

# Annual Report for 2016

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

The Annual Report has been presented and adopted at the Annual General Meeting on  
March 22, 2017



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Chair of the meeting,  
Lene Ramm

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## Letter from the Chairman

2016 proved to be a year of good progress for the companies operating under Haldor Topsøe Holding A/S.

### Haldor Topsoe A/S

Despite a continued challenging geopolitical environment, Haldor Topsoe A/S managed to reach the highest revenue and EBIT levels ever. This was achieved by a combination of restarted contracts, a strong performance in the traditional petrochemical area, an improvement in technology orders, and the effect of running the business more efficiently. The company also managed to maintain its overall market share, despite the generally challenging market conditions

Towards the end of the year, the company successfully completed the construction of its major catalyst manufacturing plant projects in China and Brazil

### IGM Biosciences, Inc.

IGM Biosciences, Inc. continued its fast pace of progress with the technical development of IgM and IgA antibodies. Thus the goal of developing IgM and IgA antibodies to improve the treatment of cancer and infectious diseases is being pursued with great optimism. We firmly believe that IGM Biosciences Inc. continues to be the global leader in protein engineering of IgM antibodies.

In terms of business development, the company had a very active year. IGM Biosciences Inc. initiated the first contacts to potential partners and has already entered into research agreements with major pharma and biotech companies. The company also moved into new, larger and more modern facilities in Mountain View in order to prepare for the growth expected in the coming years.

### Frydenlund Ejendomsselskab ApS

Frydenlund Ejendomsselskab ApS had a very busy year. The orchard operations moved into new facilities and there were several ongoing renovation projects at the historical estate. However, renovation of the main building proved to take longer than anticipated and is now expected to be finished late 2017, at which point it will serve as a conference center for and be used for representative purposes by Haldor Topsoe A/S.

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2016 was the first full year of operation of Haldor Topsøe Holding A/S after the third generation of the Topsøe family took charge of the company at board level. I therefore want to thank my fellow board members for this year's hard work, support and dedicated efforts. My thanks also extend to the entire family for their solid support. We are fortunate to be involved in companies with such great potential. An instrumental element of the past year's successes has also been the excellent work by the boards of our operating entities.

And more than anything else – together with the family – I want to extend a sincere thank you to all the employees involved in our operations for meeting challenges head on whether they fight for optimizing performance with cutting edge technologies and products for our clients, or for developing better treatments for future patients or if it is for producing the world's best apples.

## Five-year summary

*DKK million*

<b>Income statement</b>	2016	2015	2014	2013	2012
Revenue	5,824	5,785	5,685	5,348	5,244
Gross profit	2,719	2,452	2,521	2,400	2,141
EBITDA	985	748	898	866	792
Depreciation and amortization	-309	-293	-366	-175	-200
EBIT	676	455	532	691	592
Net financial expenses etc.	-57	-64	-31	-79	-87
Net profit	409	251	381	513	362

### Balance sheet

Balance sheet total	10,136	10,075	9,225	8,687	8,157
Equity (excl. minority)	5,218	4,808	4,534	4,113	3,638
Net working capital	574	438	485	371	251
Net indebtedness	1,429	1,524	1,419	1,497	1,236

### Cash flow

Cash flow from operating activities	663	716	614	427	742
Cash flow from investing activities	-404	-701	-585	-667	-331
- Of which investments in property, plant and equipment	-410	-651	-600	-664	-307
Cash flow from financing activities	-295	63	18	329	-367
Change in cash and cash equivalents	-30	95	47	89	44

### Employees

Average number of employees	2,565	2,700	2,703	2,436	2,195
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### Ratios in %

Gross margin	46.7	42.4	44.3	44.9	40.8
EBITDA margin	16.9	12.9	15.8	16.2	15.1
EBIT margin	11.6	7.9	9.4	12.9	11.3
Return on invested capital (ROIC)	9.8	7.0	8.7	12.5	11.7
Equity ratio	51.5	47.7	49.1	47.3	44.6
Return on equity	8.2	5.4	8.8	13.2	10.3

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

## Financial report 2016

2016 was a profitable year for Haldor Topsøe Holding A/S. This was due to the good results in Haldor Topsoe A/S, which constitute the vast majority of the operations under Haldor Topsøe Holding 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 Haldor Topsoe A/S maintained the market shares in 2016.

Haldor Topsøe Holding A/S maintained a strong operating cash flow (DKK 663 million).

EBIT increased by 49% to DKK 676 million corresponding to an EBIT margin of 11.6% (2015: 7.9%).

R&D expenses were maintained at a high level with a R&D-to-revenue-ratio of 10.1% (2015: 10.4%).

### 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 onetime 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 985 million, corresponding to an EBITDA margin of 16.9% (2015: 12.9%).

Staff expenses increased by 2% to DKK 1,734 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 the technology business as well as increased equipment content in the technology offerings.

Other external expenses decreased by 16% to DKK 1,034 million as a result of various cost-reduction initiatives.

#### *Earnings before interest and tax (EBIT)*

EBIT increased 49% to DKK 676 million corresponding to an EBIT margin of 11.6% (2015: DKK 455 million and an EBIT margin of 7.9%). Restarted contracts from 2012 had a positive revenue and EBIT impact of DKK 122 million for 2016. Depreciation increased by 5% to DKK 309 million, mainly due to completion of new production lines in China and Brazil.

#### *Net profit*

Net profit increased 63% to DKK 409 million (2015: DKK 251 million).

The increase in net profit is explained by:

- An increase in EBIT to DKK 676 million in 2016 (2015: DKK 455 million).
- A DKK 3 million decrease in net interest as a result of lower market interest rates and margins.
- A DKK 64 million increase in tax to DKK 195 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 663 million (2015: DKK 716 million). Working capital increased by DKK 82 million and net working capital amounted to 9.9% of revenue (2015: 7.6%).

*CAPEX*

CAPEX decreased by 41% and amounted to DKK 450 million (2015: DKK 765 million). Two new production lines in Tianjin, China, and Joinville, Brazil, were finalized in 2016.

*Net indebtedness*

Net indebtedness decreased by 6% and amounted to DKK 1.429 million (2015: DKK 1.524 million).

The interest bearing debt at the end of 2016 was DKK 2,011 million (2015: DKK 2,136 million).

*Return on invested capital (ROIC)*

ROIC amounted to 9.8% (2015: 7.0%).

**Order backlog**

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

## Outlook for 2017

### Haldor Topsoe A/S

#### *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 the restarted contracts in 2016.

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

#### *Cash flow and funding*

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

Haldor Topsoe A/S 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, Haldor Topsoe A/S will consider issuing additional corporate bonds as well as obtaining other credit facilities.

### IGM BioSciences, Inc.

The company is expected to continue its scientific progress. We have had significant interest from the pharma and biotech industry which have led to numerous discussions with potential corporate partners. We expect these to continue at a high pace in 2017. The scientific progress made so far and the positive outlook of the future has enabled Haldor Topsøe Holding A/S to commit full funding of the operation of the company to the end of 2017 so far. We expect that the progress will be intensified over the coming years, eventually

paving the way for a commercialization of the novel technologies developed by the company.

### Forward-looking statements

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

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

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

## Risk management

### Enterprise risk management

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

During 2014, the Topsøe Code of Conduct was implemented throughout the organization, including policies covering anti-corruption, anti-money laundering, competition law, and other compliance issues. The 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](http://www.topsoe.com/compliance-hotline).

The general risk factors and the associated mitigating actions for Haldor Topsøe Holding A/S 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 group, we pursue 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 the 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*

The Group'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 the plants, or if commissioning of a new plant is substantially delayed, it could have a material impact on the Group's earnings. We seek to mitigate this risk by operating multiple production lines for key products and enforcing a safety stock policy. We have also taken out business interruption insurance and property insurance.

