Elkem
A Bluestar Company

Annual report 2016

Contents

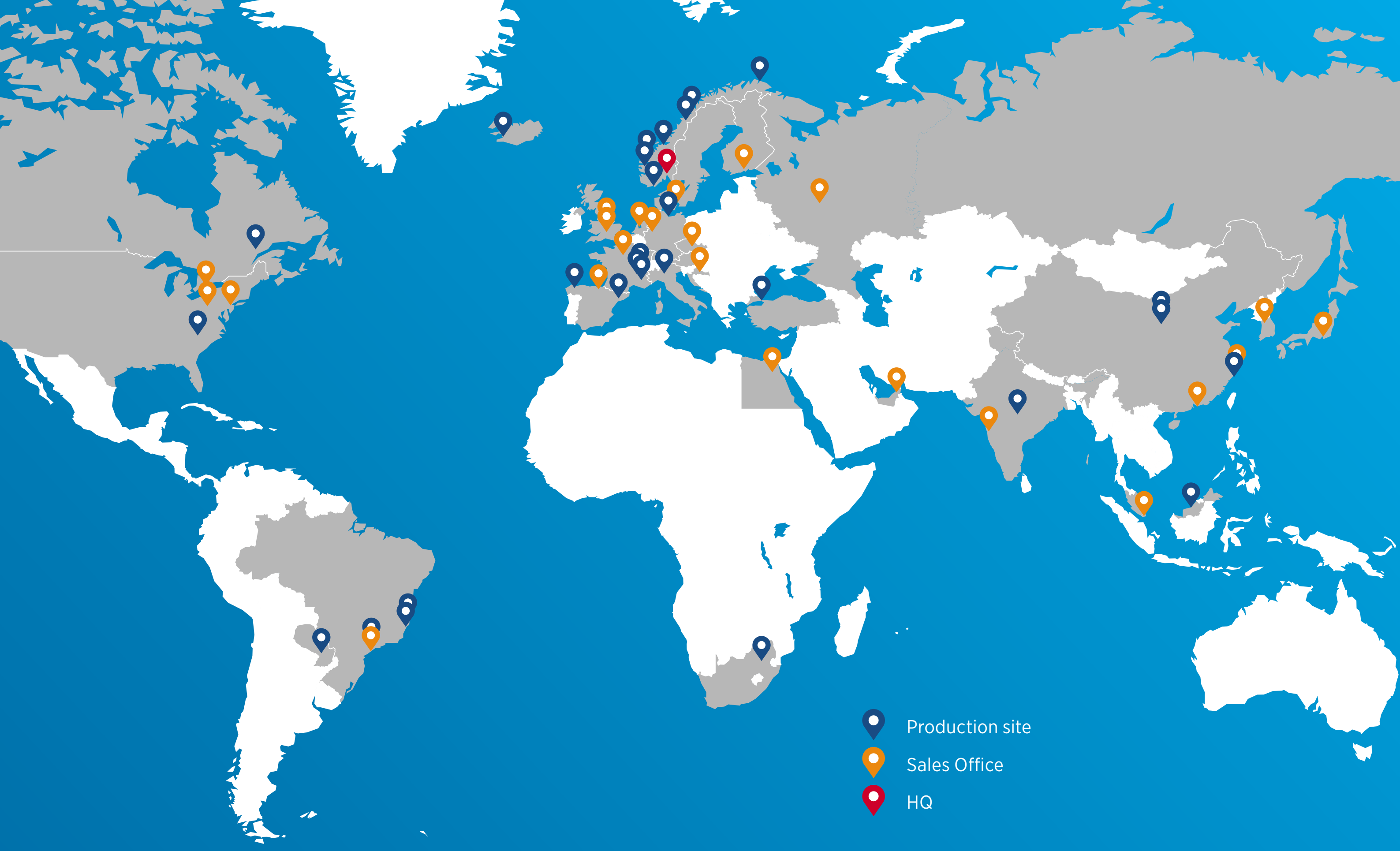
Elkem – an overview

3,800 EMPLOYEES
Worldwide

24 PLANTS WORLDWIDE
Headquarter in Norway

370 R&D PEOPLE
Global R&D centres in Norway and Lyon

14.2 BNOK
Revenue in 2016



About Elkem

Elkem is one of the world's leading companies in the environmentally responsible manufacture of metals and materials. The main activities are related to production and sale of silicon materials, silicones, ferrosilicon, specialty alloys for the foundry industry, carbon products and microsilica. In 2016 the turnover was NOK 14,226 million and the net profit NOK 758 million. Elkem has 3,800 employees in over 40 countries throughout the world. Elkem is owned by Bluestar Elkem International Luxembourg, which is controlled by China National Bluestar.

2016 in brief

2016 was a strong financial year despite of challenging market conditions, proving that Elkem's specialisation strategy and focus on continuous improvements is working and making Elkem more resilient to fluctuations in the global commodity market. Elkem had a continued focus on growth in 2016, acquiring two new plants as well as commencing production at the new carbon plant in Malaysia and constructing a new ferrosilicon plant in Paraguay.

Key figures

FINANCIALS	UNIT	2016	2015	2014*	2013*
Revenues	NOK million	14 226	14 541	12 694	11 473
EBITDA	NOK million	1 618	2 207	1 248	819
EBIT	NOK million	941	1 310	527	345
Profit for the year	NOK million	758	842	161	(268)
Total assets	NOK million	14 813	14 477	14 579	13 086
Net interest-bearing assets /(liabilities)	NOK million	(1 729)	(1 928)	(3 530)	(3 538)
Equity	NOK million	7 459	6 167	4 754	4 022
Equity ratio	Per cent	50.4	42.6	32,6	30.7
ROCE	Per cent	10.2	15.1	6.7	4.8
No. of fulltime equivalent employees	Numbers	3 806	3 628	3.459	3 420

* Bluestar Silicones was acquired in 2015 and is included in comparable figures. Elkem Solar was divested in 2015 and is excluded in comparable figures. Please refer to accounting principles in consolidated financial statement for Elkem AS group for more details.

Being part of global growth

Elkem's financial results for 2016 were good despite challenging market conditions. The results clearly show the excellent quality of Elkem's organisation and management, and demonstrate that our strategy of focusing on specialty products pays off. This means that Elkem is more resilient to fluctuations in the global commodity markets than before.

The merger between Elkem and Bluestar Silicones in 2015 created an integrated value chain from quartz to highly specialised silicones products. The organisation has worked hard to integrate and improve production processes and to realise synergies. Bluestar Silicones, which now forms the Silicones division of Elkem, is an important part of the group's product specialisation strategy.

We also believe that this strategy will make Elkem well positioned to benefit from major trends, which will influence the global economy in the years to come. The demographic trends with increasing population and urbanisation, as well as increased focus on renewable energy and reduced emissions will drive growth for many of Elkem's products

The Bluestar Group has a clear growth strategy with ambitious targets, and Elkem is a very important part of that. Growth, first of all, means that we need to be successful in running our existing business, and in addition, we expect to grow through acquisitions and partnerships. In 2016, we have seen some good examples of such initiatives; Elkem's acquisitions of Fesil Rana Metall AS in Norway and the foundry business of Minex in India, the opening of a new carbon plant in Sarawak in Malaysia and the construction of a new ferrosilicon plant in Paraguay. Also, the Foundry Products division will move and expand its operations in China in 2017, more than tripling its production capacity. These growth initiatives underpin Elkem's position as a truly global company.

> 'The demographic trends with increasing population and urbanisation, as well as increased focus on renewable energy and reduced emissions will drive growth for many of Elkem's products.'

Today, many markets are characterised by rapid change and high volatility. An important part of doing business is to manage change and uncertainties. I feel very comfortable with how Elkem is prepared, both with regards to the way our business is globally distributed and the activities that Elkem is doing to meet future demands regarding sustainability and global trends.

During its long history, Elkem has demonstrated its ability to adjust to trends, and focus on customer needs. In my opinion that is key to success in a dynamic and fast-changing market.

Elkem's business model has proven its resilience several times in the past, based on Elkem Business Systems (EBS) and its focus on continuous improvement. Therefore, Elkem is well positioned to deliver products that support long-term sustainable growth.

I would like to express my sincere thanks to all of Elkem's employees for their strong support and relentless efforts to develop the company.

Michael Koenig
Chairman of the board

Main events in 2016

Q1

- Energy recovery upgrade completed at Bjølvefossen
- The new carbon plant in Malaysia commenced production

Q2

- Michael Koenig, new CEO of China National Bluestar, took position as chairman of the board of directors of Elkem
- Elkem decided to move financial service operations to Oslo

Q3

- Elkem entered into an agreement to purchase all of the shares in Fesil Rana Metall AS
- The Silicones division relocated its Brazilian operations to new premises in Joinville

Q4

- Acquisition of the iron foundry business of Minex Metallurgical Co. Ltd. in India
- Acquisition of Fesil Rana Metall AS concluded upon approval from competition authorities

Specialty products and continuous improvement yield higher growth

Despite a declining trend in market prices for standard silicon and ferrosilicon throughout the second half of 2015 and most of 2016, Elkem delivered a good financial result in 2016. This can be attributed to our specialisation strategy and our continuous improvement efforts. We have been able to both create more value to customers and become more resilient to market fluctuations.

Our specialty product strategy is supported by strong R&D capabilities. We continue to offer advanced materials solutions to tap into new growth segments, driven by megatrends such as increased use of electronics, demand for improved health care, renewable energy and urbanisation. Elkem also focuses on the environmental sustainability of our business to meet the demands from society, governments and customers. We are committed to reducing the company's CO_2-emissions and our long-term vision is to become CO_2 and electricity consumption neutral.

Elkem's investments support the specialisation strategy and are based on a clear growth ambition

Elkem's strategy is to strengthen its market positions in all business segments and in 2016, we are delivering on this strategy.

Elkem's acquisition of the iron foundry business of Minex Metallurgical Co. Ltd. will enable the group to leverage on its long-term presence in India by having a local manufacturing footprint and take a market leading position. India is one of the fastest growing markets for foundry alloys in the world.

> 'We continue to offer advanced materials solutions to tap into new growth segments, driven by megatrends such as increased use of electronics, demand for improved health care, renewable energy and urbanisation.'

In the first half of 2016, Elkem commenced production at its new carbon plant in Sarawak, Malaysia. The plant will serve customers in a local cluster for power intensive industries and throughout South East Asia.

The acquisition of Fesil Rana Metall AS in Norway, will strengthen Elkem's position as a producer of specialty ferrosilicon and microsilica, and also open up for other products in the future.

Elkem is also part of a joint venture, which is constructing a ferrosilicon plant in Paraguay to supply the growing market for foundry products in South America. The plant is expected to commence production in 2017.

All Elkem's business divisions have contributed to the strong 2016 result

Despite challenging market conditions, Elkem has delivered a strong financial result for 2016. Total operating revenues and EBITDA are down compared to 2015, but this is still one of the best years in Elkem's history in terms of financial performance.

Silicon Materials did exceptionally well considering the challenging market conditions. The division has relentlessly focused on cost improvements and has had a good development in sales volumes.

The Silicones division has delivered well on the specialisation strategy, and further improved cost position based on vertical integration with the Silicon Materials division.

Foundry Products has played an important part in Elkem's global expansion strategy in 2016 with projects in India, Paraguay and China. The plant in China will move to a new location in 2017 and expand its capacity from 10,000 to 30,000 tonnes per year.

