Welcome to your CDP Climate Change Questionnaire 2022

C0. Introduction

C0.1

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

Topsoe is a leading developer and provider of solutions and technologies to produce fuels and chemicals essential to the energy transition. For more than 80 years, we have been perfecting chemistry to help industries produce more efficiently. Today, it is our ambition to lead the global transition of heavy industry and transport toward a zero-carbon future.

For decades, Topsoe has helped solve some of the world's toughest challenges. Our ammonia solutions are used to produce fertilizers, which has helped feed growing populations. Other of our technologies help limit air pollution by reducing sulfur and other pollutants from fossil fuel emissions to environmentally safe levels - for the benefit of environmental stability and public health. Today, we focus on the climate challenge.

We provide our customers with world-leading technologies that enable them to produce essential chemicals and fuels in an energy-efficient way. While these offerings remain relevant, we strengthen our focus on technologies that can help accelerate a responsible transition to renewable energy sources.

We are one of very few companies, that possesses both the expertise and the technologies needed to transform renewable power, biomass, and waste into low-carbon fuels and chemicals, as well as to deliver carbon capture solutions and thereby remove CO2 at chemical plants using natural gas.

Our own scope 1&2 emissions originate from the production of catalysts which are used within the portfolio of services we provide for our customers including but not limited to e.g. the production of ammonia, methanol, hydrogen, biofuels , power to x solutions and the reduction of polluting emissions from our customers operations.

C0.2

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

	Start date	End date	Indicate if you are providing emissions data for past reporting years	Select the number of past reporting years you will be providing emissions data for
Reporting year	January 1, 2021	December 31, 2021	Yes	1 year

C0.3

(C0.3) Select the countries/areas in which you operate.

Denmark

United States of America

C0.4

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

DKK

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

Bulk inorganic chemicals

Other chemicals

Other, please specify

Our catalysts, technology designs and licenses - are used to produce e.g. hydrogen, biofuels, methanol, ammonia, fertilizers and power-to-X solutions.

C0.8

(C0.8) Does your organization have an ISIN code or another unique identifier (e.g., Ticker, CUSIP, etc.)?

Indicate whether you are able to provide a unique identifier for your organization	Provide your unique identifier
Yes, another unique identifier, please specify Topsoe is identified by its Danish company identification number	CVR 41853816

C1. Governance

C1.1

(C1.1) Is there board-level oversight of climate-related issues within your organization?

Yes

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
Board-level committee	Topsoe Senior Leadership Team are hereby defined as "Board-level committee". All climate and sustainability related issues / targets / performance are approved by Topsoe's Senior Leadership Team, which consists of C-suite . The Senior Leadership Team is overall accountable for Topsoe's Sustainability Framework, climate change targets and action plans. Recent climate change targets set in 2021 include scope 1 & 2 Net Zero operations by 2030 and the implementation of supplier engagement to support Scope 3 Net Zero ambitions by 2040. This is directly linked to our company vision i.e. by 2024 to be recognized as the global leader in carbon emission reduction technologies.

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	Please explain

Scheduled – some meetings	Reviewing and guiding strategy	Topsoe's strategy and vision are anchored in addressing climate related issue through a global technological transition. Supporting this, Topsoe Senior Leadership Team meet quarterly to approve proposed climate related targets/strategy and to review annual performance towards short term and year end targets. The short term climate related targets, support the long term net Zero targets.

C1.1d

(C1.1d) Does your organization have at least one board member with competence on climate-related issues?

	Board member(s) have competence on climate-related issues	Criteria used to assess competence of board member(s) on climate-related issues
Row 1	Yes	The Chief Strategy & Innovation Officer holds the most competence in climate related issues, though other members of the Senior Leadership Team also have competence. The Chief Strategy & Innovation Officer has responsibility for the Sustainability Team, who maintain the competencies and responsibility for developing Topsoe's climate related strategy, targets and other climate related organizational competencies. The Chief Strategy & Innovation Officer is consequently integrated into all strategic decisions made on climate related issues e.g. Net Zero Targets, R&D and strategic direction for climate related technologies.

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)	Responsibility	Frequency of reporting to the board on climate-related issues
Chief Executive Officer (CEO)	Both assessing and managing climate-related risks and opportunities	Quarterly

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 climate-related issues are monitored (do not include the names of individuals).

The CEO supported by Topsoe's Senior Leadership Team, is responsible for managing climate change and sustainability strategy, Net Zero targets, risks and mitigating actions. The CEO reports and delegates responsibility to responsible Senior Leadership Team members when reporting to the Board of Directors on these climate change related activities.
Responsible areas report monthly on performance related to climate change activities, which is disclosed in monthly townhall meetings to all of Topsoe.
When strategic decisions are needed to e.g. address operational performance, investments in R&D or acquisitions related to climate change activities, these are coordinated through the Senior Leadership Team lead by the CEO.

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	Scope 1 and 2 CO2e reduction targets are integrated into certain members of the Senior Leadership Team incentive scheme, who directly influence company performance towards these targets.

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 incentivized	Comment
Board/Executive board	Monetary reward	Emissions reduction target	Board/Executive board is select - this refers to Topsoe's Senior Leadership Team members - refers only to the members who are responsible for the reduction KPI's /targets.

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	1	Our ERM process defines short term as 0 to 0.5 years
Medium-term	0	1	Our ERM process defines medium term as 0.5 to 1 year
Long-term	1		Our ERM process defines long term is 1 year and above

C2.1b

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

A substantive financial or strategic impact on our business is defined in our ERM process as probable when the frequency is once between 4-10 years, or probability per year is between 10-25%. Financial cost impact is defined as DKK150m and above.

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
Downstream

Risk management process

Integrated into multi-disciplinary company-wide risk management process

Frequency of assessment

More than once a year

Time horizon(s) covered

Short-term
Medium-term
Long-term

Description of process

Climate related risks and opportunities are incorporated through a multi disciplinary approach into both Topsoe's ERM and company strategic develop activities.

Value chain stages (direct operations, upstream and downstream) are managed through

the year within the responsible internal business functions e.g. procurement monitor upstream /supply chain activities, operations oversee operational/asset risks due climate change events, while downstream is monitored by both our Commercial and Strategy & Innovation sections.

During 2021, Topsoe started to incorporate climate related risks into the ERM process, initiating the development of a more formalized approach aligned with TCFD to be developed further during 2022.

Climate change related risks:
Although the process was new to the ERM activities, climate related risks and opportunities have been incorporated into the business/value chain activities for several years. This has resulted in mitigating actions in Denmark to prevent floods from the neighboring fjord and in the USA to mitigate climate relate risks from e.g. cyclones, extreme temperatures etc.

Climate change related opportunities:
Commercial and Strategy & Innovation sections focus on opportunities for product development and market positioning of decarbonization technologies. These activities support Topsoe's vision to be the global leader in decarbonization technologies by 2024.

C2.2a

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

	Relevance & inclusion	Please explain
Current regulation	Relevant, always included	Our operations producing catalysts and chemicals are subjected to regional climate related regulations e.g. European emission trading scheme (ETS) and local carbon taxes in Denmark.
Emerging regulation	Relevant, always included	We monitor global but more specifically EU and Danish emerging regulations e.g. carbon pricing policies present a risk and an opportunity for Topsoe.
Technology	Relevant, always included	Topsoe's vision is to be the global leader in decarbonization technologies by 2024 - supporting our customers decarbonization transition. Therefore, it is essential that we strategically monitor technological trends, risks and opportunities, while continuing to invest in R&D to ensure we achieve our vision and desired market position. The same approach is applied to our own operational activities. In 2021 we initiated activities to develop a road map to transition our own operations and used technologies.