The Group is exposed to project execution risk on technology projects. Systematic project management limits 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 our business model, for instance in the form of bid bonds, advance payment bonds, and performance bonds issued by banks on behalf of the Group. Risk mitigation includes thorough structuring of contracts and related bonds.



*Biotech risk*

As with all biotech startup ventures the risk of turning science and early development work into a commercial product is substantial. This also applies to IGM Biosciences Inc. and there is no guarantee that it will be possible to attract commercial development partner or eventually develop marketable products. Whereas the commercialization risk is very high the science developed at IGM is very well protected by valuable solid IPR and patents.

*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**

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

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

hedges, and consequently we hedge 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. The Group'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 the Group'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 the Group 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, the Group only deals with financial counterparties that Management believes have a satisfactory credit rating from a recognized international credit rating agency.

*Liquidity*

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

*Restrictive covenants*

Some of the financing arrangements of the Group are subject to financial covenants, and if violated, this could limit the ability to finance the company's operations and capital needs for acquisitions and other business activities. Covenants include equity ratio, interest coverage, and leverage (net debt/EBITDA) requirements.

*Tax*

The Group'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 the Group. We 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, the Group seeks to clarify uncertainties by involving external advisors and by taking a justifiable position in accordance with international tax principles and in alignment with the Topsoe Code of Conduct. The Group's tax management is documented in the Global Tax Policy.

*Information technology and security risks*

As IT systems become increasingly important and critical to a global business like ours, 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.

## Corporate social responsibility and sustainability

At Haldor Topsøe Holding Group 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.



### Sustainable working environment

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

At our production sites in Denmark, the US, China, and Brazil, the Group'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*

The Group'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 Group'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, the Group 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.

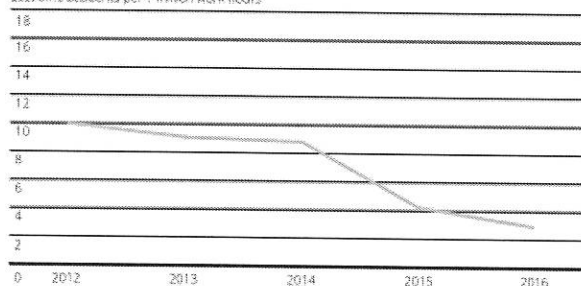
Later in 2016, a campaign targeting traveling employees was launched, including workshops with a focus on sharing knowledge about near misses.

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.

The Group 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.

### **LOST TIME ACCIDENT FREQUENCY**

Lost time accidents per 1 million work hours



### **Sustainable production**

The Group'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. We ensure that every necessary step is taken to make our production as sustainable and safe as possible

*Policy commitment*

In 2016, the Group 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 the Group, 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<sup>3</sup> of natural gas to produce. The use of waste heat has reduced CO<sub>2</sub> emissions by 7,800 tons, which compares to the yearly CO<sub>2</sub> emissions from about 1,000 Danish citizens, based on per person average emission rates.

**Sustainable supply chain**

Being a Group 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 the Group, 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 the Group'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 us. 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 we also share our passion for science and knowledge by supporting learning institutions and individuals.

### Donations

It is a long-standing tradition in the Group to contribute to local growth and progress through donations. Our founder, 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 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 Haldor Topsøe's 100-year birthday in 2013.

Since then, the Group has supported SCCU on a number of projects, including paying tuition for 37 street children. The Group 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.

The Group has committed to continue our support of SCCU in 2017.

## Statement by the Executive Management and Board of Directors on the Annual Report

The Executive Management and Board of Directors have today considered and adopted the Annual Report 2016 of Haldor Topsøe Holding A/S.

The consolidated financial statements have been prepared in accordance with International Financial Reporting Standards as adopted by the EU (IFRS), and the financial statements of the parent company have been prepared in accordance with the Danish Financial Statements Act.

In our opinion, the parent company financial statements and the consolidated financial statements give a true and fair view of the financial position at December 31, 2016 of the Group and the parent company and of the results of the Group and parent company operations and of the cash

Lyngby, March 22, 2017

### Executive Management

Hans Kornerup

### Board of Directors

Jakob Haldor Topsøe  
(Chairman)

Christina Teng Topsøe

Martin Topsøe

Emil Øigaard

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, and 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.

## **Independent Auditor's report**

### **To the shareholders of Haldor Topsøe Holding A/S**

#### **Opinion**

In our opinion, the Consolidated Financial Statements give a true and fair view of the Group's financial position at December 31, 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 and cash flows for the financial year January 1 to 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 Topsøe Holding A/S for the financial year January 1 - December 31, 2016, which comprise income statement, balance sheet, statement of changes in equity, cash flow statement and notes, including a summary of significant accounting policies, for both the Group and the Parent Company, as well as statement of comprehensive income for the Group ("financial statements").

#### **Basis for opinion**

We conducted our audit in accordance with International Standards on Auditing (ISAs) and the additional requirements applicable in Denmark. Our responsibilities under those standards and requirements are further described in the Auditor's Responsibilities for the Audit of the Financial

Statements section of our report. We are independent of the Group in accordance with the International Ethics Standards Board for Accountants' Code of Ethics for Professional Accountants (IESBA Code) and the additional requirements applicable in Denmark, and we have fulfilled our other ethical responsibilities in accordance with these requirements. We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

#### **Statement on Management's review**

Management is responsible for Management's review.

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

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

Moreover, it is our responsibility to consider whether Management's review provides the information required under the Danish 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 22, 2017

**PricewaterhouseCoopers**

Statsautoriseret Revisionspartnerselskab  
CVR nr. 33 77 12 31

Mikkel Sthyr  
State Authorized Public Accountant

Maj-Britt Nørskov Nannestad  
State Authorized Public Accountant

## Accounting policies of the Haldor Topsøe Holding Group

### Basis of preparation

The consolidated financial statements of Haldor Topsøe Holding 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 Haldor Topsøe Holding

The following standards have been applied by Haldor Topsøe Holding for the financial year 2016:

- Annual improvements (2012-2014). The annual improvements imply a number of minor amendments to IFRS:
  - IFRS 5: Changes the accounting treatment on reclassification of an asset from 'held for sale' to 'held for distribution', or vice versa.
  - IFRS 7: Adds requirement for disclosures on continuing involvement by way of continuing servicing contracts and disclosures on financial instruments in interim financial statements.
  - 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.

Haldor Topsøe Holding 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 Haldor Topsøe Holding.

### 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 Haldor Topsøe Holding:

- 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 Haldor Topsøe Holding, except the potential impact of IFRS 15 "Revenue from contracts with customers".

IASB has issued the following amendments or interpretations that are relevant to Haldor Topsøe Holding, 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:
  - 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 Haldor Topsøe Holding, 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 Topsøe Holding A/S, and enterprises in which the parent company directly or indirectly holds the majority of the voting rights or in which the parent company through share ownership or otherwise exercises control.

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

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

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

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

### 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.

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 Topsøe Holding A/S and Danish group enterprises are jointly taxed. Tax for the individual companies is allocated fully on the basis of expected taxable income.

## **Balance sheet**

### **Intangible assets**

#### *Goodwill*

Goodwill consists of the positive difference between cost and fair value of identifiable net assets in the acquired enterprise. Goodwill is measured at historical cost less accumulated impairment losses. Goodwill is tested for impairment once a year and if there is an indication of impairment. Goodwill is written down to the lower recoverable amount. The recoverable amount is determined as the higher of net selling price and present value of expected cash flows of the cash-generating unit to which goodwill has been allocated. Impairment indicators comprise e.g.:

- Reduced earnings compared to expected future results
- Material negative development trends in the sector or the economy in the markets of the enterprise.

Impairment loss relating to goodwill is not reversed.

