard guides identification of critical systems or parts of systems, directs risk-based maintenance and inspection, and informs performance monitoring of critical equipment to make sure it is operating correctly and within regulatory limits.
- **Maintenance and inspection:** The goal of maintenance and inspection is primary containment or “keeping it in the pipe.” As part of our regular facility maintenance program, we have a rigorous inspection process for storage tanks (total capacity of approximately 1 million m<sup>3</sup> across sites), pipes, flanges and connectors.
- **Management programs and training:** We train our team members in environmental management and implement process safety management programs (see more in the Process Safety section on [pages 42 through 44](#)). One of the key goals of process safety is to ensure the safe containment of substances that are harmful to human health, safety and the environment.



### PERFORMANCE GOALS

Achieve zero significant (major or serious) environmental spills annually.

### SPILL MONITORING

Methanex records all spills and releases that could impact the environment or process safety, known as loss of primary containment (LOPC) incidents. We categorize LOPC incidents based on the quantity released and the type of material. Our teams analyze LOPC data regularly to identify patterns that could give us greater insights into the causes of spills and releases and inform our spill prevention initiatives. Data is reviewed monthly by our sites, and annually by the ELT and Responsible Care Committee of the Board. Our goal is to have zero significant (Category 1) LOPC incidents.

### SPILL RESPONSE

In the event of a spill, we have spill containment berms (i.e., secondary containment barriers) around storage tanks to prevent the spill from reaching soil or water. We also use monitoring wells across our facilities to periodically track both soil and groundwater conditions. This allows us to monitor potential pathways to water sources and plan our response in the event of a spill. Our sites have emergency spill and release plans, and we conduct training exercises for spill response.

# Waste

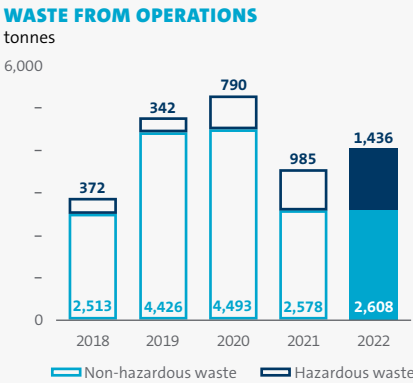
**Responsible and safe management of waste streams is essential to being a responsible company. At Methanex, we strive to minimize waste at the source, recycle or reuse where possible and are committed to disposal practices that respect all applicable regulations and the environment.**

Most of our waste volume is generated during major maintenance projects (turnarounds), plant refurbishments and servicing work. These waste sources include construction-related materials such as scrap metal, wood waste, piping and vessel insulation. We have strict procedures in place to ensure that waste is properly classified, and the correct disposal options are established.

We choose off-site disposal whenever possible and use qualified waste management companies for waste transport, recycling or disposal. Our contracts or letters of agreement specify the method of disposal and responsibilities to help ensure that the waste is disposed of, treated or destroyed in a responsible manner.

We prioritize safe, responsible management of our hazardous waste, which is predominantly spent catalyst. Catalysts (small, metal-containing pellets that help promote the chemical reactions required to manufacture methanol) become less efficient over time (are “spent”) and eventually need to be replaced. We work to ensure that the material is safely handled, packaged and shipped to facilities equipped to manage it responsibly, recycling the metal remaining in the spent catalysts whenever possible.

We remain committed to minimizing the environmental impact of our operations following the principles of Responsible Care and continue to review and improve our waste management practices.



Our annual volumes of hazardous and non-hazardous waste are closely linked to the number of turnarounds we undertake each year. Methanex completed two turnarounds in 2022. Most of our hazardous waste is spent catalyst sent to approved facilities for metals recovery.

## PREVENTING WASTE AT G3



Before construction activity started on our G3 expansion, our engineers designed workplans to avoid material waste and rework. This included the installation of permanent utility systems such as drainage, cabling, power distribution and lighting at the start of the project. Avoiding temporary fixtures prevents the workhours required for delivery and removal of temporary structures and avoids the waste of materials (e.g., temporary electric cables and wiring that need to be sorted, stripped, and potentially recycled). We also focused on reusing and recycling materials, including vast quantities of water, rock, and civil materials such as concrete and sand. See the next page for details.



# Embedding Sustainability at G3

DURING A MAJOR PROJECT

75

Per cent of G3 completed by the end of 2022

G3 is scheduled to begin first production of methanol in Q4 2023.

60

Diesel generators and welding sets avoided

By installing an electrical grid connection at the project outset, we avoided the use of 12 on-site generators and 48 diesel welding sets, eliminating related diesel consumption and exhaust fumes, and improving the local working environment.



<0.4

Tonnes of CO<sub>2</sub>/tonne of methanol

G3 is anticipated to have one of the lowest CO<sub>2</sub> emissions intensity profiles in the industry.

2

Language options for onboarding videos (English and Spanish)

Approximately 25 per cent of our G3 workforce are bilingual Spanish speakers.

~60,000

Tonnes of rock and civil materials reused

Waste management is an important part of capital projects. At G3, we used solid materials to build an access road. When the road was no longer needed, we reused the materials for backfill on the site. G3 construction generated approximately 19,900 tonnes of waste in 2022.

~20,000

Tonnes of water saved by reusing water for pressure testing

We staged pressure testing of vessels on site to reuse as much water as possible.

5

KM of new roads built to relieve congestion on community roads

We staggered shifts and hired local sheriff deputies to help safely guide traffic during peak times. We also added an automated rail crossing to one of the site entrances to help safely manage vehicle traffic coming into/leaving the site.

1<sup>ST</sup> Quartile

G3 Safety Culture Survey Results

More than 400 workers completed a third-party online, confidential survey via QR codes placed around the site. The survey results showed that Methanex had a values-driven, proactive, and mutually accountable safety culture.





# Fostering Inclusion and Community Connection

**COMMITMENT**  
Embed a culture of inclusion that leverages diversity across the company and strengthens the connection with our communities

IN THIS SECTION	
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# Diversity and Inclusion

At Methanex, we strive to provide an inclusive work environment where diversity is valued and sought after, and all global team members are encouraged and supported to reach their full potential. Valuing diversity and inclusion (D&I) means embracing our differences as strengths and recognizing how this contributes to our competitive advantage. We believe this approach helps us attract and retain the best people, leading to better decision making and increased innovation. This, in turn, leads to a more successful and sustainable company.

Our team members span 11 countries, speak different languages, represent different cultures and have different backgrounds, experiences and perspectives. Through our One Team approach, we collaborate across global functions and regions.

We recognize the importance of diversity at all levels of Methanex, starting with the Board. See [page 70](#) for more details on Board diversity.



## PROGRESSING OUR VISION FOR DIVERSITY AND INCLUSION

In 2022, we finalized our Diversity and Inclusion Roadmap based on the Vision and Guiding Principles that we established in 2021. Together, these principles outline our aspirational future state, our non-negotiable commitments for diversity, equity and inclusion at Methanex, and the steps we will take to achieve them.

### VISION

Our vision is to have an inclusive culture where diversity is valued, differences are embraced and everyone has the opportunity to contribute, develop and advance.

### GUIDING PRINCIPLES

- We are committed to building an inclusive organization where everyone feels safe, respected and valued as their unique self.
- We are committed to a diverse organization that values different perspectives, backgrounds, skills and abilities.
- We are committed to fair and unbiased people practices that are transparent and consistently applied.



**PERFORMANCE GOAL**  
Execute a three-year Diversity and Inclusion roadmap across all global Methanex sites.

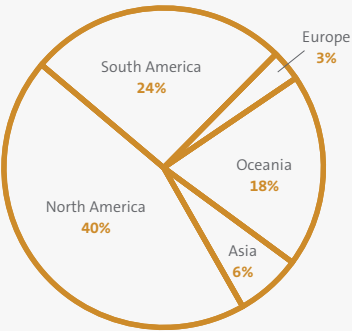
## 3-YEAR DIVERSITY AND INCLUSION ROADMAP

At Methanex, we believe having a diverse team and an inclusive workplace leads to a better culture, better decisions and a better company. Our three-year Diversity and Inclusion Roadmap is informed by three strategic priorities:

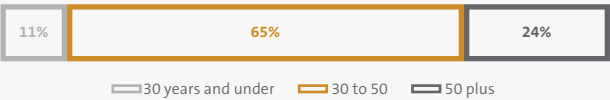
- Embed inclusive behaviours into Methanex’s culture.
- Build leadership commitment and accountability to D&I.
- Enhance the fairness, transparency and inclusiveness of people practices.

To amplify our efforts, we are combining global processes with regional activities across our facilities and offices. Our formal efforts are described below, and we continue to support, encourage and celebrate informal activities taken by our regional teams across the globe (see [page 55](#)).

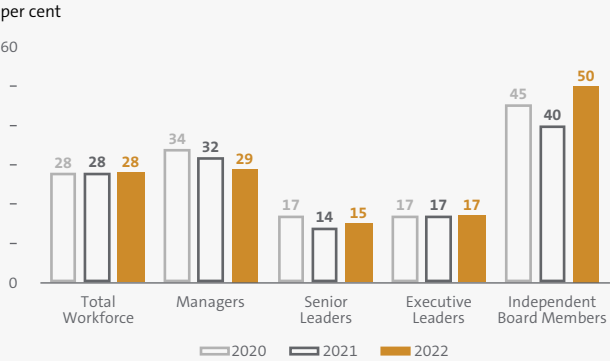
## TEAM MEMBERS BY LOCATION [2022]



## TEAM MEMBERS BY AGE CATEGORIES [2022]



## WOMEN AT VARIOUS LEVELS



For information about diversity on Methanex’s Board of Directors, see the Corporate Governance section, [page 70](#).

# 2022 Progress on our Diversity and Inclusion Roadmap

In 2022, we launched our Diversity and Inclusion (D&I) Roadmap, an important milestone in Methanex’s diversity and inclusion evolution. The roadmap lays out concrete steps we will take to cultivate a culture that celebrates and embraces diversity and ensures all team members feel a sense of belonging. We made considerable progress in our first year, building awareness through global communications and team conversations. Methanex is committed to continuously enhancing D&I long after Roadmap actions have concluded.

## BUILDING AWARENESS

### Education

- ✓ Piloted a new D&I foundational learning module to be rolled-out to all team members in 2023
- ✓ Embedded foundational inclusion concepts into our existing in-house leadership programs
- ✓ Held management team workshops to build confidence and skills in leading D&I conversations

### Communication

- ✓ Enhanced the accessibility of our website
- ✓ Developed and executed a Global D&I Awareness Days Calendar to create a more inclusive work environment through awareness
- ✓ Established Cultural Diversity Week to celebrate the diverse cultures of team members across the globe
- ✓ Integrated diversity and inclusion into regional team talks

### People Practices

- ✓ Developed a Diversity and Inclusion Policy Statement
- ✓ Reviewed the nomination process for leadership development programs to improve transparency and consistency

## Set the Foundation and Track Progress

- Establish more internal D&I networks across our regions (i.e. regional councils, Employee Resource Groups)
- Review and update recruitment and onboarding processes
- Review and update our compensation, performance management and talent management practices and policies
- Link diversity and inclusion accountabilities to performance and success
- Improve analytics and reporting to better measure our progress

UP NEXT



# Building Our Inclusive Culture is a One Team Effort

Diversity and inclusion goes beyond global policies and programs. Real change in our culture happens with intentional conversations and small steps taken every day. There are many examples of actions taken around the globe in the first year of our diversity and inclusion roadmap, below are just a few:



**MEDICINE HAT & VANCOUVER**  
We held a D&I education workshop for the leadership teams.



**GEISMAR**  
We reviewed our job descriptions and recruitment processes to mitigate barriers and enhance the diversity of applicants, resulting in more diverse hires.

**EGYPT**  
We led a program designed to promote enterprise development among low-income women to support under-represented groups within our community.



**DALLAS**  
We conducted an inclusive benefits review resulting in enhancements reflecting more diverse needs, helping to ensure benefits are inclusive for all team members.



**CHINA**  
We established a task force to address feedback from our well-being survey with a focus on inclusion to improve communication, transparency and consistency.

**CHILE**  
We led a program to provide work experience opportunities for community members with disabilities. A 2022 participant was recently hired by Methanex.



**TRINIDAD**  
We embedded D&I discussions into management team meetings and all team talks to build greater awareness and enhance conversations on D&I.

**ASIA**  
We've been focusing on creating more inclusive meetings to ensure everyone is heard and feels they belong.



**NEW ZEALAND**  
We committed to more diverse interview panels to broaden perspectives, reduce bias and enhance the diversity of our teams.



**BRUSSELS & DUBAI**  
We reviewed learning and development practices for inclusion with a focus on "learning for all" to create more inclusive and equal development opportunities for everyone.





# People Practices

Our team members are central to everything we do and help us maintain our competitive advantage in the marketplace by committing to safely and reliably producing and distributing an essential product for worldwide markets. We are committed to respecting and promoting human rights and providing our team members with respectful and safe working conditions. These commitments are outlined in our [Human Rights Policy](#).

We aim to attract and retain the best and the brightest, and we engage our team members by encouraging and supporting them to develop their unique talents and insights. Our diverse geographic profile, yet relatively small headcount, provides our team members with the opportunity to make a powerful impact while working with a talented team of colleagues across the globe. The result is a thriving global culture that enables us to work together as a Diverse & Inclusive One Team across functions, regions and disciplines to deliver on our vision of global methanol leadership.

To maintain an engaged and talented workforce, we continue to evolve our people practices with a particular emphasis on team member engagement strategies, workforce and succession planning, and learning and development.

## EMPLOYEE ENGAGEMENT

We regularly conduct employee surveys to assess engagement and gauge employee well-being and belonging. The goal of our most recent survey was to understand how employees were coping in their second year of living and working with the impacts of COVID-19, and to determine the level of support they needed. While responses varied by region, three opportunities to promote engagement emerged: challenges navigating workload and resourcing that had an impact on well-being, additional opportunities for flexible work, and learning and development opportunities for employees at all levels of the organization. We are grateful to our employees for their suggestions, and our regions are developing targeted responses to their feedback, and other priorities identified by employees. We intend to conduct our next Global Employee & Culture Survey in 2023.



## COMING TOGETHER TO FOCUS ON WELL-BEING

As COVID-related restrictions on travel and gatherings lifted in many regions during 2022, our teams took the opportunity to gather, focus on wellness and mental health, and rebuild connections. Initiatives included week-long events with guest speakers and webinars, fitness challenges, and social events that promote connection.



WORKFORCE AND SUCCESSION PLANNING

We are committed to providing meaningful opportunities for our team members to grow and develop, with a focus on the specific competencies required to execute on our strategy.

We have a robust succession and talent management program to build and preserve organizational capability and minimize succession risks. We proactively identify, assess and develop talent at all leadership levels of the organization and tailor developmental needs accordingly. Our leadership development programs—combined with on-the-job experiences, assignments, and projects—help us close identified gaps. In 2022, as travel restrictions began to ease, we were able to increase participation in our Global Mobility Program. Through this program, some skilled team members have an opportunity to work in another geographic region to gain additional experience and accelerate their development.

IN RESPONSE TO OUR MOST RECENT  
EMPLOYEE SURVEY

Methanex reviewed the nomination process for leadership development programs to improve transparency and consistency.