Legal	Relevant, always included	Full compliance with legal obligations is a simple license to operate requirement. Failure to achieve our legal compliance is a risk to continuous operations.
Market	Relevant, always included	We provide catalysts, technology and licenses to use our technology for e.g. power-to-x solutions, biofuels, sustainable aviation fuels (SAF) etc. Therefore, understanding market demands is essential to our success as a company aiming to be global leaders in decarbonization technology.
Reputation	Relevant, always included	Topsoe's purpose is - Perfecting Chemistry for a Better world. For decades, Topsoe has helped solve some of the world's toughest challenges. Our ammonia solutions are used to produce fertilizers, which has helped feed growing populations. Other of our technologies help limit air pollution by reducing sulfur and other pollutants from fossil fuel emissions to environmentally safe levels - for the benefit of environmental stability and public health. Today, we focus on the climate challenge. Topsoe is active in many sectors including green and traditional fossil based activities. On an annual basis we review our strategy for both market positioning of our products and potential customers who want our products.
Acute physical	Relevant, always included	Acute climate risks present challenges more so for our US operations in Bayport Texas. Even with risk management processes in place, extreme weather events stop operations on an annual basis with 2021 experiencing shutdowns and water leakages due to burst pipes caused by extreme freezing. Mitigation to prevent flooding has also been implemented in Bayport during 2021.
Chronic physical	Relevant, always included	Risks from long term climate change presents risks to our value chain stages and opportunities for our technological solutions, which support global demand for decarbonization e.g. our power-to-x solutions, renewable fuels, etc.

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?

Yes

C2.3a

(C2.3a) Provide details of risks identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Risk 1

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Cyclone, hurricane, typhoon

Primary potential financial impact

Increased direct costs

Company-specific description

Extreme weather conditions present a risk on an annual basis for US operations in Bayport, Texas, where cyclones/hurricanes present a risk to operations and human health.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

50,000,000

Potential financial impact figure – maximum (currency)

15,000,000

Explanation of financial impact figure

Currency is in Danish DKK. Following our ERM risk matrix the risks are often identified as moderate with a 5-10% (possible) probability

Cost of response to risk

16,712,467

Description of response and explanation of cost calculation

HSE monitors weather systems trends in cyclones and hurricanes, to ensure they can implement procedures to mitigate risks and maintain both human safety and operational up time. Cost ranges are based on previous activities and known spend for addressing the damage or implementing mitigating solutions.

Comment

N/A

Identifier

Risk 2

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Cold wave/frost

Primary potential financial impact

Increased direct costs

Company-specific description

Extreme weather conditions present a risk on an annual basis for US operations in Bayport, Texas, where extreme temperatures present a risk to operations and human health.

Time horizon

Medium-term

Likelihood

More likely than not

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

50,000,000

Potential financial impact figure – maximum (currency)

150,000,000

Explanation of financial impact figure

Currency is in Danish DKK. Following our ERM risk matrix the risks are often identified as moderate with a 5-10% (possible) probability

Cost of response to risk

16,712,467

Description of response and explanation of cost calculation

HSE monitors weather systems trends, to ensure they can implement procedures to mitigate risks and maintain both human safety and operational up time. Cost ranges

are based on previous activities and known spend for addressing the damage or implementing mitigating solutions.

Comment

N/A

Identifier

Risk 3

Where in the value chain does the risk driver occur?

Direct operations

Risk type & Primary climate-related risk driver

Acute physical

Heat wave

Primary potential financial impact

Increased direct costs

Company-specific description

Extreme weather conditions present a risk on an annual basis for US operations in Bayport, Texas, where extreme temperatures present a risk to operations and human health.

Time horizon

Medium-term

Likelihood

Likely

Magnitude of impact

Medium-low

Are you able to provide a potential financial impact figure?

Yes, an estimated range

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

50,000,000

Potential financial impact figure – maximum (currency)

150,000,000

Explanation of financial impact figure

Currency is in Danish DKK. Following our ERM risk matrix the risks are often identified as moderate with a 5-10% (possible) probability

Cost of response to risk

16,712,467

Description of response and explanation of cost calculation

HSE monitors weather systems trends, to ensure they can implement procedures to mitigate risks and maintain both human safety and operational up time. Cost ranges are based on previous activities and known spend for addressing the damage or implementing mitigating solutions.

Comment

N/A

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?

Yes

C2.4a

(C2.4a) Provide details of opportunities identified with the potential to have a substantive financial or strategic impact on your business.

Identifier

Opp1

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Products and services

Primary climate-related opportunity driver

Development of new products or services through R&D and innovation

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Topsoe has a strong market position in Power-to-x technological solutions for hydrogen, ammonia, methanol. This is based on our catalog of products and service we can already provide and how we further develop these according to identified climate change opportunities.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Topsoe has internal calculations for the potential financial impacts, however this is still confidential.

Cost to realize opportunity

575,460,000

Strategy to realize opportunity and explanation of cost calculation

Cost is presented in Danish DKK. Calculation is based on R&D investment for which in 2021, Topsoe invested 9.2% of revenue on R&D.

Comment

N/A

Identifier

Opp2

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of new technologies

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Topsoe aims to become a global leader in Power-to-X with its highly efficient solid oxide electrolysis technology (SOEC). We are well-positioned as one of very few companies to offer end-to-end solutions within green hydrogen, green ammonia, green methanol, and eFuels. These solutions can be used in the so-called hard-to-abate sectors: aviation, shipping, heavy transport, and heavy industry. These are all industries where

direct electrification is not a viable option.
In the power and utilities sector, green hydrogen, green ammonia, and green methanol can also be used to balance the power grid, which becomes increasingly important with the growing – but intermittent – electricity production from especially wind turbines and solar panels.

Time horizon

Medium-term

Likelihood

Virtually certain

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Topsoe has internal calculations for the potential financial impacts, however this is still confidential.

Cost to realize opportunity

2,000,000,000

Strategy to realize opportunity and explanation of cost calculation

Topsoe will build the world's most advanced industrial scale electrolyzer production plant to meet society's need for Power-to-X solutions. Topsoe's ambition is to speed up the green energy transition with solutions that decarbonize hard to abate industries. The plant will be built in Herning, Denmark. Construction work will start in second half of 2022 with expected start of operations in 2024. When in operation, it will be world's largest electrolyzer plant with 500 megawatt capacity per year and with an option to expand to 5 gigawatt.

The cost to realize the opportunity is based on both Topsoe investment to build the the plant.

Comment

N/A

Identifier

Opp3

Where in the value chain does the opportunity occur?

Downstream

Opportunity type

Energy source

Primary climate-related opportunity driver

Use of lower-emission sources of energy

Primary potential financial impact

Increased revenues through access to new and emerging markets

Company-specific description

Sustainable Aviation Fuels (SAF) are the most promising pathway to decarbonization. There are seven approved routes to SAF, but at Topsoe, we've identified the main routes which we consider the most commercially advanced.

Time horizon

Long-term

Likelihood

Very likely

Magnitude of impact

High

Are you able to provide a potential financial impact figure?

