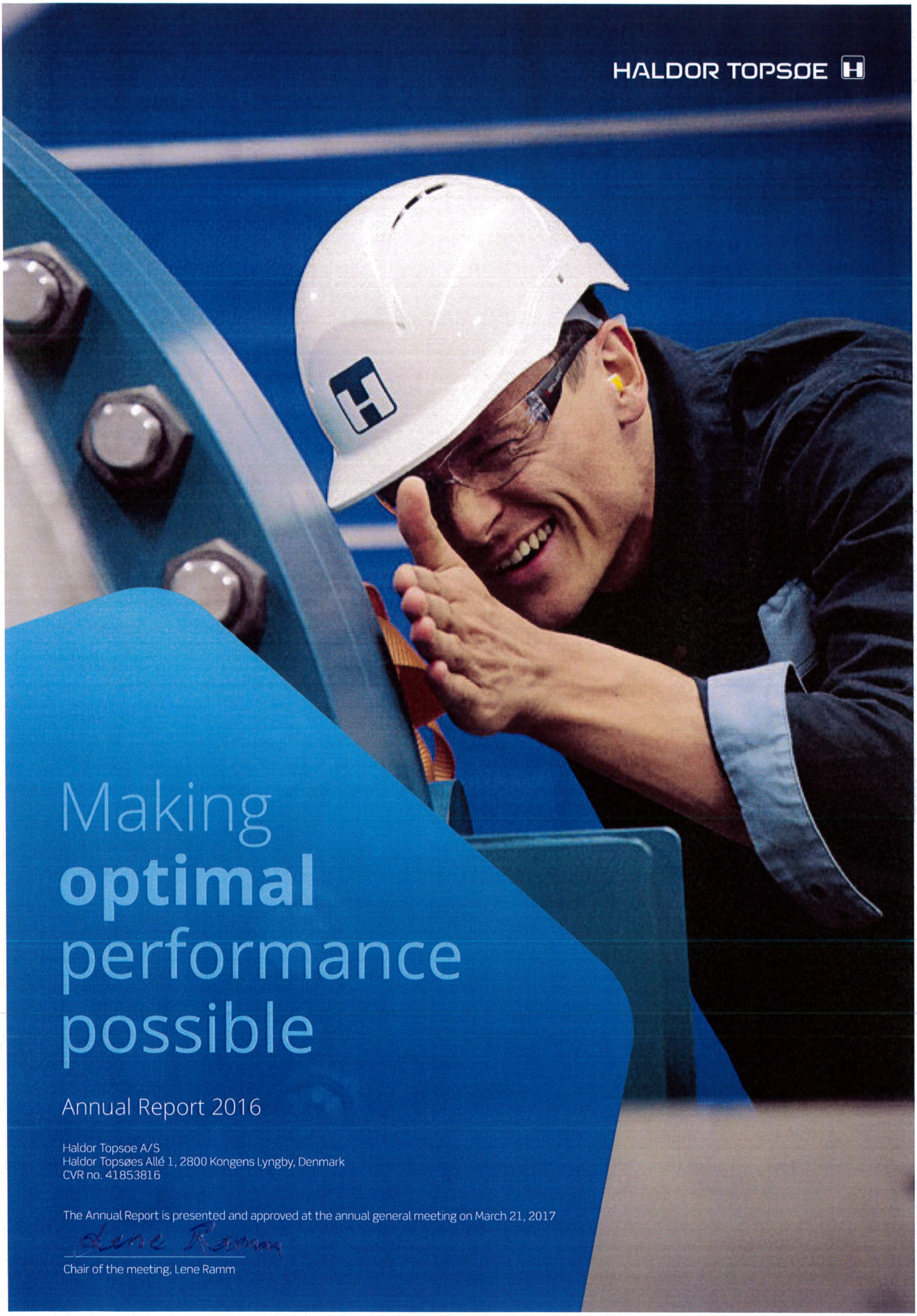

HALDOR TOPSØE

Making **optimal** performance possible

Annual Report 2016

Haldor Topsoe A/S
Haldor Topsøes Allé 1, 2800 Kongens Lyngby, Denmark
CVR no. 41853816

The Annual Report is presented and approved at the annual general meeting on March 21, 2017

Lene Ramm

Chair of the meeting, Lene Ramm

Topsoe is a world leader in catalysis, committed to helping our customers achieve optimal performance – getting the most out of their processes and products, using the least possible energy and resources.

We supply high-performance catalysts, proprietary technologies, process design, engineering, and services for use in the chemical and oil & gas industries, and we are at the forefront of developing sustainable technologies.

Our solutions address pressing global challenges, such as improving energy efficiency, enhancing food production for the world's growing population, and protecting our environment

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Letter from the Chairman

A year of **progress** and **strategic change**

This is my first letter as Chairman of the Board, having succeeded Henrik Topsøe, who stepped down as Chairman in August 2016 for health reasons. I am honored to be the first person outside the Topsøe family to chair the Board, and I will do my utmost to live up to the responsibilities that come with this role. I am pleased that Henrik will continue as a member of the newly established Innovation Committee and also assist the Board and the Executive Committee with his extensive knowledge and network within the industry.

Being on the Board since 2010 has taught me a lot about this unique company, and I am fascinated by its technological standing, the impressive knowledge of its employees, and not least Topsoe's potential to continue to make a real difference in the world.

Topsoe ended 2016 with strong financial results. The Board is very satisfied with these results, which have been achieved despite headwind in many of the company's most important markets.

Topsoe's customers come from a broad range of industries around the world, and the majority of the indispensable products they supply are made from oil, coal and gas. Fossil energy sources remain the bedrock of our societies, and Topsoe's products play an important role in making the use of these precious resources as efficient and clean as possible. We expect that this will continue for many years to come.

However, we are not blind to the fact that important strategic choices lie ahead, as fossil fuels are increasingly being supplemented by renewable energy sources. During 2016, a new business unit was formed – Sustainables – to increase our focus on the development of sustainable technologies that can compete with conventional technologies. Given the company's advanced research and development work within e.g. new technologies for converting alternative energy sources such as waste and by-products into valuable fuels, gases and chemicals, the Board firmly believes that Topsoe will maintain a leading position – also in the long term.

The Board is satisfied with the progress of the revised strategy – Unlocking our Potential – and we have worked closely together with the Executive Committee in its implementation. The strategy will be regularly reviewed and adjusted to ensure that Topsoe grows from a stable, long-term platform, while respecting the company's strong foundation in science.

In 2016, the Board has also focused on important themes within human resources, such as succession, diversity, and talent management. Several policies and tools have been – and will be – implemented to ensure that highly talented Topsoe employees are offered opportunities and challenges as part of a well-defined career path. This forms part of the company's ongoing efforts to attract and retain the best qualified employees in the business, which is a prerequisite for maintaining the company's leading position within catalysis.

On behalf of the Board of Directors, I would like to thank the Executive Committee and all of Topsoe's employees for their hard work and dedication in the past year and the results achieved. 2017 is looking to be yet another challenging year, but 2016 has shown that Topsoe responds well to challenges, so I am confident that the company will continue to do well.

Jeppe Christiansen
Chairman of the Board of Directors

"The Board is very satisfied with the results, which have been achieved despite headwind in many of the company's most important markets."

Letter from the CEO

Strong results in difficult markets

	2016 DKK million	2015 DKK million	Growth %
Revenue	5,824	5,785	1
EBITDA	1,050	795	32
EBIT	743	502	48
Net profit	492	322	53

Topsoe delivered strong results in 2016. Revenue and EBIT grew thanks to several initiatives implemented in 2015, including a special focus on increasing revenue from technology sales and reducing our cost base. We are very satisfied with the 2016 results.

Our customers have experienced a challenging year. Important markets such as China, Russia and Brazil have experienced slower economic growth or even recession. Low oil prices have had a significant negative impact on some of our customers, and political turmoil has impacted certain geographies. However, we managed to maintain our market shares and continue our growth dispite the difficult market conditions in 2016.

Continual change is required to deliver the best possible solutions and stay competitive in a world where our customers must adapt to changing conditions at an ever-increasing pace. In 2016, we continued our change process, guided by our strategy.

Our catalyst production facilities in Denmark and in USA were expanded to cater for growth in demand. New production facilities in Brazil and China began production of automotive catalysts for the local markets, and the automotive organization was changed in order to respond faster to changes in the market.

Technology sales increased in 2016. This was mainly attributable to our focus on customers' demand for optimization of existing plants, reopening of the important Iranian market, our large TIGAS™ project in Turkmenistan, and higher general activity in the market. We also made the first sales of innovative new technologies, such as TopFrax™ catalytic filters, eCOs modular CO production units, and Topsoe Furnace Manager.

Our strategic joint venture Ferrostaal Topsoe Projects (FTP) made good progress. FTP assists customers with all aspects of project development and brings Topsoe into play early in the planning of new large-scale projects. In addition, we entered into a number of commercial partnerships with international partners during 2016.

Our organization also developed in the past year. We reorganized to be more agile in our decision-making and to create a stronger link between the organization and the business, enabling us to respond faster and more effectively to customer demands and market opportunities. In addition, the business unit Sustainables was formed to increase our focus on developing sustainable technologies for the future. In February, we also opened an office in Tehran following the lifting of sanctions on Iran.

Last, but not least, we succeeded in creating an even safer work environment for our employees in 2016. We reduced the number of lost time accidents and their impact on employees' health significantly, and we will focus on continuing this positive trend in 2017.

The strategic change process will continue in 2017 with our customers' needs at the center of our attention. We involve customers directly in our development processes to make sure that we address their specific needs – and we know that customers are looking for energy-efficient and more customized and complete solutions to make their business less complex and more profitable. One of our answers is to develop the services surrounding the fundamental deliveries, for instance by exploiting the digital possibilities.

We will expand our leading position within catalysis and surface science. We build on highly engaged and technically competent employees, decades of experience, a solid reinvestment of close to 10% of our revenue in R&D year-on-year, and a structured, customer-centric approach to developing effective and sustainable solutions for the future.

We expect our core business to grow profitably over a business cycle, and our new business ventures to show significant progress in 2017. An important factor will be business from the reopened Iranian market, where the need to get more value from the country's oil and gas resources drives substantial investments. In addition, the sale of more Topsoe-designed chemical and petrochemical plants in 2016 is expected to generate considerable catalyst sales in the coming years. However, the financial outlook is uncertain, as unforeseen trade restrictions, sanctions, or political unrest can potentially muddle the picture.

I want to thank Jeppe Christiansen and the rest of the Board for their valuable guidance and contributions. A very special thank you goes to Henrik Topsøe. I have enjoyed our more than 40 years of close collaboration and friendship immensely.

Topsoe's employees across the global organization form the bedrock of our company. Thank you all for your flexibility, your dedication, and your drive to transform our unequalled collective knowledge into solutions that benefit our customers and the world around us.

Bjerne S. Clausen
President & Chief Executive Officer

"The strategic change process will continue in 2017 with our customers' needs at the center of our attention."

Topsoe in **brief**

What is catalysis?

- A catalytic process converts one chemical component into another. For instance, hydrogen and nitrogen can be catalyzed into ammonia.
- Using a catalyst to produce a chemical process speeds up the reaction and consumes much less energy. Production yield increases, and resources are saved.
- 60% of all industrial products are made using catalysts.

TK-611 HyBRIM™ is one of Topsoe's many high-performance catalysts for refineries. One of its applications is to produce ultra-low sulfur diesel that reduces sulfur emissions.

What we **do**

Driven by our passion for science, we enable our customers to get the most out of their processes and products, using the least possible energy and resources. Our solutions touch upon some of the most pressing challenges of our time within food supplies, energy, and pollution control.

SECURE FOOD SUPPLY

Chemical processing – helps the petrochemical industry produce fertilizer

CLEANER AIR

Emissions management – helps customers comply with environmental regulations

CLEANER FUELS

Hydroprocessing – helps refineries produce high-grade products

Making **optimal** performance possible

Our customers are under constant pressure to get more from less and even the smallest performance improvements are important. In Topsoe, we respond to customer challenges, using our exceptional insight into catalysis and surface science to deliver unique integrated solutions that secure optimal performance for our customers.

Great solutions begin here

The starting point of a great solution is a deep understanding of the problem. That's why our work begins with our customers' challenges.

Innovation at your service

For more than 75 years, we have showed the way for the development of catalysis as an industrial core process. This insight still turns challenges into solutions.

Integrated solutions

Topsoe world-leading services can stand alone or be integrated in uniquely reliable solutions that cover customers' needs from the early beginning of a project to daily operations and maintenance.

We give customers what they really need

Optimal performance – in terms of economy, quality, and environmental impact.

Topsoe around **the globe**

Customers all over the world are serviced by the regional offices. Topsoe's global organization also encompasses production plants and engineering activities.

HQ Headquarters
Production plants
Regional offices
Engineering

Americas

North America

Customers in the refining, chemical and petrochemical industries in North America show great interest in Topsoe's catalysts and technology, making this our largest global market. The shale gas boom has spurred interest in solutions that convert shale gas into high-value products, and technologies to control emissions levels and produce cleaner fuels are also in high demand.

We employ more than 250 people at our production plant and main office in Houston and our Los Angeles office.

Latin America

In 2016, customers in Argentina, Venezuela, and Columbia chose Topsoe ammonia technologies for revamps of fertilizer plants. We were awarded orders for WSA sulfur removal technologies, catalysts, and proprietary equipment for two separate plants in Chile, and the year also brought several important catalyst sales across Latin America. In addition, our new plant in Joinville, Brazil, was opened and now produces catalysts for heavy duty diesel engines on the local market.

Topsoe's engagement in Latin America is growing. More than 25 employees are employed at the offices in Buenos Aires, Argentina, Rio de Janeiro, Brazil, and Mexico City, and the new plant has 15 employees.

EMEA

Denmark

HQ

Denmark is home to Topsoe's headquarters, where over 1,200 employees work in research & development, engineering, production, global sales, and support functions. Many employees engage directly with customers around the globe, while others support our global organization in the regional markets.

Topsoe's largest production facility is also located in Denmark. More than 650 highly skilled operators and other employees manufacture a large variety of products under very high quality demands. The plant ships products to customers in all parts of the world.

Russia

Russia and neighboring countries need solutions to capitalize their rich oil and gas resources in an efficient way. This has led to a strong position for Topsoe's offerings, not least in the refinery and fertilizer industries. Our catalyst business has grown fast over the last five years and represents a significant share of Topsoe's overall revenue.

Topsoe products are supported by dedicated local professionals. Our Moscow office is the base for about 70 employees who service Russia, Azerbaijan, Armenia, Belarus, Georgia, Kazakhstan, Kyrgyzstan, Moldova, Turkmenistan, Ukraine and Uzbekistan. Topsoe has enjoyed close collaboration with the Russian industrial and scientific community for decades.

APAC

Middle East

Customers in the expanding local petrochemical and refining industry demand Topsoe catalysts, technologies, and services that support their core processes within methanol, ammonia, hydroprocessing, hydrogen production and Gas-to-Liquids. As fuel specs and environmental regulations become more stringent, our hydroprocessing and environmental solutions meet increasing demand. Topsoe also offers technology upgrades to improve energy efficiency and production yield.

In 2016, we opened office in Tehran, Iran, that now employs 6 people. Topsoe's office in Manama, Bahrain, employs 12 people.

India

Indian ammonia plants use Topsoe catalysts to make over 90% of all ammonia produced in the country, and their preference for Topsoe technology have made us the largest supplier with a market share of more than 80%. In 2016, our Indian engineering unit provided the complete engineering design package for the new Ramagundam ammonia plant – a flagship "revival project".

We are also active in the Indian refinery market, especially within hydroprocessing, and Topsoe supports India's drive for cleaner fuels according to new regulations.

Our New Delhi facilities are the workplace for about 200 people and house our engineering unit, global IT center, global refinery technical service, and regional office.

Southeast Asia

Southeast Asia has several emerging markets and is rich in natural resources that can be monetized using Topsoe technologies. More stringent environmental regulations across the region will increase demand for Topsoe's solutions to manage emissions and produce cleaner fuels. Currently, Topsoe experience increasing demand for technology and catalysts for ammonia and methanol production, our main business in Southeast Asia, and also in refinery and environmental solutions to manage emissions and produce cleaner fuels.

