

C0. Introduction

C0.1

(C0.1) Give a general description and introduction to your organization.

Huntsman is a global, downstream, differentiated, and specialty chemicals company. For 50 years, we have been using science and ingenuity to innovate products that enable more sustainable and comfortable lives for millions of people around the world. Our more than 9,000 associates work in more than 70 manufacturing, research and development (R&D), and operations facilities in approximately 30 countries. We serve a broad and diverse range of consumer and industrial end markets, including energy and fuels, transportation, construction, clothing and footwear, food preservation, and aerospace. We operate through four divisions: Polyurethanes, Performance Products, Advanced Materials, and Textile Effects.

In 2020, we completed the sale of our chemical intermediates and surfactants businesses to Indorama Venture Holdings L.P. We also acquired Icynene-Lapolla, which nearly doubled our existing spray foam business. The combined business was rebranded to Huntsman Building Solutions, a global leader in spray polyurethane foam insulation. Huntsman also announced two significant acquisitions in our Advanced Materials division, including CVC Thermoset Specialties and Gabriel Performance Products. The acquisitions closed in May 2020 and January 2021, respectively.

Huntsman opened a new TEROL® polyols plant in Taiwan, expanding our downstream polyurethanes capabilities in the Asia Pacific region and furthering our commitment to using sustainable raw materials in our products. With recycled content of up to 60%, these polyols are an essential part of MDI-based polyurethane insulation products.

Huntsman is dedicated to addressing sustainability challenges around the globe. True to our motto "Enriching lives through innovation," and aligned with our vision for the future, we strive to develop world-class products that provide long-term societal and environmental solutions. Huntsman is a signatory to and continues to ensure our corporate policies, procedures and guidance documents align with the UN Global Compact, is committed to the United Nations Sustainable Development Goals, and is committed to Responsible Care®, the chemical industry's environmental, health, safety and security performance initiative. In February 2021, the Huntsman Board of Directors formed the Sustainability Committee, a new Board standing committee, which will have certain review and oversight responsibilities relating to sustainability, including environmental, corporate social responsibility and governance matters. The Sustainability Committee is chaired by Vice Admiral Jan E. Tighe, US Navy Retired.

Since 2010, we have published our annual Huntsman Sustainability Report to document our progress and demonstrate our commitment to sustainability. Huntsman pursues continuous improvement in our operations. Our Horizon 2025 targets provide focus across the Company and are aggressive but attainable goals we use to gauge health and safety performance. We are committed to eliminating Tier 1 process safety incidents and life-impacting injuries and fatalities. We also target 10% reductions in greenhouse gas emissions and energy consumption and 5% reductions in hazardous waste and solid waste disposal and net water usage at our facilities in water-stressed regions of the world. Our efficiency targets are measured against a 2019 baseline. We adjust this baseline for changes in our portfolio, assessment methods and boundary definitions to assure consistent progress measurement. These efficiency targets are measured on an intensity basis, as measured on a per unit of ton production. We have announced the following sustainability goals and can report the following progress as of the end of 2020:

- 6% reduction in greenhouse gas emissions
- 6% reduction in energy consumption
- 52% reduction of water use in water-stressed regions
- 5% reduction of hazardous waste
- 13% reduction of total waste

Forward-looking statements: The following disclosure to the Carbon Disclosure Project prepared by Huntsman may include forward-looking statements that are subject to risks and uncertainties, including those pertaining to the anticipated benefits to be realized from the proposals described herein. Huntsman has based these forward-looking statements on its views with respect to future events and financial performance. Actual financial performance could differ materially from that projected. Forward-looking statements represent estimates and assumptions only as of the date that they were made. The information contained in these answers is subject to change without notice and Huntsman does not undertake any duty to update the forward-looking statements, and the estimates and assumptions associated with them, except to the extent required by applicable laws and regulations.

You may find more information about Huntsman at www.huntsman.com

C0.2

(C0.2) State the start and end date of the year for which you are reporting data.

	Start date	ate End date Indicate if you are providing emissions data for past reporting		Select the number of past reporting years you will be providing emissions data for		
			years	101		
Reporting	January 1	December 31	No	<not applicable=""></not>		
year	2020	2020				

C0.3

(C0.3) Select the countries/areas for which you will be supplying data.

(· · ·) · · · · · · · · · · · · · · ·	
Argentina	
Australia	
Belgium	
Brazil	
Canada	
China	
Colombia	
Czechia	
Germany	
Guatemala	
Hungary	
India	
Indonesia	
Italy	
Malaysia	
Mexico	
Netherlands	
New Zealand	
Russian Federation	
Saudi Arabia	
Singapore	
Spain	
Switzerland	
Taiwan, Greater China	
Thailand	
Turkey	
United Arab Emirates	
United Kingdom of Great Britain and Northern Irela	Ind
United States of America	
Viet Nam	

C0.4

(C0.4) Select the currency used for all financial information disclosed throughout your response. USD

C0.5

(C0.5) Select the option that describes the reporting boundary for which climate-related impacts on your business are being reported. Note that this option should align with your chosen approach for consolidating your GHG inventory. Operational control

C-CH0.7

(C-CH0.7) Which part of the chemicals value chain does your organization operate in?

Row 1

Bulk organic chemicals Please select

Bulk inorganic chemicals

Other chemicals

Specialty chemicals

Specialty organic chemicals

Other, please specify (MDI; polyols; TPU, specialty amines; ethyleneimines; maleic anhydride; basic liquid/solid epoxy resins; specialty resin compounds; cross-linking, matting, and curing agents; epoxy; acrylic and polyurethane-based formulations; textile chemicals & dyes)

C1. Governance

C1.1

C1.1a

(C1.1a) Identify the position(s) (do not include any names) of the individual(s) on the board with responsibility for climate-related issues.

Position of individual(s)	Please explain
Chief Executive Officer (CEO)	The Chairman, President and Chief Executive Officer of Huntsman provides leadership oversight for the entire organization, including decisions made on strategy as it relates to sustainability and climate change. The CEO is responsible for discussing company strategy, plans, results, and issues with the Board and Board committees. As Chairman of the Board, the CEO ensures that topics related to sustainability and climate change are given appropriate time on meeting agendas, and that decisions made related to the Company's strategy around sustainability and climate change are brought to consensus. The CEO is responsible for ensuring carbon and climate-related issues are assigned the proper level of executive leadership oversight, in order to ensure that the importance of addressing climate-related issues is understood at the highest levels of the organization. In February 2021, the Board established a Sustainability Committee and in March 2021, the CEO formed a Sustainability Executive Committee comprised of the Company's executive officers, including the Senior Vice President of Environmental, Health, & Safety and Manufacturing Excellence and key functional leads that support sustainability policies, actions, and reporting.
Board-level committee	The Huntsman Board Sustainability Committee (herein referred to as "Committee") is responsible for assisting the Board in fulfilling its review and oversight responsibilities regarding: (1) sustainability environmental and related corporate social responsibility, and governance matters in support of the sustainable growth of the Company; (2) the Company's sustainability-related strategies, policies and practices, the implementation of which create value consistent with the long-term preservation and enhancement of shareholder value; and (3) the Company's environment, health and safety performance and systems. The Committee consists of at least three members, all of whom must be independent members of the Board. One of the members serves as the chairperson ("Chair") of the Committee. In 2021, the Committee reviewed new climate-related actions, including the expansion of greenhouse gas emissions inventory efforts to include relevant and material Scope 3 emissions, recommendations of the Taskforce for Climate-Related Financial Disclosures ("TCFD") and the 2020 Sustainability Report.

C1.1b

(C1.1b) Provide further details on the board's oversight of climate-related issues.

Frequency with which climate- related issues are a scheduled agenda item	Governance mechanisms into which climate- related issues are integrated	Scope of board- level oversight	Please explain
Scheduled – all meetings	Reviewing and guiding strategy	<not Applicabl e></not 	The Committee's responsibilities include corporate strategies, policies and practices relating to sustainability, including climate change. In consultation with senior management, the Committee shall review: (1) key sustainability policies, initiatives, and metrics established by senior management to advance Huntsman's sustainability strategies and objectives, including those related to climate change; and (2) the impact of Huntsman's business operations with respect to matters related to Sustainability, including climate-related public policy trends. The Committee, in consultation with Huntsman's senior management, reviews, advises and, where appropriate, makes recommendations to senior management and the Huntsman Board regarding investor initiatives pertaining to sustainability and other environmental and related corporate social responsibility and governance matters. The Committee assists the Huntsman Board in fulfilling its oversight responsibilities by identifying, evaluating and monitoring the sustainability trends, issues, and associated risks which could materially affect the Huntsman's business activities and reputation or otherwise impact the long-term preservation and enhancement of shareholder value, including oversight of management's strategies to mitigate such risks. The Committee reviews and reports to the Huntsman's Board regarding Huntsman's Report on sustainability notwithstanding that authority for mandatory disclosures and related policies related to sustainability and sustainability matters which remain with the Audit Committee to ensure consistency across voluntary and mandatory disclosures. The Committee has the authority to obtain advice and assistance from internal functional resources of Huntsman, including Environmental, Health and Safety, Sustainability, Investor Relations, Finance, Human Resources, Government Affairs, and Legal, and, subject to the prior approval of the Board, from external advisors. The Committee reports to the Board not less than twice each year.

C1.2

(C1.2) Provide the highest management-level position(s) or committee(s) with responsibility for climate-related issues.

Name of the position(s) and/or committee(s)	Reporting line	Responsibility	Coverage of responsibility	Frequency of reporting to the board on climate- related issues
Chief Executive Officer (CEO)	<not Applicable></not 	Both assessing and managing climate-related risks and opportunities	<not applicable=""></not>	Quarterly
Chief Sustainability Officer (CSO)	<not Applicable></not 	Both assessing and managing climate-related risks and opportunities	<not applicable=""></not>	Quarterly
Other C-Suite Officer, please specify (Executive Sustainability Committee)	<not Applicable></not 	Both assessing and managing climate-related risks and opportunities	<not applicable=""></not>	As important matters arise
Other, please specify (Sustainability Council)	<not Applicable></not 	Assessing climate-related risks and opportunities	<not applicable=""></not>	As important matters arise

C1.2a

(C1.2a) Describe where in the organizational structure this/these position(s) and/or committees lie, what their associated responsibilities are, and how climaterelated issues are monitored (do not include the names of individuals).