#### *Development projects*

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

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

#### *Other intangible assets*

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

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

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

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

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

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 which may lead to an impairment test are similar to those stated in the section on goodwill. Additionally, indicators comprise damage to the asset or changed use of the asset.

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

Gains and losses from sale of property, plant and equipment are recognized in the income statement under “Other 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 value adjustment of hedging instruments comprises the accumulated net change in the fair value of hedging transactions which meet the criteria of future cash flow hedges and where the hedged transaction has not yet been completed.

Reserve for 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. Deferred tax is not recognized in respect of goodwill, unless it is deductible for tax purposes. The tax base of tax loss carryforwards is deducted from deferred tax when it is probable that the losses may be utilized. Deferred tax is measured on the basis of the tax rules and tax rates expected to be in force on elimination of temporary differences. Any changes in deferred tax due to changes in tax rates are recognized in the income statement with the share attributable to the results for the year 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.

**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.

**Financial highlights**

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

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

Gross margin	$\frac{\text{Gross profit} \times 100}{\text{Revenue}}$
EBITDA margin	$\frac{\text{EBIT} + \text{depreciation, amortization etc.}}{\text{Revenue}} \times 100$
EBIT margin	$\frac{\text{EBIT} \times 100}{\text{Revenue}}$
Return on invested capital	$\frac{\text{EBIT} \times 100}{\text{Average invested capital}}$
Equity ratio	$\frac{\text{Equity at year end} \times 100}{\text{Total assets}}$
Return on equity	$\frac{\text{Net profit} \times 100}{\text{Average equity}}$

## Key accounting estimates and judgements

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

### Goodwill

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

### 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 the Group 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 the Group.

**Research and development costs**

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

## Consolidated income statement

	Note	2016 DKK mio.	2015 DKK mio.
<b>Revenue</b>	1	<b>5.824</b>	<b>5.785</b>
Change in inventories of finished goods and intermediate products		150	-1
Other operating income		18	37
Purchased equipment for contract work		-736	-400
Raw materials and consumables used		-1.503	-1.737
Other external expenses		-1.034	-1.232
<b>Gross profit</b>		<b>2.719</b>	<b>2.452</b>
Staff expenses	2	-1.734	-1.704
<b>EBITDA</b>		<b>985</b>	<b>748</b>
Depreciation, amortization and impairment losses	3	-309	-293
<b>EBIT</b>		<b>676</b>	<b>455</b>
Result of investment in joint venture	4	-15	-9
Financial income	5	89	140
Financial expenses	6	-146	-204
<b>Profit before tax</b>		<b>604</b>	<b>382</b>
Tax	7	-195	-131
<b>Net profit</b>		<b>409</b>	<b>251</b>
<b>Profit attributable to:</b>			
Owners of the parent		464	294
Non-controlling interests		-55	-43
<b>Net profit</b>		<b>409</b>	<b>251</b>

## Consolidated statement of comprehensive income

	<u>Note</u>	<u>2016</u> DKK mio.	<u>2015</u> DKK mio.
<b>Net profit</b>		<b>409</b>	<b>251</b>
Foreign currency translation adjustment		30	109
Derivative financial instruments used for hedging of future cash flows		0	-15
Realized derivative financial instruments transferred to financial gain/loss		24	46
Tax on this		-5	-7
Fair value adjustment of available-for-sale financial assets		-48	-27
Tax on this		0	0
Tax adjustment on revaluation of land and building		0	6
<b>Items that may be reclassified to the income statement</b>		<b>1</b>	<b>112</b>
Actuarial adjustments on pension obligations		15	-12
Tax on this		-6	4
<b>Items that may not be reclassified to the income statement</b>		<b>9</b>	<b>-8</b>
<b>Other comprehensive income</b>		<b>10</b>	<b>104</b>
<b>Total comprehensive income</b>		<b>419</b>	<b>355</b>
<b>Attributable to:</b>			
Owners of the parent		475	386
Non-controlling interests		-56	-31
<b>Total comprehensive income</b>		<b>419</b>	<b>355</b>

## Consolidated balance sheet at December 31

### Assets

	Note	2016 DKK mio.	2015 DKK mio.
Goodwill		3.396	3.392
Other intangible assets		103	113
Intangible assets under construction		3	2
<b>Intangible assets</b>	<b>8</b>	<b>3.502</b>	<b>3.507</b>
Land and buildings		1.038	836
Plant and machinery		1.400	1.119
Other fixtures and equipment		273	282
Property, plant and equipment under construction		318	540
<b>Property, plant and equipment</b>	<b>9</b>	<b>3.029</b>	<b>2.777</b>
Investment in joint venture		14	30
Other securities and investments		348	388
Other receivables		51	55
<b>Investments</b>	<b>10</b>	<b>413</b>	<b>473</b>
<b>Non-current assets</b>		<b>6.944</b>	<b>6.757</b>
<b>Inventories</b>	<b>11</b>	<b>1.362</b>	<b>1.227</b>
Trade receivables	12	865	1.201
Contract work in progress	13	154	91
Tax receivables		8	0
Other receivables	14	180	146
Prepayments		41	41
<b>Receivables</b>		<b>1.248</b>	<b>1.479</b>
<b>Cash</b>		<b>582</b>	<b>612</b>
<b>Current assets</b>		<b>3.192</b>	<b>3.318</b>
<b>Assets</b>		<b>10.136</b>	<b>10.075</b>

## Consolidated balance sheet at December 31

### Equity and liabilities

	Note	2016 DKK mio.	2015 DKK mio.
Share capital	15	2.200	2.200
Share premium		335	335
Revaluation reserve	16	27	27
Foreign currency translation reserve	16	181	150
Reserve for value adjustment of hedging instruments	16	-8	-27
Reserve for value adjustment of financial assets available-for-sale	16	-101	-53
Retained earnings		2.584	2.176
<b>Equity attributable to the owners of the parent</b>		<b>5.218</b>	<b>4.808</b>
Non-controlling interests		73	99
<b>Total equity</b>		<b>5.291</b>	<b>4.907</b>
Pension obligations and similar obligations	18	74	90
Deferred tax	19	514	446
Provisions	20	203	206
Deferred income	21	11	11
Bonds	21	997	996
Mortgage debt	21	63	102
Credit institutions	21	686	830
Leasing obligations	21	130	0
Other payables	22	4	5
<b>Non-current liabilities</b>		<b>2.682</b>	<b>2.686</b>
Mortgage debt	21	3	11
Credit institutions	21	132	197
Prepayments from customers	23	280	357
Contract work in progress	13	732	1.061
Trade payables		488	399
Corporation tax		0	6
Other payables	22	527	450
Deferred income	21	1	1
<b>Current liabilities</b>		<b>2.163</b>	<b>2.482</b>
<b>Liabilities</b>		<b>4.845</b>	<b>5.168</b>
<b>Equity and liabilities</b>		<b>10.136</b>	<b>10.075</b>