The Carbon division has had a good and stable year. Already a major player in its markets, resources have been dedicated to identifying new business opportunities and ramp up the new plant in Malaysia.

Going forward Elkem will continue to focus and deliver on its strategy to enhance performance and strengthen market positions. In doing so, we depend on the dedication and efforts of our 3,800 employees to grow and develop our company for the future.

Helge Aasen
CEO Elkem AS

Corporate management

Helge Aasen
CEO

Morten Viga
CFO

Katja Lehland
SVP Human resources

Inge Grubben-Strømnes
SVP Business development

Håvard I. Moe
SVP Elkem Technology

Trond Sæterstad
SVP Silicon Materials

Frédéric Jacquin
SVP Silicones

Asbjørn Søvik
SVP Carbon

Jean Villeneuve
SVP Foundry Products

Louis Vovelle
SVP Innovation and R&D

Board of directors

Michael Koenig
CEO of China National Bluestar (Group)
Chairman of the board

Sverre T. Tysland
Advokatfirmaet Steenstrup Stordrange DA
Board member

Olivier de Clermont-Tonnerre
Bluestar Silicones
Board member

Helge Aasen
Elkem AS
Board member

Yougen Ge
China National Bluestar (Group)
Board member

Dazhuang Wang
China National Bluestar (Group)
Board member

Marianne Færøyvik
Employee representative
Board member

Einar Støfringshaug
Employee representative
Board member

Corporate governance

Elkem considers good corporate governance to be a prerequisite for value creation and trustworthiness. Elkem's governance documents set out the principles for how the group should conduct its business.

Elkem's vision is to develop advanced materials that shape the future. This mission helps the group to promote a sustainable future by producing advanced silicon and carbon based solutions that create value for all stakeholders. Elkem operates its business under Elkem Business Systems (EBS), which is dedicated to lean manufacturing and efficient operational processes. This system for continuous improvement is underpinned by Elkem's values: Involvement, Respect, Precision and Continuous improvement, which form the foundations of how we work.

Elkem has a strong commitment to sustainable development and responsible business behaviour and is a signatory to the UN Global Compact. Elkem's corporate social responsibility policy (CSR) is according to the UN Global Compact's ten principles for human rights, labour rights, environment and anti-corruption. CSR forms an important part of Elkem's business culture. All employees are obliged to follow Elkem's policies and principles, to report discrepancies according to company guidelines, and to help investigate and correct discrepancies. All employees are given documented training in Elkem's Code of conduct. The formal CSR framework in Elkem includes the following policies and documents approved by the board of directors:

- General policy of Elkem AS
- Elkem policy for corporate social responsibility
- Mandate for the CSR steering committee
- Code of conduct
- Whistle blowing
- Anti-corruption policy
- Competition law compliance policy
- Annual sustainability report

Although Elkem is not listed on the stock exchange, the group intends to follow the principles in the Norwegian Code of Practice for Corporate Governance. However, only sections which are relevant for Elkem, are commented upon.

Business

Elkem was founded in 1904 and is one of the world's leading companies in the environmentally responsible manufacture of metals and materials. The main activities are related to production and sale of silicon materials, silicones, ferrosilicon, specialty alloys for the foundry industry and carbon products.

According to its articles of association, Elkem's business scope is defined as follows:

The object of the company is to develop and engage in industry, mining, trade and transportation as well as exploration and exploitation of natural resources. The company may also develop, acquire and exploit patents, inventions and technical knowhow.

The company may participate directly or by other means in companies engaged in activities outlined above or activities that promote or support such objects.

Equity

As of 31 December 2016, the group's equity was NOK 7,459 million, which is equivalent to 50% of total assets. Elkem's goal is to have a strong financial profile, taking into account the capital requirements, financial and general business conditions and the maintenance of appropriate financial flexibility of the group. The board considers the group's financial position to be strong.

Elkem's shares are 100% owned by Bluestar Elkem International Co. Ltd. S.A., which is controlled by China National Bluestar (Group) Co. Ltd. (Bluestar).

Board of directors

Elkem is governed by the board of directors, which consists of eight members. The owner Bluestar appoints six members of the board, and two members are elected by the employees.

Mr. Michael Koenig, the CEO of Bluestar, is chairman of the board. Elkem's CEO Helge Aasen is board member elected by the owners and also sits on Bluestar's board of directors. This is in line with Bluestar practice.

For overview of board members, please refer to page 7.

Please refer to note 5 of the consolidated financial statement for overview of remuneration of the board of directors and executive personnel.

The work of the board of directors

The board of directors is responsible for managing the group and shall ensure proper organisation of the group's activities, adopt plans and budgets, oversee the day-to-day management to ensure that the activities are satisfactorily monitored.

The board has adopted instructions for its work and administrative procedures. These instructions are pursuant to the Public Limited Liability Companies Act. The board instructions also include separate instructions for the CEO.

Elkem's board meets regularly and the CEO shall each year, in consultation with the chairman, propose a meeting plan and a main agenda for the board meetings. The board normally schedules four meetings each year, with additional meetings held on an ad hoc basis.

No board member may participate in discussions or decisions which have particular personal interest or significance to them or someone close to them.

The board receives monthly management reports, which contain overview of financial performance, market development, update on main projects and status on environment, health and safety.

The board has not appointed any board committees.

Risk management and internal control

Elkem has established policies and procedures for risk management and internal control. Governing documents and other tools have been dedicated to the areas of sustainability and social responsibility to safeguard basic human rights, the employees' rights as workers, environmental concerns, a sustainable utilisation of natural resources and business integrity. Elkem does not permit or tolerate engagement in any form of corruption and has implemented an anti-corruption policy that defines different forms of corruption and how it must be avoided.

Assessment of risks include all aspects of the operation and is delegated as a line responsibility. This includes health and environmental risk, financial risk, market risk, operational risk and regulatory risk. A review of the main risk areas is part of the annual review of the group's strategic plan. The board and the management are regularly updated on the group's performance and decisive measures are taken when needed.

The group's internal control function is exercised through monthly reviews of the business activities at the group management level. The monthly reviews are conducted according to stated agendas and checklists.

A detailed authority structure has been developed to determine who can make decisions at various levels in the organisation.

Elkem has a CSR steering committee, which is responsible for defining and obtaining necessary approvals from the corporate management and the board, and following up governing documents for corporate social responsibility.
The committee is also responsible for Elkem's sustainability reporting, including progress on environmental, social and economic development within the Global Reporting Initiative (GRI).

Auditor

Elkem's auditor is appointed by Bluestar.

KPMG is the group's auditor from 2016, succeeding PwC. The general principle of ChemChina and Bluestar is to change auditor every 5-6 years for all group companies.

The auditor is present in at least one board meeting each year, normally to present the results of the interim audit. An annual meeting is held between the board and the auditor without the presence of the CEO or other members of the executive management.

Risk and compliance

RISK FACTOR	DESCRIPTION
1 **Environment, health and safety** Hazardous incidents causing serious injury to personnell, damage to equipment and/or harm to the environment	Elkem's plants are large industrial sites with complex, heavy processes and handling of molten metals, chemical substances and equipment carrying high voltage. This working environment contains risk of hazardous incidents which could have serious or fatal concequences for employees or contractors, or cause serious damage to plant and equipment or cause harm to the environment.
2 **Market conditions - sales prices** Sales prices are determined in international markets and may swing with changes in global demand and production capacity	Elkem's business mainly consists of sales of silicon, ferrosilicon, silicones and carbon related materials. These products are mainly used in other industries. The demand for silicon related materials has increased over the past years and global megatrends are expected to drive continued demand growth. Prices will however, fluctuate with economic cycles and changes in global production capacity, which could have significant impact on Elkem's profitability.
3 **Financial markets** Currency rates fluctuate and may negatively impact financial performance and competitive position	Elkem is operating in international markets. The group has most of its sales in EUR and USD, while the location of its plants gives a significant share of the cost base in other currencies, mainly NOK. In addition, the group presents its accounts in NOK, but it has underlying assets and liabilities in various currencies. Currency changes represent an exposure to Elkem's result, cash flow and equity.
4 **Market conditions – raw materials** Stable supply and favourable pricing of energy and other strategic raw materials are imperative to operations and competitveness	Elkem's production processes require significant use of electric energy, mainly for furnace operations. Availability and favourable pricing of energy is of key importance to Elkem's competitivness. Other main input factors include quartz, coal, biocarbon and other strategic rawmaterials.
5 **Operations and production** Elkem's production processes require high level of precision and control. Unreliabilities and disruptions may result in incidents and lost production	Elkem's production processes involve operation of large arc furnaces for production of highly specialsed silicon materials and advanced chemical processes for production of silicones. The processes require high precision in order to secure stable production and consistent high quality to meet customer demands.
6 **Strategy** Profitability of new investments and/or integration of new companies may not meet financial or operational expectations	Elkem has an ambition to strengthen its market positions across business segments and markets. This includes organic growth, as well as growth through mergers and acquisitions. Investments in current and/or new markets, or integration of new companies, are based on long-term assumptions regarding prices and future operations. There is a risk of changed market conditions and/or cost overruns. In addition, the group may not be able to capture expected synergies from acquisitions.
7 **Regulatory risk** Elkem may be affected by regulatory changes related to trade and/or environmental frame conditions	Elkem has production facilities and employees in several countries and the group has raw material sourcing and sales in many jurisdictions. Our operations may be affected by changes in trade and currency regulations and other frame conditions.

MITIGATION

Elkem is committed to high environmental, health and safety standards and has closely integrated efforts in these areas with all other activities in the group. Through management commitment, systematic methods, targeted plans and strong organisational participation, Elkem has achieved significant improvements and operates with a low level of serious harm to both employees and the environment. Elkem uses considerable resources to identify hazards and implement appropriate measures to avoid incidents and to reduce risk to an acceptable level. Elkem has insurance policies in place to cover property damage and business interruption and environmental matters.

Elkem seeks to position itself by continuous development and product specialisation to meet customer demands. It is a clear strategic target to continue focus on specialty products rather than commodities to improve margins and reduce cyclicality. Elkem has strong technology and R&D capabilites, which are crucial for developing new products and production processes. Elkem also uses its R&D resources to provide technology support to its customers and these interactions enable Elkem to develop high value products tailored to customer needs. In addition, Elkem aims to establish long-term customer relationships to stabilise volume and production.