Huntsman's Chairman, President and CEO is ultimately responsible for reporting to the Board on climate-related risks and opportunities. The CEO leads the Executive Sustainability Committee.

Huntsman's Senior Vice President for Environmental, Health & Safety and Manufacturing Excellence serves as Huntsman's Corporate Sustainability Officer (CSO), is a member of the Executive Team and reports directly to the CEO. The CSO presents climate-related topics such as, for example, the Company's climate and sustainability goals, to the Board's Sustainability Committee. The CSO leads the Company's Sustainability Council.

The Executive Sustainability Committee comprises the executive team along with representatives from key functions, provides executive direction of the corporate sustainability program and submits regular updates to the Huntsman Board Sustainability Committee. The Executive Sustainability Committee is structured as follows:

- Chairman, President and Chief Executive Officer
- Executive Vice President and Chief Financial Officer
- Executive Vice President, General Counsel and Secretary
- Chief Executive Officer, Asia Pacific and Division President, Polyurethanes
- Division President, Textile Effects
- Division President, Advanced Materials
- Senior Vice President, Performance Products
- Senior Vice President, Environmental, Health & Safety and Manufacturing Excellence
- Senior Vice President, Global Human Resources and Chief Compliance Officer
- Vice President, Investor Relations
- Vice President, Global Communications
- Global Director, Government and Public Affairs
- Global Sustainability Director (who serves as Committee Chair)

Led by the Corporate Sustainability Officer, the Sustainability Council comprises senior representatives from the Company's divisions and key functions. The Sustainability Council directs development of the corporate sustainability program and cultivates a common framework for sustainability, ensuring strategic alignment among the

divisions, functions, and executive team. The Sustainability Council is structured as follows:

- Global Vice President, Purchasing & Logistics
- Vice President, Global Communications
- Vice President and Chief Information Officer
- Vice President, Global R&D, Performance Products
- Vice President, Innovation, Advanced Materials
- Vice President, Investor Relations
- Global Vice President, Technology & Innovation, Polyurethanes
- Vice President, Research and Technology, Textile Effects
- Vice President and Deputy General Counsel
- Global HR Director, Corporate Functions
- Global Director, Sustainability
- Director, EHS Legal Services

C1.3

(C1.3) Do you provide incentives for the management of climate-related issues, including the attainment of targets?

	Provide incentives for the management of climate-related issues	Comment
Row 1	Yes	Chief Executive's Award for Innovation and Sustainability which is awarded periodically

C1.3a

(C1.3a) Provide further details on the incentives provided for the management of climate-related issues (do not include the names of individuals).

Entitled to incentive	Type of incentive	Activity inventivized	Comment
All employees	Non-monetary reward	Emissions reduction project Energy reduction project Efficiency project Other (please specify) (Projects which contribute to sustainability)	

C2. Risks and opportunities

C2.1

(C2.1) Does your organization have a process for identifying, assessing, and responding to climate-related risks and opportunities? Yes

C2.1a

(C2.1a) How does your organization define short-, medium- and long-term time horizons?

	From (years)	To (years)	Comment
Short-term	0	2	Annual Budgeting Cycle
Medium-term	2	5	Forward Forecasting Period
Long-term	5	10	Typical Strategic Planning Cycle

C2.1b

(C2.1b) How does your organization define substantive financial or strategic impact on your business?

We define substantive financial or strategic impact in the same way we define a material impact within our financial reporting in line with SEC guidance which suggests materiality concerns the significance of an item to users of a company's financial statements. A matter is "material" if there is a substantial likelihood that a reasonable person would consider it important. Therefore, there is no specific value or percentage or earnings but rather a consideration of the impact, financial or strategic, on the valuation of the company or on our reputation.

C2.2

(C2.2) Describe your process(es) for identifying, assessing and responding to climate-related risks and opportunities.

Value chain stage(s) covered Direct operations

Upstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment Annually

Time horizon(s) covered

Short-term Medium-term Long-term

Description of process

An enterprise risk management assessment is conducted each year which risk ranks all major risks. The process is led by the corporate risk manager. For transitional risks, this includes an evaluation of the impact of current and future regulations to both our supply costs and direct operational costs, as well as an assessment of market and technology developments related to climate change. For physical risks, corporate risk manager works closely with our lead insurer who also brings an engineering-based risk assessment process to all our facilities. Collectively, we have invested in risk reduction projects and measures resulting from these assessments including climate related risk mitigation or prevention actions.

(C2.2a) Which risk types are considered in your organization's climate-related risk assessments?

	Relevance	Please explain
	& inclusion	
Current regulation	Relevant, always included	Globally, our operations are increasingly subject to regulations that seek to reduce emissions of greenhouse gases. Current regulations to limit greenhouse gas emissions in the form of both taxes and cap-and-trade schemes can impact Huntsman both directly and indirectly. Current tax and trading systems are expected to increase our cost and extend to further sectors of the economies in which these regulations operate. Direct impacts could include increases in operating expenditures due to the cost of greenhouse gas taxes and greenhouse gas taxes and greenhouse gas taxes and emission allowances on our suppliers resulting in higher costs of raw materials, electricity, steam, and transportation, among others. There are a number of current taxes and trading systems that can affect our direct operating, indirect operating, and capital expenditures for our sites, the chief systems including the European Union Emissions Trading System (UK ETS), and the China Emissions Trading System.
Emerging regulation	Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways included Relevant, aways include Increases in operating expenditures due to the additional costs of either greenhouse gas in both indirect operating expenditures and capital expenditures due to the additional costs of either greenhouse gas is proposals in the United States to fully decarbonize the electricity system by 2035. This could result in additional operating costs due to higher electricity cost in the United States to fully decarbonize the electricity system by 2035. This could result in additional operating costs due to higher electricity cost in the United States to fully decarbonize the electricity system by 2035. This could result in additional operating costs due to higher electricity cost in the United States to fully decarbonize the electricity system by 2035. This could result in additional operating costs due to higher electricity cost in the United States to fully decarbonize the electricity system by 2035. This could result in additional operating costs due to higher electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully decarbonize the electricity cost in the United States to fully dec	
Technology	Relevant, always included	Huntsman purchases petrochemical-based materials that require energy to be transformed into intermediate products which we use to build our differentiated and specialty chemicals. As customers seek lower-carbon products and shift from petrochemical materials to non-petrochemical materials, Huntsman could face a risk in sourcing raw materials. In such cases, it could be necessary to change or retrofit the existing processes for alternative raw materials, among other responses that may be required.
Legal	Relevant, always included	For Huntsman, legal risks could come in the form of litigation arising from failure to comply with greenhouse gas emission reporting requirements, or failure to comply with both greenhouse gas tax and emissions trading systems, among others.
Market	Relevant, always included	Transition to a lower carbon economy could lead to both an increase in revenue resulting from increasing demand for some of our products that enable efficiency in energy use, provide alternative pathways to lower carbon energy, or remove greenhouse gases from entering the atmosphere, among others. At the same time, a transition to a lower carbon economy could lead to a decrease in demand for some of our products that have supported technologies associated with traditional carbon energy use. Our products serve a wide variety of markets including the automotive, aerospace, building and residential, energy generation, oil and gas development, and textile industries. As an example of how a transition to a lower carbon economy can affect our business, a decrease in the growth rate in internal combustion engine automobiles could decrease demand for our resins used in fuel and lube additives, while at the same time, increase demand for our solutions used in lithium-ion batteries used in battery electric vehicles as well as grow demand for our resins used in composite materials that make cars both lighter in weight and more durable. Changes in customer preferences for products with lower life cycle greenhouse gas emissions may be a market risk. Finally, customers are increasingly demanding that suppliers provide them with estimates for the total life cycle emissions of our solutions, which may impact solution choice.
Reputation	Relevant, always included	As a global leader in the chemical industry, Huntsman is expected to act proactively on the challenges of climate change. If major investors perceive Huntsman business activities to be misaligned with the growing global momentum to act against climate change, we could face a reputational risk to the company and could experience downward pressure on our market valuation, among other potential risks. A portion of Huntsman's shares are held by institutional investors who either advocate for sustainability or encourage management of climate-related risks and opportunities. In case of a major reputational loss the market valuation of Huntsman could be impacted negatively. Moreover, there is potential risk of exclusion from thematic (climate) funds, among other investment risks.
Acute physical	Relevant, always included	Huntsman operates more than 70 sites in diverse environments in 30 countries all over the globe. Given our global span, the severity and frequency of extreme weather events require consideration in assessing risk. Examples include our Gulf Coast operations that could be subject to hurricanes, leading to increased insurance claims, higher direct operating costs, higher indirect costs, higher capital expenditures, and lower revenue due to production and supply chain disruptions, among others.
Chronic physical	Relevant, always included	Huntsman operates more than 70 sites in diverse environments in 30 countries all over the globe. Given our global span, precipitation patterns and extreme variability in weather patterns require consideration in assessing risk. Changes in precipitation patterns and extreme variability in weather patterns could lead to higher insurance claims, higher direct and indirect operating costs, higher capital expenditures, and decreased revenues due to both lower production capacity and supply chain disruptions. Examples include our sites that have been identified to operate in water stressed areas. Changes in precipitation, such a drought and flooding, could place further strain on local water sources and lead to higher operating costs for water or lower revenue due to either lower production capacity or supply chain disruptions, among other impacts.

C2.3

(C2.3) Have you identified any inherent climate-related risks with the potential to have a substantive financial or strategic impact on your business? No

C2.3b

(C2.3b) Why do you not consider your organization to be exposed to climate-related risks with the potential to have a substantive financial or strategic impact on your business?

	Primary	Please explain	
	reason		
Ro 1	w Evaluation in process	In 2021, we are further strengthening our risk and opportunity evaluation processes regarding climate-related matters as part of our deployment of the Strategy and Risk Management recommendations of the Taskforce for Climate-Related Financial Disclosures (TCFD). This will be done through a multi-disciplinary team with tight integration with our strategic plans. We will deploy climate scenarios based on the International Energy Agency for transitional risks and opportunities and Intergovernmental Panel on Climate Change (IPCC) for physical risks and opportunities. At least one of the scenarios will include a "2°C or lower" scenario. Following deployment of the recommendations, we will disclose substantial climate-related risks, if any, in our 2021 sustainability report and CDP disclosures. These will be quantitative measures, either a single figure or range for impacts.	