## Consolidated statement of changes in equity

	Share capital	Share premium	Reserves	Retained earnings	Equity attributable to the owners of the parent	Non-controlling interest	Total equity
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Equity at January 1, 2016	2.200	335	97	2.176	4.808	99	4.907
Net profit	0	0	0	464	464	-55	409
Other comprehensive income	0	0	2	9	11	-1	10
<b>Comprehensive income</b>	<b>0</b>	<b>0</b>	<b>2</b>	<b>473</b>	<b>475</b>	<b>-56</b>	<b>419</b>
Dividend	0	0	0	-65	-65	0	-65
Capital increase in subsidiaries	0	0	0	0	0	27	27
Non-controlling interest	0	0	0	0	0	3	3
<b>Transactions with owners</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>-65</b>	<b>-65</b>	<b>30</b>	<b>-35</b>
<b>Equity at December 31, 2016</b>	<b>2.200</b>	<b>335</b>	<b>99</b>	<b>2.584</b>	<b>5.218</b>	<b>73</b>	<b>5.291</b>
	Share capital	Share premium	Reserves	Retained earnings	Equity attributable to the owners of the parent	Non-controlling interest	Total equity
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Equity at January 1, 2015	2.200	335	-9	2.008	4.534	147	4.681
Net profit	0	0	0	294	294	-43	251
Other comprehensive income	0	0	100	-8	92	12	104
<b>Comprehensive income</b>	<b>0</b>	<b>0</b>	<b>100</b>	<b>286</b>	<b>386</b>	<b>-31</b>	<b>355</b>
Dividend	0	0	0	-82	-82	0	-82
Non-controlling interest arising on business combination	0	0	6	-36	-30	-17	-47
<b>Transactions with owners</b>	<b>0</b>	<b>0</b>	<b>6</b>	<b>-118</b>	<b>-112</b>	<b>-17</b>	<b>-129</b>
<b>Equity at December 31, 2015</b>	<b>2.200</b>	<b>335</b>	<b>97</b>	<b>2.176</b>	<b>4.808</b>	<b>99</b>	<b>4.907</b>

## Consolidated cash flow statement

	Note	2016 DKK mio.	2015 DKK mio.
Net profit		409	251
Adjustments for non-cash items	32	571	479
Change in working capital	33	-82	144
		<hr/>	<hr/>
Cash flows from operating activities before financial items and tax		898	874
Interest received, etc.		63	113
Interest paid, etc.		-133	-180
		<hr/>	<hr/>
Cash flows from ordinary activities		828	807
Corporation tax paid		-165	-91
		<hr/>	<hr/>
<b>Cash flows from operating activities</b>		<b>663</b>	<b>716</b>
		<hr/>	<hr/>
Purchase of intangible assets		-24	-67
Purchase of property, plant and equipment		-410	-651
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
		<hr/>	<hr/>
<b>Cash flows from investing activities</b>		<b>-404</b>	<b>-701</b>
		<hr/>	<hr/>
Raising of non-current loans		387	431
Repayment of non-current loans		-644	-287
Non-controlling interest's payment of share capital		27	1
Dividend paid		-65	-82
		<hr/>	<hr/>
<b>Cash flows from financing activities</b>		<b>-295</b>	<b>63</b>
		<hr/>	<hr/>
<b>Change in cash and cash equivalents</b>		<b>-36</b>	<b>78</b>
		<hr/>	<hr/>
Cash and cash equivalents at January 1		612	517
Foreign currency translation adjustment		6	17
		<hr/>	<hr/>
<b>Cash and cash equivalents at December 31</b>		<b>582</b>	<b>612</b>
		<hr/>	<hr/>
Cash		582	612
		<hr/>	<hr/>
<b>Cash and cash equivalents at December 31</b>		<b>582</b>	<b>612</b>
		<hr/>	<hr/>

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## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 1 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:

	2016 DKK mio.	2015 DKK mio.
Sale of products	5.170	5.094
Sale of services	654	691
<b>Total revenue</b>	<b>5.824</b>	<b>5.785</b>

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.

### 2 Staff expenses

	2016 DKK mio.	2015 DKK mio.
Wages and salaries	1.472	1.438
Pension – defined contribution plan	135	144
Pension – defined benefit plan	11	11
Other social security contribution	150	167
<b>Total</b>	<b>1.768</b>	<b>1.760</b>

Capitalisation of work performed on property, plant and equipment

	-34	-56
<b>Total staff expenses</b>	<b>1.734</b>	<b>1.704</b>

Executive Management salary	1	2
Executive Management pension	0	0
Fee to Board of directors	2	1
<b>Total remuneration to Executive Management and Board members</b>	<b>3</b>	<b>3</b>

Average number of employees	<b>2.565</b>	<b>2.700</b>
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Of which in Denmark	<b>1.810</b>	<b>1.985</b>
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### 3 Depreciation, amortization and impairment losses

	2016 DKK mio.	2015 DKK mio.
Other intangible assets	29	25
Land and buildings	23	24
Plant and machinery	159	151
Other fixtures and equipment	98	93
<b>Total depreciation, amortization and impairment losses</b>	<b>309</b>	<b>293</b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>4 Result of investment in joint venture</b>		
Share of result in joint venture	-15	-9
<b>Total result of investment in joint venture</b>	<b>-15</b>	<b>-9</b>
	2016 DKK mio.	2015 DKK mio.
<b>5 Financial income</b>		
Income from other investments	26	27
Interest income	6	11
Gains on derivative financial instruments (currency)	1	4
Foreign currency translation adjustment	54	96
Other financial income	2	2
<b>Total financial income</b>	<b>89</b>	<b>140</b>
	2016 DKK mio.	2015 DKK mio.
<b>6 Financial expenses</b>		
Interest expense	60	60
Loss on derivative financial instruments (interest)	25	26
Loss on derivative financial instruments (currency)	1	23
Foreign currency translation adjustment	60	94
Other financial expenses	0	1
<b>Total financial expenses</b>	<b>146</b>	<b>204</b>
	2016 DKK mio.	2015 DKK mio.
<b>7 Tax</b>		
Current tax for the year	127	79
Change in deferred tax for the year	64	80
Change in corporate tax rate	0	-34
Adjustments to prior years	4	6
<b>Total tax</b>	<b>195</b>	<b>131</b>
	2016 %	2015 %
Danish corporation tax rate	22,0	23,5
Non-deductible expenses	1,7	1,2
Income not subject to tax	-0,8	0,1
Differences in foreign tax rates	7,8	15,4
Adjustments relating to prior years	1,6	1,8
Change in corporate tax	0,0	-8,9
Other adjustments	0,1	1,1
<b>Effective tax rate</b>	<b>32,4</b>	<b>34,2</b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 8 Intangible assets

	Goodwill	Other intangible fixed assets	Intangible assets under construction
	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2016	3.392	211	2
Exchange adjustments	4	0	0
Additions during the year	0	21	3
Disposals during the year	0	-4	0
Transfers during the year	0	2	-2
<b>Cost at December 31, 2016</b>	<b>3.396</b>	<b>230</b>	<b>3</b>
Amortization and impairment losses at January 1, 2016	0	98	0
Amortization for the year	0	29	0
Impairment losses for the year	0	0	0
Reversal of amortization and impairment losses on assets sold and scrapped	0	0	0
<b>Amortization and impairment losses at December 31, 2016</b>	<b>0</b>	<b>127</b>	<b>0</b>
<b>Carrying amount at December 31, 2016</b>	<b>3.396</b>	<b>103</b>	<b>3</b>
Research and development costs expensed in 2016			591

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 8 Intangible assets (continued)

	Goodwill DKK mio.	Other intangible fixed assets DKK mio.	Intangible assets under construction DKK mio.
Cost at January 1, 2015	3.428	144	8
Exchange adjustments	-36	0	0
Additions during the year	0	62	5
Disposals during the year	0	-6	0
Transfers during the year	0	11	-11
<b>Cost at December 31, 2015</b>	<b>3.392</b>	<b>211</b>	<b>2</b>
Amortization and impairment losses at January 1, 2015	0	77	0
Amortization for the year	0	25	0
Reversal of amortization and impairment losses on assets sold and scrapped	0	-4	0
<b>Amortization and impairment losses at December 31, 2015</b>	<b>0</b>	<b>98</b>	<b>0</b>
<b>Carrying amount at December 31, 2015</b>	<b>3.392</b>	<b>113</b>	<b>2</b>
Research and development costs expensed in 2015			603

The goodwill at January 1, 2016 originates from the acquisition of the shares in Haldor Topsøe A/S in 2007 and IGM Biosciences in 2013.