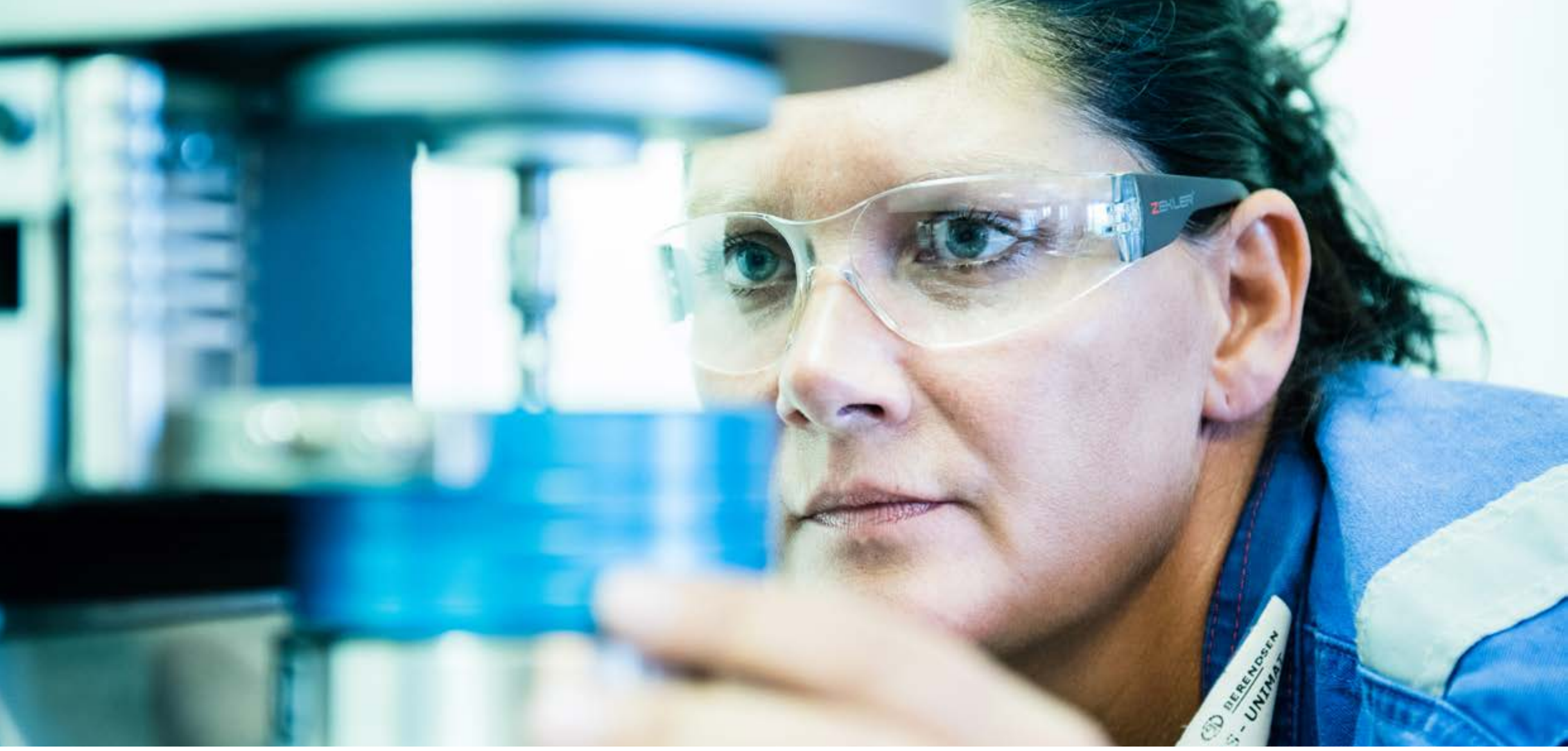
Currency exposure and currency effects are monitored and managed centrally. Elkem has a predefined hedging policy to minimise the risk of adverse currency movements. The policy is to hedge 90% of net cash flows which are deemed to be near term and highly probable, and approximately 45% of forecasted (between 4 to 12 months in the future) cash flows. The hedging of forecasted cash flows may vary between 25% and 75% depending on Elkem's overall risk assessment. The hedging policy will largely mitigate the short-term impact of currency movements. Longer term, a strong NOK could negatively affect the group's competitive position.

Elkem has a strong focus on raw material sourcing. Long-term energy contracts are in place to secure base volume and predictable prices. In order to secure operational flexibility some of the energy volume is covered through short-term contracts. Elkem's strategy on other raw materials is to secure stable and predictable prices and timely supply of good quality raw materials that meet the operating requirements. The group has long-term contracts in place for coal and other strategic raw materials. Quartz is mainly supplied from wholly owned mines.

Elkem seeks to manage and optimise its production processes through Elkem Business Systems (EBS). EBS forms the foundation of Elkem's corporate culture and is a set of fundamental principles describing how employees at all levels and in all positions shall work together to achieve common goals and continuous improvement. The four EBS principles are: 1) make to use, 2) empowered people, 3) eliminating waste and 4) processes in control. Extensive training is provided to operators and all processes are closely monitored. Elkem is promoting knowledge-sharing and sharing of best practice across divisions and business units. Elkem's R&D capabilities play an active role in process improvement.

Elkem has a well establised frame work for prioritising new investments. Considerable efforts are made to verify relevant assumptions and future market potential. Cross functional project teams with experienced employees are established for all major projects. Projects are managed according to defined project plans with clear stage gates. Investments are closely monitored and followed up and any deviation is reported to the relevant project steering committee.

Elkem seeks to balance its investments between developed and emerging markets. Developed markets generally provide stable and predictable regulations, however growth opportunities could be limited. Emerging markets generally have higher growth potential, but also higher risk. Elkem's investments in emerging markets have been characterised by low capex and have predominatly been based on organic growth. In addition, Elkem seeks investments with good and stable access to raw materials and proximity to local markets. Elkem's goal is to avoid dependence on single markets for sales and/or raw material sourcing. In addition, Elkem is a member of industrial associations to promote fair, sustainable and competitive framework conditions for the industry.



Elkem's business strategy

Elkem has a diversified business platform with strong market positions in most regions. The group operates in highly competitive and global markets. The product portfolio makes Elkem well positioned to meet demand growth driven by global mega trends. Elkem's strategy is based on systematic cost improvements, further product specialisation and an ambition to strengthen the group's position across all business segments and markets.

Cost reduction and value-chain integration

Elkem is working on systematic cost improvements through the Elkem Business System (EBS) and well-proven 'Cost roadmap' programmes. The internal 'Cost roadmap' approach identifies and supports cost reduction projects in a standardised manner and actively uses intra-plant benchmarking to spread best practices in the group. Operational excellence, economies of scale, low cost power, integrated value chain from raw materials to end-products and advanced energy recovery systems will continue to be key focus areas for securing cost improvements. In addition, investment in research and development will support technological improvements that reduce costs or improve production efficiencies.

Elkem will continue to secure strategic benefits and synergies from the integration of Bluestar Silicones to improve productivity, efficiency and yield, reduce waste, reduce cost and accelerate product development. The focus will in particular be on the internal sourcing of silicon for the production of siloxanes and a production culture focused on continuous improvements. Elkem will also continue its focus on strategic raw material sourcing of e.g. quartz and sustainable charcoal.

Specialty products

Elkem aims to offer its customers products which will enable them to meet a dynamic market environment, where global mega trends are challenging the way we produce and consume products.

> Elkem's organisation is set up to support customers and develop tailor made products.

One of Elkem's key goals is therefore to increase its share of specialty products. Specialty products are also important to reduce price volatility. Particularly Foundry Products and Silicones have a high share of specialty products in their portfolio and their ambition is to increase this even further.

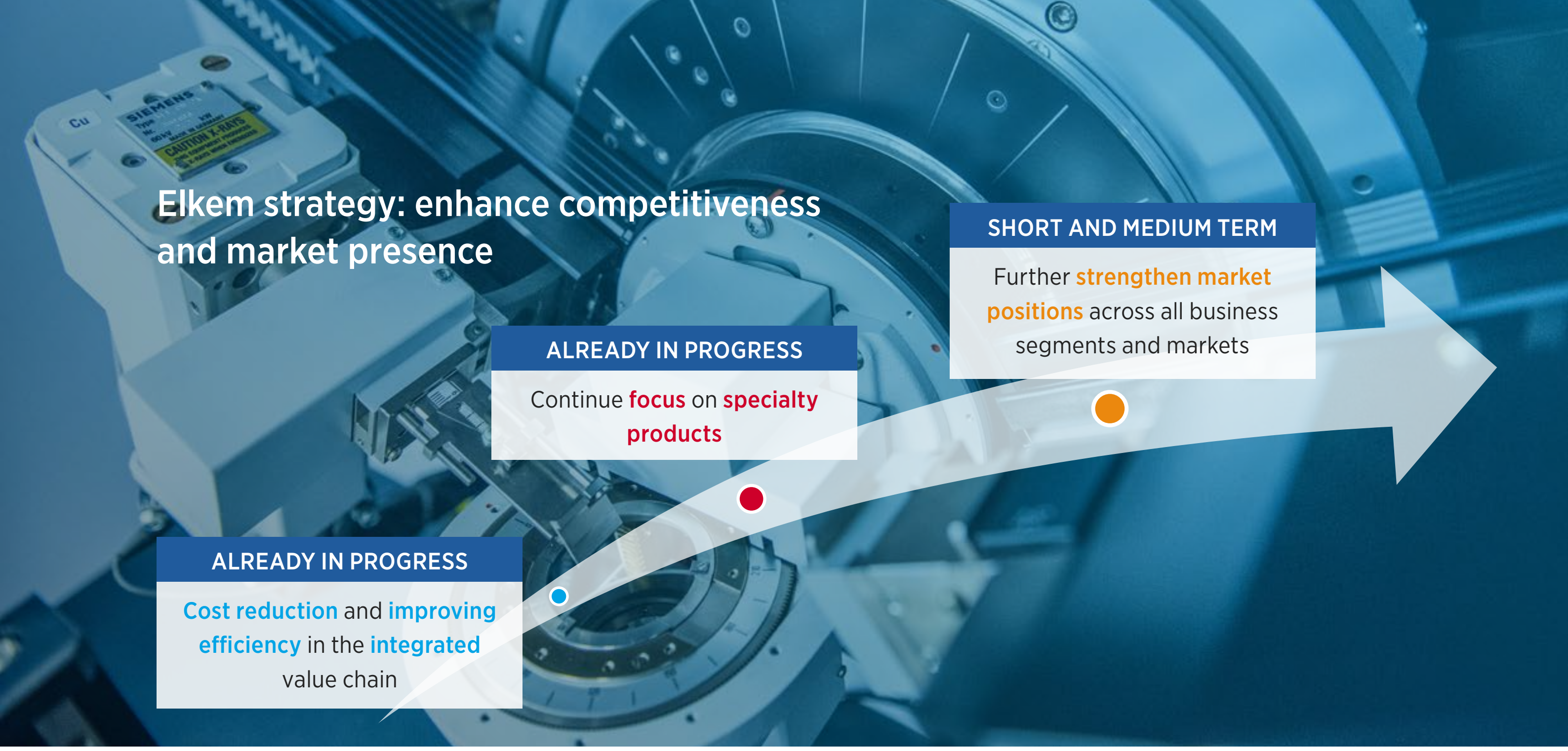
Elkem's organisation is set up to support customers and develop tailor made products. Our sales and technical customer service have strong competence and work closely with our customers to identify their needs and improve their processes. Elkem's strong R&D capabilities are then utilised to develop products and solutions to secure increased value creation.

Elkem may also consider merger and acquisitions to strengthen its market position in certain specialised market segments. One of the main objectives for the investments and acquisitions in 2016 was to provide a platform for increased sale of specialised products in growth markets such as Asia and South America.

Strengthening the market position

Elkem continuously evaluates options for growth across regions and business segments. The strategy is to maintain and further develop Elkem's strong market

Elkem strategy: enhance competitiveness and market presence



positions and to enable the group to benefit from global mega trends, which are expected to drive demand in most of the group's product areas.

Elkem's goal is to increase its production capacity, either by capacity expansion at existing plants, new greenfield investments or through merger and acquisitions. As part of this strategy Elkem has concluded a number of projects in 2016, including acquisition of Fesil Rana Metall AS, the iron foundry business of Minex, the start-up of the greenfield carbon plant in Malaysia and the construction of a greenfield plant in Paraguay for production of ferrosilicon. In addition, Elkem has made a decision to relocate and expand its foundry alloy plant in China in 2017.

