



TOPSOE

**ANNUAL
REPORT
2021**



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STAY
INFORMED



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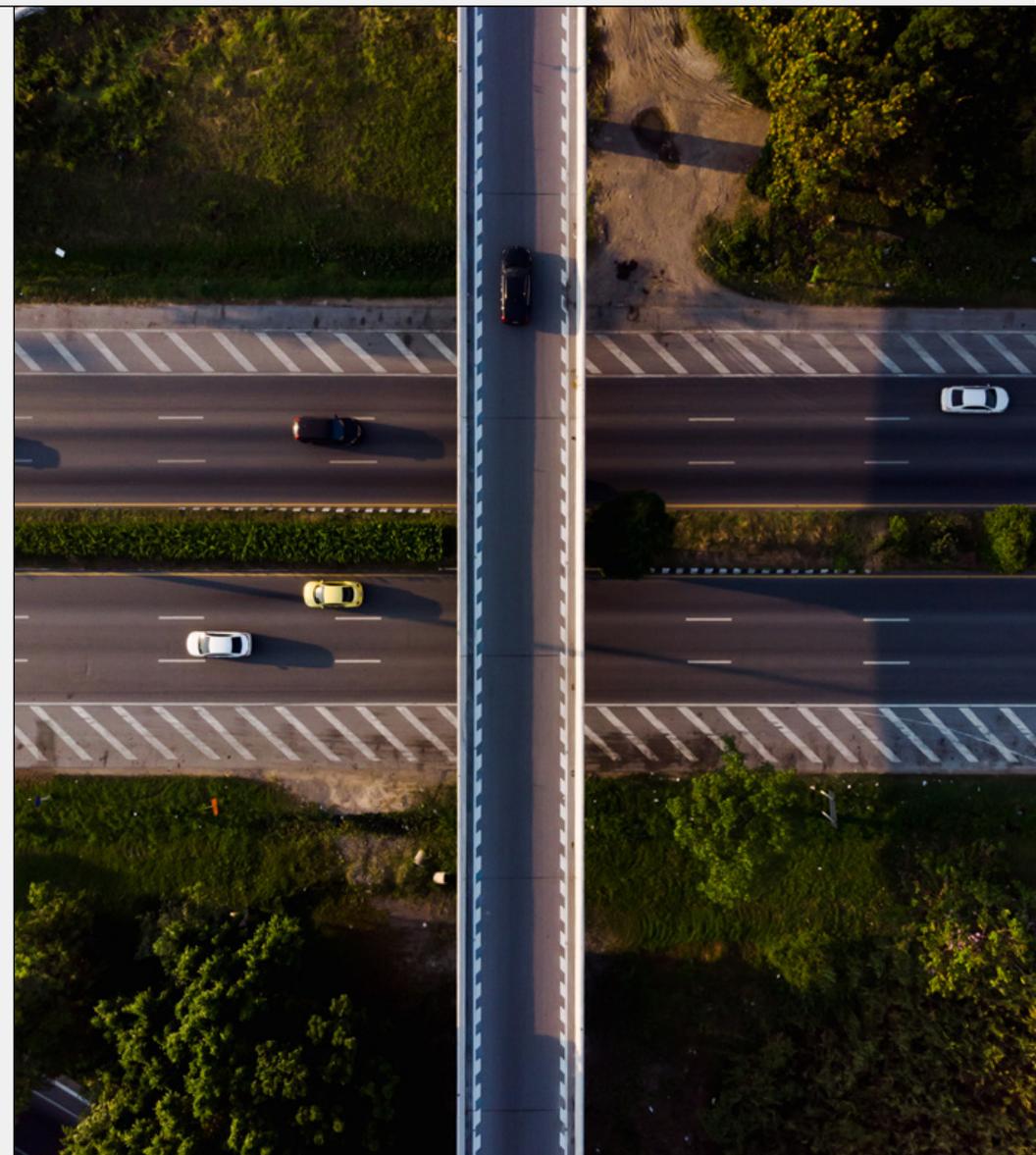
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JEPPE CHRISTIANSEN
Chairman

CHAIRMAN'S REVIEW

THE CLIMATE CHALLENGE IS AS REAL AS EVER

The climate challenge is an overarching threat to our planet. With the global energy consumption expected to grow considerably over the coming decades alongside a growing population and increased standard of living, the world is at a crossroads with the climate crisis being our biggest challenge to overcome. Topsoe can help fight this challenge.



CARBON EMISSIONS MUST BE REDUCED IN A JOINT EFFORT

51 billion tonnes of greenhouse gas emissions. Every year. That is the challenge we are facing. Carbon emissions must be reduced in a joint effort between countries, companies, and citizens, and at Topsoe, we believe it is imperative to accelerate these efforts.

The good news is that on a global level, the technological solutions and the economy to tackle this crisis are available. I am excited to be Chairman of Topsoe, as the company is in a strong position to lead the transition to a greener future.

CHEMISTRY IS KEY

One of the main challenges is to transform renewable power to energy that can be stored, transported, and utilized when direct electrification is not possible. This is the case for mining, steel and cement industries, and for heavy transportation.

Expertise in chemistry and related engineering is thus key to succeed with the radical change of the energy sector. Chemical knowledge makes it possible to transform power to hydrogen, ammonia, methanol, etc.

TOPSOE IS COMMITTED TO REDUCING CARBON EMISSIONS

In 2020, a strategic transformation of Topsoe was launched, and we formulated the vision of being recognized as the global leader in carbon emission reduction technologies by 2024. The vision was backed by a restructuring of our organization the same year, and in 2021 this was reinforced by setting up a dedicated Power-to-X organization. Similarly, in 2021, Topsoe introduced a new strategy outlining how we will achieve our vision.

Topsoe has always been committed to developing technology that solves pressing global challenges. And now, our traditional business provides a very strong platform for our transformation, thereby helping our customers to reduce their CO₂ emissions to achieve our vision of being the global leader in carbon emission reduction technologies by 2024. We look forward to seeing this new strategy add value to Topsoe and all its stakeholders.

GREAT WORK ON ALL FRONTS

The Board is pleased that Topsoe – despite still being challenged by the COVID-19 pandemic – managed to deliver a strong performance across the company in 2021

with an increase in earnings of 6% (EBIT before special items) and revenue being in line with our guidance for 2021. I am especially excited to see the growth in renewable fuels, where our solutions contribute significantly to decarbonizing the transportation sector.

Throughout 2021, our Senior Leadership Team has been assessing what is needed to build up Topsoe's green energy capabilities and introduced a new strategy, while running the business effectively. On behalf of the Board, I would like to thank the team for their foresight and constant drive.

I would also like to extend the Board's warmest thanks to all Topsoe employees for safeguarding yet another strong result despite the continued challenges brought about by the COVID-19 pandemic. You have all been working passionately to develop new groundbreaking solutions and at the same time delivered excellent products and service to our customers.

JEPPE CHRISTIANSEN
Chairman



51 billion tonnes of greenhouse gas emissions. Every year. That is the challenge we are facing. At Topsoe, we have the solutions ready.



ROELAND BAAN
President &
Chief Executive Officer

EXECUTING ON OUR STRATEGIC TRANSFORMATION

2021 has been a good year for Topsoe, and we have delivered a solid financial results for the year in line with our guidance. Revenue is on par with 2020, and despite being challenged by the COVID-19 pandemic, we have managed to increase our earnings by 6% (EBIT before special items), not least due to our success in growing our renewables business, where we support customers in shifting to renewable fuels.

During the year, we took some decisive steps to help combat climate change. Not only have we developed new green solutions and successfully put some into play. We have also entered into a series of industrial partnerships to jointly facilitate the future production of green hydrogen, green ammonia, green methanol, and eFuels. Further, we have introduced a new strategy and restructured our internal setup to be even better positioned to lead the development of Power-to-X solutions and drive the energy transition. As part of developing new solutions, we continue to invest in R&D. In 2021, we invested 9% of our revenue in R&D, up from 8% in 2020.

We are uniquely positioned to help our customers and society in the battle against climate change. Over decades, we have gained superior skills and expertise from developing technology, supplying catalyst, and improving energy efficiency for the chemical and refining industries. This strong legacy provides us with an unrivalled platform on which we are building our new green solutions and ensures a strong link



CEO'S REVIEW

TRANSFORMING TOPSOE

Back in 2020, we set a vision of being recognized as the global leader in carbon emission reduction technologies by 2024. This vision is driven by the urgent need for and our strong commitment to developing solutions that help solve the world's most challenging issue - climate change.



We are uniquely positioned to help our customers and society in the battle against climate change. Our share of revenue linked to the energy transition increased from 2% in 2019 to 16% in 2021

between our traditional and new business going forward.

We are also committed to reducing our own carbon footprint and setting ambitious reduction targets in line with climate science. In 2021, our own carbon footprint was 23% lower than in 2019. Our ambition is to achieve net zero operations within this decade, and we are working on finalizing our net zero ambition for our entire value chain.

EXCELLENT PERFORMANCE IN RENEWABLE FUELS

We have been growing our renewables business for years and are leading the field in supplying technology for the production of renewable diesel. Already today, six plants using our technology produce 2.4 million tons of renewable diesel per year. With at least nine more plants expected to start operating in 2022, this number will increase to a total of 7.7 million tonnes. We are also turning to the aviation and shipping industry with our renewable fuel solutions.

Within the aviation sector, we see a strong call for fuels that can dramatically reduce the carbon footprint – so-called Sustainable Aviation Fuels (SAF). We are already active in projects developing SAF, and we started 2022 on a very positive note, as in January we were chosen as supplier for two new SAF facilities in the US.

BLUE TECHNOLOGIES PART OF TRANSITION

We see significant interest from our customers in new low-carbon solutions. Introducing blue technologies – where carbon capture is potentially able to remove up to 99% of CO₂ – has been particularly North America, and we are currently working on both a major blue hydrogen and a blue ammonia project.

UNIQUE POSITION IN POWER-TO-X

The share of renewables in the global power supply will increase significantly. In itself, this represents great potential for the energy transition. But electrification will not do it alone. Heavy industry and transport – whether by land, air, or sea – account for 29% of energy-related CO₂ emissions. They need energy-dense fuels made from renewable sources to take part in the transition.

We are in a strong position to successfully grow our business in this field. As one of very few companies, we possess both the expertise and the technologies needed to transform renewable power as well as biomass and waste into low-carbon fuels and chemicals. We will use our expertise to help our customers and societies make the energy transition.

One concrete example of how we support Power-to-X solutions is by investing in a new, industrial-scale facility to deliver the electrolyzers that are urgently needed to

convert renewable power and water into valuable zero-carbon fuels and chemicals.

ZERO HARM – SAFETY IMPROVED

In Topsoe, we have a strong focus on safety, and we wholeheartedly embrace the concept of 'Zero Harm'. Our employees must return home as safe and sound, as when they left for work. Excellence in health and safety is our license to operate, and we track our performance using the metric total recordable incident frequency (TRIF). During 2021, we have continued to reduce our TRIF ratio from 0.9 to 0.7 and since 2018, we have managed to reduce incidents by 50%.

EMPLOYEES AND CUSTOMERS MAKE IT HAPPEN

None of the achievements of the past year would have been possible without our highly dedicated employees. They have done a tremendous piece of work to deliver this year's solid results in yet another challenging year. I would also like to thank our customers and partners for their trust in us in a year that was once again burdened by the widespread impacts of the COVID-19 pandemic as well as logistical challenges we see worldwide. We are proud that you have once again chosen Topsoe's solutions to support your business.

ROELAND BAAN

President & Chief Executive Officer

BUSINESS MILESTONES 2021



FEBRUARY 22

Topsoe committed to the Science Based Targets initiative and set short-term targets to reduce carbon emissions.

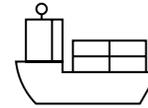
[→ Read more](#)



MARCH 18

Topsoe and Aquamarine announced Memorandum of Understanding with the purpose of building a 100 megawatt green ammonia facility based on SOEC electrolysis.

[→ Read more](#)



JUNE 25

Topsoe and partners received support from the Danish Energy Technology Development and Demonstration Program (EUDP) for the world's first industrial-scale dynamic green ammonia demonstration plant.

[→ Read more](#)



JULY 22

Air Products chose Topsoe's low-carbon SynCOR™ technology for a blue hydrogen energy complex in Canada.

[→ Read more](#)

MARCH 4

Topsoe announced its intention to build a 500 megawatt production facility to produce SOEC electrolyzers supporting the company's Power-to-X business.

[→ Read more](#)



MAY 17

CEO Roeland Baan met with a delegation from the US Department of State to discuss innovation to combat climate change.

[→ Read more](#)



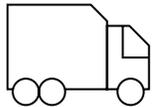
JULY 13

Topsoe took final investment decision on building a catalyst plant in Texas, USA, to meet customer demand.

[→ Read more](#)



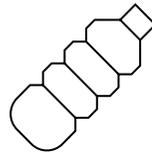
BUSINESS MILESTONES 2021



AUGUST 5

Marathon Petroleum Corp. started producing renewable diesel in North Dakota, USA, based on Topsoe's HydroFlex™ solution.

→ [Read more](#)



OCTOBER 12

Partnership announced between Dow and Topsoe to turn waste plastics into circular plastics.

→ [Read more](#)



OCTOBER 18

Topsoe chosen as supplier for blue ammonia technology at Air Products' \$ 4.5 billion clean energy complex in Louisiana, USA.

→ [Read more](#)



DECEMBER 2

Topsoe's ClearView™ solution chosen by DCM Shriram Ltd for digitalizing its ammonia facility at Kota, India.

→ [Read more](#)

AUGUST 10

Phillips 66 started producing renewable diesel based on Topsoe's HydroFlex™ solution.

→ [Read more](#)



OCTOBER 14

Topsoe put demonstration plant into operation for production of sustainable methanol from biogas.

→ [Read more](#)



OCTOBER 31 - NOVEMBER 12

Topsoe participated at COP26 and delivered insights on how to decarbonize the hard-to-abate sectors including aviation.

→ [Read more](#)



DECEMBER 31

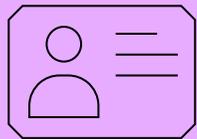
Topsoe announced the divestment of its ownership share in Faradion. Topsoe will continue focusing on LNMO battery technology and will build a pilot plant. Partnership with Morrow established.

→ [Read more](#)

MORROW

TOPSOE AT A GLANCE

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 to a zero-carbon future.



2,133

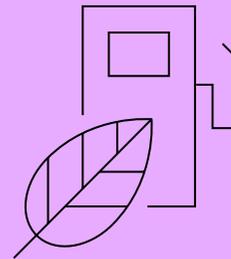
employees

6,225

in revenue
(DKK million)

903

EBIT before special items
(DKK million)



#1

in renewable diesel

9%

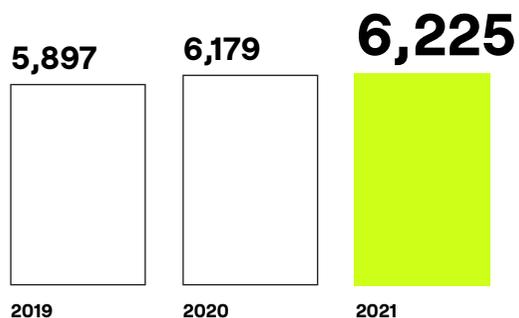
of revenue
invested in R&D

#1

in ammonia

PERFORMANCE HIGHLIGHTS 2021

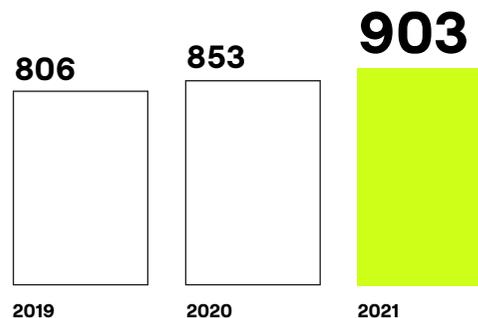
DKK million



REVENUE

Revenue increased by 1% to DKK 6,225 million in line with the guidance we provided at the beginning of the year. Strong demand for Topsoe's renewable fuels technology offset the negative impact from COVID-19.

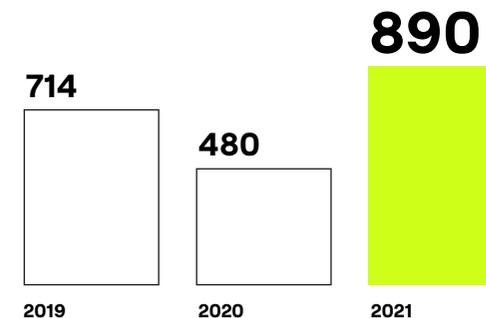
DKK million



EBIT BEFORE SPECIAL ITEMS

EBIT before special items grew by 6% to DKK 903 million, mainly driven by optimization within operations and the restructuring implemented in 2020.

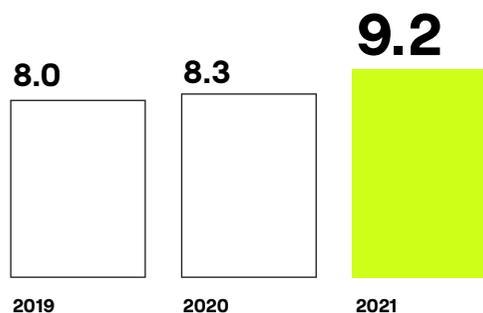
DKK million



NET PROFIT

Net profit grew by 85% to DKK 890 million. The high increase was driven by organic growth combined with the divestment of Topsoe's shares in Faradion, but should also be seen in the light of significant one-off costs in 2020.

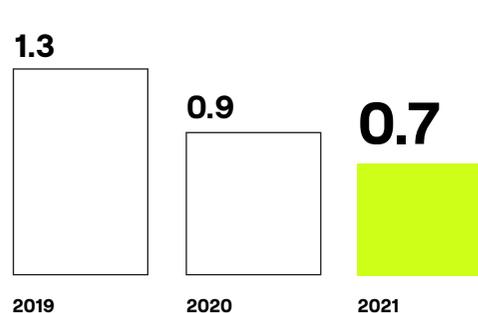
% of revenue



INNOVATION

In 2021, Topsoe invested 9.2% of its revenue in R&D, up from 8.3% in 2020. We always strive to develop the best possible solutions, and we continue to invest in R&D to support our vision.

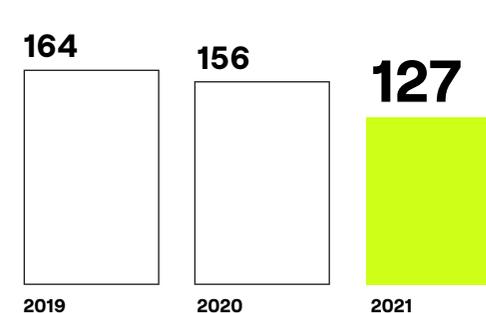
TRIF ratio



SAFETY

We continue to have a strong focus on safety and in 2021, we reduced our total recordable incident frequency (TRIF) ratio by 0.2. Since 2018, our total recordable incident frequency (TRIF) per 200,000 working hours has been reduced by 50%.

Thousand tonnes CO₂e



CARBON FOOTPRINT

In 2021, greenhouse gas emissions from our operations were 19% lower compared to 2020 and 23% lower compared to 2019 (scope 1 and 2, market-based).

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OUR PURPOSE

PERFECTING CHEMISTRY FOR A BETTER WORLD

Leaving the world in a better shape for future generations is what drives us – and our purpose ‘Perfecting chemistry for a better world’ is what guides us.

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.



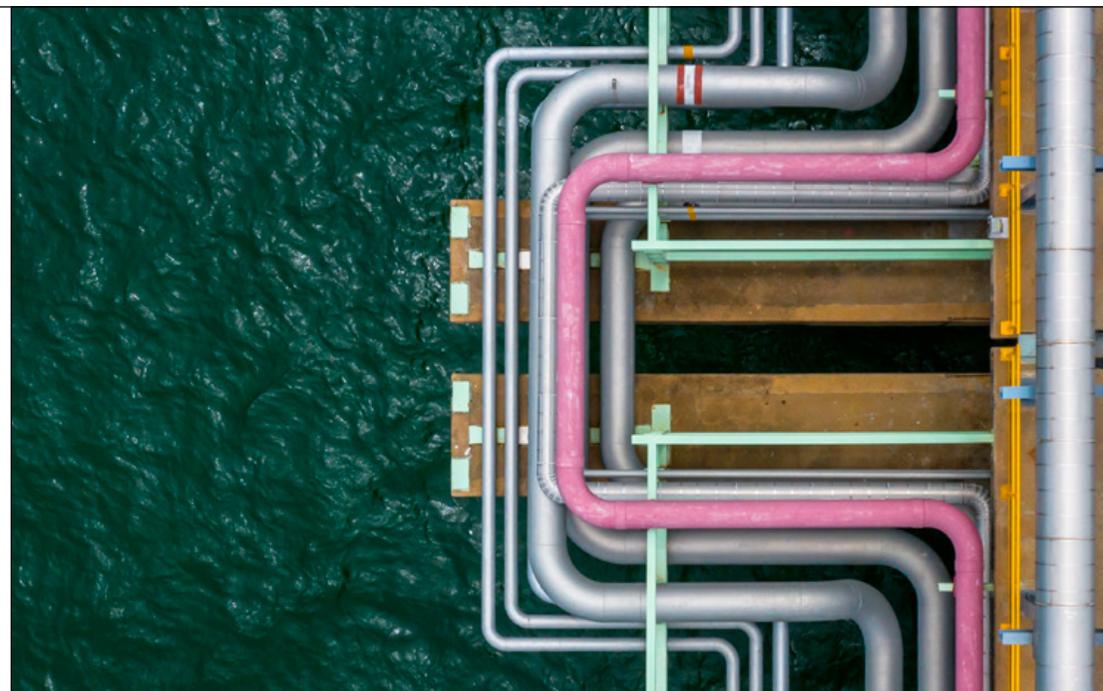
OUR VISION

TO BE RECOGNIZED AS THE GLOBAL LEADER IN CARBON EMISSION REDUCTION TECHNOLOGIES BY 2024

Today, the biggest global challenge is climate change. Carbon emissions must be reduced in a joint effort between countries, companies and citizens. We believe we need to accelerate these efforts.

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 STRATEGY

THE 'GO-TO' COMPANY WITHIN DECARBONIZATION

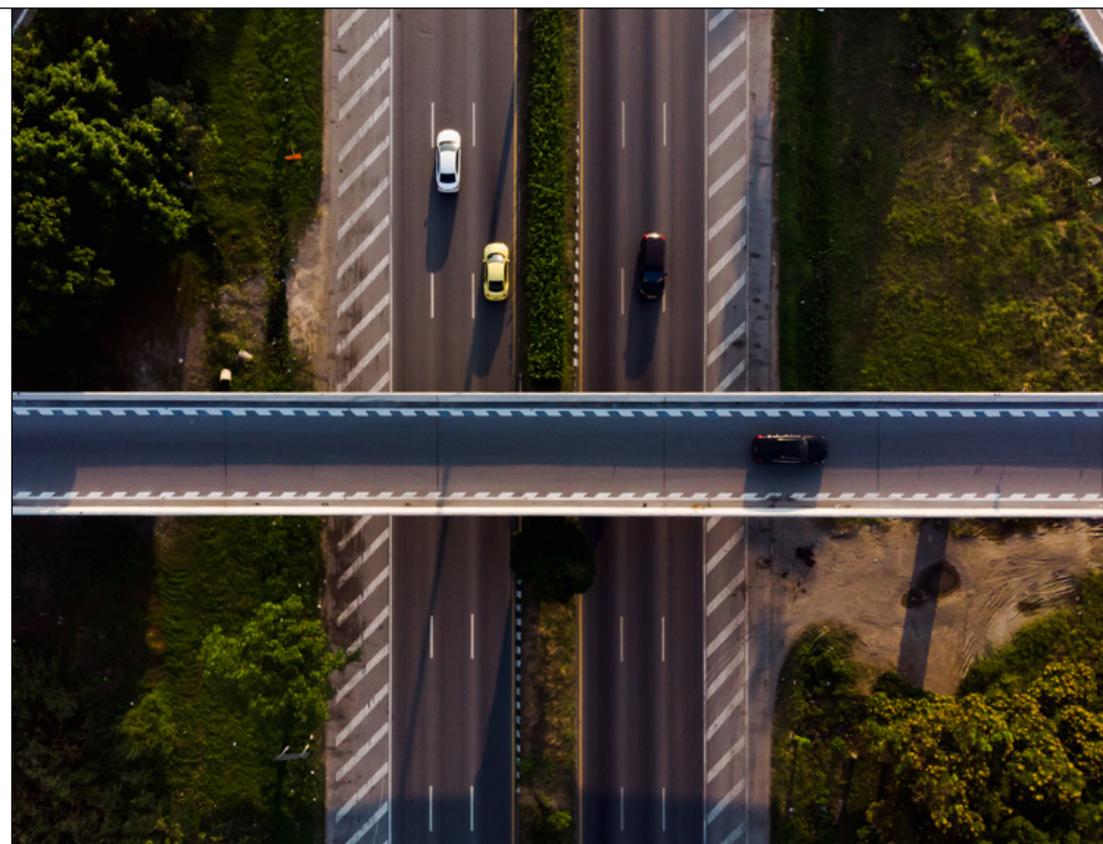
Heavy industry and transport – whether by land, air, or sea – account for a large share of global greenhouse gas emissions, and the critical energy transition hinges on the availability of solutions that address the impact of these industries.