Topsoe's office in Kuala Lumpur, Malaysia, supports our customers in the ASEAN countries as well as Bangladesh, Australia and New Zealand. 13 people are employed here.

China

Environmental challenges are changing demand in the Chinese market towards solutions that preserve energy and improve air quality. Topsoe solutions reduce smog, acid rain, and dangerous particles from industry, power plants, and heavy duty diesel vehicles and make production more energy-efficient for refineries and the petrochemical industry.

To meet local demand, we have constructed an automotive catalyst plant in Tianjin. The plant was officially opened in June 2016 in the presence of Her Royal Highness Princess Benedikte of Denmark and is now supplying customers with catalysts that clean off-gas from diesel engines. 160 people are employed with Topsoe in China.

Accomplishments and **results**

Five-year summary

Seen over a five-year period, the development of the Group is described by the following financial highlights.

Income statement

DKK million	2016	2015	2014	2013	2012
Revenue	5,824	5,785	5,685	5,348	5,244
Gross profit	2,762	2,483	2,542	2,408	2,142
EBITDA	1,050	795	929	876	793
Depreciation and amortization	-307	-293	-366	-175	-200
EBIT	743	502	563	701	593
Net financial expenses etc.	-40	-40	14	-21	-28
Net profit	492	322	440	553	415

Balance sheet

DKK million	2016	2015	2014	2013	2012
Balance sheet total	7,161	7,194	6,455	6,132	5,503
Equity	2,238	2,003	1,831	1,644	1,422
Net working capital	610	451	540	462	280
Net interest bearing debt	1,191	1,152	1,016	994	228

Cash flow

DKK million	2016	2015	2014	2013	2012
Cash flows from operating activities	748	750	754	483	786
Cash flows from investing activities	-386	-638	-585	-721	-342
- Of which investments in property, plant and equipment	-393	-589	-600	-664	-307
Cash flows from financing activities	-530	-99	-222	163	-247
Change in cash and cash equivalents for the year	-162	32	-14	-75	197

Employees

Number	2016	2015	2014	2013	2012
Total number of employees	2,543	2,688	2,694	2,430	2,195

Ratios

%	2016	2015	2014	2013	2012
Gross margin	47.4%	42.9%	44.7%	45.0%	40.8%
EBITDA margin	18.0%	13.7%	16.3%	16.4%	15.1%
EBIT margin	12.8%	8.7%	9.9%	13.1%	11.3%
Return on invested capital (ROIC)	21.4%	16.0%	20.1%	31.0%	33.0%
Equity ratio	31.3%	27.8%	28.4%	26.8%	25.8%
Return on equity	23.2%	16.8%	25.3%	36.1%	30.4%

The ratios have been prepared in accordance with the recommendations and guidelines issued by the Danish Society of Financial Analysts.

2016 was a profitable year for Haldor Topsoe A/S.

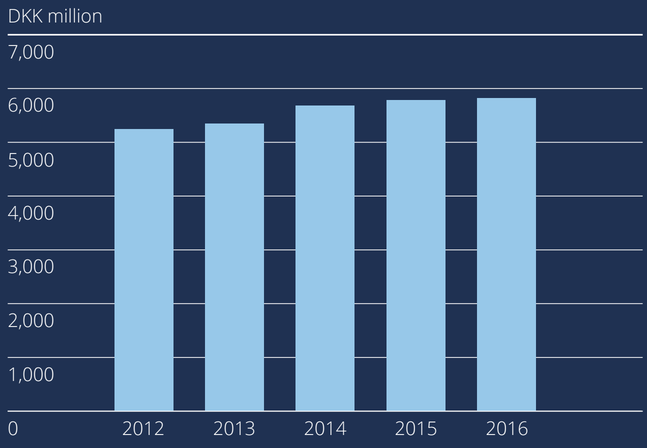
Revenue and EBIT reached the highest level ever, and the positive results were favorably impacted by increased technology sales and the cost-reduction initiatives implemented in 2015 and 2016. Despite the challenging market conditions Topsoe maintained its market shares in 2016.

Topsoe maintained a strong operating cash flow (DKK 748 million).

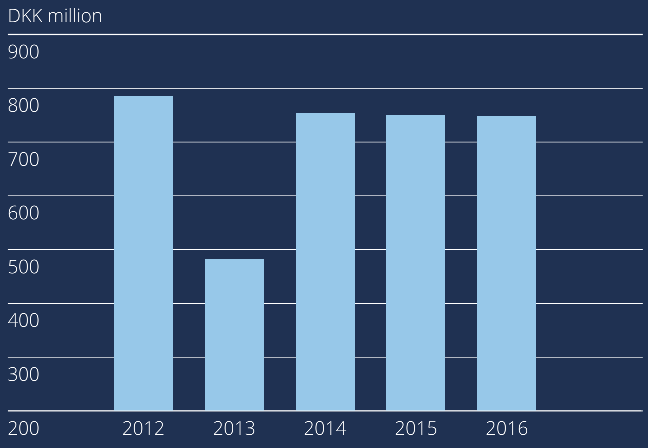
EBIT increased by 48% to DKK 743 million corresponding to an EBIT margin of 12.8% (2015: 8.7%).

R&D expenses were maintained at a high level with a R&D-to-revenue-ratio of 9.2% (2015: 9.6%).

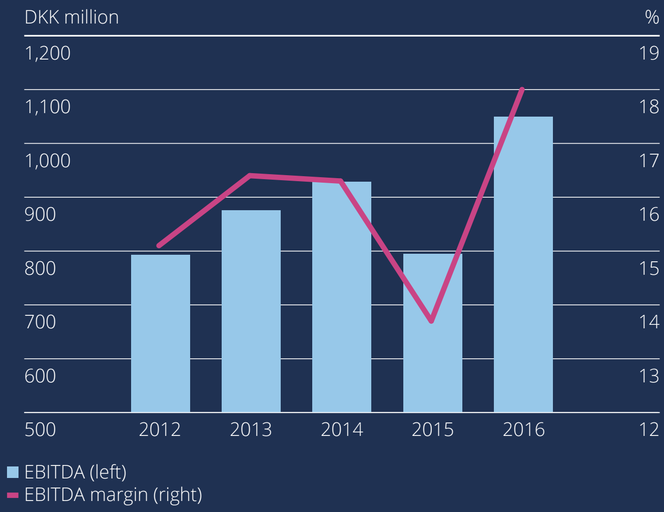
Revenue



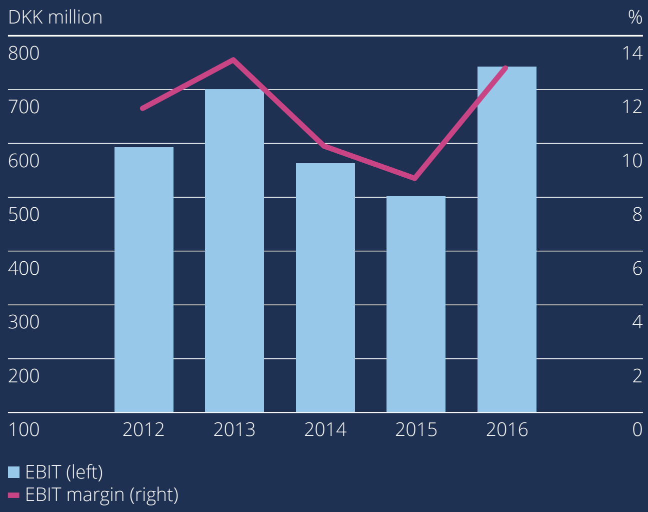
Cash flow from operating activities



EBITDA



EBIT



Financial report

Income statement

Revenue
Revenue increased 1% to DKK 5,824 million (2015: DKK 5,785 million). The revenue development was negatively impacted by difficult market conditions as a result of reduced global growth. Rate of exchange development from 2015 to 2016 impacted revenue positively with 0.2%, and revenue was positively impacted by a one-time effect of DKK 122 million from restarted contracts. Catalyst revenue decreased by 11% (compared to a 6% sales volume reduction) and technology revenue increased by 35%. Market shares were generally maintained in 2016.

Earnings before interest, tax, depreciation, and amortization (EBITDA)
EBITDA increased by 32% to DKK 1,050 million, corresponding to an EBITDA margin of 18.0% (2015: 13.7%).

Staff expenses increased by 1% to DKK 1,712 million. The cost-reduction initiatives implemented in 2015 and 2016 had a positive impact on the profitability level. Raw materials (incl. changes in inventories) decreased by 22% compared to 2015. Purchased equipment for contract work increased by 84% to DKK 736 million due to increased activity in our technology business as well as increased equipment content in our technology offerings. Other external expenses decreased by 18% to DKK 986 million as a result of various cost-reduction initiatives.

Earnings before interest and tax (EBIT)
EBIT increased 48% to DKK 743 million corresponding to an EBIT margin of 12.8% (2015: DKK 502 million and an EBIT margin of 8.7%). Restarted contracts from 2012 had a positive revenue and EBIT impact of DKK 122 million for 2016. Depreciation increased by 5% to DKK 307 million, mainly due to completion of new production lines in China and Brazil.

Net profit
Net profit increased 53% to DKK 492 million (2015: DKK 322 million).

The increase in net profit is explained by:
- An increase in EBIT to DKK 743 million in 2016 (2015: DKK 502 million).
- A DKK 3 million decrease in net interest as a result of lower market interest rates and margins.
- A DKK 71 million increase in tax to DKK 211 million.

Cash flow and balance sheet

Cash flows from operating activities
Cash flows from operating activities were maintained at a high level and amounted to DKK 748 million (2015: DKK 750 million). Working capital increased by DKK 150 million and net working capital amounted to 10.5% of revenue (2015: 7.8%).

CAPEX
CAPEX decreased by 38% and amounted to DKK 432 million (2015: DKK 702 million). Two new production lines in Tianjin, China, and Joinville, Brazil, were finalized in 2016.

Net indebtedness
Net indebtedness increased by 13% and amounted to DKK 1,191 million (2015: DKK 1,152 million).

The interest bearing debt at the end of 2016 was DKK 1,981 million (2015: DKK 2,104 million).

DKK 234 million in surplus funds were placed with the holding company, Haldor Topsøe Holding A/S, as part of a cash pool arrangement (2015: DKK 375 million).

Return on invested capital (ROIC)
ROIC amounted to 21% (2015: 16%).

Order backlog

The order backlog at the end of 2016 was at a satisfactory level covering a major part of our engineering and catalyst production capacity for 2017.

Outlook for 2017

Revenue

Revenue in 2017 is expected to be in line with or slightly above 2016 revenue.

EBIT

EBIT margin is expected to decrease in 2017 compared to 2016; mainly due to the one-time impact of restarted contracts in 2016.

We expect to maintain a high level of R&D and business development activities in 2017 of approximately 9-10% of revenue.

Cash flow and funding

Operating cash flows are expected to continue to be good. Topsoe's current funding position is strong, based on access to the corporate bond market, institutional banks as well as commercial banks.

Topsoe intends to maintain a credit profile that matches that of an investment grade company during a business cycle. When market terms are attractive and there is a need, Topsoe will consider issuing additional corporate bonds as well as obtaining other credit facilities.

Forward-looking statements

Haldor Topsoe A/S' financial reports, whether in the form of annual reports or interim reports, as well as any presentations based on such financial reports, and any other written information released, or oral statements made, to the public based on this annual report or in the future on behalf of Haldor Topsoe A/S, may contain forward-looking statements.

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

Haldor Topsoe A/S cautions that a number of factors, including those described in the risk management part of this report, could cause actual results to differ materially from those contemplated in any forward-looking statements.

Risk management

Enterprise risk management

Since 2013, Topsoe has operated an enterprise risk management program with quarterly reporting, followed up by reviews and mitigating activities. The program enables Topsoe to identify risks early, assess them, and implement mitigating actions.

During 2014, the Topsoe Code of Conduct was implemented 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 prevents a series of potential risks related to business ethics and legal topics. In 2016, it was decided to implement a global compliance hotline (whistleblower solution) which was launched in the beginning of 2017. The compliance hotline is available at www.topsoe.com/Compliance-Hotline

The general risk factors 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, and we see no indication of reduced demand or substitutes. A very significant part of our catalytic solutions is based on fossil fuels, notably natural gas. If cost-competitive alternative energy sources emerged, it could have a significant impact on our current business. For new products, processes, and services that are being developed, we depend on market demand picking up in order to increase our sales.

Intellectual property (IP) protection

As a highly innovative company, Topsoe pursues IP protection through for instance 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. To strengthen our focus on protecting our trade secrets, a Trade Secret Policy was implemented in 2016.

Raw material prices and availability

Raw materials are a significant cost component in our products, and prices can fluctuate considerably.

We seek to mitigate this risk through escalation clauses in customer contracts. The escalation clauses are linked to market indices. 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. We work actively to limit our single source exposure.

Operations

Topsoe's production of catalysts takes place in Frederikssund (Denmark), Houston (United States), Tianjin (China), and Joinville (Brazil). If production is closed down for an extended period in one of our plants, or if commissioning of a new plant is substantially delayed, it could have a material impact on Topsoe's earnings. We seek to mitigate this risk by operating multiple production lines for key products and enforcing a safety stock policy. We have also taken out business interruption insurance and property insurance.

Topsoe 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.

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

Insurance

Besides property insurance and business interruption insurance, a number of other operational risks are insured, including general liability, product liability, professional indemnity and transportation.

Geopolitical risks

Topsoe's global presence exposes earnings to geopolitical events. Political actions, such as trade barriers, embargoes, 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 are maintained positive for our individual contracts. New political sanctions and cancellation of existing political sanctions could potentially have a significant impact on our business.

Financial risks

Currencies

As Topsoe operates globally, the income statement, balance sheet, and cash flows are subject to the risk

Every year, Topsoe uses close to 10% of revenue on research & development.

of currency fluctuations, mainly in relation to Topsoe's flows of EUR, USD, and CNY.

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

Interest rates
Long-term debt consists of loans and bonds with fixed and floating interest rates. Topsoe's policy is to maintain a loan portfolio where 35-50% is subject to floating interest rates and where 50-65% is subject to fixed interest rates. For the floating rate portion of Topsoe's interest-bearing debt, a change in the interest rate level of 1 percentage point will increase interest expenses by DKK 8 million.

Credit
The credit risk of Topsoe is primarily related to trade receivables from state-owned as well as 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, it is assessed if the company should make accruals for bad debt, which is considered unlikely to be collected.

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, Topsoe only deals with financial counterparties that Management believes have a satisfactory credit rating from a recognized international credit rating agency.

Liquidity
Topsoe must maintain sufficient liquidity to fund daily operations,

debt service, and expansion. Topsoe's access to liquidity consists of cash and cash equivalents, including access to committed revolving credit facilities.

Restrictive covenants
Some of the financing arrangements of Topsoe 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, interest coverage, and leverage (net debt/EBITDA) requirements.

Dividend policy
Since 2007, the Haldor Topsoe Group has financed the operations of Haldor Topsøe Holding A/S through dividend payments. The liquidity effect of the expected future dividend payments has been incorporated in the cash flow forecasts of Topsoe.

Tax
Topsoe's business structure with entities and/or business activities in many countries implies that a number of different direct, indirect, and collected taxes apply on a global basis. 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 Topsoe. Topsoe will at all times use its best endeavors to comply with the tax legislation in the countries in which it operates, in accordance with OECD standards. When needed, Topsoe seeks to clarify uncertainties by involving external advisors and by taking a justifiable position in accordance with international tax principles and in alignment with Topsoe's Code of Conduct. Topsoe's tax management is documented in a global tax policy.

Information technology and security risks
As IT systems become increasingly important and critical to a global business like Topsoe, maintaining a secure and updated IT infrastructure is a key task in our IT operations. A prioritized list of information security activities has been implemented during 2016 in order to further improve the protection of business-critical and confidential information. These measures aim to effectively minimize the risk of intruders gaining access or causing damage to our data or business.

Installing a Topsoe DeNOx catalyst for cleaning off-gases from power plants, boilers, and other industrial combustion.