LEARNING AND DEVELOPMENT

Methanex is committed to ensuring our team members have the knowledge, tools and opportunities to maximize their potential and enable us to execute on our strategy. As a learning organization, our team members are encouraged to consider their development in terms of the 70/20/10 approach: 70 per cent of development happens on the job; 20 per cent is from leadership coaching, mentoring and network interactions; and 10 per cent comes from formal learning. Leaders and employees regularly collaborate to define stretch goals for employees within their current roles.

Our competency assurance programs are a core learning and development offering at our manufacturing sites. These programs identify the required competencies for operational and safety roles, and include training materials, development activities and knowledge assessments. The programs provide visibility to employees on career progression, strengthen employee engagement and contribute to the safe, reliable operation of our plants and business. In 2022, we established a network of employees from each site to drive program alignment across manufacturing sites, support change management and promote continuous improvement. Competency assurance programs are in place for 89 per cent of our operational and safety roles and our goal is to have programs in place for all such roles by the end of 2023.

IN RESPONSE TO OUR MOST RECENT  
EMPLOYEE SURVEY

We enhanced learning and development plans across many of our locations to further help employees build skills and capabilities.

# Communities and Indigenous Rights

\$1.3  
million in donations

4,000+  
volunteer hours

**We believe our business should have a positive impact on people’s lives. By being a good neighbour and valued corporate citizen, we create positive and sustainable impacts in our communities. We partner and collaborate with local and Indigenous communities on shared goals to foster healthy, long-term relationships.**

## COMMUNITY ENGAGEMENT

We continually work to understand community interests, communicate information about our product and business activities, and address any community concerns. We do this primarily through Community Advisory Panels, as well as stakeholder associations, open house days, community projects, seminars, community surveys and public meetings.

**Community Advisory Panels (CAPs)** in our manufacturing locations encourage communication and transparency between Methanex and our communities, helping us build and sustain positive, ongoing relationships with our stakeholders. CAP meetings allow us to share information about plant operations and address any community questions or concerns related to our product and operations.

We also solicit input from our CAPs about our programs and involve them in developing community social responsibility initiatives. In 2022, we held 21 CAP meetings across six locations (both in person and virtually).

**Policies and standards that guide our engagement** and communication with communities include our Stakeholder Relations Policy, which outlines principles for community outreach and involvement, and our Operating Site Community Dialogue Standard, which guides structured community dialogue with neighbouring communities. These policies reflect the Chemistry Industry Association of Canada (CIAC) Responsible Care Accountability Code’s expectations for proactive community awareness and dialogue. In 2022, we updated our Stakeholder Relations Policy to better reflect our commitment to Indigenous rights and culture (see below for details) and the new Accountability Codes addressing Equity, Diversity and Inclusion approved by CIAC in November 2022.

## RESPECT FOR INDIGENOUS CULTURAL HERITAGE

We are committed to engaging with Indigenous communities out of respect for their unique history, rights and culture, including their traditional lands and cultural heritage resources, and in keeping with the principles of the UN Declaration of Rights of Indigenous Peoples as well as the specific governing treaties of each region. Cultural heritage resources refer to objects, sites or locations of cultural, historical or archaeological significance to Indigenous communities.

### Honouring Māori cultural sites and traditions

On June 24, 2022, our New Zealand site celebrated Matariki, the Māori New Year, which marked its first year as a national public holiday. Matariki—named for the cluster of stars that reappear in the night sky from late May to early June—is celebrated by coming together to reflect on the past year, share a meal with loved ones, and plan for the year ahead. Our New Zealand office shared educational communications about the meaning of Matariki, shared Kai (food) and organized gatherings for employees and their families.

Also in 2022, Methanex donated NZ\$20,000 to the Manukorihi Pā Trust in support of the redevelopment of Ōwae Marae, a significant Māori cultural site in the Taranaki region. The Ōwae Marae site contains a number of sacred buildings and is being redeveloped as part of major project to update and expand the capacity of aging facilities. Methanex New Zealand is continuing to work with the Trust to identify other ways we can support the project as it progresses.

**We believe our business should have a positive impact on people’s lives.**



Taking steps towards reconciliation in Canada

In 2022, we took small but meaningful steps towards reconciliation, including leadership education, corporate acknowledgment of Canada’s National Day of Truth and Reconciliation, and implementation of land acknowledgments for company-wide events in Canada.

To deepen our understanding of Indigenous history and rights in Canada, our Medicine Hat site leadership completed the *4 Seasons of Reconciliation* course, offered by the First Nations University of Canada. This three-hour online course promotes a renewed relationship between Indigenous Peoples and Canadians through transformative learning about truth and reconciliation.

On September 30, in honour of Canada’s National Day of Truth and Reconciliation, team members in Vancouver and Medicine Hat participated in a webinar led by Dr. Crystal Gail Fraser from the University of Alberta on the history of Canada’s Indigenous Peoples. The webinar included topics such as residential schools, the Indian Act and colonialism, and the significance of land acknowledgments. Approximately, 130 team members joined this important session to learn about, reflect on, and understand our roles in reconciliation.

As of 2022, company-wide events in Medicine Hat and Vancouver now begin with an Indigenous territorial acknowledgment. A territorial (or land) acknowledgment is a statement recognizing the traditional territory of the Indigenous Peoples who called the territory home prior to the arrival of settlers. Acknowledging territory shows recognition of and respect for Indigenous Peoples and is a small but important step towards reconciliation.



Members of our Medicine Hat team recently joined Indigenous leaders, including a member of our Community Advisory Panel, for a unique experience to learn about colonialism’s history and the ongoing impacts on Indigenous peoples in Canada. Indigenous leaders led a special Blanket Exercise for Methanex Medicine Hat in the Ómahksípiitaa (Big Eagle) room at Medicine Hat College. It was a moving and powerful way to gain a deeper understanding of the past and present, and to support reconciliation and inclusivity in our workplace. Learn more about the Blanket Exercise [here](#).



Methanex is a corporate sponsor of the Mentoring Our Children program in Trinidad which provides mentorship, guidance and coaching to approximately 140 students aged 14-16 in the Couva region. In September 2022, we hosted an on-site event to welcome 24 new mentees into the program.



**PERFORMANCE GOAL**  
Increase our community investments by 30 per cent by 2024 from 2022.

COMMUNITY INVESTMENT

In addition to creating jobs and economic opportunities, we are committed to building and supporting healthy communities that are great places to live and work. Our community investments include partnering with team members through a matching grants program; financial assistance for health, safety and environmental initiatives; and support for regional educational development and scholarships.

Together with our employees, we donated \$1.3 million and more than 4,000 hours of employee time to community efforts around the world. Some of our 2022 investments included:

- Announcement of a 10-year investment to support the new neonatal unit at Taranaki Base Hospital in New Zealand. The new unit will be called The Methanex Neonatal Unit. Construction is expected to be completed in 2025.

- Support for the Mentoring our Children Program, in Trinidad, which is developed and facilitated by Methanex employees. This program provides career guidance and support to youth in Trinidad’s Couva community. The program was twice awarded the ‘Best Social Investment Project’ by the Energy Chamber of Trinidad and Tobago.
- Financial support for the Medicine Hat District Health Foundation’s Giving Hope for Mental Health Campaign.
- Refurbishment of the gymnasium at a pediatric rehabilitation center in Punta Arenas, Chile. This is part of our ongoing regional support for people with disabilities.

Together with our employees, we donated \$1.3 million and more than 4,000 hours of employee time to community efforts around the world.



# Promoting Decent Work in Egypt

PARTNERSHIP WITH THE INTERNATIONAL LABOUR ORGANIZATION

Since 2019, Methanex has partnered with the International Labour Organization (ILO) in Egypt to support young women and men in their quest for better lives and decent work.



1,891  
beneficiaries

643  
jobs created

Our US\$1M donation supported Decent Jobs for Egypt’s Young People, a three-year Damietta-based program to create jobs, promote entrepreneurship, facilitate job matching and build capacities of local service providers to unemployed youth.

We also partnered with the National Council for Women to offer “Training the Trainers”, a program to train businesswomen from Damietta who run a community-based program for women entrepreneurs.

\$1.35 million  
donated by Methanex

Methanex extended the project for an additional year with a donation of \$350,000 to embed elements of the program in the Damietta community and institutions, helping to ensure the sustainability of the program for years to come.

We facilitated the signing of a Memorandum of Understanding with Damietta’s private Horus University Egypt and Damietta Governorate to establish an Entrepreneurship Hub to offer the entrepreneurship elements of the program to students and graduates.

1,387  
women supported

77  
trainers trained



# Transporting Methanol Safely and Responsibly

**COMMITMENT**  
Maintain the highest industry standards for safe and sustainable methanol transportation

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# Product Safety



## PERFORMANCE GOAL

Reach at least 130 organizations through our product stewardship programs to promote the safe and sustainable handling and use of methanol.

**Handling methanol safely is a critical element of safe transport. Like many other chemicals and fuels, methanol can be toxic if swallowed, inhaled or absorbed by the skin. It is also flammable. Appropriate safety precautions must be taken when using, handling or working around methanol to keep people and the environment safe.**

Our product stewardship programs promote the safe transport, storage, use and handling of methanol through the entire product value chain, starting with product safety programs for our team members and extending to the sharing of best practices with distributors, terminals, supply chain partners, customers and other key stakeholders. Through our product safety practices and our participation in industry associations across regions, including the Methanol Institute and Chemistry Industry Association of Canada, we provide information on managing the risks of methanol and promote its proper use and safe handling.

**Supporting safe handling by workers** – At our manufacturing sites, methanol is stored in tanks and transported via pipelines into marine vessels or loaded into rail cars or trucks. For this reason, very few workers have contact with methanol. The only people who directly handle methanol are individuals who conduct quality testing (e.g., in our labs) or other procedures. These individuals are required to undergo specialized training, wear adequate personal protective equipment (PPE) and participate in industrial hygiene monitoring programs.

To ensure workers and handlers of methanol have the information they need to stay safe and meet our hazard communication requirements, we provide Safety Data Sheets (SDSs), which are available in 22 different languages and in two formats: Globally Harmonized System (GHS) for use around the globe, and Registration, Evaluation, Authorization and Restrictions of Chemicals (REACH) for countries in the European Union (EU). SDSs provide information on the hazards of methanol and contain advice about safety precautions, including minimum PPE to run facilities, undertake quality analysis, and provide emergency response. In 2022, we updated SDSs for our Latin America region (available in Spanish and English) and revised and shared our REACH Safety Data Sheets for our EU customers and logistic service providers, in line with new revised requirements for EU Safety Data Sheets.

## We achieved 100% product compliance with global and regional regulations in 2022.

**Responding to customer inquiries** – Our regional teams deliver timely, high quality compliance documents to our customers.

### External training for a safe supply chain –

We regularly share best practices on methanol safe handling and loading procedures. We offer methanol-handling safety seminars, webinars and workshops to stakeholders throughout our supply chain, including partners, customers, terminals, surveyors, distributors, carriers, and emergency service providers, as well as local and/or regional authorities in all regions where we have sales activities. In 2022, we held 30 safety webinars/seminars, reaching 193 organizations and more than 900 people. Where possible under COVID-19 health and safety regulations, some events were held in person, allowing for increased relationship building and site visits. We also provide technical and safety information about methanol in multiple languages on our website, including material SDSs (as noted above), a methanol safe handling guide and video.

**Working with safe distributors** – Distributors handle approximately 30 per cent of the methanol we produce. In 2013, we developed a Distributor Responsible Care (RC) Standard defining the responsible distribution principles, behaviours, and practices we expect from our distributors. These include active and effective management plans for risk, communications, legal compliance, sub-distributor management, safe handling, emergency response, performance tracking, and continuous improvement. In 2022, we evaluated and ranked our distributors based on their risk profile and their level of Distributor RC Standard implementation. We will use the ranking in the coming years to identify distributors for the development and execution of action plans for improvement, as needed. We continue to regularly review, update and share the standard to help distributors align their handling practices with Responsible Care and Methanex's product stewardship principles.

## We assessed 100% of our distributors against our Distributor Responsible Care Standard in 2022.

# Transportation Safety

As the world’s largest producer and supplier of methanol, it is essential that we use our leadership position to promote methanol safety best practices and set high safety standards for our suppliers.

Approximately 85 per cent of our product is transported by our subsidiary Waterfront Shipping (WFS). Methanex transports the remainder of our product using railcars, trucks, pipelines or barges.

### THIRD-PARTY CARRIER ASSESSMENT

We contract sea vessels, railcars, barges and trucks to distribute our product. Depending on the mode of transport, we use different assessments to evaluate and select responsible carriers that align with our values and safety practices.



**Railcars:** In North America, 40 per cent of our customers are supplied with methanol by rail. Of this, the majority is shipped using Methanex’s 1,222 leased, operated and maintained railcars. In addition to regulatory inspections of those railcars every 10 years, our railcar preventative maintenance program in North America requires Methanex inspections of railcars every five years. Inspections verify that all equipment meets legislated and Methanex standards.

## 7<sup>th</sup> consecutive win

In 2022, we received a Grand Slam Award from the Association of American Railroads for our 2021 rail performance in North America – our seventh year in a row receiving this award for zero non-accidental releases.



**PERFORMANCE GOAL**  
Achieve zero reportable transport incidents (for methanol that we handle), annually.

**Barges and trucks:** In addition to vessels and railcars, our regional offices also contract barges or trucks and conduct assessments appropriate for their jurisdiction. These assessments, which are conducted on a three- to five-year cycle, include criteria to evaluate quality, safety, security, environment, and corporate social responsibility. In China, we developed a barge inspection questionnaire based on in-house shipping experience and use this in the barge vendor selection process. Our office in Europe has been directly arranging methanol transport by truck for more than 25 years and shared best practices with our other regional offices regarding trucking supplier selection, product stewardship, route risk assessments, unloading site assessments, emergency response and trends in sustainable fuels. While most other regions do not handle trucking directly, since third-party distributors or customers pick up product directly at our terminals, we believe that by sharing best practices with our distributors and customers we can support the development of transportation programs across the industry.





**PERFORMANCE GOAL**  
Complete safety visits on 100 per cent of our time charter vessels, annually.

**SAFETY PRACTICES AT WATERFRONT SHIPPING**

To achieve reliable transport and safe operations, WFS works closely with ship owners and ship management companies, which are responsible for the technical operation of WFS vessels. These technical operations include all crew-related matters (e.g., hiring, training, assigning to vessels, well-being), vessel maintenance (e.g., dry docks, repairs, upgrades) and compliance with applicable regulations.

We conduct regular internal and external assessments to determine the safety of WFS vessels and their crews.

**Internal assessments**

We assess the safety of vessels and their crew through:

**Safety visits** – WFS has been conducting annual safety visits of vessels for 10 years. These visits are intended to validate that ship owners’ programs are translating into a culture of safety and an enhanced experience for those aboard the vessels (see sidebar for details). Safety visit findings for individual vessels are shared with the vessel and owners; owners are required to track all corrective actions. Fleet findings are consolidated to produce a fleet safety rating that serves as a benchmark for continual improvement efforts.



**Performance tracking** – We track 13 key performance indicators (KPIs) on a quarterly basis to help identify areas for improvement between annual assessments.

**Office visits** – In 2022, we began to implement bi-annual office visits with time-charter ship owners and technical managers of WFS vessels. This supports the alignment of safety information and expectations between ships and offices and strengthens working relations between Waterfront and our ship operators.

**External assessments**  
We require all vessels to undergo an annual Chemical Distribution Institute – [Marine inspection](#). In 2022, all 30 of our vessels underwent this inspection. Additionally, we review ship inspection reports using [SIRE](#) (Ship Inspection Report programme), a database of vessel inspection reports from major international oil and gas companies. We access the database throughout the year to ensure vessels are maintained and technically managed in a safe manner that will allow us to commercially operate the vessels without restrictions.