An impairment test has been carried out at December 31, 2016 for the goodwill related to Haldor Topsøe A/S. No indication of impairment was identified.

During the impairment test, the cash generating unit's discounted cash flow is compared to the unit's book value. The cash generating unit is by Management defined as the total activity in the subsidiary Haldor Topsøe A/S. Cash flow is based on forecasts and business plans for the years 2017-2021.

The calculation is 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 to 9% before tax corresponding to 2015. The growth rate in the terminal period has by Management been estimated to 2% corresponding to 2015.

The Group has evaluated the goodwill related to IGM Biosciences Inc. at December 31, 2016 and found no reason for an impairment adjustment considering the great scientific progress achieved by the company in 2016.

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 9 Property, plant and equipment

	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2016	1.064	1.895	657	540
Foreign currency translation adjustment	2	18	3	-7
Additions for the year	152	125	43	219
Disposals for the year	-15	-41	-2	0
Transfers for the year	81	310	43	-434
<b>Cost at December 31, 2016</b>	<b>1.284</b>	<b>2.307</b>	<b>744</b>	<b>318</b>
Revaluation at January 1, 2016	44	0	0	0
Foreign currency translation adjustment	1	0	0	0
<b>Revaluation at December 31, 2016</b>	<b>45</b>	<b>0</b>	<b>0</b>	<b>0</b>
Depreciation and impairment losses at January 1, 2016	272	776	375	0
Foreign currency translation adjustment	0	8	0	0
Depreciation for the year	23	159	98	0
Reversal of depreciation on assets sold and scrapped	-4	-36	-2	0
<b>Depreciation and impairment losses at December 31, 2016</b>	<b>291</b>	<b>907</b>	<b>471</b>	<b>0</b>
<b>Carrying amount at December 31, 2016</b>	<b>1.038</b>	<b>1.400</b>	<b>273</b>	<b>318</b>
Carrying amount at December 31, 2016, under the depreciated cost model	993	1.400	273	318
Borrowing costs capitalised in 2016				20
<b>Carrying amount of financial leased assets</b>	<b>129</b>	<b>0</b>	<b>0</b>	<b>0</b>



## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 9 Property, plant and equipment (continued)

	Land and buildings	Plant and machinery	Other fixtures and equipment	Property, plant and equipment under construction
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2015	922	1.554	655	457
Foreign currency translation adjustment	18	38	3	16
Additions during the year	78	55	85	433
Disposals during the year	-41	-4	-113	0
Transfers during the year	87	252	27	-366
<b>Cost at December 31, 2015</b>	<b>1.064</b>	<b>1.895</b>	<b>657</b>	<b>540</b>
Revaluation at January 1, 2015	39	0	0	0
Foreign currency translation adjustment	5	0	0	0
<b>Revaluation at December 31, 2015</b>	<b>44</b>	<b>0</b>	<b>0</b>	<b>0</b>
Depreciation and impairment losses at January 1, 2015	256	613	392	0
Foreign currency translation adjustment	3	13	1	0
Depreciation for the year	24	151	93	0
Reversal of depreciation on assets sold and scrapped	-11	-1	-111	0
<b>Depreciation and impairment losses at December 31, 2015</b>	<b>272</b>	<b>776</b>	<b>375</b>	<b>0</b>
<b>Carrying amount at December 31, 2015</b>	<b>836</b>	<b>1.119</b>	<b>282</b>	<b>540</b>
Carrying amount at December 31, 2015. under the depreciated cost model	792	1.119	282	540
Borrowing costs capitalised in 2015				2

Where management assesses that a revaluation is material, the properties in question have been revalued by an independent assessor in connection with year end closing.

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 9 Property, plant and equipment (continued)

	Level 1 DKK mio.	Level 2 DKK mio.	Level 3 DKK mio.
Office buildings in Denmark	0	0	293
Production plants in Denmark, US and China	0	0	540
Excess land in US	0	76	0
<b>Distribution of assets stated at fair value at December 31, 2016</b>	<b>0</b>	<b>76</b>	<b>833</b>

	Level 1 DKK mio.	Level 2 DKK mio.	Level 3 DKK mio.
Office buildings in Denmark	0	0	300
Production plants in Denmark and US	0	0	463
Excess land in US	0	73	0
<b>Distribution of assets stated at fair value at December 31, 2015</b>	<b>0</b>	<b>73</b>	<b>763</b>

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

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

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

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

The fair value of office buildings in Denmark has been derived using a market approach primarily based on rental per m<sup>2</sup> for comparable buildings and an interest rate. The rental per m<sup>2</sup> 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 valued 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.

	2016 DKK mio.	2015 DKK mio.
Fair value of level 3 assets at January 1	763	640
Additions	103	165
Disposals	-11	-30
Included in the income statement as depreciation	-23	-24
Foreign currency translation adjustment	1	12
<b>Fair value of level 3 assets at December 31</b>	<b>833</b>	<b>763</b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 10 Investments

	Investment in joint venture	Other securities and investments	Other receivables
	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2016	39	440	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
<b>Cost at December 31, 2016</b>	<b>39</b>	<b>448</b>	<b>68</b>
Value adjustment at January 1, 2016	-9	-52	-17
Net result for the year	-15	0	0
Value adjustments for the year	-1	-48	0
<b>Value adjustment at December 31, 2016</b>	<b>-25</b>	<b>-100</b>	<b>-17</b>
<b>Carrying amount at December 31, 2016</b>	<b>14</b>	<b>348</b>	<b>51</b>

	Investment in joint venture	Other securities and investments	Other receivables
	DKK mio.	DKK mio.	DKK mio.
Cost at January 1, 2015	0	440	59
Foreign currency translation adjustment	0	0	2
Additions during the year	39	0	16
Disposals during the year	0	0	-5
<b>Cost at December, 31 2015</b>	<b>39</b>	<b>440</b>	<b>72</b>
Value adjustment at January 1, 2015	0	-26	-17
Net result for the year	-9	0	0
year	0	-26	0
<b>Value adjustment at December 31, 2015</b>	<b>-9</b>	<b>-52</b>	<b>-17</b>
<b>Carrying amount at December 31, 2015</b>	<b>30</b>	<b>388</b>	<b>55</b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 10 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 the 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 shares. The investment is measured at fair value based on listed market value.

	2016 DKK mio.	2015 DKK mio.
<b>11 Inventories</b>		
Raw materials and consumables	367	330
Work in progress	132	146
Finished goods	863	751
<b>Inventories at December 31</b>	<b>1.362</b>	<b>1.227</b>
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 Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>12 Trade receivables</b>		
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
<b>Provision for bad debts at December 31</b>	<b>-31</b>	<b>-35</b>
<b>Trade receivables</b>	<b>865</b>	<b>1.201</b>
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:	2016 %	2015 %
1-90 days	31	17
91-180 days	1	3
181+ days	11	5
<b>13 Contract work in progress</b>	2016 DKK mio.	2015 DKK mio.
Selling price of work performed at the balance sheet date	5.476	5.189
Payments received on account	-6.054	-6.159
<b>Contract work in progress at December 31</b>	<b>-578</b>	<b>-970</b>
Contract work in progress recognized in assets	154	91
Contract work in progress recognized in liabilities	-732	-1.061
<b>Contract work in progress at December 31</b>	<b>-578</b>	<b>-970</b>
<b>14 Other receivables</b>	2016 DKK mio.	2015 DKK mio.
VAT and tax receivable	119	109
Fair value of derivative financial instruments	21	2
Government grants	1	2
Other receivables	39	33
<b>Other receivables at December 31</b>	<b>180</b>	<b>146</b>
Of this, due after more than 1 year	0	0

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 15 Share capital

	<u>A shares</u>	<u>B shares</u>	<u>Total</u>
	Number of shares of DKK 1.000	Number of shares of DKK 1.000	Number of shares of DKK 1.000
Share capital at January 1, 2016	<u>200.000</u>	<u>2.000.000</u>	<u>2.200.000</u>
Share capital at December 31, 2016	<u>200.000</u>	<u>2.000.000</u>	<u>2.200.000</u>

	<u>A shares</u>	<u>B shares</u>	<u>Total</u>
	Number of shares of DKK 1.000	Number of shares of DKK 1.000	Number of shares of DKK 1.000
Share capital at January 1, 2015	<u>200.000</u>	<u>2.000.000</u>	<u>2.200.000</u>
Share capital at December 31, 2015	<u>200.000</u>	<u>2.000.000</u>	<u>2.200.000</u>

The Company's share capital is nominally DKK 2,200 million divided into shares of DKK 1,000 or multiples thereof. The share capital is fully paid. The shares are divided into 2 classes. A shares are entitled to 10 votes per share amount of DKK 1,000. B shares are entitled to one vote for each share of DKK 1,000.