Global mega trends:	– Create specific needs:	– Driving the demand for Elkem's solutions:
Emissions control	• Lightweighting of cars • Greater fuel efficiency • Reduced emissions	• Silicon as alloying agent for aluminium to replace steel in cars • Lightweight iron castings for autoapplications • Silicon-based diesel particle filters
Renewable energy	• Growing use of solar panels • Growing use of wind energy	• Silicon for polysilicon and silicones used in solar panels • Foundry alloys in castings for windmills • Silicon for batteries (storage)
Population growth, age and wealth	• Affordable comfort and personal care • Increased food preservation • Growing middle class	Silicones for use in: • Cosmetics • Personal care • Healthcare • Packaging
Urbanisation	Improved solutions for construction and infrastructure	• Microsilica for cement additives • Silicone sealants for construction applications • Ferrosilicon alloys in steel products • Foundry alloys in pipes for water transmission
Electronics	Size reduction / mechanical performance in mobile devices	• Silicon for polysilicon in mobilephones and other electronic applications • Silicon for batteries increase performance

Analysts and researchers point to global mega trends to understand the forces that are changing and reshaping the world and their impact on societies, economies and businesses.

Global mega trends can be defined in different ways, but usually include climate change and resource scarcity, renewable energy, urbanisation, technological changes and demographic and social changes. These trends fit well with Elkem's product portfolio, making the group well positioned to grow and strengthen its business.

Capital structure and financing

Elkem's goal is to have a strong financial profile, with a sustainable debt level and an adequate liquidity position.

The group's capital structure is considered to be strong. As of 31.12.2016 Elkem's equity was NOK 7.46 billion, which is equivalent to 50% of total assets.

Elkem aims to keep sufficient liquidity reserves to cover known capital needs, and generally not less than 10% of the group's annual turnover. The liquidity reserve is defined as cash and available credit lines. As of 31.12.2016 Elkem had cash and undrawn credit facilities of NOK 2.60 billion, amounting to approx. 18% of annual turnover.

Elkem's net debt amounts to NOK 1.73 billion. All debt financing is handled centrally. The target is to have a smooth maturity profile on the loan portfolio, and the intension is to refinance any significant debt obligation well in advance of its final maturity date. External loan agreements contains two financial covenants;

- Interest Cover Ratio shall exceed 4.0:1.0; and
- Equity ratio shall at all times be equal to or more than 30%.

Financial risk management

Elkem is operating in international markets and has most of its sales in EUR and USD. The location of Elkem's plants gives a significant share of the cost base in other currencies, mainly NOK. The group presents its accounts in NOK, but has underlying assets and liabilities in various currencies. Currency fluctuations represent an exposure to Elkem's result, cash flow and equity. These effects are monitored and managed centrally.

Elkem's result and cash flow will improve when the NOK weakens against other currencies, mainly EUR and USD. Annual net cash flows are estimated to approx. EUR 390 million and USD 130 million respectively. A depreciation/appreciation of NOK versus these currencies by 5% is expected to affect the result positively/negatively by approx. NOK 230 million.

Elkem maintains a predefined hedging policy to minimise the risk of adverse currency movements. The policy is to hedge 90% of net cash flows, which is deemed to be near term and highly probable and approximately 45% of forecasted (between 4 to 12 months in the future) cash flows. The hedging of forecasted cash flows may vary between 25% and 75% depending on Elkem's overall risk assessment.

Elkem uses hedge accounting for all cash flow hedges over three months.

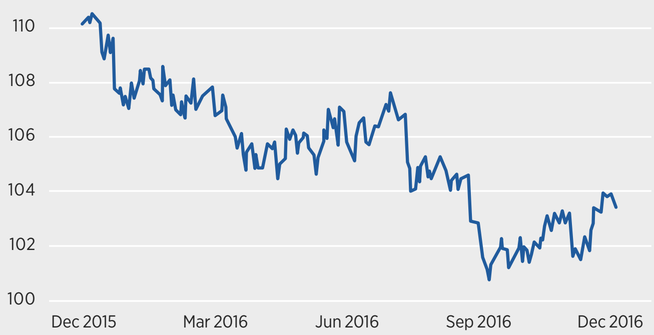
The table below shows the value of EUR and USD versus NOK as of 31.12.2016 and 31.12.2015, including the average rates for 2016. The table shows that the value of NOK has appreciated against EUR and USD. The import-weighted index (I44) is published by Norges Bank and shows the NOK versus a weighted basket of currencies. As of 31.12.2016, the index was 103.47, an appreciation of 6% from 31.12.2015. A further appreciation of NOK represents a key risk factor for Elkem.

VALUE OF EUR AND USD VERSUS NOK

	31/12/2016	31/12/2015	Average 2016
EUR/NOK	9.09	9.62	9.29
USD/NOK	8.62	8.81	8.40
I44*	103.47	110.18	105.32

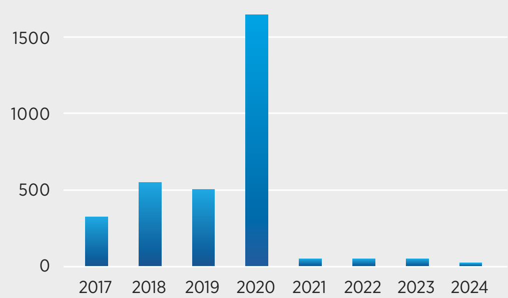
*The import-weighted index.

IMPORT-WEIGHTED NOK EXCHANGE RATE



DEBT MATURITY PROFILE

NOK million



Elkem's divisions

Silicon Materials

The Silicon Materials division manufactures and sells silicon and microsilica for a large number of applications. The division delivers products to customers in the chemical, solar, electronics, aluminium, construction, refractory, oil and gas industries worldwide.

Key developments and events 2016

Silicon Materials operates four plants in Norway, including Rana, which was acquired in 2016. In addition to silicon metal the division is producing highly specialised microsilica, which is used as an additive in a large number of product applications. The division also has a special focus on raw materials sourcing.

- Silicon Materials has delivered a good financial result despite challenging market conditions
- Sales prices for silicon dropped approx. 30% from May 2015 to June 2016
- Cost reductions and higher sales volumes have partly offset the effects of lower sales prices
- Elkem's plants have a strong competitive position and are among the most cost efficient in the world
- The division is differentiating its product portfolio and has launched several new product applications in 2016
- Elkem Rana, acquired from Fesil, will be integrated in the Silicon Materials division and strengthen the portfolio of differentiated products

PRODUCTS

Silicon produced in different purities and sizes according to customer needs.

Elkem Microsilica®, which is used in construction, refractory, oilfield and polymer industries, because of its many unique properties.

CAPACITY

The division produces approximately 160,000 tons of silicon and 275,000 tonn of microsilica per year.

PLANTS

Norway: Salten, Thamshavn, Bremanger and Rana

QUARTZ MINES

Norway: Tana, Mårnes,
Spain: Explotacion de Rocas Industriales y Minerals SA (Erimsa)

KEY NUMBERS	2016	2015	Share of group 2016*
Revenue NOK million	4,540	4,759	32%
Employed FTE (Full-time equivalent)	899	793	24%

* The division's share of the group revenues is calculated including the division intra group transactions.

Silicones

The Silicones division produces siloxanes and a comprehensive range of silicones, which are a family of specialty, high performance products and materials, produced by reacting silicon with methyl chloride. Silicones are found in a large variety of products used in daily life. The Silicones division is one of the leading producers of airbag coating, paper coating and other specialty products such as defoamers and lubricants. The division trades under the Bluestar Silicones brand name.

Key developments and events 2016

Silicones operates two major plants in France for production of upstream and intermediary products. In addition, the division has production facilities in Europe, North America, South America and Asia for production of specialised silicones products.

- Good sales volumes and strong development in Asia
- Improved cost position due to vertical integration with Elkem
- Production problems, mainly in second quarter, due to interruption of supply of a key raw materials and some strikes in France
- Tragic accident at the Saint-Fons plant end of Q2 with one fatality
- Increased sales of specialities, continued strong focus on R&D and product development
- Brazilian operation relocated and upgraded in 2016 and launch of a completely revamped workshop for Elastomers in Saint-Fons

PRODUCTS

Silicones produced by the division are found in products such as release coatings, rubber, textile coating, healthcare, personal care, mould making, speciality fluids, sealing and bonding and construction.

CAPACITY

The division has an upstream capacity of about 100,000 tonnes per year of siloxane and more than 250,000 tonnes capacity per year of intermediates and silicones.

PLANTS

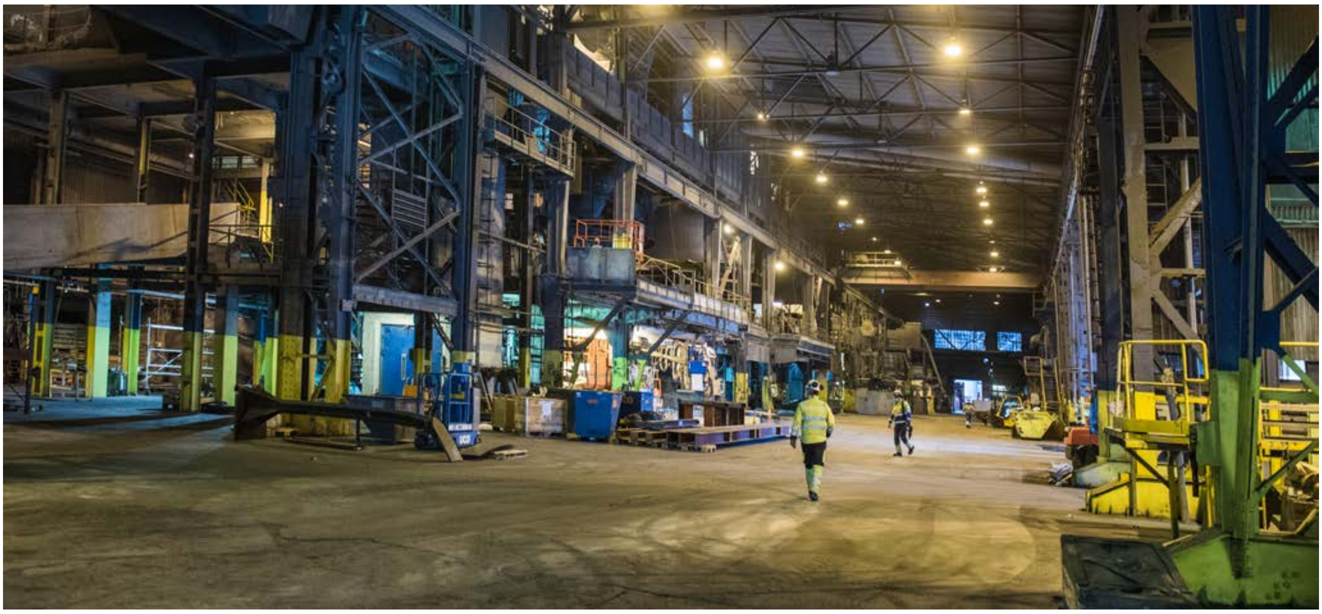
France: Roussillon, Saint-Fons
Germany: Lübeck
Italy: Caronno
Spain: Santa Perpetua
USA: York
China: Shanghai
Brazil: Joinville

KEY NUMBERS	2016	2015	Share of group 2016*
Revenue NOK millions	5,029	4,985	35%
Employed FTE (Full-time equivalent)	1,401	1,499	37%

* The division's share of the group revenues is calculated including the division intra group transactions.