**ANNUAL MARINE SAFETY VISITS**

We aim to have a WFS marine safety expert spend 1.5 days every year on each of the vessels in the WFS fleet. In 2022, we completed 30 safety visits.

A safety visit entails a review of more than 500 health and safety items, and significant interaction with all levels of the officers and crew on board.

- Some examples of review items include:
- **Vessel-related:** Maintenance is up to date, vessel is clean and organized, efforts are being made to use energy-efficient practices.
  - **Procedural:** Record keeping is up to date, crew work-rest balance is being monitored.
  - **Programs:** Stop Work authorization is being reinforced, crews are encouraged to report near misses and raise concerns about safety, and methanol and nitrogen safety training is being provided.
  - **People:** Ensure the atmosphere on board the vessel is respectful and efforts are made to promote mental health awareness and monitoring. Increased pandemic-related restrictions on seafarers has highlighted the importance of mental health.





Safety training

In addition to safety training required by the ship management companies, we develop targeted training programs for crews on Waterfront vessels, including training on key safety hazards. These programs reinforce seafarer knowledge through regular training on and off the vessels.

Training includes:

- **Methanol safety:** Crews receive customized methanol safety training twice per year, which includes a safe handling video, a presentation with a Q&A session, and a safety assessment.
- **Nitrogen safety:** Crews receive training twice yearly on nitrogen safety to mitigate asphyxiation risk (nitrogen is used on board to remove the risk of fire and explosion in the cargo tank). The training includes a nitrogen safety video, a presentation with a Q&A session, and a safety assessment.

In 2022, we transitioned from in-person to online training. This facilitates personalized training, allows us to modify or supplement the training as needed and provides seafarers with the flexibility to take the training at a pace that promotes their learning and retention. In addition to the new training format, we also piloted a new assessment process to verify crew members aboard our vessels fully understand the safe handling of methanol and nitrogen, including the risks. The new assessment focuses on individual test scores instead of vessel-wide results. This enables vessel managers to review the safety performance of individual crew members and provide additional support as needed. We anticipate rolling out the new assessment process on all vessels in 2023.

TERMINAL ASSESSMENTS

As part of our marketing and logistics service, we load and distribute methanol by vessel at 124 terminals around the world (six at our manufacturing sites, 32 leased terminals and 86 at customer or third-party locations). Guided by our commitment to Responsible Care, we assess terminal quality, health, safety, security, and environment practices on an ongoing basis. Where applicable, we work with terminals to make required changes. In 2022, we completed 115 terminal assessments. We have also integrated terminal assessments of our six manufacturing sites into our three-year internal audit cycle.

RESPONSIBLE CARE LEADERSHIP IN SHIPPING SAFETY

Waterfront Shipping is globally recognized as a leader in responsible marine transportation of methanol.

In 2022, Waterfront’s Manager, Marine Assurance and Responsible Care was invited to participate in revisions to the Ship Inspection Report programme (SIRE), a global tanker and barge safety and risk assessment tool. A key goal of the revision was to incorporate more human elements into the inspection process, including the element of mental health. The Waterfront employee shared learnings from Waterfront’s years of experience conducting onboard safety visits to assess the safety culture on vessels.

We continue to focus on the well-being of seafarers as a key enabler of safety on Waterfront vessels.

IN 2022, WE COMPLETED:

115	30	3
terminal assessments	vessel safety visits	vessel management office visits



# Ecological Impacts of Shipping

At Waterfront Shipping, we work to reduce the environmental impacts associated with transporting product by vessel. Precautions range from choosing new vessels with best-in-class technology to retrofitting existing ships to improve their emissions performance.

## AIR QUALITY

NO<sub>x</sub>, SO<sub>x</sub>, and Particulate Matter are byproducts of combustion from ship engines and sources of air pollution in heavily trafficked shipping lanes. By using methanol-fuel technology for marine vessels in Waterfront’s fleet, we can meet increasingly stringent air emissions [regulations](#) established by the International Maritime Organization (IMO), including NO<sub>x</sub> Tier III. See sidebar for details. Read about Waterfront Shipping CO<sub>2</sub> emissions reduction efforts on [page 27](#).

## SPILL PREVENTION

In the unlikely event of an accident, all Waterfront vessels have double hulls and secondary deck containment to prevent product from impacting the environment and marine life. We have strict vessel loading guidelines and use best practices to prevent spills during loading and discharging.



## BALLAST WATER MANAGEMENT

When an empty ship is en route to a loading destination, it uses vast amounts of ballast water to provide stability and maneuverability. This ballast water is then discharged during loading operations. However, ballast water contains biological materials (e.g., bacteria, microbes) from the region in which it originated. When ballast water is discharged at a different location, these foreign materials can adversely impact the local aquatic ecosystem. All vessels in the Waterfront fleet have ballast water exchange plans that significantly reduce the risk of harmful aquatic organisms or pathogens. In 2017, the IMO implemented a code for ballast water management systems. To comply with this code, we completed the retrofitting of our ballast water treatment systems in 2021, well before the 2024 compliance deadline.

## NOISE REDUCTION

We have been installing propeller boss cap fins since 2016 to help reduce fuel consumption (see [page 27](#)). These have the added benefit of noise reduction, which reduces disturbance to marine life.

## WATER QUALITY

Many marine vessels use technology known as scrubbers to capture SO<sub>x</sub> emissions from the combustion of heavy fuel oil. This prevents the discharge of SO<sub>x</sub> into the atmosphere where it would contribute to local air pollution. While scrubber technologies keep pollutants out of the air, the water used to remove SO<sub>x</sub> is often disposed of into the ocean as scrubber wastewater, which can contribute to acidification of the ocean and related negative impacts on sea life. Waterfront Shipping does not use scrubbers on any of our vessels. We only use low-sulphur fuel (including methanol) in our vessels.

## PARTNERING TO REDUCE AIR EMISSIONS

In 2018, MAN Energy Solutions developed a process to lower NO<sub>x</sub> emissions to levels that meet stringent new [Tier III](#) regulations established by the IMO. Waterfront Shipping supported MAN Energy Solutions by testing the newly developed process in its ships. While methanol fuel reduces NO<sub>x</sub> emissions compared to traditional marine fuels, the new process blends water with methanol or diesel fuel, and results in additional reduction of NO<sub>x</sub> emissions with no significant loss of power.

This simple solution not only allows vessels to meet Tier III regulations while running on methanol, but it also saves ship owners the capital and operating expenses of purchasing NO<sub>x</sub>-removing equipment and chemicals.

Eight of our ships can use this new process.



**COMMITMENT**  
Consistently  
demonstrate high  
standards of integrity  
across the company

# Working with Integrity

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# Corporate Governance

We believe good corporate governance is critical for the effective, efficient and prudent operation of Methanex. Our Board’s Corporate Governance Principles establish a framework for good corporate governance, outlining Board and management responsibilities and accountabilities.

## BOARD STRUCTURE

The Board’s primary goal is to act in the best interests of the company to enhance long-term shareholder value, while considering the interests of Methanex’s various stakeholders. It is with these principles in mind that the Board provides oversight of and guidance to management.

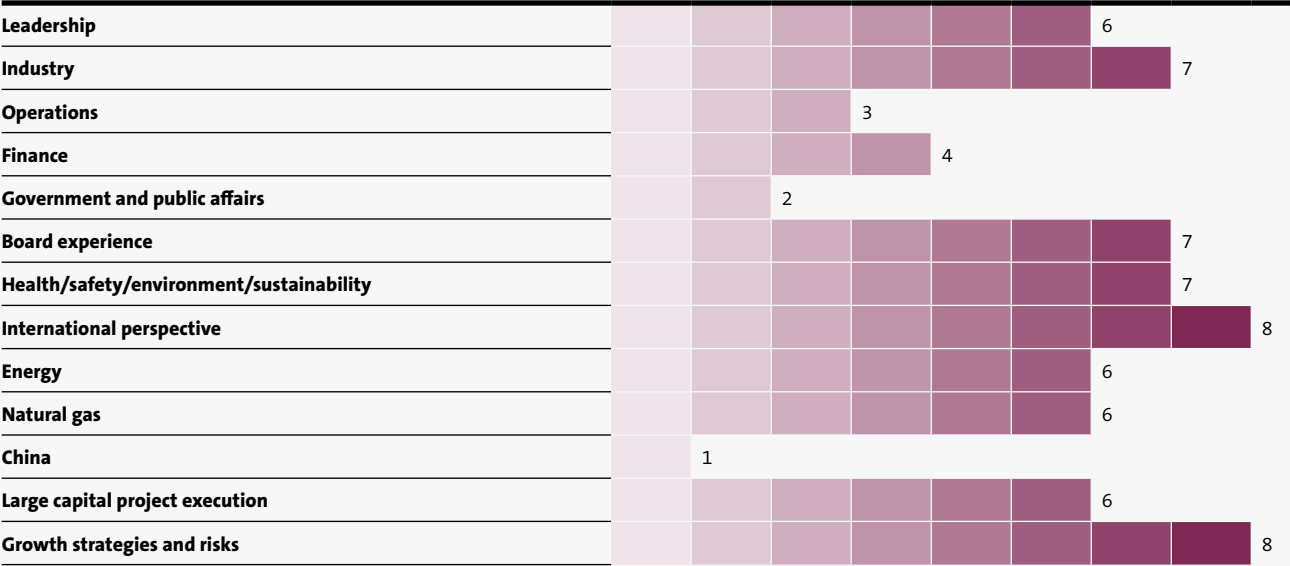
The Board executes its mandate through four committees: Audit, Finance, and Risk; Corporate Governance; Human Resources; and Responsible Care. Only independent directors chair or sit on our committees. The Board has identified a list of director skills and experiences that are most valuable in supporting Methanex’s strategic direction. Annually, the Corporate Governance Committee reviews the current directors’ skills and experiences against that list and creates a skills matrix (see Figure 6).

When assessing potential nominees, the Corporate Governance Committee considers potential gaps in the skills matrix (current or anticipated through retirement) as well as our diversity requirements (see next section). For more details on our Board structure and nomination process, see our [Information Circular](#) dated March 9, 2023.

## BOARD COMPETENCY IN ESG MATTERS

Methanex’s Board members understand the increasing importance of environmental, social, and governance (ESG) matters to the long-term sustainability of any company. To enhance the effectiveness of their decision making and their ability to participate in ESG-related discussions, our Board members are continually developing their ESG competencies at both the individual and group level. Seven of our ten independent directors have experience in managing an organization or business unit with significant health, safety or environmental issues or have knowledge and experience with ESG/sustainability initiatives.

FIGURE 6 – AREAS OF DIRECTOR SKILLS AND EXPERIENCE







**BOARD DIVERSITY AND RENEWAL**

We recognize the importance of diversity, including gender diversity, at all levels of Methanex, starting with the Board. Board diversity promotes the inclusion of different perspectives and ideas and ensures Methanex has the opportunity to benefit from all available talent. This enhances and improves our decision-making, which makes for better corporate governance.

Our Board Diversity Policy requires at least 40 per cent of independent directors to be women, Aboriginal Peoples, persons with disabilities, visible minorities or LGBTQ+. The Board must also maintain a composition in which each gender comprises at least 30 per cent of the independent directors. These diversity requirements, along with age, education, business experience, professional expertise, personal character and interests, stakeholder perspectives, and geographic background are factored into the recruitment and decision-making process for new Board member appointments.

We do not have term limits or a formal retirement policy for Board members. It takes many years to acquire in-depth knowledge about Methanex and the cyclical nature of the chemical industry, and we place great value on maintaining a certain amount of institutional knowledge on our Board. At the same time, we believe it is critical to have Board renewal. This helps ensure we have a high-performing Board over the long term and brings fresh ideas and new knowledge to the Board. It also provides opportunities to enhance diversity. We seek to achieve an appropriate balance of long-standing and new Board members to ensure the Board functions most effectively.

**EXECUTIVE COMPENSATION**

Methanex’s executive compensation framework is based on a pay-for-performance philosophy to align performance with the interests of shareholders. Executive compensation is closely tied to Methanex’s financial performance. Since 2011, we have included an advisory “say on pay” vote at our annual meetings. In addition, the Chair of the Board solicits feedback during annual meetings with institutional shareholders. From mid-March to June 30 of each year, we also provide a link on the Investor Relations page of our website to enable such feedback. In 2022, we held additional discussions with shareholders to solicit and consider feedback on our executive compensation program. For details, see our [Information Circular](#) dated March 9, 2023.

GOVERNANCE INFORMATION*	
Shareholder rights	
Ability to call a special meeting	Yes
Say on Pay advisory vote	Yes
Shareholding	
Share ownership requirements for Directors	Yes
Share ownership requirements for Executive Officers	Yes
Share ownership guidelines for management	Yes
Ethics	
Code of Conduct for directors, officers and employees	Yes
Policy on Share Trading and Hedging	Yes
Board composition and independence	
Size of Board	11
Number of independent directors	10
Separate Chair and CEO	Yes
Independent chair	Yes
Comprehensive board and committee assessment process	Yes
Board meetings held in 2022	6
Average Meeting Attendance	100%
Board renewal and diversity	
Annual election of Directors	Yes
Majority Voting Policy	Yes
Average age of Directors	63
Mandatory retirement age	No
Average (Independent) Director tenure	5 years
Women Board members (Independent)	50%
Visible minority board members (independent)	20%
Board Diversity Policy with gender targets	Yes

\* Information as of Dec. 31, 2022



# Governance for Sustainability and Climate-related Matters

The Board oversees our long-term strategy through its involvement in our annual strategy process. This includes participation in the annual strategy session and review and approval of Methanex’s annual Strategy Report, as well as the consideration of Methanex’s principal strategic risks. In 2022, sustainability was integrated into our corporate strategy, with a particular emphasis on the role of methanol and the company’s approach to the transition to a low-carbon economy. With oversight from Methanex’s Board, our Executive Leadership Team (ELT), including the CEO, is ultimately responsible for sustainability and climate-related matters at Methanex.

## BOARD AND COMMITTEE OVERSIGHT

Methanex’s Board has oversight of ESG and is responsible for understanding and addressing emerging trends, regulations, risks and opportunities, including the impact they can have on the methanol industry, our business, and our stakeholders.

Specifically, the Board oversees Methanex’s approach to sustainability, ESG reporting, risk management for safety, health and the environment (including climate change), monitoring the company’s diversity and inclusion initiatives, and the management of material sustainability topics.

The Board recognizes the increasing importance of ESG issues and their ability to impact Methanex’s strategy, and retains oversight of material sustainability topics that have been identified as strategic for the Company: transition to a low-carbon economy, greenhouse gas emissions and energy use, ESG aspects of natural gas and the societal benefits of methanol (see Figure 7). Each Board committee has a formal mandate identifying the topics for which it provides guidance to management and recommendations to the Board, including the specific ESG matters outlined in the table below. For more information regarding our Board and committee structure, please see our [Information Circular](#) dated March 9, 2023, [Committee Mandates](#) and [Corporate Governance Principles \(Board Mandate\)](#).

The Board receives updates prior to each regularly scheduled Board meeting (six times per year) on ESG-related matters, as well as periodic presentations on substantive ESG topics. In 2022, the Board received presentations on options for lower-carbon methanol production (including CCS), the transition to a low-carbon economy in the context of our corporate strategy and our approach to ESG communications.