### 16 Reserves

	<u>Revaluation reserve</u>	<u>Foreign currency translation reserve</u>	<u>Reserve for value adjustment of hedging instruments</u>	<u>Reserve for value adjustment of financial assets available-for- sale</u>	<u>Total</u>
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Reserves at January 1, 2016	27	150	-27	-53	97
Foreign currency translation adjustment	0	31	0	0	31
Derivative financial instruments used for hedging of future cash flows	0	0	0	0	0
Realized derivative financial instruments transferred to financial gain/loss	0	0	24	0	24
Fair value adjustment of financial assets available-for-sale	0	0	0	-48	-48
Tax adjusted on revaluation of land and buildings	0	0	0	0	0
Tax	0	0	-5	0	-5
Other adjustments	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>	<u>0</u>
<b>Reserves at December 31, 2016</b>	<b><u>27</u></b>	<b><u>181</u></b>	<b><u>-8</u></b>	<b><u>-101</u></b>	<b><u>99</u></b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 16 Reserves

	Revaluation reserve	Foreign currency translation reserve	Reserve for value adjustment of hedging instruments	Reserve for value adjustment of financial assets available-for- sale	Total
	DKK mio.	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Reserves at January 1, 2015	21	47	-51	-26	-9
Foreign currency translation adjustment	0	97	0	0	97
Derivative financial instruments used for hedging of future cash flows	0	0	-15	0	-15
Realized derivative financial instruments transferred to financial gain/loss	0	0	46	0	46
Fair value adjustment of financial assets available-for-sale	0	0	0	-27	-27
Tax adjusted on revaluation of land and buildings	6	0	0	0	6
Tax	0	0	-7	0	-7
Other adjustments	0	6	0	0	6
<b>Reserves at December 31, 2015</b>	<b>27</b>	<b>150</b>	<b>-27</b>	<b>-53</b>	<b>97</b>

### 17 Dividend

Proposed dividend constitutes DKK 99 million (2015: DKK 65 million) corresponding to DKK 45.00 (2015: DKK 29.55) per share.

Paid dividend during the year amounts to DKK 65 million regarding 2015 (2015: DKK 82 million) corresponding to DKK 29.55 (2015: DKK 37.27) per share.

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 18 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.

	2016 DKK mio.	2015 DKK mio.
Pension costs	7	8
Interest expenses	12	11
Interest income	-8	-8
<b>Total pension recognized in staff expenses</b>	<b>11</b>	<b>11</b>

	2016 %	2015 %
Applied actuarial assumptions:		
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).

	2016 %	2015 %
US	41	42
Developed countries	28	25
Emerging markets	5	2
Share investment	74	69
US investment grade	6	11
High yield	10	12
Inflation protected	1	1
Other	1	1
Bond investment	18	25
Real estate	3	3
Commodities	5	0
Other	0	3
<b>Distribution of assets to cover the obligation at December 31</b>	<b>100</b>	<b>100</b>



## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 18 Pension obligations and similar obligations (continued)

	2016	2015
	DKK mio.	DKK mio.
Present value of pension obligations	320	314
Fair value of pension plan assets	-246	-224
<b>Net obligation at December 31</b>	<b>74</b>	<b>90</b>
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 assumptions	-1	-9
Actuarial gains and losses, financial assumptions	-4	2
Pension paid	-18	-25
<b>Present value of pension obligations at December 31</b>	<b>320</b>	<b>314</b>
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
<b>Fair value of pension plan assets at December 31</b>	<b>246</b>	<b>224</b>

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

## Notes to the Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>19 Deferred tax</b>		
Deferred tax at January 1	446	431
Foreign currency translation adjustment	1	2
Tax on equity items	6	-11
Tax for the year	68	54
Tax previous years	-7	-30
<b>Deferred tax at December 31</b>	<b>514</b>	<b>446</b>
Intangible assets and property, plant and equipment	200	150
Inventories	17	1
Work in progress	360	353
Provisions	-59	-65
Other	-4	7
<b>Deferred tax at December 31</b>	<b>514</b>	<b>446</b>
Of this, due after more than 1 year	371	305
	2016 DKK mio.	2015 DKK mio.
<b>20 Provisions</b>		
Provisions at January 1	206	196
Reversal during the year	-14	-5
Provisions for the year	11	15
<b>Provision at December 31</b>	<b>203</b>	<b>206</b>
Warranty provision for catalysts and engineering projects	198	201
Waste disposal	1	1
Other provisions	4	4
<b>Provisions at December 31</b>	<b>203</b>	<b>206</b>
Of this, due after more than 1 year	203	206

## Notes to the Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>21 Long-term liabilities</b>		
<b>Bonds</b>		
After 5 years	0	0
Between 1 and 5 years	997	996
<b>More than 1 year</b>	<u>997</u>	<u>996</u>
Less than 1 year	0	0
<b>Bonds at December 31</b>	<u><b>997</b></u>	<u><b>996</b></u>
<b>Mortgage debt</b>		
After 5 years	49	59
Between 1 and 5 years	14	43
<b>More than 1 year</b>	<u>63</u>	<u>102</u>
Less than 1 year	3	11
<b>Mortgage at December 31</b>	<u><b>66</b></u>	<u><b>113</b></u>
<b>Credit institutions</b>		
After 5 years	189	380
Between 1 and 5 years	497	450
<b>More than 1 year</b>	<u>686</u>	<u>830</u>
Less than 1 year	132	197
<b>Credit institutions at December 31</b>	<u><b>818</b></u>	<u><b>1.027</b></u>
<b>Leasing obligations</b>		
After 5 years	127	0
Between 1 and 5 years	3	0
<b>More than 1 year</b>	<u>130</u>	<u>0</u>
Less than 1 year	0	0
<b>Leasing obligations at December 31</b>	<u><b>130</b></u>	<u><b>0</b></u>
<b>Deferred income</b>		
After 5 years	10	10
Between 1 and 5 years	1	1
<b>More than 1 year</b>	<u>11</u>	<u>11</u>
Less than 1 year	1	1
<b>Deferred income at December 31</b>	<u><b>12</b></u>	<u><b>12</b></u>

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 Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>22 Other payables</b>		
Staff related items	326	222
Fair value of derivative financial instruments	5	34
Tax related items	5	5
Other payables	195	194
<b>Other payables at December 31</b>	<b>531</b>	<b>455</b>
More than 1 year	4	5
Less than 1 year	527	450
<b>Other payables at December 31</b>	<b>531</b>	<b>455</b>
	2016 DKK mio.	2015 DKK mio.
<b>23 Prepayments from customers</b>		
Prepayments related to licence agreements	0	12
Prepayments related to sale of goods	280	345
<b>Prepayments from customers at December 31</b>	<b>280</b>	<b>357</b>

### 24 Assets provided as security

For the Group, non-current assets (land and buildings) with a carrying amount of DKK 293 million (2015: DKK 490 million) have been provided as security. The remaining balance of the loans secured by non-current assets as of December 31, 2016, was DKK 67 million for the Group (2015: DKK 112 million). Non-current assets are provided by means of real estate mortgage deeds and owners' mortgage deeds. The nominal value is DKK 73 million (2015: DKK 143 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).