We continuously strive to develop the best possible solutions, and our strategy is designed to support our customers' decarbonization journey, address the climate challenge, and at the same time grow our business.

Meeting market needs

Our strategy to meet existing and future market needs is based on three pillars:

1. Driving our customers' transition toward carbon emission reduction technologies
2. Building a leadership position in Power-to-X
3. Optimizing our traditional business



OUR STRATEGY

1. DRIVING OUR CUSTOMERS' TRANSITION TOWARD CARBON EMISSION REDUCTION TECHNOLOGIES

Our existing technologies and insights can be used in several areas to help drive our customers' transition toward carbon emission reductions. This includes expanding our strong hydrogen technology position into blue ammonia, blue methanol, and blue hydrogen. In 2021, we saw keen interest from customers to introduce blue technologies.

We expect growing demand for new and efficient solutions from, among others, the heavy-duty transport sector, with an ambition to introduce renewable fuels, and from industries like steel, cement, mining, and shipping who all want to lower their carbon footprint. This demand is partly driven by companies' own policies, partly by regulation, but also due to pressure from consumers who push for a greener future.

Today, Topsoe is the global market leader in renewable diesel made from feedstock such as vegetable oils and waste using its HydroFlex™ solution. Our position within renewable diesel can be expanded into all renewable fuels, and we can make biofuels for both the shipping industry as well as Sustainable Aviation Fuel (SAF).

In addition, utilizing Topsoe's PureStep™ solution within plastic recycling and reuse will help customers reduce carbon emissions and at the same time contribute to addressing the significant problem of plastic waste.

HOW WE DRIVE OUR CUSTOMERS' TRANSITION TOWARD CARBON EMISSION REDUCTION TECHNOLOGIES

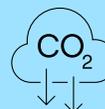


Renewable diesel for the US

Topsoe is a leader in supplying hydrotreating solutions, named HydroFlex™, that can transform waste products and bio-materials into renewable diesel, significantly lowering the transportation sectors' carbon footprint.

Already today, six plants using our technology produce 2.4 million tons of renewable diesel per year. With at least nine more plants expected to start operating in 2022, this number will increase to a total 7.7 million tonnes

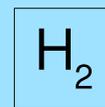
Marathon Petroleum Corp. is one of many companies having deployed HydroFlex™ and in 2021 their new unit in North Dakota, USA, started producing. Capacity: 12,000 barrels per day of 100% renewable diesel.



Taking low-carbon fuels to the sky

We work together with SkyNRG on producing low-carbon fuel for aviation, so-called Sustainable Aviation Fuel (SAF). SkyNRG has chosen our technology to produce renewable diesel and jet fuel at their facility in Delfzijl, the Netherlands. The produced fuel will be supplied directly to the nearby airport.

KLM Royal Dutch Airlines has committed to buy 75,000 tonnes of SAF per year for a ten-year period. Every ton of SAF produced at the Delfzijl facility will reduce carbon emissions from aviation by 2.5 tonnes.



Blue technologies at industrial scale

US company Air Products is building an energy complex in Louisiana, US, that will produce over 750 million standard cubic feet per day of green hydrogen. Some of the hydrogen will be converted into blue ammonia using Topsoe's blue ammonia synthesis technology.

Air Products has also chosen Topsoe as technology provider for a net-zero hydrogen complex, ub Alberta, Canada. They will integrate our SynCOR™ technology for blue hydrogen production that will avoid around 1 million tonnes of CO₂ per year and reduces energy consumption drastically. →

OUR STRATEGY

2. BUILDING A LEADERSHIP POSITION IN POWER-TO-X

The green hydrogen market is growing fast with a significant number of projects and investments already announced globally. Green hydrogen can be used directly as an energy carrier, as energy storage, or it can be used to produce green fuels and chemicals – and Topsoe has solutions for all applications.

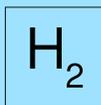
Topsoe aims to become a global leader in Power-to-X with its highly efficient solid oxide electrolysis technology (SOEC). We are well-positioned as one of very few companies to offer end-to-end solutions within green hydrogen, green ammonia, green methanol, and eFuels. These solutions can be used in 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.

To back our ambitions within Power-to-X, we restructured our internal setup in 2021 to be better positioned to pioneer the development of Power-to-X solutions and establish meaningful partnerships to not only develop technology, but also to attract investments and secure offtake.

Our strong commitment and capabilities within Power-to-X solidify our unique position and our potential to become the 'go-to' company for carbon emission reduction technologies.

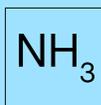
HOW WE BUILD A LEADERSHIP POSITION IN POWER-TO-X



Green hydrogen - going big on electrolyzers

Green hydrogen made from renewable power is a key element in the energy transition. It holds excellent properties as an energy carrier and can be transformed into much needed low-carbon fuels for e.g. heavy transportation.

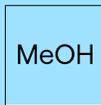
To accelerate the adoption of green hydrogen, Topsoe is investing in a production facility for electrolyzers expected to be operational by 2024. It will produce highly efficient solid oxide electrolyzer cells (SOEC) with a manufacturing capacity of 500 megawatt per year and a potential to expand to 5 gigawatt. Up to 90% of the renewable electricity that enters a Topsoe SOEC electrolyzer is preserved in the green hydrogen it produces.



Green ammonia in the making

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.



eMethanol for carbon neutral chemicals and fuels

Topsoe takes part in a Power-to-X project, led by Liquid Wind. The consortium will establish commercial-scale facilities producing liquid, carbon neutral methanol from captured carbon dioxide and green hydrogen. This is a significant milestone in meeting the growing demand for methanol to be used for carbon neutral chemicals and fuels.



OUR STRATEGY

3. OPTIMIZING OUR TRADITIONAL BUSINESS

Our well-known technologies and catalysts play a key role in ensuring energy-efficient production of the world's fuels and chemicals. They have helped us solve some of the world's toughest challenges. Our ammonia solutions supported fertilizer production that fed growing populations. When air pollution began to threaten the environmental stability and public health, our technologies helped reduce sulfur and other pollutants from fossil fuel emissions to environmentally safe levels.

We build our transformation on decades of experience from developing and delivering these solutions. And this business is important for funding our growth within the energy transition. We will continue to strengthen our position within low sulfur fuels, hydrogen, ammonia, and methanol using our technologies and catalysts.

Furthermore, we strive to maintain our leading position within sulfur technology and catalysts used to reduce and eliminate sulfur emissions and air pollution from industry.

To ensure that we have the best possible foundation for our business, we continuously strive to improve business operations. On one hand, our way of operating must always enable optimal performance at our customers' sites, and on the other hand remove unnecessary production costs.

Throughout 2021, Topsoe-employees have found ways to generate significant bottom line savings. Savings, that come in the form of reduced waste generation, tweaks to hardware design, removal of non-value adding tasks, and several digitalization projects to enable efficient, remote assistance offered to customer sites. This has resulted in recurring savings of DKK 285 million.



SUPPORTING THE UN SUSTAINABLE DEVELOPMENT GOALS

Our strategy supports the UN's Sustainable Development Goals (SDGs); climate action, affordable and clean energy, good health and well-being, decent work and economic growth, as well as responsible consumption and production.



Read more about our impacts on these goals
→ [Topsoe's Sustainability Report](#)

OUR BUSINESS MODEL

Topsoe has a solution-focused business model covering the full value chain, progressing toward solutions to support our customers' decarbonization journey.

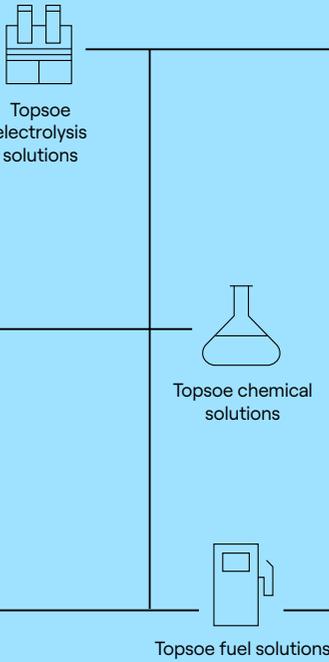
ENERGY SOURCES

Fuels and chemicals can be produced from various ways of both renewable and fossil feedstocks.



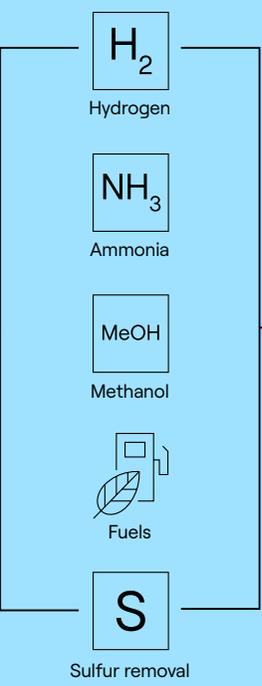
SOLUTIONS

Topsoe helps customers on their decarbonization journey through advanced energy solutions, such as Power-to-X, renewable fuels and blue solutions for the chemicals.



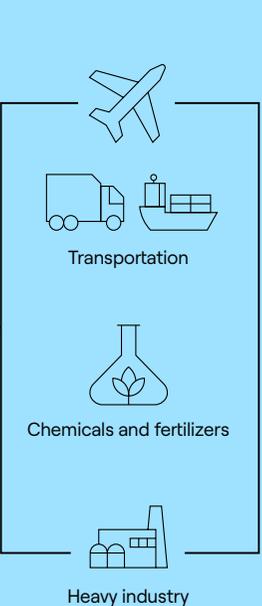
CHEMICALS AND FUELS

For our customers, the output is more efficient processes or renewable feedstocks, that significantly can lower the carbon footprint, and thereby supporting them in their energy transition.



UTILIZATION

The societal benefits of these end-products come, among other things, in the shape of a cleaner transportation sector and hard-to abate sectors such as steel, cement, and mining, who can reduce their carbon footprint.



OUR PEOPLE

TOPSOE IS ABOUT MAKING A POSITIVE DIFFERENCE

Our people are integral to the success of Topsoe. Wherever you meet Topsoe's employees, you will find that they are problem solvers. People who believe that impossible is just a state of mind and that challenges are there to be overcome.

We are working together, sharing our knowledge, experience and expertise, to deliver solutions that can help fight climate change. Just as we delivered solutions when air pollution began to threaten the environment and public health, and when we found new ways to counter the threat of global food shortage through our fertilizer technology. In every corner of our business, in every role and office, you will find people who are committed to finding answers.

OUR WAY OF WORKING

Topsoe has always been a company with strong values. We are dedicated to science and creating a great place to work for our people while going the extra mile for our customers and creating sustainable solutions that make a difference to the world of today and tomorrow. Our ambitious vision to become the leader in carbon emission reduction technologies also requires us to think and act in new ways and we have defined five 'mission critical behaviors' to help us do just that.

OUR MISSION CRITICAL BEHAVIORS

- I set ambitious goals for my work aligned with business priorities
- I will trust others and seek to gain their trust
- I relentlessly drive to make things better
- I communicate expectations and give open and honest feedback
- I collaborate in the pursuit of company goals





At Topsoe, I get to work with people who are smart, dedicated and care about each other. On top of that, I get to use my energy and experience toward my true purpose; to create a better world.

CATHERINE SMITT MEYER

Senior Manager,
Denmark



It is a great responsibility for me to guide our customers to solve the most pressing challenge of our generation – decarbonization toward net zero.

BAKUL PANT

Licensing Manager,
India





At Topsoe, I can dive into the science that makes a difference for the industry, but also means a positive change to our planet. That is what drives me.

PETER MØLGAARD MORTENSEN

Principal Scientist,
Denmark



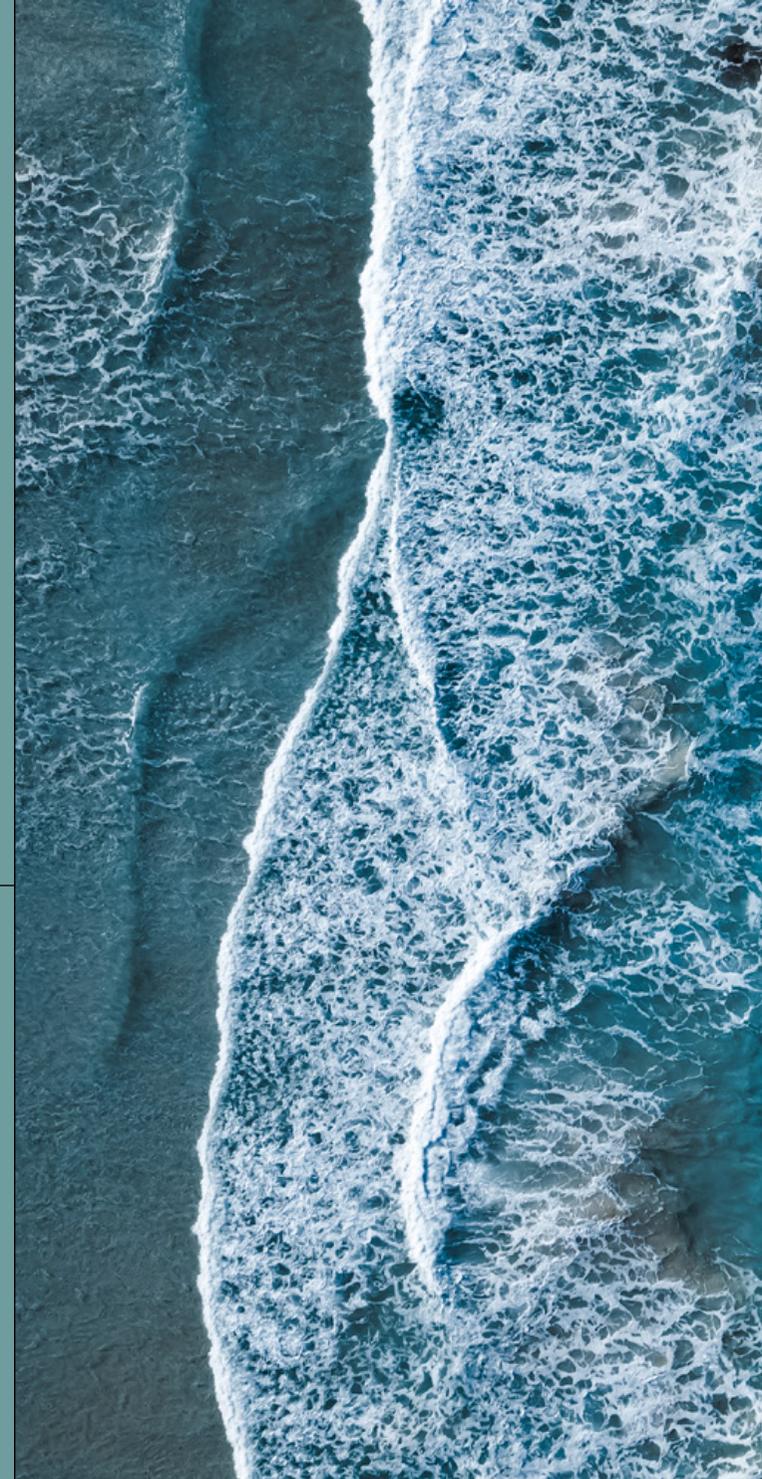
Collaboration and teamwork are highly valued at Topsoe, and it is rewarding to see the impact of the team's efforts manifested in the company's performance, our clients' successes, and the greater global good.

TRAVIS KIRK

Senior Sales Manager,
North America

FINANCIAL RESULTS & OUTLOOK

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GROUP FINANCIAL REVIEW

FINANCIAL HIGHLIGHTS 2021

Topsoe delivered solid financial results in 2021 in line with its guidance.

- Revenue increased by 1% to DKK 6,225 million in line with the guidance provided at the beginning of the year.
- Strong demand for Topsoe's renewable fuels solutions offset negative impact from COVID-19.
- Our share of revenue linked to the energy transition has increased from 2% in 2019, 6% in 2020 and now to 16% in 2021.
- EBIT before special items grew by 6% to DKK 903 million.
- Net profit increased by 85% to DKK 890 million, driven by operational improvement, the successful divestment of Topsoe's shares in Faradion in 2021 and one-offs in 2020.

Revenue

Total revenue increased by 1% in 2021 to DKK 6,225 million (2020: DKK 6,179 million). COVID-19 had a negative impact on Topsoe's business during 2021, as many refinery and technology projects were delayed due to low demand and market uncertainty. This was especially the case in the first half of

2021, where our revenue declined by 9%. However, due to general improvements in the market environment combined with strong demand for our renewable fuel offerings, we have been able to deliver 11% revenue growth in the second half of 2021.

Topsoe's technology business delivered double-digit revenue growth, up 13% compared to 2020. The first part of 2021 was impacted by COVID-19 related demand and supply chain challenges within our partner network, resulting in project delays. During the year, growth has picked up, driven by our traditional business as well as the demand for our new energy transition solutions. We saw significant strategic wins within blue hydrogen, blue ammonia, and renewable fuels that will drive growth in the years to come.

Topsoe's catalyst business has been more severely affected by COVID-19, especially in Europe where the demand for replacement catalysts was lower than in 2020. As a result, our catalyst business saw a 4% decline compared to 2020. However, the market has been showing some recovery during the year, and we have seen strong demand for

our renewable diesel hydroprocessing catalyst, based on the HydroFlex™ technology, in the important US market.

EBIT before special items

EBIT before special items amounted to DKK 903 million (2020: DKK 853 million), up 6% compared to 2020. EBIT margin before special items increased by 0.7%-point to 14.5% (2020: 13.8%). This was driven by lower operational costs as a result of the organizational restructuring implemented in the fourth quarter of 2020. In addition, Topsoe's gross margin increased by 1%-point, primarily driven by optimization within operations. Topsoe continues to invest in R&D to support its future vision. In 2021, Topsoe increased R&D costs to 9.2% of revenue, up from 8.3% in 2020.

Total special items of DKK -26 million for 2021 reflects restructuring costs. In 2020 special items amounted to DKK -275 million, mainly driven by restructuring and legal fees. Consequently, EBIT after special items increased by 52% to DKK 877 million (2020: DKK 578 million).

Net profit

Topsoe's net profit grew by 85% to DKK 890 million (2020: DKK 480 million). The high increase was driven by organic growth of the business combined with the successful divestment of our shares in the UK-based battery technology company Faradion. It should also be seen in the light of significant one-off costs in 2020, which resulted in a decrease in net profit compared to the year before. The divestment of our shares in Faradion allows us to focus on our own LNMO (lithium-nickel-manganese oxide) cathode active material for lithium-ion batteries.

Cash flow

Cash flows from operating activities amounted to DKK 500 million (2020: DKK 1,114 million). This decrease was mainly due to higher net working capital. Net working capital increased by DKK 705 million in 2021 (compared to a decrease of DKK 176 million in 2020) and made up 19.1% of revenue (2020: 6.9%). The higher net working capital was mainly due to higher raw material pricing, increased net contract assets, high sales in December and a receivable from the sale of Faradion. →

CAPEX decreased by 10% to DKK 370 million (2020: DKK 411 million). CAPEX includes investments in intangible assets (patents, software), property, and plants and equipment.

Return on invested capital (ROIC)

ROIC amounted to 28.5% (2020: 29.8%) driven by the 6% increase in EBIT before special items offset by the development in net working capital.

Financial covenants

Financial covenants as of December 31, 2021, were all met.

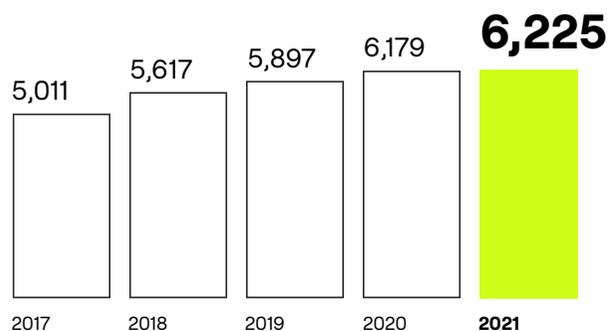
Order backlog

The order backlog amounted to DKK 3,634 million at the end of 2021, a decrease of DKK 628 million, or 15%, compared to 2020. The reduction in backlog is primarily a result of delays in new catalyst orders caused by COVID-19 and shorter lead times in the market. The order backlog by the end of 2021 is still healthy despite the reductions seen during the COVID-19 pandemic. In 2022, we expect to see the order backlog returning to a growth trajectory.

FINANCIAL PERFORMANCE

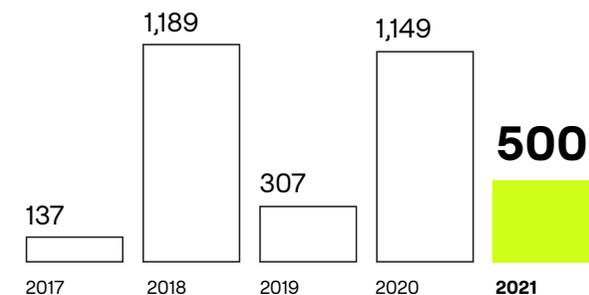
REVENUE

DKK million



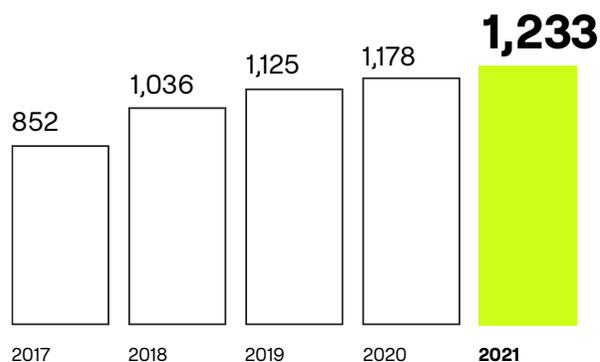
CASH FLOWS FROM OPERATING ACTIVITIES

DKK million



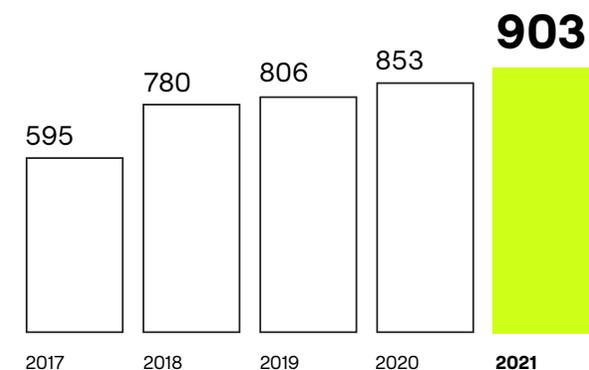
EBITDA

DKK million



EBIT BEFORE SPECIAL ITEMS

DKK million



FIVE-YEAR SUMMARY

Income statement

DKK million	2021	2020	2019	2018 ¹⁾	2017 ¹⁾
Revenue	6,225	6,179	5,897	5,617	5,011
Gross profit	2,884	2,789	2,782	2,620	2,391
EBITDA	1,233	1,178	1,125	1,036	852
Depreciation and amortization	-330	-325	-319	-256	-257
EBIT before special items	903	853	806	780	595
Special items	-26	-275	136	-72	0
EBIT after special items	877	578	942	708	595
Net financial expenses, etc.	167	-29	-4	-16	-66
Profit from continuing operations	880	435	714	507	403
Profit/loss from discontinuing operations	10	45	0	-16	-422
Net profit	890	480	714	491	-19

Balance sheet

Balance sheet total	7,162	6,688	6,694	5,356	5,917
Equity	2,929	2,139	1,730	1,046	1,452
Net working capital	1,132	427	602	447	668
Net interest-bearing debt	136	203	871	756	855

Cash flow

Cash flows from operating activities	500	1,114	307	1,189	137
- of which continuing operations	500	1,149	307	1,205	421
Cash flows from investing activities	-391	-368	-88	-220	690
- of which investment in Property, plant and equipment	-330	-325	-213	-251	-211
Cash flows from financing activities	-435	-339	-197	-1,194	-586

Employees

Numbers	2021	2020	2019	2018	2017
Average number of employees	2,133	2,268	2,238	2,246	2,527

Ratios

%	2021	2020	2019	2018	2017
Gross margin	46.3	45.1	47.2	46.6	47.7
EBITDA margin	19.8	19.1	19.1	18.4	17.0
EBIT before special items margin	14.5	13.8	13.7	13.9	11.9
EBIT after special items margin	14.1	9.4	16.0	12.6	11.9
Return on invested capital (ROIC)	28.5	29.8	30.6	32.4	25.0
Equity ratio	40.9	32.0	25.8	19.5	24.5
Return on equity	35.1	24.8	51.4	39.3	-1.1
Leverage ratio	0.2	0.2	0.8	0.7	1.0

The ratios have been prepared in accordance with the Recommendations & Financial Ratios produced by the Danish Finance Society and CFA Society Denmark.

1. IFRS 16 was implemented in 2019 using the modified retrospective approach, and comparative figures for 2017-2018 have not been restated.

FINANCIAL OUTLOOK 2022

OUTLOOK 2022

Outlook 2022

Topsoe enters 2022 with a healthy order book allowing for solid financial performance in 2022 with positive single digit revenue growth. The global energy transition will remain the key driver of growth.

