

Annual Report for 2019

Haldor Topsøe Holding A/S
CVR no. 30 82 67 52

The Annual Report has been presented and adopted at the Annual General Meeting on
August 26, 2020



Chair of the meeting,
Lene Ramm

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Letter from the Chairman

2019 marked a number of defining milestones for the companies in Haldor Topsøe Holding A/S.

Haldor Topsøe A/S

Haldor Topsøe Group delivered another set of record results in 2019. Despite the loss of business compared to 2018 due to imposed international sanctions, both revenue and profits were record high. Revenue increased by 6% and EBIT grew by 21%. This impressive performance can be attributed to volume increase in certain products, relatively high gross margin on Topsøe's innovative solutions and cost optimization initiatives.

With its unique chemistry insights, Topsøe is very well positioned to support its customers in addressing some of the world's biggest challenges as defined in the UN Sustainable Development Goals.

The Topsøe Group supports the global sustainability agenda by helping its customers provide energy, air pollution control, and fertilizer for a growing population. Topsøe has a very important role to play in making today's industry more energy efficient as well as reducing greenhouse gases and air pollution.

At the same time, Topsøe develops innovative solutions that contribute to the green transformation of the chemical industry. The Topsøe Group invests significantly in developing sustainable technologies within biomass, battery materials and electrification.

The process that was initiated in 2018 to find a minority investor to Haldor Topsøe A/S was successfully concluded and closed on July 3rd 2019 with the announcement that Temasek had

acquired 30% of the shares of Haldor Topsøe A/S. The process attracted very high interest from a large number of international top investors. Temasek and Topsøe have an excellent cultural fit and share vision and ambitions on behalf of Haldor Topsøe A/S. Temasek will undoubtedly add tremendous value with their expertise and global network.

Together with Temasek it was agreed to introduce an employee share program. This was very well received and almost 40% of all employees globally signed up and became shareholders in the first round of the program in February 2020. A second round will be rolled out in April and May this year.

During the year, it was agreed that Topsøe's CEO, Bjerne Clausen, is to retire in June this year. Bjerne has been instrumental on both the technological and commercial development of the company for more than 40 years and the Topsøe family is immensely grateful for his valued contributions for so many years. Bjerne will be succeeded by Roeland Baan. Roeland has remarkable global experience and we look forward to welcoming him as Topsøe's next CEO.

IGM Biosciences Inc.

IGM Biosciences Inc. continued its exciting journey towards developing IGM based treatments for patients – primarily within oncology. With the rapid development and thus increased need for investment in resources it was decided to invite equity partners to participate in a cross-over financing process that was concluded in June raising USD 102 million. Following up on this, IGM Biosciences went public on Nasdaq, New York in September with an IPO that raised an additional USD 183 million and thus secured substantial financing for the further clinical development of IGM Biosciences' research pipeline. Haldor Topsøe Holding A/S participated in both the

cross-over financing and the IPO and stay committed to supporting IGM Biosciences.

Frydenlund Ejendomsselskab

There continue to be smaller renovation projects on Frydenlund that are progressing well. The orchard has developed a number of new products and it will be exciting to follow the commercialisation of these in the coming year.

COVID-19

The fully impact from COVID-19 on the Group is, at this point, unknown, and the management are closely monitoring the development.

In memoriam

My uncle, and the former Chairman of both Haldor Topsøe A/S and Haldor Topsøe Holding A/S, Henrik Topsøe, passed away on August 9, 2019. His legacy as an internationally acclaimed scientist and an outstanding human being lives on, and we all miss him tremendously.

Thanks

I want to thank the family and my fellow board members for their support. I especially want to thank the employees in our companies. They have performed exceptionally well and as always, they are the main contributors to the successes that have been achieved.

Five-year summary

DKK million

Income statement ¹⁾	2019	2018	2017	2016	2015 ³⁾
Revenue	5.931	5.619	5.013	5.150	5.785
Gross profit	2.718	2.503	2.338	2.565	2.452
EBITDA	1.001	808	772	1.006	748
Depreciation and amortization	-369	-258	-259	-262	-293
EBIT	632	550	513	744	455
Net financial expenses etc.	859	-29	-74	-56	-73
Profit from continuing operations	1.271	339	314	462	251
Loss from discontinuing operations	0	-16	-422	-53	-
Net profit	1.271	323	-108	409	251

Balance sheet

Balance sheet total	13.269	9.178	9.331	10.136	10.075
Equity (excl. minority)	7.686	4.932	4.782	5.218	4.808
Net working capital	600	243	658	574	438
Net indebtedness	543	576	975	1.429	1.524

Cash flow

Cash flow from operating activities	524	830	29	663	716
- Of which continuing operations	524	846	313	700	-
Cash flow from investing activities	-1.768	-242	681	-404	-701
- Of which invest. in property, plant and equip.	-216	-268	-221	-410	-651
Cash flow from financing activities	1.370	-519	-351	-295	63
Change in cash and cash equivalents	134	71	319	-30	95

Employees

Average number of employees	2.263	2.283	2.555	2.565	2.700
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Ratios in %

Gross margin ²⁾	45,8	44,5	46,6	49,8	42,4
EBITDA margin ²⁾	16,9	14,4	15,4	19,5	12,9
EBIT margin ²⁾	10,7	9,8	10,2	14,4	7,9
Return on invested capital (ROIC) ²⁾	10,2	9,1	7,7	10,8	7,0
Equity ratio	58,0	53,7	51,2	51,5	47,7
Return on equity	20,1	6,7	-2,2	8,2	5,4

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

IFRS 16 was implemented using the modified retrospective approach, and comparative figures for 2015-2019 have not been restated. Please see "Accounting policies" for further information.

1) Income statements for 2016-2019 consist of continuing operations with discontinuing operations in a separate line.

2) Ratios for 2016-2019 apply to continuing operations.

3) Figures for 2015 have not been restated with sale of the emission business in 2017. Figures for 2015 are therefore not comparable to figures for 2016-2018, where divested business is presented as discontinuing operations.

Financial report 2019

Profit from continuing operations amounted to DKK 1.271 million in 2019 (2018: DKK 339 million). The increase in profit was mainly due to the result of DKK 860 million from investment in joint ventures and associated companies in 2019. For core business, catalyst revenue for the Chemical and Refinery business units increased by 13% and Technology revenue decreased by 11%.

2019 was impacted by the group company IGM Biosciences Inc. who was listed on Nasdaq in September. Haldor Topsøe Holding A/S no longer holds control over IGM Biosciences Inc. and due to this the company are treated as an associate to Haldor Topsøe Holding A/S at 31 December 2019. The gain from this amounts to DKK 920 million relates to fair value adjustments. Haldor Topsøe Holding A/S has during the year invested further DKK 332 million. Haldor Topsøe Holding A/S holds 41,12% at 31 December 2019 due to dilution.

Haldor Topsøe Holding A/S has in 2019 sold 30% of the shares in Haldor Topsøe A/S. The gain from the sale amounts to DKK 1.401 million, this has not impacted the income statements for the Group in 2019, this has only impacted the income statement of the parent company. Haldor Topsøe A/S are still a fully consolidated group company and the gain has been recognized at the equity at 31 December 2019.

Net profit (after loss on discontinuing operations) increased significantly and showed a profit of DKK 1,271 million for 2019 (2018: DKK 323 million).

EBIT from continuing operations increased in 2019 by 15% to DKK 632 million corresponding to an EBIT margin of 10.7% (2018: 9.8%).

R&D expenses were maintained at a high level with a R&D-to-revenue-ratio of 11.2% (2018: 11.4%).

Income statement

Revenue

Revenue from continuing operations increased by 6% to DKK 5.931 million (2018: DKK 5.619 million). Exchange rate developments from 2018 to 2019 had a positive impact of 2,1% on revenue. Catalyst revenue increased by 13% and technology revenue decreased by 11%.

Earnings before interest, tax, depreciation, and amortization (EBITDA)

Average gross margins increased in 2019 to 45.8% compared to 44.5% in 2018.

EBITDA from continuing operations increased by 24% to DKK 1.001 million, corresponding to an EBITDA margin of 16.9% (2018: 14.4%).

Staff expenses amounted to DKK 1.717 million, which is an increase of 1% compared with 2018. Raw material costs incl. change in inventories increased by 15% to DKK 1.763 million. Purchased equipment for contract work decreased by 11% to DKK 539 million due to decreased activity in the technology business. Other external expenses (incl. R&D) decreased by 5% to DKK 1.030 million.

Earnings before interest and tax (EBIT)

EBIT from continuing operations increased by 15% to DKK 650 million corresponding to an EBIT margin of 11.0% (2018: 9.8%). Depreciation amounted to DKK 369 million, which is an increase of 43% compared with 2018, mainly due to the implementation of IFRS 16, Leases which increased depreciation by DKK 71 million in 2019.

Net profit

Net profit increased by 294% to DKK 1.271 million (2018: DKK 323 million).

The increase in the net profit is mainly explained by:

- An increase in EBIT to DKK 632 million in 2019 (2018: DKK 550 million).

- Improved result of investments in joint ventures and associated companies of DKK 860 million, mainly due to the company IGM Biosciences Inc.
- Partly set-off by an increase in tax to DKK 220 million. (2018: DKK 182 million)

Implementation of IFRS 16 accounting standard

Topsøe has adopted IFRS 16 "Leases" as of January 1, 2019. The standard has been implemented using the modified retrospective approach. The effect of this new standard as of December 31, 2019 is:

- Balance sheet: Property, plant and equipment increased by DKK 464 million and lease liabilities increased by DKK 474 million, prepaid lease payments decreased by DKK 2 million, deferred tax increased by DKK 2 million and Equity decreased by DKK 10 million.
- Profit & loss: EBITDA increased by DKK 79 million, EBIT increased by DKK 6 million, and Profit before tax decreased by DKK 12 million.

All things being equal, the implementation of the new IFRS 16 accounting standard affect the financial ratios accordingly.

Cash flow and balance sheet

Cash flows from operating activities

Cash flows from operations amounted to DKK 524 million (2018: DKK 830 million). Net working capital fall by DKK 329 million. The significant fall has been driven by collection of accounts receivables (DKK -582 million), as well as inventory turnover (DKK -354 million) in 2019.

CAPEX

CAPEX increased by 61% and amounted to DKK 634 million (2018: DKK 393 million). This includes, e.g., equity investments in IGM Biosciences Inc., US, Ramagundam Fertilizers and Chemicals Ltd.,

India, as well as GTLA Holding LP, US. Investments in intangible assets, property, plant, and equipment.

Net indebtedness

Net indebtedness decreased by 6% and amounted to DKK 543 million (2018: DKK 576 million). The interest bearing debt at the end of 2019 was DKK 1.649 million (2018: DKK 1.548 million). This increase is due to the implementation of IFRS 16, Leases, which increases the liabilities with DKK 474 million in 2019, offset by repayments of mortgage loan and credit institution loans which decrease liabilities with DKK 373 million in 2019. The remaining tranche of corporate bonds (DKK 500 million) will expired in April 2020.

Return on invested capital (ROIC)

ROIC amounted to 10% (2018: 9%) driven by the increase in EBIT and partly offset by increase in average invested capital (as a consequence of capitalized lease assets and increased net working capital).

Financial covenants

Financial covenants as of December 31, 2019, are all met.

Order backlog

The order backlog amounted to DKK 4.943 million at the end of 2019 an increase of 30% compared to the end of 2018. This was due to a high inflow of catalyst as well technology orders. The order backlog at the end of 2019 is considered good.

Outlook for 2020

Haldor Topsøe Holding A/S, Group Revenue

In 2020, revenue development will depend on the level of new catalyst and technology orders obtained during 2020, and the progress of existing technology orders. In some markets, project development is impacted by the project owners' ability to finance projects.

Also, the current COVID-19 virus pandemic could negatively impact business if it evolves further or leads to significant or prolonged travel restrictions and/or quarantines for a longer period of time. The outlook for 2020 is given without the expected impact from COVID-19, as the financial impact hereof cannot be reliably estimated at this point.

Exchange rate developments, most notably the DKK/USD exchange rate, will impact revenue. We expect that Group revenue will be in the range of DKK 5.900-6.300 million.

EBIT

EBIT margin is expected to be in the range of 12-14% in 2020.

In 2020, we expect to maintain a high level of R&D and business development activities at approx. 8% of revenue.

Cash flow and funding

Operating cash flow (excluding working capital development) is expected to be at the same level in 2020 compared to 2019. Working capital is expected to be below 10% of revenue on average. Haldor Topsøe Group's current funding position is strong, based on access to the corporate bond market, institutional banks as well as commercial banks. Committed revolving credit facilities are also available.

Haldor Topsøe Group intends to maintain a credit profile that will ensure compliance with all bank

covenants at any time. When market terms are attractive and there is a need, Haldor Topsøe Group will consider issuing additional corporate bonds as well as obtaining other credit facilities.

Forward-looking statements

Haldor Topsøe Holding 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 Topsøe Holding 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 Topsøe Holding A/S' influence, and which could materially affect such forward-looking statements.

Haldor Topsøe Holding 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.

Risk management

Enterprise risk management

Haldor Topsoe Group (The Group) operates an enterprise risk management program with quarterly reporting, followed up by reviews and mitigating activities. Executive Management and the Board of Directors receive an outline of the most significant risks on a quarterly basis, including an assessment of likelihood and potential impact. The mapping of risks is based on dialogue with management teams across the organization, and includes those risks that could cause significant disruption to the business within a timeframe of five years. The program seeks to identify risks early, assess them, and implement mitigating actions where feasible.

The Topsoe Code of Conduct is embedded throughout the organization, including policies covering anti-corruption, anti-money laundering, competition law, and other compliance issues. Our Code of Conduct is an example of a global mitigating action that is intended to prevent a series of potential risks related to business ethics and legal issues. The Group has a global compliance hotline (whistleblower solution), which is available at www.topsoe.com/Compliance-Hotline.

The Group's key risks and the associated mitigating actions are outlined below.

Strategic and operational risks

Customer demand

Catalysts are involved in the vast majority of industrial chemical processes today. We see no indication of disruption in our core markets in the short or medium term which will reduce demand or create substitute products, but we obviously cannot rule out such disruption in the long term. We mainly compete on our products quality, therefore significant resources are allocated to R&D to be able to continue producing high-performing products as requested by our customers. While a very significant part of our technical and catalytic solutions are based on fossil fuel feedstock

(notably natural gas), we also work with a wide range of non-fossil based products and research projects, including: Renewable fuels, battery materials, making use of plastic waste, bio-to-chemicals, electrification, energy storage, and CO production using our electrolysis cells.