FIGURE 7 – GOVERNANCE FOR SUSTAINABILITY AND CLIMATE-RELATED MATTERS

BOARD/BOARD COMMITTEE	KEY RESPONSIBILITIES	PROVIDES OVERSIGHT FOR...		
	For details, see our <a href="#">Information Circular</a> dated March 9, 2023.	Note: Green items are climate related matters.		
Board of Directors	Strategic planning, risk management, material ESG matters (including climate), corporate governance, communications, human resource management	<ul style="list-style-type: none"><li>Business strategy</li><li>Transition to a low-carbon economy</li><li>GHG emissions and energy use</li></ul>	<ul style="list-style-type: none"><li>Societal benefits of methanol</li><li>Employee and contractor safety</li><li>Process safety</li></ul>	<ul style="list-style-type: none"><li>ESG aspects of natural gas procurement</li><li>Diversity and Inclusion</li></ul>
Audit, Finance and Risk Committee	Financial statements and disclosure, financing plans, risk management and internal controls, external and internal audits, ethics and compliance	<ul style="list-style-type: none"><li>Enterprise risk management</li><li>Tax transparency</li></ul>	<ul style="list-style-type: none"><li>Cybersecurity</li><li>Ethics compliance</li></ul>	
Corporate Governance Committee	Board selection, composition, evaluation; committee election, composition and evaluation; corporate governance	<ul style="list-style-type: none"><li>Corporate governance</li><li>Board diversity</li></ul>	<ul style="list-style-type: none"><li>Ethics policies/ Code of Conduct</li><li>Anti-corruption</li></ul>	
Human Resources Committee	Compensation programs, policies and practices (including executive performance and compensation), pension plans, talent management, succession planning and diversity and inclusion	<ul style="list-style-type: none"><li>Diversity and inclusion</li><li>Executive compensation</li></ul>	<ul style="list-style-type: none"><li>CEO’s goals and performance</li><li>Talent management</li></ul>	
Responsible Care Committee	Policies, management systems and performance related to: health, safety, environment, physical security, crisis management and communications, product stewardship and social responsibility	<ul style="list-style-type: none"><li>GHG emissions and energy use</li><li>Employee and contractor safety</li><li>Process safety</li><li>Product safety</li></ul>	<ul style="list-style-type: none"><li>Water</li><li>Spills</li><li>Transportation/ distribution safety</li><li>Community and Indigenous rights</li></ul>	<ul style="list-style-type: none"><li>Air quality</li><li>Occupational hygiene</li><li>Physical security</li><li>Crisis management</li></ul>

Where there is duplication of a topic between Board and committee oversight, the Board may delegate its oversight responsibility to a committee or supplement the committee’s work by considering the topic from a strategic perspective.



MANAGEMENT’S ROLE

Methanex delivers on our sustainability commitments and manages our impacts through our Executive Leadership Team, senior-level sustainability leadership, and strategic teams. Their work is underpinned by our culture of Responsible Care and sustainability and implemented through our Global Integrated Management System.

Sustainability leadership

Although the Board provides the highest level of oversight, our Executive Leadership Team (ELT) has overall responsibility for ensuring environmental, social and governance matters are being effectively evaluated and managed. These include climate-related risks and opportunities associated with our GHG emissions and the transition to a low-carbon economy. The ELT incorporates these matters into our strategic and business planning activities to support the long-term sustainability of our business. For details on risk management, including climate risk, see [pages 74-79](#).

Methanex has embedded sustainability into our business through the establishment of senior leadership roles with sustainability as part of their mandate: Senior Vice President, Corporate Development and Sustainability; Vice President, Corporate Sustainability; and Vice President, Responsible Care. As of January 1, 2023, the role of Senior Vice President, Low Carbon Solutions was created to recognize the strategic importance of the role of methanol in the transition to a low-carbon economy. These individuals play a pivotal role in further integrating sustainability throughout Methanex.

Management’s work is underpinned by our culture of Responsible Care.

Strategic teams

- To support our ELT in assessing and managing Methanex’s ESG-related risks and opportunities in 2022, we had four strategic teams to design programs and provide subject matter expertise for certain ESG material topics:
- **CO<sub>2</sub> Emissions Management Leadership Team:** evaluates emissions reduction opportunities, technologies and strategies for our manufacturing operations. Members included: SVP Manufacturing, VP Responsible Care, VP Manufacturing Strategy and Planning, VP North America and VP Sustainability, and subject matter experts as needed.
  - **Transition to a Low-carbon Economy Leadership Team:** evaluates new and innovative technology solutions, assesses potential market-related impacts of the transition to a low-carbon economy, and identifies future opportunities for low-carbon and green methanol. Members included: SVP Corporate Development and Sustainability, SVP Global Marketing & Logistics, General Counsel, VP Corporate Development, VP Sustainability, and other subject matter experts as needed.
  - **Diversity and Inclusion Council:** led by the Director, Diversity and Inclusion, the Council is made up of senior-level Methanex leaders from around the world, to support the development and execution of our Diversity & Inclusion Vision, Guiding Principles and Roadmap.
  - **Executive Process Safety Steering Committee** ([page 42](#)).

GOVERNANCE FOR ENVIRONMENTAL AND SOCIAL MATTERS





SUSTAINABILITY PRACTICES

Our values and sustainability commitments are enacted through the following systems and processes:

Executive compensation linked to environmental and social factors

Methanex’s short-term incentive plan is based on two components: corporate performance and individual performance. All our employees, including each of our executive officers, have annual individual performance goals that are aligned with the company’s overall strategic goals, including goals related to our environmental, social and governance performance. Thirty per cent of the CEO’s and named executive officers’ annual short-term incentive awards are tied directly to individual performance goals that align with Methanex’s strategic and operational goals. In 2022, the CEO’s individual goals related to environmental, social and governance factors included:

- Recordable Injury Frequency Rate of 0.35 or less and zero Severe Injury or Fatalities.
- One or fewer environmental major incidents and Zero Tier 1 Process Safety Incidents.
- Progress cybersecurity maturity.
- Advance our ESG maturity and progress the integration of ESG matters into our decision-making throughout the organization.

- Progress Diversity and Inclusion efforts and execute newly developed strategy.
- Promote viable alternative methanol uses, including continued support for renewable methanol and energy substitution in marine fuels, fuel blending, methanol to power and industrial boilers.

For details on executive compensation outcomes for 2022, please see our [Information Circular](#) dated March 9, 2023.

Responsible Care

The Responsible Care Ethic and Principles for Sustainability are foundational to everything we do. This United Nations-recognized chemical industry initiative informs the governance and management of our environmental and social matters. It includes our commitment to environmental protection (including GHG emissions), health and safety (occupational and process safety), physical security and product stewardship, business continuity and crisis management, and our social responsibility program and strategy.

Global Integrated Management System

Methanex’s Global Integrated Management System (GIMS) allows us to embed our commitment to environmental and social responsibility into our operations and business activities.



PERFORMANCE GOAL

Conduct a corporate internal Responsible Care audit at each manufacturing location, once every three years.

It outlines requirements for all our operations and offices, and defines minimum expectations for the environment, occupational safety, process safety, reliability, emergency preparedness, crisis management, product stewardship, stakeholder engagement, social responsibility, quality and security. All our operating sites and regional offices are required to operate in accordance with GIMS.

GIMS meets or exceeds the following internationally recognized standards: Chemistry Industry Association of Canada (CIAC) Responsible Care Codes of Practice, International Organization for Standardization: Quality (ISO 9001:2015) and Environment (ISO 14001:2015), Occupational Health and Safety Assessment Series (OHSAS) 18001:2007 and Center for Chemical Process Safety (CCPS) process safety management. In 2023, GIMS will undergo scheduled review and update to incorporate ISO 45000:2018 Occupational health and safety management systems.

To ensure that our sites and regional offices meet or exceed the requirements of GIMS, we regularly assess performance and drive continual improvement. Methanex audits our management system through internal audits and regular third-party assessments, including Responsible Care verification and ISO audits. We successfully completed a CIAC Responsible Care verification in 2022.

METHANEX’S CULTURE OF SUSTAINABILITY



A thriving global culture of sustainability underpins the governance systems, processes and people that guide Methanex. Our culture ensures we work in the best interests of our stakeholders.

**For shareholders,** this means giving them confidence that Methanex will deliver sustained value through profitable investments and safe, reliable operations.

**For customers,** this means a safe and reliable supply of methanol and responsive, cost-effective operations.

**For communities,** this means upholding our commitment to health and safety, environmental protection and social responsibility.

**For team members,** this means having a culture that aligns with their values, personal well-being and professional development.



# Risk Management

We use our enterprise risk management (ERM) process, led by our Chief Financial Officer (CFO) and the Risk Manager to identify, monitor, evaluate, and address important enterprise-wide strategic and business risks, including climate-related ones. We annually review and update our register of strategic and enterprise-wide risks (the Strategic Risks Register), the significance of these risks, and our risk mitigation strategies, as well as identify who is responsible for overseeing mitigation strategies for each risk.

## RISK IDENTIFICATION

Through our ERM process, Methanex identifies all risks including climate risks (see sidebar). As part of this annual process, the Risk Manager seeks input from senior leaders responsible for each of our marketing and logistics (M&L) and manufacturing regions. To ensure climate risks are considered uniformly across regions, we specifically request that senior leaders consider climate-related risks, as defined by TCFD, as part of this process.

## RISK ASSESSMENT

The management teams for our manufacturing sites, M&L regions, and functional teams (e.g., HR, IT) use an internal risk matrix to assess operational risks to our business. For site-level risks, assessment criteria include the likelihood of the risk occurring, and potential impacts of the risk on our financial position, reputation, or environment. The CFO, the Risk Manager and the ELT prioritize enterprise-level risks based on their likelihood, anticipated severity, anticipated time horizon, and level of impact on our business strategy. Existential risks to the company or our strategy are included in the Strategic Risks Register as described above. Site-level risks that are not elevated to the corporate level are managed closely by our manufacturing sites and M&L regions.

## IDENTIFYING CLIMATE RISKS

Our process for identifying climate-related risks is integrated into, not separate from, our ERM process (see left). Climate-related risks are incorporated into our risk identification process by:

- Monitoring emerging regulatory and policy trends regarding climate change and GHG emissions globally to assess their potential financial impact.
- Monitoring market and technology developments to assess the risks they present in the global transition to a low-carbon economy.
- Engaging with capital providers to understand their expectations around climate-related risks.

Our climate-related transition risks and physical risks are described on [pages 76-79](#) and our material environmental and social risks are fully described in the Risk Factors section of our 2022 Management’s Discussion and Analysis in our [Annual Report](#).







RISK INTEGRATION

Each strategic risk is assigned to the Board (as a whole or to a committee) and the ELT (as a whole or to an individual) to manage and oversee risk mitigation strategies. The Strategic Risks Register is then provided to the Audit, Finance and Risk Committee who considers and approves the ERM process, and the Register is shared with the full Board as part of the annual corporate strategy process.

Once approved, an action plan for each risk is embedded in yearly business initiatives at the corporate level and, where applicable, within regions or functions.

As part of Methanex’s continual improvement of our risk management and disclosure, we plan to review and update our ERM process in 2023, including looking at how to further integrate climate-related risks.

We consider the impact of new investments on our GHG emissions profile

INTEGRATING CLIMATE-RELATED RISKS

Since climate-related risks have been identified and assessed, we have started to incorporate them into different aspects of our business. Some examples of this are:

- Considering the impact of new investments on our GHG emissions profile
- Embedding the consideration of CO<sub>2</sub> emissions into our Authorization for Expenditures (AFE) process for capital projects
- Forecasting carbon prices based on current legislation
- Incorporating extreme weather events into emergency preparedness

In 2022, we enhanced the level of integration of GHG information and climate-related risks into our business by focusing on:

**Visibility of CO<sub>2</sub> performance at a site level:** Each site projects its emissions expectations annually and then reports actual CO<sub>2</sub>e levels quarterly in order to help identify root causes of gains or losses in intensity.

**Evaluating CO<sub>2</sub> abatement options:** To optimize capital deployment, we are developing a carbon abatement cost curve. The curve will allow us to prioritize the most cost-effective carbon reduction opportunities.

# Climate-related Opportunities and Risks

We believe that effectively identifying and managing climate-related risks and opportunities contributes to value creation today and in the future. In this section we describe the key climate-related opportunities we are pursuing and the risks we are monitoring and mitigating, in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures. Our material climate-related risks are fully described in the Risk Factors section of our MD&A in our [Annual Report](#).