C2.4

(C2.4) Have you identified any climate-related opportunities with the potential to have a substantive financial or strategic impact on your business? No

C2.4b

(C2.4b) Why do you not consider your organization to have climate-related opportunities?

	Primary	Please explain
	reason	
Row	Evaluation	In 2021, we are further strengthening our risk and opportunity evaluation processes regarding climate-related matters as part of our deployment of the Strategy and Risk Management
1	in	recommendations of the Taskforce for Climate-Related Financial Disclosures (TCFD). This will be done through a multi-disciplinary team with tight integration with our strategic plans. We will
	progress	deploy climate scenarios based on the International Energy Agency for transitional risks and opportunities and Intergovernmental Panel on Climate Change (IPCC) for physical risks and
		opportunities. At least one of the scenarios will include a "2°C or lower" scenario. Following deployment of the recommendations, we will disclose substantial climate-related opportunities, if any,
		in our 2021 sustainability report and CDP disclosures. These will be quantitative measures, either a single figure or range for impacts.

C3. Business Strategy

C3.1

(C3.1) Have climate-related risks and opportunities influenced your organization's strategy and/or financial planning? Yes

C3.1b

(C3.1b) Does your organization intend to publish a low-carbon transition plan in the next two years?

	Intention to publish a low-carbon transition plan	Intention to include the transition plan as a scheduled resolution item at Annual General Meetings (AGMs)	Comment
Rov 1	v No, we do not intend to publish a low-carbon transition plan in the next two years	<not applicable=""></not>	A low-carbon transition plan has not been a scheduled resolution item at Annual General Meetings (AGM's) to date and not anticipated in the near-term (0 to 2 years).

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy? No, but we anticipate using qualitative and/or quantitative analysis in the next two years

C3.2b

(C3.2b) Why does your organization not use climate-related scenario analysis to inform its strategy?

We have recently added in-house capabilities that will enable us to conduct climate-related scenario analysis to inform our strategy. In 2021, we are further strengthening our risk and opportunity evaluation processes regarding climate-related matters as part of our deployment of the Strategy and Risk Management recommendations of the Taskforce for Climate-Related Financial Disclosures (TCFD). This will be done through a multi-disciplinary team with tight integration with our strategic plans. We will deploy climate scenarios based on the International Energy Agency for transitional risks and opportunities and Intergovernmental Panel on Climate Change (IPCC) for physical risks and opportunities. At least one of the scenarios will include a "2°C or lower" scenario. Following deployment of the recommendations, we will disclose substantial climate-related risks and opportunities, if any, in our 2021 sustainability report and CDP disclosures. These will be quantitative measures, either a single figure or range for impacts.

C3.3

(C3.3) Describe where and how climate-related risks and opportunities have influenced your strategy.

	Have climate- related risks and opportunities influenced your strategy in this area?	Description of influence
Products and services	Yes	We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when allocating resources to business development projects. One example is our Performance Products division plan to significantly increase its existing capacity for ULTRAPURE [™] Ethylene Carbonate at its Conroe, Texas facility by mid-2023. ULTRAPURE [™] Ethylene Carbonate is critical to the reliable operation and long working life of lithium-ion batteries for electric vehicles (EVs) and electronics. In recent years, Huntsman has seen strong growth in ULTRAPURE [™] Ethylene Carbonate tied to the evolution of EVs and the localization of lithium-ion battery production. To meet this increased demand, Huntsman has added a range of new high-purity grades of Ethylene Carbonate for EV battery applications.
Supply chain and/or value chain	Yes	We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when considering procurement of raw materials and equipment. One example is the increased demand by clients to understand the full-life cycle assessment in carbon for the solutions that we offer. This will require mapping our supply chain to understand our Scope 3 emissions. We have initiated a Scope 3/Life Cycle Assessment project in 2021 and expect to complete our assessments by mid-2022.
Investment in R&D	Yes	We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when allocating resources to our R&D efforts. One example is Huntsman's research and development investment into the transformation of methane into hydrogen and valuable carbon structural materials. Huntsman's technology uses methane pyrolysis to convert the incoming gas into hydrogen and a valuable form of solid carbon known as MIRALON® carbon. This carbon material can be used for structural applications in composites, as an electrical conductor and potentially as an anode material for enhanced Li-ion batteries. In parallel, the hydrogen resulting from the pyrolysis could be sold for fuel applications in the industrial and automotive markets. The technology is working at laboratory or small-scale production levels, and Huntsman is currently designing a pilot plant to demonstrate the technology at larger scale. If results continue to show promise, the company will focus on commercialization of the technology could turn a problem source of emissions into useful materials that could be widely used in applications that improve performance and reduce environmental impact.
Operations	Yes	We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when making operational decisions. Along with the risks considered in current and emerging regulation, (in C2.2a), according to the World Bank, the general trend of carbon pricing programs is on the rise, covering 22.3% of global GHG emissions in 2020. In 2019, we began reporting for the first-time metrics in accordance with the latest SASB reporting standards for the Chemical Sector. In addition to scope 1 and 2 emissions, which we have reported historically, we also calculated and disclosed in our sustainability reports the percentage covered under emissions-limiting regulations. The introduction of our Horizon 2025 targets provides focus across Huntsman for further environmental improvements within our operations. We are targeting a 10% reduction in greenhouse gas emissions (GHGS) and a similar 10% reduction in energy consumption, based on production intensity, across our operations. We plan to develop and announce science-based targets in the next two years.

C3.4

(C3.4) Describe where and how climate-related risks and opportunities have influenced your financial planning.

	Financial planning elements that have been influenced	Description of influence
Row 1	Revenues Direct costs Indirect costs	Revenues: We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when forecasting revenues. An example would be consideration of demand trends for low-carbon solutions that can affect, among others, demand for our polyurethane, amines, carbonates, epoxies, textile dyes, and textile chemicals and the impact on revenue, both in terms of solution volume and solution price. Our time frame is near-term (0-2 years) and medium term (2-5 years). Direct/Indirect Costs: We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when forecasting both direct and indirect costs. An
	Capital expenditures Capital allocation	example would be consideration of how carbon taxes and carbon trading schemes, such as the European Union Emissions Trading Scheme (EU ETS) could impact our direct operations, but also our electricity and steam imports prices, and the costs to raw materials. Our time frame is near-term (0-2 years) and medium term (2-5 years). Capital Expenditure/Capital Allocation: We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when forecasting capital expenditure. An example would be consideration of how carbon taxes and carbon trading schemes, such as the European Union Emissions Trading Scheme (EU ETS) could impact the cost of equipment for renewal
	Acquisitions and divestments	and busines development projects. We have incorporated a carbon price for testing projects requiring Board approval. Our time frame is near-term (0-2 years) and medium term (2-5 years). Acquisition and Divestment: We consider, among others, climate-related risks and opportunities, in terms of political, economic, and technological developments and trends, when evaluating acquisition and divestment opportunities. An example would be a recent acquisition opportunity greenhouse genesisions, regulatory footprint regarding greenhouse gas emissions, and additive or complementary low-carbon offerings were reviewed as part of the opportunity assessment. Our time frame is near-term (0-2 years) and medium term (2-5 years).

C3.4a

(C3.4a) Provide any additional information on how climate-related risks and opportunities have influenced your strategy and financial planning (optional).

No additional comments currently.

C4. Targets and performance

C4.1

(C4.1) Did you have an emissions target that was active in the reporting year? Intensity target

C4.1b

(C4.1b) Provide details of your emissions intensity target(s) and progress made against those target(s).

Target reference number Int 1

Year target was set

Target coverage Company-wide

Scope(s) (or Scope 3 category) Scope 1+2 (market-based)

Intensity metric Metric tons CO2e per metric ton of product

Base year 2019

Intensity figure in base year (metric tons CO2e per unit of activity) 0.235

% of total base year emissions in selected Scope(s) (or Scope 3 category) covered by this intensity figure 100

Target year 2025

Targeted reduction from base year (%)

10

Intensity figure in target year (metric tons CO2e per unit of activity) [auto-calculated] 0.2115

% change anticipated in absolute Scope 1+2 emissions 3

% change anticipated in absolute Scope 3 emissions

0

Intensity figure in reporting year (metric tons CO2e per unit of activity) 0.22

% of target achieved [auto-calculated] 63.8297872340425

Target status in reporting year Underway

Is this a science-based target? No, but we anticipate setting one in the next 2 years

Target ambition <Not Applicable>

Please explain (including target coverage)

The divestiture of our surfactants business to Indorama Ventures Holding L.P. (IVL) in 2020 changed Huntsman's emissions and energy footprint significantly. We have restated our historical figures and baselines to reflect the impact of the IVL divestiture and other portfolio changes. Moving forward, 2019 will serve as the baseline year for our Horizon 2025 targets. Each year, environmental data and emissions estimates are reviewed for changes as a part of our data validation process. As a result, figures and totals depicted in this year's disclosure may include minor updates versus data published historically. Our emissions intensity target is to reduce our combined Scope 1 and Scope 2 greenhouse gas emissions intensity 10% by 2025 as measure against a 2019 baseline. This target covers all our facilities under our operational control. As of 2020, we have delivered a reduction of 6% against a 2019 baseline. We are evaluating science-based targets for the long-term and will develop and disclose those targets in the next two years.

C4.2

(C4.2) Did you have any other climate-related targets that were active in the reporting year? No other climate-related targets

C4.3

(C4.3) Did you have emissions reduction initiatives that were active within the reporting year? Note that this can include those in the planning and/or implementation phases.

Yes

C4.3a

(C4.3a) Identify the total number of initiatives at each stage of development, and for those in the implementation stages, the estimated CO2e savings.

	Number of initiatives	Total estimated annual CO2e savings in metric tonnes CO2e (only for rows marked *)
Under investigation	1	50000
To be implemented*		
Implementation commenced*		
Implemented*	1	57209
Not to be implemented		

C4.3b

(C4.3b) Provide details on the initiatives implemented in the reporting year in the table below.