Russia's invasion of Ukraine has taken place after the end of the reporting period. This war is expected to have a negative impact on the financial performance of Topsoe. Currently, a reliable estimate of the financial effect on the consolidated financial statements cannot be made and is not reflected in the outlook above.

Funding

Topsoe's current funding position is strong, based on access to green funding, the corporate bond market, institutional banks as well as commercial banks. Committed revolving credit facilities are also available.

Topsoe intends to maintain a credit profile that will ensure compliance with all bank covenants at any time.

FORWARD-LOOKING STATEMENTS

Haldor Topsoe A/S' financial reports, whether in the form of annual reports or interim reports, as well as any presentations based on such financial reports, and any other written information released, or oral

statements made, to the public based on this annual report or in the future on behalf of Haldor Topsoe A/S, may contain forward-looking statements.

These forward-looking statements are based on current plans, estimates and projections. By their very nature, forward-looking statements involve inherent risks and uncertainties, both general and specific, which may be outside Haldor Topsoe A/S' influence, and which could materially affect such forward-looking statements.

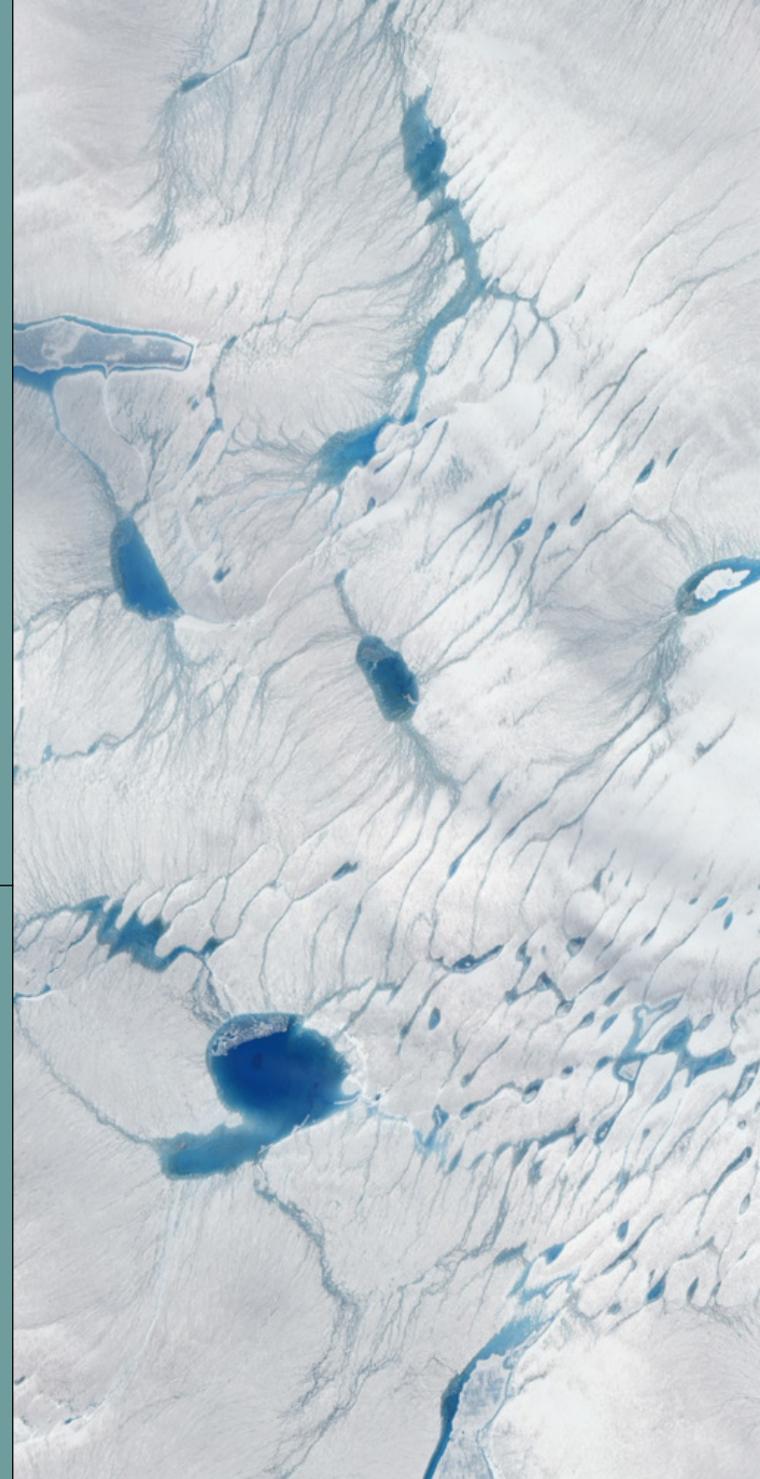
Haldor Topsoe A/S cautions that a number of factors, including those described in the risk management part of this report, could

cause actual results to differ materially from those contemplated in any forward-looking statements.

SUSTAINABILITY

Sustainability performance

29



SUSTAINABILITY PERFORMANCE

Safety and environment are among the top priorities at Topsoe. In 2021, we emitted 19% less greenhouse gas emissions and reduced our safety performance ratio (incident frequency) from 0.9 to 0.7.

OUR APPROACH TO SUSTAINABILITY

It is vital for us to conduct every aspect of our business with honesty, integrity, and openness, respecting human rights and environment, as well as the interests of our employees, customers, and other business partners.

Our business model can be found on [→ page 19](#) and risk management on [→ page 42](#).

As a member of the UN Global Compact, we align our activities to its Ten Principles. Moreover, with our commitment to the Science Based Target initiative in February 2021, we follow its methodology when accounting for and setting targets for reduction of greenhouse gas emissions.

Our health, safety and environmental management system is based on international standards and includes regular

risk assessments, internal spot checks, ongoing improvement plans, monitoring, and reporting.

ENVIRONMENT

The production of catalysts is associated with extensive use of raw materials including chemicals, energy and water, and also generates significant amounts of emissions and waste, which can potentially affect the environment and people's health. Our efforts to mitigate and remedy potential adverse environmental impacts of our operations are guided by our Global Environmental Policy. In 2021, we made important progress on better aligning the environmental practices of our two production sites in the US and Denmark.

We have now ensured that both sites will have environmental management systems certified by third parties and one common system for managing data related to environment, health and safety.

Energy

In 2021, Topsoe's total energy consumption, i.e. natural gas and electricity from all Topsoe sites, was 959 TJ, a decrease compared to 1,143 TJ in 2020. Reduced production at our Danish site during 2021 was the main cause for the lower energy consumption.

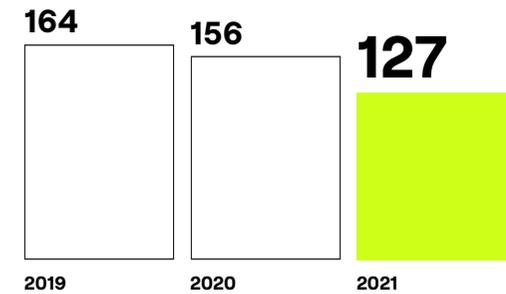
Our production site in Denmark has since 2013 delivered surplus heat to the district heating system. In 2021, we delivered 31 tMWh of surplus heat to the local community, equivalent to the heat consumption of around 1,700 households.

Greenhouse gas emissions

In 2021, Topsoe's total material greenhouse gas (GHG) emissions across its value chain (scope 1, 2 and 3) were 550 thousand tonnes CO₂e. This is the first year that we disclose our scope 3 emissions. Scope 3 emissions account for 77% of Topsoe's total emission profile. All CO₂e emissions have [→](#)

CARBON FOOTPRINT

Thousand tonnes CO₂e



In 2021, greenhouse gas emissions from our operations were 19% lower compared to 2020 and 23% lower compared to 2019 (scope 1 and 2, market-based).

ABOUT THIS REPORT

This report complies with the statutory disclosure requirements on corporate social responsibility as set out in sections 99a, 99b and 99d of the Danish Financial Statements Act. It outlines Topsoe's CSR activities, business strategies and activities with regard to human rights, labor rights, anti-corruption, the environment, and the climate (99a) as well as underrepresented gender (99b) and data ethics (99d). Unless otherwise stated, sustainability data include consolidated data from Haldor Topsoe A/S and subsidiaries controlled by Topsoe.

been measured in accordance with the Greenhouse Gas Protocol, using an operational control principle for scope 1 & 2.

It is our ambition to reach net zero in our operational scope 1 and 2 emissions within this decade. We are in the process of finalizing our net zero target for our entire value chain (scope 3). We expect to submit targets for validation to the Science Based Targets initiative during 2022.

Scope 1 and 2

In 2021, Topsoe's operational GHG emissions (scope 1 and 2, market-based) amounted to 127 thousand tonnes CO₂e, a significant decrease of 19% compared to 156 thousand tonnes CO₂e in 2020. This was partly driven by energy savings in our production, variations in production mix and production shutdowns due to COVID-19 impacts on customer demand for Topsoe solutions. Main emission sources are (by order of significance): Chemical process emissions, natural gas consumption and electricity consumption.

Our target for 2021 was to reduce scope 1 and 2 GHG emissions by 15% on a like-for-like basis, using 2019 as baseline. We achieved a 23% absolute reduction. During 2021, we have experienced that it is challenging for us to apply intensity targets for our catalyst production, although this would be the appropriate way to monitor progress. The challenge arises from the diversity of our production mix, and the fact that we need more granularity in the data against energy consumption for production runs of catalysts. Until we achieve this granularity, we are restricted to report against absolute emissions.

Our short-term reduction target for 2022 is 25% (baseline 2020). Our long-term ambition is net zero operations within this decade (following the corporate net zero standard from the Science Based Targets initiative).

Scope 3

The most material impacts sit within our supply chain, specifically Category 1 as defined by the GHG Protocol as "Purchased Goods and Services", accounting for approximately 87% of our scope 3 emissions. Topsoe is working on a strategy for embedding decarbonization within its procurement activities.

Water

Danish and US operational consumption was 205 thousand m³ in 2021 compared to 222 thousand m³ in 2020 (7% reduction). Our Danish production experienced a decrease of 50 thousand m³ (28%) caused by reduced production. In comparison, water consumption by our US production increased by 34 thousand m³ (81%), as the extreme freeze in February resulted in several large water leaks.

Waste

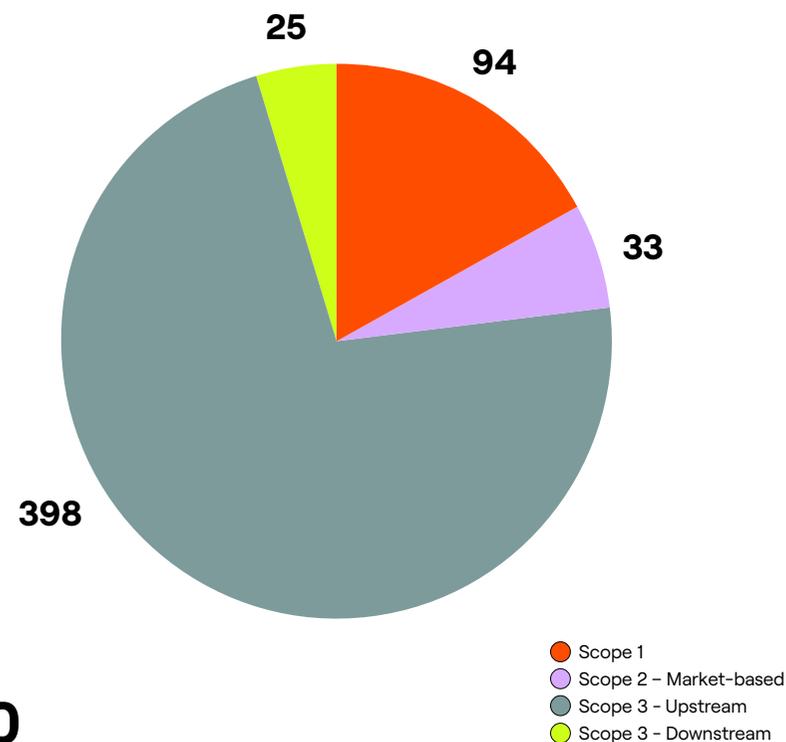
In 2021, Topsoe produced 4 thousand tonnes of operational waste, compared to 5 thousand tonnes in 2020, representing a gross reduction of 15%. This was partly but not entirely due to reduced production levels.

Environmental compliance

In 2021, we reported a total of 22 non-conformities to environmental authorities, compared to 23 in 2020. In addition, we had one major release of NO_x emissions, which was caused during a fire at our

TOTAL VALUE CHAIN GHG EMISSIONS 2021

(thousand tonnes CO₂e)



Danish production site, compared to three in 2020.

Physical climate risks

We seek to continuously strengthen our resilience to extreme weather conditions,

natural disasters and changes in sea level to prevent impacts to our operations and physical assets. Our production site in the US had to activate their hurricane preparedness procedures twice during 2021, fortunately with no injuries to employees nor →

damage to our assets. An extreme freeze in February unfortunately caused injury to an employee as well as some damage to the site's water piping, resulting in increased water consumption.

PEOPLE

Our people are integral to the success of Topsoe. Developing a high-performance culture to reach our ambitious targets is reliant on engaged and motivated employees, who are supported through fair working conditions and attractive development opportunities.

Human & labor rights

As a global company with a complex value chain, we can potentially cause, contribute or be linked to adverse impact on human rights. Topsoe is committed to continuously embed a human rights-based perspective across its business practices in line with the UN Guiding Principles on Business and Human Rights.

The most salient human rights risks that Topsoe is exposed to include safe and healthy working conditions, right to health and right to non-discrimination among others. See our sustainability report for a more detailed overview of human rights risks.

In 2021, both Topsoe's Code of Conduct and mandatory compliance & sustainability e-learning were updated to include an even stronger reference to the company's commitment to respecting human rights in all our operations and business relationships. We also published our first annual UK Modern Slavery Act Statement.

We are committed to responsible sourcing of tungsten, which is used in the production of some of our catalysts. We became a member of the Responsible Minerals Initiative in 2021. We also updated our policy governing the due diligence related to conflict minerals, renaming it to Responsible Minerals Sourcing Policy to also include cobalt.

Going forward, it is our ambition to establish a Human Rights Framework to ensure a solid foundation for our due diligence practices and to improve tracking and reporting on our human rights risks. This includes establishing further KPIs and assessing our current practices for ensuring access to remedy to potentially affected rights holders.

Health & safety

Manufacturing of catalysts requires the use of various chemicals, including hazardous chemicals that may pose a risk to people if not properly managed. Topsoe aspires toward 'Zero Harm' for all employees, contractors, business partners and community members. Given the nature of our business, excellence in health & safety is Topsoe's license to operate. Health & safety is governed by our Global Health & Safety Policy (updated in 2021).

In 2021, we strengthened Topsoe's overall safety culture and intensified efforts in areas such as contractor safety (working at Topsoe sites), field safety (Topsoe colleagues working at customers' sites) and local accountability and execution in our regional offices.

By the end of 2021, the total recordable incident frequency (TRIF) per 200,000

working hours for employees was 0.7, which is a significant improvement compared to 0.9 in 2020 and in line with our target for the year of 0.7. Main injuries were finger, hand and lower arm injuries. Since 2018, we have managed to reduce injuries by 50%.

Total recordable incident frequency (TRIF) is defined as: Number of incidents (fatalities, lost time accidents, restricted work cases, medical cases) divided by total number of hours worked by all employees and multiplied by 200,000.

Our new forward-looking target is 0.6 in 2022. In 2022, we will further strengthen our health & safety program for contractors.

Our approach to chemical and product safety management is to identify and mitigate potential risks where possible before products are made available for commercial use. Minimizing the use of chemicals is an integral component of product development processes (i.e. Topsoe Innovation System). In 2021, these processes resulted in one case where a hazardous raw material was substituted with a less hazardous alternative. We were also able to bring to market a better and safer chromium-free alternative to one of Topsoe's high temperature shift catalysts.

Engagement & well-being

Topsoe is committed to providing good and fair working conditions across its global business. The annual engagement survey in November showed employee engagement of 69%, 4 percentage points less than in 2020 and 6 percentage points below our target of 75%. Topsoe's purpose, vision

and new strategy are perceived as highly motivating by employees, who also take great pride in working for Topsoe. However, engagement is still affected by the challenges arising from COVID-19 and the organizational restructuring implemented in 2020.

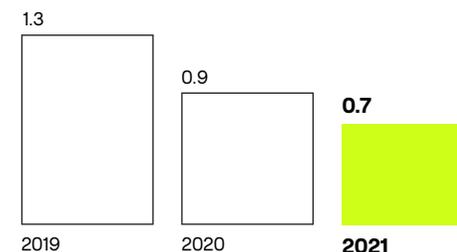
Employee development

In 2021, we introduced a new performance management solution with the objectives of building a high-performance culture, improving our ability to identify talents and promoting career mobility at Topsoe. →

SAFETY

Ratio

0.7



Total recordable incident frequency (TRIF) per 200,000 working hours.

As part of this, we identified Mission Critical Behaviors (→ [page 20](#)) that define what good performance looks like and established a transparent employee evaluation framework. 45 senior leaders were trained in elite leadership and how to build high-performance teams.

Diversity

We strive for a diverse and inclusive work environment where everyone thrives and where we can harness the business benefits of different perspectives, backgrounds and experiences, as guided by our Global Diversity Policy. We strive to strengthen diversity in the global workplace in its broadest sense and promote equal opportunities supported by our zero tolerance on harassment and discrimination.

At the end of the year, 25% of management (team leaders and up) were women, up by 3 percentage points from 2020. Our target is 30% women in management positions by 2024. When using external recruitment agencies, we request gender-balanced shortlists. We also have a policy in place to motivate and retain senior employees through individual arrangements in Denmark.

Gender split in Topsoe's Board of Directors is described on → [page 35](#).

Donations

In 2021, Topsoe contributed to global and local humanitarian challenges, such as the COVID-19 pandemic and consequences of climate change, which often have a severe impact on children's survival and quality of life. In total, Topsoe donated DKK 5.2 million

to civil society organizations and other non-profits. Every year, Topsoe allocates around 0.1% of its annual revenue to donations.

GOVERNANCE

Code of Conduct

Our Code of Conduct and underlying policies put company values into action and set standards for behavior by outlining the requirements and regulations that employees must comply with in their daily work. We launched an updated Code of Conduct and related e-learning in March. E-learning is mandatory for our Board members and employees and at year-end, the completion rate was 98%. Our annual target is 100%.

Anti-corruption & bribery

Topsoe's global operations are exposed to the risk of encountering corrupt or unethical behavior. We have policies in place for giving and receiving hospitality, gifts, and entertainment. Third-party assurance and due diligence practices support the continuing lawful conduct of our business and operations. Our updated Code of Conduct as well as our Supplier Code of Conduct reinforce emphasis on our zero tolerance toward corrupt behavior.

Implementation of our Supplier Code of Conduct went up to 70% of targeted suppliers in 2021, compared to 46% in 2020. Our ambition is to reach 90% in 2022 on a re-defined scope.

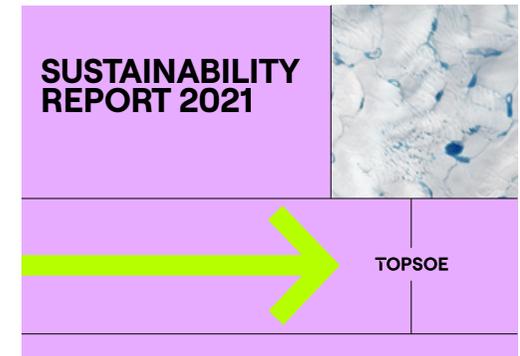
Compliance Hotline

Topsoe's global Compliance Hotline (whistleblower solution) provides employees, business partners and other external stakeholders with a channel for reporting concerns of unethical or unlawful behavior.

We received no substantiated reports through the hotline in 2021.

Data ethics

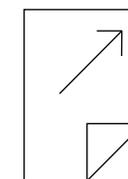
Our use of data is limited to non-sensitive customer and employee data. The processing of data is done in accordance with all applicable laws such as GDPR and in accordance with the company's policies for data privacy and IT Security. Advanced technologies such as AI and machine learning are used for operational performance data. With the limited processing of data, it is our assessment that a policy for data ethics is not needed. We will evaluate the potential for and relevance of establishing such policy in 2022.



WANT TO KNOW MORE?

Read our Sustainability Report for a deep dive on material environmental, social and governance topics to Topsoe. This report also constitutes our UN Communication on Progress.

→ [Topsoe's Sustainability Report](#)

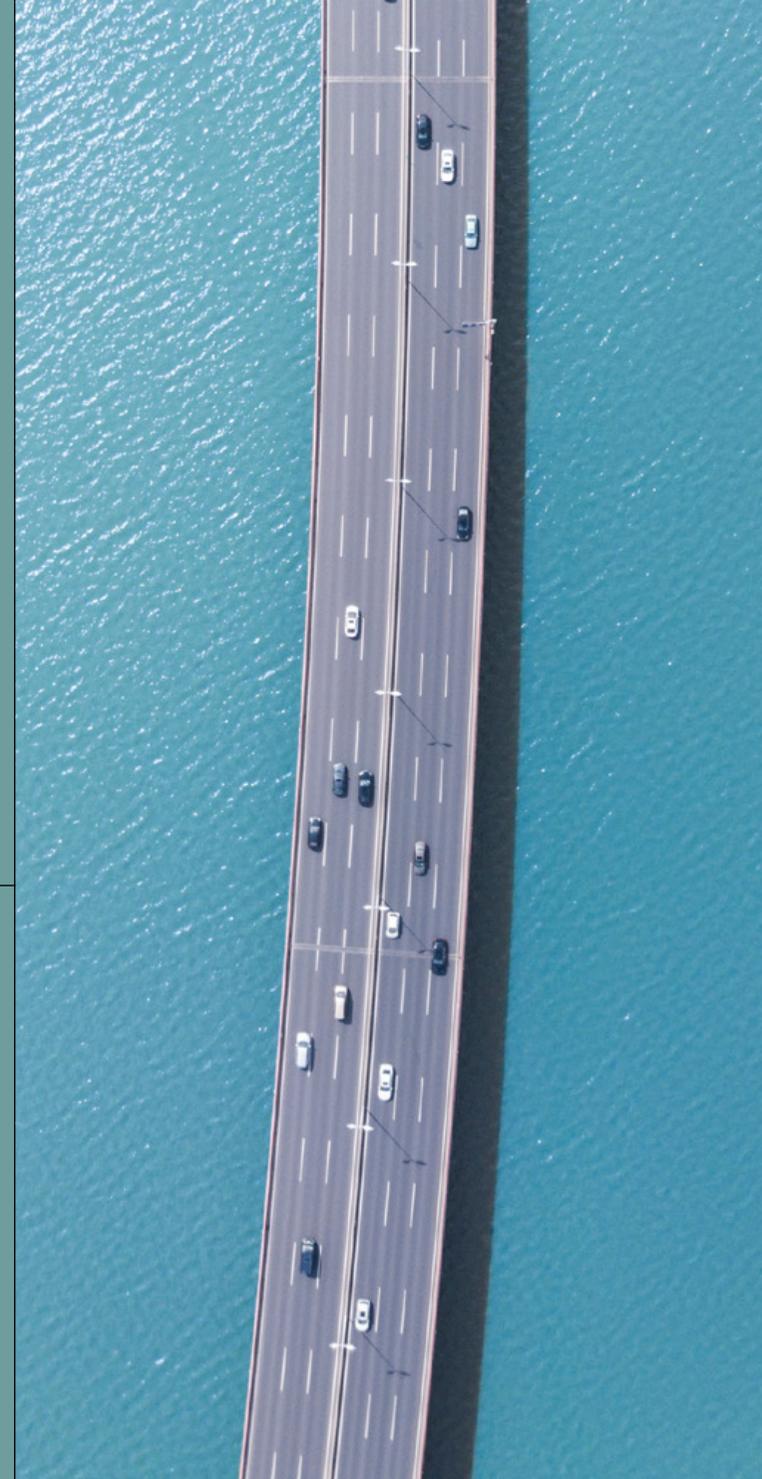


Topsoe Compliance Hotline

→ [Read more](#)

CORPORATE GOVERNANCE

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Risk Management	42



GOVERNANCE

In 2021, Topsoe continued its governance optimizations by establishing stronger structures and new ways of working.



In August, we introduced a new strategy, outlining the key steps on Topsoe's journey toward reaching the company vision. One of these key steps was already taken in June when Topsoe established a focused green hydrogen organization. Mr. Chokri Mousaoui joined as Executive Vice President responsible for leading the work to accelerate the commercialization of Topsoe's green hydrogen business, leveraging on Topsoe's unique scientific and technical capabilities within this field.

2021 was also the year where we introduced a new performance management system that guides the way we work.

Another critical governance measure was updated in March 2021 when Topsoe's Code of Conduct was re-launched in a new version after first being introduced in 2014 and only slightly adjusted in the following years, including when introducing the Compliance Hotline (whistleblower system) in 2017.

The main purpose of updating the Code of Conduct was to sharpen Topsoe's ambitions, and this work was guided and overseen by the non-Board Compliance & Sustainability Committee, while the Board approved the implementation plans. Roll-out took place through mandatory e-learning, which the Board also completed, and through several communication activities, e.g. at a company-wide online Townhall meeting. Finally, the organization was required to conduct local "compliance blitz" risk workshops in teams and to report back outcomes.