Foundry Products

The Foundry Products division provides metal treatment solutions to iron foundries and is a supplier of high quality speciality ferrosilicon to the steel industry. The automotive, engineering, pipe and steel industries are important markets for the division.



Key developments and events 2016

Foundry Products has a strong global production footprint with plants in Norway, Iceland, Canada, China and India. In addition, the new plant in Paraguay is expected to start production in 2017. The division has a high share of specialised products for the foundry industry.

- Foundry Products delivered record sales and production volumes in 2016
- Sales prices for ferrosilicon dropped approx. 29% from April 2015 to March 2016 and has negatively affected the financial result for 2016
- A number of strategic projects have been concluded in 2016, including acquisition of a foundry alloy plant in India and the construction of a new plant in Paraguay
- The plant in China will be relocated in 2017 to increase the production capacity
- In addition, the division has completed a successful rebuild of furnace 2 at Bremanger and installed a new turbine for energy recovery at Bjolvefossen

PRODUCTS

The division is a supplier of high quality speciality ferrosilicon and provides metal treatment solutions to iron foundries.

CAPACITY

The division has a total production capacity of approximately 265,000 tonnes per year, based on its current product mix of ferrosilicon-magnesium (nodularisers), inoculants and ferrosilicon.

PLANTS

Norway: Bremanger and Bjølvefossen
Iceland : Akranes
Canada: Chicoutimi
China: Shizuishan
India: Nagpur

KEY NUMBERS	2016	2015	Share of group 2016*
Revenue NOK million	3,642	3,674	26%
Employed FTE (Full-time equivalent)	734	626	19%

*The division share of the group revenues is calculated including the division intra group transactions.

Carbon

The Carbon division produces carbon materials. The main products are Søderberg electrode paste, lining materials, pre-baked electrodes and specialty carbon products for various metallurgical smelting processes and primary aluminium industries.

Key developments and events 2016

The Carbon division has production facilities in Norway, Brazil, South Africa, China and Malaysia. The division has leading positions in most of its markets and a strong fundament for growth based on global strategy and synergies.

- Strong financial performance for the division
- New plant in Malaysia commenced production
- High focus on health and environment with a number of strong initiatives
- Ambitious cost reduction targets through EBS and automation
- Product development to meet new growth segments
- Systematic plan to reduce time to market through streamlining product development processes

PRODUCTS

Söderberg electrode paste, lining materials, pre-baked electrodes and specialty carbon products for various metallurgical smelting processes and primary aluminium industries.

CAPACITY

Carbon has an annual production capacity of approximately 260,000 tonnes of Söderberg electrode paste and approximately 105,000 tonnes of other carbon products, depending on the product mix.

PLANTS

Norway: Kristiansand
China: Shizuishan
Malaysia: Sarawak
Brazil: Carboindustrial and Carboderivados, Vitoria
South Africa: Ferroveld JV, eMalahleni

KEY NUMBERS	2016	2015	Share of group 2016*
Revenue NOK million	1,375	1,388	10%
Employed FTE (Full-time equivalent)	420	409	11%

* The division's share of the group revenues is calculated including the division intra group transactions.

Elkem group AS

Report from the board of directors

Strong results in a weak market

About Elkem

Elkem is one of the world's leading companies for environmentally responsible production of materials. Its principal products are silicon, silicones, ferrosilicon, foundry alloys, carbon materials and microsilica. The company has four business areas and more than 3,800 employees.

Elkem has production facilities in Europe, North and South America, Africa and Asia, as well as an extensive network of sales offices and agents covering the most important markets.

Elkem has centralised support functions and headquarters in Oslo, Norway.

As at 31.12.2016 Elkem AS is owned 100% by Bluestar Elkem International Co. Ltd. S.A., which is under the control of China National Bluestar Group Co. Ltd. (Bluestar).

Elkem's performance in 2016

In 2016, Elkem continued to deliver on its strategic plan via cost and efficiency improvement programmes, increased speciality products sales and exciting growth initiatives. Safety performance was weaker than record year 2015 and zero accident ambition. Financial results were strong, despite reference standard prices declining to near finance crisis levels in 2009. Market positions were strengthened with the acquisitions of new capacity in Norway and India.

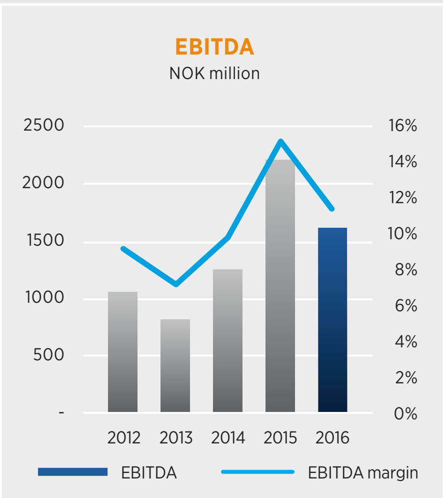
EBITDA[1] margin ended at 11.4%, the second best during the past five years. ROCE[2] was 10.2% which is considered strong, although weaker than record high 2015. Equity ratio ended at slightly above 50% establishing a healthy basis for future growth.

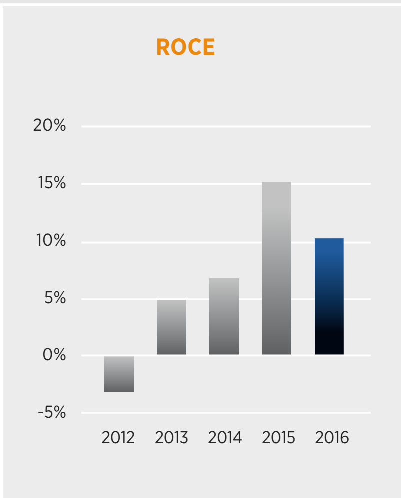
Several initiatives that supports Elkem's strategic path to growth were carried out:

- Fesil Rana Metall AS was acquired on 1 December 2016. The acquisition will strengthen Elkem's speciality ferrosilicon and microsilica portfolio. The acquisition also included increased ownership of Nor-Kvarts AS from 66% to 100%.
- Elkem acquired the iron foundry business of the Indian company Minex Metallurgical Co. Ltd., on 9 December 2016. The acquisition will strengthen Elkem's specialty iron foundry footprint in the fast-growing South East Asian market.
- On 15 September 2016, Silicones re-located and opened a new silicone plant in Joinville, Brazil. The Joinville plant will house a logistics platform that will enable greater efficiency and quicker delivery of products coming from other subsidiaries in Europe, Asia, and North America.
- During the first half of 2016, Elkem commenced production at its new carbon plant in Sarawak, Malaysia.
- During 2016, Elkem invested in energy recovery and SO_2 cleaning initiatives at existing plants in Norway, thus improving energy efficiency and reducing emissions of SO_2.
- During the year, Bluestar Silicones International S.a.r.l. was merged into Elkem AS.

Elkem is persistent to achieve a sustainable improvement culture working along the principles of Elkem Business Systems (EBS) to achieve environment, health and safety (EHS), quality, time and cost improvements. Cost roadmap activities

[1] EBITDA: Earnings Before Interest Taxes Depreciation Amortization (Gross operating profit (loss))
[2] ROCE: Return on Capital Employed defined as EBITA / (Fixed Assets + Working Capital)





at several plants and administrative functions, value chain improvements from quartz to silicones, and the simplification of the group's legal structure have contributed to good performance in 2016.

Thanks to great work from our employees and adherence to EBS principles, the group is well positioned to future growth complemented by a strong balance sheet.

Financial results

Operating income for the Elkem group amounted to NOK 14,226 million compared to NOK 14,541 million in 2015. The operating income decreased by 2%, due to significant reduction in silicon and ferrosilicon prices, countered partially by improved sales volumes. Reference CRU prices for standard silicon and ferrosilicon fell by 30% from high level in 2015 to low level in 2016, reaching near 2009 finance crisis levels. Elkem improved speciality sales volume in particular for Foundry Products and Silicones during the year.

Elkem's EBITDA ended at NOK 1,618 million compared to NOK 2,207 million in record year 2015. Considering a steep fall in prices for silicon and ferrosilicon products, the 2016 EBITDA result was strong, helped by higher volumes, reduced raw material prices and strong efforts on the cost improvements for Norwegian smelters in particular. In addition, a higher degree of speciality sales improved profitability compared to 2015.

Silicon Materials experienced a significant price drop year-on-year leading to reduced EBITDA. On average, reference prices fell by 24% during 2016 compared to 2015. The negative price fall was partly countered by approximately 5% higher sales volume. In addition internal cost roadmap initiatives helped position the smelters to the low end on CRU's competitive cost curve.

Silicones experienced 5% lower sales volume and lower prices yielding lower EBITDA in 2016. The lower sales volume was attributed to a planned maintenance shut-down at our upstream facility in Roussillon, in addition to lack of raw materials from our suppliers which also had maintenance shut-down in the same period. Despite lower sales volumes, Silicones had a high degree of speciality sales volumes, in addition to favourable raw material price development in the period.

Foundry Products experienced a reference price drop of 19% on average during 2016 resulting in a reduced EBITDA compared to 2015. The negative price effect was partially countered by increased sales volumes and in particular for speciality products. In addition, lower prices for raw materials and tight cost control contributed to a good result for 2016.

Carbon delivered a strong EBITDA in 2016, matching the record performance in 2015. Sales prices and currency developed favourably, whereas sales volume and mix effects experienced pressure in a weaker market. Carbon Malaysia commenced production and sales during the first half of 2016.

Profit before income tax ended at NOK 947 million positive for the year. Amortisations and depreciations amounted to NOK 718 million. Net finance items amounted to NOK 66 million negative. Foreign exchange gain amounted to NOK 50 million. Income from associates and joint ventures amounted to NOK 22 million positive.

The consolidated profit for the year was NOK 758 million positive, including NOK 189 million tax expense for the year.

Cash flow and balance sheet

Cash flow from operating activities was NOK 1,304 million positive for the year. Operating profit was 941 MNOK positive for continued operations, reflecting healthy earnings in a weak market. Amortisation, depreciation and impairment changes amounted to NOK 730 million. Taxes paid amounted to NOK 200 million for the year.

Cash flow from investing activities amounted to outflow of NOK 1,230 million for the year, which was NOK 167 million more than 2015. Elkem invested NOK 617 million into maintenance, EHS and productivity improvement initiatives during the year. In addition, Elkem invested NOK 179 million into growth and step-change investments into Silicones rubber operations, SO_2 cleaning at Fiskaa Carbon and into early phases of relocation and expansion of Foundry China business. Towards the end of the year, Elkem acquired Fesil Rana Metall AS and Minex Metallurgical Co. Ltd.

Elkem's financial position continued to improve during the year. Elkem's equity was NOK 7,459 million at the end of the year, including non-controlling interest. The equity ratio improved from 43% in 2015 to 50% in 2016, which constitutes a healthy basis for further expansion and growth.

Net interest bearing debt amounted to NOK 1,729 million per 31.12.2016. Cash and cash equivalents amounted to NOK 1,231 million, in addition to NOK 2,105 million in undrawn credit facilities.

The board confirms that the company satisfies the going concern assumption, and that the 2016 annual financial statements have been prepared on this basis.