No, we do not have this figure

Potential financial impact figure (currency)

Potential financial impact figure – minimum (currency)

Potential financial impact figure – maximum (currency)

Explanation of financial impact figure

Topsoe has internal calculations for the potential financial impacts, however this is still confidential.

Cost to realize opportunity

575,460,000

Strategy to realize opportunity and explanation of cost calculation

Cost is presented in Danish DKK. During 2021 Topsoe invested 9.2% of revenue on R&D. A percentage of this is allocated to further refining Topsoe SAF technological solutions.

Comment

N/A

C3. Business Strategy

C3.1

(C3.1) Does your organization's strategy include a transition plan that aligns with a 1.5°C world?

Row 1

Transition plan

No, but our strategy has been influenced by climate-related risks and opportunities, and we are developing a transition plan within two years

Explain why your organization does not have a transition plan that aligns with a 1.5°C world and any plans to develop one in the future

We do not currently have a transition plan defined and signed off, though we have started developing this and implementing actions which will decarbonize our value chain.

Reason:
During 2021 Topsoe conducted its first full value chain emissions profile for scope 1, 2 & 3 emissions for the baseline year 2020. This information has been used to develop our Net Zero targets - Scope 1 & 2 by 2030 and scope 3 by 2040. Our ambition sees us reach a reduction aligned with a 1.5 degrees world before 2050.

Development of our transition plan for scope 1 & 2, was initiated by the end of 2021. Scope 1 activities will require a technological transition - solutions and viability are being explored to identify the best opportunities beyond the provisional studies developed during 2021.

A scope 3 transitional plan was initiated, to develop knowledge of our suppliers decarbonization baseline. This supports Topsoe's strategic decisions, Net Zero target setting and engagement with our key 2017 suppliers who we have requested to partner with us and disclose to CDP for 2021 disclosures. These suppliers account for more than 70% of our scope 3 profile.

C3.2

(C3.2) Does your organization use climate-related scenario analysis to inform its strategy?

	Use of climate-related scenario	Primary reason why your organization does not use	Explain why your organization does not use climate-related scenario analysis to inform its strategy and any plans to use it in the future

	analysis to inform strategy	climate-related scenario analysis to inform its strategy	
Row 1	No, but we anticipate using qualitative and/or quantitative analysis in the next two years	Important but not an immediate priority	At Topsoe we initiated a new sustainability function in November 2020. Subsequently we have focused on onboarding the required skills to develop sustainability and climate change/decarbonization skills during 2021. Immediate tasks included conducting emission baseline analysis to comply with our SBTi commitment and to set Net Zero Targets. We therefore decided to further develop our climate risk scenario analysis during 2022 (this has now be initiated).

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	Topsoe's vision is to be the global leader in decarbonization technology by 2024. We therefore conduct market analysis to determine how to either best develop or evolve our products and services to support customer requirements in e.g. power-to-x or other renewable fuel solutions/technologies.
Supply chain and/or value chain	Yes	Scope 3 emissions account for approximately 73% of our emissions profile (2020 baseline). During 2021 we initiated activities to engage with our top suppliers who would cover more than 70% of our scope 3 emissions profile. During 2022 we have requested them to disclose to CDP and partner with us to develop a Net Zero supply chain.
Investment in R&D	Yes	During 2021 we invested 9.2% of our revenue in R&D with the primary focus on decarbonization technologies to support opportunities to mitigate global climate related risks.
Operations	Yes	We conducted provisional feasibility studies to assess the cost to transition our operations away from fossil technologies. It was determined that we should set our 2030 Net Zero target and implement a proper engineering

		feasibility assessment of our operations to determine what technological transition pathways could be implemented.

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 Indirect costs Capital allocation Acquisitions and divestments Access to capital	The followings is broken down to reflect the selected influences: Revenues: Topsoe has identified preferred strategic avenues for revenue within decarbonization technologies and solutions for our customers. Topsoe has restructured the organization to enable us to effectively develop these revenue streams. Divestments: Topsoe divested its shares in Faradion (the global leader in non-aqueous sodium-ion cell technology). The strategic decision was made so as to enable us to focus on the development of our cathode technology for batteries. Access to capital: In 2021 Topsoe implemented a new function "Energy Transition Financing" with a primary focus on gaining access to financing opportunities to support climate related opportunities. Indirect costs: CAPEX/OPEX spend on materials and infrastructure to mitigate climate related risks within US based operations. Capital allocation: R&D investment of 9.2% revenue has seen a transition towards climate related/decarbonization technologies/solutions and services. This supports Topsoe's vision to be the global leader in decarbonization technologies to support a global alignment with 1.5 degrees climate.

C4. Targets and performance

C4.1

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

Absolute target

C4.1a

(C4.1a) Provide details of your absolute emissions target(s) and progress made against those targets.

Target reference number
Abs 1

Year target was set
2021

Target coverage
Company-wide

Scope(s)
Scope 1
Scope 2

Scope 2 accounting method
Market-based

Scope 3 category(ies)

Base year
2019

Base year Scope 1 emissions covered by target (metric tons CO2e)
121,000

Base year Scope 2 emissions covered by target (metric tons CO2e)
35,000

Base year Scope 3 emissions covered by target (metric tons CO2e)

Total base year emissions covered by target in all selected Scopes (metric tons CO2e)
156,000

Base year Scope 1 emissions covered by target as % of total base year emissions in Scope 1
100

Base year Scope 2 emissions covered by target as % of total base year emissions in Scope 2
100

Base year Scope 3 emissions covered by target as % of total base year emissions in Scope 3 (in all Scope 3 categories)

Base year emissions covered by target in all selected Scopes as % of total base year emissions in all selected Scopes

100

Target year

2021

Targeted reduction from base year (%)

15

Total emissions in target year covered by target in all selected Scopes (metric tons CO2e) [auto-calculated]

132,600

Scope 1 emissions in reporting year covered by target (metric tons CO2e)

94,000

Scope 2 emissions in reporting year covered by target (metric tons CO2e)

33,000

Scope 3 emissions in reporting year covered by target (metric tons CO2e)

Total emissions in reporting year covered by target in all selected scopes (metric tons CO2e)

127,000

% of target achieved relative to base year [auto-calculated]

123.9316239316

Target status in reporting year

Achieved

Is this a science-based target?

No, but we anticipate setting one in the next 2 years

Target ambition

Please explain target coverage and identify any exclusions

Topsoe committed to SBTi 2021 and decided to set interim emission reduction targets. 2019 was the first year we measured our scope 1 & 2 emissions aligned with the GHG protocol, therefore we used 2019 as the baseline. A 15% reduction was proposed based on the knowledge of what was happening in the following year plus what was believe to be reasonable to push the organization to make reductions. While all emissions from scope 1 & 2 are included, reductions are predominately realized by operational activities .

Plan for achieving target, and progress made to the end of the reporting year

List the emissions reduction initiatives which contributed most to achieving this target

This development was driven by energy savings in our production, variations in production mix, and shutdowns of production due to COVID-19 impacts on customer demand for Topsoe solutions. Also local energy-saving initiatives and conversion from natural gas to district heating at our headquarters (net saving of 1,322 tCO2e) contributed to the lower emission level in 2021.

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		
To be implemented*		
Implementation commenced*		
Implemented*	2	156
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

Energy efficiency in production processes

Cooling technology

Estimated annual CO2e savings (metric tonnes CO2e)

117

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

202,308

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

2,581,989

Payback period

11-15 years

Estimated lifetime of the initiative

16-20 years

Comment

Payback period will vary due to fluctuating energy prices.