Corporate social responsibility and **sustainability**

At Topsoe we operate in a complex international business environment, with both cultural, political, and legal challenges. Our foundation is our values and our heritage: The Topsoe Spirit.

To ensure that we act responsibly, ethically and in compliance with laws and regulations at all times, we have the Topsoe Code of Conduct, a document that guides our business behavior, upholding the high standards the company was founded on, and reminds us of the importance of what we do, but also how we do it.

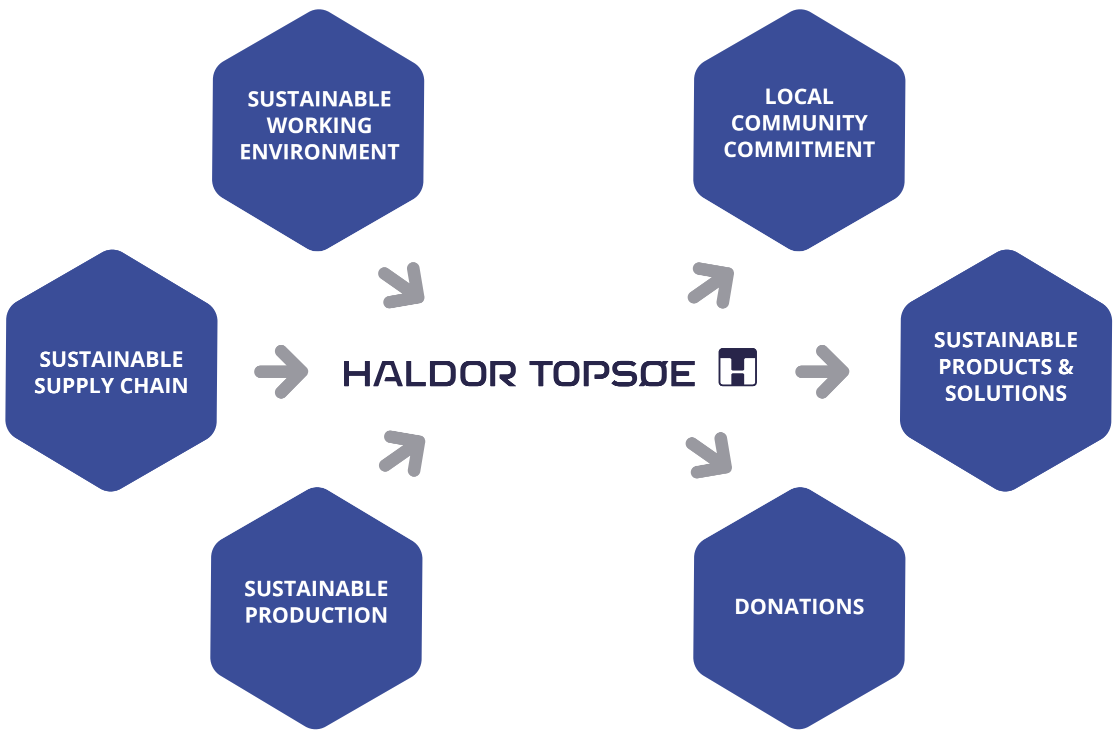
To be "a great place to work and have worked" is a central element of the Topsoe Spirit, and to us this includes ensuring that our employees enjoy basic human rights. In addition, our CSR & sustainability policy acknowledges our responsibility not to cause or contribute to adverse human rights impacts.

In 2016, we continued our work to ensure diversity across our global organization. The status is posted on our corporate website: http://www.topsoe.com/about/corporate-social-responsibility/gender-representation-management

Refining structures and ways of working is an ongoing process in an ever-changing business environment. In 2016, we have worked on several initiatives to meet the demands of stakeholders. One of these has been a more clear-cut corporate governance structure with increased transparency. Another has been preparing the launch of our global Compliance Hotline in early 2017.

In 2016, we have also strengthened our process for third party due diligence.

The Topsoe CSR and sustainability framework



Sustainable working environment

As a global company with more than 2600 employees in 11 countries, ensuring the health and safety of Topsoe's employees are of highest concern and we continuously work to make Topsoe an even safer place to work.

At our production sites in Denmark, the US, China, and Brazil, Topsoe's employees work with chemicals that may have a potentially harmful effect if they are not handled correctly. Therefore, we regularly evaluate processes and procedures to ensure that we are doing our job in a safe way.

Ownership of hazards

Topsoe's global Health and Safety Policy covers all employees at all our locations as well as our traveling employees. In the policy, we commit ourselves to constantly improve our safety culture.

An essential element of the Health and Safety Policy is the assignment of ownership to a hazard. Should any of our employees become aware of a hazard, that person owns it, in the sense that the individual is obliged to ensure that appropriate steps are taken to address the issue. This also serves as a reminder that safety is our collective responsibility.

Well spotted

All of Topsoe's production facilities have health and safety systems to ensure continuous improvement and mitigation of hazards. We implement numerous local health and safety initiatives every year on this basis.

Keeping safety top of mind is crucial to maintaining and developing our global safety culture. Therefore, safety is always the first topic on the agenda at all senior management meetings.

In 2016, Topsoe launched a new global health and safety campaign. One element was "Well spotted" booklets, a tool for employees to report safety risks and the actions they have taken.

Later in 2016, a campaign targeting traveling employees was launched, including workshops with a focus on sharing knowledge about near misses.

Our longstanding focus and dedication to health and safety led to excellent results, as we saw a reduction in our lost time accident frequency from 4.2 in 2015 to 2.9 in 2016.

Topsoe has reduced lost time accidents by 39% from 18 in 2015 to 11 in 2016. To ensure that we learn from our accidents, the root cause of lost time accidents is always shared on our global intranet.

Sustainable production

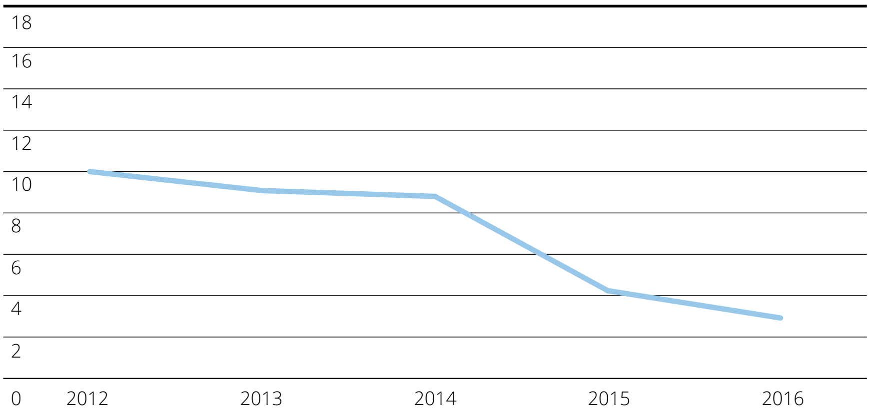
Topsoe's largest production facility is in Denmark, while our other production sites are located in the US, China and Brazil. Ensuring compliance with all relevant environmental regulations is a key element at all locations. A central part of environmental compliance is assessing and mitigating environmental risks and hazards, and therefore we carry out local risk assessments regularly.

Our catalysts enable our customers to improve their environmental footprint substantially, yet production of catalysts is an energy-demanding process. For this reason, we continually evaluate options that could lower our energy consumption.

Production of catalysts involves chemicals which can potentially be harmful if they are not handled correctly. In the event of an accident, these chemicals could have a negative environmental impact. At Topsoe,

LOST TIME ACCIDENT FREQUENCY

Lost time accidents per 1 million work hours



we ensure that every necessary step is taken to make our production as sustainable and safe as possible.

Policy commitment
In 2016, Topsoe published its first Global Environmental Policy, supplementing our local environmental policies. The global policy outlines our commitment to reduce our own and our customers' impact on the environment. In the policy, we commit to using fewer resources, less energy, and set objectives for continuous environmental improvement.

Supplying heat
At our largest production facility in Frederikssund, Denmark, we are always assessing and mitigating risks associated with chemical production. Continuous improvement is a central element of environmental regulation and our ISO14001 certified environmental management system.

Since 2014, we have improved our waste heat management in Frederikssund by constantly looking for new opportunities for recovering heat from the production processes. Our endeavors have been so successful that Topsoe, in cooperation with an international energy provider, is now able to lead waste heat to the district heating network in Frederikssund, saving valuable resources and providing a sound business case.

In 2016, we delivered 38 GWh of district heating to the network in Frederikssund, which would otherwise have taken approximately 3,450,000 Nm^3 of natural gas to produce. The use of waste heat has reduced CO_2 emissions by 7,800 tons, which compares to the yearly CO_2 emissions from about 1,000 Danish citizens, based on per person average emission rates.

Sustainable supply chain

Being a company with own production, we may have potential CSR-related impacts in our global supply chain.

Working strategically with CSR in our supply chain is new to Topsoe, but in 2017 we will make preliminary assessments to determine what the potential for working with CSR in our supply chain is.

Sustainable products and solutions

We see it as our responsibility to enable our customers to meet higher emission standards without jeopardizing operating economy – a challenge which has led our customers in the refinery industry to look for new ways of dealing with sulfurous gasses.

An environmental business case
Today, the most compelling alternative to the traditional method for removing sulfurous gasses is Topsoe's wet gas sulfuric acid or WSA technology. Lowering sulfuric acid emissions, which cause acid rain, is not only more efficient with the WSA technology, it is also more profitable. Because the WSA technology is both very energy-efficient and also turns what used to be waste products into commercial-grade sulfuric acid that can be sold for a multitude of purposes such as producing fertilizers.

Local community commitment

A thriving local community is to the benefit of all, including Topsoe. We believe that it is our responsibility to make a positive impact on the local communities we operate in, and we continuously explore opportunities to participate in relevant development projects. Our primary focus is to improve conditions for poor children while Topsoe also shares our passion for science and knowledge by supporting learning institutions and individuals.

Donations

It is a long-standing tradition in Topsoe to contribute to local growth and progress through donations. Our founder, Dr. Haldor Topsøe, personally engaged in several charity projects in communities where he did business and the need was obvious. Today, we continue donating to charities in his spirit.

One example is Street Child Care Uganda (SCCU) that operates in Kampala, Uganda, where street children live under extreme circumstances. Joshua Allans Lugya, who founded SCCU, know better than most, as he lived on the streets from age 11. However, his extraordinary talent for football got him off the streets when he was spotted by a

Football is still an important activity for the street children who get a place to stay at SCCU.

player from Uganda's national team, who got Joshua a scholarship for a boarding school.

After a short career in professional football, Joshua wanted to do something good for the children on the streets. His first initiative was to start a club where street children could meet to play football. This developed into SCCU where 40 children live today, while up to 83 more children come for shelter, medical treatment, and psychosocial support on a daily basis.

The organization also tries to bring homeless children back to their families if possible.

The Topsøe family engaged in helping Kampala's street children when they donated funds for the building that now houses SCCU as a celebration of Dr. Haldor Topsøe's 100-year birthday in 2013.

Since then, Topsoe has supported SCCU on a number of projects, including paying tuition for 37 street children. Topsoe has donated funds for medicines and sewing machines for production of slippers, clothes and school uniforms for the children's own use as well as sale on the local market. Our donations have also paid for equipment for the football team and the dance group, and we have made it possible to upgrade the building with modern toilets and dormitories.

Topsoe has committed to continue our support of SCCU in 2017.

Our **leadership**

Corporate **Governance**

In 2016, Topsoe described its corporate governance structure to specify how the business is led and controlled.

The company has been governed by a Board of Directors for decades. However, the structure of the Board and committees required further optimization with the passing of Dr. Haldor Topsøe in 2013. These steps were a natural consequence of the new ownership structure and since then, key governance principles have continually been implemented to ensure that Topsoe is on par with enterprises we consider our peers.

Shareholders

Topsoe is a 100% family-owned company through the company Haldor Topsøe Holding A/S, which belongs to the Topsøe family.

The family's strong commitment to Topsoe's long-term growth strategy and continued development, is fundamental to maintaining an innovative and sustainable company culture in line with the spirit of our founder.

Board of Directors

The company has a two-tier management structure anchored in the Board of Directors and the Executive Committee. The Board is an advisor to and supervisor of the Executive Committee, with particular focus on formulating, revising and reviewing the company strategy. The two-tier management structure ensures complete separation of roles and responsibilities, where no person serves as a member of both.

Board Committees

Finance Committee

In 2010, Topsoe established the Finance Committee, which is responsible for assisting the Board in fulfilling its oversight responsibilities by reviewing and monitoring the company's financials. The Finance Committee consists of three members elected by the Board among its members:

Jakob Topsøe (Chairman), Jeppe Christiansen, Anders Heine Jensen.

Remuneration Committee

In 2013, the Remuneration Committee was established to ensure appropriate policies for fair employee and Board pay. The Remuneration Committee consists of three members elected by the Board among its members:

Jørgen Huno Rasmussen (Chairman), Jeppe Christiansen, Jakob Topsøe.

Innovation Committee

In 2016, the Innovation Committee was established and tasked with helping to ensure that Topsoe remains a leader in catalytic innovations within its business areas. The Innovation Committee consists of four members elected by the Board among its members:

Jens K. Nørskov (Chairman), Christina Topsøe, Henrik Stiesdal, Søren Toft and non-Board member Henrik Topsøe.

Donation Committee

In addition to the Board Committees, Topsoe has a Donation Committee which reviews incoming requests for donations and support that Topsoe provides to local communities. The Donation Committee consists of members from the Board of Directors of Haldor Topsøe Holding A/S, members of the Topsøe family, and management representatives from the Topsoe Group. Currently, the members are:

Birgitte Øigaard (Chairman), Christina Topsøe, Henrik Topsøe, Nan Topsøe, Bjerne S. Clausen, Peter Rønnest Andersen, and Hans Kornerup.

A current list of all members of the above committees is available on our corporate website: www.topsoe.com/about/governance.

Executive Committee

The responsibility for the daily operations of Topsoe lies with the Executive Committee. The team meets weekly and consists of the CEO, the CFO, and the three heads of the business units. Responsibilities include overall business conduct, drafting, setting and implementing strategies and policies, and ensuring sufficient reporting to the Board of Directors.

Compliance & behavior

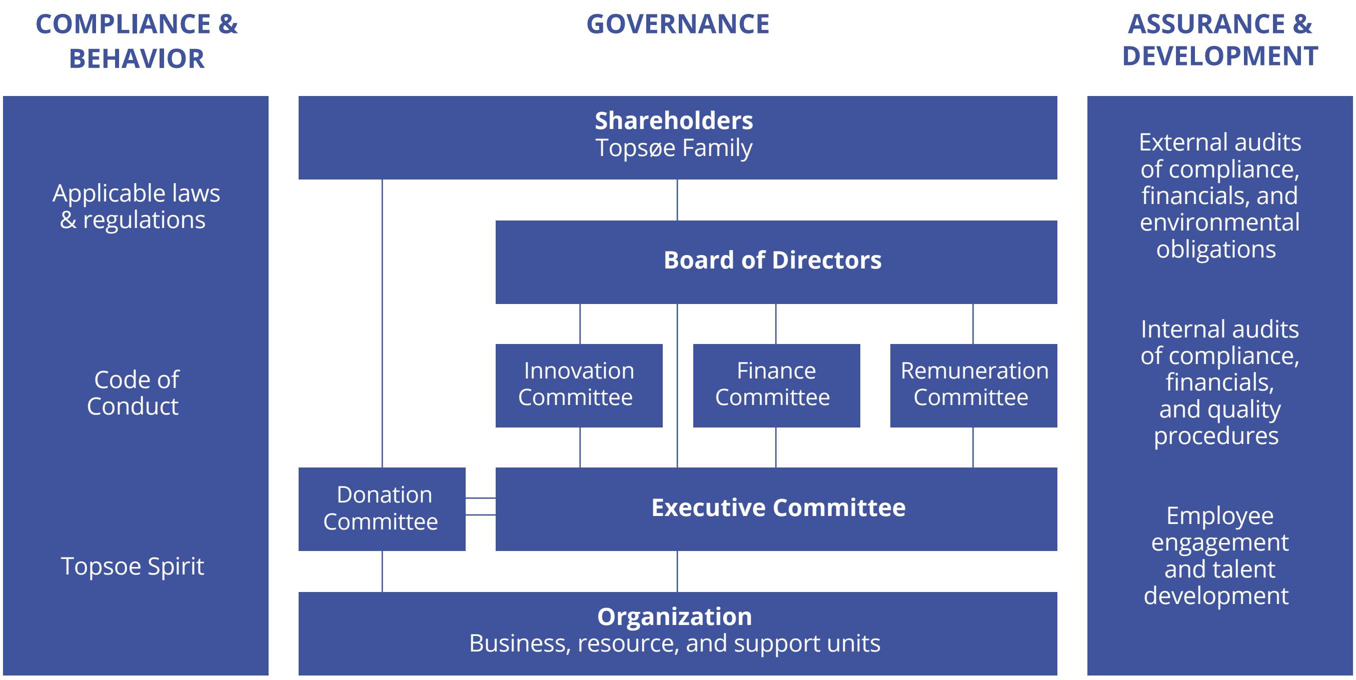
Understanding external expectations, working diligently to meet these requirements, and staying true to the Topsoe Spirit is fundamental to Topsoe.