Initiative category & Initiative type

Low-carbon energy consumption

Low-carbon electricity mix

Estimated annual CO2e savings (metric tonnes CO2e)

57209

Scope(s) Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

Annual monetary savings (unit currency – as specified in C0.4)

0

Investment required (unit currency – as specified in C0.4) 15000

Payback period

No payback

Estimated lifetime of the initiative

<1 year

Comment

From 1st April 2020 to 31st December 2020, our electricity provider purchased and redeemed 100% of Huntsman Holland BV electricity consumption in the form of Guarantees of Origin for renewable electricity. The guarantees of origin are issued and controlled in accordance with EU directives and national regulations in force.

C4.3c

(C4.3c) What methods do you use to drive investment in emissions reduction activities?

Method	Comment
Compliance with regulatory requirements/standards	Huntsman complies with the regulatory requirements resulting from emission trading systems (e.g. EU, Canada). Moreover, compliance with air quality regulations can have an impact on greenhouse gas emissions and our sites comply with these regulatory requirements.
Financial optimization calculations	We use a carbon price to test our strategies and financial budgets to help identify potential transitional risks and identify the most effective emissions abatement options.
Internal price on carbon	We apply a carbon price to test the financial robustness of investments that require Board approval, and test for options to reduce emissions associated with those investments.

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products or do they enable a third party to avoid GHG emissions? Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products or that enable a third party to avoid GHG emissions.

Level of aggregation

Company-wide

Description of product/Group of products

Specific avoided emissions have been calculated for the following products: (1) polyurethane formulations for insulation in residential and commercial applications using our TEROL polyols made from both post-consumer and industrial PET waste; (2) products that enable light-weighting in the aerospace, automotive and transportation sectors - including composite resins through our advanced materials division; (3) our polyetheramines used in the production of wind turbine blades to produce renewable energy; and (4) our carbonates for lithium-ion batteries used in battery electric vehicles (BEVs).

Are these low-carbon product(s) or do they enable avoided emissions? Avoided emissions

Taxonomy, project or methodology used to classify product(s) as low-carbon or to calculate avoided emissions Climate Bonds Taxonomy

% revenue from low carbon product(s) in the reporting year

12

% of total portfolio value

<Not Applicable>

Asset classes/ product types <Not Applicable>

Comment

The examples listed and their contribution to our revenue are only a small sample of the solutions we provide to help society reduce emissions. One example is our energy and water saving dyes (Avitera) for our textiles business that help textile mills reduce both water and energy demand. Over time we will expand our analysis to include these textile dyes as well as additional Huntsman solutions.

C5. Emissions methodology

(C5.1) Provide your base year and base year emissions (Scopes 1 and 2).

Scope 1

Base year start January 1 2019

Base year end December 31 2019

Base year emissions (metric tons CO2e) 836095

Comment

The divestiture of our chemical intermediates and surfactants business to ILV in 2020 changed Huntsman's emissions and energy footprint significantly. We have restated our historical figures and baselines to reflect the impact of the IVL divestiture and other portfolio changes. Moving forward, 2019 will serve as the baseline year for our Horizon 2025 targets. Each year, environmental data and emissions estimates are reviewed for changes as a part of our data validation process. As a result, figures and totals depicted in this year's disclosure may include minor updates versus data published historically.

Scope 2 (location-based)

Base year start January 1 2019

Base year end December 31 2019

Base year emissions (metric tons CO2e)

356475

Comment

The divestiture of our chemical intermediates and surfactants business to IVL in 2020 changed Huntsman's emissions and energy footprint significantly. We have restated our historical figures and baselines to reflect the impact of the IVL divestiture and other portfolio changes. Moving forward, 2019 will serve as the baseline year for our Horizon 2025 targets. Each year, environmental data and emissions estimates are reviewed for changes as a part of our data validation process. As a result, figures and totals depicted in this year's disclosure may include minor updates versus data published historically.

Scope 2 (market-based)

Base year start January 1 2019

Base year end

December 31 2019

Base year emissions (metric tons CO2e) 356475

Comment

The divestiture of our chemical intermediates and surfactants business to IVL in 2020 changed Huntsman's emissions and energy footprint significantly. We have restated our historical figures and baselines to reflect the impact of the IVL divestiture and other portfolio changes. Moving forward, 2019 will serve as the baseline year for our Horizon 2025 targets. Each year, environmental data and emissions estimates are reviewed for changes as a part of our data validation process. As a result, figures and totals depicted in this year's disclosure may include minor updates versus data published historically. During 2019, we did not have any major renewable power purchase agreements in place.

C5.2

(C5.2) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

IPCC Guidelines for National Greenhouse Gas Inventories, 2006

The Climate Registry: General Reporting Protocol

The Greenhouse Gas Protocol: A Corporate Accounting and Reporting Standard (Revised Edition)

US EPA Mandatory Greenhouse Gas Reporting Rule

WBCSD: The Cement CO2 and Energy Protocol

Other, please specify (American Chemical Council (ACC) 2018 Energy and Efficiency Survey)

C5.2a

(C5.2a) Provide details of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

Huntsman utilizes the GHG Protocol . The GHG Protocol defines direct and indirect emissions as follows:

- Direct GHG emissions are emissions from sources that are owned or controlled by the reporting entity.
- Indirect GHG emissions are emissions that are a consequence of the activities of the reporting entity, but occur at sources owned or controlled by another entity.

The GHG Protocol further categorizes these direct and indirect emissions into three broad scopes:

• Scope 1: All direct GHG emissions.

· Scope 2: Indirect GHG emissions from consumption of purchased electricity, heat or steam.

• Scope 3: Other indirect emissions, such as the extraction and production of purchased materials and fuels, transport-related activities in vehicles not owned or controlled by the reporting entity, electricity-related activities (e.g., transmission and distribution losses) not covered in Scope 2, outsourced activities, waste disposal, etc.

C6. Emissions data

C6.1

(C6.1) What were your organization's gross global Scope 1 emissions in metric tons CO2e?

Reporting year

Gross global Scope 1 emissions (metric tons CO2e) 349688

Start date <Not Applicable>

End date <Not Applicable>

Comment

C6.2

(C6.2) Describe your organization's approach to reporting Scope 2 emissions.

Row 1

Scope 2, location-based

We are reporting a Scope 2, location-based figure

Scope 2, market-based

We are reporting a Scope 2, market-based figure

Comment

From 1st April 2020 to 31st December 2020, our electricity provider purchased and redeemed 100% of Huntsman Holland BV electricity consumption in the form of Guarantees of Origin for renewable electricity. The guarantees of origin are issued and controlled in accordance with EU directives and national regulations in force.

C6.3

(C6.3) What were your organization's gross global Scope 2 emissions in metric tons CO2e?

Reporting year

Scope 2, location-based

Scope 2, market-based (if applicable) 750832

Start date

<Not Applicable>

End date <Not Applicable>

Comment

From 1st April 2020 to 31st December 2020, our electricity provider purchased and redeemed 100% of Huntsman Holland BV electricity consumption in the form of Guarantees of Origin for renewable electricity. The guarantees of origin are issued and controlled in accordance with EU directives and national regulations in force.

C6.4

(C6.4) Are there any sources (e.g. facilities, specific GHGs, activities, geographies, etc.) of Scope 1 and Scope 2 emissions that are within your selected reporting boundary which are not included in your disclosure?

No

C6.5

(C6.5) Account for your organization's gross global Scope 3 emissions, disclosing and explaining any exclusions.

Purchased goods and services

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners <Not Applicable>

Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Capital goods

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners <Not Applicable>

Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Fuel-and-energy-related activities (not included in Scope 1 or 2)

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Upstream transportation and distribution

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable> Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Waste generated in operations

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Business travel

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners <Not Applicable>

Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Employee commuting

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable> Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Upstream leased assets

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable> Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Downstream transportation and distribution

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable> Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e <Not Applicable>

..

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Per the "Guidance for Measuring and Reporting Corporate Value Chain GHG Emissions in the Chemical Sector" published by the World Business Council for Sustainable Development, this Scope 3 category is not relevant to the chemical sector, and therefore, we consider the category "Not relevant."

Use of sold products

Evaluation status

Relevant, not yet calculated

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

End of life treatment of sold products

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

<NUL Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Downstream leased assets

Evaluation status Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners <Not Applicable>

Please explain

Per the "Guidance for Measuring and Reporting Corporate Value Chain GHG Emissions in the Chemical Sector" published by the World Business Council for Sustainable Development, this Scope 3 category is not relevant to the chemical sector, and therefore, we consider the category "Not relevant."

Franchises

Evaluation status

Not relevant, explanation provided

Metric tonnes CO2e

<Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>

Please explain

Per the "Guidance for Measuring and Reporting Corporate Value Chain GHG Emissions in the Chemical Sector" published by the World Business Council for Sustainable Development, this Scope 3 category is not relevant to the chemical sector, and therefore, we consider the category "Not relevant."

Investments

Evaluation status Relevant, not yet calculated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners

<Not Applicable>
Please explain

We have begun the process of estimating our Scope 3 emissions in 2021 and aim to disclose initial estimates in 2022.

Other (upstream)

Evaluation status Not evaluated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners <Not Applicable>

Please explain

Other (downstream)

Evaluation status Not evaluated

Metric tonnes CO2e <Not Applicable>

Emissions calculation methodology

<Not Applicable>

Percentage of emissions calculated using data obtained from suppliers or value chain partners <Not Applicable>

Please explain

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization? $\ensuremath{\mathsf{No}}$

C6.10

(C6.10) Describe your gross global combined Scope 1 and 2 emissions for the reporting year in metric tons CO2e per unit currency total revenue and provide any additional intensity metrics that are appropriate to your business operations.

Intensity figure 0.000198167

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)

1192569

Metric denominator unit total revenue

Metric denominator: Unit total 6018000000

Scope 2 figure used Market-based

% change from previous year 19.2

Direction of change Decreased

Reason for change

The primary reason for the decrease was due to an increase in commodity revenue from 2019 to 2020, followed by a decrease in our Scope 1 and Scope 2 emissions from 2019 to 2020. Please note that the intensity metric for 2019 has been normalized for the divestment of certain assets to Indorama Ventures Holdings LP.