Initiative category & Initiative type

Energy efficiency in production processes

Waste heat recovery

Estimated annual CO2e savings (metric tonnes CO2e)

39

Scope(s) or Scope 3 category(ies) where emissions savings occur

Scope 2 (market-based)

Voluntary/Mandatory

Voluntary

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

227,854

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

300,000

Payback period

1-3 years

Estimated lifetime of the initiative

16-20 years

Comment

C4.3c

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

Method	Comment
Dedicated budget for low-carbon product R&D	In R&D we invested 9.2% of revenue into emission reduction activities and development of products and services
Dedicated budget for other emissions reduction activities	Energy efficiency activities are identified and assessed annually across our assets. Budgets are identified on and approved on the merits of the business case

C4.5

(C4.5) Do you classify any of your existing goods and/or services as low-carbon products?

Yes

C4.5a

(C4.5a) Provide details of your products and/or services that you classify as low-carbon products.

Level of aggregation

Group of products or services

Taxonomy used to classify product(s) or service(s) as low-carbon

No taxonomy used to classify product(s) or service(s) as low carbon

Type of product(s) or service(s)

Other

Other, please specify

Renewable fuels

Description of product(s) or service(s)

Topsoe is a global leader in developing and licensing Hydro-processing Technology for renewable fuels.

Have you estimated the avoided emissions of this low-carbon product(s) or service(s)

No

Methodology used to calculate avoided emissions

Life cycle stage(s) covered for the low-carbon product(s) or services(s)

Functional unit used

Reference product/service or baseline scenario used

Life cycle stage(s) covered for the reference product/service or baseline scenario

Estimated avoided emissions (metric tons CO2e per functional unit) compared to reference product/service or baseline scenario

Explain your calculation of avoided emissions, including any assumptions

Revenue generated from low-carbon product(s) or service(s) as % of total revenue in the reporting year

5

C5. Emissions methodology

C5.1

(C5.1) Is this your first year of reporting emissions data to CDP?

Yes

C5.2

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

Scope 1

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

121,000

Comment

Emission profile captures all operational activities in compliance with the GHG Protocol.

Scope 2 (location-based)

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
16,000

Comment
Emission profile captures all purchased electricity and heat in compliance with the GHG Protocol.

Scope 2 (market-based)

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
35,000

Comment
Emission profile captures all purchased electricity and heat in compliance with the GHG Protocol.

Scope 3 category 1: Purchased goods and services

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
379,162

Comment
Defined as a material category for Topsoe. Accounts for approximately 87% of Scope 3.

Scope 3 category 2: Capital goods

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not defined as a material category in the baseline year. All primary spend activities are captured under category 1. Our procurement department, had no registered CAPEX for 2020.

Scope 3 category 3: Fuel-and-energy-related activities (not included in Scope 1 or 2)

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

7,695

Comment

Defined as a material category for Topsoe. Accounts for only approximately 1.8% of Scope 3, however this is material to our operations and scope 1 & 2.

Scope 3 category 4: Upstream transportation and distribution

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

8,809

Comment

Defined as a material category for Topsoe. Accounts for approximately 2% of Scope 3. While not much in comparison to category 1, we consider it an area to strategically focus on in the future.

Scope 3 category 5: Waste generated in operations

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

9,199

Comment

Defined as a material category for Topsoe. Accounts for approximately 2.1% of Scope 3. While not much in comparison to category 1, we consider it an area to strategically focus on in the future.

Scope 3 category 6: Business travel

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

3,228

Comment

Defined as a material category for Topsoe. Accounts for approximately 0.7% of Scope 3. While not much in comparison to category 1, we consider it an area to strategically focus on in the future due to the level of employee travel required to support the technical implementation and services of our technologies.

Scope 3 category 7: Employee commuting

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not considered material, following our initial baseline assessments.

Scope 3 category 8: Upstream leased assets

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

We have no upstream leased assets.

Scope 3 category 9: Downstream transportation and distribution

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

8,339

Comment

Defined as a material category for Topsoe. Accounts for approximately 1.9% of Scope 3. While not much in comparison to category 1, we consider it an area to strategically focus on in the future.

Scope 3 category 10: Processing of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not considered material.

Scope 3 category 11: Use of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,907

Comment

Defined as a material category for Topsoe. Accounts for approximately 0.4% of Scope 3. While not much in comparison to category 1, we consider it an area to strategically monitor as our business develops into new areas. The emissions are from a selection of catalysts which produce very little CO2e during their direct use-phase. Additionally, these have been conservatively calculated on the higher end of an expected emission.

Scope 3 category 12: End of life treatment of sold products

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

1,837

Comment

Defined as a material category for Topsoe. Accounts for approximately 0.4% of Scope 3. While not much in comparison to category 1, we consider it an area to strategically monitor as we are looking into new circular business models to support our customers and to review our resource consumption strategies.

Scope 3 category 13: Downstream leased assets

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not material to Topsoe, as we have no down stream leased assets.

Scope 3 category 14: Franchises

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

0

Comment

Not material. Topsoe has no Franchises.

Scope 3 category 15: Investments

Base year start

January 1, 2020

Base year end

December 31, 2020

Base year emissions (metric tons CO2e)

12,603

Comment

Material to Topsoe at approximately 3% of scope 3. Due to the nature of our historic investment profile, we will strategically monitor our investments.

Scope 3: Other (upstream)

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
0

Comment
Not material

Scope 3: Other (downstream)

Base year start
January 1, 2020

Base year end
December 31, 2020

Base year emissions (metric tons CO2e)
0

Comment
Not material

C5.3

(C5.3) Select the name of the standard, protocol, or methodology you have used to collect activity data and calculate emissions.

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

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)
94,000

Start date
January 1, 2021

End date

December 31, 2021

Comment

Emissions are calculated by measuring 1) fuel consumption, 2) emissions from chemical processes, 3) refrigerants and 4) vehicles . Appropriate emission factors are applied.

Emission reductions were realized through operational efficiency initiatives and production profile activities.

Past year 1

Gross global Scope 1 emissions (metric tons CO2e)

121,000

Start date

January 1, 2020

End date

December 31, 2020

Comment

Base year.

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

We calculate both scenarios to capture all trends and improvements in available emission factors for our vendors.

C6.3

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

Reporting year

Scope 2, location-based

14,000

Scope 2, market-based (if applicable)

33,000

Start date

January 1, 2021

End date

December 31, 2021

Comment

Energy efficiency initiatives and production profiles drove energy consumption down.

Past year 1

Scope 2, location-based

16,000

Scope 2, market-based (if applicable)

35,000

Start date

January 1, 2020

End date

December 31, 2020

Comment

Base year

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, calculated

Emissions in reporting year (metric tons CO2e)

386,030

Emissions calculation methodology

Spend-based method

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

100

Please explain

Spend data has been sorted and categorized against as per our procurement structure and categories, then aligned with EU Taxonomy / EU NACE codes. These are then assessed against the GHG Protocol's 15 categories. DEFRA 2020 emission factors are applied.

Capital goods

Evaluation status

Not relevant, explanation provided

Please explain

Topsoe procurement structure and categorization did not use a "Capital Goods" during 2021. This was the same in our base year of 2020.

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

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

6,506

Emissions calculation methodology

Fuel-based method

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

100

Please explain

Fuel consumption is reported and linked to DEFRA 2020 WTT emission factors.

Upstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

3,335

Emissions calculation methodology

Spend-based method

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

100

Please explain

Spend data has been sorted and categorized against as per our procurement structure and categories and aligned with EU Taxonomy / EU NACE codes. These have been aligned with the GHG Protocol's 15 categories. DEFRA 2020 emission factors are applied.

Waste generated in operations

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

542

Emissions calculation methodology

Waste-type-specific method

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

100

Please explain

Waste fractions are reported by operations and regional offices. DEFRA 2020 and EPA 2016 emission factors are applied.

Business travel

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,648

Emissions calculation methodology

Distance-based method
Asset-specific method

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

100

Please explain

Company Travel agent (Amex) provides distance traveled by employees and includes emission factors. This is coupled with a site specific approach developed by EY consultants based on tCO2e per FTE travelled by people at head office.

Employee commuting

Evaluation status

Not relevant, explanation provided

Please explain

Calculated for the base year development and determined that it was not material.

Upstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Topsoe has no upstream leased assets.

Downstream transportation and distribution

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

11,471

Emissions calculation methodology

Spend-based method

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

80

Please explain

Topsoe has spend associated to down stream delivery of sold products. Spend is linked to travel type and associated DEFRA 2020 emission factors.

Processing of sold products

Evaluation status

Not relevant, explanation provided

Please explain

Topsoe does not have processing of sold products currently.

Use of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,907

Emissions calculation methodology

Methodology for direct use phase emissions, please specify

Some catalyst contain a carbon element that can be emitted in the direct use phase

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

100

Please explain

Topsoe has identified sold catalysts which contain a carbon element when sold to customers. When in direct use-phase we conservatively assume all carbon is emitted. The chemical reaction is developed for each of the identified catalysts and thus an emission factor is applied to each tonnes of catalysts sold within the identified catalyst profiles.

End of life treatment of sold products

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

1,837

Emissions calculation methodology

Waste-type-specific method

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

Please explain

Revenue associated to sold products within 2021, is linked to EoL emission factors developed by DEFRA 2020 and EPA 2016.

Downstream leased assets

Evaluation status

Not relevant, explanation provided

Please explain

Topsoe has no down stream leased assets

Franchises

Evaluation status

Not relevant, explanation provided

Please explain

Topsoe has not Franchises

Investments

Evaluation status

Relevant, calculated

Emissions in reporting year (metric tons CO2e)

13,314

Emissions calculation methodology

Investment-specific method

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

100

Please explain

Revenue of the investments is used to calculate an emission profile. The companies activities are linked to EU Taxonomy / EU Nace codes and subsequently DEFRA 2020 emission factors. An equity share is then applied to the emission profile to determine Topsoe's tCO2e accordingly to the investment.

Other (upstream)

Evaluation status

Not relevant, explanation provided

Please explain

Not relevant to Topsoe.

Other (downstream)

Evaluation status

Not relevant, explanation provided

Please explain

Not relevant to Topsoe.

C6.5a

(C6.5a) Disclose or restate your Scope 3 emissions data for previous years.

Past year 1

Start date

January 1, 2020

End date

December 31, 2020

Scope 3: Purchased goods and services (metric tons CO2e)

379,162

Scope 3: Capital goods (metric tons CO2e)

0

Scope 3: Fuel and energy-related activities (not included in Scopes 1 or 2) (metric tons CO2e)

7,695

Scope 3: Upstream transportation and distribution (metric tons CO2e)

8,809

Scope 3: Waste generated in operations (metric tons CO2e)

9,199

Scope 3: Business travel (metric tons CO2e)

3,228

Scope 3: Employee commuting (metric tons CO2e)

0

Scope 3: Upstream leased assets (metric tons CO2e)

0

Scope 3: Downstream transportation and distribution (metric tons CO2e)

8,339

Scope 3: Processing of sold products (metric tons CO2e)

0

Scope 3: Use of sold products (metric tons CO2e)

1,907

Scope 3: End of life treatment of sold products (metric tons CO2e)

1,837

Scope 3: Downstream leased assets (metric tons CO2e)

0

Scope 3: Franchises (metric tons CO2e)

0

Scope 3: Investments (metric tons CO2e)

12,603

Scope 3: Other (upstream) (metric tons CO2e)

0

Scope 3: Other (downstream) (metric tons CO2e)

0

Comment

Past year is our base year and the first time we have measured our scope 3 emission profile. We have not calculated any previous years scope 3 emission profile.

C6.7

(C6.7) Are carbon dioxide emissions from biogenic carbon relevant to your organization?

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
0.00002

Metric numerator (Gross global combined Scope 1 and 2 emissions, metric tons CO2e)
127,000

Metric denominator
unit total revenue

Metric denominator: Unit total
6,255,000,000

Scope 2 figure used
Market-based

% change from previous year
20

Direction of change
Decreased

Reason for change
Revenue has increase by 1 % while scope 1 & 2 emissions decreased by 19%

C7. Emissions breakdowns

C7.1

(C7.1) Does your organization break down its Scope 1 emissions by greenhouse gas type?
No

C7.2

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

Country/Region	Scope 1 emissions (metric tons CO2e)
Denmark	66,394
United States of America	27,616

C7.3

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

By facility

C7.3b

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

Facility	Scope 1 emissions (metric tons CO2e)	Latitude	Longitude
Danish operations in Frederikssund	63,492	55.85325	12.05513
Danish operations and R&D in Ravnholm	2,902	55.80176	12.52487
US operations in Bayport, Huston, Texas	27,616	29.61158	-95.05872

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-CO7.4/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	Comment
Chemicals production activities	94,000	All physical products produced in our operations fall within the chemical production activity

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)
Denmark	6,397	25,014
United States of America	7,024	7,251
Argentina	0.1	0.1
Bahrain	82.74	82.74
China	29.54	29.54
Germany	11.51	13.1
India	270.06	270.06

Malaysia	2.55	2.55
Russian Federation	25.95	25.95

C7.6

(C7.6) Indicate which gross global Scope 2 emissions breakdowns you are able to provide.

By business division
By facility
By activity

C7.6a

(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)
Danish Operations	4,396	19,473
Danish R&D plus head office	1,981	5,490
US operations	6,678	6,894
US offices	346	357
Indian offices	270	271
Other global offices	123	124

C7.6b

(C7.6b) Break down your total gross global Scope 2 emissions by business facility.

Facility	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Office facilities - Argentina	0.1	0.01
Office facilities - Bahrain	83	83
Storage facility - Denmark Centervej, Frederikssund	20	51
Office & R&D facilities - Denmark Ravnholm	1,981	5,490
Operational facilities - Denmark Frederikssund	4,394	19,469
Storage facility - Denmark Frederiksværkvej, Frederikssund	2	4
Storage facility - Denmark, Kalundborg	0.2	0.2
Operational facilities - US, Bayport	6,678	6,894

Office facilities - US, Huston	346	357
Offices facilities - India	270	270
Office facilities - China, Beijing	30	30
Office facility - Germany	12	13
Office Facility - Malaysia	3	3
Office facility - Russia	26	26

C7.6c

(C7.6c) Break down your total gross global Scope 2 emissions by business activity.

Activity	Scope 2, location-based (metric tons CO2e)	Scope 2, market-based (metric tons CO2e)
Operational activities	11,095	26,418
R&D activities plus head office	1,981	5,490
Office activities	768	781

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
Chemicals production activities	13,843	32,689	All activities are linked to a form of chemical production, therefore the consolidated numbers are provided at this level.