At Topsoe, our Code of Conduct and underlying policies and procedures ensure that we comply with applicable international laws and regulations. The Topsoe Spirit defines our company values and guides our interactions, decisions, and actions.

Assurance & development

Operating in a financially responsible manner, improving and certifying processes to meet high business standards, and developing our people are important elements to ensure a sustainable business model.

Both external and internal measures are taken to audit, review, and continuously develop our processes as well as our employees.



Board of Directors

Jeppe Christiansen
Chairman

Jeppe Christiansen is CEO of Fondsmæglerselskabet Maj Invest A/S and Maj Invest Holding A/S. Furthermore, Mr. Christiansen is member of the executive management of Maj Invest Equity A/S, Det Kgl. Vajsenhus, and EMLIKA ApS. Mr. Christiansen is Chairman of the Board of Directors of EMLIKA ApS and Vice Chairman of the Board of Directors at Novo Nordisk A/S and Maj Bank A/S. He is a member of the Board of Directors at Novo A/S, Kirkbi A/S, Symphogen A/S, and Maj Invest Equity A/S. He holds an MSc in Economics from the University of Copenhagen.

Jørgen Huno Rasmussen
Vice Chairman

Jørgen Huno Rasmussen is Chairman of the Boards of TryghedsGruppen, Trygfonden, Tryg Forsikring A/S, LFI A/S, and the Lundbeck Foundation. He is Vice Chairman of the Boards of Terma A/S and Rambøll Group A/S. He is member of the Boards of Otto Mønsted A/S, Thomas B. Thriges Foundation, and Bladt Industries A/S. Mr. Rasmussen has previously been CEO of FLSmidth and Hoffmann A/S. He holds an MSc and a PhD from the Technical University of Denmark, and a Graduate Diploma in Business Administration from Copenhagen Business School.

Jakob Haldor Topsøe
Vice Chairman

Jakob Haldor Topsøe is Partner at AMBROX Capital A/S. He has previously been Head of Equities at ABN AMRO Bank in Denmark. Mr. Topsøe is Chairman of the Board of Haldor Topsøe Holding A/S and a member of the Boards of Haldor Topsoe Inc., Motortramp A/S, and Dampskibsselskabet Orients Fond A/S. He holds a Graduate Diploma in Business Administration from the Copenhagen Business School.

Anders Heine Jensen
Member

Anders Heine Jensen is CEO of Burmeister Wain Scandinavian Contractors A/S. He has previously been Senior Director with DONG Energy. Mr. Jensen is a member of the Board of Danish Energy Industries Federation. He holds an MSc in Mechanical Engineering and Energy from the Technical University of Denmark and a Graduate Diploma in Business Administration from Copenhagen Business School.

Jens Kehlet Nørskov
Member

Jens K. Nørskov is the Leland T. Edwards Professor in the School of Engineering at Stanford University, and Director of the SUNCAT Center for Interface Science and Catalysis, also at Stanford University. Dr. Nørskov has previously been Professor at the Technical University of Denmark. He is a member of the editorial board of several journals and has received a large number of honors and awards. Dr. Nørskov is a member of several boards, advisory boards and professional organizations. He holds a PhD from Aarhus University.

Henrik Stiesdal
Member

Henrik Stiesdal is a leading figure within wind power and has been CTO of Siemens Wind Power through 27 years until he retired in 2014. Mr. Stiesdal has received a large number of awards, including the Poul la Cour Prize of the European Wind Energy Association in 2011 and the German Renewables Award for Lifetime Achievements in Wind Energy in 2014. He has studied medicine, biology, and physics at the University of Southern Denmark.

Christina Teng Topsøe
Member

Christina Teng Topsøe is a UK qualified lawyer and previously practiced law in London and Singapore for Allen & Overy and Simpson, Thacher and Bartlett. Ms. Topsøe is a member of the board of Haldor Topsøe Holding A/S. She studied for a Bachelor's degree in Chinese from University of Copenhagen and Peking University and a LLB from University of London. She is currently pursuing an MBA from London Business School and Columbia Business School.

Jette Søvang Christiansen
Employee representative

Jette Søvang Christensen is Quality Assurance Manager in Catalyst Production. Ms. Christiansen holds an Academy Profession Degree in technology. She has been with Topsoe since 1986.

Aino Irene Saldo
Employee representative

Aino Irene Saldo is IT Project Manager in IT Project Management Office. She has been with Topsoe since 2000 and has been Vice Chairman of the Working Council and Chairman of the Board of the Staff Association before joining the Topsoe Board. Mrs. Saldo holds a MSc in Chemistry from the Technical University of Denmark.

Søren Toft
Employee representative

Søren Toft is Principal Engineer and Senior Project Manager in Engineering Production. He has been with Topsoe since 1981 working with project development and execution. Mr. Toft holds a BSc in Mechanical Engineering from Engineering College of Copenhagen and a Graduate Diploma in Business Administration from Copenhagen Business School.

Martin Østberg
Employee representative

Martin Østberg is Group Leader and Project Manager in Syngas Generation, Research & Development. He has been with Topsoe since 1998 and has authored or co-authored a large number of scientific publications and patents. Dr. Østberg holds a PhD in chemical engineering.

Executive Committee

Bjerne S. Clausen
President and CEO

Bjerne S. Clausen has been President and CEO since 2011. He joined the Executive Committee in 2006 as Director of Research & Development and became Executive Vice President of the Technology Division in 2008. Dr. Clausen joined Topsoe in 1979.

Dr. Clausen holds an MSc and a PhD in Materials Science from the Technical University of Denmark (DTU) and was awarded an honorary doctorate from DTU in 2014. Dr. Clausen is Adjunct Professor at both DTU and University of Aarhus, Denmark, and has been appointed Visiting Professor at the Business School of Nankai University, China.

Dr. Clausen has served on numerous research and industrial boards and committees, and he is currently Chairman of the Board of iNANO, the Interdisciplinary Nanoscience Center, University of Aarhus, and a member of the Advisory Board of the Department of Chemical Engineering, DTU.

Peter Rønnest Andersen
CFO

Peter Rønnest Andersen joined Topsoe as Executive Vice President and Chief Financial Officer in 2013. Before that, Mr. Andersen has been with the Maersk Group for more than 20 years, including 15 years as CFO and member of the executive leadership team in various business units, including Maersk Line.

Mr. Andersen holds an MSc in Economics from the University of Aarhus, and an Executive MBA from IMD, Switzerland. He has completed leadership training at Cranfield School of Management, Penn State University, and Harvard University.

Morten Schaldemose
EVP, Refinery Business Unit

Morten Schaldemose has been Executive Vice President, Refinery Business Unit, since 2013. He has held a number of positions in Topsoe centered on the refinery business, including Head of Marketing and Sales. Mr. Schaldemose joined Topsoe in 1997 after working at Kuwait Petroleum International. From 2008 to 2013, he served as COO and CEO of a number of cleantech companies before rejoining Topsoe.

Morten Schaldemose holds an MSc in Chemical Engineering from the Technical University of Denmark and an EMBA with distinction from INSEAD.

Per K. Bakkerud
EVP, Chemical Business Unit

Per K. Bakkerud has been Executive Vice President, Chemical Business Unit, since 2014. Previously, he has been Managing Director of Topsoe's Chinese operations and Vice President in the Technology Division. Mr. Bakkerud joined Topsoe in 1990 and before that he had positions with Det Norske Veritas, Norwegian Petroleum Consultants and ExxonMobil.

Mr. Bakkerud holds an MSc in Chemical Engineering from the Technical University of Norway.

Mr. Bakkerud is the President of Energy Frontiers International and serves on the Board of Directors of the Natural Gas Conversion Board.

Kim Grøn Knudsen
EVP, Sustainables Business Unit

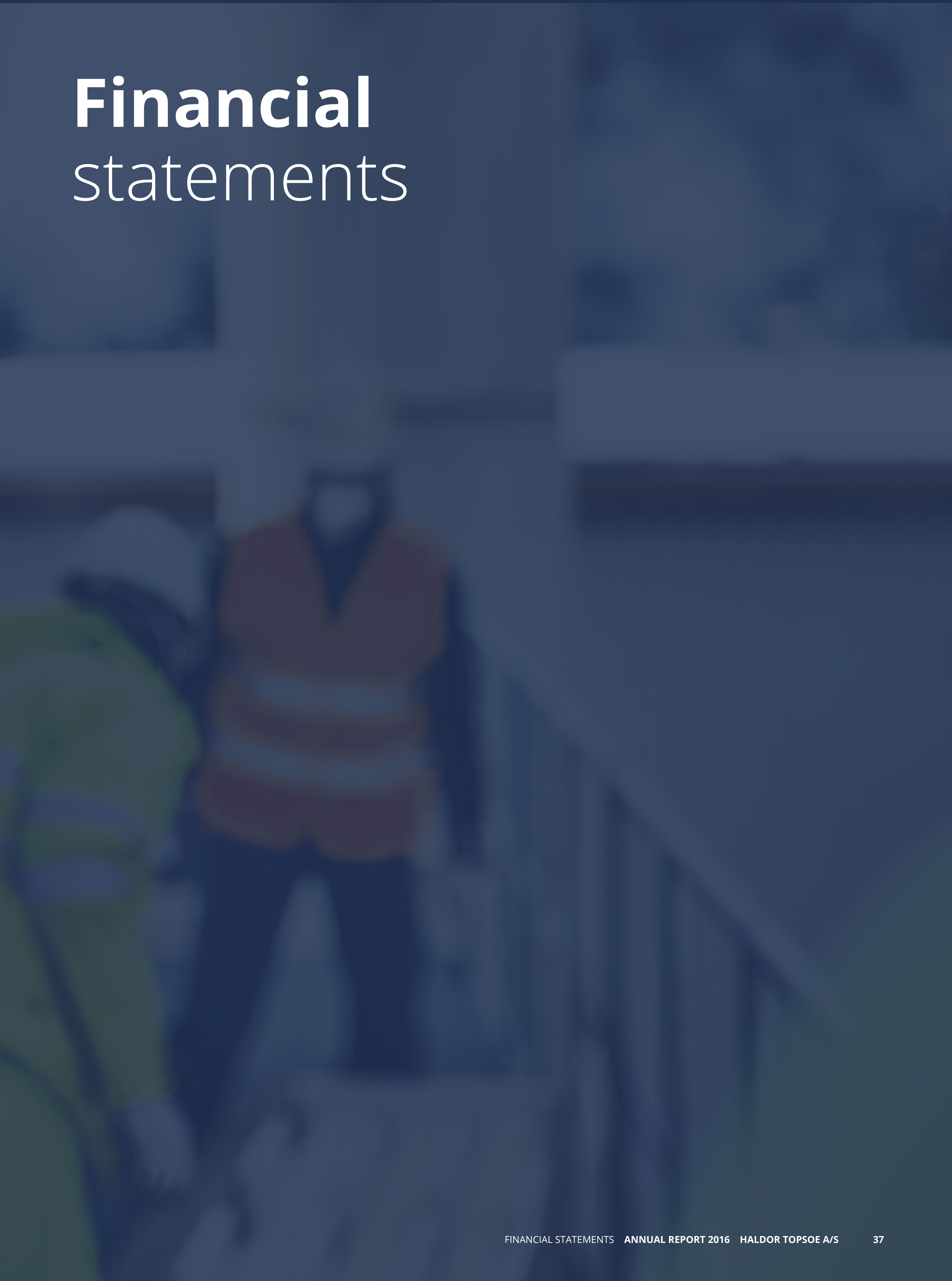
Kim Grøn Knudsen is Executive Vice President, Sustainables Business Unit. He has been a member of the Executive Management since 2012. He has held a number of positions within Topsoe's Research & Development unit, including Vice President. Mr. Knudsen joined Topsoe in 1996, leaving a position as Research Associate Professor at the Technical University of Denmark.

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

Mr. Knudsen holds several patents and is the author or co-author of more than 55 papers.

Kim Grøn Knudsen (top left), Morten Schaldemose (top right), Per K. Bakkerud (middle left), Peter Rønnest Andersen (middle right), Bjerne S. Clausen (front center).

Financial statements



Consolidated income statement

DKK million	**Note**	**2016**	**2015**
Revenue	2	**5,824**	**5,785**
Change in inventories of finished goods and intermediate products		150	-1
Other operating income		13	34
Purchased equipment for contract work		-736	-400
Raw materials and consumables used		-1,503	-1,737
Other external expenses		-986	-1,198
Gross profit		**2,762**	**2,483**
Staff expenses	3	-1,712	-1,688
EBITDA		**1,050**	**795**
Depreciation, amortization and impairment losses	4	-307	-293
EBIT		**743**	**502**
Result of investment in joint venture	5	-15	-9
Financial income	6	93	146
Financial expenses	7	-118	-177
Profit before tax		**703**	**462**
Tax	8	-211	-140
Net profit		**492**	**322**
Profit attributable to:			
Owners of the parent company		537	354
Non-controlling interest		-45	-32
Net profit		**492**	**322**

Consolidated statement of comprehensive income

DKK million	**2016**	**2015**
Net profit	**492**	**322**
Foreign currency translation adjustment	34	97
Derivative financial instruments used for hedging of future cash flows	0	-11
Realized derivative financial instruments transferred to financial gain/loss	2	23
Tax on this	-1	-3
Fair value adjustment of financial assets available-for-sale	-48	-27
Tax on this	0	0
Tax adjustment on revaluation of land and buildings	0	6
Items that may be reclassified to the income statement	**-13**	**85**
Actuarial adjustments on pension obligations	15	-12
Tax on this	-6	4
Items that may not be reclassified to the income statement	**9**	**-8**
Other comprehensive income	**-4**	**77**
Total comprehensive income	**488**	**399**
Attributable to:		
Owners of the parent company	535	422
Non-controlling interests	-47	-23
Total comprehensive income	**488**	**399**

Consolidated balance sheet

Assets		December 31	December 31
DKK million	**Note**	**2016**	**2015**
Rights		22	24
Patents		42	40
Software		39	49
Intangible assets under construction		3	2
Intangible assets	9	**106**	**115**
Land and buildings		978	776
Plant and machinery		1,400	1,119
Other fixtures and equipment		257	279
Property, plant and equipment under construction		317	540
Property, plant and equipment	10	**2,952**	**2,714**
Investment in joint venture		14	30
Other securities and investments		348	388
Other receivables		51	55
Investments	11	**413**	**473**
Non-current assets		**3,471**	**3,302**
Inventories	12	**1,362**	**1,227**
Trade receivables	13	865	1,201
Contract work in progress	14	154	91
Receivables from the parent company	15	535	617
Other receivables	16	178	144
Prepayments		40	35
Receivables		**1,772**	**2,088**
Cash		**556**	**577**
Current assets		**3,690**	**3,892**
Assets		**7,161**	**7,194**