Changes in accounting principles

Change in accounting policies and errors are recognised retrospectively by restating the comparative amounts for the prior period presented, including the opening balance of the prior year. Change in accounting estimate is recognised prospectively by including it in profit or loss in the period of the change and future periods, if the change affects both.

The Elkem group and Elkem AS has changed the accounting principle for long-term power contracts settled in other currencies than the entity's functional currency. Under the old accounting practice, these contracts were recognised in their entirety on delivery according to the own use exemption in IAS 39. In a letter issued in June 2016, the Financial Supervisory Authority (FSA) of Norway stated that currency portion of these contracts is an embedded derivative that must be separated from the host contract and be accounted for separately as an independent derivative. Elkem group and Elkem AS has chosen to follow the new policy stated by the FSA. For more information please refer to the notes to the financial statements.

Governance

Elkem focuses on good corporate governance and believes this to be key for long-term value creation. The Norwegian Code of Practice for Corporate Governance (Code of Practice) is primarily intended for companies listed on regulated markets in Norway. However, Elkem's board and management intend to follow the Code of Practice where appropriate, even though Elkem is not listed.

The board of directors is responsible for managing the group and ensuring proper organisation and monitoring of the group's activities. Elkem has governance documents approved by the board, setting out the principles for how the group should conduct its business.

The board of directors consists of eight members, six of which are appointed by Bluestar and two which are elected by the employees. The board had four regular board meetings scheduled in 2016. In addition, the board had extraordinary meetings scheduled during the year. In 2016, Michael Koenig replaced Robert Lu as chairman. Michael Koenig was named CEO of Bluestar in January 2016. He graduated from the Chemical Engineering Department of the TU Dortmund University in Germany and has worked in Bayer for many years. Mr. Koenig has extensive experience from China, where he has lived and worked for nearly a decade.

Elkem's executive management team was unchanged during 2016.

Risk management

Elkem aims to manage risk in a systematic and professional manner. The group has policies and procedures in place to secure proper risk management and internal control. Assessment of risks is delegated as a line responsibility to ensure clear ownership for own activities and efficient processes. Corporate management and the board of directors are updated on the development and the overall risk picture for Elkem on a regular basis through internal business reviews and management reports.

Elkem has a corporate social responsibility (CSR) steering committee. The steering committee defines, obtains approval and follows up CSR governing documents in Elkem. The purpose is to safeguard basic human rights, the employees' rights as workers, environmental concerns, sustainable utilisation of natural resources and business integrity. Elkem does not permit or tolerate engagement in any form of corruption and has implemented policies for anti-corruption, competition law compliance and whistle blowing.

The group is exposed to several risk factors, which could have considerable effect on its business performance. The most significant is market risk related to prices and sales volumes of silicon related materials, as well as costs for key raw materials, energy and other consumables. The demand for silicon related materials has increased over the past years and the growth is expected to exceed the growth in global GDP. Demand and prices will, however fluctuate based on economic cycles and competition, and significant price and volume changes can be observed depending on the overall business sentiment. The executive management and the board closely follow up Elkem's financial performance and the market development. Elkem's strategy is to focus on specialised products to meet customer demands and improve pricing stability. In addition, Elkem aims to keep a strong financial profile with adequate equity and liquidity reserves to handle and mitigate the effects of a cyclical downturn.

Elkem's strategy on raw materials and energy is to secure timely supply, and stable and predictable prices, to reduce net exposure through commodity cycles. The group has long-term contracts in place to secure volume of key input factors. Long-term energy contracts are in place to secure base volume and predictable prices. In order to secure operational flexibility some of the energy volume is covered through short-term contracts. Quartz is mainly sourced from own mines.

Elkem has sales revenue and operating costs in various currencies. The group aims to mitigate the currency risk by sourcing raw materials and other costs in the same currencies as the group's sales revenue. However, Elkem has a substantial part of its production in Norway, which gives a large net cost base in Norwegian kroner. Elkem has positive net cash flows in different currencies, mainly EUR and USD and the programme is to hedge 90% of the net exposure on a 0-3 month rolling basis, and between 25 and 75% of expected cash flows on a 4-12 month rolling basis, in order to even out the effect of currency movements on result and cash flow. Forward contracts are mainly used as hedging instruments.

Elkem is actively managing liquidity risk. The group has centralised its liquidity management and monitors the liquidity development through short- and long-term cash forecasts and daily reporting of the liquidity position. The policy is to have a liquidity buffer of minimum 10% of expected annual revenue. The liquidity buffer may consist of cash and undrawn credit facilities.

Counterparty risk is managed centrally and the main part of the accounts receivable is insured by a reputable credit insurance company. Elkem is monitoring the credit risk also for financial trading counterparties.

Social responsibility

Elkem is a signatory to the UN Global Compact and has made a strong commitment to socially responsible and sustainable business practices. Our definition of corporate social responsibility is based on the Global Compact's ten principles for human rights, labour rights, environment and anti-corruption. All employees are obliged to follow Elkem's policies and principles and to report discrepancies according to company guidelines. Our sustainability report details our commitment and activities related to social responsibility, and is written within the framework of the Global Reporting Initiative.

The latest sustainability report can be found online at **www.elkem.com/sustainability.**

Health and safety

Elkem is committed to high environmental, health and safety standards and has closely integrated efforts in these areas with all other activities throughout the company. Elkem uses considerable resources to identify hazards and implement appropriate measures to reduce risk to an acceptable level, so that all employees and contractors performing work at Elkem can leave their jobs just as healthy as they were when they arrived.

Absenteeism is the key performance indicator for health in Elkem. The average rate of absenteeism measured in percent of available working days for 2016 was 3.8%. This is slightly higher than 2015. This also represents a normal level taking into account the combination of European and non-European plants. Ongoing activities to increase health and wellbeing at Elkem locations include working environment assessments and improvement efforts in the areas of ergonomics, chemical control and noise and dust reduction.

The employee Lost Work Time Injury Rate (H1 = number of lost time injuries per 1,000,000 working hours) for 2016 was 2.4 (1.3 in 2015) while the employee Total Recordable Rate (TRR = H1+H2 = total number of lost work time, medical treatment and restricted work injuries per 1,000,000 working hours) was 5.3 (1.8 in 2015). This represents a substantial setback from 2015 which had record results. The weak result is limited to a small number of plants. Most plants continue to have very good results.

None of the recordable injuries for own employees caused long term injury or loss of function.

Recordable contractor injuries are managed in the same manner as own employee injuries even though they are recorded in separate statistics. There were 20 incidents of contractor lost work time injuries in 2016 compared to 10 in 2015. We deeply regret that one of these was a fatality. A young logistics operator died in connection with a major fire in one of the warehouses at Saint-Fons in France.

Gender equality

Elkem is committed to provide equal opportunities for all our employees in an inclusive work culture. We appreciate and recognise that every individual is unique and valuable, and should be respected for his or her individual abilities. We do not accept any form of harassment or discrimination based on gender, religion, race, national or ethnic origin, cultural background, social group, disability, sexual orientation, marital status, age or political opinion. Elkem will provide equal employment opportunities and treat all our employees – and job seekers – fairly.

The company has a well-established policy and practice to ensure that there is no discrimination. The policy and established practises include code of conduct, recruitment, compensation and benefits, working conditions, possibilities for promotion, development and protection against harassment.

In 2016, the overall share of female employees in Elkem was 22%. Amongst managers the share was 26%, and amongst white collar workers 35%. Amongst operators the share of women was only 6%. 13% of the employees that left Elkem were women. Elkem monitors the rate of female employees per country to be able to take specific measures to improve the gender balance where appropriate.

Our recruitment policy states that we will encourage women applicants, both through recruitment advertisements and by actively encouraging suitable internal candidates to apply. In our trainee programme we actively prioritise young women applicants and the rate of female trainees was 63% in 2016.

Elkem's policy is equal pay and equal work hours for men and women. Flexible arrangements can be made for employees where appropriate. We are constantly working to improve the automation of our processes, reducing the amount of physically demanding tasks and thereby improving employee health and increasing the number of female operators.

In order to increase the focus on diversity and discrimination across Elkem, we have developed a specific training module about diversity in our leadership programmes. The goal is to teach our leaders the value of diversity, how to lead diverse teams and how they can increase the diversity in their teams, e.g. to avoid unconscious bias and unintended discrimination.

External environment

Elkem converts natural resources such as water, coal, ores and minerals into products that are essential in global economic growth for present and future generations. This conversion of natural resources causes emissions, discharges, and waste.

All emissions, discharges and wastes are recorded and dealt with in compliance with public permits at our sites. Elkem is committed to environmentally responsible production and works continuously to reduce our impact on the external environment.

The main environmental focus during 2016 has been further reduction of dust emissions, energy efficiency and reduced NO_X emissions. In addition, we have significant initiatives to develop new technology that will further reduce our environmental footprint. These initiatives include:

- Several research projects to reduce GHG[3] emissions from our production processes
- Programme to upgrade our furnaces with new NO_X-reducing technology
- R&D to develop PAH[4] free binders for ramming paste and electrode production
- Circular economy initiatives to reduce waste from our processes

Our environmental efforts are further described and accounted for in our sustainability report.

Strategic overview

Foundation

Elkem Business System (EBS) is our working philosophy and is the foundation of Elkem's corporate culture and operations. EBS is a set of fundamental principles describing how we train and involve all employees at all levels and in all positions to engage in improvement activities. EBS is designed and aligned to support the strategic direction and operational goals of Elkem and will drive the behaviour in the organisation to foster a culture of operational excellence, continuous improvement and deep learning.

EBS is built on four basic principles:

- **Make to use** puts the customer first, both internal and external.
- **Empowered people** is a conviction that the people who perform the tasks are the experts. Elkem ascribes 70% of its success to human input.
- **Eliminating waste** is to drive for perfection and sustainability. Waste includes all unnecessary costs and inefficient use of resources.
- **Processes in control** is about stable, predictable and consistent processes where unwanted variations are removed.

The four values of Elkem are closely linked to our Business System and are:

- **Respect** for the law, the environment, our employees, colleagues, customers, suppliers, owners, the society, local communities and cultures.
- **Precision** in developing and following the highest quality standards for best practice and operational excellence so that we can measure and continuously improve them.
- **Continuous improvement** of the value chain by experimenting, implementing new solutions, and continuously eliminating waste using scientific methods.
- **Involvement** of everyone in the organisation to identify problems and opportunities and to participate in implementing improvements.

Research and development

Elkem has more than 370 researchers and devotes considerable effort and resources to Research and development (R&D), in order to create and develop innovative products, develop environmentally sustainable and energy efficient production technologies and to optimise the full value chains.

Throughout its more than 110-year history, Elkem has supplied and commissioned several hundred furnaces worldwide, and has extensive experience with silicon related processes and other metals and materials. Elkem Pilot Plant is a R&D centre with core competence in metallurgical high temperature processes. Projects and experiments carried out at Elkem Pilot Plant have been decisive for Elkem's development and progress.

The Silicones division has research centres worldwide, with the Lyon Research & Innovation Centre as the main hub. The aim is to constantly source innovation opportunities inside and outside the company to develop and commercialise new silicone technologies. In addition, there is strong cooperation with a broad range of partners: business and industrial partners, universities and research centres, competitive clusters, start-ups and many other institutions throughout the world. Relationships with outside experts allow us to quickly identify new technologies or to work on new developments in existing technologies.