If cost-competitive alternative energy sources emerge, this could have a significant impact on our current business, and the level of market growth is, for some markets, impacted by the shift towards alternative energy sources. The demand for our products and services is driven by global macro trends, such as enhancing food production, increasing energy efficiency, and protecting the environment. In our Sustainable Business Unit, we continuously seek to develop new sustainable solutions that can cater for the future demand for new products, processes, and services.

The Group sells its products and services to a wide range of customers across the globe and is thus not dependent on a single customer or market.

Intellectual property (IP) protection

Being a highly innovative company, the Group pursues IP protection through patents, trade secrets, trademarks, design, and copyright law. However, our IP could be challenged, invalidated, circumvented, or rendered unenforceable. Defending and prosecuting our IP rights are therefore of paramount importance and significant resources are allocated to this.

Cyber security

Being a knowledge-based and increasingly digitalized Group, the Group is exposed to information security risks. The threat of cyber attacks is increasing, and a major computer virus or malware attack could lead to severe business disruption. To mitigate the risk, the Group has developed and is consistently following an Information Security Roadmap, which enables the

company to identify risks, protect valuable information and adequately respond to an attack. The Group is continuously measuring the efforts within this area to ensure stable and secure digital environments. It is a key priority to stay on top of the threat landscape and continuously improve our digital safety.

Raw material prices and availability

Raw materials are a significant cost component in our products, and prices can fluctuate considerably. For products with a high raw material value, we seek to mitigate this risk through escalation clauses in customer contracts where delivery is more than 120 days into the future. The escalation clauses are linked to market indices of the most costly raw materials. In addition, we use financial hedging to a certain extent. We also seek to have multiple suppliers for each raw material. We are exposed to single-source risk on some raw material supplies, which makes us vulnerable to cost increases and which can potentially influence the supply chain. The single-source raw materials and suppliers are continuously assessed, and we work actively to mitigate and limit our single-source exposure.

Operations and Environment, Health & Safety
People, safety and environmental protection are of highest priority in the Group. A dedicated global Health, Safety and Environment organization coordinates and continuously develop our global efforts to protect our people and the environment in which we operate.

The Group's production of catalysts takes place in Frederikssund (Denmark) and Houston (United States). If production is closed down for an extended period in one of our plants, e.g. due to damage to the production facilities, equipment failure or cyber attacks – or if commissioning of a new production line is substantially delayed, this could have a material impact on the Group's earnings. We seek to mitigate this risk by operating multiple production lines for key products and by enforcing a safety stock policy. We have also taken

out business interruption insurance and property insurance.

The Group uses and produces chemicals. In our portfolio, we have hazardous chemicals that could potentially pose a risk if not handled with care. It is of highest priority that all our chemical operations are fully compliant with all chemical and environmental regulations in all jurisdictions where we operate or sell our products. We have processes in place for continuous monitoring of global chemical regulations in order to identify any relevant regulatory changes that might affect our products or operations.

The Group is exposed to project execution risk on technology projects. Systematic project management seeks to limit the risk of delayed deliveries, re-engineering, and cost overrun.

Also, the current COVID-19 virus epidemic could negatively impact business if it evolves further or leads to significant or prolonged travel restrictions and/or quarantines for a longer period of time.

Biotech risk

As with all early stage biotech companies the risks involved in turning science and early development work into commercial products is substantial. This also applies to IGM Biosciences, a preclinical stage company which has yet to demonstrate the superiority of its technology in a clinical setting. There is no guarantee that it will be successful in commercializing its products or attract adequate funding from financial or commercial partners to finance the costs of drug development and marketing. IGM Biosciences will be very selective with the drugs it brings into the clinic to maximise the likelihood of success and is rigorously pursuing IP protection of its technology to ensure the ability to market its products should they be approved by the FDA.

Insurance

Besides property insurance and business

interruption insurance, a number of other operational risks are insured, including general liability, product liability, professional indemnity, transportation, travel, and cyber security.

Geopolitical risks

The Group's global presence means that the company's earnings are exposed to geopolitical events. Political actions, such as embargoes, sanctions, trade barriers, new taxes, currency restrictions, and changes in environmental legislation, etc., may impact results and cash flows. To a certain degree, this risk is mitigated by monitoring regulatory initiatives, geographical diversification, and by ensuring to the extent possible that cash flows for our individual technology contracts remain positive at all times. Our regulatory monitoring and business integrated compliance measures ensure that the Group is at all times compliant with applicable international sanctions. New political sanctions or cancellation of existing political sanctions could potentially have a significant impact on our business.

Financial risks

Currencies

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

Part of this risk is mitigated through natural hedges arising from activities where the Group has both income and expenses in the same currency. However, the risk is not fully covered by natural hedges, and consequently the Group 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

The Group's general interest rate policy is to maintain a loan portfolio where the fixed interest rate portion is kept within a range of 50-65%, while the floating interest rate portion is kept within a

range of 35-50%. However, due to repayment of loans during 2019, The Group is currently outside of the interest rate policy range for its loan portfolio. By the end of 2019, the fixed rate portion stands at 77%, while the floating rate portion stands at 23%. As it would bring no financial benefit to enter into IRS transactions for the purpose of temporarily swapping fixed rate debt into floating rate debt, the Group have decided not to do so. On repayment of DKK 499 million corporate bonds in mid-April 2020, the Group will get back into the policy range (~55% fixed and ~45% floating). For the floating rate portion of our interest-bearing debt at end of 2019, an increase in the interest rate level of 1 percentage point will increase interest expenses by DKK 2.3 million p.a.

Securities

The interest rate risk involved in placing cash funds and securities is managed on the basis of duration. Nykredit bank and SEB bank are monitoring and controlling the risk related to public listed securities on a daily basis.

Credit

The credit risk of the Group 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 company should make accruals for bad debt which is considered unlikely to be collected.

Trade finance

Issuance of bonds in support of contractual liabilities is an inherent and necessary part of the Group's business model, for instance in the form of bid bonds, advance payment bonds, and performance bonds issued by banks on behalf of the Group. Risk mitigation includes thorough structuring of contracts and related bonds.

Counterparties

In this context, counterparty risk is defined as credit risk on financial institutions when dealing with them, either by placing deposits, entering into derivative financial instrument transactions, or otherwise. In order to reduce counterparty 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).

Liquidity

The Group must maintain sufficient liquidity to fund daily operations, debt service, and expansion. The Group'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.

Restrictive covenants

Some of the financing arrangements of the Group are subject to financial covenants, and if violated, this could limit the ability to finance the company's operations and capital needs for acquisitions and other business activities. Covenants include equity ratio (min. 20%), interest coverage (min. 5), and leverage (net debt/EBITDA) requirements (max. 3.5). Financial covenants as of December 31, 2019 are all met.

Tax

The Group conducts business in several countries globally and is thus subject to multiple tax regimes. The combination of complexity in our business and our business structure requires dedicated focus on tax management; a focus that always respects international tax principles and local tax law, while managing the tax cost and tax risk of the Group. As a member of the global community, the Group is obligated and committed to comply with the tax legislation of the countries in which the Group operates. In cases where legislation is unclear and/or inconsistencies exist between case law and

legislation, we seek to clarify this by either obtaining an external opinion or in dialog with the relevant authorities. The Group's tax governance is documented in our global tax policy, available from www.topsoe.com/about/corporate-governance.

Sustainable performance

Haldor Topsøe Holding A/S has, at 31 December 2019, two Danish subsidiaries. One of these, Haldor Topsøe A/S, is required to report on social responsibility according to section 99 a of the Danish Financial Statements Act. Most of Haldor Topsøe Holding's activities take place in Haldor Topsøe A/S, which is where the risks but also opportunities within social responsibility resides. Consequently, the following description of Haldor Topsøe Holding's contribution to social responsibility is based on activities and results occurred in Haldor Topsøe A/S (Topsøe) during 2019.

We are committed to ensuring that our solutions, as well as our conduct, are economically, environmentally, and socially sustainable. As stated in our code of conduct and in our sustainability policy, it is vital for us to conduct every aspect of our business with honesty, integrity, and openness respecting human rights and the environment, as well as the interest of our employees, customers, and business partners.

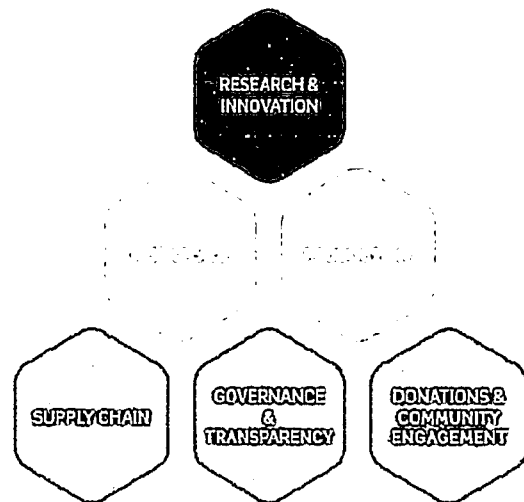
For details about our business model and risk management, please see pages 7-10, respectively.

Topsøe's sustainability activities are driven by line of business, coordinated by the Corporate Compliance & Sustainability team and overseen by the Compliance & Sustainability Committee.

Engagement & well-being

A new, global employee survey on engagement and well-being was carried out in 2019 and showed an employee engagement score below our target. An action plan has been defined to address this. A follow-up survey done in January 2020 showed an improved engagement score. Topsøe also conducted well-being surveys in August and October 2019 that indicated some progress.

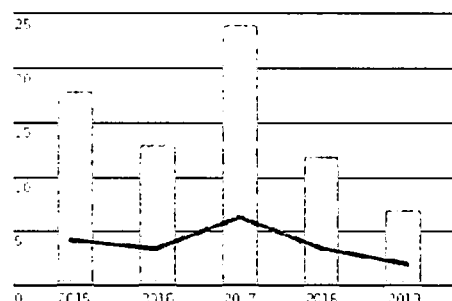
Six sustainability priorities
- our sustainability framework



Safety

Topsøe has a vision of zero harm. We ended the year with the lowest lost time accident frequency ever of 2.0 per one million working hours, compared to 3.4 in 2018. Unfortunately, a couple of the accidents were more severe than in previous years. Our production plant in Frederikssund, Denmark, completed its ISO 45001 (former OHSAS 18001) in November 2019.

Lost time accidents



□ Lost time accidents*

■ Lost time accident frequency per one million working hours*

* An incident in 2018 was re-categorized to be a lost time accident because it led to lost work time in 2019. Accordingly, the lost time accident frequency for 2018 was adjusted from 3.1 to 3.4, and the number of lost time accidents was adjusted from 11 to 12.

Human & labor rights

Topsøe respects and strives to avoid infringing international human and labor rights in all our stakeholder relations. Our commitment is anchored in our code of conduct, sustainability policy, and global policies covering diversity, fair and equal treatment, non-discrimination, health & safety, freedom of association, acceptable working hours, and remuneration. Our new supplier code of conduct, developed in 2019, addresses labor standards and health & safety toward suppliers, and our conflict minerals policy addresses human rights concerns in conflict areas. During 2018 and 2019, we carried out our first human rights assessment covering the main areas of Topsøe's value chain to identify focus areas. Based on this insight, we plan to update our code of conduct to more explicitly reflect our human rights commitment in 2020.

Anti-corruption & bribery

We have policies in place for giving and receiving hospitality, gifts, and entertainment, and we have implemented third-party assurance processes to support the lawful conduct of our business. Our new supplier code of conduct emphasizes our standpoint on zero corruption toward our suppliers and others. Our intention is that all Topsøe employees are trained in business ethics, anti-corruption, and anti-bribery using our global e-learning course. 77% of employees had completed the training by the end of 2019. Topsøe's global compliance hotline provides employees and external stakeholders with a channel for reporting concerns of unethical or unlawful behavior, also beyond corruption. The compliance hotline is available on www.topsoe.com/Compliance-Hotline.

Environment

Our efforts to mitigate environmental impacts of our production plants are guided by our global environmental policy. Our plant in Frederikssund, Denmark, is certified according to ISO14001. Our plant in Bayport, US, is currently preparing for certification to Responsible Care® 14001. We have on-site Environmental, Health & Safety coordinators at both plants, who monitor environmental progress and compliance.

We had one major spill at our plant in Bayport which was filed with the authorities. Across our two plants, we received reports of 23 environmental non-conformities of which 21 have been addressed, and we are working on implementing corrective actions for the remaining two. Our plant in Frederikssund achieved total energy savings of 1.438 MWh through ten optimization projects. Our plant in Bayport identified ways to reduce waste by recycling off-specification material and feeding it back into the production process as recycled raw material, which is now standard procedure. In 2020, we will define environmental targets and take further action to reduce our environmental impact.

All policies and ISO certifications are available on www.topsoe.com/about/sustainability.

Gender in management

With reference to section 99 b of the Danish Financial Statements Act, Haldor Topsøe Holding A/S has achieved equal gender distribution in its board of directors. For other management levels, no further actions have been taken as the company employs less than 50 people and thus is not obligated to report further.

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 2019 of Haldor Topsøe Holding 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, 2019 of the Group and the parent company and of the results of the Group and parent company operations and of the Group's

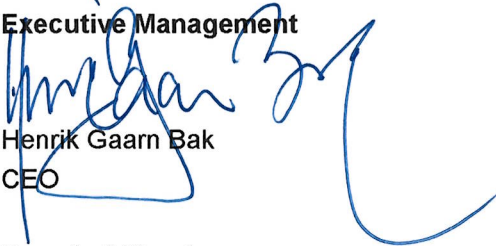
cash flows for 2019 in accordance with the applied accounting policies.

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.

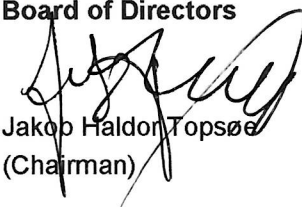
Lyngby, August 25, 2020

Executive Management



Henrik Gaarn Bak
CEO

Board of Directors



Jakob Haldor Topsøe
(Chairman)

Christina Teng Topsøe



Emil Øigaard

Martin Topsøe

Independent Auditor's report

To the shareholders of Haldor Topsøe Holding 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, 2019 and of the results of the Group's operations as well as the consolidated cash flows for the financial year January 1 to December 31, 2019 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, 2019 and of the results of the Parent Company's operations and cash flows for the financial year January 1 to December 31, 2019 in accordance with the Danish Financial Statements Act.