As of 2021, the reporting to the Board on sustainability and compliance was enhanced, as the two topics started to be reviewed separately at board meetings, allowing more time for in-depth discussions and evaluations. In addition, the reporting frequency was increased.

Looking ahead to 2022, the main governance points on the agenda will include strengthening of the reporting processes to the Board and its Committees as well as further optimizing the important work done in each Committee. Within the organization, initiated efforts in 2021 to professionalize business processes and

critical reporting structures will be continued as part of the new strategy. Optimizations will amongst other things include integration and adaptation of sustainability and Environmental, Social and Governance (ESG) areas into decision-making processes and strengthening compliance measures within e.g. anti-corruption, information security, sanctions and broad due-diligence efforts including human rights. This in line with Topsoe's commitment to the UN Global Compact.

A current list of all members of the Board and the Senior Leadership Team is available at → [topsoe.com](https://www.topsoe.com)

SHAREHOLDERS

Haldor Topsoe A/S is owned by Topsøe Holding A/S (~69%), Dahlia Investment Pte. Ltd. (~29%) and company employees through the Employee Share Program (~1%).

Topsøe Holding A/S is fully owned by the Topsøe family. The family's strong commitment to Topsoe's long-term growth strategy and continued development is fundamental to maintaining an innovative and sustainable company culture in line with the spirit of the company's founder.

Dahlia Investment Pte. Ltd. of Singapore is wholly owned by Temasek, an active investor

committed to long-term investments and sustainable growth.

BOARD OF DIRECTORS

Topsoe has a two-tier management structure consisting of the Board of Directors and the Senior Leadership Team. The Board supervises the Senior Leadership Team and has particular focus on formulating, revising, and reviewing the company strategy. The two-tier management structure ensures complete separation of roles and responsibilities, where no person serves as a member of both.

Composition and diversity

As of December 31, 2021, the Board of Directors consisted of 12 members, eight of whom were elected by shareholders and four of whom were elected by employees. Shareholder-elected board members serve for a one-year term and may be re-elected, which was the case for all eight members at the Annual General Meeting in 2021.

Employee-elected board members serve for a statutory four-year term. The employee-elected board members are up for election in 2022.

To ensure that discussions include multiple perspectives, the Board aspires to be diverse in both gender, nationality and backgrounds. The Board comprises four different nationalities, and board members bring a variety of backgrounds in business, engineering, physics, economy and law coupled with extensive experiences and expertise across a wide range of sectors, businesses and institutions.

GOVERNANCE MODEL

COMPLIANCE BEHAVIOR	GOVERNANCE			ASSURANCE & DEVELOPMENT
Applicable laws & regulations Code of Conduct Mission Critical Behaviors	SHAREHOLDERS			External audits of compliance, financials and environmental obligations Internal audits of compliance, financials and quality procedures Employee engagement and talent development
	BOARD OF DIRECTORS			
	AUDIT COMMITTEE	REMUNERATION COMMITTEE	INNOVATION COMMITTEE	
	SENIOR LEADERSHIP TEAM			
	GLOBAL LEADERSHIP TEAM			
	ORGANIZATION			



As of December 31, 2021, the shareholder-elected board members comprised one female and seven male members. Given that there were no changes to the Board composition in 2021, our target of two female board members by 2024 was not met. The Board continues to focus on this target when evaluating the Board's composition, competencies and potential future candidates. When including the employee-elected board members, four members were female, and eight members were male.

Evaluation

The Board conducts evaluations on a regular basis. In 2021, the board evaluation was facilitated by an external consultant working exclusively with board effectiveness reviews. The evaluation covered all board members as well as the CEO and the CFO and included topics such as board performance and competencies, main focus areas and prioritization, quality and effectiveness of board meetings and material, performance of board committees as well as the collaboration in the Board and between the Board, its committees and the Senior Leadership Team.

Overall, the evaluation revealed a very solid performance by the Board and good collaboration in the Board and between the Board, its committees and the Senior Leadership Team. The Board reviewed and discussed the results of the evaluation together with the external consultant, and individual feedback meetings were subsequently held between the Chairman and the individual board members. Specific actions were agreed upon for each of the focus points identified, and these will be addressed in subsequent board meetings.

BOARD COMMITTEES

Audit Committee

The Audit Committee assists the Board with oversight of the company's financial performance, auditing, accounting, investments, and other relevant financial matters. The Audit Committee is appointed by the Board and consists of: Jakob Topsøe (Chairman), Jeppe Christiansen, and Rohit Sobti.

Remuneration Committee

Topsoe's Remuneration Committee is tasked with ensuring appropriate policies for fair employee, senior management, and Board pay. The Remuneration Committee is appointed by the Board and consists of: Jørgen Huno Rasmussen (Chairman), Jeppe Christiansen, Jakob Topsøe, and Benoit Valentin.

Innovation Committee

The Innovation Committee assists the Board with the innovation strategy, the pipeline and the organization and competences needed. The Innovation Committee is appointed by the Board and consists of: Jens K. Nørskov (Chairman), Christina Topsøe, Rohit Sobti, and Anders Broe Bendtsen.

SENIOR LEADERSHIP TEAM

The responsibility for the overall day-to-day management of Topsoe lies with the Senior Leadership Team. The team consists of the CEO and CFO, and the heads of Strategy & Innovation, R&D, Green Hydrogen, Supply, Legal Affairs, Human Resources, and Communications & Brand. Responsibilities include overall business conduct,

determination and implementation of strategies and policies, direction setting and ensuring timely reporting and provision of information to the Board of Directors.

COMPLIANCE & BEHAVIOR

Understanding external expectations and obligations and working diligently to meet these is fundamental to Topsoe. Our Code of Conduct and underlying policies and procedures ensure that we comply with applicable laws and regulations. The Topsoe Mission Critical Behaviors guide our interactions, decisions, and actions.

ASSURANCE & DEVELOPMENT

Operating in a financially responsible manner, improving and certifying processes to meet high business standards, and developing our people are important elements to ensure a sustainable business model. Both external and internal measures are taken to audit, review, and continuously develop our processes, as well as our most valuable asset, our employees.

BOARD OF DIRECTORS



JEPPE CHRISTIANSEN
CHAIRMAN

Chairman of the Board since 2016 (member since 2010), member of the Audit Committee since 2010, and member of the Remuneration Committee since 2014.



JAKOB HALDOR TOPSØE
VICE CHAIRMAN

Vice Chairman of the Board since 2016 (member since 2010), Chairman of the Audit Committee since 2016 (member since 2010), and member of the Remuneration Committee since 2015.



BENOIT VALENTIN
VICE CHAIRMAN

Vice Chairman of the Board and member of the Remuneration Committee since 2019.



JAN KREIBAUM
MEMBER

Member of the Board since 2020.

POSITIONS AND MANAGEMENT DUTIES

Chief Executive Officer and founder of Maj Invest Holding A/S as well as board member and/or executive director of two wholly owned subsidiaries of this company, both in Denmark. Vice Chairman of Novo Nordisk A/S. Chairman of Emlika Holding ApS, and two wholly owned subsidiaries of the latter company, and Chairman of JEKC Holding ApS. Board member of Novo Holdings A/S and KIRKBI A/S, Pluto Naturfonden and Randers Regnskov, all in Denmark. Member of the Board of BellaBeat Inc., U.S. Member of the Board of Governors of Det Kgl. Vajsenhus, Denmark. Adjunct Professor, Department of Finance, Copenhagen Business School, Denmark.

Chairman of the Board of Topsøe Holding A/S and member of the Board of IGM Biosciences, Inc.

Deputy Head EMEA, Head of Private Equity Fund Investments, Head of Impact Investing at Temasek. Non-Executive Director at Tikehau Capital Associés, Tana Africa Capital, Axereal Malt Holding and LeapFrog Investments.

Senior advisor focusing on China-specific strategies along the chemicals value chain and serving in roles with industry association boards in China, including the European Chemical Industry Council (Cefic) and the China Petroleum and Chemical Industry Federation (CPCIF).

EDUCATION

MSc in Economics from University of Copenhagen, Denmark (1985).

Graduate Diploma in Business Administration from Copenhagen Business School, Denmark (1994).

MA in Business from HEC Paris (École des Hautes Études Commerciales de Paris), France (1990).

M.Eng. (Chem.) from McGill University (1986).

BOARD OF DIRECTORS



JENS KEHLET NØRSKOV
MEMBER

Member of the Board since 2010, and Chairman of the Innovation Committee since 2015.



JØRGEN HUNO RASMUSSEN
MEMBER

Member of the Board since 2013, and Chairman of the Remuneration Committee since 2014.



ROHIT SOBTI
MEMBER

Member of the Board, the Innovation Committee and the Audit Committee since 2019.



CHRISTINA TENG TOPSØE
MEMBER

Member of the Board since 2013, and member of the Innovation Committee since 2016.

POSITIONS AND MANAGEMENT DUTIES

Villum Kann Rasmussen Professor, Catalysis Theory Center, Technical University of Denmark. Chairman of the Board of The Danish National Research Foundation.

Vice Chairman of the Boards of Terma A/S, Rambøll Group A/S, STIBOFONDEN and Stibo Holding A/S. Member of the Boards of Bladt Industries A/S, Otto Mønsted A/S, Thomas B. Thriges Foundation, and Aase and Jørgen Münters Foundation.

Managing Director, Investments, in Temasek's Industrials, Business Services and Energy cluster. Non-executive Director on the Board of Schneider Electric India Pvt. Ltd.

Member of the Boards of Topsøe Holding A/S and IGM Biosciences, Inc.

EDUCATION

PhD from Aarhus University, Denmark (1979), and honorary doctorates from Technical University of Eindhoven (2006), Norwegian University of Science and Technology (2012), and Technical University of Munich (2018).

MSc (1976) and PhD (1980) from the Technical University of Denmark. Graduate Diploma in Business Administration from Copenhagen Business School, Denmark (1977), where Mr. Rasmussen is also Adjunct Professor.

MBA from the Institute of Management Technology, India (1992) and B.Eng. Electronics from the B.M.S. College of Engineering, India (1989).

BSc in Chinese studies from the University of Copenhagen, Denmark and the Peking University, China (2003). Bachelor of Laws (LL.B.) at SOAS, University of London, UK (2006) and LPC at the University of Law, London, UK (2007). MBA from Columbia Business School, USA (2018).

BOARD OF DIRECTORS



ANDERS BROE BENDTSEN
MEMBER

Member of the Board since 2018 (employee representative), and member of the Innovation Committee since 2020.

**POSITIONS AND
MANAGEMENT
DUTIES**

Senior Patent Counsel in the Intellectual Property department in Global Legal Affairs, Haldor Topsoe A/S.

JOINED TOPSOE

2010

EDUCATION

PhD in Chemical Engineering from the Technical University of Denmark (1999), registered European Patent Attorney (2012).



CHRISTINA BORCH
MEMBER

Member of the Board since 2018 (employee representative).

Group Manager in the Support and Maintenance Projects department in Global Supply, Haldor Topsoe A/S.

1992

Academy Profession Degree in technology (1991).



JETTE SØVANG CHRISTIANSEN
MEMBER

Member of the Board since 2005 (employee representative).

HSE System Manager in the QC & HSE department in Global Supply, Haldor Topsoe A/S.

1986

Academy Profession Degree in technology (1985).



LIS IBSEN
MEMBER

Member of the Board since 2019 (employee representative).

Research Specialist in the Clean Air Applications department in Research & Development, Haldor Topsoe A/S.

1998

Professional Bachelor's Degree as a Laboratory Technician specializing in chemistry (1996).

SENIOR LEADERSHIP TEAM



ROELAND BAAN
PRESIDENT & CHIEF EXECUTIVE OFFICER

Roeland Baan joined Topsoe CEO in 2020. From 2016, Mr. Baan was President and CEO of Outokumpu, a global stainless steel company listed on the Finnish stock exchange. Previously, Mr. Baan held a wide range of global CEO and Executive Vice President (EVP) positions at Aleris International, Arcelor Mittal, SHV NV, and Shell.

Mr. Baan is Chairman of the Board of SBM Offshore NV.

Mr. Baan holds an MSc in Economics from Vrije Universiteit Amsterdam, the Netherlands (1980).



PHILIP EICKHOFF
CHIEF FINANCIAL OFFICER

Philip Eickhoff joined Topsoe as CFO in 2020. From 2014, Mr. Eickhoff served as CFO of Atos Medical, a private equity-owned medical technology company. Previously, he held several leadership positions at Coloplast, including Regional CFO of North America and VP Strategy & M&A.

Mr. Eickhoff has a consulting background from Bain & Company where he served both corporate and private equity clients on strategic and M&A engagements.

Mr. Eickhoff holds an MSc in Finance and Accounting from Copenhagen Business School, Denmark (2004), and University of Michigan, US (2003).



KRISTINE AHRENSBACH
CHIEF COMMUNICATIONS & BRAND OFFICER

Kristine Ahrensbach joined Topsoe in 2014. Previously, she held positions as Director of Corporate Communications at Chr. Hansen, Brand Manager at the Danish Agriculture & Food Council, Danish Crown and Arla Foods and as consultant for International Internship Programs based in Tokyo.

Ms. Ahrensbach holds an MA in Japanese, French, and Business Administration from the University of Copenhagen, Denmark (1993), and a supplementary degree in Corporate Communications from Copenhagen Business School (CBS), Denmark (2004). External examiner since 1997 at Copenhagen Business School (CBS).



KIM S. HEDEGAARD
CHIEF OPERATING OFFICER

Kim Hedegaard is in charge of Global Supply. He joined Topsoe in 1999 and has held various leadership positions in the company within engineering, technology, and sales. He has been globally responsible for Catalyst Production and Technology since 2017.

Mr. Hedegaard serves as Vice Chairman of the Board of Process Industry, a member organization under the Confederation of Danish Industries. He is also a member of the Board at the secondary education institution U/NORD and of the Board at FlexHospital.

Mr. Hedegaard holds an MSc in Chemical Engineering from the Technical University of Denmark (1999).



PETER KIRKEGAARD
CHIEF HUMAN RESOURCES OFFICER

Peter Kirkegaard joined Topsoe in 2021. Since 2016, he served as Executive Vice President, Chief People & Culture Officer, at Hempel A/S, which he joined in 2007 as Vice President. Before that, Mr. Kirkegaard had a 15-year career with Accenture as Partner leading the Human Performance and Finance & Performance Management service lines.

Mr. Kirkegaard holds an MSc in Political Science from University of Aarhus, Denmark (1991), and an MA in International Relations from University of Reading, UK (1989).

SENIOR LEADERSHIP TEAM



KIM GRØN KNUDSEN
CHIEF STRATEGY & INNOVATION
OFFICER

Kim Grøn Knudsen has been a member of Topsoe's Senior Leadership Team since 2012 and has headed the New Business, Environmental Business, and Refinery Business units. Before that, he held a number of positions within Topsoe's Research & Development, including Vice President. Mr. Knudsen joined Topsoe in 1996, leaving a position as Research Associate Professor at the Technical University of Denmark.

Mr. Knudsen holds a MSc (1990) and a PhD (1992) in Chemical Engineering from the Technical University of Denmark.



CHOKRI MOUSAOUI
EXECUTIVE VICE PRESIDENT
POWER-TO-X

Chokri Mousaoui joined Topsoe in 2021 as EVP, when the Green Hydrogen organization was established.

In 2011, Mr. Mousaoui co-founded Eternal Sun, a spin-off from Delft University of Technology specialized in equipment for testing solar modules. The company evolved from a startup to the market leader within solar testing. In 2019, he exited the company to a private equity fund.

Mr. Mousaoui is a member of the Supervisory Board of the Energy Transition Fund in Rotterdam, the Netherlands, and the Advisory Council of the Dutch Government on Science, Technology and Innovation.

Mr. Mousaoui studied Systems Engineering and Policy Analysis & Management at Delft University of Technology, the Netherlands (2010).



JESPER NERLOV
CHIEF TECHNOLOGY OFFICER

Jesper Nerlov joined Topsoe in 1998 and has overseen Topsoe's Research & Development since 2008.

Mr. Nerlov is a member of the Board of the Danish Eco-Innovation Program (MUDP) under the Ministry of Environment of Denmark. He also serves as Vice Chairman of the Danish Environmental Technology Association, member of the Board of Representatives of the Technical University of Denmark, member of the Confederation of Danish Industries' Committee for Research and Education, and member of the Advisory Board for Science at the University of Copenhagen.

Mr. Nerlov holds a PhD in Physical Chemistry from the University of Copenhagen, Denmark (1992).



LENE RAMM
GROUP GENERAL COUNSEL

Lene Ramm has been with Topsoe since 2003. Before joining Topsoe, Ms. Ramm served as Attorney-at-Law at Kromann Reumert and Head of Section in the Danish Ministry of Foreign Affairs.

Ms. Ramm holds an MA in Law from the University of Copenhagen, Denmark, and a supplementary degree in Business Administration and Management from Columbia Business School, US. (2017).

RISK MANAGEMENT

Managing risks thoroughly and systematically is key for us to create and protect value over the short, medium, and long term.

Scenario and risk thinking exercises are part of our strategic planning process. They include analysis of market dynamics as well as of economic and political developments that present opportunities or risks for our business.

Topsoe is exposed to a variety of risks in connection with its business operations. In addition to strategic and operational risks, Topsoe is exposed to financial risks such as interest rates, exchange rates, commodity prices, credit risk and insurance risk.

Topsoe operates an Enterprise Risk Management set-up for the purpose of identifying, quantifying and mitigating risks that could have an adverse impact on Topsoe's operations.

Each year, risks are identified and assessed and mitigating actions are agreed upon after thorough dialog with management teams across the organization. The Senior Leadership Team, Audit Committee and the Board of Directors oversees the progress in the mitigation of the identified risks.

MAIN FOCUS AREAS IN 2021

Main focus in 2021 has been on the transition risks of moving towards a low-carbon (or zero-carbon) economy and the inherent impact on Topsoe's traditional core business.

GEOPOLITICAL RISK

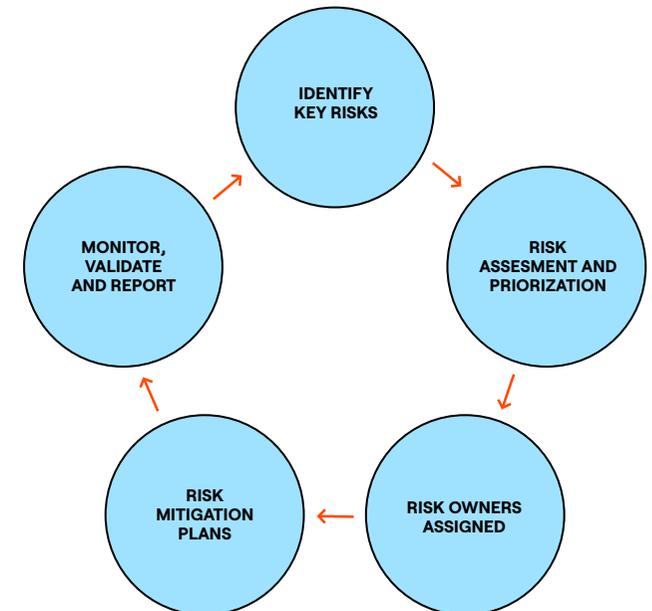
Topsoe operates globally including regions where we are exposed to geopolitical instability and risks that may impact demand for our solutions and our ability to deliver. As part of our risk management processes, we are assessing and screening our customers and business partners to secure compliance with all regulation and sanctions.

In addition, the geopolitical risks may also impact Topsoe's ability to source raw material, energy and other components used in our supply chain.

As reported under subsequent events, Russia's invasion of Ukraine has taken place after the end of the reporting period. This war is expected to have a negative impact on the financial performance of Topsoe. Topsoe monitors the situation closely to



TOPSOE'S RISK MANAGEMENT PROCESS



assess the implications and impact, both near-term and long-term.

TRANSITIONAL CLIMATE RISK

The global energy consumption is expected to grow considerably over the coming decades. Our traditional core business plays a key role in ensuring energy-efficient production of the world's chemicals and fuels. Already today, we provide chemical and fuel producers with solutions for energy-efficient production. At the same time, we see a push for accelerating the transition to renewable energy sources and new technologies.

While a significant part of our technical and catalytic solutions is based on fossil fuel feedstock (notably natural gas), we also work intensively with an increasingly wide range of non-fossil-based technologies within green hydrogen, green ammonia, eMethanol, and eFuels.

CYBER RISK

In recent years, several major cyber-attacks have been launched against companies around the world, and we see growth in serious cyber operations in closer proximity to our business.

Being a knowledge-based and increasingly digitalized company, Topsoe is exposed to information security risks. The threat of cyber-attacks is increasing, and a major malware attack could lead to severe

business disruption. Topsoe is continuously monitoring the efforts within this area to ensure stable and secure digital environments.

COVID-19

The COVID-19 pandemic continues to impact the global economy and the world's supply chains.

While COVID-19 has naturally challenged our supply chain at times, we have not experienced major disruptions such as supply failures, and we have been able to continue our production more or less as usual.

During 2021, we have focused on safeguarding the health, safety and well-being of our employees.

OVERVIEW OF TOPSOE'S KEY RISKS

STRATEGIC RISKS	OPERATIONAL RISK	FINANCIAL RISKS
<ul style="list-style-type: none"> → Industry and climate related exposure transition change → Geopolitical and economic instability → Exposure to new business models 	<ul style="list-style-type: none"> → Cyber risk / Cyber attack → Increasing complexity in regulatory legislation → Operation disruption (incl. geopolitical risk and COVID-19) → Inability to attract, develop and retain talent → Non-compliance, law and regulations → IP infringement risk 	<ul style="list-style-type: none"> → Financial risks to Loss of revenue and credit exposure to customers' solvency

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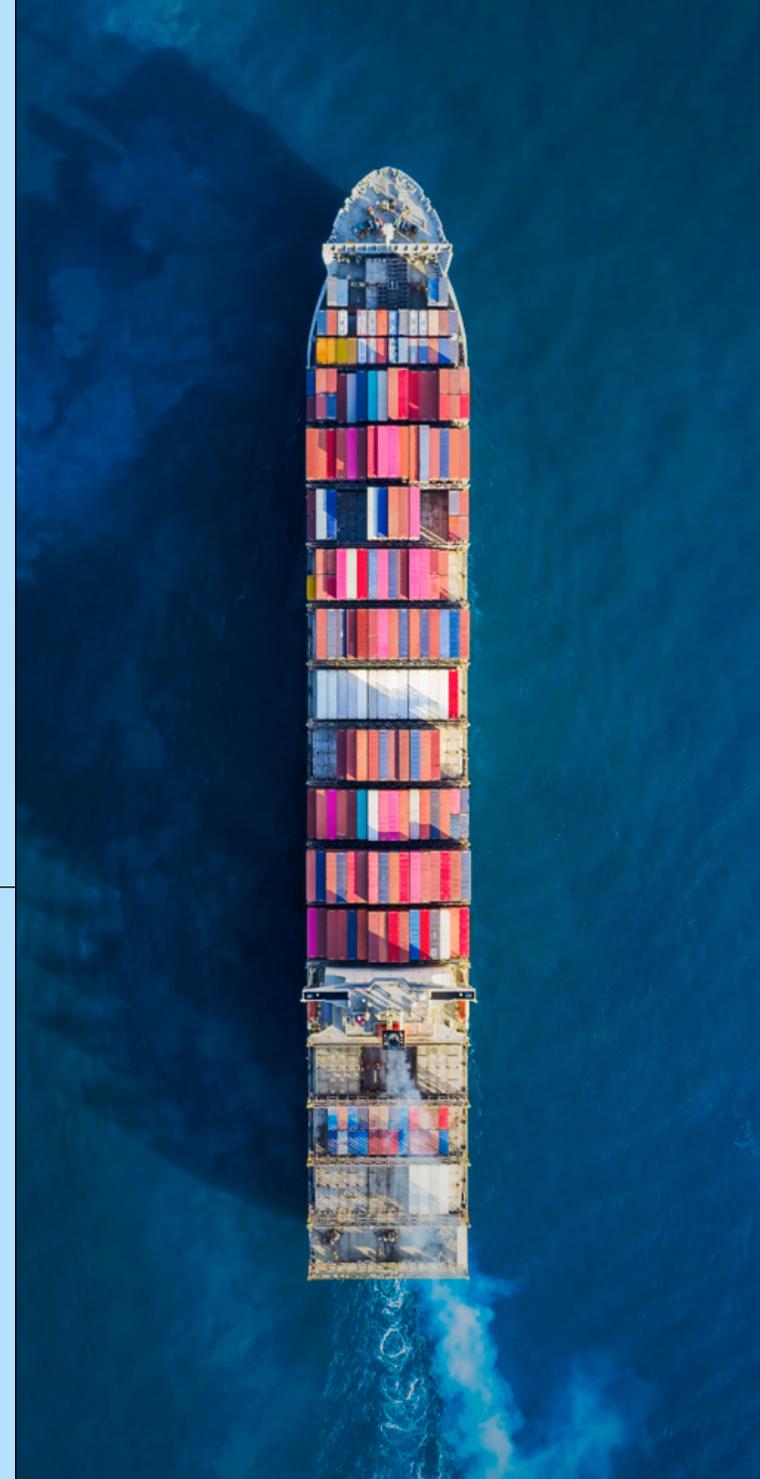
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CONSOLIDATED INCOME STATEMENT