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

## Notes to the Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>25 Guarantees</b>		
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
<b>Guarantees issued at December 31</b>	<b>749</b>	<b>887</b>
Less than 1 year	405	617
Between 1 and 5 years	312	242
After 5 years	32	28
<b>Guarantees issued at December 31</b>	<b>749</b>	<b>887</b>
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
<b>26 Contractual obligations</b>		
	2016 DKK mio.	2015 DKK mio.
Less than 1 year	79	113
Between 1 and 5 years	191	217
After 5 years	351	468
<b>Contractual obligations at December 31</b>	<b>621</b>	<b>798</b>
Payments for the year recognized as operating lease expenses	80	94
Leases and rental agreements relate to premises and equipment, etc. and extend in some cases to 2032.		

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 27 Contingent liabilities

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

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

	2016	2015
	DKK mio.	DKK mio.
<b>28 Fee to auditors appointed at the general meeting</b>		
Statutory audit fee	2	4
Tax assistance	1	4
Other assistance	1	2
<b>Total fee to auditors appointed at the general meeting</b>	<b>4</b>	<b>10</b>

### 29 Related parties

Related parties	Transactions	2016	2015
		DKK mio.	DKK mio.
Joint venture	Administration fee	1	1
Joint venture	Outstanding	0	1

Remuneration to Executive Committee and Board of Directors, please see note 2.

Intercompany transactions have been eliminated in the consolidated financial statements.

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 30 Derivative financial instruments

	Contract amount 2016	Fair value 2016	Contract amount 2015	Fair value 2015
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
Purchase of USD, matures in 2017	56	2	0	0
Purchase of USD, matures in 2016	0	0	68	2
Sale of USD, matures in 2016	0	0	105	-1
<b>Forward exchange contracts at December 31</b>	<b>56</b>	<b>2</b>	<b>173</b>	<b>1</b>

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. When the contract is considered hedging, the fair value is recognized in the balance sheet through other comprehensive income. Otherwise the fair value is recognized directly in statement of profit and loss.

	Contract amount 2016	Fair value 2016	Contract amount 2015	Fair value 2015
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
EUR interest rate swap, matures on December 31, 2021	41	-5	48	-6
DKK interest rate swap, matures on December 30, 2016	0	0	600	-23
<b>Interest swap at December 31</b>	<b>41</b>	<b>-5</b>	<b>648</b>	<b>-29</b>

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.

	Contract amount 2016	Fair value 2016	Contract amount 2015	Fair value 2015
	DKK mio.	DKK mio.	DKK mio.	DKK mio.
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
<b>Commodity swaps at December 31</b>	<b>96</b>	<b>19</b>	<b>5</b>	<b>-4</b>

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

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

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 31 Financial assets and liabilities

	2016	2015
	DKK mio.	DKK mio.
Other securities and investments	348	388
Trade receivables	865	1.201
Other financial receivables	231	201
Cash	582	612
<b>Financial assets at December 31</b>	<b>2.026</b>	<b>2.402</b>
Bonds, mortgage debt and debt to credit institutions	1.881	2.136
Financial lease	130	0
Trade payables	488	399
Other financial liabilities	531	455
<b>Financial liabilities at December 31</b>	<b>3.030</b>	<b>2.990</b>
Assets available-for-sale	348	388
Financial assets measured at amortized cost	1.657	2.012
Derivative financial instruments	21	2
<b>Classification of financial assets at December 31</b>	<b>2.026</b>	<b>2.402</b>
Financial liabilities measured at amortized cost	3.025	2.956
Derivative financial instruments	5	34
<b>Classification of financial liabilities at December 31</b>	<b>3.030</b>	<b>2.990</b>



## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 31 Financial assets and liabilities (continued)

#### Bonds, mortgage debt and debt to credit institutions:

##### Installments:

Less than 1 year	174	708
Between 1 and 5 years	1.600	1.467
After 5 years	341	289

<b>Bonds, mortgage debt and debt to credit institutions at nominal value</b>	<b>2.115</b>	<b>2.464</b>
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Future finance charges	-234	-328
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<b>Bonds, mortgage debt and debt to credit institutions at present value</b>	<b>1.881</b>	<b>2.136</b>
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#### Leasing obligations

##### Minimum lease payments:

After 5 years	204	0
Between 1 and 5 years	28	0
Less than 1 year	7	0

<b>Leasing obligations at nominal value</b>	<b>239</b>	<b>0</b>
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Future finance charges	-109	0
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<b>Leasing obligations at present value</b>	<b>130</b>	<b>0</b>
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#### Trade payables:

Less than 1 year	488	399
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#### Derivative financial instruments:

Less than 1 year	0	29
Between 1 and 5 years	4	4
After 5 years	1	1

#### Other financial liabilities:

Less than 1 year	526	421
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## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 31 Financial assets and liabilities (continued)

	Level 1 DKK mio.	Level 2 DKK mio.	Level 3 DKK mio.
Other securities and investments	26	0	313
Derivative financial instruments	0	21	0
<b>Distribution of assets stated at fair value at December 31, 2016</b>	<b>26</b>	<b>21</b>	<b>313</b>

	Level 1 DKK mio.	Level 2 DKK mio.	Level 3 DKK mio.
Derivative financial instruments	0	5	0
<b>Distribution of liabilities stated at fair value at December 31, 2016</b>	<b>0</b>	<b>5</b>	<b>0</b>

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 10 for information on input to valuation of investments in other enterprises stated at fair value in level 3.

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

	2016 DKK mio.	2015 DKK mio.
Fair value of level 3 assets at January 1	363	391
Write-down recognized in other comprehensive income	-50	-28
<b>Fair value of level 3 assets at December 31</b>	<b>313</b>	<b>363</b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

### 31 Financial assets and liabilities (continued)

#### 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.

### 32 Adjustments for non-cash items

	2016	2015
	DKK mio.	DKK mio.
Financial income	-89	-140
Financial expenses	146	204
Result of investment in joint venture	15	9
Amortization, depreciation and impairment losses, including gains and losses from sale of assets	309	293
Tax	195	131
Other adjustments	-5	-18
<b>Total adjustmens for non-cash items</b>	<b>571</b>	<b>479</b>

## Notes to the Annual Report of the Haldor Topsøe Holding Group

	2016 DKK mio.	2015 DKK mio.
<b>33 Change in working capital</b>		
Increase (-) / decrease in inventories	-126	-32
Increase (-) / decrease in receivables	468	-408
Increase / decrease (-) in contract billing	-392	438
Increase / decrease (-) in suppliers, etc.	-32	146
<b>Total change in working capital (+ fall, - increase)</b>	<b>-82</b>	<b>144</b>

### 34 Subsequent events

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

### 35 List of group companies

Name	Registered office	Voting and ownership share
Haldor Topsøe A/S	Lyngby, Denmark	100%
Haldor Topsøe, Inc.	Houston, USA	100%
Topsøe Fuel Cell A/S	Lyngby, Denmark	100%
Topsøe Energy Conv. & Storage A/S	Lyngby, Denmark	100%
Haldor Topsøe 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 Topsøe America Latina S.A.	Buenos Aires, Argentina	100%
Haldor Topsøe Sdn. Bhd.	Kuala Lumpur, Malaysia	100%
Haldor Topsøe Canada Limited	Vancouver, Canada	100%
Haldor Topsøe Catalisadores e Tecnologias do Brasil Ltda.	Joinville, Brazil	100%
Subcontinent Ammonia Investment Company ApS	Lyngby, Denmark	100%
Haldor Topsøe S.A.	Cape Town, South Africa	100%
IGM Biosciences, Inc.	Mountain View, USA	83.32%
Haldor Topsøe Ohio, Inc.	Wilmington, USA	100%
Haldor Topsøe Automotive Catalyst Trading (Tianjin) Co., Ltd.	Tianjin, China	100%
Frydenlund Ejendomsselskab ApS	Rudersdal, Denmark	100%
Haldor Topsøe Science & Technology (Dalian) Co. Ltd.	Dalian, China	100%
Haldor Topsøe De Mexico, S. A. de C. V.	Mexico City, Mexico	100%