We have audited the Consolidated Financial Statements and the Parent Company Financial Statements of Haldor Topsøe Holding A/S for the financial year January 1 - December 31, 2019, which comprise income statement, balance sheet, statement of changes in equity, cash flow statement and notes, including a summary of significant accounting policies, for both the Group and the Parent Company, as well as statement of comprehensive income 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.

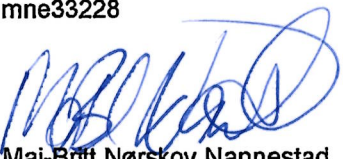
- Evaluate the overall presentation, structure and contents of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that gives a true and fair view.
- Obtain sufficient appropriate audit evidence regarding 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, August 25, 2020

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab
CVR nr. 33 77 12 31


Michael Groth Hansen
State Authorized Public Accountant
mne33228


Maj-Britt Nørskov Nannestad
State Authorized Public Accountant
mne32198

Accounting policies and key estimates and judgements of the Haldor Topsøe Holding A/S - Group

Basis of preparation

The consolidated financial statements of Haldor Topsøe Holding A/S - Group have been prepared in accordance with International Financial Reporting Standards (IFRS), as adopted by the EU, as well as additional Danish disclosure requirements applying to large enterprises of reporting class C.

The accounting policies are unchanged from last year, except from what is mentioned below.

New standards, amendments and interpretations adopted by Haldor Topsøe Holding A/S - Group

The following amendments or standards have been implemented by Haldor Topsøe Holding A/S - Group for the financial year 2019:

- IFRS 16, Leases: Going forward, the lessee is required to recognize all leases as a lease liability and a lease asset in the balance sheet with two exceptions: short-term leases (less than 12 months) and leases relating to low-value assets. It must furthermore be considered whether the agreement is a lease or a service arrangement. The effect of the implementation is described below.

In the income statement, the lease expense is replaced by depreciation of the asset and an interest expense for the financial liability. The current rules remain largely unchanged for the lessor. Consequently, leases are still classified as finance leases and operating leases.

The standard is implemented using the modified retrospective approach, where the lease liability is determined on that date and the right-of-use assets are measured

at an amount equal to the lease liability. Comparative figures are not restated.

The Group has chosen to exclude certain short-term contracts as well as low value contracts. The Group applies a single discount rate to portfolios of leases with similar characteristics.

In the balance sheet, right-of-use assets have been grossed up by DKK 464 million (January 1, 2019: DKK 530 million) while lease liabilities have been grossed up by DKK 474 million (January 1, 2019: DKK 528 million), measured at the present value of the remaining lease payments discounted using the incremental borrowing rate per country. The discrepancy between right-of-use assets and lease liabilities as of January 1, 2019 is attributable to adjustment of the prepaid lease payments before the date of initial application. The income statement is impacted by an increased EBITDA of DKK 79 million, increased EBIT of DKK 6 million and decreased EBT of DKK 12 million.

Furthermore, the implementation of IFRS 16 impacts disclosures.

- IFRS 9, Financial instruments: A minor amendment concerning the classification of receivables in situations where a borrower has a prepayment option and where such prepayment has negative consequences for the borrower. They are to be measured at amortized cost or fair value with adjustments through other comprehensive income if certain criteria are met.
- IAS 19, Employee benefits: The amendment consists of a minor clarification of IAS 19 regarding remeasurement of defined benefit plans. When pension obligations are remeasured due to an amendment, a curtailment or termination of a pension plan, service costs and net interest for the period after the

remeasurement must be determined based on the assumptions used for the remeasurement.

- o The net interest for the remaining period is calculated on the basis of the remeasured defined benefit liability or asset.
 - o However, the service costs and net interest for the financial period preceding such amendment, curtailment or termination of a pension plan are not affected by the remeasurement.
- o IAS 28, Investments in associates and joint ventures: A clarification that enterprises are to apply IFRS 9, including the requirements for impairment of financial assets, on recognition of long-term investments even though such receivables are considered part of the net investment in the associate or joint ventures under IAS 21.
 - o IFRIC 23, Uncertainty over income tax treatments: The interpretation clarifies that it must be determined whether each tax position is to be treated individually or collectively with other uncertain tax positions. The assessment should be based on the assumption that the tax authorities have the same knowledge of the enterprise's circumstances and, therefore, the assessment should disregard any detection risk. This determination may be based on e.g. how tax statements are prepared, or how the enterprise expects the tax authorities to treat the uncertain tax positions. The uncertain tax position must be recognized if it is probable that the enterprise will have to pay or receive refunds. The uncertain tax position must be measured so as to better reflect the receivable/liability and the related uncertainty.
 - o Annual improvements (2015-2017): Include three minor clarifications:
 - o IAS 12, Income taxes: Income tax consequences of dividends should

be recognized in profit or loss, see IAS 12.

- o IAS 23, Borrowing costs: Borrowing costs incurred on specific-purpose borrowing may subsequently change into borrowing costs on general borrowing, see IAS 23.
- o IFRS 3, Business combinations: Clarifies that a step acquisition of a joint venture by which an enterprise obtains control must be treated in accordance with IFRS 3.

Haldor Topsøe Holding A/S – Group has assessed the effect of the new standards, amendments and interpretations and concluded that all standards, amendments and interpretations, except IFRS 16 Leases, effective for financial years beginning on or after January 1, 2019 are either not relevant to Haldor Topsøe Holding A/S – Group or have no significant impact on the consolidated financial statements of Haldor Topsøe Holding A/S - Group.

New standards, amendments and interpretations not yet effective

The following new standards, amendments and interpretations have been adopted by the IASB and by the EU. Haldor Topsøe Holding A/S - Group will adopt the standards when they become effective:

- o Currently there are no new standards, amendments and interpretations which have been adopted by the IASB or by the EU, which are relevant to Haldor Topsøe Holding A/S - Group.

The IASB has issued the following new standards, amendments and new interpretations that are relevant to Haldor Topsøe Holding A/S - Group, but which have not yet been adopted by the EU:

- o IFRS 3, Business Combinations: A small amendment to the definition of a business. Previously, the definition focused on return by way of dividend, lower costs and other economic benefits for investors etc.,

whereas the new definition focuses on outputs from an entity being the production of goods or services to customers.

The amendment will be effective for financial years beginning on or after January 1, 2020.

The above standards and interpretations will be applied when they become effective. None of these are expected to have a significant impact on the consolidated financial statements of Haldor Topsøe Holding A/S - Group.

General

The consolidated financial statements have been prepared in accordance with the historical cost convention, except for the following items that are stated at fair value:

- Land and buildings
- Financial assets measured at fair value through other comprehensive income
- Derivative financial instruments

Part of the information required by IFRS appears from Management's Review. The remaining information appears from the following sections.

Consolidation

The consolidated financial statements comprise the parent company, Haldor Topsøe Holding A/S, and enterprises in which the parent company directly or indirectly holds the majority of the voting rights or in which the parent company through share ownership or otherwise exercises control.

Consolidation is performed by summarizing the financial statements of the parent company and group enterprises, which have been prepared in accordance with the Group's accounting policies.

On consolidation, elimination is made of intercompany income and expenses, shareholdings, dividends and accounts as well as of realized and unrealized profits and losses on transactions between the consolidated enterprises.

The parent company's investments in consolidated group enterprises are set off against the parent company's share of the net asset value of group enterprises at the time of consolidation.

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

Business combinations

On acquisition of new enterprises, the purchase method is applied. Cost is measured at fair value of the consideration. Identifiable assets and liabilities and contingent liabilities acquired in connection with the business combination are initially measured at fair value at the date of acquisition. Any positive differences between cost and fair value of the acquired identifiable net assets are recognized as goodwill. Goodwill is adjusted until 12 months after the date of acquisition if it turns out that the identifiable assets, liabilities and contingent liabilities have another fair value than determined at the date of acquisition.

Newly acquired enterprises are recognized from the date of acquisition and comparatives are not restated.

In stepwise acquisitions, value adjustments of previously recognized investments are recognized in the income statement. The effect of the purchase of non-controlling interests without change of control is included directly in equity.

Functional and presentation currency

Items in the financial statements of each of the Group's enterprises are presented in the currency used in the primary economic environment in which the enterprise operates. The consolidated financial statements are presented in Danish kroner (DKK), which is the functional and presentation currency of the parent company.

Translation policies

Foreign currency transactions are translated into the functional currency using the exchange rates prevailing at the date of transaction on initial recognition. Foreign currency monetary items are translated into the functional currency at the exchange rates prevailing at the balance sheet date.

Financial statements of group enterprises with another functional currency than Danish kroner are translated into Danish kroner using the exchange rates prevailing at the balance sheet date for balance sheet items and average exchange rates for income statement items.

Realized and unrealized foreign exchange gains and losses are recognized in financial income and financial expenses, except for unrealized losses and gains arising from hedging of future cash flows, which are recognized through comprehensive income under reserve for value adjustment of hedging instruments. In addition, the following currency translation differences are recognized through comprehensive income under the foreign currency translation reserve, using the exchange rates prevailing at the balance sheet date:

- Translation of group enterprises' net assets at the beginning of the financial year.
- Translation of group enterprises' income statements from average exchange rates to the exchange rates prevailing at the balance sheet date.
- Translation of non-current intercompany balances that are considered an addition to the net investment in group enterprises.

Derivative financial instruments

Derivative financial instruments are initially recognized in the balance sheet at fair value and are subsequently remeasured at their fair values. Positive and negative fair values of derivative financial instruments are recognized in "Other receivables" and "Other payables".

Changes in the fair values of derivative financial instruments that qualify as hedges of expected future cash flow are recognized through comprehensive income. Amounts recognized through comprehensive income are transferred to the income statement in the period when the hedged item affects the income statement.

Changes in the fair values of derivative financial instruments that do not qualify as hedges are recognized in the income statement. The fair values of derivative financial instruments are determined based on prices obtained from stock exchanges or other reliable data sources.

Non-current assets (or disposal groups) held for sale and discontinuing operations

Non-current assets (or disposal groups) are classified as held for sale if their carrying amount will be recovered principally through a sale transaction rather than through continuing use and a sale is considered highly probable. They are measured at the lower of their carrying amount and fair value less costs to sell, except for assets such as deferred tax assets, assets arising from employee benefits and financial assets that are carried at fair value, which are specifically exempt from this requirement.

An impairment loss is recognized for any initial or subsequent write-down of the asset (or disposal group) to fair value less costs to sell. A gain is recognized for any subsequent increases in fair value less costs to sell of an asset (or disposal group), but not in excess of any cumulative impairment loss previously recognized. A gain or loss not previously recognized by the date of the sale of the non-current asset (or disposal group) is recognized at the date of sale or disposal.

Non-current assets (including those that are part of a disposal group) are not depreciated or amortized while they are classified as held for sale. Interest and other expenses attributable to the liabilities of a disposal group classified as held for sale continue to be recognized.

Non-current assets classified as held for sale and the assets of a disposal group classified as held for sale are presented separately from the other assets in the balance sheet. The liabilities of a disposal group classified as held for sale are presented separately from other liabilities in the balance sheet.

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.

Income statement

Revenue

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

Contract work in progress is recognized based on the stage of completion, which means that revenue equals the selling price of the work completed for the year (percentage-of-completion method). This method is applied when total revenue and expenses in respect of the contract and the stage 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.

Other operating income

Other operating income comprises income of a secondary nature to the Group's core activities, including government grants provided for research projects.

Purchased equipment for contract work

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

Raw materials and consumables used

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

Research and development costs

Research costs are expensed when incurred. Development costs which do not meet the requirements of capitalization are expensed when incurred.

Other external expenses

Other external expenses comprise expenses for premises, sales and distribution as well as office expenses, etc.

Government grants

Government grants received for research and development projects are recognized in "Other operating income" as the projects progress. Grants received for investments in property, plant and equipment are set off against the related property, plant and equipment, if directly related. Otherwise grants are recognized as deferred income and systematically recognized in "Other external expenses" over the useful life of the asset.

Leases

As explained in the first section "New standards, amendments and interpretations adopted by Haldor Topsøe Holding A/S", the Group has changed its accounting policy for leases in cases where the Group is the lessee. The new policy and the impact of the change are described in the first section.

Until December 31, 2018, leases of property, plant and equipment where a significant portion of the risks and rewards of ownership were retained by the lessor were classified as operating leases. Payments made under operating leases were

charged to the income statement on a straight-line basis over the lease term. The liability related to non-cancellable leases were disclosed in the notes. Leases where the Group had substantially all the risks and rewards of ownership were classified as finance leases. Finance leases were capitalized at the lease's commencement at the lower of the fair value of the leased property and the present value of the minimum lease payments. The property acquired under finance leases was depreciated over the shorter of the useful life of the asset or the lease term. The corresponding lease obligation was included in liabilities.

Tax

Tax consists of current tax for the year, deferred tax 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. Haldor Topsøe Holding A/S and Danish group enterprises are jointly taxed. Tax for the individual companies is allocated fully on the basis of expected taxable income.

Balance sheet

Intangible assets

Goodwill

Goodwill consists of the positive difference between cost and fair value of identifiable net assets in the acquired enterprise. Goodwill is measured at historical cost less accumulated impairment losses. Goodwill is tested for impairment once a year and when there is an indication of impairment. Goodwill is written down to the recoverable amount. The recoverable amount is determined as the higher of net selling price and 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

- Material negative development trends in the sector or the economy in the markets of the enterprise.

Impairment loss relating to goodwill is not reversed.

Development projects

Development projects that are clearly defined and identifiable and in respect of which technical feasibility, sufficient resources and a potential future market or development opportunity in the enterprise can be demonstrated, and where it is the intention to manufacture, market or use the project, are recognized as intangible assets. This applies if sufficient certainty exists that the value in use of future earnings can cover the cost of sales and distribution involved as well as the development costs.

Development projects that do not meet the Group's criteria for recognition in the balance sheet and research expenses are recognized as expenses in the income statement as incurred.

Other intangible assets

Rights and patents are measured at cost less accumulated amortization and impairment losses. Both rights and 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 and related uncertainty about longer amortization period.

Internally developed software for major projects is measured at cost less accumulated amortization and impairment losses. Software is amortized on a straight-line basis over 4 years.

Other intangible assets are tested for impairment when there is an indication of impairment. Material impairment indicators which may lead to an impairment test are similar to those stated in the section on goodwill.