DKK million	Note	2021	2020
Revenue	2.1	6,225	6,179
Other operating income	2.2	67	76
Purchased equipment for contract work		-539	-570
Raw materials and consumables used		-1,782	-1,842
Other external expenses		-1,087	-1,054
Gross profit		2,884	2,789
Staff costs	2.3	-1,651	-1,611
EBITDA		1,233	1,178
Depreciation, amortization and impairment losses		-330	-325
EBIT before special items		903	853
Special items	2.4	-26	-275
EBIT after special items		877	578
Result of investments in joint ventures and associated companies	3.4	132	-8
Financial income	4.4	136	108
Financial expenses	4.4	-101	-129
Profit before tax		1,044	549
Tax	2.5	-164	-114
Profit from continuing operations		880	435
Profit from discontinuing operations	5.8	10	45
Net profit		890	480
Attributable to:			
Owners of the parent company		887	481
Non-controlling interests		3	-1
Net profit		890	480
Earnings per share, continuing operations	4.1	2.31	1.15
Earnings per share	4.1	2.34	1.27

CONSOLIDATED STATEMENT OF COMPREHENSIVE INCOME

DKK million	Note	2021	2020
Net profit		890	480
Foreign currency translation adjustment		103	-108
Other		1	1
Items that will be reclassified to the income statement		104	-107
Fair value adjustment of investments in other enterprises		-8	-38
Actuarial adjustments on pension obligations		47	-2
Tax on this	2.5	-11	1
Items that will not be reclassified to the income statement		28	-39
Other comprehensive income		132	-146
Total comprehensive income		1,022	334
Continuing operations		1,012	289
Discontinuing operations		10	45
Total comprehensive income		1,022	334
Attributable to:			
Owners of the parent company		1,018	336
Non-controlling interests		4	-2
Total comprehensive income		1,022	334

CONSOLIDATED BALANCE SHEET

Assets

DKK million	Note	2021	2020
Intangible assets	3.1	184	162
Property, plant and equipment	3.2	1,760	1,618
Right-of-use assets	3.3	498	555
Deferred tax asset	2.5	11	8
Other non-current assets	3.4	320	266
Non-current assets		2,773	2,609
Inventories	3.5	1,647	1,492
Trade receivables	3.6	1,232	1,079
Contract assets	3.7	270	188
Tax receivable		62	62
Other receivables and prepayments	3.8	306	83
Cash		872	1,175
Current assets		4,389	4,079
Assets		7,162	6,688

Equity and liabilities

DKK million	Note	2021	2020
Share capital	4.1	379	379
Share premium	4.1	71	68
Reserves		86	-9
Retained earnings		2,393	1,701
Equity attributed to the owners of the parent company		2,929	2,139
Non-controlling interests		12	8
Total equity		2,941	2,147
Pension obligations	3.9	37	42
Deferred tax	2.5	479	419
Provisions	3.10	175	290
Borrowings	4.2	452	574
Lease liabilities	4.2	467	509
Other payables	3.11	105	100
Non-current liabilities		1,715	1,934
Borrowings	4.2	122	123
Lease liabilities	4.2	68	76
Contract liabilities	3.7	1,179	1,378
Trade payables		568	419
Tax payable		7	1
Other payables	3.11	526	564
Deferred income		36	46
Current liabilities		2,506	2,607
Liabilities		4,221	4,541
Equity and liabilities		7,162	6,688

CONSOLIDATED CASH FLOW STATEMENT

DKK million	Note	2021	2020
EBITDA		1,233	1,178
Special items	2.4	-26	-275
Adjustments for non-cash items	5.4	73	209
Change in working capital	5.4	-707	176
Interest received, etc.		103	68
Interest paid, etc.		-77	-113
Corporate income tax paid		-99	-129
Cash flows from operating activities		500	1,114
- of which continuing operations		500	1,149
Purchase of intangible assets		-65	-66
Purchase of property, plant and equipment		-330	-325
Sale of property, plant and equipment		1	1
Purchase of non-current financial assets		-30	-20
Sale of non-current financial assets		0	2
Dividend received		33	40
Cash flows from investing activities		-391	-368

DKK million	Note	2021	2020
Proceeds from borrowings		0	261
Repayment of borrowings		-123	-596
Installments on lease liabilities		-75	-75
Received share capital		3	71
Dividend paid		-240	0
Cash flows from financing activities		-435	-339
Cash flows for the year		-326	407
Cash and cash equivalents at January 1		1,175	787
Foreign currency translation adjustments		23	-19
Cash and cash equivalents at December 31		872	1,175
Cash		872	1,175
Cash and cash equivalents at December 31		872	1,175

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

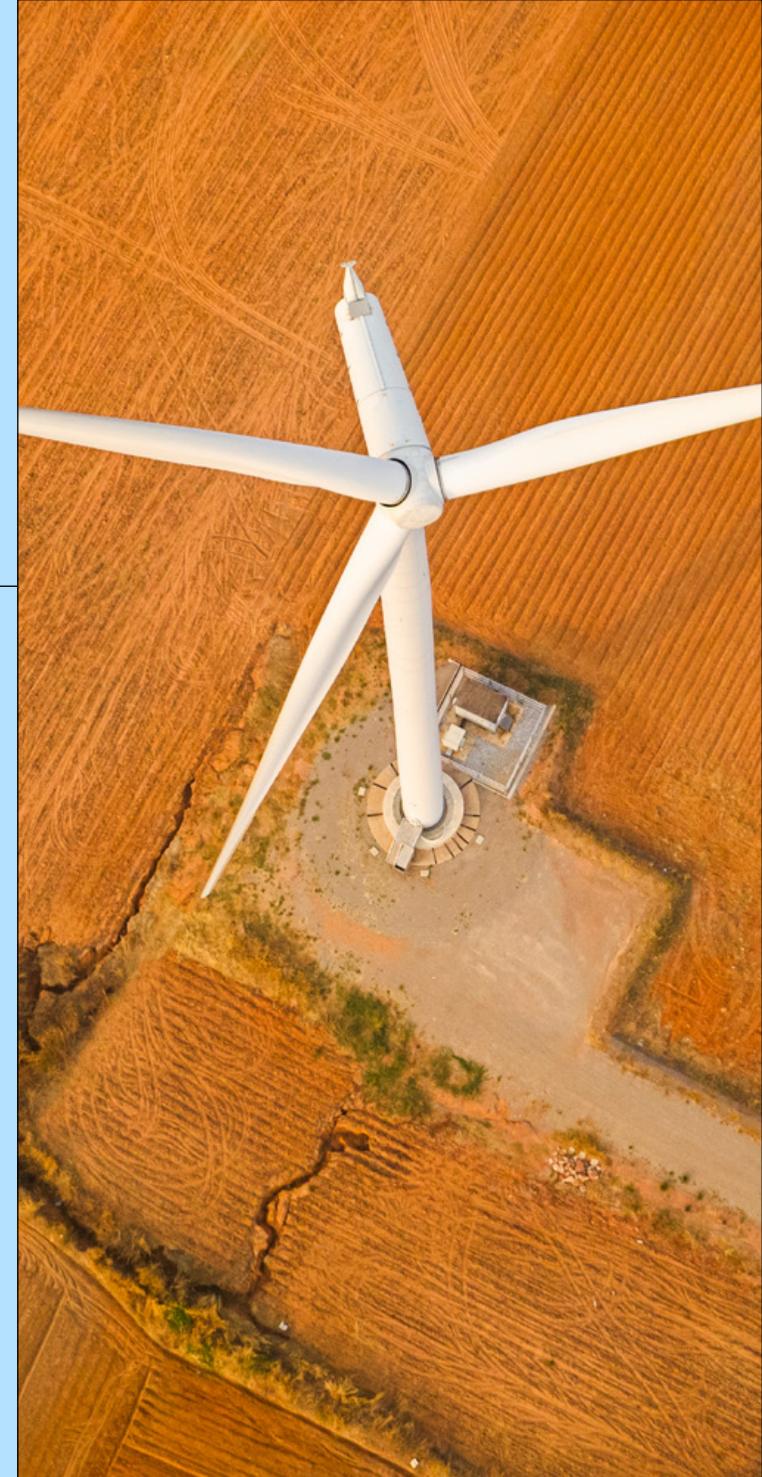
DKK million	Share capital	Share premium	Foreign currency translation reserve	Reserve for financial assets measured at fair value	Total reserves	Retained earnings	Total	Non-controlling interests	Total equity
Equity at January 1, 2021	379	68	-44	35	-9	1,701	2,139	8	2,147
Net profit	0	0	0	0	0	887	887	3	890
Foreign currency translation adjustment	0	0	102	0	102	0	102	1	103
Fair value adjustment of investments in other enterprises	0	0	0	-8	-8	0	-8	0	-8
Other	0	0	1	0	1	36	37	0	37
Other comprehensive income	0	0	103	-8	95	36	131	1	132
Comprehensive income	0	0	103	-8	95	923	1,018	4	1,022
Capital increase	0	3	0	0	0	0	3	0	3
Dividend paid	0	0	0	0	0	-240	-240	0	-240
Employee Share Program - value of employee services	0	0	0	0	0	4	4	0	4
Share-based payments	0	0	0	0	0	5	5	0	5
Transactions with owners	0	3	0	0	0	-231	-228	0	-228
Equity at December 31, 2021	379	71	59	27	86	2,393	2,929	12	2,941

CONSOLIDATED STATEMENT OF CHANGES IN EQUITY

DKK million	Share capital	Share premium	Foreign currency translation reserve	Reserve for financial assets measured at fair value	Total reserves	Retained earnings	Total	Non-controlling interests	Total equity
Equity at January 1, 2020	376	0	63	73	136	1,218	1,730	9	1,739
Net profit	0	0	0	0	0	481	481	-1	480
Foreign currency translation adjustment	0	0	-108	0	-108	0	-108	0	-108
Fair value adjustment of investments in other enterprises	0	0	0	-38	-38	0	-38	0	-38
Other	0	0	1	0	1	-1	0	0	0
Other comprehensive income	0	0	-107	-38	-145	-1	-146	0	-146
Comprehensive income	0	0	-107	-38	-145	480	335	-1	334
Capital increase	3	68	0	0	0	0	71	0	71
Employee Share Program - value of employee services	0	0	0	0	0	3	3	0	3
Transactions with owners	3	68	0	0	0	3	74	0	74
Equity at December 31, 2020	379	68	-44	35	-9	1,701	2,139	8	2,147

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3.2	Property, plant and equipment	60	5.8	Discontinuing operations	82
3.3	Right-of-use assets	62			
3.4	Other non-current assets	63			
3.5	Inventories	66			
3.6	Trade receivables	66			
3.7	Contract assets and liabilities	67			
3.8	Other receivables and prepayments	68			
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3.10	Provisions and contingent liabilities	71			
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1 BASIS OF REPORTING

1.1 Basis of preparation

INTRODUCTION

The financial statements for 2021 comprise the consolidated financial statements of Haldor Topsoe A/S and its subsidiaries.

The consolidated financial statements have been prepared in accordance with the International Financial Reporting Standards (IFRS), as adopted by the EU, and further requirements in the Danish Financial Statements Act for class C large companies.

The financial statements are presented in Danish kroner (DKK) and rounded to the nearest million, unless otherwise stated.

The Board of Directors considered and approved the 2021 Annual Report of Haldor Topsoe A/S on March 4, 2022. The Annual Report will be submitted to the shareholders of Haldor Topsoe A/S for approval at the Annual General Meeting on April 7, 2022.

BASIS OF MEASUREMENT

The consolidated financial statements have been prepared on the historical cost basis, except for derivatives and investments in other enterprises, which are measured at fair value.

The accounting policies have been applied consistently for the financial year and for the comparative figures.

BASIS OF CONSOLIDATION

The consolidated financial statements comprise the parent company, Haldor Topsoe A/S, and all subsidiaries controlled by Haldor Topsoe A/S.

The consolidated financial statements have been prepared by summarizing the financial statements of the parent company and the subsidiaries, which have been prepared in accordance with the Group's accounting policies. Intra-group balances, income, expenses,

shareholdings, and dividends as well as realized and unrealized gains and losses have been eliminated.

The non-controlling interests' share of profit for the year and of equity in subsidiaries, which not are fully owned, is included as part of the Group's profit and equity, but shown as separate items.

FOREIGN CURRENCY

Functional currency

A functional currency is determined for each Group enterprise. The functional currency is the currency used in the primary economic environment in which the enterprise operates.

Foreign currency translation

On initial recognition, foreign currency transactions are translated into the functional currency at the exchange rate at the transaction dates. Exchange differences between the exchange rates at the transaction date and the date of payment are recognized in the income statement under financial income or expenses.

Monetary items in foreign currency are translated at the exchange rates at the balance sheet date. The difference between the exchange rates at the balance sheet date and the transaction date is recognized in the income statement under financial income or expenses.

Foreign currency translation differences arising on the translation of non-monetary items, such as investments in associated companies, are recognized directly in other comprehensive income.

Recognition in the consolidated financial statements

On preparation of the consolidated financial statements, the income statements of Group enterprises with a functional currency other than Danish kroner are translated at the exchange rate at the transaction

dates and balance sheet items are translated at the exchange rate at the balance sheet date.

Foreign exchange differences arising on translation of the opening equity at the exchange rate at the balance sheet date and on translation of non-current intercompany balances considered part of the net investment are recognized in other comprehensive income under foreign currency translation reserve.

Foreign exchange differences arising from the translation of the income statement from the exchange rate at the transaction dates to the exchange rate at the balance sheet date are also recognized in other comprehensive income.

OTHER ACCOUNTING POLICIES

Purchased equipment for contract work

Purchased equipment for contract work comprises hardware etc. related to engineering projects.

Raw materials and consumables used

Raw material and consumables used comprise raw materials and consumables consumed to achieve revenue for the year.

Other external expenses

Other external expenses comprise expenses to external assistance, premises and office expenses, sales and distribution expenses, etc.

Deferred income

Deferred income comprises payments received in respect of income in subsequent years related to government grants.

PRESENTATION

Cash flow statement

The cash flow statement is presented in accordance with the indirect method.

Cash flows from operating activities are stated as EBITDA adjusted for non-cash items, such as gain and loss from disposal of assets, change in working capital, interest received and paid and paid corporate income tax. Cash flows from investing activities comprise cash flows from purchase and sale of non-current assets and received dividend. Cash flows from financing activities comprise cash flows from borrowings, installments on lease liabilities as well as payments to and from shareholders.

Cash and cash equivalents comprise cash at hand and deposits with financial institutions.

Materiality in financial reporting

In preparing the Annual Report, Management has sought to improve the information value of the consolidated financial statements, the notes to the statements and other measures disclosed by presenting the information in a way that supports the understanding of the Group's performance in the reporting period which has resulted in immaterial classifications and changes.

This objective is achieved by presenting fair transactional aggregation levels on line items and other financial information, emphasizing information that is considered of material importance to the user and making relevant rather than generic descriptions throughout the Annual Report. All disclosures are made in compliance with the International Financial Reporting Standards, the Danish Financial Statements Act and other relevant regulations, ensuring a true and fair view throughout the Annual Report.

1.1 Basis of preparation (continued)

Presentation of items and subtotals

The presentation of items and subtotals is based on separate classification of material groups of similar items. In the income statement, income and expense items are classified based on the 'nature of expense' method in accordance with IAS 1. Furthermore, the use of special items is applied to improve the transparency and understanding of the Group's financial statements by separating the ordinary activities of the Group from exceptional items. Please refer to note 2.4 Special items for further information.

Five-year summary

The key figures and financial ratios have been calculated as follows:

Gross margin	=	$\frac{\text{Gross profit} \times 100}{\text{Revenue}}$
EBITDA margin	=	$\frac{\text{EBITDA} \times 100}{\text{Revenue}}$
EBIT before special items margin	=	$\frac{\text{EBIT before special items} \times 100}{\text{Revenue}}$
EBIT after special items margin	=	$\frac{\text{EBIT after special items} \times 100}{\text{Revenue}}$
Return on invested capital	=	$\frac{\text{EBIT before special items} \times 100}{\text{Average invested capital}}$
Equity ratio	=	$\frac{\text{Equity at year-end} \times 100}{\text{Balance sheet total}}$
Return on equity	=	$\frac{\text{Net profit} \times 100}{\text{Average equity}}$
Leverage	=	$\frac{\text{Net interest-bearing debt}}{\text{EBITDA}}$
Earnings per share	=	$\frac{\text{Profit from continuing operations}}{\text{Average number of shares}}$

1.2 Changes in accounting policies and new standards

The accounting policies are unchanged from last year.

Leased assets have been reclassified from property, plant and equipment to a separate balance sheet item called Right-of-use assets to make it easier for users to assess the impact of these assets. The impact is a decrease in property, plant and equipment amounting to DKK 555 million as per December 31, 2020 and an increase in right-of-use asset by the same amount.

New standards and amendments not yet implemented

IASB has issued a number of amended standards and interpretations which are not yet in effect or endorsed by the EU, and which have consequently not been incorporated in the consolidated financial statements for 2021. The following amendments could be relevant to the Group, but have not yet been adopted by the EU:

- IAS 8 Accounting policies, changes in accounting estimates and errors: This amendment introduces a new definition of accounting estimates: "Accounting estimates are monetary amounts in financial statements that are subject to measurement uncertainty". The new definition emphasizes that accounting estimates involve utilization of measurement techniques and assumptions. This is made to assist companies when determining whether a change is due to change in an accounting estimate or a change of accounting policies.

- IAS 12 Income taxes: The amendment requires recognition of deferred tax on transactions, that on initial recognition, give rise to equal amounts of taxable and deductible temporary differences. Deferred tax assets and tax liabilities are to be presented net within the same tax jurisdiction.

The amendments will be effective for financial years beginning on or after January 1, 2023 and will be implemented when they take effect. None of the amendments are currently expected to have any significant impact on the Group's financial statements.

1.3 Key accounting estimates and judgements

When preparing the consolidated financial statements, Management is required to make several estimates and judgements. These estimates and judgements are based on professional experience, historical data and other factors available to Management. Actual results may differ from the amounts estimated and judgements made, as more detailed information becomes available. Accounting estimates and judgements are continuously evaluated, and the effect recognized in the financial statements.

The primary financial statement items for which more significant accounting estimates and judgements are applied are:

Note	Significant accounting estimates and judgements	Nature of accounting impact	Impact of estimate and judgement
2.1 Revenue	Determine performance obligation	Judgement	● ● ●
	Determine recognition method	Judgement	● ● ●
	Estimate total cost to complete	Estimate	● ● ●
3.5 Inventories	Estimate valuation of inventory	Estimate	● ● ○
3.10 Provisions and contingent liabilities	Estimate warranty provisions	Estimate	● ● ○

Additional information of accounting estimates and judgements are included in the relevant notes.

2 INCOME STATEMENT

2.1 Revenue

ACCOUNTING POLICIES

Revenue from contracts with customers is recognized in the income statement when control of the goods or services has been transferred to the customer, i.e. when goods or services are delivered. Revenue is recognized exclusive of VAT and net of discounts relating to sales.

Revenue from catalyst sales is recognized at a point in time when control has been transferred, which typically takes place based on Incoterms.

Revenue from technology sales is recognized over time using the percentage-of-completion method based on incurred versus forecasted contract costs, which means that revenue equals the selling price of the work completed for the year. This method is applied when total revenue and cost in respect of the contract and the percentage-of-completion at the balance sheet date can be measured reliably, and it is probable that economic benefits, including payments, will flow to the Group.

The transaction price of a contract is allocated to performance obligations, e.g. delivered catalyst and delivered technology. Technology is considered to be one performance obligation, since the deliveries are interlinked and work together as a whole and not as distinct elements.

ACCOUNTING ESTIMATES AND JUDGEMENTS

Judgement is applied when determining if a contract for the sale of technology or catalysts or a combination thereof, involves one or more performance obligations.

Judgements are made by Management when determining if a performance obligation is recognized as revenue over time or at a point in time. The judgements relate to if there is an alternative use of the assets sold and if there is an enforceable right to payment throughout the contractual term.

The percentage-of-completion is determined on the basis of the share of contract costs incurred compared to forecasted contract costs. Forecasted costs are partly based on an estimate which to a high degree is based on historical experience. Expected income and costs of technology projects may be adjusted gradually as projects are progressing and any uncertainties are clarified.

DKK million	2021	2020
Revenue split on categories and recognition method		
Revenue recognized at a point in time	4,362	4,523
Catalyst revenue	4,362	4,523
Revenue recognized at a point in time	192	195
Revenue recognized over time	1,671	1,461
Technology revenue	1,863	1,656
Total revenue	6,225	6,179
Backlog and previously recognized contract liabilities		
Backlog, of which the majority is expected to be recognized in 2022	3,634	4,262
Revenue recognized that was included in the contract liability balance at the beginning of the year	905	848

The Group's revenue can be divided into two main categories: catalyst sales and technology sales. Catalyst sales primary comprise the sale of catalysts. Technology sales primary comprise basic engineering design, license fee and hardware.

The majority of catalyst sales are paid after delivery with typically 30-60 days of credit, but in certain situations the Group receives prepayments.

Technology sales are paid in installments during the contract's lifetime. The Group strives to be cash flow positive on all technology contracts at any time during project execution.

2.2 Other operating income

ACCOUNTING POLICIES

Other operating income comprises income of a secondary nature to the Group's main activities, including government grants provided for research projects and other services comprising assistance provided for discontinuing operations.

Grants

Government grants are recognized when there is reasonable assurance that the grants will be received. Government grants received for research and development projects are recognized as deferred income and systematically recognized in other operating income in line with the cost. Grants for the purchase of property, plant and equipment are offset against the related property, plant and equipment.

DKK million	2021	2020
Other operating income		
Government grants	35	32
Other services	28	40
Other operating income	4	4
Total other operating income	67	76

2.3 Staff costs

ACCOUNTING POLICIES

Staff costs are recognized in the financial year in which the employees render the related service. Costs related to long-term employee benefits, e.g. share-based payments, are recognized in the periods in which they are earned.

DKK million	2021	2020
Staff costs		
Wages, salary and other remuneration	1,404	1,345
Share-based payment	5	0
Pension costs - defined contribution plans	138	145
Pension costs - defined benefit plans	6	5
Social security cost and other staff costs	127	129
Total	1,680	1,624
Transferred to assets	-29	-13
Total staff costs	1,651	1,611
Average number of employees	2,133	2,268
Remuneration to Senior Leadership Team and fee to Board of Directors		
Salary	49	55
Share-based payment	3	0
Pension	5	5
Severance pay	13	52
Total remuneration to Senior Leadership Team	70	112
Fee to Board of Directors	8	7
Total remuneration to Senior Leadership Team and Board of Directors	78	119

2.4 Special items

ACCOUNTING POLICIES

Special items comprise exceptional income and costs which by their nature are not related to the Group's ordinary operating activities. These are irregular and non-recurring in nature. This includes costs related to significant organizational restructuring, etc.

ACCOUNTING ESTIMATES AND JUDGEMENTS

In the classification of special items, judgement is applied to ensure that only exceptional items not associated with the ordinary operations of the Group are included.

DKK million	2021	2020
Special items		
Restructuring costs	-26	-162
Legal costs regarding two special cases	0	-71
Adjustment of scrap values on buildings	0	-42
Total special items	-26	-275
Line items impacted, if special items had been recognized in EBIT before special items		
Other external expenses	0	-113
Staff costs	-26	-162
Total special items	-26	-275

2.5 Income tax and deferred tax

ACCOUNTING POLICIES

Tax for the year

Income tax comprises current tax for the year, changes in deferred tax for the year as well as any adjustments to prior years. Tax attributable to the profit for the year is recognized in the income statement, whereas tax attributable to other comprehensive income transactions is recognized through other comprehensive income.

Current tax

Tax receivable and tax payable is recognized in the balance sheet as tax calculated on the taxable income for the year adjusted for tax on taxable income for previous years and for prepaid tax.

Deferred tax

Deferred tax is measured using the balance sheet liability method in respect of temporary differences between the carrying amount and the tax value of assets and liabilities. Deferred tax is not recognized in respect of goodwill, unless it is deductible for tax purposes.

Deferred tax is measured on the basis of the tax rules and tax rates of the relevant countries that will be effective under current legislation at the balance sheet date on which the deferred tax is expected to materialize as current tax.

Deferred tax assets, including the tax base of tax loss carryforwards, are recognized as non-current assets at the expected value of their utilization.

Deferred tax assets and tax liabilities are offset if the enterprise has a legally enforceable right to offset current tax liabilities and tax assets or intends either to settle current tax liabilities and tax assets on a net basis or to realize the assets and liabilities simultaneously.

ACCOUNTING ESTIMATES AND JUDGEMENTS

Management applies judgements when recognizing and measuring deferred tax assets. Deferred tax assets, including the tax base of tax loss carryforwards, are recognized if it is assessed that they can be utilized. This assessment is based on business plans and knowledge of the business.

The Group is from time to time part of tax disputes. Management assesses the likely outcome based on knowledge available of the substance of the disputes, including opinions from external tax experts.