Intensity figure

0.22

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e) 1192569

Metric denominator unit of production

Metric denominator: Unit total 4998984

Scope 2 figure used Market-based

% change from previous year

6

Direction of change

Decreased

Reason for change

Production remained relatively flat, while Scope 1 and Scope 2 emissions decreased, driven primarily by the shift to 100% market-based renewable energy purchases by our Rotterdam site. Please note that the intensity metric for 2019 has been normalized for the divestment of our assets to Indorama Ventures Holdings LP.

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type? Yes

C7.1a

(C7.1a) Break down your total gross global Scope 1 emissions by greenhouse gas type and provide the source of each used greenhouse warming potential (GWP).

Greenhouse gas	Scope 1 emissions (metric tons of CO2e)	GWP Reference
CO2	349639	IPCC Fourth Assessment Report (AR4 - 100 year)
CH4	1	IPCC Fourth Assessment Report (AR4 - 100 year)
N2O	8	IPCC Fourth Assessment Report (AR4 - 100 year)
HFCs	41	IPCC Fourth Assessment Report (AR4 - 100 year)
PFCs	0	IPCC Fourth Assessment Report (AR4 - 100 year)
SF6	0	IPCC Fourth Assessment Report (AR4 - 100 year)

(C7.2) Break down your total gross global Scope 1 emissions by country/region.

Country/Region	Scope 1 emissions (metric tons CO2e)
Americas	276597
Europe, Middle East and Africa (EMEA)	63774
Asia, Australasia	9317

C7.3

(C7.3) Indicate which gross global Scope 1 emissions breakdowns you are able to provide. By business division

C7.3a

(C7.3a) Break down your total gross global Scope 1 emissions by business division.

Business division	Scope 1 emissions (metric ton CO2e)
Polyurethanes	205913
Performance Products	104020
Advanced Materials	8074
Textile Effects	13708
Newly Acquired	17902
Other	72

C-CE7.4/C-CH7.4/C-CO7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4

(C-CE7.4/C-CH7.4/C-EU7.4/C-EU7.4/C-MM7.4/C-OG7.4/C-ST7.4/C-TO7.4/C-TS7.4) Break down your organization's total gross global Scope 1 emissions by sector production activity in metric tons CO2e.

	Gross Scope 1 emissions, metric tons CO2e	Net Scope 1 emissions , metric tons CO2e	Comment
Cement production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Chemicals production activities	349688	<not applicable=""></not>	All our Scope 1 emissions are a result of chemical production activities.
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Electric utility activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (midstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Steel production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport services activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>

C7.5

(C7.5) Break down your total gross global Scope 2 emissions by country/region.

Country/Region	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)	Purchased and consumed electricity, heat, steam or cooling (MWh)	Purchased and consumed low-carbon electricity, heat, steam or cooling accounted for in Scope 2 market-based approach (MWh)
Americas	476488	476488	1879967	0
Europe, the Middle East, Africa and Russia (EMEAR)	244845	187637	927859	109444
Asia, Australasia	86708	86708	310511	0

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide. By business division (C7.6a) Break down your total gross global Scope 2 emissions by business division.

Business division	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Polyurethanes	596608	539400
Performance Products	117640	117640
Advanced Materials	60724	60724
Textile Effects	25356	25356
Newly Acquired	7697	7697
Other	15	15

C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7

(C-CE7.7/C-CH7.7/C-CO7.7/C-MM7.7/C-OG7.7/C-ST7.7/C-TO7.7/C-TS7.7) Break down your organization's total gross global Scope 2 emissions by sector production activity in metric tons CO2e.

	Scope 2, location-based, metric tons CO2e	Scope 2, market-based (if applicable), metric tons CO2e	Comment
Cement production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Chemicals production activities	808041	750832	All our Scope 1 emissions are a result of chemical production activities.
Coal production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Metals and mining production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (upstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (midstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Oil and gas production activities (downstream)	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Steel production activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport OEM activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Transport services activities	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>

C-CH7.8

(C-CH7.8) Disclose the percentage of your organization's Scope 3, Category 1 emissions by purchased chemical feedstock.

Purchased feedstock	Percentage of Scope 3, Category 1 tCO2e from purchased feedstock	Explain calculation methodology
Other (please specify) (We do not currently report Scope 3 emissions but are	0	We do not currently report Scope 3 emissions but are beginning an
beginning an analysis starting in 2021.)		analysis starting in 2021.

C-CH7.8a

(C-CH7.8a) Disclose sales of products that are greenhouse gases.

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	Huntsman does not currently sell carbon dioxide (CO2).
Methane (CH4)	0	Huntsman does not currently sell methane (CH4).
Nitrous oxide (N2O)	0	Huntsman does not currently sell nitrous oxide (N20).
Hydrofluorocarbons (HFC)	0	Huntsman does not currently sell nitrous oxide (N20).
Perfluorocarbons (PFC)	0	Huntsman does not currently sell perfluorocarbons (PFC).
Sulphur hexafluoride (SF6)	0	Huntsman does not currently sell sulphur hexafluoride (SF6).
Nitrogen trifluoride (NF3)	0	Huntsman does not currently sell nitrogen trifluoride (NF3).

C7.9

(C7.9) How do your gross global emissions (Scope 1 and 2 combined) for the reporting year compare to those of the previous reporting year? Decreased

C7.9a

(C7.9a) Identify the reasons for any change in your gross global emissions (Scope 1 and 2 combined), and for each of them specify how your emissions compare to the previous year.

	Change in emissions (metric tons CO2e)	Direction of change	Emissions value (percentage)	Please explain calculation
Change in renewable energy consumption	57209	Decreased	2.1	Our Scope 2 emissions decreased by 57,209 metric tons CO2e due to Rotterdam renewable energy purchases for electricity starting in April 1, 2020. Our 2019 Scope 1+2 emissions were 2,775,600 metric tons CO2e. We arrived at 2.1% decrease as follows: (-57,209 / 2,775,600) = -2.1%.
Other emissions reduction activities		<not Applicable ></not 		
Divestment	1628480	Decreased	58.7	Our Scope 1 and Scope 2 emissions decreased by 1,545,425 and 83,055 metric tons, of CO2e, respectively, for a combined decrease of 1,628,480 metric tons of CO2e from the divestment of assets in 2020, primarily our Port Neches, Texas, USA site to Indorama Venture Holdings LP. Our 2019 Scope 1+2 emissions were 2,775,600 metric tons CO2e. We arrived at 58.7% decrease as follows: (-1,628,480 / 2,775,600) = -58.7%.
Acquisitions	26086	Increased	0.9	Our Scope 1 and Scope 2 emissions increased by 18,178 and 7,908 metric tons, of CO2e, respectively, for a combined increase of 26,086 metric tons of CO2e from the acquisition of assets in 2020, namely lcynene-Lapolla and CVC Thermoset. Our 2019 Scope 1+2 emissions were 2,775,600 metric tons CO2e. We arrived at 0.9% increase as follows: (26,086 / 2,775,600) = 0.9%.
Mergers		<not Applicable ></not 		
Change in output	17765	Decreased	0.6	Our Scope 1 and Scope 2 emissions decreased by 5,310 and 12,455 metric tons, of CO2e, respectively, for a combined decrease of 17,765 metric tons of CO2e from the reduction of 1.5% of our post-divestment production from 2019 to 2020, namely due to COVID-19 pandemic impacts and planned plant turnarounds. Our 2019 Scope 1+2 emissions were 2,775,600 metric tons CO2e. We arrived at 0.6% decrease as follows: (-17,765 / 2,775,600) = -0.6%.
Change in methodology	19364	Increased	0.7	Our Scope 1 and Scope 2 emissions increased by 55 and 19,309 metric tons, of CO2e, respectively, for a combined increase of 19,364 metric tons of CO2e primarily from the change in emission factors for improved accuracy for imported electricity. Our 2019 Scope 1+2 emissions were 2,775,600 metric tons CO2e. We arrived at 0.7% increase as follows: (19,364 / 2,775,600) = 0.7%.
Change in boundary		<not Applicable ></not 		
Change in physical operating conditions		<not Applicable ></not 		
Unidentified	17076	Decreased	0.6	Our Scope 1 and Scope 2 emissions decreased by 1,477 and 15,599 metric tons, of CO2e, respectively, for a combined decrease of 17,076 metric tons of CO2e due to unidentified changes in emissions from 2019 to 2020. Our 2019 Scope 1+2 emissions were 2,775,600 metric tons CO2e. We arrived at 0.6% decrease as follows: (-17,076 / 2,775,600) =- 0.6%.
Other		<not Applicable ></not 		

C7.9b

(C7.9b) Are your emissions performance calculations in C7.9 and C7.9a based on a location-based Scope 2 emissions figure or a market-based Scope 2 emissions figure?

Market-based

C8. Energy

C8.1

(C8.1) What percentage of your total operational spend in the reporting year was on energy? More than 0% but less than or equal to 5%

C8.2

(C8.2) Select which energy-related activities your organization has undertaken.

	Indicate whether your organization undertook this energy-related activity in the reporting year
Consumption of fuel (excluding feedstocks)	Yes
Consumption of purchased or acquired electricity	Yes
Consumption of purchased or acquired heat	No
Consumption of purchased or acquired steam	Yes
Consumption of purchased or acquired cooling	No
Generation of electricity, heat, steam, or cooling	Yes

(C8.2a) Report your organization's energy consumption totals (excluding feedstocks) in MWh.

	Heating value	MWh from renewable sources	MWh from non-renewable sources	Total (renewable and non-renewable) MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	0	1124469	1124469
Consumption of purchased or acquired electricity	<not applicable=""></not>	117691	823345	941036
Consumption of purchased or acquired heat	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Consumption of purchased or acquired steam	<not applicable=""></not>	0	2177301	2177301
Consumption of purchased or acquired cooling	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>	<not applicable=""></not>
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	139	<not applicable=""></not>	80221
Total energy consumption	<not applicable=""></not>	117829	4125115	4242944

C-CH8.2a

(C-CH8.2a) Report your organization's energy consumption totals (excluding feedstocks) for chemical production activities in MWh.