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
Nitric acid	0.6	Spend is used per purchased product. this is linked to EU Taxonomy / EU NACE codes and corresponding DEFRA 2020 emission factors

Specialty chemicals	0.4	Spend is used per purchased product. this is linked to EU Taxonomy / EU NACE codes and corresponding DEFRA 2020 emission factors
Other base chemicals	1.3	Spend is used per purchased product. this is linked to EU Taxonomy / EU NACE codes and corresponding DEFRA 2020 emission factors
Lubricants	0.01	Spend is used per purchased product. this is linked to EU Taxonomy / EU NACE codes and corresponding DEFRA 2020 emission factors

C-CH7.8a

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

	Sales, metric tons	Comment
Carbon dioxide (CO2)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.
Methane (CH4)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.
Nitrous oxide (N2O)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.
Hydrofluorocarbons (HFC)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.
Perfluorocarbons (PFC)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.
Sulphur hexafluoride (SF6)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.
Nitrogen trifluoride (NF3)	0	Topsoe does not sell these products, we are a technology and catalyst company supporting the chemical industry.

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				
Other emissions reduction activities				
Divestment				
Acquisitions				
Mergers				
Change in output	29,000	Decreased	19	The most material drivers for reductions in tCO2e emitted are related to changes in production mix. We experienced a decrease in production due to COVID 19 impacts on global markets.
Change in methodology				
Change in boundary				
Change in physical operating conditions				
Unidentified				
Other				

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	Yes
Consumption of purchased or acquired steam	
Consumption of purchased or acquired cooling	
Generation of electricity, heat, steam, or cooling	

C8.2a

(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)	LHV (lower heating value)	0	198,538	198,538
Consumption of purchased or acquired electricity		15,178	13,347	28,527
Consumption of purchased or acquired heat		0	11,880	11,880

Total energy consumption		15,178	275,605	290,783

C-CH8.2a

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

Consumption of fuel (excluding feedstocks)

Heating value

LHV (lower heating value)

MWh consumed from renewable sources inside chemical sector boundary

0

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

198,538

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

198,538

Consumption of purchased or acquired electricity

MWh consumed from renewable sources inside chemical sector boundary

15,180

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

13,347

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

28,527

Consumption of purchased or acquired heat

MWh consumed from renewable sources inside chemical sector boundary

0

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

11,880

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

0

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

11,880

Total energy consumption

MWh consumed from renewable sources inside chemical sector boundary

15,178

MWh consumed from non-renewable sources inside chemical sector boundary (excluding recovered waste heat/gases)

275,605

MWh consumed from waste heat/gases recovered from processes using fuel feedstocks inside chemical sector boundary

11,880

Total MWh (renewable + non-renewable + MWh from recovered waste heat/gases) consumed inside chemical sector boundary

290,783

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	Yes
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.

Sustainable biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

na

Other biomass

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

na

Other renewable fuels (e.g. renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

na

Coal

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

na

Oil

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

na

Gas

Heating value

LHV

Total fuel MWh consumed by the organization

198,538

Comment

All heat and power created within the operational boundaries is created by natural gas

Other non-renewable fuels (e.g. non-renewable hydrogen)

Heating value

Unable to confirm heating value

Total fuel MWh consumed by the organization

0

Comment

na

Total fuel

Heating value

LHV

Total fuel MWh consumed by the organization

198,538

Comment

Total fuel reflects the natural gas consumption in operations

C8.2e

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

Sourcing method

None (no active purchases of low-carbon electricity, heat, steam or cooling)

Energy carrier

Low-carbon technology type

Country/area of low-carbon energy consumption

Tracking instrument used

Low-carbon energy consumed via selected sourcing method in the reporting year (MWh)

Country/area of origin (generation) of the low-carbon energy or energy attribute

Commissioning year of the energy generation facility (e.g. date of first commercial operation or repowering)

Comment

2021 was used for developing our baseline emission profile and setting Zet Zero targets. We did not purchase low carbon fuels.

C8.2g

(C8.2g) Provide a breakdown of your non-fuel energy consumption by country.

Country/area

Denmark

Consumption of electricity (MWh)

11,954

Consumption of heat, steam, and cooling (MWh)

11,238

Total non-fuel energy consumption (MWh) [Auto-calculated]

23,192

Country/area

United States of America

Consumption of electricity (MWh)

800

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

800

Country/area

Argentina

Consumption of electricity (MWh)

0.34

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

0.34

Country/area

Bahrain

Consumption of electricity (MWh)

120

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

120

Country/area

China

Consumption of electricity (MWh)

47

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

47

Country/area

Germany

Consumption of electricity (MWh)

6

Consumption of heat, steam, and cooling (MWh)

29

Total non-fuel energy consumption (MWh) [Auto-calculated]

35

Country/area

India

Consumption of electricity (MWh)

374

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

374

Country/area

Malaysia

Consumption of electricity (MWh)

4

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

4

Country/area

Russian Federation

Consumption of electricity (MWh)

69

Consumption of heat, steam, and cooling (MWh)

0

Total non-fuel energy consumption (MWh) [Auto-calculated]

69

C-CH8.3

(C-CH8.3) Does your organization consume fuels as feedstocks for chemical production activities?

No

C9. Additional metrics

C9.1

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

C-CH9.3a

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

Output product

Other, please specify

We produce catalysts to support other industries

Production (metric tons)

36,552

Capacity (metric tons)

50,000

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

0

Electricity intensity (MWh per metric ton of product)

0

Steam intensity (MWh per metric ton of product)

0

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

0

Comment

We are not able to provide a breakdown of energy allocation against the product runs. This is a focus area for 2022-2023

Output product

Other, please specify

Aluminium

Production (metric tons)

15,068

Capacity (metric tons)

0

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

0

Electricity intensity (MWh per metric ton of product)

0

Steam intensity (MWh per metric ton of product)

0

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

0

Comment

We are not able to provide a further breakdown including energy allocation against the product runs. This is a focus area for 2022-2023

Output product

Other, please specify

Zeolite

Production (metric tons)

484

Capacity (metric tons)

0

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

0

Electricity intensity (MWh per metric ton of product)

0

Steam intensity (MWh per metric ton of product)

0

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

0

Comment

We are not able to provide a breakdown of energy allocation against the product runs. This is a focus area for 2022-2023

Output product

Other, please specify

Potassium Nitrate

Production (metric tons)

30,240

Capacity (metric tons)

0

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

0

Electricity intensity (MWh per metric ton of product)

0

Steam intensity (MWh per metric ton of product)

0

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

0

Comment

We are not able to provide a breakdown of energy allocation against the product runs. This is a focus area for 2022-2023

Output product

Other, please specify

Sodium Nitrate

Production (metric tons)

601

Capacity (metric tons)

0

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

0

Electricity intensity (MWh per metric ton of product)

0

Steam intensity (MWh per metric ton of product)

0

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

0

Comment

We are not able to provide a breakdown of energy allocation against the product runs. This is a focus area for 2022-2023

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	No	This is a focus area which has be initiated in 2021 to develop further to support Net Zero Ambitions for 2030 in operations

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, but we are actively considering verifying within the next two years

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.