2.5 Income tax and deferred tax (continued)

DKK million	2021	2020
Income tax		
Current tax for the year	104	65
Change in deferred tax for the year	57	36
Adjustments to prior years	3	7
Total income tax recognized in the income statement	164	108
Income tax recognized in other comprehensive income	-11	1
Total income tax recognized in comprehensive income	153	109
Tax on continuing operations	164	115
Tax on discontinuing operations	-11	-6
Total income tax	153	109
Effective tax rate, %		
Danish corporate tax rate	22.0	22.0
Non-deductible expenses	0.2	0.4
Income not subject to tax	-2.9	-0.3
Differences in foreign tax rates	-0.8	3.5
Adjustments relating to prior years	0.4	1.3
Other adjustments	-3.2	-6.2
Effective tax rate	15.7	20.7

The major impact of the change in effective tax rate from 2020 to 2021 is related to increased deduction on R&D activities implemented by the Danish Government and non-taxable divestment of investment in associated companies.

DKK million	Jan. 1	Foreign currency translation adjustments	Tax for the year	Tax for previous years	Tax on equity	Dec. 31
Deferred tax, 2021						
Intangible assets and property, plant and equipment	83	3	0	0	0	86
Inventories	19	0	-6	0	0	13
Contract assets	331	1	49	-1	0	380
Provisions	-33	-1	11	-8	11	-20
Other	11	-2	1	-1	0	9
Deferred tax at December 31, 2021	411	1	55	-10	11	468
Recognized as deferred tax asset						-11
Recognized as deferred tax liability						479
Deferred tax at December 31, 2021						468
Of this, due after more than 1 year						328
Not recognized deferred tax assets regarding unused tax losses						21
Deferred tax, 2020						
Intangible assets and property, plant and equipment	101	-4	-15	1	0	83
Inventories	17	0	2	0	0	19
Contract assets	345	0	6	-20	0	331
Provisions	-31	0	-2	0	0	-33
Other	-27	3	35	0	0	11
Deferred tax at December 31, 2020	405	-1	26	-19	0	411
Recognized as deferred tax asset						-8
Recognized as deferred tax liability						419
Deferred tax at December 31, 2020						411
Of this, due after more than 1 year						279
Not recognized deferred tax assets regarding unused tax losses						23

3 OPERATING ASSETS AND LIABILITIES

3.1 Intangible assets

ACCOUNTING POLICIES

Goodwill

Goodwill is the positive difference between the cost of an acquisition and fair value of identifiable net assets in the acquired enterprise. Goodwill is measured at cost less accumulated impairment losses.

Goodwill is tested for impairment annually and when there is an indication of impairment. Goodwill is written down to the recoverable amount through the income statement. The recoverable amount is determined as the present value of expected cash flows of the cash-generating unit to which goodwill has been allocated. Impairment indicators comprise e.g. reduced earnings compared to expected future results or material negative development trends in the sector or the economy in the markets of the enterprise.

Impairment loss relating to goodwill is not reversed.

Other intangible assets

Rights and patents are measured at cost less accumulated amortization and impairment losses. Rights as well as patents are amortized on a straight-line basis over the remaining patent term, but not exceeding 10 years, due to the notoriously fast development in applied technologies.

Acquired or internally developed software is measured at cost less accumulated amortization and impairment losses. Software is amortized on a straight-line basis over 4 years or over the contract period.

Other intangible assets are tested for impairment when there is an indication of impairment. Impairment indicators are similar to those stated in the section on goodwill. Intangible assets are written down to recoverable amount through the income statement if lower than the carrying amount. The recoverable amount is the higher of the fair value of the asset less the expected cost to sell and its value in use. Impairment losses relating to other intangible assets are reversed if the recoverable amount subsequently increases.

3.1 Intangible assets (continued)

DKK million	Goodwill	Rights	Patents	Software	Intangible assets under construction	Total
Intangible assets, 2021						
Cost at January 1, 2021	23	39	125	205	44	436
Foreign currency translation adjustment	2	0	0	0	0	2
Additions during the year	0	0	24	33	8	65
Disposals during the year	0	0	-22	-20	0	-42
Transfers during the year	0	0	0	44	-44	0
Cost at December 31, 2021	25	39	127	262	8	461
Amortization and impairment losses at January 1, 2021	23	17	61	173	0	274
Foreign currency translation adjustment	2	0	0	0	0	2
Amortization for the year	0	5	12	20	0	37
Disposals during the year	0	0	-16	-20	0	-36
Amortization and impairment losses at December 31, 2021	25	22	57	173	0	277
Carrying amount at December 31, 2021	0	17	70	89	8	184
Research and development costs expensed in 2021						571

DKK million	Goodwill	Rights	Patents	Software	Intangible assets under construction	Total
Intangible assets, 2020						
Cost at January 1, 2020	26	39	99	199	19	382
Foreign currency translation adjustment	-3	0	0	1	0	-2
Additions during the year	0	0	27	4	35	66
Disposals during the year	0	0	-1	-9	0	-10
Transfers during the year	0	0	0	10	-10	0
Cost at December 31, 2020	23	39	125	205	44	436
Amortization and impairment losses at January 1, 2020	26	13	51	166	0	256
Foreign currency translation adjustment	-3	0	0	0	0	-3
Amortization for the year	0	4	10	14	0	28
Disposals during the year	0	0	0	-7	0	-7
Amortization and impairment losses at December 31, 2020	23	17	61	173	0	274
Carrying amount at December 31, 2020	0	22	64	32	44	162
Research and development costs expensed in 2020						512

3.2 Property, plant and equipment

ACCOUNTING POLICIES

Property, plant and equipment are measured at cost less accumulated depreciation and impairment losses. Property, plant and equipment under construction are measured at cost less impairment loss.

The cost comprises the acquisition price and other directly attributable expenses of preparing the asset

for its intended use. The present value of estimated expenses for dismantling and disposing of the asset as well as restoration expenses are added to the cost if such expenses are recognized as a provision. Material borrowing costs directly attributable to the construction of the individual asset are also added to cost.

Cost of self-constructed assets are recognized as property, plant and equipment in progress on an ongoing basis until the assets are ready for use and comprises direct and indirect expenses for labor, materials, components and sub-suppliers.

Property, plant and equipment are accounted for as separate items if the useful life of the individual assets is different.

DKK million	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction	Total
Property, plant and equipment, 2021					
Cost at January 1, 2021	798	2,449	1,159	466	4,872
Foreign currency translation adjustment	10	34	6	27	77
Additions during the year	11	27	37	255	330
Disposals during the year	-18	0	-33	0	-51
Transfers during the year	40	55	23	-118	0
Cost at December 31, 2021	841	2,565	1,192	630	5,228
Depreciation and impairment losses at January 1, 2021	470	1,837	947	0	3,254
Foreign currency translation adjustment	6	26	4	0	36
Depreciation for the year	16	139	69	0	224
Disposals during the year	-18	0	-28	0	-46
Depreciation and impairment losses at December 31, 2021	474	2,002	992	0	3,468
Carrying amount at December 31, 2021	367	563	200	630	1,760
Carrying amount of assets used for operational lease	0	0	0	64	64

3.2 Property, plant and equipment (continued)

ACCOUNTING POLICIES (CONTINUED)

Depreciation based on cost reduced by impairment loss and residual value is calculated on a straight-line basis over the expected useful lives of the assets, which are:

Buildings	13–40 years
Plant and machinery	5–10 years
Other fixtures and equipment	4–20 years
Land is not depreciated.	

The residual value and useful lives of the assets are reassessed annually and adjusted if necessary. Property, plant and equipment are tested for impairment when there is an indication of impairment. Impairment indicators are similar to those stated in the section on intangible assets. Additionally, indicators comprise damage to the asset or changed use of the asset. Property, plant and equipment are written down to recoverable amount through the income statement if lower than the carrying amount. The recoverable

amount is the higher of the fair value of the asset less the expected cost to sell and its value in use. Impairment losses are reversed if the recoverable amount subsequently increases.

Lessor

When the Group is the lessor in a lease agreement classified as operational lease, the lease asset is recognized as property, plant and equipment and depreciated over the useful life. Lease income is recognized in revenue.

ACCOUNTING ESTIMATES AND JUDGEMENTS

Judgement is applied in determining the depreciation period and future residual value and is generally based on historical experience. Reassessment is done annually.

Furthermore, judgement is applied in determining whether impairment indicators are present.

DKK million	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction	Total
Property, plant and equipment, 2020					
Cost at January 1, 2020	1,581	2,464	1,102	336	5,483
Transfer to right-of-use assets at January 1, 2020	-673	-1	-11	0	-685
Restated cost at January 1, 2020	908	2,463	1,091	336	4,798
Foreign currency translation adjustment	-14	-42	-7	-20	-83
Additions during the year	3	18	43	242	306
Disposals during the year	-105	-31	-13	0	-149
Transfers during the year	6	41	45	-92	0
Cost at December 31, 2020	798	2,449	1,159	466	4,872
Depreciation and impairment losses at January 1, 2020	585	1,754	902	0	3,241
Transfer to right-of-use assets at January 1, 2020	-73	-1	-4	0	-78
Restated depreciation and impairment losses at January 1, 2020	512	1,753	898	0	3,163
Foreign currency translation adjustment	-5	-29	-5	0	-39
Depreciation for the year	17	141	67	0	225
Disposals during the year	-54	-28	-13	0	-95
Depreciation and impairment losses at December 31, 2020	470	1,837	947	0	3,254
Carrying amount at December 31, 2020	328	612	212	466	1,618
Carrying amount of assets used for operational lease	0	0	0	51	51

3.3 Right-of-use assets

ACCOUNTING POLICIES

Whether a contract contains a lease or a service arrangement is assessed at contract inception. For contracts which contain a lease, the Group recognizes a right-of-use asset and a lease liability. The right-of-use asset is initially measured at cost, being the initial amount of the lease liability. The right-of-use asset is subsequently depreciated using the straight-line method over the lease term. The right-of-use asset is periodically adjusted for certain remeasurements of the lease liability and reduced by any impairment losses.

The lease term determined by the Group is the non-cancellable period of a lease, together with extension/termination option if these are reasonably certain to be exercised.

The lease liability is initially measured at the present value of the lease payments outstanding at the commencement date, discounted using the incremental borrowing rate. The lease liability is measured using the effective interest method.

The lease liability is remeasured when there is a change in future lease payments, typically due to a change in index on property leases, or if there is a reassessment of whether an extension or termination option will be exercised. A corresponding adjustment is made to the right-of-use asset, or in the income statement when the right-of-use asset has been fully depreciated.

Short-term leases (less than 12 months) and leases relating to low-value assets are not recognized in the balance sheet.

ACCOUNTING ESTIMATES AND JUDGEMENTS

Management has evaluated extension options primarily related to office rentals. In most cases, extension options are not included, as the Group could replace the assets without significant costs or business disruption.

DKK million	Land and buildings	Other fixtures and equipment	Total
Right-of-use assets, 2021			
Carrying amount at January 1, 2021	546	9	555
Foreign currency translation adjustment	5	1	6
Additions during the year	10	0	10
Disposals during the year	-5	0	-5
Depreciation for the year	-64	-4	-68
Carrying amount at December 31, 2021	492	6	498

Right-of-use assets, 2020

Carrying amount at January 1, 2020	0	0	0
Transfer to right-of-use assets at January 1, 2020	600	7	607
Foreign currency translation adjustment	-9	0	-9
Additions during the year	21	6	27
Depreciation for the year	-66	-4	-70
Carrying amount at December 31, 2020	546	9	555

DKK million	2021	2020
Lease information		
Interest expense (included in financial expenses)	22	22
Expense relating to short-term leases (included in other external expenses)	0	3
Expense relating to leases of low-value assets that are not shown above as short-term leases (included in other external expenses)	0	0
Revenue from sub-lease	4	3
Total cash outflow for leases	82	82

The majority of lease contracts relate to lease of office buildings. Please see note 4.2 Borrowing and lease liabilities for information about the lease liabilities.

lease contract in 2036. The purchase obligation is included in the lease liability.

The Group has entered into a lease contract under which the Group is obligated to purchase the property at a price of DKK 74 million after termination of the

3.4 Other non-current assets

ACCOUNTING POLICIES

Investments in joint ventures and associated companies

Entities in which the Group directly or indirectly controls at least 20%, but not more than 50%, of the voting rights are accounted for as associated companies.

Investments in joint ventures and associated companies are recognized and measured under the equity method. The proportional share of the result after tax of investments in joint ventures and associated companies are included under financial income or financial expense.

Investments with negative net asset values are recognized at DKK 0 million.

Other securities and investments

Investments in other enterprises are measured at fair value at the balance sheet date. Fair value adjustments are recognized through other comprehensive income under the reserve for financial assets measured at fair value.

Securities, e.g. issued loans, are measured at amortized cost less expected credit loss.

Receivables

Receivables are measured at amortized cost less expected credit loss.

ACCOUNTING ESTIMATES AND JUDGEMENTS

Investments in other enterprises are measured at fair value at the balance sheet date. In case that fair value cannot be derived from an active market, it is required that Management assesses and selects an appropriate method for determination of the fair value. In this case, the fair value is measured at the discounted value of expected future cash flows. Material assumptions comprise expected future cash flows, discount rates and growth rates for the period.

3.4 Other non-current assets (continued)

DKK million	Investments in associated companies	Investments in joint ventures	Pension asset	Other securities and investments	Other receivables	Total
Non-current assets, 2021						
Cost at January 1, 2021	17	0	0	214	39	270
Foreign currency translation adjustment	0	0	0	0	1	1
Additions during the year	5	17	40	6	8	76
Disposals during the year	-22	0	0	0	-8	-30
Cost at December 31, 2021	0	17	40	220	40	317
Value adjustment at January 1, 2021	-14	0	0	18	-8	-4
Profit/loss for the year	-6	0	0	0	0	-6
Disposals during the year	20	0	0	0	0	20
Value adjustments for the year	0	0	0	-8	1	-7
Value adjustment at December 31, 2021	0	0	0	10	-7	3
Carrying amount at December 31, 2021	0	17	40	230	33	320

DKK million	Investments in associated companies	Other securities and investments	Other receivables	Total
Non-current assets, 2020				
Cost at January 1, 2020	17	197	41	255
Transferred to current assets	0	0	-2	-2
Additions during the year	0	17	3	20
Disposals during the year	0	0	-3	-3
Cost at December 31, 2020	17	214	39	270
Value adjustment at January 1, 2020	-7	58	-7	44
Profit/loss for the year	-8	0	0	-8
Disposals during the year	0	0	0	0
Value adjustments for the year	1	-40	-1	-40
Value adjustment at December 31, 2020	-14	18	-8	-4
Carrying amount at December 31, 2020	3	232	31	266

DKK million	2021	2020
Result of investments in joint ventures and associated companies		
Gain from divestment of shares in associated companies	137	0
Share of result of associated companies, net of tax	-5	-8
Share of result of joint ventures, net of tax	0	0
Total result of investments in joint ventures and associated companies	132	-8

3.4 Other non-current assets (continued)

INVESTMENTS IN ASSOCIATED COMPANIES:

Faradion Ltd., Sheffield, United Kingdom

The Group has converted its loans and divested its shares in Faradion Ltd. at a price of DKK 140 million resulting in a gain of DKK 137 million.

INVESTMENTS IN JOINT VENTURES:

Shaanxi Yanchang Topsoe Catalytic Technologies Co, Ltd., Weinan, China

During 2021, the Group has invested DKK 17 million in Shaanxi Yanchang Topsoe Catalytic Technologies Co, Ltd., corresponding to 49% of the share capital. The joint venture is a limited liability company. The company will establish a minor production line. The Group is obligated to invest an additional amount of CNY 7 million (equal to DKK 8 million).

OTHER SECURITIES AND INVESTMENTS:

Karnaphuli Fertilizer Limited, Dhaka, Bangladesh (KAFCO)

The Group holds shares in KAFCO of nominally BDT 692 million, which equals 15% of the shares in KAFCO. The shares are measured at fair value based on a discounted cash flow calculation using the present forecast and expectations to business development of KAFCO.

Based on this, the KAFCO shares have been written down by DKK 8 million (2020: DKK 39 million). The fair value of the investment is DKK 154 million.

Ramagundam Fertilizers and Chemicals Limited, New Delhi, India

The Group has increased the investment in Ramagundam Fertilizers and Chemicals Limited, still corresponding to 4% of the share capital. The company is constructing a fertilizer plant in India. The fair value of the investment is DKK 67 million (2020: DKK 61 million).

GTLA Holdings LP, Delaware, US

The Group has invested in GTLA Holdings LP, corresponding to 3% of the share capital. The purpose of the company is to develop a project for the construction of a gas-to-liquid plant. The fair value of the investment is DKK 0 million due to a license having been suspended.

3.5 Inventories

ACCOUNTING POLICIES

Inventories are measured at the lower of cost or net realizable value. Cost is determined using the first-in, first-out method. Cost comprises direct production costs such as raw materials, consumables and labor as well as indirect production costs. Production costs for work in progress and finished goods include indirect production costs such as staff costs, depreciation, maintenance, etc.

ACCOUNTING ESTIMATES AND JUDGEMENTS

The calculation of indirect production costs is reviewed on a regular basis to ensure that all relevant assumptions such as prices, production yield and capacity utilization are incorporated correctly. Changes in the assumptions could have a significant impact on the gross margin and the overall measurement of inventories.

Inventories are written down to net realizable value if this is lower than cost. A potential impairment requirement is primarily assessed based on production quality and the development in sales market. The net realizable value is calculated as the revenue expected to be generated less selling expenses.

DKK million	2021	2020
Inventories		
Raw materials and consumables	557	336
Work in progress	225	199
Finished goods	865	957
Inventories at December 31	1,647	1,492
Cost of sales for the year	2,086	2,174
Write-down of inventories		
Impairment at January, 1	80	78
Foreign currency translation adjustment	2	0
Additions during the year	101	45
Reversals during the year	-28	-41
Realized during the year	-28	-2
Write-down at December 31	127	80

Reversal of impairment losses is attributable to disposal or reuse of impaired goods in the production.

3.6 Trade receivables

ACCOUNTING POLICIES

Trade receivables are measured in the balance sheet at amortized cost less expected credit loss.

ACCOUNTING ESTIMATES AND JUDGEMENTS

The expected credit loss is based on historical credit loss experience combined with forward-looking information.

DKK million	Gross trade receivables	Expected loss rate (%)	Loss allowance	Trade receivables
Aging of trade receivables and expected credit loss, 2021				
Not due	980	0	0	980
1-90 days	197	0	0	197
91-180 days	16	0	0	16
181-360 days	32	17	-5	27
360+ days	26	56	-14	12
At December 31, 2021	1,251		-19	1,232

Aging of trade receivables and expected credit loss, 2020

Not due	722	0	0	722
1-90 days	261	1	-3	258
91-180 days	49	9	-5	44
181-360 days	47	9	-4	43
360+ days	22	46	-10	12
At December 31, 2020	1,101		-22	1,079

DKK million	2021	2020
Loss allowance		
Loss allowance at January 1	22	32
Foreign currency translation adjustment	1	0
Additions during the year	5	17
Reversals during the year	-4	-22
Realized during the year	-5	-5
Loss allowance at December 31	19	22
Trade receivables due after more than 1 year	16	14

3.7 Contract assets and liabilities

ACCOUNTING POLICIES

Contract work in progress

Contract work in progress is measured at the selling price of the work completed calculated on the basis of the percentage-of-completion. The percentage-of-completion is determined on the basis of the share of contract costs incurred compared to the forecasted contract costs. This method is found to be the best and most prudent method to reflect the progress.

Prepayments are offset against contract work in progress. Received payments on account exceeding the selling price of the work completed are recognized in contract work in progress under current liabilities.

Where it is probable that total contract cost will exceed the total revenue from a contract, the expected loss is recognized as a cost in the income statement.

Where the selling price cannot be measured reliably, the selling price is measured at the lower of costs incurred and net realizable value.

Please refer to accounting estimates and judgements in note 2.1 Revenue.

DKK million	2021	2020
Contract assets and liabilities		
Contract work in progress	270	188
Contract assets at December 31	270	188
Contract work in progress	677	903
Prepayments from customers related to catalysts, etc.	502	475
Contract liabilities at December 31	1,179	1,378
Net contract work in progress has increased due to revenue recognition exceeding actual invoicing during the year, mainly impacting contract liabilities.		
Contract work in progress		
Selling price of work completed at the balance sheet date	6,542	5,291
Payments received on account	-6,949	-6,006
Contract work in progress at December 31	-407	-715
Contract work in progress recognized in contract assets	270	188
Contract work in progress recognized in contract liabilities	-677	-903
Contract work in progress at December 31	-407	-715

3.8 Other receivables and prepayments

ACCOUNTING POLICES

Other receivables are measured at amortized cost.

Expenses relating to sales work and the winning of contracts are recognized in the income statement as incurred, except agent commissions which are recognized when the relevant performance obligations have been delivered – either at a point in time or over time.

DKK million	2021	2020
Other receivables and prepayments		
Indirect tax receivables	77	47
Derivatives	8	3
Gain from divestment of associated companies	140	0
Other receivables	38	16
Prepayments	43	17
Other receivables and prepayments at December 31	306	83
Agent commission for obtaining contracts		
Agent commission recognized as prepayments	8	0
Agent commission recognized in the income statement during the year.	43	35

3.9 Pension obligations

ACCOUNTING POLICIES

For defined benefit plans, the costs and obligations for the year are determined using the projected unit credit method. This reflects services rendered by employees up to the valuation dates and is based on actuarial assumptions primarily regarding discount rates used in determining the present value of benefits and projected increase in wages.

Differences between the calculated development in pension obligations and plan assets and the realized values are recognized in other comprehensive income as actuarial gains or losses.

Changes in pension obligations for employees' past services result in an adjustment of the actuarial calculation of the present value, which is classified as past service costs. Past service costs are charged to the income statement immediately if the employees have already earned the right to the adjusted benefits. Otherwise, they will be recognized in the income statement over the period in which the employees earn the right to the adjusted benefits.

Pension plan assets are only recognized to the extent that the Group is able to derive future economic benefits such as refunds from the plan or reductions of future contributions.

Actuarial valuations of the present value of pension obligations are performed annually.

DKK million	2021	2020
Net pension obligations		
Present value of pension obligations at January 1	306	331
Foreign currency translation adjustment	22	-28
Pension costs	4	4
Calculated interest on obligation	7	8
Actuarial gains and losses, demographic assumption	-2	-22
Actuarial gains and losses, financial assumption	-15	39
Pension paid	-11	-8
Pension paid for settlements	-29	-18
Present value of pension obligations at December 31	282	306
Fair value of pension plan assets at January 1	264	293
Foreign currency translation adjustment	22	-27
Calculated interest on pension assets	5	7
Return on plan assets excl. interest on pension assets	30	14
Paid by the company	4	3
Pension paid	-11	-8
Pension paid for settlements	-29	-18
Fair value of pension plan assets at December 31	285	264
Net pension obligations/assets at December 31	-3	42
Pension costs		
Pension costs	4	4
Interest expenses	7	8
Interest income on plan assets	-5	-7
Total pension related to defined benefit recognized in staff costs	6	5
Weighted average duration of the defined benefit obligations (in years)	8.3-10.5	8.3-10.5

Expected defined benefit pension payments by the Group in 2022 amount to DKK 2.1 million.

3.9 Pension obligations (continued)

Percentage	2021	2020
Composition of plan assets, %		
Shares	70	69
Bonds	25	27
Real estate	4	4
Commodities	0	0
Other	1	0
Composition of plan assets at December 31	100	100
Applied actuarial assumptions, %		
Discount rate	1.0-6.5	0.7-6.6
Future wage increases	2.5-10.0	2.5-10.0

DKK million	2021	2020
Sensitivity analysis of impact on pension obligation		
0.5%-point increase on discount rate	-5	-5
0.5%-point decrease on discount rate	5	6
0.5%-point increase on future wage increase	0	1
0.5%-point decrease on future wage increase	0	-1

The Group has entered into pension plans with a considerable number of its employees. Most of the plans are defined contribution plans and only a small part is defined benefit plans.

Defined contribution plans

The Group finances the plans by currently paying a premium to independent insurance companies that are responsible for the pension obligations. Once the pension contributions to the defined contribution plans have been paid, the Group has no further pension obligations to current or terminated employees.

Defined benefit plans

The Group has made agreements with specific groups of employees regarding payment of certain benefits, including pension. These pensions mainly relate to certain employees in the Group's US subsidiary where the plan partly consists of a basic pension and partly of an additional pension for selected members of US management. The pension obligations are partly hedged through an independent fund. Actuarial valuation is performed annually. In addition, employees in India and Germany are covered by defined benefit plans.

3.10 Provisions and contingent liabilities

ACCOUNTING POLICIES

Provisions are recognized when, due to an earlier event, the Group has a legal or constructive obligation and it is expected that the settlement of the obligation will require an outflow of resources.

Provisions are measured on the basis of Management's best estimate of the amount at which the obligation is expected to be met and are discounted if deemed material.

Contingent liabilities comprise possible obligations which have not yet been confirmed or cannot be measured reliably, but which result in outflow of resources if realized.