	Heating value	Total MWh
Consumption of fuel (excluding feedstock)	HHV (higher heating value)	1124469
Consumption of purchased or acquired electricity	<not applicable=""></not>	941036
Consumption of purchased or acquired heat	<not applicable=""></not>	<not applicable=""></not>
Consumption of purchased or acquired steam	<not applicable=""></not>	2177301
Consumption of purchased or acquired cooling	<not applicable=""></not>	<not applicable=""></not>
Consumption of self-generated non-fuel renewable energy	<not applicable=""></not>	80221
Total energy consumption	<not applicable=""></not>	4242944

C8.2b

(C8.2b) Select the applications of your organization's consumption of fuel.

	Indicate whether your organization undertakes this fuel application
Consumption of fuel for the generation of electricity	No
Consumption of fuel for the generation of heat	No
Consumption of fuel for the generation of steam	No
Consumption of fuel for the generation of cooling	No
Consumption of fuel for co-generation or tri-generation	No

C8.2c

(C8.2c) State how much fuel in MWh your organization has consumed (excluding feedstocks) by fuel type.

Fuels (excluding feedstocks) Methane

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 1009508

MWh fuel consumed for self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration <Not Applicable>

Emission factor

117.1

Unit Ib CO2 per million Btu

Emissions factor source

American Chemistry Council Performance Metrics Guidance Document, 2018

Comment

Please note that we do not track individual fuel types to individual energy end-uses, currently.

Fuels (excluding feedstocks) Liquefied Petroleum Gas (LPG)

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization 25148

MWh fuel consumed for self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration <Not Applicable>

Emission factor

Unit Ib CO2 per million Btu

Emissions factor source

American Chemistry Council Performance Metrics Guidance Document, 2018

Comment

Please note that we do not track individual fuel types to individual energy end-uses, currently.

Fuels (excluding feedstocks) Distillate Oil

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 10896

MWh fuel consumed for self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration <Not Applicable>

Emission factor 163.6

Unit Ib CO2 per million Btu

Emissions factor source

American Chemistry Council Performance Metrics Guidance Document, 2018

Comment

Please note that we do not track individual fuel types to individual energy end-uses, currently.

Fuels (excluding feedstocks) Residual Fuel Oil

Heating value

HHV (higher heating value)

Total fuel MWh consumed by the organization 541

MWh fuel consumed for self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling

<Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration <Not Applicable>

Emission factor

6.3

Unit

lb CO2 per million Btu

Emissions factor source American Chemistry Council Performance Metrics Guidance Document, 2018

Comment

Please note that we do not track individual fuel types to individual energy end-uses, currently.

Fuels (excluding feedstocks) Petroleum Products

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 8796

MWh fuel consumed for self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration <Not Applicable>

Emission factor

Unit lb CO2 per million Btu

Emissions factor source

American Chemistry Council Performance Metrics Guidance Document, 2018

Comment

Electricity produced onsite, is the result of multiple fuel sources but the ACC emission factor for production of electricity is used, unless local grid emission factors are selected by individual sites. Electricity produced onsite is reported for internal corporate metrics in TJs. For purposes of this report where appropriate, data is converted to MWh using 0.0036 TJ/MWh.

Fuels (excluding feedstocks) Petroleum Products

Heating value HHV (higher heating value)

Total fuel MWh consumed by the organization 69579

MWh fuel consumed for self-generation of electricity <Not Applicable>

MWh fuel consumed for self-generation of heat <Not Applicable>

MWh fuel consumed for self-generation of steam <Not Applicable>

MWh fuel consumed for self-generation of cooling <Not Applicable>

MWh fuel consumed for self-cogeneration or self-trigeneration <Not Applicable>

Emission factor 117.1

Unit Ib CO2 per million Btu

Emissions factor source

American Chemistry Council Performance Metrics Guidance Document, 2018

Comment

C8.2d

(C8.2d) Provide details on the electricity, heat, steam, and cooling your organization has generated and consumed in the reporting year.

	Total Gross generation (MWh)	Generation that is consumed by the organization (MWh)	Gross generation from renewable sources (MWh)	Generation from renewable sources that is consumed by the organization (MWh)
Electricity	8963	8935	167	139
Heat	0	0	0	0
Steam	71098	69579	0	0
Cooling	0	0	0	0

C-CH8.2d

(C-CH8.2d) Provide details on electricity, heat, steam, and cooling your organization has generated and consumed for chemical production activities.

	Total gross generation (MWh) inside chemicals sector boundary	Generation that is consumed (MWh) inside chemicals sector boundary
Electricity	8963	8935
Heat	0	0
Steam	71098	69579
Cooling	0	0

C8.2e

(C8.2e) Provide details on the electricity, heat, steam, and/or cooling amounts that were accounted for at a zero emission factor in the market-based Scope 2 figure reported in C6.3.

Sourcing method

Power purchase agreement (PPA) with a grid-connected generator with energy attribute certificates

Low-carbon technology type

Low-carbon energy mix

Country/area of consumption of low-carbon electricity, heat, steam or cooling Netherlands

MWh consumed accounted for at a zero emission factor

Comment

81192

From 1st April 2020 to 31st December 2020, our electricity provider purchased and redeemed 100% of Huntsman Holland BV electricity consumption in the form of Guarantees of Origin for renewable electricity. The guarantees of origin are issued and controlled in accordance with EU directives and national regulations in force.

C-CH8.3

(C-CH8.3) Does your organizati	on consume fuels	as feedstocks fo	or chemical	production	activities?
Yes					

C-CH8.3a

(C-CH8.3a) Disclose details on your organization's consumption of fuels as feedstocks for chemical production activities.

Fuels used as feedstocks

Other, please specify (Petroleum products)

Total consumption

0

Total consumption unit

metric tons

Inherent carbon dioxide emission factor of feedstock, metric tons CO2 per consumption unit

0

Heating value of feedstock, MWh per consumption unit

0

Heating value

Unable to confirm heating value

Comment

Most of our feedstocks by volume are either petroleum products, such as natural gas liquids, benzene, propylene oxide (PO), olefins, and others, or chemicals derived from these sources. We also use recycled waste feedstock - specifically post-consumer and post-industrial waste PET - in a portion of our polyols, which is a key growth area for our business. We do not track percentages of these values centrally, so percentages in C-CH8.3b have not been provided but allocated 100% to "Unknown source or unable to disaggregate."

C-CH8.3b

(C-CH8.3b) State the percentage, by mass, of primary resource from which your chemical feedstocks derive.

	Percentage of total chemical feedstock (%)
Oil	0
Natural Gas	0
Coal	0
Biomass	0
Waste (non-biomass)	0
Fossil fuel (where coal, gas, oil cannot be distinguished)	0
Unknown source or unable to disaggregate	100

C9. Additional metrics

C9.1

(C9.1) Provide any additional climate-related metrics relevant to your business.

Description

Energy usage

Metric value

Metric numerator

Energy use as measured in terajoules (TJ).

Metric denominator (intensity metric only)

Production, including co-products, in metric tons.

% change from previous year

6

Direction of change Decreased

Please explain

Huntsman continually strives to improve the energy efficiency of our operations, thereby reducing our energy impacts and saving costs. We continue to evaluate energy usage at our sites, including opportunities to improve the efficiency of steam and electricity generation, heating requirements and production processes.

C-CH9.3a

(C-CH9.3a) Provide details on your organization's chemical products.

Output product Specialty chemicals

Production (metric tons) 4998983.77

Capacity (metric tons)

0

0.07

Direct emissions intensity (metric tons CO2e per metric ton of product)

Electricity intensity (MWh per metric ton of product) 0.2042

Steam intensity (MWh per metric ton of product)

0.4355

Steam/ heat recovered (MWh per metric ton of product) 0

Comment

The production we track includes both products and co-products. As such, we are not calculating the capacity figure on the same basis and reporting a '0' currently. The metrics for electricity and steam usage per ton of product represent our entire portfolio of solutions which are specialty chemicals.

C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6

(C-CE9.6/C-CG9.6/C-CH9.6/C-CN9.6/C-CO9.6/C-EU9.6/C-MM9.6/C-OG9.6/C-RE9.6/C-ST9.6/C-TO9.6/C-TS9.6) Does your organization invest in research and development (R&D) of low-carbon products or services related to your sector activities?

	Investment in low-carbon R&D	Comment
Row 1	Yes	We have invested approximately 40% of our R&D funding into low-carbon products across all our Divisions and across a wide variety of markets.

C-CH9.6a

(C-CH9.6a) Provide details of your organization's investments in low-carbon R&D for chemical production activities over the last three years.

Technology area	Stage of development in the reporting year	Average % of total R&D investment over the last 3 years	R&D investment figure in the reporting year (optional)	Comment
Unable to disaggregate by technology area	<not Applicable></not 	21 - 40%	5600000	R&D activities are directed to solve customer requirements for sustainable solutions in key markets such as transportation, aerospace and industrial. Product innovations targeted towards energy efficiency (insulation, light- weighting) and resource efficiency (manufacturing automation), circularity (incorporating recycled content, bio-based raw materials; making product recyclable), and climate protection (low odor, low VOC, low or no solvent, blowing agents with less GWP, Fertilizer coatings). We are also investing in R&D for CO2 capture and gas treating through amine applications, epoxy Curatives for wind energy composite materials, fuels emissions reduction, and electrolyte solvents for EV batteries. Additional technology developments include material solutions for e- vehicles, hydrogen fuel cell vehicles lightweight transport structures and biobased composites for commercial aerospace. Further investments are being made new production technologies to convert waste gases into useful materials. We continue to invest in our textile dyes, chemicals, and inks to reduce energy and water consumption for our clients.

C10. Verification

C10.1

(C10.1) Indicate the verification/assurance status that applies to your reported emissions.

	Verification/assurance status
Scope 1	No third-party verification or assurance
Scope 2 (location-based or market-based)	No third-party verification or assurance
Scope 3	No third-party verification or assurance

C10.2

(C10.2) Do you verify any climate-related information reported in your CDP disclosure other than the emissions figures reported in C6.1, C6.3, and C6.5? No, we do not verify any other climate-related information reported in our CDP disclosure

C11. Carbon pricing

C11.1

(C11.1) Are any of your operations or activities regulated by a carbon pricing system (i.e. ETS, Cap & Trade or Carbon Tax)? Yes

C11.1a

(C11.1a) Select the carbon pricing regulation(s) which impacts your operations. $\ensuremath{\mathsf{EU}}\xspace$ EU ETS

C11.1b

(C11.1b) Complete the following table for each of the emissions trading schemes you are regulated by.