Impairment losses relating to other intangible assets are reversed if the recoverable amount subsequently increases.

Gains or losses from divestment of intangible assets are recognized in the income statement under "Other income" and "Other external expenses" respectively.

Property, plant and equipment

Plant and machinery and other fixtures and equipment are measured at cost less accumulated depreciation and impairment losses. Land and buildings are measured using the revaluation model at cost with the addition of revaluations less accumulated depreciation and impairment losses. Property, plant and equipment under construction are measured at cost.

Cost comprises the cost of acquisition and expenses directly related to the acquisition up until the time when the asset is ready for use as well as costs of restoration to the extent that a provision is recognized at the same time.

In the case of assets of own construction, cost comprises direct and indirect expenses for labor, materials, components and sub-suppliers. Borrowing costs related to construction of major property, plant and equipment are recognized in cost over the period of construction.

Revaluations of land and buildings are performed on the basis of Management's estimate of fair value which is based on an independent valuation. Revaluations less depreciation and deferred taxes are transferred to the revaluation reserve under equity.

Property, plant and equipment are divided into sub-assets if the future useful life of the individual assets is different.

Depreciation based on cost and revaluations reduced by any 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 assessed annually and adjusted if necessary at the balance sheet date.

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 goodwill. Additionally, indicators comprise damage to the asset or changed use of the asset.

Impairment losses relating to property, plant and equipment are reversed if the recoverable amount subsequently increases.

Gains and losses from sale of property, plant and equipment are recognized in the income statement under "Other income" and "Other external expenses" respectively.

Investments in joint ventures and associated companies

Investments in joint ventures and associated companies are recognized and measured under the equity method.

The item "Result of investments in joint ventures and associated companies" in the income statement includes the proportionate share of the result after tax.

Other securities and investments

Investments 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 in the form of loans are measured in the balance sheet at amortized cost less expected credit loss.

Inventories

Inventories are measured at cost under the FIFO method. Cost is determined using a standard cost method that includes direct and indirect production costs. Direct production costs comprise raw materials, consumables and direct labor costs, whereas indirect production costs comprise indirect materials and labor costs, maintenance and depreciation of machinery, production buildings and equipment used in the production process as well as the cost of plant administration and management.

Please refer to "Key accounting estimates and judgements" for information about write-downs.

Receivables

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

Contract work in progress

Contract work in progress is measured at the selling price of the work completed calculated on the basis of the stage of completion. The stage of completion is determined on the basis of the share of contract costs incurred compared to the total expected contract costs. This method is found to be the best and most prudent method to reflect the progress. Where it is probable that total contract expenses will exceed the total revenue from a contract, the expected loss is recognized as an expense in the income statement.

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

Prepayments are set off against contract work in progress. Received payments on account exceeding the performed share of contracts are

determined separately for each contract and recognized in "Contract work in progress" under current liabilities.

Expenses relating to sales work and the winning of contracts are recognized in the income statement as incurred.

Current assets investments and securities

Current assets investments are measured at market value or estimated fair value. Unrealized value adjustments are included in the income statement in "Financial income" or "Financial expenses".

Reserves

The revaluation reserve includes a reserve for revaluation of land and buildings after depreciation and deferred tax.

The foreign currency translation reserve comprises all translation adjustments arising from the translation of financial statements of group enterprises using another functional currency than Danish kroner as well as translation adjustments concerning non-current intercompany balances that are considered an addition to the net investment in such enterprises.

Reserve for value adjustment of hedging instruments comprises the accumulated net change in the fair value of hedging transactions which meet the criteria of future cash flow hedges and where the hedged transaction has not yet been completed.

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

Dividend

Proposed dividend for the financial year is recognized in "Retained earnings".

Pension obligations and similar obligations

The costs of defined contribution plans are recognized in the income statement in the financial year to which they relate.

The costs and liabilities of defined benefit plans are determined in accordance with the projected unit credit method. The liability is calculated annually by an actuary. Actuarial gains and losses are recognized in full in "Other comprehensive income". 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.

Costs related to other non-current staff benefits are accrued over the employees' expected average working life.

Deferred tax

Deferred income tax is measured using the balance sheet liability method in respect of temporary differences arising between the tax bases of assets and liabilities. Deferred tax is not recognized in respect of goodwill, unless it is deductible for tax purposes. The tax base of tax loss carryforwards is deducted from deferred tax when it is probable that the losses may be utilized. Deferred tax is measured on the basis of the tax rules and tax rates expected to be in force on elimination of temporary differences. Any changes in deferred tax due to changes in tax rates are recognized in the income statement with the share attributable to the results for the year, unless they relate to items recognized either in other comprehensive income or directly in shareholders' equity.

Provisions

Provisions are recognized when – in consequence of a previous event – the Group has a legal or constructive obligation and it is probable that an outflow of economic benefits will be required to settle the obligation. Provisions are measured at Management's estimate of the discounted amount expected to be required to repay the obligation.

Financial liabilities

Loans such as bonds, mortgage loans and loans from credit institutions are recognized initially at the proceeds received net of transaction expenses incurred. Subsequently, the loans are measured at amortized cost, corresponding to capitalized value, using the effective interest rate; the difference between the proceeds and the nominal value is recognized in the income statement over the loan period. Other debts are measured at amortized cost, mainly corresponding to nominal value.

Deferred income

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

Other areas**Cash flow statement**

The Group's cash flow statement, which is prepared according to the indirect method, shows the Group's cash flows for the year broken down by operating, investing and financing activities as well as the Group's cash and cash equivalents at the beginning and end of the year.

The Group's cash comprises the Group's cash and cash equivalents.

Financial highlights

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

$$\text{Gross margin} = \frac{\text{Gross profit} \times 100}{\text{Revenue}}$$

$$\text{EBITDA margin} = \frac{\text{EBIT} + \text{depreciation, amortization etc.} \times 100}{\text{Revenue}}$$

$$\text{EBIT margin} = \frac{\text{EBIT} \times 100}{\text{Revenue}}$$

$$\text{Return on invested capital} = \frac{\text{EBIT} \times 100}{\text{Average invested capital}}$$

$$\text{Equity ratio} = \frac{\text{Equity at year end} \times 100}{\text{Total assets}}$$

$$\text{Return on equity} = \frac{\text{Net profit} \times 100}{\text{Average equity}}$$

Key accounting estimates and judgements

In accordance with general accounting policies, determination of the carrying amount of certain assets and liabilities requires assessments and estimates of future events. Assessments and estimates are performed based on historical experience and other factors which Management considers reasonable under the circumstances. These assumptions may be incomplete or inaccurate and unexpected issues may arise, which implies that the assessments and estimates made are subject to some uncertainty. Special risks for the Group appear from the Risk management section.

Goodwill

Goodwill is tested for impairment once a year and if there is an indication of impairment. The impairment test requires that Management estimates various significant factors, including expected future cash flows, discount rates and growth rates for the period. The sensitivity of estimates made can, combined or individually, be significant. Please refer to note 9 for further information.

Land and buildings

The Group's land and buildings are measured in accordance with the revaluation model. Fair value is determined on the basis of a market-based estimate performed by an independent, qualified valuation expert. The frequency of an independent valuation depends on the extent to which Management assesses that the market development shows signs of significant difference between the carrying amount and fair value at least at the end of each year. Please refer to note 10 for further information.

Other investments

Other investments are measured at fair value at the balance sheet date. To the extent 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. Please refer to note 11 for further information.

Inventory

The standard cost calculations are reviewed on a regular basis to ensure that all relevant assumptions such as prices, output and capacity utilization are incorporated correctly. Changes in the calculation method used to calculate indirect production costs may impact the gross margin and the overall measurement of inventories.

Inventories are written down to net realizable value if this is lower than cost. The need to write down inventories is primarily assessed based on negotiability and production quality. The net realizable value is calculated as the total of future revenue expected to be generated in the process of normal operations and determined by allowing for marketability, obsolescence and development in expected selling price less selling expenses. Please refer to note 12 for further information.

Revenue from engineering projects

In Management's opinion, the Group's sale of engineering projects is to a high degree individually adjusted, and contract work in progress is consequently measured at the selling price of the work completed based on the stage of completion. The stage of completion is determined on the basis of the share of contract costs incurred compared to the total expected contract costs. These costs are partly based on an estimate which to a high degree is based on historical experience. Expected income and costs of engineering projects may be adjusted along with the finalization of the projects and clarifications of uncertainties. Parallel changes to

the engineering contract may occur and certain assumptions in the contract may not be met.

Warranty provision for engineering projects

The evaluation of the warranty provision for engineering projects is based on historical levels. Furthermore, the warranty provision also reflects the risks associated with bringing new technologies to the market as well as executing projects in countries with higher geopolitical risks. Please refer to note 22 for further information.

Contingent liabilities and lawsuits

As part of the Group's business, Haldor Topsøe Holding A/S may become party to a lawsuit and/or dispute. In such cases, the potential liabilities and their likelihood are evaluated. The evaluation is based on available information and legal assessment from advisors. Assessing the final outcome of lawsuits/disputes is difficult and the outcome may thus deviate from the evaluation made by Haldor Topsøe Holding A/S.

Research and development costs

Research costs are expensed when incurred. Development costs which do not meet the requirements of capitalization are expensed when incurred. Management assesses whether the capitalization requirements are met based on expectations of the technical possibility of completing the development project, expectations of the existence of a market for the product, etc.

Consolidated income statement

	Note	2019 DKK mio.	2018 DKK mio.
Continuing operations			
Revenue	1	5.931	5.619
Change in inventories of finished goods and intermediate products		268	63
Other operating income	2	119	108
Purchased equipment for contract work		-539	-606
Raw materials and consumables used		-2.031	-1.599
Research and development costs		-138	-92
Other external expenses		-892	-990
Gross profit		2.718	2.503
Staff expenses	3	-1.717	-1.695
EBITDA		1.001	808
Depreciation, amortization and impairment losses	4	-369	-258
EBIT		632	550
Result of investments in joint ventures and associated companies	5	860	-10
Financial income	6	109	72
Financial expenses	7	-110	-91
Profit before tax		1.491	521
Tax	8	-220	-182
Profit from continuing operations		1.271	339
Loss from discontinuing operations	39	0	-16
Net profit		1.271	323
Profit attributable to:			
Owners of the parent		1.227	335
Non-controlling interests		44	-12
Net profit		1.271	323

Consolidated statement of comprehensive income

	Note	2019 DKK mio.	2018 DKK mio.
Net profit		1.271	323
Foreign currency translation adjustment		54	53
Derivative financial instruments used for hedging of future cash flows	18	2	-3
Realized write up and down on land and buildings trf to retained earnings	18	0	-6
Tax on this	18	0	1
Fair value adjustment of financial assets	18	-65	-40
Tax on this	18	0	1
Other		3	-3
Revaluation of land and buildings	18	23	30
Tax on this	18	15	-7
Items that may be reclassified to the income statement		<u>32</u>	<u>26</u>
Actuarial adjustments on pension obligations		5	-2
Tax on this		-1	0
Items that will not be reclassified to the income statement		<u>4</u>	<u>-2</u>
Other comprehensive income		<u>36</u>	<u>24</u>
Total comprehensive income		<u>1.307</u>	<u>347</u>
Attributable to:			
Owners of the parent company		1.263	358
Non-controlling interests		44	-11
Total comprehensive income		<u>1.307</u>	<u>347</u>
Continuing operations		1.307	363
Discontinuing operations		0	-16
Total comprehensive income attributed to the owners of the parent company		<u>1.307</u>	<u>347</u>

Consolidated balance sheet at December 31
Assets

	Note	2019 DKK mio.	2018 DKK mio.
Goodwill		3.285	3.387
Rights		26	16
Patents		49	42
Software		33	15
Intangible assets under construction		19	4
Intangible assets	9	3.412	3.464
Land and buildings		1.285	860
Plant and machinery		710	740
Other fixtures and equipment		213	237
Property, plant and equipment under construction		336	345
Property, plant and equipment	10	2.544	2.182
Investment in associated companies		1.313	0
Finance lease receivables		7	8
Other securities and investments		255	344
Other receivables		27	22
Investments	11	1.602	374
Non-current assets		7.558	6.020
Inventories	12	1.492	1.138
Trade receivables	13	1.232	717
Contract work in progress	14	284	187
Finance lease receivables	11	1	1
Tax receivables		34	0
Other receivables	15	181	124
Prepayments		23	19
Receivables		1.755	1.048
Securities	16	1.358	0
Cash		1.106	972
Current assets		5.711	3.158
Assets		13.269	9.178

Consolidated balance sheet at December 31

Equity and liabilities

	Note	2019 DKK mio.	2018 DKK mio.
Share capital	17	2.200	2.200
Share premium		0	335
Revaluation reserve	18	39	67
Foreign currency translation reserve	18	119	62
Reserve for value adjustment of hedging instruments	18	0	-6
Reserve for financial assets measured at fair value	18	-235	-170
Retained earnings		5.563	2.444
Equity attributable to the owners of the parent		7.686	4.932
Non-controlling interests		582	19
Total equity		8.268	4.951
Pension obligations and similar obligations	20	38	43
Deferred tax	21	455	381
Provisions	22	211	287
Bonds		0	499
Mortgage debt		0	57
Credit institutions		438	699
Lease obligations		529	129
Other payables	23	36	2
Non-current liabilities		1.707	2.097
Bonds		499	0
Mortgage debt		15	3
Credit institutions		94	161
Leasing obligations		74	0
Prepayments from customers	24	495	418
Contract work in progress	14	961	492
Trade payables		514	408
Corporation tax		0	24
Other payables	23	597	610
Deferred income	21	45	14
Current liabilities		3.294	2.130
Liabilities		5.001	4.227
Equity and liabilities		13.269	9.178

Consolidated statement of changes in equity

	Share capital	Share premium	Reserves	Retained earnings	Equity attributable to the owners of the parent	Non- controlling interest	Total equity
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Equity at January 1, 2019	2.200	335	-47	2.444	4.932	19	4.951
Adjustment of non- controlling interest	0	0	0	0	0	0	0
Adjusted equity at January 1, 2019	2.200	335	-47	2.444	4.932	19	4.951
Net profit	0	0	0	1.227	1.227	44	1.271
Transfer during the year	0	-335	0	335	0	0	0
Other comprehensive income	0	0	-30	66	36	0	36
Comprehensive income	0	-335	-30	1.628	1.263	44	1.307
Increase in non- controlling interest	0	0	0	1.278	1.278	2.076	3.354
Dilution gain	0	0	0	501	501	-248	253
Loss of control	0	0	0	968	968	-1.258	-290
Other adjustments	0	0	0	-56	-56	-51	-107
Dividend	0	0	0	-1.200	-1.200	0	-1.200
Transactions with owners	0	0	0	1.491	1.491	519	2.010
Equity at December 31, 2019	2.200	0	-77	5.563	7.686	582	8.268