In 2016 Elkem's R&D expenses were NOK 342 million whereof NOK 52 million was capitalised and NOK 289 million was expensed.

Strategic priorities

Elkem's strategy is based on systematic cost improvements, further product specialisation and an ambition to strengthen the group's position across all business segments. It is important to focus on cost and continuous improvement as Elkem operates in highly competitive and global markets. In addition, the focus on product specialisation and strengthening

[3] GHG: Greenhouse Gas
[4] PAH: Polycyclic Aromatic Hydrocarbons

of the market position are important to enable the group to take advantage of global mega trends which are expected to impact societies, economies and businesses.

Cost reduction and value-chain integration

Elkem is working on systematic improvements through the EBS organised as 'Cost Roadmap' programmes. The internal 'Cost Roadmap' approach identifies and supports cost reduction projects in a standardised manner and actively uses intra-plant benchmarking to spread best practices in the group. In addition, investment in research and development will support technological improvements that reduce costs or improve production efficiencies.

Elkem will also continue its focus to secure strategic benefits and synergies from the integration of Bluestar Silicones and on strategic raw material sourcing of e.g. quartz and sustainable charcoal.

Specialty products

Elkem aims to increase its share of specialty products. Specialty products are important to meet customer demands based on new requirements and to reduce price volatility on Elkem's products. Elkem's organisation is set up to support customers and develop new tailor made products. Our sales and technical customer service have strong competence and work closely with our customers to identify their needs and improve their processes. Elkem's strong R&D capabilities are then utilised to develop products and solutions to secure increased value creation.

Strengthening the market position

Elkem's strategy is to maintain and further develop its strong market positions. Elkem's goal is to increase production capacity, either by capacity expansion at existing plants, new greenfield investments or through merger and acquisitions.

As part of this strategy, Elkem has concluded a number of projects in 2016. A greenfield plant for carbon products in Malaysia commenced production in the first half of 2016 to serve customers in a newly established industry cluster locally as well as throughout South East Asia.

Elkem acquired Fesil Rana Metall in Norway and the iron foundry business of Minex Metallurgical Co. Ltd. in India.

In addition, a greenfield foundry alloys plant is constructed in Paraguay and is expected to start production in 2017 to supply a growing market for specialty foundry products in South America. In China, Elkem is relocating and increasing its foundry alloys capacity. The project started in 2016 and will be finalised in 2017.

Management responsibility for Chinese assets of the Bluestar Group

China is the fastest growing consumer of the products in Elkem's portfolio and Bluestar has overlapping activities within the silicon and silicones businesses.

Jiangxi Bluestar Xinghuo Silicones Co., Ltd. (Xinghuo) is a large-scale enterprise producing new chemical materials. The company has an annual capacity of 200,000-ton organic silicon monomers and 80,000-ton caustic soda.

The Lanzhou Bluestar Silicon Material Co Ltd. (Yongdeng) specializes in silicon metal production. The company has a capacity of 50,000 tons/year silicon.

In order to strengthen the silicones value chain of Bluestar, Elkem expects to take the management responsibility of Xinghou and Yongdeng during 2017. The entities will be owned by Bluestar Elkem Investment Co. Ltd. in Hong Kong, which is the holding company for Elkem and REC Solar.

The two Chinese entities will not be legally or financially integrated in Elkem, but Elkem management will assume full day-to-day management responsibilities. The management integration is expected to create significant synergies in the areas of technology, supply and distribution and production. With the management responsibility for the Chinese assets, Elkem will strengthen its position and become a local manufacturer without committing financial resources.

Financial prospects

The Financial statements for 2016 is presented under the assumption of a going concern.

Elkem is sensitive to changes in the macro economic development. World Economic Outlook, issued by International Monetary Fund in October 2016, expects global growth to increase from 3.1% in 2016 to 3.4% in 2017. The prices for silicon and ferrosilicon have shown an increasing trend from second half of 2016 and into 2017. Based on this the market conditions for Elkem's products seem relatively good.

However, raw material prices are also expected to increase, especially energy and coal. The Norwegian krone has strengthened towards the end of 2016 and a further strengthening could have negative effects on Elkem's results.

A key focus area for Elkem in 2017 is to secure a successful integration of the newly acquired businesses and to continue to deliver on the strategic goals of cost and products specialisation. In addition, assuming the management responsibility for the Xinghuo and Yongdeng plants in China will be a key priority.

For 2017, Elkem's total investments are expected to be around NOK 1 billion.

Elkem AS

Elkem AS is the parent company of the Elkem group. The company's accounts have been presented in accordance with the Norwegian Accounting Act and generally accepted accounting practices in Norway. The accounts are prepared on the basis of a going concern assumption.

For Elkem AS the operating income amounted to NOK 7,011 million compared to NOK 7,278 million in 2015. The operating income decreased by 4%. Elkem AS operates in the silicon, ferrosilicon and foundry alloys market and experienced the same reduction in prices as the group during 2016. The operating profit ended at NOK 550 million compared to NOK 5 million last year. The significant increase is in large parts explained by other gains and losses related to operating activities. The change in other gains and losses compared to last year is explained by the effects of the forward contracts and the development of power prices effecting the valuation of power contracts.

For Elkem AS the financial position also continued to improve during the year. Elkem AS' equity was NOK 4,373 million at the end of the year. The equity ratio improved from 36% in 2015 to 42% in 2016 as the company had a solid profit that in the total was allocated to retained earnings. The net interest bearing debt amounted to NOK 3,548 million per 31.12.2016. Cash and cash equivalents amounted to NOK 292 million.

Allocation of the result

In 2016, the Elkem AS posted a profit of NOK 585 million. The board of directors proposes not to pay any dividend for 2016 and hence transfer the full amount to retained earnings.

Oslo, 3 April 2017

Elkem AS board of directors

Michael Koenig
Chairman of the board

Einar Støfringshaug

Marianne Færøyvik

Yougen Ge

Olivier de Clermont-Tonnerre

Sverre S. Tysland

Helge Aasen, CEO

Dazhuang Wang

Consolidated statement of income

1 January - 31 December	Note	2016	2015
Amounts in NOK 1000			
Revenues		14 045 397	14 361 403
Other operating income		180 772	179 654
Total operating income	4	**14 226 169**	**14 541 057**
Raw materials and energy for smelting		(6 899 039)	(6 847 021)
Employee benefit expenses	5	(2 559 950)	(2 438 997)
Other operating expenses	7,8	(3 149 390)	(3 048 051)
Gross operating profit (loss)		**1 617 790**	**2 206 988**
Amortisations and depreciations	12	(717 781)	(674 383)
Impairment losses	12	(11 818)	(1 813)
Other gains and losses	9	52 438	(221 006)
Operating profit (loss)		**940 629**	**1 309 786**
Income from associates and joint ventures	13,14	22 130	21 327
Finance income	10	22 617	57 492
Foreign exchange gains (losses)	10	49 661	32 533
Finance expenses	10	(88 501)	(154 067)
Profit (loss) before income tax		**946 537**	**1 267 071**
Tax (expenses) / income	11	(188 567)	(424 663)
Profit (loss) for the year from continued operations		**757 969**	**842 408**
Profit (loss) for the year from discontinued operations	35	**-**	(7 097)
Profit (loss) for the year		**757 969**	**835 311**
Attributable to:			
Non-controlling interest's share of profit (loss)		36 119	33 373
Owners of the parent's share of profit (loss)		721 850	801 938

Consolidated statement of other comprehensive income

1 January - 31 December	Note	2016	2015
Amounts in NOK 1000			
Profit (loss) for the year		**757 969**	**835 311**
Other comprehensive income:			
Items that will not be reclassified to profit or loss			
Remeasurements of post employment benefit obligation	6	(55 177)	18 108
Tax effects on remeasurements of post employment benefit obligation	11	13 587	(4 617)
Share of profit (loss) from associates and joint ventures	13, 14	-	47
		(41 590)	**13 538**
Items that will be reclassified to profit or loss in subsequent periods			
Currency translation differences		(64 508)	251 943
Hedging of net investment in foreign operations		25 449	-
Tax effects hedging of net investment in foreign operations	11	(6 108)	-
Cash flow hedges	26	930 150	(867 486)
Tax effects on cash flow hedges	11	(238 356)	203 982
Share of profit (loss) from associates and joint ventures	13, 14	(1 141)	45
Change in value of available-for-sale financial assets		1 718	-
		647 204	**(411 516)**
Other comprehensive income for the year, net of tax		**605 614**	**(397 978)**
Discontinued operations		**-**	**3 422**
Total comprehensive income for the year		**1 363 583**	**440 755**
Attributable to:			
Non-controlling interest's share of comprehensive income		32 019	42 411
Owners of the parent's share of comprehensive income		1 331 564	398 344
Total comprehensive income for the year		**1 363 583**	**440 755**
Total comprehensive income attributable to equity shareholders arises from:			
- Continuing operations		1 331 564	402 019
- Discontinued operations		-	(3 675)
Total		**1 331 564**	**398 344**

Consolidated statement of financial position

	Note	31.12.2016	31.12.2015
Amounts in NOK 1000			
ASSETS			
Property, plant and equipment	12	5 909 087	5 602 208
Goodwill	12	342 645	244 088
Other intangible assets	12	693 013	643 493
Deferred tax assets	11	67 348	323 969
Investment in joint ventures	13	108 978	67 476
Interest in associates and other companies	14	100 516	96 046
Derivatives	26	119 161	40 480
Other non-current assets	16	370 697	217 226
Total non-current assets		**7 711 445**	**7 234 986**
Inventories	17	3 339 415	3 302 196
Accounts receivable	18	1 870 770	1 864 010
Derivatives	26	56 388	14 332
Other current assets	19	604 656	755 737
Cash and cash equivalents	22	1 230 668	1 305 592
Total current assets		**7 101 897**	**7 241 867**
TOTAL ASSETS		**14 813 342**	**14 476 853**
EQUITY AND LIABILITIES			
Paid-in capital	20	3 088 203	3 088 203
Retained earnings		4 283 286	2 955 625
Non-controlling interest		87 553	123 219
Total equity		**7 459 042**	**6 167 047**
Interest-bearing non-current liabilities	22	2 834 859	3 051 916
Deferred tax liabilities	11	114 182	124 476
Pension liabilities	6	425 488	393 735
Derivatives	26	561 131	925 852
Provisions and other non-current liabilities	24	463 560	262 184
Total non-current liabilities		**4 399 220**	**4 758 163**
Accounts payable		1 527 587	1 448 578
Income tax payables		99 387	128 496
Interest-bearing current liabilities	22	277 970	327 981
Derivatives	26	128 001	615 208
Provisions and other current liabilities	25	922 135	1 031 380
Total current liabilities		**2 955 080**	**3 551 643**
TOTAL EQUITY AND LIABILITIES		**14 813 342**	**14 476 853**