EU ETS

% of Scope 1 emissions covered by the ETS

0

% of Scope 2 emissions covered by the ETS

15.9

Period start date January 1 2020

Period end date

December 31 2020

Allowances allocated

0

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

0

Verified Scope 2 emissions in metric tons CO2e 0

Details of ownership

Facilities we own and operate

Comment

None of our facilities exceed threshold limits for participation in the EU ETS.

C11.1d

(C11.1d) What is your strategy for complying with the systems you are regulated by or anticipate being regulated by?

We continually monitor regulatory developments of national emissions trading systems and carbon taxes to assure compliance. Currently, none of our Scope 1 emissions exceed thresholds for compliance.

C11.2

(C11.2) Has your organization originated or purchased any project-based carbon credits within the reporting period? No

C11.3

(C11.3) Does your organization use an internal price on carbon? Yes

(C11.3a) Provide details of how your organization uses an internal price on carbon.

Objective for implementing an internal carbon price

Stress test investments

GHG Scope

Scope 1 Scope 2

Application

Projects requiring Board approval will use a standard carbon price to stress test investment evaluations beginning in 2021. Investments where existing carbon regulations exist will refer to a projection for their application regulatory regime.

Actual price(s) used (Currency /metric ton)

50

Variance of price(s) used

For the short- and medium-term timeframes, variances will be dictated by projections for individual regulatory regimes. Longer term, a standard carbon is used on the assumption that carbon prices will converge over time.

Type of internal carbon price

Shadow price

Impact & implication

The use of a shadow price provides another consideration in investment decision-making and spur a review of alternatives for energy demand of a new investment.

C12. Engagement

C12.1

(C12.1) Do you engage with your value chain on climate-related issues? Yes, our customers

C12.1b

(C12.1b) Give details of your climate-related engagement strategy with your customers.

Type of engagement

Education/information sharing

Details of engagement

Run an engagement campaign to educate customers about the climate change impacts of (using) your products, goods, and/or services

% of customers by number

30

% of customer - related Scope 3 emissions as reported in C6.5

0

Portfolio coverage (total or outstanding)

<Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

We engage customers using our insulation products about energy savings, product performance, and innovation opportunities. For our Polyurethanes Division, we highlight the climate change benefits of our insulation including cold appliances, technical insulation, and composite for automotive lightweighting. We have developed marketing materials both in the US and in the EU regarding construction insulation as well. The rationale for selecting this group of customers is that these benefits are one of the main drivers for product performance and commercial success in the construction insulation and lightweight vehicle design market segments. For our Advanced Materials Division, we engage customers with electrical insulation and thermal management of e-motors which allow for the effective design of electric vehicles and help to increase their adoption rate within car fleets. Additionally, to paint customers we promote low viscosity and waterborne resin systems for the manufacturing of low/no solvent coatings. The rational for selecting this group of customers is that the performance benefits they can achieve with our products have an indirect impact on climate change through energy savings and reduction of VOC / CO2 emissions. The 30% is an average of values across all our Divisions. Figures for certain product groups are higher, such as with our polyurethane products in Europe as well as our spray foam products. Figures are lower in the case of chemicals sold for industrial use.

Impact of engagement, including measures of success

Measures of success include revenue and margin growth by product, application and customer, and customer satisfaction tracked via surveys.

Type of engagement

Education/information sharing

Details of engagement

Share information about your products and relevant certification schemes (i.e. Energy STAR)

% of customers by number

20

% of customer - related Scope 3 emissions as reported in C6.5

0

Portfolio coverage (total or outstanding) <Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

In our communications to construction customers, we highlight that our polyurethane insulation products can help architects earn credits/points for green building certifications based on energy performance, such as LEED and BREEAM. The rationale is that these certification programs, where required by regulation or included at the request of end-customers, can help our direct customers grow their business and win projects. The number is estimated from our polyurethane customers in Europe

Impact of engagement, including measures of success

Measures of success include revenue and margin growth by product, application and customer, and customer satisfaction tracked via surveys.

Type of engagement

Collaboration & innovation

Details of engagement

Run a campaign to encourage innovation to reduce climate change impacts

% of customers by number

30

0

% of customer - related Scope 3 emissions as reported in C6.5

Portfolio coverage (total or outstanding) <Not Applicable>

Please explain the rationale for selecting this group of customers and scope of engagement

Our new technology and innovation projects enable increased productivity and increased energy efficiency benefits for our customers in their product use. For polyurethanes products, this can result in shorter cycle time, less or no drying requirement, or the avoidance or removal of VOCs or solvents. We host customer "innovation" days where carbon is often the topic. The number is estimated from our polyurethane customers in Europe. We actively complete Productivity Improvement Programs for customers in our Textiles business. The percentage of customers in some product groups may be higher, such as spray foam. In other areas of our business, we do not run specific engagements for climate change. For our Advanced Materials Division, our development projects bring productivity and energy efficiency benefits (such as lightweight, shorter cycle time / lower temperature use, effective thermal management, avoidance or removal of VOCs or solvents). In this respect, our major innovation efforts are in the technology areas of composites, adhesives, electrical insulation and thermoset curing and the customer groups are the same as above in aerospace, automotive, wind energy and specialty coatings. We generally engage customers with innovative products through technical meetings and product trials at customer sites, on a need to know basis we organize technical demonstrations in our lab application centers and, more exceptionally, we collaborate with joint development agreements (JDAs). We also engage specific audience through targeted digital campaigns or webinars. The % of customer engagement is estimated to be 15% for Advanced Materials.

Impact of engagement, including measures of success

Innovation in the areas mentioned can enable further productivity improvements and help to reduce energy usage, VOC or CO2 emissions, and related operating expenditures for customers. Measure of success are new product sales, number of collaborations in place, and others

(C12.3) Do you engage in activities that could either directly or indirectly influence public policy on climate-related issues through any of the following? Trade associations

C12.3b

(C12.3b) Are you on the board of any trade associations or do you provide funding beyond membership? Yes

C12.3c

Trade association

American Chemistry Council

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

Climate change is a global challenge that requires long-term commitment and action by every segment of society. A combination of technology, market-based and policy solutions will be necessary to reduce greenhouse gas emissions (GHG) and achieve climate goals, such as those of the Paris Agreement. US climate policy should integrate the following principles: • Recognize U.S. energy security • Achieve meaningful GHG emissions reductions • Exempt non-emitting feedstocks • Protect the competitiveness of US manufacturing • Support investment in new technology and innovation in new products • Adopt market signals and administrative provisions that send clear messages • Implement a uniform, national policy • Track progress For more information, see ACC website.

How have you influenced, or are you attempting to influence their position?

We acknowledge scientific data on climate and support the need for reductions in carbon emissions. We also see that the Chemical Industry can play a leading role in the drive for carbon reduction through our products, CCS and CCU, and circular economy opportunities. We are participating, supportive, and have offered our opinions. Huntsman employees sit on ACC's Energy Committee and other committees and working groups, including the Sustainability Market Outreach committee, Responsible Care committee and other working groups. We follow developments and ensure that they are in line with Huntsman's interests. Chairman, President and CEO Peter Huntsman is an ACC board officer, effective January 1, 2020.

Trade association

European Chemical Industry Council (Cefic)

Is your position on climate change consistent with theirs? Consistent

Please explain the trade association's position

Cefic supports the EC position that a 1 Deg C increase in average temperatures has occurred and that unless change occurs by 2050 this will be over 1.5 Deg C. The EC wants to drive towards a Carbon Neutral economy in Europe and has published a vision for the mid-century. Cefic has developed a discussion paper which identifies the role the Chemical Industry can play in helping achieve the EC's objectives and identifies the major obstacles which will have to be addressed to achieve this. Significant increases in clean electrification of industry, transport and the built environment being central to this. The Cefic Policy Committee on Energy and Climate Change is responsible for issues pertaining to climate change. Cefic strongly believes the way to achieve the move towards a low carbon economy is to fully expose renewables to the make thich would drive down costs. Cefic supports a path to a low carbon economy under which the aim of the policy is to innovate down the cost of decarbonisation to make it competitive, rather than to increase the cost of essential feedstocks and energy. The working group is active in the following areas pertaining to climate change: 1. Influence the development of EU's future strategy for long-term EU greenhouse gas emissions reductions and deal with any additional measures 2. Manage current and upcoming implementing laws for the EU Carbon Market, e.g. rules for Emissions Trading System delegated acts, carbon value, policy framework regarding carbon capture and storage, carbon capture and utilization 3. Gas Markets: lobby on upcoming Commission proposals and engage on the policy development on infrastructure and adaptation of the gas grid, future role of gas including low-carbon hydrogen, and gas quality 4. Long-Term: Carbon market principles post ETS

How have you influenced, or are you attempting to influence their position?

We acknowledge the scientific data and support the need for reductions in carbon emissions. We also see that the Chemical Industry can play a leading role in the drive for carbon reduction through our products, CCS and CCU, and circular economy opportunities. We are participating, supportive, and have offered our opinions. Huntsman employees sit on the Cefic Energy and Climate Change Policy Committee. Anthony Hankins, Chief Executive Officer, Asia Pacific and Division President, Polyurethanes is a CEFIC Board permanent guest.

Trade association

China Petroleum and Chemical Industry Federation

Is your position on climate change consistent with theirs?

Consistent

Please explain the trade association's position

CPCIF does not have a position on climate change. The organization has been focused on facilitating the sharing of best-practices, both inside and from outside China, as well as crafting a plan for how China's petrochemical industry could play a role in supporting the Chinese government's aim to achieve peak greenhouse gas emissions before 2030 and carbon neutrality by 2060.

How have you influenced, or are you attempting to influence their position?