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

76

% of Scope 2 emissions covered by the ETS

0

Period start date

January 1, 2021

Period end date

December 31, 2021

Allowances allocated

18,642

Allowances purchased

0

Verified Scope 1 emissions in metric tons CO2e

30,396

Verified Scope 2 emissions in metric tons CO2e

0

Details of ownership

Facilities we own and operate

Comment

This captures Danish operations. We have purchased zero allowance in the year 2021 as we have accumulated in recent years from previous purchases - this number is referenced.

C11.1d

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

Historically we have focused on reducing our energy consumption. In 2021 we set Net Zero Targets by 2030 for our operations. Therefore we are currently reviewing scenarios for a technological transition to carbon neutral solutions. These would remove us from the ETS system.

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?

No, but we anticipate doing so in the next two years

C12. Engagement

C12.1

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

Yes, our customers/clients

Yes, other partners in the value chain

C12.1b

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

Type of engagement & Details of engagement

Collaboration & innovation

Other, please specify

Support with information on carbon intensity of products

% of customers by number

5

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

5

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

These customers have selected us. This has been organic through commercial activities and also customers reaching out to us. This has not yet been part of our decarbonization strategy which was implemented in 2021.

Impact of engagement, including measures of success

Where this has been calculated, it can not be disclosed yet due to confidentiality aspects. For the majority this can not be determined yet, as our partners and customers are also in the initial stages of decarbonization, so we need to collaborate further to assess the benefits.

C12.1d

(C12.1d) Give details of your climate-related engagement strategy with other partners in the value chain.

We are strategically partnering with both corporate and academic peers to further advance as quickly as possible the power-to-x industry. For example: green ammonia, produced from renewable energy, is an excellent fuel and fertilizer that can replace huge volumes of fossil fuels and help accelerate the energy transition. Topsoe, together with Skovgaard Invest and Vestas, will build the world's first industrial dynamic green ammonia demo plant. Directly coupled to local wind and solar power generation, the plant will produce more than 5,000 tons of green ammonia, avoiding 8,200 tons of CO2 per year. The Danish Energy Technology Development and Demonstration Program has granted EUR 11 million to the green ammonia project.

We have also several partners who will use Topsoe technology to produce sustainable aviation fuels including with e.g. Indaba Renewable Fuels (indaba) and Refuel energy Inc. (Refuel)

Additionally we are further developing and improving several technologies/plants to produce, renewable fuels, SAF, green/blue methanol, ammonia, hydrogen.

C12.2

(C12.2) Do your suppliers have to meet climate-related requirements as part of your organization's purchasing process?

No, but we plan to introduce climate-related requirements within the next two years

C12.3

(C12.3) Does your organization engage in activities that could either directly or indirectly influence policy, law, or regulation that may impact the climate?

Row 1

Direct or indirect engagement that could influence policy, law, or regulation that may impact the climate

Yes, we engage directly with policy makers
Yes, we engage indirectly through trade associations
Yes, we engage indirectly by funding other organizations whose activities may influence policy, law, or regulation that may significantly impact the climate

Does your organization have a public commitment or position statement to conduct your engagement activities in line with the goals of the Paris Agreement?

No, but we plan to have one in the next two years

Describe the process(es) your organization has in place to ensure that your engagement activities are consistent with your overall climate change strategy

The responsibility for ensuring the process of aligning our policy engagement with our strategy sits with the Global Public Affairs Director

Key aspects of the process include:
o Annual Public Affairs plans including identification of engagement platforms and events relevant to our strategy
o Regular evaluation of company representation in the various external trade associations and other bodies seeking to influence policies to ensure alignment with overall strategy (at least once a year)
o Internal coordination around engagement in hearings to ensure consistency

C12.3a

(C12.3a) On what policy, law, or regulation that may impact the climate has your organization been engaging directly with policy makers in the reporting year?

Focus of policy, law, or regulation that may impact the climate

Carbon tax
Renewable energy generation

Specify the policy, law, or regulation on which your organization is engaging with policy makers

Danish Carbon tax, Danish renewable energy generation requirements

Policy, law, or regulation geographic coverage

National

Country/region the policy, law, or regulation applies to

Denmark

Your organization's position on the policy, law, or regulation

Support with no exceptions

Description of engagement with policy makers

C-suite members and other Topsoe top management sit within key groups within the Confederation of Danish Industry (DI) including e.g. DI Tax Policy Committee, DI Energy's Board of Directors, DI Energy and Energy Supply Committee, DI's EU Committee

Details of exceptions (if applicable) and your organization's proposed alternative approach to the policy, law or regulation

Have you evaluated whether your organization's engagement is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3b

(C12.3b) Provide details of the trade associations your organization engages with which are likely to take a position on any policy, law or regulation that may impact the climate.

Trade association

European Chemical Industry Council (CEFIC)

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Cefic supports the European Green Deal and Europe's ambition to become climate neutral by 2050. As recognised in the European Green Deal Communication, energy-intensive industries, such as chemicals, are indispensable to Europe's economy, as they supply key value chains.

"The Commission's draft Climate Law clearly defines the 'what and why', it's now essential to lay out a path how Europe can become climate neutral by 2050. We need a plan to stimulate the investments required to deliver the Green Deal objectives. The Commission's Next Generation Recovery Plan is the first step in this direction".

Cefic President Martin Brudermüller and Chairman of WindEurope Andreas Nauen, have called in an interview to Financial Times for a rapid expansion of renewable energy

and voice concerns that Europe risks falling behind China and US in decarbonization efforts.

The EU chemical industry will need access to abundant, competitive, reliable renewable energy as a key enabler of its industrial transformation. The pace of this transformation will also depend on breakthrough innovations, demand for low-carbon products and the development of an integrated and improved energy infrastructure supported by strong trade relations.

The upcoming 'Fit for 55 package' is an opportunity to ensure the EU doesn't fall behind in the global race for climate neutrality.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

22,000

Describe the aim of your organization's funding

Funding represents membership fees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Trade association

Other, please specify

Catalyst Europe

Is your organization's position on climate change consistent with theirs?

Consistent

Has your organization influenced, or is your organization attempting to influence their position?

We publicly promote their current position

State the trade association's position on climate change, explain where your organization's position differs, and how you are attempting to influence their position (if applicable)

Topsoe currently holds the chair on the board of Catalyst Europe. Catalyst Europe focuses on the hazard and safety aspects for the catalyst sector and does not specifically have a position on climate related issues. However Catalyst Europe sits within CEFIC, indirectly providing input and support CEFIC on its climate change position.

Funding figure your organization provided to this trade association in the reporting year, if applicable (currency as selected in C0.4) (optional)

61,000

Describe the aim of your organization's funding

Funding represents membership fees.

Have you evaluated whether your organization's engagement with this trade association is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

C12.3c

(C12.3c) Provide details of the funding you provided to other organizations in the reporting year whose activities could influence policy, law, or regulation that may impact the climate.

Type of organization

Other, please specify

Global CEO lead initiative - non profit

State the organization to which you provided funding

The Hydrogen Council

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)

0

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

Funding represents membership fees.

The Hydrogen Council is a global CEO-led initiative that brings together leading companies with a united vision and long-term ambition for hydrogen to foster the clean energy transition. The Council believes that hydrogen has a key role to play in reaching our global decarbonization goals by helping to diversify energy sources worldwide, foster business and technological innovation as drivers for long-term economic growth, and decarbonize hard-to-abate sectors. Using its global reach to promote collaboration between governments, industry and investors, the Council provides guidance on accelerating the deployment of hydrogen solutions around the world. It also acts as a business marketplace, bringing together a diverse group of 130+ companies based in 20+ countries and across the entire hydrogen value chain, including large multinationals, innovative SMEs, and investors. The Hydrogen Council also serves as a resource for safety standards and an interlocutor for the investment community, while identifying opportunities for regulatory advocacy in key geographies.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

Type of organization

Other, please specify

Non profit

State the organization to which you provided funding

Hydrogen Europe

Funding figure your organization provided to this organization in the reporting year (currency as selected in C0.4)

134,000

Describe the aim of this funding and how it could influence policy, law or regulation that may impact the climate

Funding represents membership fees.