Consolidated statement of changes in equity

	Share capital	Share premium	Reserves	Retained earnings	Equity attributable to the owners of the parent	Non-controlling interest	Total equity
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Equity at January 1, 2018	2.200	335	-71	2.318	4.782	13	4.795
Adjustment of non-controlling interest	0	0	0	0	0	0	0
Adjusted equity at January 1, 2018	2.200	335	-71	2.318	4.782	13	4.795
Net profit	0	0	0	335	335	-12	323
Other comprehensive income	0	0	24	-1	23	1	24
Comprehensive income	0	0	24	334	358	-11	347
Capital increase in subsidiaries	0	0	0	0	0	9	9
Change in minority	0	0	0	-8	-8	8	0
Dividend	0	0	0	-200	-200	0	-200
Transactions with owners	0	0	0	-208	-208	17	-191
Equity at December 31, 2018	2.200	335	-47	2.444	4.932	19	4.951

Consolidated cash flow statement

	Note	2019 DKK mio.	2018 DKK mio.
Net profit		1.271	323
Adjustments for non-cash items	34	-344	485
Change in working capital	35	-329	366
Cash flows from operating activities before financial items and tax		598	1.174
Interest received, etc.		46	56
Interest paid, etc.		-89	-91
Cash flows from ordinary activities		555	1.139
Corporation tax paid		-31	-309
Cash flows from operating activities		524	830
- Of which continuing operations		524	846
Purchase of intangible assets		-77	-20
Sale of intangible assets		0	45
Purchase of property, plant and equipment		-216	-268
Sale of property, plant and equipment		151	30
Purchase of non-current financial assets		-351	-139
Purchase of current financial assets		-1.344	0
Sale of fixed asset investments		16	60
Dividend received		43	16
Business combination, net cash		10	34
Cash flows from investing activities		-1.768	-242
Raising of non-current loans		0	299
Repayment of non-current loans		-373	-626
Principal elements of lease payments		-78	0
Non-controlling interest's payment of share capital		3.021	8
Dividend paid		-1.200	-200
Cash flows from financing activities		1.370	-519
Change in cash and cash equivalents		126	69
Cash and cash equivalents at January 1		972	901
Foreign currency translation adjustment		8	2
Cash and cash equivalents at December 31		1.106	972
Cash		1.106	972
Cash and cash equivalents at December 31		1.106	972

Notes to the consolidated statements

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1 Revenue

The Group'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.

Revenue from catalyst sales is recognized when control has been transferred, which typically takes place based on Incoterms. The majority of catalyst sales are paid after delivery with typically 30-60 days of credit, but in certain situations the Group receives prepayments.

Revenue from technology sales is recognized over time according to the percentage-of-completion method based on actual versus forecasted cost. Technology sales are paid in installments during the contract's life time. The Group strives to be cash flow positive on all technology contracts at any time during project execution.

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 must be treated as a whole and not as distinct elements.

	2019 DKK mio.	2018 DKK mio.
Catalyst	4.361	3.853
Technology	1.570	1.766
Total disaggregation of revenue from contract with customers	5.931	5.619
 Future revenue regarding unsatisfied or partially unsatisfied performance obligations except performance obligations due within a year. The majority will be realized in 2020.	 4.943	 3.796
 Revenue recognized that was included in contract liability balance at the beginning of the year	 618	 813
 Revenue recognized from performance obligations satisfied in previous periods	 23	 7
 Trade receivables	 1.232	 717
Contract work in progress	284	187
Contract assets at December 31	1.516	904
 Prepayments from customers	 495	 418
Contract work in progress	961	492
Contract liabilities at December 31	1.456	910

Trade receivables and contract work in progress recognized under liabilities both increased during the year, mainly due to substantial invoicing activity regarding work in progress contracts at year-end.

Notes to the Annual Report of the Haldor Topsøe Holding Group

2 Other operating income

"Other operating income" in the income statement primarily consists of gain from selling surplus land amounting to DKK 41 million (2018: DKK 0) and Government grants for research and development amounting to DKK 15 million (2018: DKK 11 million).

	2019 DKK mio.	2018 DKK mio.
3 Staff expenses		
Wages and salaries	1.436	1.427
Pension – defined contribution plan	139	137
Pension – defined benefit plan	6	6
Other social security contribution	151	141
Total	1.732	1.711
Capitalisation of work performed on property, plant and equipment	-15	-16
Total staff expenses	1.717	1.695
Executive Management salary	1	1
Executive Management pension	0	0
Fee to Board of directors	2	3
Total remuneration to Executive Management and Board members	3	4
Average number of employees	2.263	2.283
Of which in Denmark	1.558	1.619

In 2019, the group company Haldor Topsøe A/S has launched an Employee Share Program with enrollment date in February 2020. Employees are offered the opportunity to acquire shares in Haldor Topsøe A/S at market value. Furthermore, for every four shares purchased at market value, a fifth share can be purchased for DKK 1. The Employee Share Program has no accounting impact in 2019.

	2019 DKK mio.	2018 DKK mio.
4 Depreciation, amortization and impairment losses		
Goodwill	26	0
Rights	4	3
Patents	7	7
Software	9	10
Land and buildings	106	19
Plant and machinery	140	135
Other fixtures and equipment	77	84
Total depreciation, amortization and impairment losses	369	258

Notes to the Annual Report of the Haldor Topsøe Holding Group

	2019 DKK mio.	2018 DKK mio.
5 Result of investments in joint ventures and associated companies		
Share of result in associated companies	-47	0
Write-down of investment due to liquidation	-29	0
Gain in connection to dilution	253	0
Fair value adjustment of investment in associated companies	667	0
Share of result in joint venture	0	-10
Recognition of badwill	0	-2
Fair value adjustment of investment in joint venture	13	2
Dissolvement of previous year's purchase price allocation	3	0
Total result of investments in joint venture and associated companies	860	-10
	2019 DKK mio.	2018 DKK mio.
6 Financial income		
Dividend from other investments	43	16
Interest income	12	9
Gains on derivative financial instruments (currency)	0	6
Foreign currency translation adjustment	35	40
Other financial income	19	1
Total financial income	109	72
	2019 DKK mio.	2018 DKK mio.
7 Financial expenses		
Interest expense	73	49
Foreign currency translation adjustment	32	42
Value adjustment of other investments	2	0
Other financial expenses	3	0
Total financial expenses	110	91
	2019 DKK mio.	2018 DKK mio.
8 Tax		
Current tax for the year	116	272
Change in deferred tax for the year	96	-105
Adjustments to prior years	8	12
Total tax	220	179
Tax on continuing operations	220	182
Tax on discontinuing operations	0	-3
Total tax	220	179

Notes to the Annual Report of the Haldor Topsøe Holding Group

8 Tax (continued)

	2019	2018
	%	%
Danish corporate tax rate	22,0	22,0
Non-deductible expenses	0,6	2,3
Income not subject to tax	-13,5	-0,3
Differences in foreign tax rates	5,6	4,6
Adjustments relating to prior years	0,1	4,5
Other adjustments	0,0	2,1
Effective tax rate	14,8	35,2

9 Intangible assets

	Goodwill	Rights	Patents	Software	Intangible assets under construction
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2019	3.387	25	87	173	4
Foreign currency translation adjustment	5	0	0	0	0
Additions during the year	26	14	18	27	18
Disposals during the year	-107	0	-6	-4	0
Transfers during the year	0	0	0	3	-3
Cost at December 31, 2019	3.311	39	99	199	19
Amortization and impairment losses at January 1, 2019	0	9	45	158	0
Amortization for the year	0	4	7	9	0
Impairment losses for the year	26	0	0	0	0
Reversal of amortization and impairment losses on assets sold and scrapped	0	0	-2	-1	0
Amortization and impairment losses at December 31, 2019	26	13	50	166	0
Carrying amount at December 31, 2019	3.285	26	49	33	19
Research and development costs expensed in 2019					665

Notes to the Annual Report of the Haldor Topsøe Holding Group

9 Intangible assets (continued)

	Goodwill DKK mio.	Rights DKK mio.	Patents DKK mio.	Software DKK mio.	Intangible assets under construction DKK mio.
Cost at January 1, 2018	3.383	25	115	169	0
Foreign currency translation adjustment	4	0	0	0	0
Additions during the year	0	0	16	1	3
Disposals during the year	0	0	-44	-1	0
Transfers during the year	0	0	0	4	1
Cost at December 31, 2018	3.387	25	87	173	4
Amortization and impairment losses at January 1, 2018	0	6	70	149	0
Amortization for the year	0	3	7	10	0
Reversal of amortization and impairment losses on assets sold and scrapped	0	0	-32	-1	0
Amortization and impairment losses at December 31, 2018	0	9	45	158	0
Carrying amount at December 31, 2018	3.387	16	42	15	4
Research and development costs expensed in 2018					638

The goodwill originates from the acquisition of the shares in Haldor Topsøe A/S in 2007.

An impairment test has been carried out at December 31, 2019 for the goodwill related to Haldor Topsøe A/S. No indication of impairment was identified.

The calculation is based on the known price from the disposal of 30% of the shares in 2019, which indicate the fair value of Haldor Topsøe A/S at 31 December 2019.

Notes to the Annual Report of the Haldor Topsøe Holding Group

10 Property, plant and equipment

	Land and buildings DKK mio.	Plant and machinery DKK mio.	Other fixtures and equipment DKK mio.	Property, plant and equipment under construction DKK mio.
Cost at January 1, 2019	1.082	1.661	805	345
Lease assets at January 1, 2019 (see note 1 and 28)	522	1	7	0
Restated opening cost	1.604	1.662	812	345
Foreign currency translation adjustment	8	5	1	4
Additions for the year	55	27	30	111
Disposals for the year	-36	-14	-5	0
Disposals during the year on sale of business	-5	0	-24	0
Transfers for the year	8	84	32	-124
Cost at December 31, 2019	1.634	1.764	846	336
Revaluation at January 1, 2019	72	0	0	0
Foreign currency translation adjustment	1	0	0	0
Additions during the year	30	0	0	0
Disposal during the year	-73	0	0	0
Revaluation at December 31, 2019	30	0	0	0
Depreciation and impairment losses at January 1, 2019	294	921	568	0
Foreign currency translation adjustment	-2	1	0	0
Depreciation for the year	88	140	77	0
Impairment losses for the year	18	0	0	0
Reversal of depreciation and impairment loss on assets sold and scrapped on sale of business	-16	0	-7	0
Reversal of depreciation and impairment loss on assets sold and scrapped	-3	-8	-5	0
Depreciation and impairment losses at December 31, 2019	379	1.054	633	0
Carrying amount at December 31, 2019	1.285	710	213	336
Carrying amount at December 31, 2019, under the depreciated cost model	1.255	710	213	336
Borrowing costs capitalised in 2019				0
Carrying amount of right-of-use assets	575	1	7	0

Where Management assesses that a revaluation is material, the properties in question have been revalued by an independent assessor in connection with closing of the accounts, latest in 2019.

Notes to the Annual Report of the Haldor Topsøe Holding Group

10 Property, plant and equipment (continued)

	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2018	1.062	1.581	744	250
Foreign currency translation adjustment	8	10	-1	6
Additions during the year	14	29	41	184
Disposals during the year	-2	-6	-2	-20
Transfers during the year	0	47	23	-75
Cost at December 31, 2018	1.082	1.661	805	345
Revaluation at January 1, 2018	40	0	0	0
Foreign currency translation adjustment	2	0	0	0
Additions during the year	30	0	0	0
Revaluation at December 31, 2018	72	0	0	0
Depreciation and impairment losses at January 1, 2018	275	790	486	0
Foreign currency translation adjustment	1	2	-1	0
Impairment losses for the year				0
Depreciation for the year	19	135	84	0
Exchange rate adjustments on depreciation	0	0	0	0
Reversal of depreciation and impairment loss on assets sold and scrapped	-1	-6	-1	0
Depreciation and impairment losses at December 31, 2018	294	921	568	0
Carrying amount at December 31, 2018	860	740	237	345
Carrying amount at December 31, 2018. under the depreciated cost model	788	740	237	345
Borrowing costs capitalised in 2018				2
Carrying amount of finance leases	122	0	0	0

Notes to the Annual Report of the Haldor Topsøe Holding Group

10 Property, plant and equipment (continued)

	Level 1 DKK mio.	Level 2 DKK mio.	Level 3 DKK mio.
Office buildings in Denmark	0	0	318
Production plants in Denmark and US	0	0	392
Excess land in US	0	0	0
Distribution of assets stated at fair value at December 31, 2019	0	0	710

	Level 1 DKK mio.	Level 2 DKK mio.	Level 3 DKK mio.
Office buildings in Denmark	0	0	310
Production plants in Denmark and US	0	0	329
Excess land in US	0	99	0
Distribution of assets stated at fair value at December 31, 2018	0	99	639

Level 1: Quoted prices (unadjusted) in an active market for identical assets.

Level 2: Input other than quoted prices included within level 1 that is observable for the assets, either directly (i.e. as prices) or indirectly (i.e. derived from prices).

Level 3: Input for assets that are not based on observable market data (i.e. unobservable inputs).

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

The fair value of office buildings in Denmark has been derived using a market approach primarily based on rental per m² for comparable buildings and an interest rate. The rental per m² is set at DKK 700-1,400 for office buildings and DKK 300-700 for storage and laboratories. The fair value of Danish production plants and adjacent buildings has been derived using a market approach primarily based on rental per m² for comparable buildings and an appropriate interest rate. The average rental per m² is set at DKK 510-560. The fair value of US production plants has been derived using a reconstruction approach, which reflects the cost of constructing similar buildings at an equivalent age and use. The majority of the excess land in US has been disposed during the year.

The current use of land and buildings is considered to represent the highest and best use of the assets.

The valuation methods have not changed from last year.