As a quasi-government entity, CPCIF has been given the mandate from authorities to work with the Chinese government agencies such as the Ministry of Ecology and Environment (MEE) to develop recommendations on a road map of carbon reduction for the petrochemical industry. CPCIF has, at the invitation of MEE, made the first attempt by collecting, analyzing and sharing carbon emission reduction policies and pathways from the EU and U.S. The resulting study, "Insights from International Practices of 'Carbon Peak' and 'Carbon Neutrality' – Carbon Emission Reduction Policies and Pathways of EU and USA", has been completed and shared with the government. CPCIF has called upon more member companies to participate in the phase II of this study. Scope is to be clarified, but it is believed to involve the sharing of technologies or practices which can help reduce carbon. In China, Huntsman has supported and formally participated in the chemical recycling study which is part of the circular economy exercise driven by the Sustainability WG of CPCIF Multinational Committee. The outcome of the chemical recycling study is an industry white paper which contains industry best practices (Huntsman's TEROL included) and policy recommendations. Huntsman plans to participate in the activities in the ETS &CN task force as well so that 1) more weight in downstream carbon reduction benefits is added in the on-going policy recommendation debates within the taskforce (so far there are a lot more voices from the petroleum industry than chemical industry within CPCIF); 2) we stay close with the research and study groups who will make policy recommendations on behalf of the petroleum and chemical industry output reduction road map; and 3) May engage in the conversation on accounting and reporting methodologies of CO2 and other greenhouse gas emissions. For example, by advocating for adoption of a standard baseline methodology approach. We are offering our opinions on the study and the related discussions around linkages of this study with th

C12.3f

(C12.3f) What processes do you have in place to ensure that all of your direct and indirect activities that influence policy are consistent with your overall climate change strategy?

Officers and employees that participate in trade associations are aware of our Horizon 2025 Corporate Targets, which include a target to reduce Scope 1 and Scope 2 GHG emissions by 10% by 2025 as measured against our 2019 baseline. Per our EHS Policy and Commitment, "Throughout the Huntsman enterprise, our mission is to provide products and solutions through the application of science that enrich lives and help create a sustainable future, while doing no harm to people or the environment."

C12.4

(C12.4) Have you published information about your organization's response to climate change and GHG emissions performance for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Publication

In voluntary sustainability report

Status Complete

Attach the document 2020 Report ONLINE *f*.pdf

Page/Section reference

Key Figures at a Glance (10), Our Progress (11), United Nations Sustainable Development Goals (21), Data on Performance (24, 25, 26, 27, 50, 51, 54)

Content elements

Governance Strategy Emissions figures Emission targets Other metrics

Comment

This is our tenth Sustainability Report. In each report we have disclosed our greenhouse gas and energy usage performance. In the 2020 Sustainability Report, we highlighted the impact of recent portfolio changes on how we have rebased our targets, accordingly. We also disclosed that we will be disclosing our progress against the implementation of the Task Force on Climate-Related Financial Disclosures (TCFD) recommendations beginning with next year's report.

C15. Signoff

C-FI

(C-FI) Use this field to provide any additional information or context that you feel is relevant to your organization's response. Please note that this field is optional and is not scored.

Please find additional sustainability information on Huntsman's Sustainability website at www.huntsman.com.

C15.1

(C15.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Executive Officer (CEO)	Chief Executive Officer (CEO)

SC. Supply chain module

SC0.0

(SC0.0) If you would like to do so, please provide a separate introduction to this module.

Huntsman is a global, downstream, differentiated, and specialty chemicals company. For 50 years, we have been using science and ingenuity to innovate products that enable more sustainable and comfortable lives for millions of people around the world. Our more than 9,000 associates work in more than 70 manufacturing, research and development (R&D), and operations facilities in approximately 30 countries. We serve a broad and diverse range of consumer and industrial end markets, including energy and fuels, transportation, construction, clothing and footwear, food preservation, and aerospace. We operate through four divisions: Polyurethanes, Performance Products, Advanced Materials, and Textile Effects.

In 2020, we completed the sale of our chemical intermediates and surfactants businesses to Indorama Venture Holdings L.P. We also acquired Icynene-Lapolla, which nearly doubled our existing spray foam business. The combined business was rebranded to Huntsman Building Solutions, a global leader in spray polyurethane foam insulation. Huntsman also announced two significant acquisitions in our Advanced Materials division, including CVC Thermoset Specialties and Gabriel Performance Products. The acquisitions closed in May 2020 and January 2021, respectively.

Huntsman opened a new TEROL® polyols plant in Taiwan, expanding our downstream polyurethanes capabilities in the Asia Pacific region and furthering our commitment to using sustainable raw materials in our products. With recycled content of up to 60%, these polyols are an essential part of MDI-based polyurethane insulation products. Huntsman is dedicated to addressing sustainability challenges around the globe. True to our motto "Enriching lives through innovation," and aligned with our vision for the future, we strive to develop world-class products that provide long-term societal and environmental solutions. Huntsman is a signatory to and continues to ensure our corporate policies, procedures and guidance documents align with the UN Global Compact, is committed to the United Nations Sustainable Development Goals, and is committed to Responsible Care®, the chemical industry's environmental, health, safety and security performance initiative. In February 2021, the Huntsman Board of Directors formed the Sustainability Committee, a new Board standing committee, which will have certain review and oversight responsibilities relating to sustainability, including environmental, corporate social responsibility and governance matters. The Sustainability Committee is chaired by Vice Admiral Jan E. Tighe, US Navy Retired. Since 2010, we have published our annual Huntsman Sustainability Report to document our progress and demonstrate our commitment to sustainability. Huntsman pursues continuous improvement in our operations. Our Horizon 2025 targets provide focus across the Company and are aggressive but attainable goals we use to gauge health and safety performance. We are committed to eliminating Tier 1 process safety incidents and life-impacting injuries and fatalities. We also target 10% reductions in greenhouse gas emissions and energy consumption and 5% reductions in hazardous waste and solid waste disposal and net water usage at our facilities in water-stressed regions of the world. Our efficiency targets are measur

- 6% reduction in greenhouse gas emissions
- 6% reduction in energy consumption
- 52% reduction of water use in water-stressed regions
- 5% reduction of hazardous waste
- 13% reduction of total waste

Forward-looking statements: The following disclosure to the Carbon Disclosure Project prepared by Huntsman may include forward-looking statements that are subject to risks and uncertainties, including those pertaining to the anticipated benefits to be realized from the proposals described herein. Huntsman has based these forward-looking statements on its views with respect to future events and financial performance. Actual financial performance could differ materially from that projected. Forward-looking statements represent estimates and assumptions only as of the date that they were made. The information contained in these answers is subject to change without notice and Huntsman does not undertake any duty to update the forward-looking statements, and the estimates and assumptions associated with them, except to the extent required by applicable laws and regulations.

You may find more information about Huntsman at www.huntsman.com

SC0.1

(SC0.1) What is your company's annual revenue for the stated reporting period?

	Annual Revenue
Row 1	6018000000

SC0.2

(SC0.2) Do you have an ISIN for your company that you would be willing to share with CDP? Yes

SC0.2a

(SC0.2a) Please use the table below to share your ISIN.

	ISIN country code (2 letters)	ISIN numeric identifier and single check digit (10 numbers overall)
Row 1	US	4470111075

SC1.1

(SC1.1) Allocate your emissions to your customers listed below according to the goods or services you have sold them in this reporting period.

Requesting member

ARKEMA

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

Natural gas for on-site equipment.

Verified

No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member

Bayer AG

Scope of emissions

Scope 1

Allocation level Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

Natural gas for on-site equipment.

Verified

No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member

Electrolux

Scope of emissions

Scope 1

Allocation level Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

U

Major sources of emissions

Natural gas for on-site equipment.

Verified

No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member

Ford Motor Company

Scope of emissions Scope 1

Allocation level Company wide

Allocation level detail <Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

Natural gas for on-site equipment.

Verified No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member

KAO Corporation

Scope of emissions Scope 1

Allocation level Company wide

Allocation level detail <Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%)

0

Major sources of emissions

Natural gas for on-site equipment.

Verified No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member Robert Bosch GmbH

Scope of emissions Scope 1

Allocation level Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

Uncertainty (±%)

0

Major sources of emissions Natural gas for on-site equipment.

Verified

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin

tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member Schlumberger Limited

Scope of emissions Scope 1

Allocation level Company wide

Allocation level detail <Not Applicable>

Emissions in metric tonnes of CO2e

0

Uncertainty (±%) 0

Major sources of emissions

Natural gas for on-site equipment.

Verified No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

Requesting member

The Dow Chemical Company

Scope of emissions Scope 1

Allocation level Company wide

Allocation level detail

<Not Applicable>

Emissions in metric tonnes of CO2e

Uncertainty (±%)

0

0

Major sources of emissions

Natural gas for on-site equipment.

Verified No

Allocation method

Other, please specify (We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.)

Please explain how you have identified the GHG source, including major limitations to this process and assumptions made

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

SC1.2

(SC1.2) Where published information has been used in completing SC1.1, please provide a reference(s).

We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

SC1.3

(SC1.3) What are the challenges in allocating emissions to different customers, and what would help you to overcome these challenges?

Allocation challenges	Please explain what would help you overcome these challenges
Customer base is too large and diverse to accurately track	We are not currently allocating emissions to customers at this time. We will evaluate this request for the 2021 disclosure as part of our efforts to begin
emissions to the customer level	tracking our Scope 3 / Life Cycle emissions from 2021 onwards.

SC1.4

(SC1.4) Do you plan to develop your capabilities to allocate emissions to your customers in the future? Yes

SC1.4a

(SC1.4a) Describe how you plan to develop your capabilities.

We have begun a Scope 3 estimation effort that will ultimately cumulate in our ability to allocate our Scope 1, Scope 2 and Scope 3 emissions to our customers.

SC2.1

(SC2.1) Please propose any mutually beneficial climate-related projects you could collaborate on with specific CDP Supply Chain members.

SC2.2

(SC2.2) Have requests or initiatives by CDP Supply Chain members prompted your organization to take organizational-level emissions reduction initiatives? No

SC4.1

(SC4.1) Are you providing product level data for your organization's goods or services? No, I am not providing data

Submit your response

In which language are you submitting your response? English

Please confirm how your response should be handled by CDP

	I am submitting to	Public or Non-Public Submission	Are you ready to submit the additional Supply Chain questions?
I am submitting my response	Investors	Public	Yes, I will submit the Supply Chain questions now
	Customers		

Please confirm below

I have read and accept the applicable Terms