## TRANSITION RISKS – REGULATORY

CLIMATE-RELATED ISSUE	WHAT IS THE OPPORTUNITY?	WHAT IS THE RISK?	WHAT ARE WE DOING TO CAPITALIZE ON THE OPPORTUNITY OR MITIGATE THE RISK?
<b>U.S. Inflation Reduction Act</b> The U.S. Inflation Reduction Act increased carbon credits to support activities like carbon capture from \$50 to \$85 per tonne. It also provides income tax credits for green hydrogen producers to support investments in clean hydrogen which can be used as a zero-carbon fuel in our reformer or as a feedstock for e-methanol.	The benefits outlined are improving the economics of carbon capture and green methanol production in the U.S.	Asymmetrical benefits between the U.S. and other jurisdictions might impact economic feasibility and/or project timelines.	We are taking the next steps to evaluate the economic feasibility of carbon capture at Geismar, U.S. and continue to monitor developments to support the feasibility of CCS at Medicine Hat, Canada, which also requires the cost-effective development of a long term sequestration solution.
<b>Carbon tax/trading schemes</b> Under the Kyoto Protocol and the Paris Agreement, many of the countries we operate in have agreed to reduce GHG emissions and/or impose carbon taxes. We are currently subject to GHG regulations in Canada, New Zealand and Chile.	Carbon border adjustment mechanisms are being considered in the EU, U.S. and Canada to address carbon leakage issues and support the competitiveness of Emissions Intensive Trade Exposed (EITE) industries such as methanol. These types of policies have the potential to boost our competitiveness with regions producing methanol from coal, or where producers are less carbon efficient.	Potential for increased cost of production due to: <ul style="list-style-type: none"><li>– Continued asymmetric carbon tax/trading schemes (Canada, New Zealand, Chile) that could impact us and/or our natural gas providers vs. competitors could erode our profitability.</li><li>– Reduction in CO<sub>2</sub> emissions allowance/cap for us or our natural gas providers.</li><li>– Carbon border adjustment mechanisms could impact the efficient management of our global supply chain.</li></ul>	<b>BUSINESS PROCESSES</b> <ul style="list-style-type: none"><li>– Model a range of carbon prices and mechanisms when forecasting revenues, demands, and costs in locations with an existing tax.</li><li>– Integrate carbon pricing into our internal Application for Expenditure process in locations with an existing tax.</li><li>– Hedge natural gas prices up to 10 years in some locations and negotiate long term gas supply linked to methanol price in other locations.</li><li>– Active management of carbon tax credits.</li><li>– Engage with governments.</li></ul>
<b>Clean fuel regulations</b> Jurisdictions targeting reductions in the lifecycle emissions of liquid fuels have introduced regulations such as Clean Fuel Regulation (Canada), Renewable Energy Directive II (EU), Renewable Fuel Standard (U.S.), Low Carbon Fuel Standard (California, British Columbia), Clean Fuel Standard (CA).	Increasing demand for lower-carbon methanol and customers willing to pay a premium for it strengthens the business case for our company to invest in alternative feedstocks or carbon-reducing technologies, and leads to increasing pressure on the long-run price expectations for methanol. Methanol producers with existing assets capable of sourcing renewable feedstocks will have a competitive advantage in such an environment.	<ul style="list-style-type: none"><li>– If increased demand for methanol from lower-carbon intensity forms of production grows rapidly, it could lower demand for conventional methanol in North America and Europe.</li><li>– Future growth expectations around methanol as a clean/lower-carbon fuel may be less than anticipated.</li></ul>	<b>ACTIVITIES</b> Read about our work in the following areas:  <b>Strategic leadership teams</b> <ul style="list-style-type: none"><li>– <a href="#">CO<sub>2</sub> Emissions Management Leadership Team</a></li><li>– <a href="#">Transition to a Low-carbon Economy Leadership Team</a></li></ul> <b>Emissions reduction</b> <ul style="list-style-type: none"><li>– <a href="#">Reducing emissions from conventional methanol</a></li><li>– <a href="#">Producing lower-carbon methanol</a></li></ul>
<b>IMO regulations</b> To reduce the shipping industry's environmental impact, the International Maritime Organization (IMO) has set a goal to reduce carbon intensity from international shipping by at least 40 per cent by 2030. Stringent standards are also in place that limit SO <sub>x</sub> , NO <sub>x</sub> , and particulate matter (PM) from ships.	Methanol presents a practical solution for the maritime industry to meet the IMO regulation. It can be used in existing diesel engines (with minor modifications) to lower CO <sub>2</sub> (TtW basis), NO <sub>x</sub> , SO <sub>x</sub> , and PM emissions and reduce lifecycle CO <sub>2</sub> emissions through the increased use of lower-carbon intensity methanol.	<ul style="list-style-type: none"><li>– Methanol is one of several options being tested by the shipping sector, creating the risk that maritime customers may prefer another fuel (e.g., ammonia, liquefied natural gas, hydrogen, renewable/bio diesel, ethanol). Should insufficient volumes of lower-carbon methanol be produced and/or should such methanol be too expensive, the shipping industry could adopt a different fuel. This could be exacerbated if the regulations consider fuels from a lifecycle basis instead of combustion emissions.</li><li>– There is also an associated increase in methanol shipping costs to comply with these regulations.</li></ul>	<b>Growing markets for methanol</b> <ul style="list-style-type: none"><li>– <a href="#">Marine fuel</a></li><li>– <a href="#">Passenger and cargo vehicle fuel</a></li><li>– <a href="#">Thermal applications</a></li><li>– <a href="#">Lower-carbon methanol for chemical applications</a></li></ul>
<b>EU regulations for shipping</b> The European Parliament and Council have also agreed to stringent new fuel requirements for ships travelling within the EU, including GHG intensity limits for maritime fuels and requirements for ship owners to use a percentage of renewable fuels by 2030.	This could create more incentives for GHG reductions in the manufacturing of fuels including methanol and potentially more demand for lower-carbon intensity methanol.	If the E.U. regulation expands to full lifecycle emissions instead of combustion emissions, there may be insufficient carbon-neutral methanol available to meet the demand created, methanol may be disadvantaged compared to other alternative carbon-neutral fuels.	



TRANSITION RISKS – MARKET

CLIMATE-RELATED ISSUE

WHAT IS THE OPPORTUNITY?

WHAT IS THE RISK?

WHAT ARE WE DOING TO CAPITALIZE ON THE OPPORTUNITY OR MITIGATE THE RISK?

Demand for lower-carbon methanol is increasing globally.

- Demand for lower-carbon methanol is increasing globally and existing assets will lead the transition, as renewable natural gas can be used as a feedstock. Renewable natural gas is completely interchangeable with the natural gas we use today in our manufacturing process.
- Increasing demand for lower-carbon methanol and customers willing to pay a premium for it strengthen the business case for our company to invest in alternative feedstocks or carbon-reducing technologies and leads to increasing pressure on the long-run price expectations for methanol.
- Methanol producers with existing assets capable of sourcing renewable feedstocks will have a competitive advantage in such an environment.

- One of the risks related to scaling renewable methanol production is securing access to renewable natural gas (RNG) as feedstock. In the U.S. we are competing with buyers who pay a premium to purchase RNG for utilities or in compressed form for vehicle fuel.
- E-methanol production currently has high capital requirements and operational costs and requires access to renewable power and biogenic CO<sub>2</sub> sources to produce carbon-neutral methanol, creating a risk that we are unable to meet the demand for carbon-neutral methanol.
- With increased pressure for the use of lower-carbon fuels, traditional fuel demand for methanol could drop.

Read about our work in the following areas:

- [Carbon capture and storage](#)
- [Renewable natural gas](#)
- [Alternative feedstocks, renewable energy and new technologies](#)

We are also pursuing offtakes for renewable methanol.

Demand for alternative fuels is growing.

**Hydrogen**  
Momentum for hydrogen as an alternative fuel is growing worldwide. Hydrogen is seen as a fuel (including fuel cells) that can help countries achieve their emissions reduction targets. Methanol is one of the most hydrogen-dense fuels and can play a role in a hydrogen economy, by functioning as a hydrogen carrier (i.e., methanol could be processed after transportation to release the hydrogen molecules that are contained in both the methanol and water required to support the reforming reactions).

**LNG, ammonia, ethanol and renewable diesel**  
As a liquid fuel, methanol is easy and safe to transport compared to gaseous fuels (LNG, ammonia) and can be an effective and practical fuel compared to other alternative fuels.

- In certain energy-related applications, hydrogen could be perceived as a potential substitute to methanol as a fuel.
- Increased demand for liquefied natural gas (LNG) could lead to higher natural gas prices which could impact our operating costs.
- There could be lower-than-expected demand growth for methanol (especially lower-carbon methanol) if the market favours competing alternative fuels in the transition to decarbonization, namely:
  - LNG, ammonia, bio/renewable diesel, and ethanol could be used as low-carbon marine fuels.
  - Hydrogen fuel cells and bio/renewable diesel could be used to power light and heavy-duty vehicles.
- Current demand for methanol in fuel applications, including biodiesel, is approximately 15 per cent of total demand.
- Because of cost, technology and supply challenges (described above), supply of lower-carbon methanol may develop more slowly than demand leading to a preference for alternative fuels.

- We closely monitor methanol’s competitiveness for various applications, compared to alternative products, and incorporate this into our supply and demand forecasts.
- We continue to advocate for the use of methanol in applications which take advantage of its lower-emission qualities.
- We continue to demonstrate the viability of green methanol as a marine fuel through our dual-fuel vessels and bio-methanol produced at Geismar and are studying the feasibility of producing e-methanol at our existing assets.
- Read about our work in the following areas:
  - [Marine fuel](#)
  - [Passenger and cargo vehicle fuel](#)





TRANSITION RISKS – TECHNOLOGY AND REPUTATIONAL

CLIMATE-RELATED ISSUE	WHAT IS THE OPPORTUNITY?	WHAT IS THE RISK?	WHAT ARE WE DOING TO CAPITALIZE ON THE OPPORTUNITY OR MITIGATE THE RISK?
Companies are seeking transformational technologies and processes that could revolutionize the emissions profile and profitability of emissions-intensive industries like ours.	We can leverage our existing assets to produce lower-carbon methanol. Today, we can produce renewable methanol with RNG with our existing assets without requiring additional capital investment. In addition, through investment and collaboration, we can implement step-change technologies—such as CCS—that would dramatically alter the emissions profile of our methanol plants. We are also studying the potential for other technological changes to transition our existing assets. As the transition to a low-carbon economy evolves and the market for lower-carbon methanol develops, we are taking an incremental approach to future capital investments in a manner that ensures we are meeting the needs of all our stakeholders.	<ul style="list-style-type: none"><li>– Significant capital required for new technology (e.g., electrolyzers).</li><li>– There may be delays in finding/implementing new technology.</li><li>– If we do nothing, then new technologies could reduce the competitiveness of existing plants (which can run for many decades).</li><li>– Rapid technology transitions in other industries, such as a rapid adoption of electric vehicles, could result in lower-than-expected demand growth for methanol in MTBE or as a vehicle fuel.</li><li>– One of the risks related to choosing a technology is the possibility that more cost-effective technologies will be developed in the future.</li></ul>	<ul style="list-style-type: none"><li>– Read about our work in the following areas:<ul style="list-style-type: none"><li>– <a href="#">Carbon capture and storage</a></li><li>– <a href="#">Renewable natural gas</a></li><li>– <a href="#">Alternative feedstocks, renewable energy and new technologies</a></li><li>– <a href="#">Marine fuel</a></li><li>– <a href="#">Passenger and cargo vehicle fuel</a></li><li>– <a href="#">Transition to a Low-carbon Economy Team</a></li></ul></li><li>– Monitoring the key drivers that will support the commercial viability of this technology (e.g., cost of electrolyzers, cost of power, availability of concentrated carbon sources, government incentives/regulations).</li></ul>
Stakeholder perceptions of how companies address climate-related issues are becoming an increasingly influential component of a company's reputation.	We have an opportunity to articulate our solutions-oriented approach to material ESG issues, to support continued access to the best customers, team members, partners and capital providers.	Although we believe we conduct our operations in a prudent manner and take care in protecting our reputation, we ultimately do not have direct control over how we are perceived by others. Reputation loss may result in decreased access to and/or higher cost capital and insurance coverage, decreased investor confidence, challenges with team member retention and talent attraction, an impediment to our overall ability to advance our projects, obtain permits, or increased challenges in maintaining our social license to operate, which could have an adverse impact on our results of operations and financial condition.	<ul style="list-style-type: none"><li>– In our role as the industry leader, we are working to demonstrate our commitment to provide solutions to our customers while creating value for shareholders and society.</li><li>– Read about our work in the following areas:<ul style="list-style-type: none"><li>– <a href="#">CO<sub>2</sub> Emissions Management Leadership Team</a></li><li>– <a href="#">Transition to a Low-carbon Economy Leadership Team</a></li><li>– <a href="#">Sustainability commitments</a></li><li>– <a href="#">Our approach to sustainability</a></li></ul></li></ul>



CLIMATE-RELATED PHYSICAL RISKS

The physical impacts of climate change pose a number of potential risks that may negatively impact our operations, suppliers or customers. We focus on acute physical risks, recognizing that chronic risks such as temperature change could exacerbate the impact of such risks.

RISK	RISK MITIGATION
<p><b>Water scarcity</b></p> <p>The conversion of water into steam is an essential step in the methanol production process. Fresh water shortages could restrict the amount of methanol we produce. Four of our six manufacturing sites use fresh water, and two sites use desalinated water in the methanol production process. Water shortages at sites without desalination units may have the impact of restricting methanol production. To better understand water risks, we have assessed our water sources using the World Resources Institute's Aqueduct Water Risk Atlas. In 2022, the portion of our water withdrawn from areas with high or extremely high-water stress baseline was 4 per cent of our total water withdrawal.</p>	<ul style="list-style-type: none"><li>– We desalinate seawater to produce methanol in Trinidad and Chile, reducing our reliance on fresh and municipal water sources which can be impacted by drought.</li><li>– We maintain our focus on water optimization at all sites through our water stewardship program.</li></ul>
<p><b>Changing sea or river levels</b></p> <p>We primarily transport methanol on vessels, shipping our product from our production sites to customers around the world. We have, at times, experienced logistics delays in our supply chain due to high and low river levels when we are exporting methanol from a production site or delivering methanol by vessel or barge to customers. High or low river levels could also negatively affect our operating capacity.</p>	<ul style="list-style-type: none"><li>– Our resilient supply chain has allowed us to keep our customers supplied in even the most challenging scenarios. Our purchasing agreements and our relationships with other methanol producers allow us to exchange product where needed to meet our commitments with our customers even during supply chain interruptions.</li></ul>
<p><b>Changing storm patterns/intensities and extreme weather events</b></p> <p>More severe and frequent storms and weather events could negatively impact our operating capacity and supply chain. Specifically, tropical storms could impact our plants in Geismar and Trinidad, while our Medicine Hat site has also experienced storms and flooding in the past. Other extreme weather events can impact rail or marine shipping transportation.</p>	<ul style="list-style-type: none"><li>– As part of our business continuity standard plans, we have integrated processes to respond to extreme weather events.</li></ul>



Methanex’s Cajun Sun on the Mississippi River.

# Ethics and Anti-corruption



**PERFORMANCE GOALS**  
All marketing and logistics regions receive antitrust training annually.  
  
All employees and Methanex board members complete ethics/Code of Business Conduct and Respectful Workplace Training annually.

Ethical behaviour is essential for building trusting relationships with stakeholders, protecting our reputation, and reducing our legal and financial risk. Our culture is centred around ethical and honest behaviour, which is reinforced through our corporate policies, regular training, and an effective compliance program.

99% of our team members completed Code of Business Conduct and Respectful Workplace e-learning modules.

## 1. SETTING EXPECTATIONS AND PROVIDING TRAINING

**Code of Business Conduct**  
Our Code of Business Conduct (Code) outlines our expectations for ethical behaviour and reinforces our core values of trust, respect, integrity, and professionalism. All team members, including Methanex board members, are required to annually complete a Code e-learning module as part of our Annual Values Refresher, including a short test to ensure they understood the content. 99 per cent of our team members completed the Code e-learning module in 2022. All senior leaders are required to acknowledge their responsibility to communicate expectations in the Code to team members under their supervision. New team members must review and acknowledge the Code as part of our hiring and onboarding process.

**Respectful Workplace Learning Module (including our Anti-Harassment Standard)**  
Our Anti-Harassment Standard outlines our commitment to providing a workplace that is free from all forms of harassment and includes our processes for investigating and responding to allegations of harassment. All team members, including our directors, ELT and other senior leaders, are required to annually complete our Respectful Workplace e-learning module as part of our Annual Values Refresher to ensure they are aware of and understand their responsibilities under the Standard. Similar to the Code e-learning module, there is a short test at the end to ensure the content has been understood. In 2022, 99 per cent of our team members completed the Respectful Workplace e-learning module.

**Corrupt Payments Prevention Policy**  
At Methanex, we do not tolerate bribery or corruption and we are committed to acting professionally, honourably and with integrity in all business dealings and relationships.

Our Corrupt Payments Prevention Policy prohibits the negotiation, payment, or receipt of bribes, facilitation payments or kickbacks by employees, contractors, or agents acting on our behalf.

To address risks around facilitation payments in international shipping, we contractually prohibit our ship management companies (who operate the vessels that Waterfront Shipping charters) from accepting or offering facilitation payments in their charter contracts with us. Our Corrupt Payments Prevention Policy also includes guidance for third-party gifts and entertainment expenditures to ensure a gift would not be viewed as a bribe, facilitation payment or kickback. Our Corporate Gifts and Entertainment Policy provides additional detail around the appropriateness of gifts and entertainment that team members may be offered or accept. Training on the Corrupt Payment Prevention Policy occurs every two years for specific team members, including senior leaders, who interact with government officials. Our legal department provided this training at all our manufacturing sites and M&L regions in 2022.



**Confidential Information and Trading in Securities Policy**

This policy provides guidelines to team members with respect to the treatment of confidential information and advises insiders as to when they may trade in Methanex shares. This policy also prohibits insiders, including all Methanex’s executive officers and directors, from purchasing financial instruments designed to hedge or offset a decrease in the market value of our common shares or equity-based incentive awards that they hold. Insiders are also prohibited from short selling the company’s securities, trading in put-or-call options on the company’s securities or entering into equity monetization arrangements related to the company’s securities. Team members regularly receive either web-based or in-person compliance training that focuses on ethical business conduct, including the foregoing policy. In addition, employees and directors who are considered “insiders” under Canadian securities laws have been provided with training concerning their obligations and responsibilities under Canadian securities laws.