## Accounting policies of the Haldor Topsøe Holding A/S

### Basis of preparation

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

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

#### **Dividend from group enterprises**

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

#### **Investments in group enterprises**

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

## Income statement of Haldor Topsøe Holding A/S

	Note	2016 DKK mill.	2015 DKK mill.
Other external expenses		-3	-3
Staff expenses	1	-2	-1
<b>EBIT</b>		<b>-5</b>	<b>-4</b>
Dividend from group enterprises		300	250
Financial income		1	2
Financial expenses	2	-33	-34
<b>Profit before tax</b>		<b>263</b>	<b>214</b>
Tax		15	10
<b>Net profit</b>	<b>3</b>	<b>278</b>	<b>224</b>

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

### Assets

	<u>Note</u>	<u>2016</u> DKK mill.	<u>2015</u> DKK mill.
Investments in group enterprises		5.646	5.580
<b>Investments</b>	4	<u>5.646</u>	<u>5.580</u>
<b>Non-current assets</b>		<u>5.646</u>	<u>5.580</u>
Corporate income tax		70	8
Other receivables		2	2
<b>Receivables</b>		<u>72</u>	<u>10</u>
<b>Cash</b>		<u>1</u>	<u>15</u>
<b>Current assets</b>		<u>73</u>	<u>25</u>
<b>Assets</b>		<u>5.719</u>	<u>5.605</u>

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

### Equity and liabilities

	Note	2016 DKK mill.	2015 DKK mill.
Share capital	5	2.200	2.200
Share premium		335	335
Retained earnings		2.548	2.352
Proposed dividend		99	65
<b>Equity</b>		<b>5.182</b>	<b>4.952</b>
Payables to group enterprises		535	629
Other payables	6	2	24
<b>Current liabilities</b>		<b>537</b>	<b>653</b>
<b>Liabilities</b>		<b>537</b>	<b>653</b>
<b>Equity and liabilities</b>		<b>5.719</b>	<b>5.605</b>
Suretyship	7		
Fee to auditors appointed at the general meeting	8		
Contractual liabilities	9		
Related parties	10		
Subsequent events	11		



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

	Share capital	Share premium	Retained earnings	Proposed dividend	Total
	DKK mill.	DKK mill.	DKK mill.	DKK mill.	DKK mill.
<b>Equity at January 1, 2016</b>	2.200	335	2.352	65	4.952
Net profit	0	0	179	0	179
Fair value adjustment of derivative financial instruments	0	0	17	0	17
<b>Net profit and income and expenses recognized under equity</b>	<b>0</b>	<b>0</b>	<b>196</b>	<b>0</b>	<b>196</b>
Dividend paid	0	0	0	-65	-65
Dividend proposed	0	0	0	99	99
<b>Transactions with owners</b>	<b>0</b>	<b>0</b>	<b>0</b>	<b>34</b>	<b>34</b>
<b>Equity at December 31, 2016</b>	<b>2.200</b>	<b>335</b>	<b>2.548</b>	<b>99</b>	<b>5.182</b>

## Cash flow statement of Haldor Topsøe Holding A/S

	2016 DKK mill.	2015 DKK mill.
Net profit	278	224
Adjustment for non-cash items	-283	-228
Change in working capital	18	-96
<b>Cash flow from operating activities before financial items and tax</b>	<b>13</b>	<b>-100</b>
Interest received etc.	1	0
Interest paid etc.	-33	-34
<b>Cash flow from ordinary activities</b>	<b>-19</b>	<b>-134</b>
Corporate tax paid	-52	50
<b>Cash flow from operating activities</b>	<b>-71</b>	<b>-84</b>
Investment in group companies	-78	-92
Dividend received	300	250
<b>Cash flow from investing activities</b>	<b>222</b>	<b>158</b>
Reduction of long term loan	-100	-38
Dividend paid	-65	-82
<b>Cash flow from financing activities</b>	<b>-165</b>	<b>-120</b>
<b>Change in cash and cash equivalents</b>	<b>-14</b>	<b>-46</b>
Cash and cash equivalents at January 1	15	61
Cash and cash equivalents at December 31	1	15
<b>Change in cash and cash equivalents</b>	<b>-14</b>	<b>-46</b>

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

<b>1 Staff expenses</b>	<u>2016</u>	<u>2015</u>
	DKK mio.	DKK mio.
Wages and salaries	2	1
<b>Total staff expenses</b>	<u>2</u>	<u>1</u>
<b>Total remuneration to Executive Management and Board of Directors</b>	<u>2</u>	<u>1</u>
Average number of employees	<u>1</u>	<u>0</u>
<b>2 Financial expenses</b>	<u>2016</u>	<u>2015</u>
	DKK mio.	DKK mio.
Interest payments to group enterprises	5	7
Other interest	3	4
Loss on derivative financial instruments	25	23
<b>Total financial expenses</b>	<u>33</u>	<u>34</u>
<b>3 Proposed distribution of profit</b>	<u>2016</u>	<u>2015</u>
	DKK mio.	DKK mio.
Proposed dividend	99	65
Retained earnings	179	159
<b>Total proposed distribution of profit</b>	<u>278</u>	<u>224</u>

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

4 Investments	Investments in group enterprises <u>DKK mio.</u>
Cost at January, 1 2016	5.580
Additions during the year	<u>66</u>
<b>Cost at December, 31 2016</b>	<b><u>5.646</u></b>
<b>Carrying amount at December, 31 2016</b>	<b><u>5.646</u></b>

Investments in group enterprises are specified as follows:

Name	Registered office	Vote and ownership interest
Haldor Topsøe A/S	Lyngby-Taarbæk, Denmark	100,00%
Frydenlund Ejendomsselskab ApS	Rudersdal, Denmark	100,00%
IGM Biosciences Inc.	Mountain View, California, USA	83,32%

### Investments in Haldor Topsøe A/S

Haldor Topsøe A/S is a world leader in catalysis. They supply high-performance catalysts, proprietary technologies, process design, engineering, and services for use in the chemical and oil and gas industries. The investment is measured at cost.

### Investments in Frydenlund Ejendomsselskab ApS

Frydenlund Ejendomsselskab ApS owns and operates the property Frydenlund manor house, including the operation of the main building, orchard and tenanted properties. The investment is measured at cost.

### Investments in IGM Biosciences Inc.

IGM Biosciences Inc. carries out protein engineering of antibodies. The investment is measured at cost.

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

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

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

<b>6 Other payables</b>	2016 DKK mill.	2015 DKK mill.
Derivatives (interest rate swap)	0	23
Other	2	1
<b>Total other payables</b>	<b>2</b>	<b>24</b>

At the balance sheet date, the Group had a non-current unused loan commitment for DKK 350 million (2015: DKK 450 million) expiring in 2020.

### 7 Suretyship

Suretyship of DKK 739 million has been provided as security of certain liabilities in a group enterprise (2015: DKK 515 million).

### 8 Fee to auditors appointed at the general meeting

Please refer to the note in the consolidated financial statement.

### 9 Contractual liabilities

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

### 10 Related parties

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

### 11 Subsequent events

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