Hydrogen Europe - is the leading organization representing European based companies and stakeholders committed to moving towards a (circular) carbon neutral economy. With 350+ companies, 20 EU regions and 30 national associations as members, we encompass the entire value chain of the European hydrogen and fuel cell ecosystem. Our vision is to propel global carbon neutrality by accelerating European hydrogen industry and we are the industrial key partner of the Clean Hydrogen partnership.

Have you evaluated whether this funding is aligned with the goals of the Paris Agreement?

Yes, we have evaluated, and it is aligned

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 mainstream reports

Status

Complete

Attach the document

Topsoe_Sustainability Report 2021.pdf

Page/Section reference

See page 52 - Performance Data

Content elements

Governance
Strategy
Risks & opportunities
Emissions figures
Emission targets
Other metrics

Comment

Topsoe has been reporting GHG emission performance since 2019. This will be fully integrated into Topsoe Annual report in 2022.

C15. Biodiversity

C15.1

(C15.1) Is there board-level oversight and/or executive management-level responsibility for biodiversity-related issues within your organization?

	Board-level oversight and/or executive management-level responsibility for biodiversity-related issues
Row 1	No, but we plan to have both within the next two years

C15.2

(C15.2) Has your organization made a public commitment and/or endorsed any initiatives related to biodiversity?

	Indicate whether your organization made a public commitment or endorsed any initiatives related to biodiversity
Row 1	No, but we plan to do so within the next 2 years

C15.3

(C15.3) Does your organization assess the impact of its value chain on biodiversity?

	Does your organization assess the impact of its value chain on biodiversity?
Row 1	No, but we plan to assess biodiversity-related impacts within the next two years

C15.4

(C15.4) What actions has your organization taken in the reporting year to progress your biodiversity-related commitments?

	Have you taken any actions in the reporting period to progress your biodiversity-related commitments?

Row 1	No, we are not taking any actions to progress our biodiversity-related commitments, but we plan to within the next two years

C15.5

(C15.5) Does your organization use biodiversity indicators to monitor performance across its activities?

	Does your organization use indicators to monitor biodiversity performance?	Indicators used to monitor biodiversity performance
Row 1	No, we do not use indicators, but plan to within the next two years	

C15.6

(C15.6) Have you published information about your organization's response to biodiversity-related issues for this reporting year in places other than in your CDP response? If so, please attach the publication(s).

Report type	Content elements	Attach the document and indicate where in the document the relevant biodiversity information is located
No publications		

C16. 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.

C16.1

(C16.1) Provide details for the person that has signed off (approved) your CDP climate change response.

	Job title	Corresponding job category
Row 1	Chief Strategy and Innovation Officer	Other C-Suite Officer

SC. Supply chain module

SC0.0

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

Topsoe is reporting to CDP for the first time for 2021 disclosures. We currently can provide allocation of emissions at a high level to our customers in relation to revenue based calculations. More accurate calculations can potentially be developed through specific collaboration with customers e.g. we develop life cycle assessments (LCAs) through our internal LCA program. We have some LCA's already made and can make specific ones for customers as part of our engineering design process for products we sell. Topsoe is always willing to explore this with our customers.

Additionally Topsoe has also initiated its own supplier engagement strategy for 2021 disclosures, engaging with 217 suppliers who account for more than 70% of our scope 3 emissions.

SC0.1

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

	Annual Revenue
Row 1	6,255,000,000

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

OMV AG

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

673

Uncertainty (±%)

20

Major sources of emissions

This cannot be provided as calculation is revenue based.

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

44,764,245

Unit for market value or quantity of goods/services supplied

Currency

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

A percentage allocation as been applied in relation to the revenue created by the sale of the products against Topsoe's emission profile.

Requesting member

OMV AG

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

236

Uncertainty (±%)

20

Major sources of emissions

This cannot be provided as calculation is revenue based.

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

44,764,245

Unit for market value or quantity of goods/services supplied

Currency

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

A percentage allocation as been applied in relation to the revenue created by the sale of the products against Topsoe's emission profile.

Requesting member

OMV AG

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

3,027

Uncertainty (±%)

20

Major sources of emissions

This cannot be provided as calculation is revenue based.

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

44,764,245

Unit for market value or quantity of goods/services supplied

Currency

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

A percentage allocation as been applied in relation to the revenue created by the sale of the products against Topsoe's emission profile.

Requesting member

Petróleo Brasileiro SA - Petrobras

Scope of emissions

Scope 1

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

1,038

Uncertainty (±%)

20

Major sources of emissions

This cannot be provided as calculation is revenue based.

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

69,077,123

Unit for market value or quantity of goods/services supplied

Currency

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

A percentage allocation as been applied in relation to the revenue created by the sale of the products against Topsoe's emission profile.

Requesting member

Petróleo Brasileiro SA - Petrobras

Scope of emissions

Scope 2

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

364

Uncertainty (±%)

20

Major sources of emissions

This can not be provided as calculation is revenue based.

Verified

No

Allocation method

Allocation based on the number of units purchased

Market value or quantity of goods/services supplied to the requesting member

69,077,123

Unit for market value or quantity of goods/services supplied

Currency

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

A percentage allocation as been applied in relation to the revenue created by the sale of the products against Topsoe's emission profile.

Requesting member

Petróleo Brasileiro SA - Petrobras

Scope of emissions

Scope 3

Allocation level

Company wide

Allocation level detail

Emissions in metric tonnes of CO2e

4,671

Uncertainty (±%)

20

Major sources of emissions

This cannot be provided as calculation is revenue based.

Verified

No

Allocation method

Allocation based on the energy content of products purchased

Market value or quantity of goods/services supplied to the requesting member

69,077,123

Unit for market value or quantity of goods/services supplied

Currency

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

A percentage allocation as been applied in relation to the revenue created by the sale of the products against Topsoe's emission profile.

SC1.2

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

Topsoe's 2021 Sustainability report provides our emissions data overview and revenue. These have been applied to support these calculations.

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
Diversity of product lines makes accurately accounting for each product/product line cost ineffective	Topsoe has started processes to implement automated reporting per product run from our operations. The objective is to enable us to easily obtain the carbon intensity of each product sold to our customers. Until we have achieved this, we will not be able to do more granular reporting than revenue based allocation via CDP disclosures.

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.

Topsoe has started processes to implement automated reporting per product run from our operations. The objective is to enable us to easily obtain the carbon intensity of each product sold to our customers. Until we have achieved this, we will not be able to do more granular reporting than revenue based allocation via CDP disclosures.

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 understand that my response will be shared with all requesting stakeholders	Response permission
Please select your submission options	Yes	Public

The European Climate Pact Submission

Please indicate your consent for CDP to showcase your disclosed environmental actions on the European Climate Pact website as pledges to the Pact.

Yes, we wish to pledge to the European Climate Pact through our CDP disclosure

Please confirm below

I have read and accept the applicable Terms