**2. ASSESSING RISKS**

Each year, as part of the planning process for our Sarbanes-Oxley (SOX) compliance testing, our internal audit team conducts a global fraud risk assessment. The team evaluates fraud risks and determines if the organization has controls in place to address these risks and if additional testing is required. In particular, this assessment considers different fraud-related risks such as kickbacks, theft (e.g., misappropriation of inventory, petty cash, false expense claims, equipment theft, securities fraud, creation of fictitious vendors), illegal payments/inappropriate gifts, securities fraud and conflicts of interest. In 2022, internal controls testing, based on risk assessment and materiality, was completed for all sites and regions.

**3. REPORTING VIA OUR ETHICS HOTLINE**

Team members must report any conduct or proposed conduct that they reasonably believe to be a violation of the Code. They can do so through their supervisor, human resources, our legal department or the confidential whistleblower Ethics Hotline. The hotline is available through our intranet, our company website or by phone. Team members who report Code violations in good faith will not be disciplined, demoted, fired, threatened, harassed or discriminated against in any way.



We take allegations regarding breaches of the Code very seriously and all reports of Code violations received through the Ethics Hotline are investigated by Methanex’s General Counsel and forwarded to appropriate members of management for follow-up. In the case of an alleged violation by an executive officer or director, the Chair and/or CEO and the Board of Directors are responsible for determining whether a violation has occurred and, if so, what disciplinary measures are appropriate. Reported violations of the Code are handled promptly, professionally and with as much confidentiality as possible.

Concerns regarding financial or accounting-related matters are immediately reported to the Chair of the Audit, Finance and Risk Committee. Together with the General Counsel, they determine how best to investigate the reported concerns. In addition, management annually provides the Corporate Governance Committee with a report that reviews compliance with the Code and employee awareness of the Ethics Hotline for the Committee to satisfy itself that management has created a culture of integrity throughout the organization.

# Anti-competition

As the leader in the global methanol industry, we believe it is critically important for our team members to be able to identify what is considered anti-competitive behaviour and to know how to prevent or respond to anti-competitive behaviour, real or perceived, that they may encounter. As a global company we have many different relationships with third parties—including customers, distributors, gas suppliers and competitors—with whom we have methanol “swap” agreements or from whom we purchase methanol. We also have memberships in industry associations, such as the Methanol Institute.

In all our relationships, we abide by the principles of fair competition and comply with all applicable antitrust and competition laws. In addition to highlighting the importance of fair dealing with third parties and compliance with competition laws in our Code, we have a Competition Law Policy.



This policy outlines prohibited anti-competitive behaviours with competitors, customers or other third parties, as well as behaviours and practices to avoid inadvertent or perceived anti-competitive behaviour.

Our legal department regularly provides training (often with the support of external legal counsel) to team members who may encounter competitors through commercial negotiations, transactions or industry associations. All our marketing and logistics offices and global supply chain team received competition law training in 2022.

# Tax Transparency

Through our business activities, we contribute to local economies through employment, the purchase of goods and services, tax payments and community investments.

In accordance with our Tax Governance Guidelines, we ensure our tax procedures and interactions are compliant, co-operative, transparent and ethical. We undertake tax planning in accordance with applicable local laws and international transfer pricing standards such as the Organisation for Economic Co-operation and Development guidelines, with the goal of supporting the development of Methanex’s business in a way that reflects our legal obligations and our commitments to our team members, our shareholders and the communities in which we operate. Our financial statements and [Annual Report – MD&A](#) provide detailed information on income taxes.



# Responsible Procurement

Maintaining an ethical and responsible approach to our procurement processes helps us uphold our company standards for social and labour practices, and builds resilience to events that are environmental, political or disruptive in nature. The majority of our procurement budget is used to purchase natural gas and other feedstocks, followed by the procurement of services such as transportation for our product and labour, including contractors. We seek to work with suppliers and contractors that align with Methanex’s values and responsible practices.

## NATURAL GAS PROCUREMENT

Regional supply and demand of natural gas, the feedstock we use to manufacture methanol, can change over time. In the event of a supply shortfall in any region, our goal is to work with local authorities to ensure basic population needs are met while ensuring we are treated fairly alongside other industrial natural gas users in the region.

In 2022, the timing of a turnaround in Egypt enabled an agreement to redirect and sell the plant’s contracted natural gas for three months, utilizing excess capacity in Egypt to serve energy demand in Europe. For further details on the security of natural gas for our operations, please see our [Annual Report](#).

## CONTRACTOR AND DISTRIBUTOR SELECTION

A contractor’s environmental, health and safety performance is an important consideration during the vendor qualification and selection process. For details on how we select responsible carriers, terminals and contractors, see [Transportation Safety \(page 64\)](#), and [Contractor Management \(page 40\)](#).

Approximately 30 per cent of the methanol we produce is sold to distributors for transport and sale to the end consumer. In 2022, we consolidated our existing regional distributor standards into a global Distributor Responsible Care Standard. The standard helps distributors align their handling practices with Responsible Care and Methanex’s product stewardship principles. For details, see [Product Safety, page 63](#).

## SUPPLIER DIVERSITY PROGRAM AT GEISMAR


In 2022, the procurement department at our Geismar site began developing a program to encourage and support procurement opportunities for under-represented communities.

This multi-year program will promote internal and external engagement to build awareness and facilitate opportunities for qualified diverse suppliers

to participate in bids. Diverse suppliers refer to suppliers or vendors in our supply chain that are historically under-used and owned by people who identify with various communities, including minorities, women, veterans, disabled, and LGBTQ+.



# Cybersecurity



**PERFORMANCE GOAL**  
All employees complete cybersecurity training annually.

**Methanex focuses on resilience against cyberattacks to protect our data, systems, assets and identities by using the following processes and systems:**

We protect our systems, information and physical assets through a cybersecurity system that aligns with the National Institute of Standards and Technology (NIST) Cybersecurity Framework. The system is internally reviewed on an annual basis and assessed by an independent third party every three years. The most recent independent review was conducted in 2019. Another external assessment is scheduled for 2023.

**SECURING OUR SYSTEMS**

– **Critical assets in separate networks:** Our network is divided into zones to ensure our critical systems and assets are protected from malware and malicious actors. Each zone is classified based on its critical function with security controls or rules to manage access and traffic flow. We protect our most critical zones, such as our plant systems, from the Internet and our corporate network.

- **Internal risk assessment:** We work with our business units to conduct cybersecurity reviews of emerging threats, cyber process hazard assessments at our manufacturing sites, and threat modelling to simulate potential threats. The results inform changes to make our business processes more resilient.
- **Supplier risk assessment:** While Methanex has invested significant time and resources into protecting our own systems and plants against cybersecurity threats, we could be vulnerable to attacks on key vendors that provide services and materials required for our business continuity. Building on our 2021 cyber risk assessment with select suppliers, we are working with our procurement team to embed cyber risk reviews and cybersecurity provisions into the contracting process for non-IT-related contracts (e.g., natural gas vendors, turnaround contractors). All new IT vendors are assessed for cybersecurity risk.
- **New technologies:** In 2022, we implemented an Artificial Intelligence system that continuously searches our system for anomalies and alerts our IT team to any suspicious activity. The team reviews the activity and, if necessary, elevates the alert. If the pilot is successful, we will broaden its use.

**EQUIPPING OUR PEOPLE**

- **Training and testing:** We provide mandatory annual cybersecurity awareness training sessions for all team members. In 2022, 100 per cent of employees and contractors completed cybersecurity training. We also provide specific training for distributed control system engineers and Finance, Human Resources and IT team members to help them manage department-specific cybersecurity and data privacy risks. We regularly test all team members’ cybersecurity awareness through phishing campaigns. The results inform our annual cybersecurity training strategy.
- **Awareness campaigns:** We provide information to make team members aware of their critical role in preventing unauthorized access to our network. The Cybersecurity team publishes a quarterly cybersecurity blog to reinforce the importance of cyber awareness, highlight digital best practices, and direct employees to resources. On our intranet, we provide a list of best practices to prevent common attacks such as phishing scams and social engineering. We also hold awareness events such as International Cybersecurity Awareness Month and International Privacy Awareness Day.

- **Tabletop exercises:** In June 2022, we completed a corporate-level ransomware response exercise with senior leadership participation. During this four-hour simulation, our Corporate Crisis Management Team responded to scenarios in real-time. The exercise was the second in a series intended to evolve our incident response and continually improve our organizational preparedness. Notable outcomes from the exercise include additional clarity around individual and team accountability and the retainment of an external expert to help prepare for and respond to cyberattacks. Two additional tabletop exercises with our IT team are planned for early 2023.



# Appendices

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From high tech to the everyday, methanol is used to make thousands of items ranging from fleece jackets and backpacks to wind turbines and solar panels.

# Methanol is Essential for Everyday Life

**TEXTILE PRINTING AND DYES**

Methanol is used to make a derivative used in large quantities for textile printing and dyes.

**WIND TURBINES**

Methanol is used to manufacture components for wind turbines.

~2.6 billion

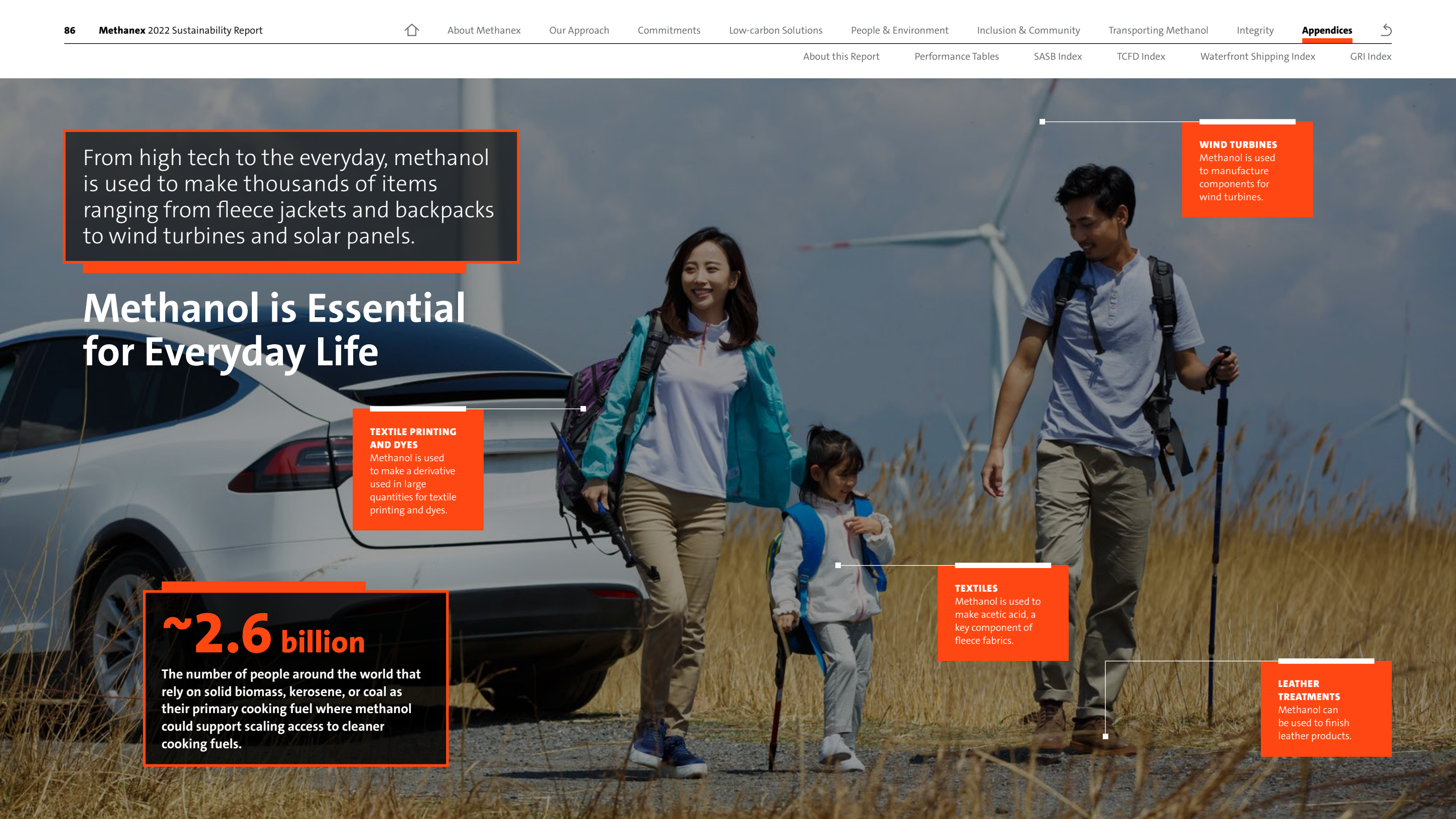
The number of people around the world that rely on solid biomass, kerosene, or coal as their primary cooking fuel where methanol could support scaling access to cleaner cooking fuels.

**TEXTILES**

Methanol is used to make acetic acid, a key component of fleece fabrics.

**LEATHER TREATMENTS**

Methanol can be used to finish leather products.





# About this Report

**This report provides our stakeholders with information about how Methanex manages environmental, social and governance (ESG) matters, and how our business and product contribute value to stakeholders and society. By managing our risks, capitalizing on opportunities and conducting our operations in an environmentally and socially responsible manner, we create long-term value, protect our reputation, enhance our resilience and contribute to the sustainability of our business.**

We cross-reference our disclosures against the following recognized reporting frameworks:

- Sustainability Accounting Standards Board (SASB) for the chemical and marine transportation sectors (Indices on [pages 93](#) and [94](#))
- Task Force on Climate-related Financial Disclosures (TCFD) (Index on [page 95](#))
- Global Reporting Initiative (GRI) (Index on [pages 96-97](#))

## REPORTING SCOPE

- The terms “Methanex”, “our”, “we”, “us”, “the company”, and “the organization” refer to Methanex Corporation and its subsidiaries as a whole.
- This report covers information related to our subsidiary Waterfront Shipping. Metrics for Waterfront Shipping are provided separately on [page 92](#), with a qualitative discussion on [pages 22](#) and [27](#) (emissions performance), [pages 65-66](#) (safety) and [page 67](#) (minimizing environmental impact).
- We account for our GHG emissions for our methanol manufacturing business based on financial ownership (equity). Therefore, we include 50 per cent of the emissions from our Damietta plant in Egypt and 63.1 per cent from our Atlas plant in Trinidad.
- We report shipping-related emissions using two methods: operational control and financial ownership. For operational control, we include 100 per cent of the GHG emissions associated with the 30 vessels in the fleet, regardless of financial ownership. For financial ownership, we include the GHG emissions related to Waterfront Shipping’s equity ownership in 5 vessels (60 per cent equity in 50 per cent interest in each vessel).
- This report describes initiatives related to our material sustainability topics and supporting metrics for the year ended December 31, 2022 (unless otherwise specified). When available, additional years of historical data are provided for reference.
- Financial data is in U.S. dollars (unless otherwise specified) and environmental data is in metric units.
- Safety data includes Methanex employees and contractors.
- Senior management and relevant employees have reviewed the information in this report and believe it is an accurate representation of our performance. Metrics included in this report have not been externally assured.
- The terms “sustainability” and “ESG” are used interchangeably in this report.