ACCOUNTING ESTIMATES AND JUDGEMENTS

The warranty provisions are based on historical levels as well as estimated amounts required for settling specific warranty cases. Furthermore, the warranty provision for engineering projects reflects the expected risk associated with the various technologies. Warranty provisions can be impacted by unexpected quality issues on our catalyst or technology solutions.

Management continuously assesses provisions, including contingencies and the likely outcome of pending and potential legal proceedings. The outcome of these depends on future events which are uncertain by nature.

The assessments may involve advice from external experts and legal advisors.

DKK million	Warranty provision for engineering projects	Warranty provision for catalysts	Other	Total
Provisions, 2021				
Provisions at January 1, 2021	163	126	1	290
Provisions during the year	32	94	9	135
Reversals during the year	-77	-6	0	-83
Realized provisions during the year	-4	-163	0	-167
Provisions at December 31, 2021	114	51	10	175
The majority of the warranty provisions are expected to be recognized after 1 year.				
Provisions, 2020				
Provisions at January 1, 2020	155	55	1	211
Foreign currency translation adjustment	0	-2	0	-2
Provisions during the year	13	96	0	109
Reversals during the year	0	-13	0	-13
Realized provisions during the year	-5	-10	0	-15
Provisions at December 31, 2020	163	126	1	290

Approx. 1/3 of the provisions are potentially to be recognized within 1 year.

3.10 Provisions and contingent liabilities (continued)

DKK million	2021	2020
Aging of guarantees issued on the Group's behalf for project-related risk		
Less than 1 year	406	395
Between 1 and 5 years	179	301
After 5 years	35	29
Guarantees issued at December 31	620	725

Guarantees have been issued by banks and credit insurance institutions to customers on the Group's behalf to cover project-related risk, such as received prepayments and performance. In the event that a guarantee materializes, banks and credit insurance institutions have recourse against the Group. In the event that a guarantee is expected to materialize, a provision is recognized.

DKK million	2021	2020
Guarantees issued by the Group		
Guarantee issued by the Group in relation to the Employee Share Program, expires 2024	7	8
Guarantees issued by the Group at December 31	7	8

Contingent liabilities

The Group's property in Frederikssund, Denmark, has been found to be contaminated. Management assesses that the remediation costs will not be significant.

The Group is a party to a number of court cases and legal disputes. Management assesses that none of these will significantly impact the Group's financial position.

Through participation in joint taxation scheme with Topsøe Holding A/S, the Group is jointly and severally liable for taxes, etc. payable in Denmark.

3.11 Other payables

ACCOUNTING POLICIES

Other payables are measured at amortized cost, mainly corresponding to nominal value.

DKK million	2021	2020
Other payables		
Staff-related items	434	488
Other payables	197	176
Other payables at December 31	631	664
Classification of other payables		
Non-current liabilities	105	100
Currency liabilities	526	564
Other payables at December 31	631	664

Staff-related items primarily comprise employee holiday provision, provision for Group bonus and payroll taxes due.

4 CAPITAL STRUCTURE AND FINANCIAL ITEMS

4.1 Equity, dividend and earnings per share

ACCOUNTING POLICIES

Share premium

The share premium consists of the difference between the par value of the shares issued and the issue price.

Reserves

The foreign currency translation reserve comprises all translation adjustments arising from the translation of financial statements of Group enterprises with a functional currency other than Danish kroner as well as translation adjustments concerning non-current intercompany balances that are considered a part of the net investment in such enterprises.

Reserve for financial assets measured at fair value comprises the accumulated net change in the fair value of investments in other enterprises classified as financial assets measured at fair value through other comprehensive income.

Dividend

Proposed dividend for the financial year is recognized in retained earnings.

According to Danish corporate law, reserves available for distribution as dividends are based on the financial statements of the parent company, Haldor Topsoe A/S. Dividends are paid from distributable reserves. Share premium is a distributable reserve.

Earnings per share

Earnings per share are presented as both basic and diluted earnings per share. Basic earnings per share are calculated as profit divided by the monthly average number of shares outstanding. Diluted earnings per share are calculated as profit divided by the sum of monthly average number of shares outstanding, including the dilutive effect of the outstanding share pool.

Number	2021	2020
Shares		
Shares at January 1	379,174,902	376,000,000
Capital increase	117,442	3,174,902
Shares at December 31	379,292,344	379,174,902

The nominal value of each share is DKK 1 each. All issued shares have been paid. No shares carry any special right. The capital increase is due to the launch of the Employee Share Program (see note 5.1 Share-based payment for further information).

DKK million	2021	2020
Dividend		
Proposed dividend, DKK per share	1.17	0,63
Proposed dividend, DKK million	445	240
Paid dividend relating to prior year, DKK per share	0.63	0,00
Paid dividend relating to prior year, DKK million	240	0

Proposed dividend for 2021 will be considered at the Annual General Meeting on April 7, 2022.

No dividend was paid in 2020 due to the uncertainty caused by COVID-19.

Capital allocation

There is no formal capital allocation or dividend policy. A dividend of 30-50% of net profit is targeted. However, on a yearly basis, the owners will consider the appropriate level of dividend payment based on profitability equity ratio and future capital requirements.

4.1 Equity, dividend and earnings per share (continued)

DKK million	2021	2020
Earnings per share		
Profit from continuing operations, owners of the parent company's share	877	436
Profit from discontinuing operations, owners of the parent company's share	10	45
Net profit, owners of the parent company's share	887	481
Average number of shares	379,238,140	378,636,839
Earnings per share, continuing operations	2.31	1.15
Earnings per share, discontinuing operations	0.03	0.12
Earnings per share	2.34	1.27

4.2 Borrowings and lease liabilities

ACCOUNTING POLICIES

Borrowings are initially recognized at the proceeds received net of transaction costs incurred. Subsequently, the loans are measured at amortized cost, corresponding to capitalized value, using the effective

interest rate, so that the difference between the proceeds and the nominal value is recognized in the income statement over the term of the loan.

DKK million	Other payables	Borrowings	Lease liabilities	Total
Interest-bearing debt, 2021				
Interest-bearing debt at January 1, 2021	101	697	585	1,383
Foreign currency translation adjustment	0	0	10	10
Loans raised	8	0	0	8
Installments	-5	-123	-60	-188
Interest-bearing debt at December 31, 2021	104	574	535	1,213
Interest-bearing debt, 2020				
Interest-bearing debt at January 1, 2020	0	1,031	627	1,658
Foreign currency translation adjustment	0	1	10	11
Loans raised	101	261	8	370
Installments	0	-596	-60	-656
Interest-bearing debt at December 31, 2020	101	697	585	1,383

Borrowings comprise loans from credit institutions. Please refer to note 3.3 Right-of-use assets for further information.

4.3 Financial assets and liabilities

ACCOUNTING POLICIES

Fair value measurements are categorized into Level 1, 2 or 3 based on the degree to which the inputs to the fair value measurements are observable and on the significance of the inputs to the fair value measurement as a whole. The inputs are described as follows:

- Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.

- Level 2 inputs are inputs, other than quoted prices included within Level 1, that are observable for the asset or liability, either directly or indirectly.
- Level 3 inputs are fair value measures derived from valuation techniques that include inputs for the asset or liability that are not based on observable market data (unobservable inputs).

DKK million	2021	2020
Classification of financial assets		
Other securities and investments	230	232
Financial assets designated as assets measured at fair value through other comprehensive income	230	232
Trade receivables	1,232	1,079
Other receivables	343	93
Cash	872	1,175
Financial assets measured at amortized cost	2,447	2,347
Derivatives	8	3
Financial assets measured at fair value through other comprehensive income	8	3
Financial assets at December 31	2,685	2,582

DKK million	< 1 year	1-5 years	> 5 years	Total payments	Future interests	Carrying amount
Maturity and classification of financial liabilities, 2021						
Borrowings	127	345	120	592	-18	574
Lease liabilities	69	222	390	681	-146	535
Trade payables	568	0	0	568	0	568
Other financial liabilities	526	11	94	631	0	631
Financial liabilities measured at amortized cost	1,290	578	604	2,472	-164	2,308
Financial liabilities at December 31, 2021	1,290	578	604	2,472	-164	2,308
Maturity and classification of financial liabilities, 2020						
Borrowings	129	411	182	722	-25	697
Lease liabilities	80	233	437	750	-165	585
Trade payables	419	0	0	419	0	419
Other financial liabilities	564	9	91	664	0	664
Financial liabilities measured at amortized cost	1,192	653	710	2,555	-190	2,365
Financial liabilities at December 31, 2020	1,192	653	710	2,555	-190	2,365

4.3 Financial assets and liabilities (continued)

DKK million	Level 1	Level 2	Level 3
Fair value assets, 2021			
Other securities and investments	1	0	229
Derivative	0	8	0
Assets stated at fair value at December 31, 2021	1	8	229

Please refer to note 3.4 Other non-current assets for information on input to the fair value measurement of investments in other enterprises stated in level 3.

There have been no transfers between levels 1, 2 and 3 during the year.

DKK million	2021	2020
Fair value of level 3 assets		
Fair value of level 3 assets at January 1	231	254
Addition	6	17
Write-down recognized in other comprehensive income	-8	-40
Fair value of level 3 assets at December 31	229	231
Available credit facility		
Undrawn credit facility	335	0
Undrawn revolving credit facility	1,200	1,200
Available credit facility at December 31	1,535	1,200

FINANCIAL RISK

Currencies

As Topsoe operates globally, the income statement, balance sheet, and cash flows are subject to the risk of currency fluctuations, mainly in relation to Topsoe's flows of USD.

Part of this risk is mitigated through natural hedges arising from activities where Topsoe has both income and expenses in the same currency. However, the risk is not fully covered by natural hedges, and consequently Topsoe hedges certain future cash flows. A 5% change in the DKK/USD exchange rate is assessed to have an EBIT effect of DKK 15-20 million.

Interest rates

Topsoe's general interest rate policy is to maintain a loan portfolio where the fixed interest rate portion is kept within a range of 50-75%, while the floating interest rate portion is kept within a range of 25-50%. By the end of 2021, the fixed rate portion stood at 67%, while the floating rate portion stood at 33%. For the floating rate portion of our interest-bearing debt at end of 2021, an increase in the interest rate level of 1 percentage point will increase interest expenses by DKK 1.9 million p.a.

Credit

The credit risk of Topsoe is primarily related to trade receivables from state, public and privately-owned corporations. Where feasible, we seek to mitigate credit risk by applying instruments such as letters of credit and bank guarantees as well as selective structuring of payment terms, etc. On a quarterly basis, we assess whether the Group should make accruals for bad debt which is considered unlikely to be collected.

Furthermore, credit risk arises from cash and derivatives. In order to reduce this risk, the Group only deals with financial counterparties who, in the opinion of Management, have satisfactory financial strength (based on credit rating from a recognized international credit rating agency where feasible).

At December 31, 2021, the Group considers its maximum credit risk to be DKK 2,685 million (2020: DKK 2,582 million) equal to the total of the Group's financial assets.

Liquidity

Topsoe must maintain sufficient liquidity to fund daily operations, debt service, and expansion. Topsoe's access to liquidity consists of cash and cash equivalents, including access to committed revolving credit facilities. The target is to maintain a minimum of DKK 500 million in unused committed revolving credit facilities at any time.

4.4 Financial income and expenses

DKK million	2021	2020
Financial income		
Dividend from other investments	33	40
Interest income	7	8
Foreign currency translation adjustment	94	58
Other financial income	2	2
Total financial income	136	108
Financial expenses		
Interest expenses	36	42
Value adjustment of other receivables	2	0
Foreign currency translation adjustment	63	87
Total financial expenses	101	129

Interest expenses include interest on financial liabilities measured at amortized cost of DKK 31 million (2020: DKK 32 million).

5 OTHER NOTES

5.1 Share-based payment

ACCOUNTING POLICIES

Performance shares

The Group's performance shares scheme is equity-settled, measured at the grant date and recognized in the income statement as staff costs over the vesting period. The offsetting item is recognized directly in equity.

The fair value of the performance shares granted is determined based on the external valuations of the Group and comparable peers.

On initial recognition, an estimate is made of the number of share units that the employees are expected to earn. The estimated number of share units is adjusted subsequently to reflect the actual number of share units earned.

The estimated volatility is based on historical data over the preceding years adjusted for any unusual circumstances during the period.

Employee Share Program (ESP)

The Employee Share Program is considered an equity-settled program. The discount element, which is the deviation between the employees' share purchase price and the market value, is expensed as a cost in Staff costs during the duration of the program. The counter entry is included directly in Retained earnings as a transaction with owners.

The Phantom Program is considered a cash-settled program. The invested amount is considered as a non-current liability. The annual fair value adjustment is expensed as cost in Staff costs.

No. of shares	2021
Performance shares	
Granted during the year	435,395
Cancelled during the year	60,624
No. of shares at December 31	374,771

Share-based incentive schemes

In 2021, the Group launched incentive share-based payment schemes for the purpose of motivating and retaining selected employees, senior leaders and members of the Executive Management.

Retention is motivated by requiring continued service for a period covering the vesting period as a minimum. The schemes are also intended to align the interests of employees and shareholders.

A total of 31 employees held performance shares at December 31, 2021.

Total costs recognized in 2021 amounted to DKK 5 million.

The fair value of the performance share scheme at December 31, 2021, is estimated to DKK 14 million.

Employee Share Program

The Employee Share Program (ESP) was launched with enrollment in February 2020. Employees at all levels have been offered the opportunity to acquire shares in Haldor Topsoe A/S at market value by investing an amount equal to ½, 1 or 2 months' salary. For every four shares purchased at market value, employees purchased a fifth share at a price of DKK 1. An annual investment window will be open to new employees.

The program will expire either in case of an IPO or by December 31, 2024, at the latest. If the program expires without an IPO, the shares will be purchased by a purchaser designated by the Group at market price. The shares cannot be sold or pledged.

In 2021, an additional 33 employees (2020: 837 employees) enrolled in the program and 117,442 new shares (2020: 3,174,902 shares) were issued. The shares issued in 2021 were issued at an average price of DKK 30.5 (2020: DKK 22.3) per share resulting in a discount element of DKK 7.4 (2020: DKK 5.3). Staff costs have been impacted by DKK 4 million (2020: DKK 3 million) due to the accrued part of the discount element and the fair value adjustment.

Good leavers (mainly employees who retire or are dismissed) can choose to keep the shares until the program expires or sell the shares to a purchaser designated by the Group in the next annual window at the fair market price. Resigning participants must sell the shares to a purchaser designated by the Group in the next annual window at the lower of the invested amount plus an amount for the fifth share that increases to the price paid for the four shares during the period or the fair market price.

In some countries, participation in the ESP is not possible due to local legislation. Instead, employees in these countries have been offered to participate in a Phantom Program. The participating employees have

invested an amount equal to ½, 1 or 2 months' salary and are granted phantom shares in Haldor Topsoe A/S at principles equal to the ESP. At the time of expiry of the program, employees will be refunded based on the fair value of the phantom shares.

60 employees (2020: 60 employees) are enrolled in the Phantom Program. Staff costs have not been impacted in 2021 nor in 2020.

5.2 Fee to auditors appointed at the general meeting

DKK million	2021	2020
Fee to auditors appointed at the general meeting		
Statutory audit fee	2	2
Other assurance statements	0	0
Tax assistance	2	3
Other assistance	1	1
Total fee to auditors appointed at the general meeting	5	6

5.3 Related parties

MAIN SHAREHOLDERS

Topsøe Holding A/S, Lyngby, Denmark - control
Dahlia Investments Pte. Ltd., Singapore - minority

DKK million	2021	2020	
Transactions with parent company			
Management fee received from the parent company	1	0	
Receivables from the parent company at December 31	1	1	
Related parties	Transactions		
Companies under common control	Rent	2	2
	Deposit	2	2
Joint venture	Project revenue	8	0

For remuneration to Senior Leadership Team and Board of Directors, please refer to note 2.3 Staff costs.

Intercompany transactions have been eliminated in the consolidated financial statements.

5.4 Cash flow specifications

DKK million	2021	2020
Adjustments for non-cash items		
Gain and losses from disposal of assets	11	57
Cash flow from discontinuing operations	0	-35
Gain from divestment of associated companies	137	0
Change in provisions	-129	82
Employee Share Program	8	3
Other adjustments	46	102
Total adjustments for non-cash items	73	209
Change in working capital		
Increase (-) / decrease in inventories	-155	-2
Increase (-) / decrease in trade receivables	-153	153
Increase / decrease (-) in contract assets and liabilities	-281	21
Increase / decrease (-) in trade payables, etc.	-118	4
Total change in working capital	-707	176

5.5 Commitments

DKK million	2021	2020
Contractual obligations		
Purchase obligations relating to property, plant and equipment and intangible assets	15	103
Lease obligations related to software, IT service and maintenance agreements, running up to 9 years	12	32
Investment obligations related to investing in companies included under non-current assets	13	7
Contractual obligations at December 31	40	142
Aging of contractual obligations		
Less than 1 year	23	126
Between 1 and 5 years	13	10
After 5 years	4	6
Contractual obligations at December 31	40	142
Payments for the year recognized as operating lease expenses	15	26

5.6 Events after the balance sheet date

Russia's invasion of Ukraine has taken place after the end of the reporting period. This war is expected to have a negative impact on the financial performance of Topsoe. Currently, a reliable estimate of the financial effect on the consolidated financial statements cannot be made and is not reflected in the outlook.

No events materially affecting the Group's financial position at December 31, 2021 have occurred after the balance sheet date.

5.7 Group enterprises

Company	Country	Ownership share	Activity
Haldor Topsoe A/S (Parent)	Denmark		P, S, R, O
Haldor Topsoe America Latina S.A.	Argentina	100%	S
Haldor Topsoe Australia Pty. Ltd.	Australia	100%	S
Haldor Topsoe do Brasil Tecnologia e Servicos em Catalisadores Eireli	Brazil	100%	S
Haldor Topsoe Canada Limited	Canada	100%	S
Haldor Topsøe (Beijing) Co., Ltd	China	100%	P, S
Jiangsu JITRI-Topsoe Joint R&D Center Co, Ltd.	China	60%	R
Haldor Topsøe International A/S	Denmark	100%	S
Subcontinent Ammonia Investment Company ApS	Denmark	100%	O
Haldor Topsøe Project Investment A/S	Denmark	100%	O
HT Ramagundam A/S	Denmark	100%	O
Haldor Topsøe Sustainables A/S	Denmark	100%	O
Haldor Topsoe Germany GmbH	Germany	100%	S
Haldor Topsoe India Pvt. Ltd.	India	100%	S, O
Haldor Topsoe Sdn. Bhd.	Malaysia	100%	S
Haldor Topsoe De Mexico, S. A. de C. V.	Mexico	100%	S
OOO Haldor Topsøe	Russia	100%	S
Haldor Topsoe, Inc.	US	100%	P, S
Haldor Topsoe Project Development U.S., Inc.	US	100%	O
Haldor Topsoe LFG Solutions Inc.	US	100%	O
Pacific Coast Fertilizer LLC	US	80%	O
Saturn Ferrostaal Gas Chemicals LLC,	US	100%	O
Haldor Topsoe eCOs Inc.	US	100%	O

P: Production S: Sales R: R&D O: Other

5.8 Discontinuing operations

ACCOUNTING POLICIES

A discontinuing operation is a component of an entity that has been disposed of or is classified as held for sale and which represents a separate major line of business or geographical area of operations or is part of a single coordinated plan to dispose of such a line of business or area of operations. The results of discontinuing operations are presented separately in the income statement.

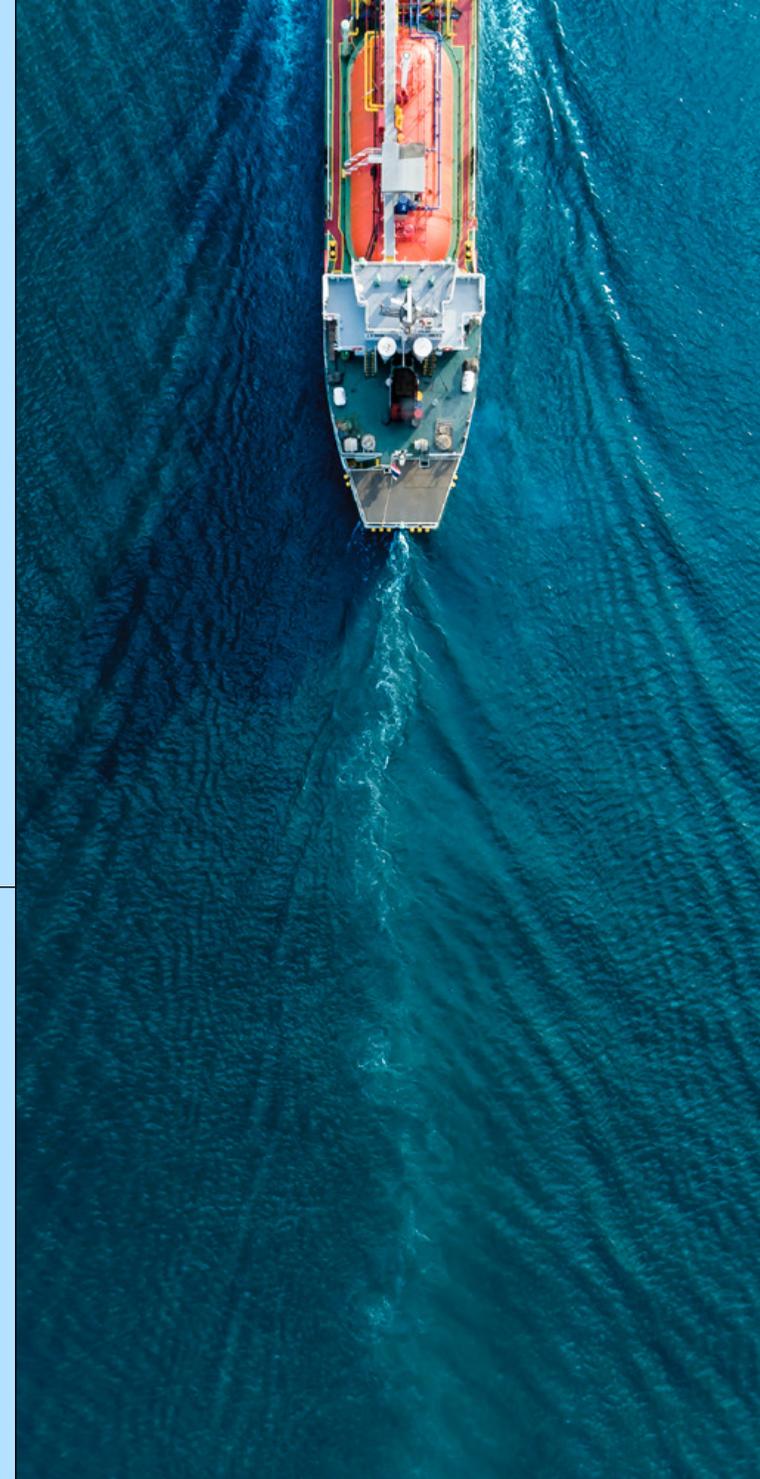
DKK million	2021	2020
Profit from discontinuing operations		
Transaction-related costs	-2	0
Value adjustment of net assets sold	0	39
Profit/loss on sale before income tax	-2	39
Income tax	12	6
Profit from discontinuing operations	10	45

On June 20, 2017, Topsoe announced that it had sold its emissions control business areas. The divestment was finalized on November 30, 2017. The divestment comprised the subsidiaries Haldor Topsøe Catalyst (Tianjin) Co., Ltd., Haldor Topsøe Automotive Catalyst Trading (Tianjin) Co., Ltd. and Haldor Topsoe Catalisadores e Tecnologias do Brasil Ltda. as well as business assets and liabilities in Denmark, the US, and China.

Finalization of the divestment of the emissions control business areas impacted 2020 with a net profit of DKK 45 million after reversal of provisions made in previous years. 2021 has mainly been impacted by reopened tax assessments.