	2019 DKK mio.	2018 DKK mio.
Fair value of level 3 assets at January 1	639	635
Additions	61	14
Disposals	0	-1
Revaluation	30	0
Included in the income statement as depreciation and impairment loss	-33	-16
Foreign currency translation adjustment	13	7
Fair value of level 3 assets at December 31	710	639

Notes to the Annual Report of the Haldor Topsøe Holding Group

11 Investments

	Investment in associated companies DKK mio.	Investment in joint venture DKK mio.	Finance lease receivables DKK mio.	Other securities and investments DKK mio.	Other receivables DKK mio.
Cost at January 1, 2019	0	0	9	516	28
Additions during the year	710	0	0	10	8
Disposals during the year	0	0	-1	-4	-1
Transfers during the year	17	0	0	-17	-1
Cost at December 31, 2019	727	0	8	505	34
Value adjustment at January 1, 2019	0	0	0	-172	-6
Net result for the year	-47	0	0	0	0
Disposals during the year	0	0	0	-15	0
Fair value adjustments for the year	667	-13	0	-63	-1
Foreign currency translation adjustment	-34	0	0	0	0
Transfers to group company during the year	0	13	0	0	0
Value adjustment at December 31, 2019	586	0	0	-250	-7
Carrying amount at December 31, 2019	1.313	0	8	255	27
Of this, less than 1 year			1		
		Investment in joint venture DKK mio.	Finance lease receivables DKK mio.	Other securities and investments DKK mio.	Other receivables DKK mio.
Cost at January 1, 2018		39	0	444	67
Foreign currency translation adjustment		0	0	-2	2
Additions during the year		0	9	76	11
Disposals during the year		0	0	-2	-52
Transfers during the year		-39	0	0	0
Cost at December 31, 2018		0	9	516	28
Value adjustment at January 1, 2018		-39	0	-128	-15
Net result for the year		-10	0	0	0
Disposals during the year		0	0	-6	0
Value adjustments for the year		27	0	-38	-5
Investments with negative equity transferred to receivables		-14	0	0	14
Transfers to group company during the year		36	0		0
Value adjustment at December 31, 2018		0	0	-172	-6
Carrying amount at December 31, 2018		0	9	344	22
Of this, less than 1 year			1		

Notes to the Annual Report of the Haldor Topsøe Holding Group

11 Investments (continued)

*Investments in joint ventures:*Saturn FS Gas Chemicals LLC, Wilmington, Delaware, US

The joint venture was fully acquired January 1, 2019 and is now 100% owned by the Group and fully consolidated in the Group from January 2019.

*Investments in associated companies:*Faradion Ltd., United Kingdom

The Group has invested in Faradion Ltd., corresponding to 22,52% of the share capital.

IGM Biosciences, Inc., Mountain View, US

The Group has reduced its ownership in the company during the year from 90.94% to 41.12% of the share capital at 31 December 2019. The company was fully consolidated in the Group until September 2019, where the company went public on Nasdaq, New York with an IPO that raised USD 183 million.

In connection with the IPO in September 2019 ownership percentage was consequently diluted to 41,12%. The dilution resulted in a gain of DKK 253 million, which is recognized in the income statements (cf note 5). The retained investment in IGM Biosciences Inc, was measured at fair value of the date of the IPO. The gain from the fair value adjustment of DKK 667 million, is recognized in the income statements (cf note 5).

*Other securities and investments:*Karnphul Fertilizer Limited, Bangladesh (KAFCO)

The Group holds shares in KAFCO of nominally BTD 692 million, which equals 15.01% of the shares in KAFCO. The shares are measured at fair value based on a discounted cash flow calculation on the basis of the present budget and forecasts of KAFCO. The calculation is moreover based on material assumptions in terms of growth rate and discount rate. The discount rate is determined based on Management's estimate of general capital market conditions and the specific risk profile and has been set at 11.4% (2018: 11.4%) after tax. The growth rate in the terminal period has by Management been estimated at 0% (2018: 0%). Based on these criteria, the KAFCO shares have been written down by DKK 31 million (2018: DKK 37 million).

A change in the discount rate of -1% or +1%, respectively, would impact the value by 7% or -5%, respectively. A change in the terminal period of -10% or +10%, respectively, would impact the value by -8% or +8%, respectively.

GTLA Holding LP, US

The Group has invested in GTLA Holding LP, corresponding to 2.86% of the share capital. The purpose of the company is to develop a project regarding construction of a gas-to-liquid plant

Ramaqundam Fertilizers and Chemicals Limited, India

The Group has invested in Ramaqundam Fertilizers and Chemicals, corresponding to 3.90% of the share capital. The company is constructing a fertilizer plant in India. The Group is obligated to invest an additional amount of up to INR 128 million (equal to DKK 12 million).

	2019	2018
	DKK mio.	DKK mio.
12 Inventories		
Raw materials and consumables	358	273
Work in progress	209	135
Finished goods	925	730
Inventories at December 31	<u>1.492</u>	<u>1.138</u>
Cost of sales for the year	<u>2.291</u>	<u>2.038</u>
Impairment losses for the year	<u>50</u>	<u>46</u>
Reversed Impairment losses for the year	<u>-45</u>	<u>-34</u>

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

Notes to the Annual Report of the Haldor Topsøe Holding Group

13 Trade receivables	2019	2018
	DKK mio.	DKK mio.
Trade receivables, gross	1.264	739
Provision for bad debts at January 1	-22	-21
Provision for bad debts for the year	-11	-22
Reversal of bad debts, prior years	1	21
Provision for bad debts at December 31	-32	-22
Trade receivables	1.232	717
Of this, due after more than 1 year	3	4
Realized losses for the year	14	19

Receivables, gross due at December 31 have the following aging:	2019	2018
	%	%
Not due	68	65
1-90 days	24	20
91-180 days	4	4
181+ days	4	11

	Gross trade receivables	Expected loss rate	Loss allowance
	DKK million	%	DKK million
Not due	847	0%	0
1-90 days	309	0%	0
91-180 days	48	0%	0
180-360 days	6	0%	0
360+ days	54	59%	32
Total at December 31, 2019	1.264		32

	Gross trade receivables	Expected loss rate	Loss allowance
	DKK million	%	DKK million
Not due	476	0%	0
1-90 days	150	0%	0
91-180 days	30	0%	0
180-360 days	47	32%	15
360+ days	36	19%	7
Total at December 31, 2018	739		22

14 Contract work in progress	2019	2018
	DKK mio.	DKK mio.
Selling price of work performed at the balance sheet date	5.962	5.911
Payments received on account	-6.639	-6.216
Contract work in progress at December 31	-677	-305
Contract work in progress recognized in assets	284	187
Contract work in progress recognized in liabilities	-961	-492
Contract work in progress at December 31	-677	-305

Notes to the Annual Report of the Haldor Topsøe Holding Group

18 Reserves

	Revaluation reserve DKK mio.	Foreign currency translation reserve DKK mio.	Reserve for value adjustment of hedging instruments DKK mio.	Reserve for financial assets measured at fair value DKK mio.	Total DKK mio.
Reserves at January 1, 2019	67	62	-6	-170	-47
Foreign currency translation adjustment	0	54	0	0	54
Derivative financial instruments used for hedging of future cash flows	0	0	2	0	2
Transfer during the year	0	0	4	0	4
Fair value adjustment of financial assets	0	0	0	-65	-65
Other	0	3	0	0	3
Realized write up and down on land and buildings trf to retained earnings	-66	0	0	0	-66
Tax	15	0	0	0	15
Revaluation of land	23	0	0	0	23
Reserves at December 31, 2019	39	119	0	-235	-77
	Revaluation reserve DKK mio.	Foreign currency translation reserve DKK mio.	Reserve for value adjustment of hedging instruments DKK mio.	Reserve for financial assets measured at fair value DKK mio.	Total DKK mio.
Reserves at January 1, 2018	44	14	2	-131	-71
Foreign currency translation adjustment	0	52	0	0	52
Derivative financial instruments used for hedging of future cash flows	0	0	-3	0	-3
Realized derivative financial instruments transferred to financial income/expenses	0	0	-6	0	-6
Fair value adjustment of financial assets	0	0	0	-40	-40
Other	0	-4	0	0	-4
Revaluation of land	30	0	0	0	30
Tax	-7	0	1	1	-5
Reserves at December 31, 2018	67	62	-6	-170	-47

Notes to the Annual Report of the Haldor Topsøe Holding Group

19 Dividend

Proposed dividend constitutes DKK 0 million (2018: DKK 400 million) corresponding to DKK 0 (2018: DKK 181.82) per share.

In 2019 proposed dividend from 2018 of DKK 400 million (2017: DKK 200 million) and interim dividend of DKK 800 million (2018: DKK 0 million), in total DKK 1,200 million, have been paid during the year, corresponding to 545.45 per share.

Dividend policy

There is no formal dividend policy. On a yearly basis, the owners will consider what is the right level of dividend payment, based on profitability, equity ratio and future capital requirements.

20 Pension obligations and similar obligations

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 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.

	2019 DKK mio.	2018 DKK mio.
Pension costs	4	4
Interest expenses	11	11
Interest income on plan assets	-9	-9
Total pension recognized in staff expenses	6	6
	2019 %	2018 %
Applied actuarial assumptions:		
Discount rate	1.00-7.12	2.00-7.63
Future pay increases	2.50-10.00	2.50-9.81

A change in the discount rate of -0.5% or + 0.5%, respectively, would impact the defined benefit obligation by +5% or -4%, respectively. A change in the future pay increase of -0.5% or +0.5, respectively, would impact the defined benefit obligation by -1% or +1%, respectively.

The weighted average duration of the defined benefit obligation is 8.3 - 10.6 years (2018: 7.7-10.9 years).

Notes to the Annual Report of the Haldor Topsøe Holding Group

20 Pension obligations and similar obligations (continued)

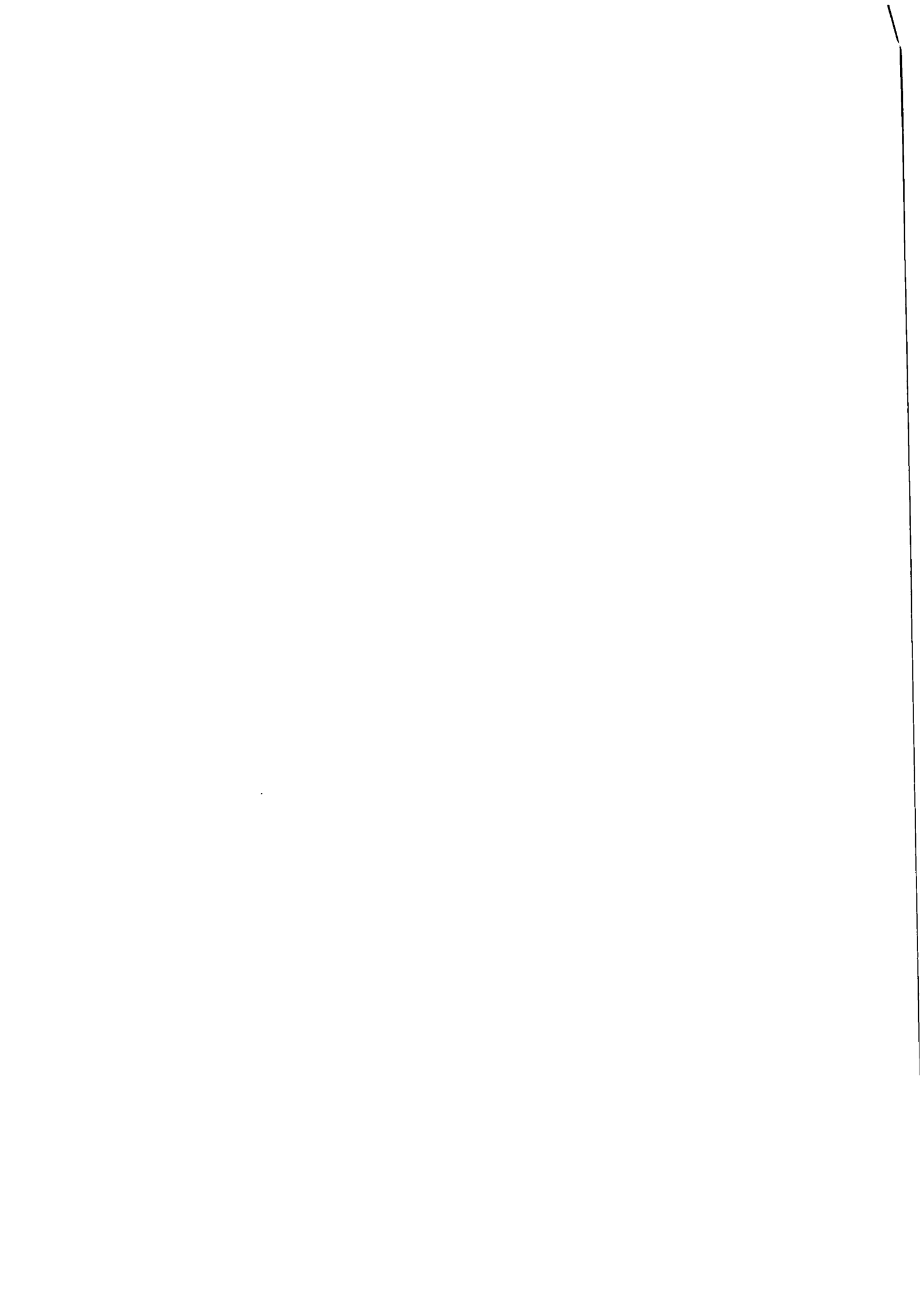
	2019 %	2018 %
US		
International	38	32
Global	29	28
Shares	3	3
	<u>70</u>	<u>63</u>
US investment grade		
High yield	8	16
Inflation protected	10	11
Other	0	1
Bonds	0	1
Real estate	18	29
Commodities	7	3
Other	4	4
	<u>1</u>	<u>1</u>
Distribution of plan assets at December 31	<u>100</u>	<u>100</u>

	2019 DKK mio.	2018 DKK mio.
Present value of pension obligations	331	294
Fair value of pension plan assets	-293	-251
Net obligation at December 31	<u>38</u>	<u>43</u>

Present value of pension obligations at January 1	294	288
Foreign currency translation adjustment	6	55
Pension costs	4	4
Interest expenses	11	11
Actuarial gains and losses, demographic assumptions	-6	6
Actuarial gains and losses, financial assumptions	43	-33
Pension paid	-21	-37
Present value of pension obligations at December 31	<u>331</u>	<u>294</u>

Fair value of pension plan assets at January 1	251	258
Foreign currency translation adjustment	7	19
Interest on pension assets	9	9
Return on plan assets excl. interest on pension assets	42	-22
Paid by the company	5	24
Pension paid	-21	-37
Fair value of pension plan assets at December 31	<u>293</u>	<u>251</u>

Expected defined benefit pension payments by the Group in 2020 amount to DKK 40 million.