DECIDING WHAT TO REPORT

Material sustainability topics are ESG topics that can significantly impact our business success and are of interest to our key stakeholders. We identified the most relevant material topics for our business and stakeholders during our 2020 internal materiality assessment, sourcing topics from recognized reporting frameworks (GRI, SASB) and chemical industry peers. Subject matter experts within Methanex provided stakeholder perspectives during the discussion and rating of each topic. Stakeholders we considered included investors, customers, team members, communities, governments, regulators and supply chain partners. The results were reviewed and approved by our Executive Leadership Team.

We recognize material sustainability topics are not static and consider the influence of evolving stakeholder expectations and the changing business environment in developing our programs and efforts around these topics. For example, we regularly have conversations with our shareholders to understand the ESG topics they have prioritized and are proactively working to ensure we will meet anticipated new securities disclosure requirements.

Our current list of material topics is outlined in Figure 8 and covered in this report. We plan on completing a new materiality assessment in 2023 that will include external stakeholder outreach. To learn more about how we identify and manage our climate-related risks, see the TCFD Index ([page 95](#)).

FIGURE 8 – MATERIAL TOPICS AND OTHER REPORTING TOPICS IN THIS REPORT

REPORTING FOCUS AREA	MATERIAL TOPICS	OTHER REPORTING TOPICS
Throughout the Report	– Societal Benefits of Methanol	
Advancing Solutions for a Low-carbon Future	– Transition to a Low-carbon Economy – GHG Emissions	
Protecting People and the Environment	– Employee and Contractor Safety – Process Safety – Water	– Crisis Management and Emergency Preparedness – Air Quality – Spills and Releases – Occupational Hygiene – Waste
Fostering Inclusion and Community Connection	– Diversity & Inclusion	– Communities and Indigenous Rights – People Practices
Operating with Integrity	– Corporate Governance – Governance for sustainability – Ethics and anti-corruption – Cybersecurity – Tax Transparency – Anti-competition	– Responsible Procurement (including natural gas) – Risk management
Transporting Methanol Safely and Responsibly		– Transportation Safety (including Waterfront Shipping) – Ecological Impacts of Shipping – Product Safety



# Performance Table – Manufacturing

EXCLUDES WATERFRONT SHIPPING

OPERATIONS	UNIT	2018	2019	2020	2021	2022
Manufacturing						
Methanol produced (total tonnes)	tonnes	8,401,087	8,579,766	7,666,550	7,775,484	7,077,623
Methanol produced (equity share)	tonnes	7,211,000	7,589,000	6,613,578	6,514,388	6,118,454
ENVIRONMENT						
GHG emissions (equity share)						
Direct GHG emissions (Scope 1) <sup>1</sup>	tonnes CO <sub>2</sub> e	4,094,000	4,714,000	4,008,000	3,920,000	3,840,000
Energy indirect GHG emissions (Scope 2)	tonnes CO <sub>2</sub> e	207,000	162,000	140,000	145,000	154,000
Total GHG emissions	tonnes CO <sub>2</sub> e	4,301,000	4,872,000	4,148,000	4,065,000	3,994,000
Intensity (Scope 1)	tonnes CO <sub>2</sub> e/tonnes methanol	0.57	0.62	0.61	0.60	0.63
Intensity (Scope 1 + Scope 2) <sup>2</sup>	tonnes CO <sub>2</sub> e/tonnes methanol	0.60	0.64	0.63	0.62	0.65
Energy use						
Total energy consumed from natural gas (excluding electricity)	GJ	318,900,000	329,100,000	293,100,000	290,100,000	269,400,000
Total electricity use	MWh	463,900	454,500	465,200	447,700	436,000
Total self-generated electricity	MWh	140,400	127,400	142,300	142,400	130,200
Self-generated electricity – non-renewable	MWh	140,400	127,400	142,300	142,400	130,200
Self-generated electricity – renewable	MWh	0	0	0	0	0
Total purchased electricity	MWh	323,500	327,100	323,000	305,300	305,900
Purchased electricity – non-renewable	MWh	281,700	272,100	262,600	246,600	252,800
Purchased electricity – renewable	MWh	41,700	55,000	60,400	58,600	53,100
Air emissions						
NO <sub>x</sub> (excluding N <sub>2</sub> O)	tonnes	6,922	7,051	7,157	5,838	5,923
VOCs	tonnes	4,253	3,315	2,807	3,779	3,246
SO <sub>x</sub>	tonnes	37	40	24	22	21

Includes performance metrics and historical trends for environmental, social, and governance topics.

ENVIRONMENT CONTINUED	UNIT	2018	2019	2020	2021	2022
Water protection and water use						
Water consumption – GRI <sup>3</sup>	m <sup>3</sup>	NR	NR	NR	23,310,000	21,580,000
Fresh water consumption <sup>4</sup>	m <sup>3</sup>	14,740,000	14,300,000	14,220,000	14,580,000	13,750,000
Seawater consumption	m <sup>3</sup>	NR	NR	NR	8,740,000	7,830,000
Water withdrawal (by source) <sup>5</sup>	m <sup>3</sup>	18,510,000	18,210,000	115,220,000	114,800,000	96,100,000
Non-fresh (seawater, saline, grey water)	m <sup>3</sup>	NR	NR	96,700,000	96,650,000	78,860,000
Rivers, creeks, etc	m <sup>3</sup>	12,190,000	11,710,000	11,640,000	11,120,000	10,310,000
Purchased	m <sup>3</sup>	4,680,000	4,760,000	4,850,000	4,490,000	4,540,000
Municipal system	m <sup>3</sup>	1,640,000	1,750,000	2,040,000	2,540,000	2,390,000
Ground water (aquifer)	m <sup>3</sup>	0	0	0	0	0
Total water discharge (by destination)	m <sup>3</sup>	3,770,000	3,920,000	93,070,000	91,490,000	74,520,000
Water returned to sea	m <sup>3</sup>	NR	NR	92,050,000	90,220,000	73,090,000
Water discharged to rivers, creeks, etc.	m <sup>3</sup>	690,000	680,000	610,000	820,000	1,010,000
Water disposed to municipal systems	m <sup>3</sup>	450,000	450,000	400,000	450,000	420,000
Water disposed via third parties (for treatment)	m <sup>3</sup>	NR	NR	1,365	943	4,976
Number of incidents of non-compliance associated with water quality permits and regulations	count	0	0	0	0	0
Fresh water intensity (fresh water consumption/tonnes methanol)*	m <sup>3</sup> water/tonnes methanol	2.68	2.75	2.54	2.24	2.25

NR = Not reported

<sup>1</sup> We report our GHG emissions in alignment with the ISO 14064-1 Quantification and Reporting of GHG emissions standard. The number for the year 2018 uses a different methodology and is not comparable to the subsequent years.

<sup>2</sup> Our GHG intensity changed slightly due to a change in production volumes from our plants and several unplanned plant outages, in addition to two planned turnarounds in New Zealand and Egypt.

<sup>3</sup> We report water consumption (defined as water withdrawn minus water discharged) in alignment with the GRI Standards. Data for 2021 has been restated since the publication of our 2021 sustainability report to include desalinated water as fresh water.

<sup>4</sup> Fresh water calculations changed in 2022 to align with the definition of fresh water consumption in the GRI Standards. Calculation now accounts for Trinidad’s purchased desalinated water as fresh water. The new methodology has been reapplied to 2020 and 2021 for comparability.

<sup>5</sup> The numbers for 2018 and 2019 exclude seawater and are therefore not comparable.

ENVIRONMENT CONTINUED	UNIT	2018	2019	2020	2021	2022
Spills						
Methanol spill (serious)	count	0	0	0	0	0
Methanol spill (major)	count	0	0	0	0	0
Other spill – petroleum products or treatment chemicals (serious)	count	0	0	0	0	0
Other spill – petroleum products or treatment chemicals (major)	count	0	0	0	0	0
Waste						
Hazardous waste (excluding capital projects)						
Total generated	tonnes	372	342	790	985	1,436
Sent for disposal	tonnes	362	263	102	549	708
Sent to recycling	tonnes	10	79	687	436	728
Non-hazardous waste (excluding capital projects)						
Total generated including special waste	tonnes	2,513	4,426	4,493	2,578	2,608
Sent for disposal	tonnes	1,803	2,974	3,302	2,233	2,249
Sent to recycling	tonnes	710	1,453	1,190	345	359
Non-hazardous waste recycled (per cent of total waste disposed)	per cent	39	49	26	13	14
Hazardous waste recycled (per cent of total waste disposed)	per cent	3	23	87	44	51
SOCIAL	UNIT	2018	2019	2020	2021	2022
Safety						
Employee and contractor safety						
Recordable injury frequency rate, employees	injuries per 200k hours	0.48	0.07	0.34	0.08	0.38
Recordable injury frequency rate, contractors	injuries per 200k hours	1.37	0.41	0.52	0.34	0.23
Recordable injury frequency rate, combined	injuries per 200k hours	1.02	0.27	0.44	0.22	0.28

SOCIAL CONTINUED	UNIT	2018	2019	2020	2021	2022
RIFR 5-year rolling average, combined	injuries per 200k hours	NR	NR	0.57	0.52	0.45
Recordable injury frequency rate, employees (excluding major capital projects) <sup>6</sup>	injuries per 200k hours	0.48	0.07	0.35	0.08	0.39
Recordable injury frequency rate, contractors (excluding major capital projects)	injuries per 200k hours	1.39	0.44	0.60	0.42	0.30
Recordable injury frequency rate, combined (excluding major capital projects)	injuries per 200k hours	1.03	0.29	0.48	0.25	0.34
RIFR 5-year rolling average, combined (non major capital)	injuries per 200k hours	NR	NR	0.58	0.54	0.48
Days away from work rate, employees	injuries per 200k hours	0.10	0.00	0.14	0.00	0.15
Days away from work rate, contractors	injuries per 200k hours	0.50	0.21	0.21	0.34	0.10
Days away from work rate, combined	injuries per 200k hours	0.34	0.14	0.18	0.18	0.12
Fatalities, employees	count	0	0	0	0	0
Fatalities, contractors	count	0	0	0	0	0
Leading indicators						
Near misses	count	NR	NR	982	669	1,183
Hazard identification	count	NR	NR	2143	4,521	7,348
Behaviour-based safety observations <sup>7</sup>	count	NR	NR	9843	11,214	84,410
Process safety rates						
Process Safety Total Incident Rate (PSTIR) <sup>8</sup>	incidents/200k hours	0.03	0.03	0.03	0.04	0.03
Process Safety Incident Severity Rate (PSISR) <sup>9</sup>	incidents/200k hours	0.03	0.26	0.03	0.04	0.03

<sup>6</sup> This injury rate excludes worked hours in major capital projects to provide better comparability year over year.

<sup>7</sup> The number is based on cards submitted by contractors. This number includes major projects and the high number in 2022 is driven by the full restart of G3 construction in 2021.

<sup>8</sup> Worked hours for PSTIR include hours worked by employees, contractors and subcontractors, but exclude hours associated with major construction projects.

<sup>9</sup> Process Safety Incident Severity Rate (PSISR is calculated using the American Petroleum Institute (API) recommended practice 754 from 2016. This aligns with SASB recommendations.



SOCIAL CONTINUED	UNIT	2018	2019	2020	2021	2022
Process safety						
Process Safety Incidents Count (PSIC) Tier 1	number of incidents	1	1	1	1	1
Product safety						
Percentage of products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances	per cent	NR	NR	100	100	100
Percentage of such products (above) that have undergone a hazard assessment	per cent	NR	NR	100	100	100
Transportation safety						
Number of reportable transport incidents	count	NR	NR	0	0	0
Non Accidental Release NARS (for rail transportation)	count	NR	NR	0	0	0
Methanex indicators						
Terminal audits (level I, II and III)	count	NR	NR	36	107	115
Responsible Care seminars held <sup>10</sup>	count	NR	NR	35	45	30
Responsible Care seminar attendees	# individuals	NR	NR	798	835	931
Organizations reached	# organizations	NR	NR	144	167	192
Human resources (Includes Waterfront Shipping)						
Employee numbers						
Total number of employees	count	1,426	1,544	1,489	1,300	1,410
Full-time	count	1,390	1,512	1,464	1,268	1,372
Part-time	count	36	32	25	32	38
Employees by location						
North America	per cent	36	36	36	38	40
South America	per cent	25	27	27	24	24

<sup>10</sup> Higher number of seminars in 2020 and 2021 due to our ability to host online seminars. In 2022, we resumed in-person events. The number in 2022 is close to our desired number of events.

SOCIAL CONTINUED	UNIT	2018	2019	2020	2021	2022
Europe	per cent	3	2	2	3	3
Oceania	per cent	21	19	19	19	18
Africa	per cent	11	11	11	11	10
Asia	per cent	5	5	5	6	6
Diversity						
Percentage of women						
Total workforce	per cent	28	29	28	28	28
Managers	per cent	34	36	34	32	29
Senior Leaders	per cent	16	16	17	14	15
Executive Leaders	per cent	17	17	17	17	17
Independent Board members	per cent	30	36	45	40	50
Employee age categories						
30 Years and under	per cent	15	15	12	11	11
30 to 50	per cent	64	64	66	66	65
50 Plus	per cent	21	21	22	23	24
Length of employee service <sup>11</sup>						
< 5 yr	per cent	48	47	42	42	45
5-10 yrs	per cent	29	29	32	32	30
11-20 yrs	per cent	14	15	16	17	15
20+ yrs	per cent	9	9	10	9	10
Retention						
Turnover rate, voluntary and involuntary	per cent	7.3	7.2	7.5	19.8	10.0
Turnover rate, voluntary	per cent	4.6	5.3	3.6	6.5	8.6

<sup>11</sup> Data for 2018-2021 has been restated since the publication of our 2021 sustainability report due to an error in the calculation of the percentages.

SOCIAL CONTINUED	UNIT	2018	2019	2020	2021	2022
Communities						
Community investment (Includes Waterfront Shipping)						
Community investment	USD	1,112,679	1,467,193	1,740,149	1,287,681	1,315,412
Other community-related metrics						
Community volunteering	hours	NR	NR	2,383	4,240	4,305
Beneficiaries (organizations receiving our support)	count	302	304	310	322	347
Scholarships	count	101	53	98	94	88
Community Advisory Panel (CAP) meetings <sup>12</sup>	count	23	22	16	19	21
GOVERNANCE (Includes Waterfront Shipping)						
Cybersecurity						
Employees and contractors who received mandatory cybersecurity training <sup>13</sup>	number	NR	NR	1,824	1,620	1,777
Ethics training/awareness						
Employees who received ethics training <sup>14</sup>	count	NR	NR	55	15	1,367
Number of senior leaders who acknowledged the Code of Conduct	count	NR	NR	43	42	42
Legal actions						
Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	\$	NR	NR	0	0	0
Fines or settlements paid in the fiscal year related to anti-competitive business practices	\$	NR	NR	0	0	0
Number of legal actions (completed or pending) for anti-competitive behavior, anti-trust, and monopoly practices	number	NR	NR	0	0	0

<sup>12</sup> Data for 2021 has been restated since the publication of our 2021 sustainability report due to an error in regional data collection.

<sup>13</sup> Number includes contractors with access to Methanex systems, applications, network and or email.

<sup>14</sup> Starting in 2022, this metric includes all employees not just new employees.