Consolidated balance sheet

Equity and liabilities		December 31	December 31
DKK million	**Note**	**2016**	**2015**
Share capital	17	376	376
Revaluation reserve	18	181	228
Foreign currency translation reserve	18	171	135
Reserve for unpaid share capital	18	241	241
Reserve for value adjustment of hedging instruments	18	-4	-5
Reserve for value adjustment of financial assets available-for-sale	18	207	255
Retained earnings		1,066	773
Equity attributed to the owners of the parent company		**2,238**	**2,003**
Non-controlling interest		51	71
Total equity		**2,289**	**2,074**
Pension obligations and similar obligations	20	74	90
Deferred tax	21	514	447
Provisions	22	203	206
Bonds	23	997	996
Mortgage debt	23	33	71
Credit institutions	23	686	830
Leasing obligations	23	130	0
Deferred income	23	11	11
Other payables	24	4	5
Non-current liabilities		**2,652**	**2,656**
Mortgage debt	23	3	10
Credit institutions	23	132	197
Deferred income	23	1	1
Prepayments from customers	25	280	357
Contract work in progress	14	732	1,061
Trade payables		486	398
Corporate income tax		63	14
Other payables	24	523	426
Current liabilities		**2,220**	**2,464**
Liabilities		**4,872**	**5,120**
Equity and liabilities		**7,161**	**7,194**

Consolidated statement of changes in equity

DKK million	Share capital	Reserves	Retained earnings	Total	Non-controlling interest	Total equity
Equity at January 1, 2016	**376**	**854**	**773**	**2,003**	**71**	**2,074**
Net profit	0	0	537	537	-45	492
Other comprehensive income	0	-58	56	-2	-2	-4
Comprehensive income	**0**	**-58**	**593**	**535**	**-47**	**488**
Dividend	0	0	-300	-300	0	-300
Capital increase in subsidiaries	0	0	0	0	27	27
Transactions with owners	**0**	**0**	**-300**	**-300**	**27**	**-273**
Equity at December 31, 2016	**376**	**796**	**1,066**	**2,238**	**51**	**2,289**

DKK million	Share capital	Reserves	Retained earnings	Total	Non-controlling interest	Total equity
Equity at January 1, 2015	**376**	**778**	**677**	**1,831**	**94**	**1,925**
Net profit	0	0	354	354	-32	322
Other comprehensive income	0	76	-8	68	9	77
Comprehensive income	**0**	**76**	**346**	**422**	**-23**	**399**
Dividend	0	0	-250	-250	0	-250
Transactions with owners	**0**	**0**	**-250**	**-250**	**0**	**-250**
Equity at December 31, 2015	**376**	**854**	**773**	**2,003**	**71**	**2,074**

Consolidated cash flow statement

DKK million	Note	2016	2015
Net profit		492	322
Adjustments for non-cash items	34	553	457
Change in working capital	35	-150	146
Cash flows from operating activities before financial items and tax		**895**	**925**
Interest received, etc.		67	119
Interest paid, etc.		-105	-153
Cash flows from ordinary activities		**857**	**891**
Corporation tax paid		-109	-141
Cash flows from operating activities		**748**	**750**
Purchase of intangible assets		-23	-66
Purchase of property, plant and equipment		-393	-589
Sale of property, plant and equipment		11	32
Purchase of fixed asset investments		-16	-47
Sale of fixed asset investments		9	5
Dividend received		26	27
Cash flows from investing activities		**-386**	**-638**
Raising of long-term loans		387	400
Repayment of long-term loans		-644	-249
Non-controlling interest's payment of share capital		27	0
Dividend paid		-300	-250
Cash flows from financing activities		**-530**	**-99**
Change in cash and cash equivalents		**-168**	**13**
Cash and cash equivalents at January 1		952	920
Foreign currency translation adjustments		6	19
Cash and cash equivalents at December 31		**790**	**952**
Cash		556	577
Deposits with the parent company		234	375
Cash and cash equivalents at December 31		**790**	**952**

Notes to the consolidated financial statements

List of notes

Notes to the consolidated financial statements

Note 1
Accounting policies

Basis of preparation

The consolidated financial statements of Haldor Topsoe A/S 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.

New standards, amendments and interpretations adopted by Topsoe
The following standards have been applied by Topsoe for the financial year 2016:

> Annual improvements (2012-2014). The annual improvements imply a number of minor amendments to IFRS:
  a IFRS 5: Changes the accounting treatment on reclassification of an asset from 'held for sale' to 'held for distribution', or vice versa.
  b IFRS 7: Adds requirement for disclosures on continuing involvement by way of continuing servicing contracts and disclosures on financial instruments in interim financial statements.
  c IAS 19: Adds requirement regarding determination of the discount rate for post-employment benefit obligations in regional currencies, e.g. EUR.
> IFRS 11: Acquisitions of interests in joint operations are to be accounted for either as acquisitions or as acquisition of individual assets.
> IAS 16/IAS 38: Methods of depreciation/amortization based on revenue can no longer be used.
> IAS 1: Amendments to IAS 1 to improve IFRS disclosure requirements. The amendments concern materiality, presentation, disaggregation and subtotals in the income statement and balance sheet as well as the order of notes.
> IFRS 10, IFRS 12 and IAS 28: Changes with respect to investment companies' exemption from consolidating subsidiaries.

Topsoe has assessed that the new standards and amendments to standards and interpretations effective for annual periods beginning after January 1, 2016, do not have any significant impact on the consolidated financial statements of Topsoe.

New standards, amendments and interpretations not yet effective
A number of new standards and amendments to standards and interpretations have been adopted by IASB and endorsed by the EU. These standards are not yet effective and will be applied when they become effective for Topsoe:

> IFRS 15 "Revenue from Contracts with Customers" New standard on revenue recognition will replace IAS 18, which covers contracts for goods and services, and IAS 11, which covers construction contracts. The new standard is based on the principle that revenue is recognized when control of a goods or services transfers to a customer – so the notion of control replaces the existing notion of risks and rewards. The principle is applied to each individual performance obligation identified in the contract. The Group is currently analyzing the effect of the standard, which cannot be estimated yet. The standard will be effective for financial years beginning on or after January 1, 2018.
> IFRS 9: "Financial Instruments" - on the measurement and classification of financial assets and liabilities. The number of classification categories for financial assets is reduced to three: amortized cost, fair value through profit or loss (FVPL) and fair value through other comprehensive income (FVOCI). Entities taking the fair value option are required under IFRS 9 to present the share of the fair value change for the period which is attributable to changes in the entity's own credit risk in other comprehensive income. Further, the impairment model for financial assets is changed to a model based on expected credit losses under which changes to the credit risk imply changes to the provision for bad debts. The hedge accounting rules are relaxed so as to be aligned with the entity's risk management practices. The standard will be effective for financial years beginning on or after January 1, 2018.

The above standards will be applied when they become effective. None of these are expected to have a significant impact on the consolidated financial statements of Topsoe, except the potential impact of IFRS 15 "Revenue from contracts with customers".

IASB has issued the following amendments or interpretations that are relevant to Topsoe, but have not yet been endorsed by the EU:

> IFRS 16: "Leases". New standard on the accounting treatment of leases. Going forward, the lessee is required to recognize all leases as a lease liability and a lease asset in the balance sheet. The Group is currently analyzing the effect of the standard, which cannot be estimated yet. The standard will be effective for financial years beginning on or after January 1, 2019.
> IAS 12: Amendments clarifying the requirements for recognizing deferred tax assets on unrealized losses on securities adjusted to fair value through other comprehensive income. The amendment will be effective for financial years beginning on or after January 1, 2017.
> IAS 7: Additional disclosures on reconciliation of financial liabilities required. Interest-bearing debt to be reconciled from beginning to end of period. The amendment will be effective for financial years beginning on or after January 1, 2017.
> IFRS 15: Clarifications concerning the identification of performance obligations, principal versus agent considerations and license considerations. The amendment will be effective for financial years beginning on or after January 1, 2018.
> IFRIC 22: "Foreign Currency Transactions and Advance Consideration". The exchange rate at the date of transaction of the advance consideration is to be applied. In case of multiple advance payments, a date of transaction is to be determined for each payment. The interpretation will be effective for financial years beginning on or after January 1, 2017.
> Annual improvements (2014-2016). The annual improvements imply a number of minor amendments to IFRS:

Notes to the consolidated financial statements

Note 1
Accounting policies (continued)

a IFRS 12: A few disclosure requirements under IFRS 12 also applicable to interests classified as held for sale, held for distribution or as discontinued operations under IFRS 5. Assets classified as held for sale are exempt from other disclosure requirements under IFRS 12. The amendment will be effective for financial years beginning on or after January 1, 2017.

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 Topsoe, except the potential impact of IFRS 16 "Leasing.

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 available-for-sale
> 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 Topsoe 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.

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. 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 in equity under reserve for value adjustment of hedging instruments. In addition, the following currency translation differences are recognized directly in equity 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 cost 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 directly in equity. Amounts recognized in equity 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.

Income statement

Revenue

Revenue from the sale of finished goods is recognized in the income statement when delivery and transfer of risk have been made before year-end and when the income can be measured reliably and is expected to be received. Revenue is recognized exclusive of VAT and net of discounts relating to sales.

Notes to the consolidated financial statements

Note 1
Accounting policies (continued)

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

Purchase equipment for contract work comprise 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.

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 investment 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

Leases in which a significant portion of the risks and rewards of ownership are retained by the lessor are classified as operating leases. Payments made under operating leases are charged to the income statement on a straight-line basis over the lease term. The liability related to non-cancellable leases is disclosed in the notes.

Leases where the Group has substantially all the risks and rewards of ownership are classified as financial leases. Financial leases are 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 is depreciated over the shorter of the useful life or the asset and the lease term. The corresponding lease obligation is 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 equity transactions is recognized directly in equity.

Haldor Topsoe 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

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 property, plant and equipment.

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 external expenses".

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.

Notes to the consolidated financial statements

Note 1
Accounting policies (continued)

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 comprise e.g.:

> Reduced earnings compared to expected future results.
> Material negative development trends in the sector or the economy in the enterprise's markets.
> 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 external expenses".

Investment in joint venture

Investment in joint venture is recognized and measured under the equity method.

The item "Result of investment in joint ventures" 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.

Unrealized fair value adjustments are recognized directly in equity under the "Reserve for value adjustment of financial assets" available-for-sale. On realization, value adjustments are transferred from equity to the income statement. Impairment losses are recognized in the income statement.

Securities in the form of loans are measured in the balance sheet at the lower of amortized cost and net realizable value, which corresponds to nominal value less provision for bad and doubtful debts.

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 see Key accounting estimates and judgements for information about write down.

Receivables

Receivables are measured in the balance sheet at the lower of amortized cost and net realizable value, which corresponds to nominal value less provisions for bad debts. Provisions for bad debts are determined on the basis of an individual assessment of each receivable.

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. 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.

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 with 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 unpaid share capital comprises the deviation between the amount by which the share capital has been increased and the amount paid.

Reserve for value adjustment of hedging instruments comprises the accumulated net change in the fair value of hedging transactions which meet the criteria of

Notes to the consolidated financial statements

Note 1
Accounting policies (continued)

future cash flow hedges and where the hedged transaction has not yet been completed.

Reserve for value adjustment of financial assets available-for-sale comprises the accumulated net change in the fair value of financial assets classified as financial assets available-for-sale. The reserve is dissolved as the financial assets in question have been sold.

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. The tax base of tax loss carry-forwards 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 and directly in equity with the share attributable to equity transactions.

Provisions

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

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

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

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

$$\textbf{EBIT margin} = \frac{\text{EBIT x 100}}{\text{Revenue}}$$

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

$$\textbf{Equity ratio} = \frac{\text{Equity at year-end x 100}}{\text{Total assets}}$$

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

Financial liabilities

Loans such as bonds, mortgage loans and loans from credit institutions which are expected to be held to maturity 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 and cash deposits with Haldor Topsøe Holding A/S.

Financial highlights

The financial ratios have been prepared in accordance with the Danish Society of Financial Analysts' "Recommendations and Financial Ratios 2015".

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

Notes to the consolidated financial statements

Note 1
Accounting policies (continued)

unexpected issues may arise, which implies that the assessments and estimates made are subject to some uncertainty. Special risks for the Group appears from the Risk management section.

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.

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.

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.

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 a long 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 reflect the risks associated with bringing new technologies to the market as well as executing projects in countries with higher geopolitical risks.

Contingent liabilities and lawsuits
As part of the Group's business Topsoe may become part of a lawsuit and/or dispute. In these cases, estimation of possible liabilities is evaluated and the likelihood hereof. The evaluation is based on available information and legal assessment from advisors. It is complex to assess the final outcome of lawsuits/disputes and the outcome may deviate from the evaluation of Topsoe.

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.

Notes to the consolidated financial statements

Note 2
Revenue
The Group's activities are in the business segment of providing catalytic processes for integrated solutions to industrial plants. The provision of these integrated solutions comprises fundamental and applied research, reaction engineering, process engineering, mechanical design and production and supply of catalysts. The Group's revenue can be specified as follows:

DKK million	**2016**	**2015**
Sale of products	5,170	5,094
Sale of services	654	691
Total revenue	**5,824**	**5,785**

Of the total revenue, 33% (2015: 25%) derives from engineering projects.

Government grants for research and development amounting to DKK 11 million (2015: DKK 13 million) have been recognized in the income statement.

Note 3
Staff expenses

DKK million	**2016**	**2015**
Wages and salaries	1,452	1,423
Pensions – defined contribution plans	135	144
Pensions – defined benefit plans	11	11
Other social security contributions	148	166
Total	**1,746**	**1,744**
Capitalization of work performed on property, plant and equipment	-34	-56
Total staff expenses	**1,712**	**1,688**
Executive Committee salary	23	24
Executive Committee pension	3	3
Executive Committee severance pay	3	0
Fee to Board of Directors	5	4
Total remuneration to Executive Committee and Board of Directors	**34**	**31**
Average number of employees	2,543	2,688
Of which in Denmark	1,803	1,985

Notes to the consolidated financial statements

Note 4
Depreciation, amortization and impairment losses

DKK million	**2016**	**2015**
Rights	2	1
Patents	8	7
Software	19	17
Land and buildings	22	24
Plant and machinery	159	151
Other fixtures and equipment	97	93
Total depreciation, amortization and impairment losses	**307**	**293**

Note 5
Result of investment in joint venture

DKK million	**2016**	**2015**
Share of result of joint venture	-15	-9
Total result of investment in joint venture	**-15**	**-9**

Note 6
Financial income

DKK million	**2016**	**2015**
Income from other investments	26	27
Interest received from the parent company	6	7
Interest income	6	11
Gains on derivative financial instruments (currency)	0	3
Foreign currency translation adjustment	54	96
Other financial income	1	2
Total financial income	**93**	**146**

Note 7
Financial expenses

DKK million	**2016**	**2015**
Interest expenses	56	56
Loss on derivative financial instruments (interest)	2	4
Loss on derivative financial instruments (currency)	0	22
Foreign currency translation adjustment	60	94
Other financial expenses	0	1
Total financial expenses	**118**	**177**

Notes to the consolidated financial statements

Note 8
Tax

DKK million	2016	2015
Current tax for the year	137	88
Change in deferred tax for the year	63	80
Change in corporate tax rate	0	-34
Adjustments to prior years	11	6
Total tax	**211**	**140**

%	2016	2015
Danish corporation tax rate	22.0	23.5
Non-deductible expenses	0.7	1.0
Income not subject to tax	-0.7	0.0
Differences in foreign tax rates	6.7	10.4
Adjustments relating to prior years	1.3	1.5
Change in corporate tax rate	0.0	-7.3
Other adjustments	0.0	1.2
Effective tax rate	**30.0**	**30.3**

Notes to the consolidated financial statements

Note 9
Intangible assets

DKK million	Rights	Patents	Software	Intangible assets under construction
Cost at January 1, 2016	25	104	171	2
Additions during the year	0	13	7	3
Disposals during the year	0	-7	0	0
Transfers during the year	0	0	2	-2
Cost at December 31, 2016	**25**	**110**	**180**	**3**
Amortization and impairment losses at January 1, 2016	1	64	122	0
Amortization for the year	2	8	19	0
Reversal of amortization and impairment losses on assets sold	0	-4	0	0
Amortization and impairment losses at December 31, 2016	**3**	**68**	**141**	**0**
Carrying amount at December 31, 2016	**22**	**42**	**39**	**3**
Research and development costs expensed in 2016				534

DKK million	Rights	Patents	Software	Intangible assets under construction
Cost at January 1, 2015	0	97	139	8
Additions during the year	25	14	22	5
Disposals during the year	0	-7	-1	0
Transfers during the year	0	0	11	-11
Cost at December 31, 2015	**25**	**104**	**171**	**2**
Amortization and impairment losses at January 1, 2015	0	62	107	0
Amortization for the year	1	7	17	0
Reversal of amortization and impairment losses on assets sold and scrapped	0	-5	-2	0
Amortization and impairment losses at December 31, 2015	**1**	**64**	**122**	**0**
Carrying amount at December 31, 2015	**24**	**40**	**49**	**2**
Research and development costs expensed in 2015				558

Notes to the consolidated financial statements

Note 10
Property, plant and equipment

DKK million	**Land and buildings**	**Plant and machinery**	**Other fixtures and equipment**	**Property, plant and equipment under construction**
Cost at January 1, 2016	1,062	3,148	947	540
Foreign currency translation adjustment	3	34	3	-8
Additions during the year	146	125	32	219
Disposals during the year	-15	-70	-3	0
Transfers during the year	84	310	40	-434
Cost at December 31, 2016	**1,280**	**3,547**	**1,019**	**317**
Revaluation at January 1, 2016	339	8	0	0
Foreign currency translation adjustment	5	0	0	0
Revaluation at December 31, 2016	**344**	**8**	**0**	**0**
Depreciation and impairment losses at January 1, 2016	625	2,037	668	0
Foreign currency translation adjustment	4	24	0	0
Depreciation for the year	22	159	97	0
Reversal of depreciation and impairment losses on assets sold and scrapped	-5	-65	-3	0
Depreciation and impairment losses at December 31, 2016	**646**	**2,155**	**762**	**0**
Carrying amount at December 31, 2016	**978**	**1,400**	**257**	**317**
Carrying amount at December 31, 2016, under the depreciated cost model	687	1,400	257	317
Borrowing costs capitalized in 2016				20

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.