Notes to the Annual Report of the Haldor Topsøe Holding Group

	2019	2018
	DKK mio.	DKK mio.
21 Deferred tax		
Deferred tax at January 1	381	568
Foreign currency translation adjustment	2	3
Tax on equity items	-18	7
Tax for the year	118	-197
Tax previous years	-28	0
Deferred tax at December 31	<u>455</u>	<u>381</u>
Intangible assets and property, plant and equipment	151	159
Inventories	17	12
Work in progress	346	294
Provisions	-31	-34
Other	-27	-50
Deferred tax at December 31	<u>455</u>	<u>381</u>
Of this, due after more than 1 year	<u>317</u>	<u>258</u>

Notes to the Annual Report of the Haldor Topsøe Holding Group

22 Provisions

	Warranty provision for engineering projects	Warranty provision for catalysts	Other	Total
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Provisions at January 1, 2019	181	48	58	287
Provisions for the year	0	12	8	20
Reversals during the year	-16	-2	0	-18
Transferred to Other payables, current	0	0	-65	-65
Realized provision during the year	-10	-3	0	-13
Provisions at December 31, 2019	155	55	1	211

The majority of the provisions are potentially to be recognized after more than 1 year.

	Warranty provision for engineering projects	Warranty provision for catalysts	Other	Total
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Provisions at January 1, 2018	165	40	50	255
Provisions for the year	20	13	12	45
Reversals during the year	0	-2	-4	-6
Realized provision during the year	-4	-3	0	-7
Provisions at December 31, 2018	181	48	58	287

The majority of the provisions are potentially to be recognized after more than 1 year.

Warranty provision can be impacted by unexpected quality issues on our catalyst or technology solutions.

	2019	2018
	DKK mio.	DKK mio.
23 Other payables		
Employee holiday allowance	137	163
Staff-related items	155	173
Fair value of derivative financial instruments	1	5
Tax-related items	5	4
Employee holiday fund, non-current	34	0
Other payables	301	267
Other payables at December 31	633	612
More than 1 year	36	2
Less than 1 year	597	610
Other payables at December 31	633	612

Notes to the Annual Report of the Haldor Topsøe Holding Group

	2019 DKK mio.	2018 DKK mio.
24 Prepayments from customers		
Prepayments related to licence agreements	0	0
Prepayments related to sale of goods	495	418
Prepayments from customers at December 31	<u>495</u>	<u>418</u>

25 Leases

	2019 DKK mio.
Land and buildings	73
Plant and machinery	1
Other fixtures and equipment	4
Total depreciation of right-of-use assets	<u>78</u>
Interest expense (included in financial expenses)	23
Expense relating to short-term leases (included in other external expenses)	4
Revenue from sub-lease	1
The total cash outflow for leases in 2019	86
Additions to the right-of-use assets during 2019	5

The major part of lease contracts relates to lease of office buildings. Please see note for carrying amount of right-of-use assets at December 31, 2019 and note for information about 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 lease contract in 2036. The purchase obligation is included in the lease liability.

The Group has evaluated extension options related to office rentals. In most cases extension options are not included because the group could replace the assets without significant costs or business disruption.

	2019 DKK mio.
Measurement of lease liabilities	
Contractual obligations regarding leasing at 31 December 2018	726
Discounting impact using the Group incremental borrowing rate as January 1, 2019	-111
Contracts reassessed as lease contracts	-89
Short-term leases not recognized as a liability	-8
Adjustments relating to different treatment of extension and termination options	0
Lease liability due to implementation of IFRS 16 at January 1, 2019	<u>518</u>
Finance lease liabilities recognized at 31 December 2018	<u>129</u>
Lease liability recognized at January 1, 2019	<u>647</u>
Lease liability non-currency at January 1, 2019	569
Lease liability current at January 1, 2019	78
Lease liability recognized at January 1, 2019	<u>647</u>

Weighted average incremental borrowing rate for lease liabilities initially recognized at January 1, 2019 was 3.6%.

Notes to the Annual Report of the Haldor Topsøe Holding Group

	2019 DKK mio.	2018 DKK mio.
26 Assets provided as security		
Carrying amount of non-current assets (land and buildings) provided as security	82	100
Remaining balance of loans secured by non-current assets	14	61
Nominal value of the loans (real estate deeds and owners' mortgage deeds)	16	65
Remaining balance of loan secured by all assets of Haldor Topsøe Inc.	0	0

Assets are provided as security for mortgage debt, and for 2018 also other non-current loans. In case of other debt to the secured creditor, the asset(s) provided as security may – until release thereof – serve as security for any present or future obligation that the Group may have towards such parties.

	2019 DKK mio.	2018 DKK mio.
27 Guarantees		
Guarantees given by banks and credit insurance institutions on the Group's behalf for contract work, etc.	1.135	1.040
Other guarantees given by banks and credit insurance institutions on the Group's behalf	0	0
Guarantees issued at December 31	1.135	1.040
Less than 1 year	769	507
Between 1 and 5 years	312	505
After 5 years	54	28
Guarantees issued at December 31	1.135	1.040

	2019 DKK mio.	2018 DKK mio.
28 Contractual obligations		
Less than 1 year	17	103
Between 1 and 5 years	11	290
After 5 years	0	333
Contractual obligations regarding leases at December 31	28	726
Payments for the year recognized as operating lease expenses	18	105

Contractual obligations relates to software and maintenance agreements running up to 4 years.

From 1 January 2019, the group has recognized right-of-use assets for leases, except from short-term and low-value leases, see note 1, 10, and 26 for further information.

The Group is obligated to invest an additional DKK 18 million (2018: DKK 29 million) in companies included under "Other investments".

29 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.

Through participation in joint taxation scheme with Danish group enterprises, the company is jointly and severally liable for taxes etc. payable in Denmark.

The Group is a part of ongoing litigations. Management assess that the outcome of these lawsuits will not affect the Company's financial position

Notes to the Annual Report of the Haldor Topsøe Holding Group

	2019 DKK mio.	2018 DKK mio.
30 Fee to auditors appointed at the general meeting		
Statutory audit fee	2	2
Other assurance statements	1	1
Tax assistance	5	2
Other assistance	5	8
Total fee to auditors appointed at the general meeting	<u>13</u>	<u>13</u>

31 Related parties

Remuneration to Executive Committee and Board of Directors, please refer to note 3.

Intercompany transactions have been eliminated in the consolidated financial statements.

32 Derivative financial instruments

	Contract amount 2019 DKK mio.	Fair value 2019 DKK mio.	Contract amount 2018 DKK mio.	Fair value 2018 DKK mio.
EUR interest rate swap (4.62%), matures on December 31, 2021	17	-1	24	-2
Interest swap at December 31	<u>17</u>	<u>-1</u>	<u>24</u>	<u>-2</u>

The Group uses interest rate swaps to hedge against changes in interest rate levels and thus reduce the interest rate risk. Interest rate swaps are used on floating rate loans. The fair value of the swaps is recognized in the balance sheet through other comprehensive income. The Group thus applies the rules on hedge accounting.

	Contract amount 2019 DKK mio.	Fair value 2019 DKK mio.	Contract amount 2018 DKK mio.	Fair value 2018 DKK mio.
Aggregate amount of commodity swaps within metals, matures in 2020	24	0	5	0
Aggregate amount of commodity swaps within metals, matures in 2019	0	0	23	-3
Commodity swaps at December 31	<u>24</u>	<u>0</u>	<u>28</u>	<u>-3</u>

The Group uses commodity swaps to hedge against price fluctuations in raw materials, primarily base metals (nickel, copper, and zinc) of specific production contracts. Hedging duration depends on the specific underlying contract, but it is typically less than 24 months. The fair value of the swaps is recognized directly in the income statement.

The cost of raw materials is a significant cost component in our products, and costs can fluctuate considerably. The Group seeks to minimize the risk related to commodity price fluctuations through contractual escalation clauses. In addition, the Group uses financial hedging when quoting fixed contract prices.

Notes to the Annual Report of the Haldor Topsøe Holding Group

33 Financial assets and liabilities

	2019 DKK mio.	2018 DKK mio.
Other securities and investments	255	344
Trade receivables	1.232	717
Other financial receivables	208	146
Securities	1.358	0
Cash	1.106	972
Financial assets at December 31	4.159	2.179
Bonds, mortgage debt and debt to credit institutions	1.046	1.419
Lease obligations	603	129
Trade payables	514	408
Other financial liabilities	633	612
Financial liabilities at December 31	2.796	2.568
Financial assets measured at fair value through other comprehensive income	255	344
Financial assets measured at amortized cost	3.904	1.835
Classification of financial assets at December 31	4.159	2.179
Financial liabilities measured at amortized cost	2.795	2.563
Derivative financial instruments measured at fair value	1	5
Classification of financial liabilities at December 31	2.796	2.568
	2019 DKK mio.	2018 DKK mio.
Bonds, mortgage debt and debt to credit institutions:		
Payments:		
After 5 years	127	206
Between 1 and 5 years	323	1.097
Less than 1 year	634	193
Bonds, mortgage debt and debt to credit institutions at nominal value	1.084	1.496
Future finance charges	-38	-77
Bonds, mortgage debt and debt to credit institutions at present value	1.046	1.419
Lease obligations		
Minimum lease payments:		
After 5 years	439	189
Between 1 and 5 years	253	30
Less than 1 year	81	7
Lease obligations at nominal value	773	226
Future finance charges	-170	-97
Lease obligations at present value	603	129

Notes to the Annual Report of the Haldor Topsøe Holding Group

33 Financial assets and liabilities (continued)

	2019	2018	
	DKK mio.	DKK mio.	
Trade payables:			
Less than 1 year	514	408	
<i>Derivative financial instruments:</i>			
After 5 years	0	0	
Between 1 and 5 years	0	2	
Less than 1 year	1	3	
<i>Other financial liabilities:</i>			
After 5 years	0	0	
Between 1 and 5 years	34	0	
Less than 1 year	598	607	
	Bonds, mortgage debt and credit institutions	Lease liability	Total
	DKK mio.	DKK mio.	DKK mio.
Interest bearing debt at January 1, 2019	1.419	129	1.548
Lease liability due to implementation of IFRS 16 at January 1, 2019	0	518	518
Foreign currency translation adjustment	0	8	8
Raising loans	0	5	5
Installments	-373	-63	-436
Interest bearing debt at December 31, 2019	1.046	597	1.643
	Bonds, mortgage debt and credit institutions	Lease liability	Total
	DKK mio.	DKK mio.	DKK mio.
Interest bearing debt at January 1, 2018	1.746	130	1.876
Foreign currency translation adjustment	-1	0	-1
Raising loans	299	0	299
Installments	-625	-1	-626
Interest bearing debt at December 31, 2018	1.419	129	1.548
	Level 1	Level 2	Level 3
	DKK mio.	DKK mio.	DKK mio.
Other securities and investments	1.359	0	254
Distribution of assets stated at fair value at December 31, 2019	1.359	0	254
	Level 1	Level 2	Level 3
	DKK mio.	DKK mio.	DKK mio.
Derivative financial instruments	0	1	0
Distribution of liabilities stated at fair value at December 31, 2019	0	1	0

Notes to the Annual Report of the Haldor Topsøe Holding Group

33 Financial assets and liabilities (continued)

Level 1: Listed prices in an active market for the same type of instrument.

Level 2: Listed prices in an active market for similar assets or liabilities or other valuation methods according to which all material input is based on observable market data

Level 3: Valuation methods according to which material input is not based on observable market data.

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

Fair value of contingent considerations

In the event that the operations of the divested Automotive Business achieve certain performance criteria during the period from January 1, 2018 to December 31, 2020, as specified in an 'Volume earn-out' clause in the sales agreement, an additional cash consideration will be receivable from the buyer. At year-end, the fair value of the 'Volume earn-out' was determined to be DKK 0 million, as Management assesses that the performance criteria are unlikely to be met.

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

	2019 DKK mio.	2018 DKK mio.
Fair value of level 3 assets at January 1	323	271
Addition	10	89
Transfer to associated companies	-18	0
Write-down recognized in other comprehensive income	-61	-37
Transfer	0	0
Fair value of level 3 assets at December 31	<u>254</u>	<u>323</u>

Notes to the Annual Report of the Haldor Topsøe Holding Group

33 Financial assets and liabilities (continued)

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 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 50-65%, while the floating interest rate portion is kept within a range of 35-50%. However, due to prepayment of loans during 2019, Topsoe is currently outside of the interest rate policy range for its loan portfolio. By the end of 2019, the fixed rate portion stands at 77%, while the floating rate portion stands at 23%. As it would bring no financial benefit to enter into IRS transactions for the purpose of temporarily swapping fixed rate debt into floating rate debt, Topsoe have decided not to do so. On repayment of DKK 499 million corporate bonds in mid-April 2020, Topsoe will back into the policy range (~55% fixed and ~45% floating). For the floating rate portion of our interest-bearing debt at end of 2019, a change in the interest rate level of 1 percentage point will increase interest expenses by DKK 2.3 million p.a.

The interest rate risk involved in placing cash funds and securities is managed on the basis of duration. Nykredit bank and SEB bank are monitoring and controlling the risk related to public listed securities on a daily basis.

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 company should make accruals for bad debt which is considered unlikely to be collected.

	2019	2018
	DKK mio.	DKK mio.
34 Adjustments for non-cash items		
Financial income	-109	-72
Financial expenses	110	91
Result of investment in joint venture and associated companies	-860	10
Amortization, depreciation and impairment losses, including gains and losses from sale of assets	369	258
Tax	220	182
Other adjustments	-74	16
Total adjustments for non-cash items	<u>-344</u>	<u>485</u>

	2019	2018
	DKK mio.	DKK mio.
35 Change in working capital		
Increase (-) / decrease in inventories	-354	-79
Increase (-) / decrease in receivables	-582	246
Increase / decrease (-) in contract billing	372	-220
Increase / decrease (-) in suppliers, etc.	235	419
Total change in working capital (+ fall, - increase)	<u>-329</u>	<u>366</u>

Notes to the Annual Report of the Haldor Topsoe Holding Group

36 Subsequent events

The implications of COVID-19 with many governments across the world deciding to "close down their countries" will have great impact on the global economy. Management considers the implications of COVID-19 a subsequent event occurred after the balance sheet date (31 December 2019), which is therefore a non-adjusting event to the Company.