## Performance Table – Waterfront Shipping

INDICATOR	UNIT	2018	2019	2020	2021	2022
Operations						
Total distance traveled by vessels	nautical miles	NR	NR	2,050,638	1,816,325	1,694,327
Operating days	days	NR	NR	10,550	10,048	10,285
Deadweight tonnage	thousand deadweight tons	NR	NR	1,256	1,220	1,375
Number of vessels in total shipping fleet	Count	NR	NR	29	28	30
Number of vessel port calls	Count	NR	NR	1,152	1,196	1,155
GHG emissions (operational control) <sup>1</sup>						
Direct GHG emissions (scope 1) – operational control	tonnes CO <sub>2</sub>	625,314	678,154	622,866	550,200	523,536
Emissions intensity (marine transportation) – operational control <sup>2</sup>	kg of CO <sub>2</sub> /tonne of cargo shipped	74.7	75.1	74.5	70.9	67.7
GHG emissions (equity share) <sup>1,3</sup>						
Direct GHG emissions (Scope 1) – equity share <sup>4</sup>	tonnes CO <sub>2</sub>	68,146	50,839	46,665	41,094	21,502
Emissions intensity (marine transportation) – equity share	kg of CO <sub>2</sub> /tonne of cargo shipped	72.0	63.7	68.9	63.4	53.8
Safety (Methanex indicators)						
Marine vessel safety visits		25	30	22	24	30
Marine vessel inspections (CDI-Marine)		25	31	29	29	30
Marine safety training sessions		100	118	160	160	182

NR = Not reported

<sup>1</sup> Excludes non-CO<sub>2</sub> emissions.

<sup>2</sup> The lower 2022 number mainly result from replacing older ships in the fleet with newer, more efficient ships, a shorter average distance per voyage sailed and the use of methanol as a fuel.

<sup>3</sup> We report shipping-related emissions using two methods: operational control and financial ownership. For operational control, we include 100 per cent of the GHG emissions associated with the 28 vessels in the fleet, regardless of financial ownership. For financial ownership, we include 50 per cent of the GHG emissions associated with the five vessels we own.

<sup>4</sup> In addition to changes in WFS's fleet, MOL acquired 40 per cent of Waterfront Shipping in 2022 impacting our equity share of emissions.



# SASB – Chemicals

SASB REF	SASB SUGGESTED DISCLOSURES	2022 DATA OR PAGE #
Activity metrics		
RT-CH-000.A	Methanol produced (total tonnes)	7,077,623
RT-CH-000.A	Methanol produced (equity share tonnes)	6,118,454
GHG gas emissions		
RT-CH-110a.1	Gross global Scope 1 emissions, equity share [tonnes CO <sub>2</sub> e]	3,840,000
RT-CH-110a.1	Percentage of Scope 1 emissions covered under emissions-limiting regulations	Not reported
RT-CH-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	pages 22-31
Air quality		
RT-CH-110a.3	NO <sub>x</sub> (excluding N <sub>2</sub> O) [tonnes]	5,923
RT-CH-110a.3	SO <sub>x</sub> [tonnes]	21
RT-CH-110a.3	Volatile organic compounds (VOCs) [tonnes]	3,246
RT-CH-110a.3	Hazardous air pollutants (HAPs) [tonnes]	Not reported
Energy management		
RT-CH-130a.1	Total energy consumed from natural gas (excluding electricity) [GJ]	269,400,000
RT-CH-130a.1	Total purchased electricity [MWh]	436,000
RT-CH-130a.1	Percentage renewable electricity purchased	0
RT-CH-130a.1	Self-generated electricity [MWh]	130,200
Water management		
RT-CH-140a.1	Total water withdrawn (fresh and seawater) [m <sup>3</sup> ]	96,100,000
RT-CH-140a.1	Total water consumed [m <sup>3</sup> ] <small>Note 1</small>	21,580,000
RT-CH-140a.1	Percentage water withdrawn in regions with High or Extremely High Baseline Water Stress	4
RT-CH-140a.1	Percentage water consumed in regions with High or Extremely High Baseline Water Stress	Not available
RT-CH-140a.2	Number of incidents of non-compliance associated with water quality permits, standards, and regulations	Not available
RT-CH-140a.3	Description of water management risks and discussion of strategies and practices to mitigate those risks	pages 47-48

Note 1: We report water consumption (defined as water withdrawn minus water discharged) in alignment with the GRI Standards.

SASB REF	SASB SUGGESTED DISCLOSURES	2022 DATA OR PAGE #
Hazardous waste management		
RT-CH-150a.1	Amount of hazardous waste generated [tonnes]	1,436
RT-CH-150a.1	Percentage hazardous waste recycled	51
Community relations		
RT-CH-210a.1	Discussion of engagement processes to manage risks and opportunities associated with community interests	pages 58-60
Workforce health & safety		
RT-CH-320a.1	Total recordable incident rate (TRIR) employees and contractors [incidents per 200,000 hours worked]	0.28
RT-CH-320a.1	Fatalities	0
RT-CH-320a.1	Near misses (count not rate)	1,183
RT-CH-320a.2	Description of efforts to assess, monitor, and reduce exposure of employees and contract workers to long-term (chronic) health risks	page 40
Product design for use-phase efficiency		
RT-CH-410a.1	Revenue from products designed for use-phase resource efficiency	Not reported
Safety & environmental stewardship of chemicals		
RT-CH-410b.1	Percentage of revenue from products that contain Globally Harmonized System of Classification and Labeling of Chemicals (GHS) Category 1 and 2 Health and Environmental Hazardous Substances	100
RT-CH-410b.1	Percentage of GHS 1 and 2 products that have undergone a hazard assessment	100
RT-CH-410b.2	Discussion of strategy to (1) manage chemicals of concern and (2) develop alternatives with reduced human and/or environmental impact	Not applicable
Genetically modified organisms		
RT-CH-410c.1	Percentage of products by revenue that contain genetically modified organisms (GMOs)	Not applicable
Management of the legal & regulatory environment		
RT-CH-530a.1	Discussion of corporate positions related to government regulations and/or policy proposals that address environmental and social factors affecting the industry	page 76
Operational safety, emergency preparedness & response		
RT-CH-540a.1	Process Safety Total Incident Rate (PSTIR) (incidents per 200,000 hours worked)	0.03
RT-CH-540a.1	Process Safety Incident Severity Rate (PSISR) (incidents per 200,000 hours worked)	0.03
RT-CH-540a.2	Number of transport incidents [number of incidents]	0

# SASB – Marine

SASB REF	SASB SUGGESTED DISCLOSURES	2022 DATA OR PAGE #
Activity metrics		
TR-MT-000.A	Number of shipboard employees	Does not apply
TR-MT-000.B	Total distance traveled by vessels [nautical miles]	1,694,327
TR-MT-000.C	Operating days [days]	10,285
TR-MT-000.D	Deadweight tonnage [thousand deadweight tons]	1,375
TR-MT-000.E	Number of vessels in total shipping fleet	30
TR-MT-000.F	Number of vessel port calls	1,155
TR-MT-000.G	Twenty-foot equivalent unit (TEU) capacity	Does not apply
Greenhouse gas emissions		
TR-MT-110a.1	Gross global Scope 1 emissions- operational control [tonnes CO <sub>2</sub> e]	523,536
TR-MT-110a.1	Gross global Scope 1 emissions- equity share [tonnes CO <sub>2</sub> e]	21,502
TR-MT-110a.2	Discussion of long-term and short-term strategy or plan to manage Scope 1 emissions, emissions reduction targets, and an analysis of performance against those targets	pages 22, 27
TR-MT-110a.3	Total energy consumed [GJ]	6,951,955
TR-MT-110a.3	Percentage heavy fuel oil	1
TR-MT-110a.3	Percentage renewable	0
TR-MT-110a.3	Percentage methanol as fuel	12
TR-MT-110a.4	Average Energy Efficiency Design Index (EEDI) for new ships [index]	4.27
Air quality		
TR-MT-120a.1	NO <sub>x</sub> (excluding N <sub>2</sub> O) [tonnes]	13,653
TR-MT-120a.1	SO <sub>x</sub> [tonnes]	7,959

SASB REF	SASB SUGGESTED DISCLOSURES	2022 DATA OR PAGE #
TR-MT-120a.1	Particulate matter (PM10) [tonnes]	1,098
Ecological impacts		
TR-MT-160a.1	Shipping duration in marine protected areas or areas of protected conservation status [number of travel days]	509
TR-MT-160a.2	Percentage of fleet implementing ballast water exchange	100
TR-MT-160a.2	Percentage of fleet implementing ballast water treatment	100
TR-MT-160a.3	Number of spills and releases to the environment	0
TR-MT-160a.3	Aggregate volume of spills and releases to the environment [m <sup>3</sup> ]	0
Employee health and safety		
TR-MT-320a.1.	Lost time incident rate (LTIR) [cases/200,000 worked hours]	Not reported
Business ethics		
TR-MT-510a.1.	Number of calls at ports in countries that have the 20 lowest rankings in Transparency International's Corruption Perception Index	0
TR-MT-510a.2.	Total amount of monetary losses as a result of legal proceedings associated with bribery or corruption	0
Accident & safety management		
TR-MT-540a.1	Number of marine casualties	0
TR-MT-540a.1	Percentage classified as very serious	0
TR-MT-540a.2	Number of Conditions of Class or Recommendations	4
TR-MT-540a.3	Number of port state control deficiencies	44
TR-MT-540a.3	Number of port state control detentions	0



# TCFD Index

We report in alignment with the recommendations of the Task Force on Climate-related Financial Disclosures (TCFD). Discussions of Methanex’s climate-related governance, risks, and opportunities, and our activities that contribute to transition to a low-carbon economy, can be located using the table below.

CATEGORY	DISCLOSURE	PAGE
Governance (a)	Board oversight	<a href="#">71</a> , <a href="#">Information Circular</a>
Governance (b)	Management’s role	<a href="#">72</a> , <a href="#">Information Circular</a>
Strategy (a)	Risk and opportunities	<a href="#">76-79</a>
Strategy (b)	Impact of risks and opportunities	<a href="#">76-79</a>
Strategy (c)	Resilience scenarios	NR
Risk Management (a)	Risk identification process	<a href="#">74</a>
Risk Management (b)	Risk management process	<a href="#">74</a>
Risk Management (c)	Risk integration	<a href="#">75</a>
Metrics and Targets (a)	Metrics used to measure risks/opportunities	NR
Metrics and Targets (b)	GHG emissions (Scope 1-3)	<a href="#">22</a> *
Metrics and Targets (c)	Targets and performance	<a href="#">19</a> , <a href="#">20</a>

NR = Not reported

\* Partially meets the disclosures suggested by the TCFD

# Waterfront Shipping Index

Content that describes practices related to our subsidiary Waterfront Shipping has been incorporated throughout this report and can be found in the following pages:

TOPIC	PAGE
About Waterfront Shipping	<a href="#">8</a>
GHG emissions	<a href="#">22</a> , <a href="#">27</a>
Air quality	<a href="#">67</a>
Safety	<a href="#">65-66</a>
Ecological impacts of shipping	<a href="#">67</a>
Water quality	<a href="#">67</a>
Ethics	<a href="#">80</a>

# GRI Index

This report contains general disclosures from GRI 2: General Disclosures 2021 and GRI 3: Material Topics 2021, and topic-specific disclosures from GRI Standards 2017.

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Note 1: Aligned with SASB metric “percentage of products classified as GHS level 1 and level 2 that have undergone assessments”.

# Forward-looking Statements

This report contains forward-looking statements with respect to us and our industry. These statements relate to future events or our future performance. All statements other than statements of historical fact are forward-looking statements. Statements that include the words “believe”, “expect”, “may”, “will”, “can”, “should”, “potential”, “develop”, “estimate”, “strive”, “anticipate”, “aim”, “goal”, “target”, “plan”, “predict” or other comparable terminology and similar statements of a future or forward-looking nature identify forward-looking statements. More particularly, and without limitation, any statements regarding the following are forward-looking statements: Methanex’s business strategies, plans, prospects, opportunities and its sustainability, climate change and ESG initiatives and strategies; expected demand for methanol (including for lower-carbon, carbon neutral, bio-methanol, e-methanol, or for fuel or thermal related applications, including marine fuel) and its derivatives; the ability for lower-carbon, carbon neutral, bio-methanol or e-methanol to become commercially viable; expectations around our ability to reduce CO<sub>2</sub> emissions intensity, including the availability of new technology and our ability to invest in such technology; the reliability of our plants; our expected capital expenditures; the establishment of new fuel standards, including the ability for methanol to meet such standards; the establishment of future or increased carbon taxes in the regions where we manufacture methanol and where our competitors manufacture methanol; the impacts of significant weather events; expectations regarding our ability to improve water efficiency; and expectations regarding our diversity and inclusion initiatives. All of the forward-looking statements are qualified by the assumptions that are stated or inherent in such forward-looking statements, including the assumptions referred to in the report. Although we believe that we have a reasonable basis for making such forward-looking statements, including our experience, our perception of trends, current conditions and expected future developments as well as other factors, certain material factors or assumptions were applied in drawing the conclusions or making the forecasts or projections that are included in these forward-looking statements, including, without limitation, future expectations and assumptions concerning the following: the supply of, demand for and price of methanol (including lower-carbon, carbon neutral, bio-methanol or e-methanol, or for fuel or thermal related applications, including marine fuel) and methanol derivatives; our ability to procure natural gas feedstock (or renewable gas feedstock) on commercially acceptable terms; operating rates of our facilities; the establishment of new fuel standards and methanol meeting those standards; the availability of committed credit facilities and other financing; the commercial viability of producing lower-carbon or carbon neutral methanol (including carbon, capture, utilization and storage (CCUS), bio-methanol or e-methanol technology and the capital costs thereof) and absence of a material negative impact from changes in laws or regulations, including carbon taxes.

However, forward-looking statements, by their nature, involve risks and uncertainties that could cause actual results to differ materially from those contemplated by the forward-looking statements. The risks and uncertainties primarily include those attendant with the ability to produce and market lower-carbon, carbon neutral or bio-methanol and our ability to deploy sufficient capital to fund the necessary expenditures to implement the necessary operational changes to achieve the goals, strategies and plans set out in the report, including, without limitation: conditions in the methanol and other industries including fluctuations in the demand and price for lower-carbon, or carbon neutral methanol, or for fuel or thermal related applications, including marine fuel; the ability to carry out ESG initiatives and strategies; actions of competitors, suppliers and financial institutions; our ability to obtain natural gas feedstock on commercially acceptable terms to underpin current operations; conditions within the natural gas delivery systems that may prevent delivery of our natural gas supply requirements; the availability and price of renewable natural gas feedstock; the availability and commercial viability of technology (including CCUS and electrolyzers for e-methanol) to reduce our CO<sub>2</sub> emissions intensity; actions of governments and governmental authorities, including, without limitation, implementation of policies or other measures that could impact the supply of or demand for methanol (including lower-carbon, carbon neutral bio-methanol, e-methanol, or for fuel or thermal related applications, including marine fuel) or its derivatives; changes in laws or regulations; worldwide economic conditions; the impacts of the COVID-19 pandemic; and other risks described in our 2022 Sustainability Report and our 2022 Annual Management’s Discussion and Analysis. Having in mind these and other factors, investors and other readers are cautioned not to place undue reliance on forward-looking statements. They are not a substitute for the exercise of one’s own due diligence and judgment. The outcomes implied by forward-looking statements may not occur and we do not undertake to update forward-looking statements except as required by applicable securities laws.



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