FINANCIAL STATEMENTS OF HALDOR TOPSOE A/S

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INCOME STATEMENT OF HALDOR TOPSOE A/S

DKK million	Note	2021	2020
Revenue	2	5,375	5,305
Change in inventories of finished goods and intermediate products		-94	9
Other operating income		53	61
Purchased equipment for contract work		-513	-554
Raw materials and consumables used		-1,517	-1,667
Other external expenses		-1,200	-1,267
Gross profit		2,104	1,887
Staff costs	3	-1,254	-1,333
Depreciation, amortization and impairment losses		-267	-257
EBIT		583	297
Result of investments in Group enterprises, joint ventures, and associated companies	4	390	178
Financial income	5	82	53
Financial expenses	6	-79	-110
Profit before tax		976	418
Tax		-106	-27
Profit from continuing operations		870	391
Profit from discontinuing operations	26	10	51
Net profit	7	880	442

BALANCE SHEET OF HALDOR TOPSOE A/S

Assets

DKK million	Note	2021	2020
Rights		17	22
Patents		70	64
Software		88	32
Intangible assets under construction		9	44
Intangible assets	8	184	162
Land and buildings		282	244
Plant and machinery		453	485
Other fixtures and equipment		181	196
Property, plant and equipment under construction		99	140
Property, plant and equipment	9	1,015	1,065
Right-of-use assets	10	445	487
Investments in Group enterprises		1,642	1,237
Investments in associated companies		0	3
Investments in joint ventures		17	0
Receivables from Group enterprises		94	82
Other securities and investments		5	4
Other receivables		17	23
Investments	11	1,774	1,349
Non-current assets		3,419	3,063

Assets

DKK million	Note	2021	2020
Inventories	12	1,042	995
Trade receivables		737	761
Contract work in progress	13	258	176
Receivables from Group enterprises		766	379
Other receivables		301	92
Tax receivable		41	56
Prepayments		32	13
Receivables		2,135	1,477
Cash		224	893
Current assets		3,401	3,365
Assets		6,820	6,428

BALANCE SHEET OF HALDOR TOPSOE A/S (continued)

Equity and liabilities

DKK million	Note	2021	2020
Share capital		379	379
Share premium		71	68
Net revaluation reserve according to the equity method		313	-61
Reserve for development costs		99	63
Reserve for Employee Share Program		12	3
Retained earnings		1,610	1,446
Proposed dividend		445	240
Equity		2,929	2,138
Deferred tax	14	463	409
Provisions	15	175	283
Borrowings	16	452	574
Lease liabilities	16	434	465
Other payables	16	102	98
Non-current liabilities		1,626	1,829

Equity and liabilities

DKK million	Note	2021	2020
Borrowings	16	122	123
Lease liabilities	16	45	48
Deferred income		34	37
Prepayments from customers		418	409
Contract work in progress	13	590	869
Trade payables		478	349
Payables to Group enterprises		161	149
Other payables		417	477
Current liabilities		2,265	2,461
Liabilities		3,891	4,290
Equity and liabilities		6,820	6,428

STATEMENT OF CHANGES IN EQUITY OF HALDOR TOPSOE A/S

DKK million	Share capital	Share premium	Net revaluation reserve according to the equity method	Reserve for development costs	Reserve for Employee Share Program	Retained earnings	Proposed dividend	Total
Equity at January 1, 2021	379	68	-61	63	3	1,446	240	2,138
Net profit	0	0	235	0	0	200	445	880
Adjustments relating to separate foreign legal entities	0	0	36	0	0	0	0	36
Currency translation differences	0	0	103	0	0	0	0	103
Capitalized development projects	0	0	0	36	0	-36	0	0
Net profit and income and expenses recognized under equity	0	0	374	36	0	164	445	1,019
Capital increase	0	3	0	0	0	0	0	3
Employee Share Program - value of employee services	0	0	0	0	4	0	0	4
Share-based payment	0	0	0	0	5	0	0	5
Dividend paid	0	0	0	0	0	0	-240	-240
Transactions with owners	0	3	0	0	9	0	-240	-228
Equity at December 31, 2021	379	71	313	99	12	1,610	445	2,929

NOTES TO THE FINANCIAL STATEMENTS OF HALDOR TOPSOE A/S

1	Accounting policies	89	19	Contractual obligations	98
2	Revenue	89	20	Contingent liabilities	99
3	Staff costs	90	21	Fee to auditors appointed at the general meeting	99
4	Result of investments in Group enterprises, joint ventures, and associated companies	90	22	Related parties	99
5	Financial income	91	23	Fair value financial assets and liabilities	100
6	Financial expenses	91	24	Subsequent events	100
7	Proposed distribution of profit	91	25	Consolidated financial statements	100
8	Intangible assets	92	26	Discontinuing operations	101
9	Property, plant and equipment	92			
10	Right-of-use assets	93			
11	Investments	94			
12	Inventories	96			
13	Contract work in progress	96			
14	Deferred tax	96			
15	Provisions	97			
16	Non-current liabilities	97			
17	Share-based payment	98			
18	Guarantees	98			



1 ACCOUNTING POLICIES

BASIS OF PREPARATION

The financial statements for 2021 of Haldor Topsoe A/S have been prepared in accordance with the requirements of the Danish Financial Statements Act for class C large companies.

The accounting policies are unchanged from last year. However, leased assets has been reclassified from property, plant and equipment to a separate balance sheet item called Right-of-use assets to make it easier for users to assess the impact of these assets. The impact is a decrease in property, plant and equipment amounting to DKK 487 million as per December 31, 2020 and an increase in right-of-use asset by the same amount.

The applied accounting policies are similar to those of the Group except for the following matters:

Other securities and investments

Investments in other enterprises are measured at fair value. Fair value adjustments are recognized in the income statement under financial income or financial expenses.

Investments in Group enterprises

Investments in Group enterprises are recognized and measured under the equity method.

Group enterprises with negative equity are measured at DKK 0 million, and receivables from these Group enterprises are written down by the parent company's share of the negative equity if they are estimated to be irrecoverable.

If the negative equity exceeds receivables, the remaining amount is recognized under provisions to the extent the parent company has a legal or constructive obligation to cover the Group enterprise's deficit. The proportionate share of the result after tax is included in the income statement under result of investments in Group enterprises, joint ventures and associated companies.

Reserves

Reserve for development costs comprises development costs after depreciation and tax for self-constructed development projects.

Cash flow statement

No separate cash flow statement has been prepared for the parent company, as the parent company's cash flow statement is included in the consolidated cash flow statement.

2 REVENUE

The Company's revenue can be divided into two main categories: catalyst sales and technology sales. Catalyst sales comprise the sale of catalysts. Technology sales comprise basic engineering design, license fee and hardware.

The Company has not disclosed the revenue split by segments for competitive reasons, as disclosure of this information is assessed to be potentially harmful to the Company.

3 STAFF COSTS

DKK million	2021	2020
Wages, salary and other remuneration	1,096	1,164
Pension cost	118	119
Social security cost and other staff costs	58	58
Total	1,272	1,341
Transferred to assets	-18	-8
Total staff costs	1,254	1,333
Executive Management salary and pension	42	85
Fee to Board of Directors	8	7
Total remuneration to Executive Management and fee to Board of Directors	50	92
Average number of employees	1,457	1,562

The remuneration to Executive Management for 2021 has been impacted by changes in Executive Management team. 2020 was impacted by replacement of the CEO and CFO.

4 RESULT OF INVESTMENTS IN GROUP ENTERPRISES, JOINT VENTURES, AND ASSOCIATED COMPANIES

DKK million	2021	2020
Share of result of Group enterprises, net	235	184
Change in intercompany profit	-4	2
Share of result of joint ventures and associated companies, net	-5	-8
Gain on divestment of associated companies	137	0
Total income from investments in Group enterprises, joint ventures, and associated companies	363	178

5 FINANCIAL INCOME

DKK million	2021	2020
Interest received from Group enterprises	0	1
Interest income	1	1
Foreign currency translation adjustment	80	50
Other financial income	1	1
Total financial income	82	53

7 PROPOSED DISTRIBUTION OF PROFIT

DKK million	2021	2020
Proposed dividend	445	240
Net revaluation reserve according to the equity method	235	76
Retained earnings	200	126
Total proposed distribution of profit	880	442

6 FINANCIAL EXPENSES

DKK million	2021	2020
Interest expenses	30	37
Foreign currency translation adjustment	47	73
Value adjustments of other investments	2	0
Total financial expenses	79	110

8 INTANGIBLE ASSETS

DKK million	Rights	Patents	Software	Intangible assets under construction
Cost at January 1, 2021	40	125	198	44
Additions during the year	0	24	33	9
Disposals during the year	0	-22	-19	0
Transfers during the year	0	0	44	-44
Cost at December 31, 2021	40	127	256	9
Amortization and impairment losses at January 1, 2021	18	61	166	0
Amortization for the year	5	12	20	0
Reversal of amortization and impairment losses on assets sold	0	-16	-18	0
Amortization and impairment losses at December 31, 2021	23	57	168	0
Carrying amount at December 31, 2021	17	70	88	9

9 PROPERTY, PLANT AND EQUIPMENT

DKK million	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction
Cost at January 1, 2021	1,113	2,029	1,022	140
Transfer to right-of-use assets at January 1, 2021	-572	0	-11	0
Restated cost at January 1, 2021	541	2,029	1,011	140
Additions during the year	11	26	31	69
Disposals during the year	-18	0	-25	0
Transfers during the year	40	48	22	-110
Cost at December 31, 2021	574	2,103	1,039	99
Depreciation and impairment losses at January 1, 2021	388	1,544	820	0
Transfer to right-of-use assets at January 1, 2021	-91	0	-5	0
Restated depreciation and impairment losses at January 1, 2021	297	1,544	815	0
Depreciation for the year	13	106	64	0
Reversal of depreciation on assets sold and scrapped	-18	0	-21	0
Depreciation and impairment losses at December 31, 2021	292	1,650	858	0
Carrying amount at December 31, 2021	282	453	181	99

10 RIGHT-OF-USE ASSETS

DKK million	Land and buildings	Other fixtures and equipment	Right-of-use assets total
Cost at January 1, 2021	0	0	0
Transfer to right-of-use assets at January 1, 2021	575	11	586
Restated cost at January 1, 2021	575	11	586
Additions during the year	5	0	5
Disposals during the year	0	-2	-2
Cost at December 31, 2021	580	9	589
Depreciation and impairment losses at January 1, 2021	0	0	0
Transfer to right-of-use assets at January 1, 2021	94	5	99
Restated depreciation and impairment losses at January 1, 2021	94	5	99
Depreciation for the year	45	2	47
Reversal of depreciation on assets sold and scrapped	0	-2	-2
Depreciation and impairment losses at December 31, 2021	139	5	144
Carrying amount at December 31, 2021	441	4	445

11 INVESTMENTS

DKK million	Investments in Group enterprises	Investments in associated companies	Investments in joint ventures	Receivables from Group enterprises	Other securities and investments	Other receivables
Cost at January 1, 2021	279	17	0	85	37	32
Additions during the year	27	0	17	11	1	1
Disposals during the year	0	-22	0	0	0	-2
Transfers during the year	0	5	0	0	0	-5
Cost at December 31, 2021	306	0	17	96	38	26
Value adjustment at January 1, 2021	958	-14	0	-3	-33	-7
Value adjustment during the year	0	0	0	0	0	0
Foreign currency adjustments	101	0	0	1	0	0
Dividend	-17	0	0	0	0	0
Net profit/loss for the year	258	-5	0	0	0	0
Disposals during the year	0	19	0	0	0	0
Other adjustments	36	0	0	0	0	0
Value adjustment at December 31, 2021	1,336	0	0	-2	-33	-7
Carrying amount at December 31, 2021	1,642	0	17	94	5	19
Of this less than 1 year						2

11 INVESTMENTS (continued)

Investments in associated companies:

Faradion Ltd., Sheffield, United Kingdom

Haldor Topsoe A/S has converted its loans and divested its shares in Faradion Ltd. at a price of DKK 140 million, resulting in a gain of DKK 137 million.

Investments in joint ventures:

Shaanxi Yanchang Topsoe Catalytic Technologies Co, Ltd., Weinan, China

Haldor Topsoe A/S has during 2021 invested DKK 17 million in Shaanxi Yanchang Topsoe Catalytic Technologies Co, Ltd., corresponding to 49% of the share capital. The company will establish a minor production line. Haldor Topsoe A/S is obligated to invest an additional amount of CNY 7 million (equal to DKK 8 million).

Other securities and investments:

GTLA Holdings LP, Delaware, USA

Haldor Topsoe A/S has invested in GTLA Holdings LP, corresponding to 3% of the share capital. The purpose of the company is to develop a project for the construction of a gas-to-liquid plant. The fair value of the investment is DKK 0 million due to a license having currently been suspended.

Investments in Group enterprises:

Company	Registered office	Voting and ownership share
Haldor Topsoe America Latina S.A.	Buenos Aires, Argentina	100%
Haldor Topsoe Australia Pty Ltd.	Perth, Australia	100%
Haldor Topsoe do Brasil Tecnologia e Servicos em Catalisadores Eireli	Rio de Janeiro, Brazil	100%
Haldor Topsoe Canada Limited	Vancouver, Canada	100%
Haldor Topsøe (Beijing) Co., Ltd	Beijing, China	100%
Jiangsu JITRI-Topsoe Joint R&D Center Co. Ltd.	Suzhou, China	60%
Haldor Topsøe International A/S	Lyngby, Denmark	100%
Subcontinent Ammonia Investment Company ApS	Lyngby, Denmark	100%
Haldor Topsøe Project Investment A/S	Lyngby, Denmark	100%
HT Ramagundam A/S	Lyngby, Denmark	100%
Haldor Topsøe Sustainables A/S	Lyngby, Denmark	100%
Haldor Topsoe Germany GmbH	Essen, Germany	100%
Haldor Topsoe India Pvt. Ltd.	New Delhi, India	100%
Haldor Topsoe Sdn. Bhd.	Kuala Lumpur, Malaysia	100%
Haldor Topsoe De Mexico, S. A. de C. V.	Mexico City, Mexico	100%
OOO Haldor Topsøe	Moscow, Russia	100%
Haldor Topsoe, Inc.	Houston, US	100%
Haldor Topsoe Project Development U.S. Inc.	Houston, US	100%
Haldor Topsoe LFG Solutions Inc.	Houston, US	100%
Pacific Coast Fertilizer LLC	Seattle, US	80%
Saturn Ferrostaal Gas Chemicals LLC	Wilmington, US	100%
Haldor Topsoe eCOs Inc.	Wilmington, US	100%

12 INVENTORIES

DKK million	2021	2020
Raw materials and consumables	355	225
Work in progress	192	155
Finished goods	495	615
Inventories at December 31	1,042	995

14 DEFERRED TAX

DKK million	2021	2020
Deferred tax at January 1	409	427
Tax for the year	54	-18
Deferred tax at December 31	463	409
Intangible assets and property, plant and equipment	63	57
Inventories	23	24
Work in progress	380	332
Provisions	-23	-27
Other	20	23
Deferred tax at December 31	463	409

13 CONTRACT WORK IN PROGRESS

DKK million	2021	2020
Selling price of work performed at the balance sheet date	5,931	4,987
Payments received on account	-6,263	-5,680
Contract work in progress at December 31	-332	-693
Contract work in progress recognized in assets	258	176
Contract work in progress recognized in liabilities	-590	-869
Contract work in progress at December 31	-332	-693

15 PROVISIONS

DKK million	2021	2020
Warranty provision for technology projects and catalysts	165	282
Other provisions	10	1
Provisions at December 31	175	283

The majority of the warranty provisions are expected to be recognized after 1 year.

16 NON-CURRENT LIABILITIES

DKK million	2021	2020
Borrowings		
After 5 years	118	178
Between 1 and 5 years	334	396
More than 1 year	452	574
Less than 1 year	122	123
Borrowings at December 31	574	697
Lease liabilities		
More than 1 year	434	465
Less than 1 year	45	48
Lease liabilities at December 31	479	513
Other payables		
More than 1 year	102	98
Less than 1 year	1	4
Other payables at December 31	103	102

Other payables consist of employee holiday fund and deposits regarding office lease.

17 SHARE-BASED PAYMENT

Performance Share Units

No. of shares	2021
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Performance shares

Granted during the year	435,395
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Cancelled during the year	60,624
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No. of shares at December 31	374,771
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Employee Share Program

The Group launched an Employee Share Program (ESP) with enrollment in February 2020. Employees at all levels have been offered the opportunity to acquire shares in Haldor Topsoe A/S at market value by investing an amount equal to ½, 1 or 2 months' salary. For every four shares purchased at market value, employees purchased a fifth share at a price of DKK 1. An annual investment window will be open to new employees. The program will expire either in case of an IPO or by December 31, 2024, at the latest. If the program expires without an IPO, the shares will be purchased by a purchaser designated by the Group at market price. The shares cannot be sold or pledged.

In 2021, an additional 33 employees (2020: 837 employees) enrolled and 117,442 new shares (2020: 3,174,902 new shares) were issued. The new shares in 2021 were issued at an average price of DKK 30.5 (2020: DKK 22.3) per share resulting in a discount element of DKK 7.4 (2020: DKK 5.3). Staff costs have been impacted by DKK 4 million in 2021 (2020: DKK 3 million) due to the accrued part of the discount element and the fair value adjustment.

Good leavers (mainly employees who retire or are dismissed) can choose to keep the shares until the program expires or sell the shares to a purchaser designated by the Group in the next annual window at the fair market price. Resigning participants must sell the shares to a purchaser designated by the Group in the next annual window at the lower of the invested amount plus an amount for the fifth share that increases to the price paid for the four shares during the period or the fair market price.

In some countries, participation in the ESP is not possible due to local legislation. Instead, employees in these countries have been offered to participate in a Phantom Program. The participating employees have invested an amount equal to ½, 1 or 2 months' salary and are granted Phantom shares in Haldor Topsoe A/S at principles equal to the ESP. At the time of expiry of the program, employees will be refunded based on the fair value of the phantom shares.

60 employees (2020: 60 employees) have enrolled in the Phantom Program. Staff expenses have not been impacted in 2021 nor in 2020.

18 GUARANTEES

DKK million	2021	2020
Guarantees issued by banks and credit insurance institutions on the Company's behalf for contract work, etc.	592	696
Parent company guarantees issued by the Company for certain obligations in subsidiaries	28	28
Guarantees issued by the Company in relation to the Employee Share Program	7	8

19 CONTRACTUAL OBLIGATIONS

DKK million	2021	2020
Less than 1 year	14	14
Between 1 and 5 years	2	4
Contractual obligations at December 31	16	18

Contractual obligations relate to software and maintenance agreements running 6-24 months.

The Company has an obligation of DKK 3 million (2020: DKK 3 million) related to delivery of services toward Jiangsu JITRI-Topsoe Joint R&D Center Co. Ltd.

The Company is obligated to invest an additional DKK 12 million (2020: DKK 5 million) in companies included under 'Other investments'.

20 CONTINGENT LIABILITIES

The Company's property in Frederikssund, Denmark, has been found to be contaminated. Management assesses that the remediation costs will not be significant.

Through participation in joint taxation scheme with Haldor Topsøe Holding A/S, the Company is jointly and severally liable for taxes, etc. payable in Denmark.

Haldor Topsoe A/S is a party to ongoing litigation. Management assesses that the outcome of these lawsuits will not affect the Company's financial position.

22 RELATED PARTIES

The main shareholders are:

Haldor Topsøe Holding A/S, Lyngby, Denmark
- shareholder - control

Dahlia Investments Pte. Ltd., Singapore
- shareholder - minority

No transactions have been carried out with the Board of Directors, Senior Leadership Team, key management staff, shareholders, Group enterprises or other related parties which have not been under normal market conditions.

21 FEE TO AUDITORS APPOINTED AT THE GENERAL MEETING

Please refer to the note in the consolidated financial statements.

23 FAIR VALUE FINANCIAL ASSETS AND LIABILITIES

DKK million	Level 1	Level 2	Level 3
Other securities and investments			
Fair value at December 31, 2021	2	0	3
Value adjustment recognized in the income statement	0	0	0
Derivatives			
Fair value at December 31, 2021	0	8	0
Value adjustment recognized in hedging fund under equity	0	0	0

Please refer to note 11 for information on input to valuation of other securities and investments stated at fair value in level 3.

24 SUBSEQUENT EVENTS

Russia's invasion of Ukraine has taken place after the end of the reporting period. This war is expected to have a negative impact on the financial performance of Topsoe. Currently, a reliable estimate of the financial effect on the consolidated financial statements cannot be made and is not reflected in the outlook.

No events materially affecting the Company's financial position at December 31, 2021, have occurred after the balance sheet date.

25 CONSOLIDATED FINANCIAL STATEMENTS

Haldor Topsøe Holding A/S prepares consolidated financial statements, which include the Company and its Group enterprises.

26 DISCONTINUING OPERATIONS

DKK million	2021	2020
Value adjustment of net assets sold	0	45
Transaction-related costs	-2	0
Profit/loss on sale before income tax	-2	45
Income tax	12	6
Profit from discontinuing operations	10	51

On June 20, 2017, Topsoe announced that it had sold its emissions control business areas. The divestment was finalized on November 30, 2017. The divestment comprised the subsidiaries Haldor Topsøe Catalyst (Tianjin) Co., Ltd., Haldor Topsøe Automotive Catalyst Trading (Tianjin) Co., Ltd. and Haldor Topsoe Catalisadores e Tecnologias do Brasil Ltda. as well as business assets and liabilities in Denmark, the US, and China.

Finalization of the divestment of the emissions control business areas impacted 2020 with a net profit of DKK 51 million after reversal of provisions made in previous years. 2021 has mainly been impacted by reopened tax assessments.

STATEMENT BY THE EXECUTIVE MANAGEMENT AND BOARD OF DIRECTORS ON THE ANNUAL REPORT

The Executive Management and Board of Directors have today considered and approved the Annual Report 2021 of Haldor Topsøe A/S.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU (IFRS), and the

financial statements of the parent company have been prepared in accordance with the Danish Financial Statements Act.

In our opinion, the parent company financial statements and the consolidated financial statements give a true and fair view of the financial position at December 31, 2021 of the Group and the parent company and

of the results of the Group and parent company operations and of the Group's cash flows for 2021 in accordance with the applied accounting policies.

In our opinion, the Management's review includes a true and fair account of the development in the operations and financial circumstances, of the results for the year

and of the financial position of the Group and the parent company as well as a description of the most significant risks and elements of uncertainty facing the Group and the parent company.

We recommend that the Annual Report be adopted at the Annual General Meeting.

Lyngby, March 4, 2022

Registered Executive Management

Roeland Baan
President and Chief Executive Officer

Philip Eickhoff
Chief Financial Officer

Board of Directors

Jeppe Christiansen
Chairman

Jakob Haldor Topsøe
Vice Chairman

Benoit Valentin
Vice Chairman

Jan Kreibaum
Member

Jens Kehlet Nørskov
Member

Jørgen Huno Rasmussen
Member

Rohit Sobti
Member

Christina Teng Topsøe
Member

Anders Broe Bendtsen
Employee representative

Christina Borch
Employee representative

Jette Søvang Christiansen
Employee representative

Lis Ibsen
Employee representative

INDEPENDENT AUDITOR'S REPORT

To the Shareholders of Haldor Topsoe A/S

Opinion

In our opinion, the Consolidated Financial Statements give a true and fair view of the Group's financial position at December 31, 2021 and of the results of the Group's operations and cash flows for the financial year January 1 to December 31, 2021 in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act.

Moreover, in our opinion, the Parent Company Financial Statements give a true and fair view of the Parent Company's financial position at December 31, 2021 and of the results of the Parent Company's operations for the financial year January 1 to December 31, 2021 in accordance with the Danish Financial Statements Act.

We have audited the Consolidated Financial Statements and the Parent Company Financial Statements of Haldor Topsoe A/S for the financial year January 1 - December 31, 2021, which comprise income statement, balance sheet, statement of changes in equity and notes, including a summary of significant accounting policies, for both the Group and the Parent Company, as well as statement of comprehensive income and cash flow statement for the Group ("financial statements").

Basis for opinion

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the Auditor's Responsibilities for the Audit of the Financial Statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Statement on Management's review

Management is responsible for Management's review.

Our opinion on the financial statements does not cover Management's review, and we do not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read Management's review and, in doing so, consider whether Management's review is materially inconsistent with the financial

statements or our knowledge obtained during the audit, or otherwise appears to be materially misstated.

Moreover, it is our responsibility to consider whether Management's review provides the information required under the Danish Financial Statements Act. Based on the work we have performed, in our view, Management's review is in accordance with the Consolidated Financial Statements and the Parent Company Financial Statements and has been prepared in accordance with the requirements of the Danish Financial Statement Act. We did not identify any material misstatement in Management's review.

Management's responsibilities for the Financial Statements

Management is responsible for the preparation of Consolidated Financial Statements that give a true and fair view in accordance with International Financial Reporting Standards as adopted by the EU and further requirements in the Danish Financial Statements Act and for the preparation of Parent Company Financial Statements that give a true and fair view in accordance with the Danish Financial Statements Act, and for such internal control as Management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, Management is responsible for assessing the Group's and the Parent Company's ability to continue as a going concern, disclosing, as applicable, matters related to going concern and using the going concern basis of accounting in preparing the financial statements unless Management either intends to liquidate the Group or the Parent Company or to cease operations, or has no realistic alternative but to do so.

Auditor's responsibilities for the audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditor's report that includes our opinion. Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of these financial statements.

As part of an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark, we exercise

professional judgment and maintain professional skepticism throughout the audit. We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion. The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Parent Company's internal control.
- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.
- Conclude on the appropriateness of Management's use of the going concern basis of accounting in preparing the financial statements and, based on the audit evidence obtained, whether a material uncertainty exists related to events

or conditions that may cast significant doubt on the Group's and the Parent Company's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditor's report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditor's report. However, future events or conditions may cause the Group and the Parent Company to cease to continue as a going concern.

- Evaluate the overall presentation, structure and contents of the financial statements, including the disclosures, and whether the financial statements

represent the underlying transactions and events in a manner that gives a true and fair view.

- Obtain sufficient appropriate audit evidence regarding the financial information of the entities or business activities within the Group to express an opinion on the Consolidated Financial Statements. We are responsible for the direction, supervision and performance of the group audit. We remain solely responsible for our audit opinion.

We communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

Copenhagen, March 4, 2022

PricewaterhouseCoopers

Statsautoriseret Revisionspartnerselskab
CVR No 33 77 12 31

Michael Groth Hansen

State Authorised Public Accountant
mne33228

Rikke Lund-Kühl

State Authorised Public Accountant
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