Many of the company's customers have indicated that they will continue projects in progress, but there is still a risk that COVID-19 will have negative impacts on the Company's revenue and earnings in 2020. Management is monitoring developments closely. It is, however, too early yet to give an opinion as to whether and, if so, to what extent COVID-19 will impact revenue and earnings in 2020. Naturally, Management will make an effort to recapture any lost revenue later in the year.

At this time, it is not possible to calculate the size of the eventually negative COVID-19 impact.

No events materially affecting the Company's financial position at December 31, 2019 have occurred after the balance sheet date.

37 List of group companies

Name	Registered office	Voting and ownership share
Haldor Topsoe A/S*	Lyngby, Denmark	70%
Haldor Topsoe International A/S	Lyngby, Denmark	100%
Subcontinent Ammonia Investment Company ApS	Lyngby, Denmark	100%
Haldor Topsoe Project Investment A/S	Lyngby, Denmark	100%
HT Ramagundam A/S	Lyngby, Denmark	100%
Haldor Topsoe Sustainables A/S	Lyngby, Denmark	100%
Haldor Topsoe Germany GmbH	Essen, Germany	100%
Haldor Topsoe Australia Pty. Ltd.	Perth, Australia	100%
OOO Haldor Topsoe	Moscow, Russia	100%
Haldor Topsoe, Inc.	Houston, USA	100%
Haldor Topsoe Project Development Inc.	Houston, USA	100%
Pacific Coast Fertilizer LLC	Seattle, USA	77%
Saturn FS Gas Chemicals LLC,	Wilmington, USA	100%
Haldor Topsoe eCOs Inc.	Houston, USA	100%
Haldor Topsoe LFG Solutions Inc.	Houston, USA	100%
Haldor Topsoe Canada Limited	Vancouver, Canada	100%
Haldor Topsoe De Mexico, S. A. de C. V.	Mexico City, Mexico	100%
Haldor Topsoe do Brasil Tecnologia e Servicos em Catalisadores	Rio de Janeiro, Brazil	100%
Haldor Topsoe America Latina S.A.	Buenos Aires, Argentina	100%
Haldor Topsoe (Beijing) Co., Ltd	Beijing, China	100%
Jiangsu JITRI-Topsoe Joint R&D Center Co, Ltd.	Suzhou, China	60%
Haldor Topsoe India Pvt. Ltd.	New Delhi, India	100%
Haldor Topsoe Sdn. Bhd.	Kuala Lumpur, Malaysia	100%
Frydenlund Ejendomsselskab ApS*	Rudersdal, Denmark	100%
IGM Biosciences, Inc.*	Mountain View, USA	41,12%

* Directly held entities by Haldor Topsoe Holding A/S

Notes to the Annual Report of the Haldor Topsøe Holding Group

38 Business combinations

On January 1, 2019 the Group acquired the remaining 50% of the shares in the joint venture Saturn Ferroslaal Gas Chemicals LLC, whose activity is project development. The acquisition is a reorganization linked to the acquisition in 2018 described below.

On August 3, 2018, the Group acquired the remaining 50% of the shares in the joint venture Ferroslaal Topsoe Project GmbH, whose activity is project development. The acquisition increases the Group's project planning and development competencies. Ferroslaal Topsoe Project GmbH has changed name to Haldor Topsoe Germany GmbH.

	2019 DKK mio.	2018 DKK mio.
Investment in other companies	1	0
Deferred tax receivables	0	33
Other receivables	1	1
Cash	0	34
Assets	2	68
Pension obligation	0	-33
Non-current loan	-15	0
Other payables	-11	-33
Liabilities	-26	-66
Net identifiable assets acquired	-24	2
Goodwill	26	0
Negative goodwill	0	-2
Net assets acquired	2	0
Cash	0	0
Shares in Pacific Coast Fertilizer LLC	1	0
Fair value of previously owned shares in the company	1	2
Total consideration	2	2
Acquired cash	0	34
Cash consideration	0	-34

The Group's previous investment in the company has been adjusted to reflect the fair value of the shares, which has led to a fair value adjustment of DKK 13 million, which is included in "Result of investments in joint ventures and associated companies".

Goodwill arising from the transaction has been tested for impairment, which resulted in an impairment loss of DKK 26 million.

The acquired business contributed revenue of DKK 0 million and net profit of DKK 0 million to the Group for the period from January 1 to December 31, 2019.

Notes to the Annual Report of the Haldor Topsøe Holding Group

39 Discontinuing operations

On June 20, 2017, Topsøe 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 Topsøe Catalisadores e Tecnologias do Brasil Ltda. as well as business assets and liabilities in Denmark, the US, and China.

2018 was impacted by the finalization of the divestment of the emissions control business areas. 2019 has not been impacted by discontinuing operation.

	2019	2018
	DKK mio.	DKK mio.
Revenue	0	50
Expenses	0	-51
Loss before tax	0	-1
Tax	0	0
Loss after tax on discontinuing operations	0	-1
Loss on sale of discontinuing operations	0	-16
Loss from discontinuing operations	0	-16
Foreign currency translation adjustment from discontinuing operations	0	0
Other comprehensive income arising from discontinuing operations	0	0
Value adjustment of net assets sold	0	-16
Transaction costs	0	-2
Loss on sale before income tax and reclassification of foreign	0	-18
Income tax on loss	0	3
Loss on sale of discontinuing operations	0	-15

In the event that the operations of the divested Automotive Business achieve certain performance criteria during the period from January 1, 2018 to December 31, 2020, as specified in an 'Volume earn-out' clause in the sales agreement, an additional cash consideration will be receivable from the buyer. At year-end, the fair value of the 'Volume earn-out' was determined to be DKK 0 million, as Management assesses that the performance criteria are unlikely to be met.

Accounting policies of the Haldor Topsøe Holding A/S

Basis of preparation

The financial statements of Haldor Topsøe Holding A/S have been prepared in accordance with the provisions of the Danish Financial Statements Act applying to large enterprises of reporting class C.

The accounting policies are unchanged from last year, except from the policy relating to proposed dividend from Group companies, which are now recognized in the income statement when it is approved. The new policy has no impact on the equity or the comparative numbers from last year.

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

Dividend from group enterprises

The dividend proposed and declared in the financial year is recognized in the parent company's income statement.

Investments in group enterprises and associated companies

Investments in group enterprises and associated companies are recognized and measured at cost in the parent company's financial statements.

The item "Income / loss from investments in group companies" in the income statement includes the profit from the partial sale of group company during the year.

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.

Income statement of Haldor Topsøe Holding A/S

	Note	2019 DKK mio.	2018 DKK mio.
Other external expenses		-4	-10
Staff expenses	1	-5	-4
EBIT		-9	-14
Gain on disposal of investments in group companies	5	1.401	0
Dividend from group enterprises		0	875
Financial income	2	15	1
Financial expenses	3	-7	-4
Profit before tax		1.400	858
Tax		1	2
Net profit	4	1.401	860

Balance sheet at December 31 of Haldor Topsøe Holding A/S
Assets

	<u>Note</u>	<u>2019</u> DKK mio.	<u>2018</u> DKK mio.
Investments in group companies		3.889	5.846
Investments in associated companies		710	0
Other receivables		3	3
Investments	5	<u>4.602</u>	<u>5.849</u>
Non-current assets		<u>4.602</u>	<u>5.849</u>
Receivables from group enterprises		0	38
Corporate income tax		2	192
Other receivables		2	0
Receivables		<u>4</u>	<u>230</u>
Securities	6	<u>1.358</u>	<u>0</u>
Cash		<u>305</u>	<u>179</u>
Current assets		<u>1.667</u>	<u>409</u>
Assets		<u>6.269</u>	<u>6.258</u>

Balance sheet at December 31 of Haldor Topsøe Holding A/S
Equity and liabilities

	Note	2019 DKK mio.	2018 DKK mio.
Share capital	7	2.200	2.200
Share premium		0	335
Retained earnings		4.064	3.128
Proposed dividend		0	400
Equity		6.264	6.063
Payables to group enterprises		1	190
Other payables	8	4	5
Current liabilities		5	195
Liabilities		5	195
Equity and liabilities		6.269	6.258
Collateral	9		
Fee to auditors appointed at the general meeting	10		
Contractual liabilities	11		
Related parties	12		
Subsequent events	13		

Statement of changes in equity of Haldor Topsøe Holding A/S

	Share capital	Share premium	Retained earnings	Proposed dividend	Total
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Equity at January 1, 2019	2.200	335	3.128	400	6.063
Transfer during the year	0	-335	335	0	0
Net profit	0	0	1.401	0	1.401
Net profit and income and expenses recognized under equity	0	-335	1.736	0	1.401
Dividend paid	0	0	-800	-400	-1.200
Dividend proposed	0	0	0	0	0
Transactions with owners	0	0	-800	-400	-1.200
Equity at December 31, 2019	2.200	0	4.064	0	6.264

Notes to the annual report of Haldor Topsøe Holding A/S

1	Staff expenses	<u>2019</u> DKK mio.	<u>2018</u> DKK mio.
	Wages and salaries	5	4
	Total staff expenses	<u>5</u>	<u>4</u>
	Total remuneration to Executive Management and Board of Directors	<u>3</u>	<u>3</u>
	Average number of employees	<u>3</u>	<u>2</u>
		<u>2019</u> DKK mio.	<u>2018</u> DKK mio.
2	Financial income		
	Interest paid by group enterprises	2	0
	Other financial income	13	1
		<u>15</u>	<u>1</u>
		<u>2019</u> DKK mio.	<u>2018</u> DKK mio.
3	Financial expenses		
	Interest payments to group enterprises	0	2
	Other interest	7	2
	Total financial expenses	<u>7</u>	<u>4</u>
		<u>2019</u> DKK mio.	<u>2018</u> DKK mio.
4	Proposed distribution of profit		
	Proposed dividend	0	400
	Extraordinary paid dividend	800	0
	Retained earnings	601	460
	Total proposed distribution of profit	<u>1.401</u>	<u>860</u>

Notes to the annual report of Haldor Topsøe Holding A/S

5	Investments	Investments in group enterprises	Investments in associated companies	Other receivables
		DKK mio.	DKK mio.	DKK mio.
	Cost at January, 1 2019	5.846	0	3
	Additions during the year	374	0	0
	Transfer during the year	-710	710	0
	Disposals during the year	-1.621	0	0
	Cost at December, 31 2019	3.889	710	3
	Carrying amount at December, 31 2019	3.889	710	3

Notes to the annual report of Haldor Topsøe Holding A/S

Finansielle anlægsaktiver (fortsat)

Investments in group enterprises are specified as follows:

Name	Registered office	Vote and ownership interest
Haldor Topsøe A/S*	Lyngby, Denmark	70%
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 Topsøe Germany GmbH	Essen, Germany	100%
Haldor Topsøe Australia Pty. Ltd.	Perth, Australia	100%
OOO Haldor Topsøe	Moscow, Russia	100%
Haldor Topsøe, Inc.	Houston, USA	100%
Haldor Topsøe Project Development Inc.	Houston, USA	100%
Pacific Coast Fertilizer LLC	Seattle, USA	77%
Saturn FS Gas Chemicals LLC,	Wilmington, USA	100%
Haldor Topsøe eCOs Inc.	Houston, USA	100%
Haldor Topsøe LFG Solutions Inc.	Houston, USA	100%
Haldor Topsøe Canada Limited	Vancouver, Canada	100%
Haldor Topsøe De Mexico, S. A. de C. V.	Mexico City, Mexico	100%
Haldor Topsøe do Brasil Tecnologia e Servicos em Catalisadores Eireli	Rio de Janeiro, Brazil	100%
Haldor Topsøe America Latina S.A.	Buenos Aires, Argentina	100%
Haldor Topsøe (Beijing) Co., Ltd	Beijing, China	100%
Jiangsu JITRI-Topsøe Joint R&D Center Co, Ltd.	Suzhou, China	60%
Haldor Topsøe India Pvt. Ltd.	New Delhi, India	100%
Haldor Topsøe Sdn. Bhd.	Kuala Lumpur, Malaysia	100%
Frydenlund Ejendomselskab ApS*	Rudersdal, Denmark	100%
IGM Biosciences, Inc.*	Mountain View, USA	41,12%

* Directly held entities by Haldor Topsøe Holding A/S

		2019	2018
		DKK mio.	DKK mio.
6	Securities		
	Equities funds	347	0
	Bonds funds	1.011	0
	Total securities	1.358	0

Notes to the annual report of Haldor Topsøe Holding A/S

7	Share capital	<u>A shares</u>	<u>B shares</u>	<u>Total</u>
		Number of shares of DKK 1.000	Number of shares of DKK 1.000	Number of shares of DKK 1.000
	Total share capital	<u>200.000</u>	<u>2.000.000</u>	<u>2.200.000</u>

The share capital constitutes nominally DKK 2,200,000 distributed on shares of DKK 1,000 or multiple of this.

8	Other payables	<u>2019</u>	<u>2018</u>
		DKK mio.	DKK mio.
	Fees to advisors	3	3
	Other	<u>1</u>	<u>2</u>
	Total other payables	<u>4</u>	<u>5</u>

At the balance sheet date, the Group had no non-current unused loan commitment (2018: DKK 250 million).

9 Collateral

No Collateral has been provided as security of certain liabilities in a group enterprise (2018: DKK 859 million).

10 Fee to auditors appointed at the general meeting

Please refer to the note in the consolidated financial statements.

11 Contractual liabilities

Through joint taxation scheme with Danish group enterprises, the company is jointly and severally liable for taxes etc. payable in Denmark.

12 Related parties

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

Notes to the annual report of Haldor Topsøe Holding A/S

13 Subsequent events

The implications of COVID-19 with many governments across the world deciding to "close down their countries" will have great impact on the global economy. Management considers the implications of COVID-19 a subsequent event occurred after the balance sheet date (31 December 2019), which is therefore a non-adjusting event to the Company.

Management is monitoring developments closely. It is, however, too early yet to give an opinion as to whether and, if so, to what extent COVID-19 will impact revenue and earnings in 2020. Naturally, Management will make an effort to recapture any lost revenue later in the year.

At this time, it is not possible to calculate the size of the eventually negative COVID-19 impact.

No events materially affecting the Company's financial position at December 31, 2019 have occurred after the balance sheet date.