Carrying amount of financial leased assets	**129**	**0**	**0**	**0**

Notes to the consolidated financial statements

Note 10
Property, plant and equipment (continued)

DKK million	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction
Cost at January 1, 2015	991	2,757	867	457
Foreign currency translation adjustment	16	88	4	16
Additions during the year	18	55	83	433
Disposals during the year	-50	-4	-34	0
Transfers during the year	87	252	27	-366
Cost at December 31, 2015	**1,062**	**3,148**	**947**	**540**
Revaluation at January 1, 2015	325	8	0	0
Foreign currency translation adjustment	14	0	0	0
Revaluation at December 31, 2015	**339**	**8**	**0**	**0**
Depreciation and impairment losses at January 1, 2015	611	1,824	605	0
Foreign currency translation adjustment	10	63	2	0
Depreciation for the year	24	151	93	0
Reversal of depreciation and impairment losses on assets sold and scrapped	-20	-1	-32	0
Depreciation and impairment losses at December 31, 2015	**625**	**2,037**	**668**	**0**
Carrying amount at December 31, 2015	**776**	**1,119**	**279**	**540**
Carrying amount at December 31, 2015, under the depreciated cost model	491	1,119	279	540
Borrowing costs capitalized in 2015				2

Notes to the consolidated financial statements

Note 10
Property, plant and equipment (continued)

DKK million	Level 1	Level 2	Level 3
Office buildings in Denmark	0	0	232
Production plants in Denmark, US and China	0	0	541
Excess land in US	0	76	0
Distribution of assets stated at fair value at December 31, 2016	**0**	**76**	**773**

DKK million	Level 1	Level 2	Level 3
Office buildings in Denmark	0	0	233
Production plants in Denmark and US	0	0	470
Excess land in US	0	73	0
Distribution of assets stated at fair value at December 31, 2015	**0**	**73**	**703**

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 asset, 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 m^2 for comparable buildings and an interest rate. The rental per m^2 is set at DKK 700-1000 for office buildings and DKK 500-725 for storage and laboratories. The fair value of production plants has been derived using a cost approach, which reflects the cost of constructing similar buildings at an equivalent age and use. Excess land in US is valuated using a sales comparison approach. Sales prices of comparable land in close proximity are adjusted for differences in key attributes such as property size. The sales price per acre is set at USD 105,000.

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.

DKK million	2016	2015
Fair value of level 3 assets at January 1	703	640
Additions	100	105
Disposals	-10	-30
Included in the income statement as depreciation	-21	-24
Foreign currency translation adjustment	1	12
Fair value of level 3 assets at December 31	**773**	**703**

Notes to the consolidated financial statements

Note 11
Investments

DKK million	**Investment in joint venture**	**Other securities and investments**	**Other receivables**
Cost at January 1, 2016	39	133	72
Foreign currency translation adjustment	0	0	0
Additions during the year	0	0	15
Disposals during the year	0	0	-11
Transfers during the year	0	8	-8
Cost at December 31, 2016	**39**	**141**	**68**
Value adjustment at January 1, 2016	-9	255	-17
Net result for the year	-15	0	0
Value adjustments for the year	-1	-48	0
Value adjustment at December 31, 2016	**-25**	**207**	**-17**
Carrying amount at December 31, 2016	**14**	**348**	**51**

DKK million	**Investment in joint venture**	**Other securities and investments**	**Other receivables**
Cost at January 1, 2015	0	132	59
Foreign currency translation adjustment	0	1	2
Additions during the year	39	0	16
Disposals during the year	0	0	-5
Cost at December 31, 2015	**39**	**133**	**72**
Value adjustment at January 1, 2015	0	282	-17
Net result for the year	-9	0	0
Value adjustments for the year	0	-27	0
Value adjustment at December 31, 2015	**-9**	**255**	**-17**
Carrying amount at December 31, 2015	**30**	**388**	**55**

Notes to the consolidated financial statements

Note 11
Investments (continued)

Investment in joint venture is specified as follows:

Ferrostaal Topsoe Projects GmbH
The Group invested in a joint venture together with Ferrostaal GmbH. The share capital of the joint venture is EUR 10 million of which the Group owns 50%. The investment is measured under the equity method.

Other securities and investments are specified as follows:

Karnaphuli Fertilizer Limited, Bangladesh (KAFCO)
The Group has a shareholding in KAFCO of nominally BDT 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 budgets 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 determined at 12% after tax. The growth rate in the terminal period has by management been estimated at 0%. Both the discount rate and the growth rate corresponds to the 2015 rates. Based on these criteria, the KAFCO shares have been written down by DKK 50 million (2015: DKK 28 million).

Chambal Fertilizer and Chemical Ltd., India
The Group has an investment in Chambal Fertilizer and Chemicals Ltd., corresponding to 0.48% of the share capital. The investment is measured at fair value based on listed market value.

Fatima Fertilizer Co. Ltd., Pakistan
The Group has an investment in Fatima Fertilizer Co. Ltd., corresponding to 0.05% of the share capital. The investment is measured at fair value based on listed market value.

Faradion Ltd., United Kingdom
The Group has an investment in Faradion Ltd., corresponding to 22.82% of the share capital. The investment is measured at fair value based on market value.

Clean Diesel Technologies, Inc., United States of America
The Group has an investment in Clean Diesel Technologies, Inc. corresponding to 4.91% of the share capital. The investment is measured at fair value based on listed market value.

Note 12
Inventories

DKK million	**2016**	**2015**
Raw materials and consumables	367	330
Work in progress	132	146
Finished goods	863	751
Inventories at December 31	**1,362**	**1,227**
Cost of sales for the year	2,030	2,331
Impairment losses for the year	114	107
Reversed impairment losses for the year	-54	-39

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

Notes to the consolidated financial statements

Note 13
Trade receivables

DKK million	2016	2015
Trade receivables, gross	**896**	**1,236**
Provision for bad debts at January 1	-35	-11
Provision for bad debts for the year	-16	-26
Reversal of bad debts, prior years	20	2
Provision for bad debts at December 31	**-31**	**-35**
Trade receivables at December 31	**865**	**1,201**
Of this, due after more than 1 year	60	0
Realized losses for the year	6	2

Receivables, gross due at December 31 have the following aging in %:	2016	2015
1-90 days	31	17
91-180 days	1	3
181+ days	11	5

Note 14
Contract work in progress

DKK million	2016	2015
Selling price of work performed at the balance sheet date	5,476	5,189
Payments received on account	-6,054	-6,159
Contract work in progress at December 31	**-578**	**-970**
Contract work in progress recognized in assets	154	91
Contract work in progress recognized in liabilities	-732	-1,061
Contract work in progress at December 31	**-578**	**-970**

Notes to the consolidated financial statements

Note 15
Receivables from the parent company

DKK million	**2016**	**2015**
Deposit with the parent company	234	375
Unpaid share capital	241	241
Other receivables	60	1
Receivables from the parent company at December 31	**535**	**617**

Deposit with the parent company is part of a cash pooling arrangement.

Note 16
Other receivables

DKK million	**2016**	**2015**
VAT and tax receivable	119	109
Fair value of derivative financial instruments	19	0
Government grants	1	2
Other receivables	39	33
Other receivables at December 31	**178**	**144**
Of this, due after more than 1 year	0	0

Note 17
Share capital

Number of shares	**2016**	**2015**
Shares of a nominal value of DKK 376,000,000	**376,000**	**376,000**

The share capital consists of 376,000 shares with a nominal value of DKK 1,000 each. No shares carry any special right.

Notes to the consolidated financial statements

Note 18
Reserves

DKK million	Revaluation reserve	Foreign currency translation reserve	Reserve for unpaid share capital	Reserve for value adjustment of hedging instruments	Reserve for value adjustment of financial assets available-for-sale	Total
Reserves at January 1, 2016	228	135	241	-5	255	854
Foreign currency translation adjustment	0	36	0	0	0	36
Realized derivative financial instruments transferred to financial gain/loss	0	0	0	2	0	2
Fair value adjustment of financial assets available-for-sale	0	0	0	0	-48	-48
Depreciaion on revaluation of buildings	-62	0	0	0	0	-62
Tax	15	0	0	-1	0	14
Reserves attributed to the parent company at December 31, 2016	**181**	**171**	**241**	**-4**	**207**	**796**
Non-controlling interest	0	-2	0	0	0	-2
Total reserves at December 31, 2016	**181**	**169**	**241**	**-4**	**207**	**794**

DKK million	Revaluation reserve	Foreign currency translation reserve	Reserve for unpaid share capital	Reserve for value adjustment of hedging instruments	Reserve for value adjustment of financial assets available-for-sale	Total
Reserves at January 1, 2015	222	47	241	-14	282	778
Foreign currency translation adjustment	0	88	0	0	0	88
Derivative financial instruments used for hedging of future cash flows	0	0	0	-11	0	-11
Realized derivative financial instruments transferred to financial gain/loss	0	0	0	23	0	23
Fair value adjustment of financial assets available-for-sale	0	0	0	0	-27	-27
Tax adjusted on revaluation of land and buildings	6	0	0	0	0	6
Tax	0	0	0	-3	0	-3
Reserves attributed to the parent company at December 31, 2015	**228**	**135**	**241**	**-5**	**255**	**854**
Non-controlling interest	0	9	0	0	0	9
Total reserves at December 31, 2015	**228**	**144**	**241**	**-5**	**255**	**863**

Notes to the consolidated financial statements

Note 19
Dividend
Proposed dividend constitutes DKK 209 million (2015: DKK 150 million) corresponding to DKK 555.85 (2015: DKK 398.94) per share.

Interim dividend of DKK 150 million for 2016 and dividend of DKK 150 million for 2015 have been paid during the year (2015: DKK 100 million and 150 million) corresponding to DKK 797.87 (2015: DKK 664.89) per share.

Dividend policy
Since 2007 the Haldor Topsoe Group has financed the operations of Haldor Topsøe Holding A/S through dividend payments. The liquidity effect of the expected future dividend payments has been incorporated in the cash flow forecasts of Topsoe.

Note 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 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.

DKK million	**2016**	**2015**
Pension costs	7	8
Interest expenses	12	11
Interest income on plan assets	-8	-8
Total pension re. defined benefit recognized in staff expenses	**11**	**11**

Applied actuarial assumptions in %	**2016**	**2015**
Discount rate	3.75	3.75
Future pay increases	3.00	3.00

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 -2% or +2%, respectively.

The weighted average duration of the defined benefit obligation is 9.5 years (2015: 9 years).

Notes to the consolidated financial statements

Note 20
Pension obligations and similar obligations (continued)

%	2016	2015
US	41	42
International	28	25
Global	5	2
Shares	**74**	**69**
US investment grade	6	11
High yield	10	12
Inflation protected	1	1
Other	1	1
Bonds	**18**	**25**
Real estate	3	3
Commodities	5	0
Other	0	3
Distribution of assets to cover the obligations at December 31	**100**	**100**

DKK million	2016	2015
Present value of pension obligations	320	314
Fair value of pension plan assets	-246	-224
Net obligation at December 31	**74**	**90**
Present value of pension obligations at January 1	314	293
Foreign currency translation adjustment	10	34
Pension costs	7	8
Interest expenses	12	11
Actuarial gains and losses, demographic assumption	-1	-9
Actuarial gains and losses, financial assumption	-4	2
Pension paid	-18	-25
Present value of pension obligations at December 31	**320**	**314**
Fair value of pension plan assets at January 1	224	222
Foreign currency translation adjustment	8	26
Interest on pension assets	8	8
Return on plan assets excl. interest on pension assets	13	-16
Paid by the company	11	9
Pension paid	-18	-25
Fair value of pension plan assets at December 31	**246**	**224**

Expected defined benefit pension payments by the Group in 2017 amounts to DKK 21 million.

Notes to the consolidated financial statements

Note 21
Deferred tax

DKK million	**2016**	**2015**
Deferred tax at January 1	447	432
Foreign currency translation adjustment	1	2
Tax on equity items	6	-11
Tax for the year	67	54
Tax previous years	-7	-30
Deferred tax at December 31	**514**	**447**
Intangible assets and property, plant and equipment	200	150
Inventories	17	1
Work in progress	360	353
Provisions	-59	-65
Other	-4	8
Deferred tax at December 31	**514**	**447**
Of this, due after more than 1 year	370	306

Note 22
Provisions

DKK million	**2016**	**2015**
Provisions at January 1	206	196
Reversals during the year	-14	-5
Provisions for the year	11	15
Provisions at December 31	**203**	**206**
Warranty provision for catalysts and engineering projects	198	201
Waste disposal	1	1
Other provisions	4	4
Provisions at December 31	**203**	**206**
Of this, due after more than 1 year	203	206

Notes to the consolidated financial statements

Note 23
Non-current liabilities

DKK million	**2016**	**2015**
Bonds		
After 5 years	0	0
Between 1 and 5 years	997	996
More than 1 year	**997**	**996**
Less than 1 year	0	0
Bonds at December 31	**997**	**996**
Mortgage debt		
After 5 years	21	30
Between 1 and 5 years	12	41
More than 1 year	**33**	**71**
Less than 1 year	3	10
Mortgage debt at December 31	**36**	**81**
Credit institutions		
After 5 years	189	380
Between 1 and 5 years	497	450
More than 1 year	**686**	**830**
Less than 1 year	132	197
Credit institutions at December 31	**818**	**1,027**
Leasing obligations		
After 5 years	127	0
Between 1 and 5 years	3	0
More than 1 year	**130**	**0**
Less than 1 year	0	0
Leasing obligations at December 31	**130**	**0**
Deferred income		
After 5 years	10	10
Between 1 and 5 years	1	1
More than 1 year	**11**	**11**
Less than 1 year	1	1
Deferred income at December 31	**12**	**12**

The Group leases property under a non-cancellable finance lease agreement. The lease runs until 2036.
At the end of the lease period the Group is obligated to purchase the property at a price of DKK 74 million.

Notes to the consolidated financial statements

Note 24
Other payables

DKK million	**2016**	**2015**
Staff related items	326	222
Fair value of derivative financial instruments	5	11
Tax related items	5	5
Other payables	191	193
Other payables at December 31	**527**	**431**
More than 1 year	4	5
Less than 1 year	523	426
Other payables at December 31	**527**	**431**

Note 25
Prepayments from customers

DKK million	**2016**	**2015**
Prepayments related to licence agreements	0	12
Prepayments related to sale of goods	280	345
Prepayments from customers at December 31	**280**	**357**

Note 26
Assets provided as security
For the Group, non-current assets (land and buildings) with a carrying amount of DKK 233 million (2015: DKK 432 million) have been provided as security. The remaining balance of the loans secured by non-current assets as of December 31, 2016, was DKK 36 million for the Group (2015: DKK 81 million). Non-current assets are provided by means of real estate mortgage deeds and owners' mortgage deeds. The nominal value is DKK 41 million (2015: DKK 111 million) for the Group. Furthermore, all assets of Haldor Topsoe Inc. have been provided as security for a loan amounting to DKK 66 million (2015: DKK 115 million). The nominal value is DKK 529 million (2015: DKK 529 million).

Assets are provided as security for mortgage debt and other long-term 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.

Notes to the consolidated financial statements

Note 27
Guarantees

DKK million	2016	2015
Guarantees given by banks and credit insurance institutions on the Group's behalf for contract work, etc.	749	791
Other guarantees given by banks and credit insurance institutions on the Group's behalf	0	96
Guarantees issued at December 31	**749**	**887**
Less than 1 year	405	617
Between 1 and 5 years	312	242
After 5 years	32	28
Guarantees issued at December 31	**749**	**887**
Bank guarantees received by the Group from suppliers for contract work, etc.	175	87
Letters of credit issued in favor of the Group as security for payments under various supply contracts	469	536
Letters of credit issued on behalf of the Group towards suppliers for contract work, etc.	0	4

Note 28
Contractual obligations

DKK million	2016	2015
Less than 1 year	82	113
Between 1 and 5 years	203	217
After 5 years	384	468
Contractual obligations at December 31	**669**	**798**
Payments for the year recognized as operating lease expenses	80	94

Leases and rental agreements relate mainly to premises and equipment, etc. and extend in some cases to 2032.

Note 29
Contingent liabilities
The Group's property in Frederikssund, Denmark, has been found to be contaminated. The Management assesses that the remediation costs will not be significant.

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

Note 30
Fee to auditors appointed at the general meeting
Please refer to the note in the consolidated financial statement for the parent company, Haldor Topsøe Holding A/S.

Notes to the consolidated financial statements

Note 31
Related parties

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

DKK million	2016	2015
Management fee received from the parent company	2	1
Interest received from the parent company	6	7
Receivables from the parent company at December 31	535	617

DKK million

Related parties	Transactions	2016	2015
Joint venture	Administration fee	1	1
	Outstanding balance	0	1

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

Intercompany transactions have been eliminated in the consolidated financial statements.

Note 32
Derivative financial instruments

DKK million	Contract amount 2016	Fair value 2016	Contract amount 2015	Fair value 2015
Sale of USD, matures in 2016	0	0	105	-1
Forward exchange contracts at December 31	**0**	**0**	**105**	**-1**

The Group uses forward exchange contracts to hedge against changes in exchange rates in volatile currencies, especially USD, for contract related payments up to 12 months forward. The fair value of the contracts is recognized in the balance sheet through other comprehensive income. The Group thus applies the rules on hedge accounting.

DKK million	Contract amount 2016	Fair value 2016	Contract amount 2015	Fair value 2015
EUR interest rate swap, matures on December 31, 2021	41	-5	48	-6
Interest rate swaps at December 31	**41**	**-5**	**48**	**-6**

The Group uses interest rate swaps to hedge against changes in interest rate levels and thus to 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.

Notes to the consolidated financial statements

Note 32
Derivative financial instruments (continued)

DKK million	Contract amount 2016	Fair value 2016	Contract amount 2015	Fair value 2015
Aggregate amount of commodity swaps within metals, matures in 2018	23	6	0	0
Aggregate amount of commodity swaps within metals, matures in 2017	73	13	0	0
Aggregate amount of commodity swaps within metals, matures in 2016	0	0	5	-4
Commodity swaps at December 31	**96**	**19**	**5**	**-4**

The Group uses commodity swaps to hedge against price fluctuations in raw material, primarily base metals 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 use financial hedging, when quoting fixed contract prices.

Note 33
Financial assets and liabilities

DKK million	2016	2015
Other securities and investments	348	388
Trade receivables	865	1,201
Other financial receivables	229	199
Cash	556	577
Financial assets at December 31	**1,998**	**2,365**
Bonds, mortgage debt, debt to credit institutions	1,851	2,104
Financial lease	130	0
Trade payables	486	398
Other financial liabilities	527	431
Financial liabilities at December 31	**2,994**	**2,933**
Assets available-for-sale	348	388
Financial assets measured at amortized cost	1,631	1,977
Derivative financial instruments	19	0
Classification of financial assets at December 31	**1,998**	**2,365**
Financial liabilities measured at amortized cost	2,989	2,922
Derivative financial instruments	5	11
Classification of financial liabilities at December 31	**2,994**	**2,933**

Notes to the consolidated financial statements

Note 33
Financial assets and liabilities (continued)

DKK million	**2016**	**2015**
Bonds, mortgage debt and debt to credit institutions:		
Installments:		
Less than 1 year	173	706
Between 1 and 5 years	1,595	1,462
After 5 years	300	246
Bonds, mortgage debt and debt to credit institutions at nominal value	**2,068**	**2,414**
Future finance charges	-217	-310
Bonds, mortgage debt and debt to credit institutions at present value	**1,851**	**2,104**
Leasing obligations		
Minimum lease payments:		
After 5 years	204	0
Between 1 and 5 years	28	0
Less than 1 year	7	0
Leasing obligations at nominal value	**239**	**0**
Future finance charges	-109	0
Leasing obligations at present value	**130**	**0**
Trade payables:		
Less than 1 year	486	398
Derivative financial instruments:		
After 5 years	0	1
Between 1 and 5 years	4	4
Less than 1 year	1	6
Other financial liabilities:		
Less than 1 year	522	420

Notes to the consolidated financial statements

Note 33
Financial assets and liabilities (continued)

DKK million	Level 1	Level 2	Level 3
Other securities and investments	26	0	313
Derivative financial instruments	0	19	0
Distribution of assets stated at fair value at December 31, 2016	**26**	**19**	**313**
Derivative financial instruments	0	5	0
Distribution of liabilities stated at fair value at December 31, 2016	**0**	**5**	**0**

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.

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

DKK million	2016	2015
Fair value of level 3 assets at January 1	363	391
Write-down recognized in other comprehensive income	-50	-28
Fair value of level 3 assets at December 31	**313**	**363**

Financial risks

Currency risks
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 EUR, USD, and CNY.

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

Interest rate risk
Long-term debt consists of loans and bonds with fixed and floating interest rates. Topsoe's policy is to maintain loan portfolio where 35-50% is subject to floating interest rates and where 50-65% is subject to fixed interest rates. For the floating rate portion of Topsoe's interest bearing debt, a change in the interest rate level of 1 percentage point will increase interest expenses by DKK 8 million.

Credit risk
The credit risk of Topsoe is primarily related to trade receivables relating to state-owned as well as 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 it is being assessed if the company should make accruals for bad debt, which is considered unlikely to be collected.

Liquidity risks
Topsoe must maintain sufficient liquidity to fund daily operations, debt service, and expansion. Topsoe's access to liquidity consists of cash and cash equivalents, including access to committed revolving credit facilities.

Notes to the consolidated financial statements

Note 34
Adjustments for non-cash items

DKK million	**2016**	**2015**
Financial income	-93	-146
Financial expenses	118	177
Result of investment in joint venture	15	9
Amortization, depreciation and impairment losses, including gains and losses from sale of assets	307	293
Tax	211	140
Other adjustments	-5	-16
Total adjustments for non-cash items	**553**	**457**

Note 35
Change in working capital

DKK million	**2016**	**2015**
Increase (-) / decrease in inventories	-126	-32
Increase (-) / decrease in receivables	400	-406
Increase / decrease (-) in contract billing	-392	438
Increase / decrease (-) in suppliers, etc.	-32	146
Total change in working capital	**-150**	**146**

Note 36
Subsequent events
No events materially affecting the Company's financial position at December 31, 2016 have occured after the balance sheet date.

Notes to the consolidated financial statements

Note 37
List of group companies

Name	Registered office	Voting and ownership share
Haldor Topsoe, Inc.	Houston, USA	100%
Topsoe Fuel Cell A/S	Lyngby, Denmark	100%
Topsoe Energy Conv. & Storage A/S	Lyngby, Denmark	100%
Haldor Topsoe India Pvt. Ltd.	New Delhi, India	100%
Haldor Topsøe (Beijing) Co., Ltd	Beijing, China	100%
Haldor Topsøe Catalyst (Tianjin) Co., Ltd.	Tianjin, China	55.56%
Haldor Topsøe International A/S	Lyngby, Denmark	100%
OOO Haldor Topsøe	Moscow, Russia	100%
Haldor Topsoe America Latina S.A.	Buenos Aires, Argentina	100%
Haldor Topsoe Sdn. Bhd.	Kuala Lumpur, Malaysia	100%
Haldor Topsoe Canada Limited	Vancouver, Canada	100%
Haldor Topsoe Catalisadores e Tecnologias do Brasil Ltda.	Joinville, Brazil	100%
Subcontinent Ammonia Investment Company ApS	Lyngby, Denmark	100%
Haldor Topsoe S.A.	Cape Town, South Africa	100%
Haldor Topsoe Ohio, Inc.	Wilmington, USA	100%
Haldor Topsøe Automotive Catalyst Trading (Tianjin) Co., Ltd.	Tianjin, China	100%
Haldor Topsoe Science & Technology (Dalian) Co. Ltd.	Dalian, China	100%
Haldor Topsoe De Mexico, S. A. de C. V.	Mexico City, Mexico	100%

Financial statements of Haldor Topsoe A/S

Income statement of Haldor Topsoe A/S

DKK million	Note	2016	2015
Revenue	2	**4,993**	**4,972**
Change in inventories of finished goods and intermediate products		60	-11
Other operating income		13	40
Purchased equipment for contract work		-734	-397
Raw materials and consumables used		-964	-1,205
Other external expenses		-1,339	-1,606
Gross profit		**2,029**	**1,793**
Staff expenses	3	-1,261	-1,263
Depreciation, amortization and impairment losses		-236	-241
EBIT		**532**	**289**
Result of investments in group enterprises and joint venture	4	95	110
Financial income	5	72	121
Financial expenses	6	-89	-146
Profit before tax		**610**	**374**
Tax		-122	-46
Net profit		**488**	**328**
Proposed distribution of profit			
Proposed dividend		209	150
Interim dividend paid during the year		150	100
Net revaluation reserve according to the equity method		-2	60
Retained earnings		131	18
		488	**328**

Balance sheet of Haldor Topsoe A/S

Assets		December 31	December 31
DKK million	**Note**	**2016**	**2015**
Rights		21	24
Patents		43	41
Software		26	36
Intangible assets under construction		3	1
Intangible assets	7	**93**	**102**
Land and buildings		594	486
Plant and machinery		702	708
Other fixtures and equipment		233	250
Property, plant and equipment under construction		197	214
Property, plant and equipment	8	**1,726**	**1,658**
Investments in group enterprises		1,557	1,451
Investments in joint venture		14	30
Receivables from group enterprises		599	34
Other securities and investments		35	25
Other receivables		17	19
Investments	9	**2,222**	**1,559**
Non-current assets		**4,041**	**3,319**
Inventories	10	**868**	**783**
Trade receivables		659	948
Contract work in progress		152	87
Receivables from group enterprises	11	778	792
Other receivables		98	73
Prepayments		23	26
Receivables		**1,710**	**1,926**
Cash		**179**	**267**
Current assets		**2,757**	**2,976**
Assets		**6,798**	**6,295**

Balance sheet of Haldor Topsoe A/S

Equity and liabilities		December 31	December 31
DKK million	**Note**	**2016**	**2015**
Share capital		376	376
Revaluation reserve		113	161
Net revaluation reserve according to the equity method		386	340
Reserve for unpaid share capital		241	241
Reserve for development costs		13	0
Retained earnings		901	735
Proposed dividend		209	150
Equity		**2,239**	**2,003**
Deferred tax	12	477	419
Provisions	13	180	195
Bonds	14	997	996
Mortgage debt	14	33	71
Credit institutions	14	672	368
Lease obligations	14	130	0
Other payables	14	4	4
Non-current liabilities		**2,493**	**2,053**
Mortgage debt	14	3	10
Credit institutions	14	67	146
Deferred income		1	1
Prepayments from customers	15	216	248
Contract work in progress		724	1,055
Trade payables		430	334
Payables to group enterprises		157	74
Corporate income tax		52	17
Other payables		416	354
Current liabilities		**2,066**	**2,239**
Liabilities		**4,559**	**4,292**
Equity and liabilities		**6,798**	**6,295**

Statement of changes in equity of Haldor Topsoe A/S

DKK million	**Share capital**	**Revaluation reserve**	**Net revaluation reserve according to the equity method**	**Reserve for unpaid share capital**	**Reserve for develop-ment costs**	**Retained earnings**	**Dividend proposed**	**Total**
Equity at January 1, 2016	376	161	340	241	0	735	150	2,003
Net profit	0	0	-2	0	0	281		279
Adjustments relating to separate foreign legal entities	0	0	48	0	0	0	0	48
Fair value adjustment of derivative financial instruments	0	0	0	0	0	2	0	2
Depreciation on revaluated fixed assets	0	-48	0	0	0	48	0	0
Capitalized development projects	0	0	0	0	13	-13	0	0
Other adjustments	0	0	0	0	0	-2	0	-2
Net profit and income and expenses recognized under equity	**0**	**-48**	**46**	**0**	**13**	**316**	**0**	**327**
Dividend paid	0	0	0	0	0	0	-150	-150
Interim dividend paid	0	0	0	0	0	-150	0	-150
Dividend proposed	0	0	0	0	0	0	209	209
Transactions with owners	**0**	**0**	**0**	**0**	**0**	**-150**	**59**	**-91**
Equity at December 31, 2016	**376**	**113**	**386**	**241**	**13**	**901**	**209**	**2,239**

Notes to the financial statements of Haldor Topsoe A/S

List of notes

Notes to the financial statements of Haldor Topsoe A/S

Note 1
Accounting policies

Basis of preparation

The financial statements of Haldor Topsoe A/S have been prepared in accordance with the provisions of the Danish Financial Statements Act applying to large enterprises of reporting class C. Haldor Topsoe A/S has adopted the amended Danish Financial Statement Act effective for annual reports beginning on or after January 1, 2016. The adoption has not had effect on recognition or measurement, thus the accounting policies are unchanged from last year. However, it has resulted in increased disclosures for the financial statements.

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

Other securities and investments

Other 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".

Investments in group enterprises

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

Group enterprises which have negative equity are measured at DKK 0, and receivables from these group enterprises are written down by the parent company's share of the negative equity if it is estimated to be irrecoverable.

If the negative equity exceeds receivables, the remaining amount is recognized under provisions to the extent the parent company has a legal or constructive obligation to cover the group enterprise's deficit.

The item "Result of investments in group enterprises" in the income statement includes the proportionate share of the result after tax.

Reserves

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

Cash flow statement

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

Notes to the financial statements of Haldor Topsoe A/S

Note 2
Revenue

The Company's activities are in the business segment of providing catalytic processes for integrated solutions to industrial plants. The provision of these integrated solutions comprises fundamental and applied research, reaction engineering, process engineering, mechanical design and production and supply of catalysts.

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

Note 3
Staff expenses

DKK million	**2016**	**2015**
Wages and salaries	1,099	1,094
Pensions	119	127
Other social security contributions	53	68
Total	**1,271**	**1,289**
Capitalization of work performed on property, plant and equipment	-10	-26
Total staff expenses	**1,261**	**1,263**
Executive Committee salary and pension	15	11
Fee to Board of Directors	5	4
Total remuneration to Executive Committee and Board of Directors	**20**	**15**
Average number of employees	1,803	1,977

Note 4
Result of investments in group enterprises and joint venture

DKK million	**2016**	**2015**
Share of result of group enterprises, net	86	128
Change in intercompany profit	24	-9
Share of result of joint venture, net	-15	-9
Total income from investments in group enterprises and joint venture	**95**	**110**

Note 5
Financial income

DKK million	**2016**	**2015**
Income from other investments	1	1
Interest received from group enterprises	28	25
Interest income	2	7
Foreign currency translation adjustment	39	85
Value adjustments of other investments	1	2
Other financial income	1	1
Total financial income	**72**	**121**

Notes to the financial statements of Haldor Topsoe A/S

Note 6
Financial expenses

DKK million	**2016**	**2015**
Interest expenses	46	49
Foreign currency translation adjustment	42	93
Other financial expenses	1	4
Total financial expenses	**89**	**146**

Note 7
Intangible assets

DKK million	**Rights**	**Patents**	**Software**	**Intangible assets under construction**
Cost at January 1, 2016	25	104	152	1
Additions during the year	0	13	4	3
Disposals during the year	0	-6	0	0
Transfers during the year	0	0	1	-1
Cost at December 31, 2016	**25**	**111**	**157**	**3**
Amortization and impairment losses at January 1, 2016	1	63	116	0
Foreign currency translation adjustment	0	0	0	0
Amortization during the year	3	8	15	0
Reversal of amortization and impairment losses on assets sold	0	-3	0	0
Amortization and impairment losses at December 31, 2016	**4**	**68**	**131**	**0**
Carrying amount at December 31, 2016	**21**	**43**	**26**	**3**

Notes to the financial statements of Haldor Topsoe A/S

Note 8
Property, plant and equipment

DKK million	**Land and buildings**	**Plant and machinery**	**Other fixtures and equipment**	**Property, plant and equipment under construction**
Cost at January 1, 2016	681	2,088	786	214
Additions during the year	132	22	28	112
Disposals during the year	-15	-70	-4	0
Transfers during the year	1	91	37	-129
Cost at December 31, 2016	**799**	**2,131**	**847**	**197**
Revaluation at January 1, 2016	198	8	0	0
Revaluation at December 31, 2016	**198**	**8**	**0**	**0**
Depreciation and impairment losses at January 1, 2016	393	1,388	536	0
Depreciation for the year	15	114	81	0
Reversal of depreciation on assets sold and scrapped	-5	-65	-3	0
Depreciation and impairment losses at December 31, 2016	**403**	**1,437**	**614**	**0**
Carrying amount at December 31, 2016	**594**	**702**	**233**	**197**
Carrying amount at December 31, 2016, under the depreciated cost model	450	702	233	197
Of this financial leased assets	129	0	0	0

Borrowing costs capitalized in 2016 amounted to DKK 4 million (2015: DKK 0 million).

Note 9
Investments

DKK million	**Other securities and investments**	**Other receivables**
Cost at January 1, 2016	16	36
Additions during the year	0	13
Disposals during the year	0	-7
Transfers during the year	8	-8
Cost at December 31, 2016	**24**	**34**
Value adjustment at January 1, 2016	9	-17
Value adjustment during the year	2	0
Value adjustment at December 31, 2016	**11**	**-17**
Carrying amount at December 31, 2016	**35**	**17**

Notes to the financial statements of Haldor Topsoe A/S

Note 9
Investments (continued)

DKK million	Investments in group enterprises	Investments in joint venture	Receivables from group enterprises
Cost at January 1, 2016	868	39	35
Additions during the year	277	0	591
Disposals during the year	0	0	-27
Cost at December 31, 2016	**1,145**	**39**	**599**
Revaluations at January 1, 2016	583	-9	-1
Foreign currency adjustments	37	0	1
Dividend	-96	0	0
Net profit for the year	110	-15	0
Other adjustments	12	-1	0
Reversal of investments with negative equity transferred to receivables	-234	0	0
Revaluations at December 31, 2016	**412**	**-25**	**0**
Carrying amount at December 31, 2016	**1,557**	**14**	**599**

Other securities and investments are specified as follows:

Chambal Fertilizer and Chemical Ltd., India
Haldor Topsoe A/S has an investment in Chambal Fertilizer and Chemicals Ltd., corresponding to 0.48% of the share capital. The investment is measured at fair value based on listed market value.

Fatima Fertilizer Co. Ltd., Pakistan
Haldor Topsoe A/S has an investment in Fatima Fertilizer Co. Ltd., corresponding to 0.05% of the share capital. The investment is measured at fair value based on listed market value.

Faradion Ltd., United Kingdom
Haldor Topsoe A/S has an investment in Faradion Ltd., corresponding to 22.82% of the share capital. The investment is measured at fair value based on market value.

Clean Diesel Technologies, Inc., United States of America
Haldor Topsoe A/S has an investment in Clean Diesel Technologies, Inc. corresponding to 4.91% of the share capital. The investment is measured at fair value based on listed market value.

Investment in joint venture is specified as follows:

Ferrostaal Topsoe Projects GmbH
In 2015, Haldor Topsoe A/S invested in a joint venture together with Ferrostaal GmbH. The share capital of the joint venture is EUR 10 million of which the Group owns 50%. The investment is measured under the equity method.

Notes to the financial statements of Haldor Topsoe A/S

Note 9
Investments (continued)

Investments in group enterprises are specified as follows:

Name	Registered office	Voting and ownership share
Haldor Topsoe, Inc.	Houston, USA	100%
Topsoe Fuel Cell A/S	Lyngby, Denmark	100%
Topsoe Energy Conv. & Storage A/S	Lyngby, Denmark	100%
Haldor Topsoe India Pvt. Ltd.	New Delhi, India	100%
Haldor Topsøe (Beijing) Co., Ltd	Beijing, China	100%
Haldor Topsøe Catalyst (Tianjin) Co.,Ltd.	Tianjin, China	55.56%
Haldor Topsøe International A/S	Lyngby, Denmark	100%
OOO Haldor Topsøe	Moscow, Russia	100%
Haldor Topsoe America Latina S.A.	Buenos Aires, Argentina	100%
Haldor Topsoe Sdn. Bhd.	Kuala Lumpur, Malaysia	100%
Haldor Topsoe Canada Limited	Vancouver, Canada	100%
Haldor Topsoe Catalisadores e Tecnologias do Brasil Ltda.	Joinville, Brazil	100%
Subcontinent Ammonia Investment Company ApS	Lyngby, Denmark	100%
Haldor Topsoe S.A.	Cape Town, South Africa	100%
Haldor Topsoe Ohio, Inc.	Wilmington, USA	100%
Haldor Topsøe Automotive Catalyst Trading (Tianjin) Co., Ltd.	Tianjin, China	100%
Haldor Topsøe Science & Technology (Dalian) Co., Ltd.	Dalian, China	100%
Haldor Topsoe De Mexico, S. A. de C. V.	Mexico City, Mexico	100%

Note 10
Inventories

DKK million	2016	2015
Raw materials and consumables	216	192
Work in progress	103	110
Finished goods	549	481
Inventories at December 31	**868**	**783**

Note 11
Receivables from group enterprises

DKK million	2016	2015
Deposit with the holding company	234	375
Unpaid share capital	241	241
Other receivables	303	176
Receivables from group enterprises at December 31	**778**	**792**

Deposit with the holding company is part of a cash pooling arrangement.

Notes to the financial statements of Haldor Topsoe A/S

Note 12
Deferred tax

DKK million	**2016**	**2015**
Deferred tax at January 1, 2016	419	420
Tax on equity items	0	-6
Tax for the year	58	5
Deferred tax at December 31	**477**	**419**
Intangible assets and property, plant and equipment	92	50
Inventories	26	21
Work in progress	360	353
Provisions	-26	-26
Other	25	21
Deferred tax at December 31	**477**	**419**
Deferred tax	477	419
Deferred tax recognized in the balance sheet at December 31	**477**	**419**

Deferred tax has been provided at mainly 22% corresponding to the current Danish tax rate.

Note 13
Provisions

DKK million	**2016**	**2015**
Warranty provision for catalysts and technology projects	179	194
Other provisions	1	1
Provisions at December 31	**180**	**195**
Of this, due after more than 1 year	180	195

Note 14
Non-current liabilities

DKK million	**2016**	**2015**
Bonds		
After 5 years	0	0
Between 1 and 5 years	997	996
More than 1 year	**997**	**996**
Less than 1 year	0	0
Bonds at December 31	**997**	**996**
Amortization cost included under long-term liabilities, bonds.	3	5

Notes to the financial statements of Haldor Topsoe A/S

Note 14
Non-current liabilities (continued)

DKK million	2016	2015
Mortgage debt		
After 5 years	21	30
Between 1 and 5 years	12	41
More than 1 year	**33**	**71**
Less than 1 year	3	10
Mortgage debt at December 31	**36**	**81**
Credit institutions		
After 5 years	188	100
Between 1 and 5 years	484	268
More than 1 year	**672**	**368**
Less than 1 year	67	146
Credit institutions at December 31	**739**	**514**
Lease obligation		
After 5 years	127	0
Between 1 and 5 years	3	0
More than 1 year	**130**	**0**
Less than 1 year	0	0
Lease obligation at December 31	**130**	**0**
Other payables		
After 5 years	0	1
Between 1 and 5 years	4	3
More than 1 year	**4**	**4**
Less than 1 year	1	1
Other payables at December 31	**5**	**5**

Other payables consist of derivative financial instruments.

Note 15
Prepayments from customers

DKK million	2016	2015
Prepayments related to license agreements	0	12
Prepayments related to sale of goods	216	236
Prepayments from customers at December 31	**216**	**248**

Notes to the financial statements of Haldor Topsoe A/S

Note 16
Assets provided as security
Non-current assets (land and buildings) with a carrying amount of DKK 25 million (2015: DKK 233 million) have been provided as security. The remaining balance of the loans secured by non-current assets as of December 31, 2016, was DKK 36 million (2015: DKK 81 million). Non-current assets are provided by means of real estate mortgage deeds and owners' mortgage deeds. The nominal value is DKK 41 million (2015: DKK 111 million).

Assets are provided as security for mortgage debt and other long-term 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.

Note 17
Guarantees

DKK million	**2016**	**2015**
Guarantees given by banks and credit insurance institutions on the Company's behalf for contract work, etc.	749	791
Other guarantees given by banks and credit insurance institutions on the Company's behalf	0	96
Guarantees issued at December 31	**749**	**887**
Parent company guarantees issued by the company for certain obligations in subsidiaries	0	3
Bank guarantees received by the Company from suppliers for contract work, etc.	145	78
Letters of credit issued in favor of the Company as security for payments under various supply contracts	469	536
Letters of credit issued on behalf of the Company towards suppliers for contract work, etc.	0	4

Note 18
Contractual obligations

DKK million	**2016**	**2015**
Less than 1 year	57	87
Between 1 and 5 years	177	171
After 5 years	384	468
Contractual obligations at December 31	**618**	**726**

Leases and rental agreements relate to premises and equipment, etc. and extend in some cases to 2032.

Note 19
Contingent liabilities
The Company's property in Frederikssund, Denmark, has been found to be contaminated. The management assesses that the remediation costs will not be significant.

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

Note 20
Fee to auditors appointed at the general meeting
Please refer to the note in the consolidated financial statement for the parent company, Haldor Topsøe Holding A/S.

Notes to the financial statements of Haldor Topsoe A/S

Note 21
Related parties

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

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

Note 22
Derivative financial instuments

DKK million	**Contract amount 2016**	**Fair value 2016**	**Contract amount 2015**	**Fair value 2015**
Sale of USD, matures in 2016	0	0	105	-1
Forward exchange contracts at December 31	**0**	**0**	**105**	**-1**

The Company uses forward exchange contracts to hedge against changes in exchange rates in volatile currencies, especially USD, for contract related payments up to 12 months forward.

DKK million	**Contract amount 2016**	**Fair value 2016**	**Contract amount 2015**	**Fair value 2015**
EUR interest rate swap, matures on December 31, 2021	41	-5	48	-6
Interest rate swaps at December 31	**41**	**-5**	**48**	**-6**

The Company uses interest rate swaps to hedge against changes in interest rate levels and thus to reduce the interest rate risk. Interest rate swaps are used on floating rate loans.

DKK million	**Contract amount 2016**	**Fair value 2016**	**Contract amount 2015**	**Fair value 2015**
Aggregate amount of commodity swaps within metals, matures in 2018	23	6	0	0
Aggregate amount of commodity swaps within metals, matures in 2017	73	13	0	0
Aggregate amount of commodity swaps within metals, matures in 2016	0	0	5	-4
Commodity swaps at December 31	**96**	**19**	**5**	**-4**

The Company uses commodity swaps to hedge against price fluctuations in raw material, primarily base metals of specific production contracts. Hedging duration depends on the specific underlying contract, but it is typically less than 24 months.

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

Note 23
Subsequent events
No events materially affecting the Company's financial position at December 31, 2016, have occured after the balance sheet date.

Note 24
Consolidated financial statements
Haldor Topsøe Holding A/S prepares consolidated financial statements, which include the Company and its group enterprises.

Statement by the Executive Committee and Board of Directors on the Annual Report

The Executive Committee and Board of Directors have today considered and adopted the Annual Report 2016 of Haldor Topsoe 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, 2016, 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 2016 in accordance with the applied accounting policies.

In our opinion, the Management's review includes a true and fair account of the development in the operations and financial circumstances of the results for the year and of the financial position of the group and the parent company as well as a description of the most significant risks and elements of uncertainty facing the group and the parent company.

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

Lyngby, March 21, 2017

Executive Committee

Bjerne S. Clausen
President and CEO

Peter Rønnest Andersen
Executive Vice President and CFO

Board of Directors

Jeppe Christiansen
Chairman

Jørgen Huno Rasmussen
Vice Chairman

Jakob Haldor Topsøe
Vice Chairman

Jens Kehlet Nørskov
Member

Henrik Stiesdal
Member

Christina Teng Topsøe
Member

Anders Heine Jensen
Member

Jette Søvang Christiansen
Employee representative

Aino Irene Saldo
Employee representative

Søren Toft
Employee representative

Martin Østberg
Employee representative

Independent Auditor's Report

To the shareholder of Haldor Topsoe A/S

Opinion

In our opinion, the Consolidated Financial Statements give a true and fair view of the Group's financial position at December 31, 2016, and of the results of the Group's operations and cash flows for the financial year January 1 to December 31, 2016, 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, 2016, and of the results of the Parent Company's operations for the financial year January 1 - December 31, 2016, in accordance with the Danish Financial Statements Act.

We have audited the Consolidated Financial Statements and the Parent Company Financial Statements of Haldor Topsoe A/S for the financial year January 1 - December 31, 2016, which comprise income statement, balance sheet, statement of changes in equity and notes, including a summary of significant accounting policies, for both the Group and the Parent Company, as well as statement of comprehensive income and cash flow statement for the Group ("financial statements").

Basis for opinion

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

Statement on Management's review

Management is responsible for Management's review.

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

In connection with our audit of the financial statements, our responsibility is to read Management's review and, in doing so, consider whether Management's review is materially inconsistent with the financial statements or our knowledge obtained during the audit, or otherwise appears to be materially misstated.

Moreover, it is our responsibility to consider whether Management's review provides the information required under the Danish Financials Statements Act.

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

Management's responsibilities for the Financial Statements

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

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

Auditor's responsibilities for the audit of the Financial Statements

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

As part of an audit conducted in accordance with ISAs and the additional requirements applicable in Denmark, we exercise professional judgment and maintain professional skepticism throughout the audit. We also:

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

> Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the Group's and the Parent Company's internal control.

> Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by Management.

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

> Evaluate the overall presentation, structure and contents of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that gives a true and fair view.

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

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

Copenhagen, March 21, 2017

PricewaterhouseCoopers
Statsautoriseret Revisionspartnerselskab
CVR No 33 77 12 31

Mikkel Sthyr
State Authorized Public Accountant

Maj-Britt Nørskov Nannestad
State Authorized Public Accountant

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