Oslo, 3 April 2017

Elkem AS board of directors

Michael Koenig
Chairman of the board

Einar Støfringshaug

Marianne Færøyvik

Yougen Ge

Olivier de Clermont-Tonnerre

Sverre S. Tysland

Helge Aasen, CEO

Dazhuang Wang

Consolidated statement of changes in equity

Amounts in NOK 1000	Share capital	Other paid-in capital	Total paid-in capital	Foreign currency translation reserve	Cash flow hedge reserve	Other retained earnings	Total retained earnings	Total owners share	Non-controlling interest	Total
Balance 1 January 2016	2 010 000	1 078 203	**3 088 203**	440 734	(1 133 971)	3 648 862	**2 955 625**	**6 043 828**	**123 219**	**6 167 047**
Profit (loss) for the year	-	-	-	-	-	721 850	**721 850**	**721 850**	36 119	**757 969**
Other comprehensive income for the year	-	-	-	(41 067)	691 794	(41 013)	**609 714**	**609 714**	**(4 100)**	**605 614**
Total comprehensive income for the year	-	-	-	(41 067)	691 794	680 837	**1 331 564**	**1 331 564**	**32 019**	**1 363 583**
Dividends to equity holders	-	-	-	-	-	-	-	-	(40 364)	**(40 364)**
Changes in the composition of the group[1)]	-	-	-	-	-	(3 903)	**(3 903)**	**(3 903)**	(27 321)	**(31 224)**
Balance 31 December 2016	**2 010 000**	**1 078 203**	**3 088 203**	**399 667**	**(442 177)**	**4 325 796**	**4 283 286**	**7 371 489**	**87 553**	**7 459 042**

Amounts in NOK 1000	Share capital	Other paid-in capital	Total paid-in capital	Foreign currency translation reserve	Cash flow hedge reserve	Other retained earnings	Total retained earnings	Total owners share	Non-controlling interest	Total
Balance 31 December 2014	2 010 000	4 045 203	**6 055 203**	197 859	(470 467)	(203 051)	**(475 659)**	**5 579 544**	**95 873**	**5 675 417**
Effect of changes in accounting policy[2)]	-	-	-	-	-	(34 350)	**(34 350)**	**(34 350)**	**-**	**(34 350)**
Balance 1 January 2015	**2 010 000**	**4 045 203**	**6 055 203**	**197 859**	**(470 467)**	**(237 401)**	**(510 009)**	**5 545 194**	**95 873**	**5 641 067**
Profit (loss) for the year	-	-	-	-	-	801 938	**801 938**	**801 938**	33 373	**835 311**
Other comprehensive income for the year	-	-	-	242 875	(663 504)	17 005	**(403 624)**	**(403 624)**	9 068	**(394 556)**
Total comprehensive income for the year	-	-	-	242 875	(663 504)	818 943	**398 314**	**398 314**	42 441	**440 755**
Conversion of liabilities[3)]	-	-	-	-	-	3 082 335	**3 082 335**	**3 082 335**	-	**3 082 335**
Dividends to equity holders	-	(2 967 000)	**(2 967 000)**	-	-	-	-	**(2 967 000)**	(15 095)	**(2 982 095)**
Changes in the composition of the group[4)]	-	-	-	-	-	(15 015)	**(15 015)**	**(15 015)**	-	**(15 015)**
Balance 31 December 2015	**2 010 000**	**1 078 203**	**3 088 203**	**440 734**	**(1 133 971)**	**3 648 862**	**2 955 625**	**6 043 828**	**123 219**	**6 167 047**

[1)] See note 30 Changes in composition of the group.
[2)] See note 34 Changes in accounting principle.
[3)] 15 June 2015, a shareholder loan in BSI of EUR 352 million was converted to equity.
[4)] See note 32 Business combinations under common control.

Consolidated statement of cash flow

1 January - 31 December	Note	2016	2015
Amounts in NOK 1000			
Operating profit (loss)		940 629	1 309 786
Operating profit (loss) - discontinued operations		-	-
Changes in fair value commodity contracts		(77 598)	96 908
Amortisation, depreciation and impairment changes	12	729 599	676 196
Changes in net working capital		98 410	(171 001)
Changes in other working capital		(123 900)	98 693
Interest payments received		13 919	48 986
Interest payments made		(77 151)	(63 333)
Other financial items		160	(2 007)
Income taxes paid		(200 104)	(174 056)
Cash flow from operating activities		**1 303 964**	**1 820 172**
Investments in property, plant and equipment and intangible assets	12	(755 281)	(1 067 383)
Sale of property, plant and equipment	12	3 860	4 789
Dividend received		26 190	32 097
Acquisition of subsidiaries, net of cash acquired	33	(471 012)	(15 015)
Disposal of other shares		277	-
Payment received on loan to associate and joint venture		-	1 604
Loan to associate and joint venture		(34 258)	(20 570)
Other investments / sales		-	911
Cash flow from investing activities		**(1 230 224)**	**(1 063 567)**
Dividends paid to non-controlling interests		(40 364)	(15 095)
Dividends paid to owner of the parent		-	(1 900 000)
New interest-bearing loans and borrowings		110 115	3 510 249
Repayment of interest-bearing loans and borrowings		(204 603)	(1 787 126)
Cash flow from financing activities		**(134 852)**	**(191 972)**
Change in cash and cash equivalents		(61 112)	564 633
Currency exchange differences		(13 812)	45 966
Cash and cash equivalents opening balance		**1 305 592**	**694 993**
Cash and cash equivalents closing balance	**22**	**1 230 668**	**1 305 592**

Notes to the consolidated financial statement

Amounts in NOK 1000

1 General information and basis for presentation

The consolidated financial statements for Elkem AS (hereafter Elkem AS group/the group), including notes for the year 2016 were approved by the board of directors of Elkem AS on 3 April 2017. Elkem AS is a limited liability company located in Norway. Elkem AS is fully owned by Bluestar Elkem International Co. Ltd. S.A., Luxembourg, which is under the control of Bluestar Elkem Investment Co. Ltd.. Bluestar Elkem Investment Co. Ltd. is a limited company registered and domiciled in Hong Kong, owned by China National Bluestar (Group) Co. Ltd. (Bluestar).

Elkem AS group is one of the world's leading companies in the environmentally responsible manufacture of metals and materials. The main activities are related to production and sale of silicon materials, silicones, ferrosilicon, speciality alloys for the foundry industry, carbon products and microsilica. Elkem AS group serves several global industries, such as construction, transport, engineering, packaging, aluminium, chemicals, release coatings, healthcare products and electronic markets, and has organised its business to handle market presence and customer focus. Elkem AS group has multiple production facilities located in Europe, North America, South America, Africa and Asia, and an extensive network of sales offices and agents covering most important markets. Core production processes are focused on converting high quality raw material to specialised metals and materials through high temperature smelting processes and further processing. Thus, the business has a high consumption of electrical power, and is also capital intensive, due to the requirement for large and complex processing plants.

The presentation currency of Elkem AS group is NOK (Norwegian Krone). All financial information is presented in NOK thousand, unless otherwise stated. As a result of rounding adjustments, the figures in one or more columns included in the consolidated financial statements, may not add up to the total. Comparable figures are presented as amounts in (NOK 1,000).

Basis for preparation

The consolidated financial statements include the financial statements of Elkem AS and entities controlled directly and indirectly by Elkem AS. The group controls an entity when the group is exposed to, or has rights to, variable returns from its involvement with the entity and has the ability to affect those returns through its power over the entity. Subsidiaries are fully consolidated from the date on which control is transferred to the group. They are deconsolidated from the date when that control ceases.

The consolidated financial statements are prepared and based on International Financial Reporting Standards as adopted by the EU (IFRS). All subsidiaries are using accounting policies consistent within the group, and all intra-group transactions, balances, income and expenses are eliminated in full on consolidation.

The consolidated financial statements have been prepared on the basis of the going concern assumption.

2 Significant accounting policies

The consolidated financial statements are prepared on a historical cost basis, with the exception of derivative financial instruments and financial assets held for trading, which are measured at fair value. For assets and liabilities designated as hedged items in a fair value hedge, the recognised amounts are adjusted with the change in the fair value caused by the hedged risk.

Changes in accounting policies, changes in accounting estimates and errors

Changes in accounting policies and errors are recognised retrospectively by restating the comparative amounts for the prior period presented, including the opening balance of the prior year. Change in accounting estimate is recognised prospectively by including it in profit or loss in the period of the change and future periods, if the change affects both.

The Elkem AS group has changed the accounting principle for long-term power contracts settled in other currencies than the entity's functional currency. Under the old accounting practice, these contracts were recognised in their entirety on delivery according to the own use exemption in IAS 39. In a letter issued in June 2016 the Financial Supervisory Authority (FSA) of Norway stated that the currency portion of these contracts is an embedded derivative that must be separated from the host contract and be accounted for separately as an independent derivative. Elkem group has chosen to follow the new policy stated by the FSA. Comparative figures have been restated, see note 34 Changes in accounting policies.

Business combinations

Business combinations are generally accounted for using the acquisition method in accordance with IFRS 3. The consideration transferred in a business combination, is measured at fair value, and goodwill is measured as the excess of the sum of consideration transferred, and net identifiable value of transferred assets and liabilities. Acquisition-related costs are expensed as incurred.

Business combinations involving entities under common control are accounted for according to the 'pooling of interest method', also called 'the merger method'. This method involves the following:

- Assets and liabilities of the combining entities are reflected at their carrying amounts.
- No new goodwill is recognised as a result of the combination.
- The income statement reflects the result of the combining entities for the full year, irrespective of when the combination took place. Comparable figures are restated.

Acquisitions of non-controlling interests are accounted for as transactions with owners in their capacity as owners and therefore no goodwill is recognised as a result. Adjustments to non-controlling interests arising from transactions that do not involve the loss of control, is based on a proportionate amount of the net assets of the subsidiary.

Investment in associates

Associates are those entities in which the group has significant influence, but no control over the financial and operating policies. Significant influence is presumed to exist when the group holds between 20% and 50% of the voting power of another entity. Investment in associates are accounted for using the equity method. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognize the investor's share of the profit or loss and other comprehensive income of the investee after the date of acquisition. The group's investment in associates includes goodwill identified on acquisition.

Upon disposal of an associate that results in the group loosing significant influence over that associate, any retained investment is measured at fair value at that date.

Joint arrangements

The group applies IFRS 11 to all joint arrangements. Under IFRS 11 investments in joint arrangements are classified as either joint operations or joint ventures, depending on the contractual rights and obligations of each investor.

Joint ventures are accounted for using the equity method. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss, and other comprehensive income of the investee after the date of acquisition.

The group's interest in joint operations is recognised in relation to its interest in the joint operation:

- Assets, including its share of any assets held jointly
- Liabilities, including its share of any liabilities incurred jointly
- Revenue from the sale of its share of the output arising from the joint operation
- Share of the revenue from the sale of the output by the joint operation
- Expenses, including its share of any expenses incurred jointly

Foreign currencies

Separate financial statements

Each entity in the group determines its functional currency based on the economic environment in which it operates, and items included in the financial statements of each entity are measured using that functional currency. When preparing the financial statements of each individual group entity, transactions in currencies other than the entity's functional currency are recognised in the functional currency, using the transaction date's currency rate.

Monetary items denominated in foreign currencies are presented at the exchange rate on the balance sheet date, and any gains / losses are reported in the income statement. Currency gains / losses related to operating activities, i.e. receivables, payables, bank accounts for operating purposes including short term intragroup balances, are classified as a part of Operating profit (loss). Currency effects included in Finance income and expenses are only related to financing activities like loans, long term placements and dividends.

Foreign currency differences are recognised in Other comprehensive income for the following items:
- loans to subsidiaries treated as a part of the net investment
- a financial asset or liability designated as a cash flow hedge to the extent that the hedge is effective
- loans and currency in foreign currencies, designated as hedging instruments in a hedge of a net investment in a foreign operation

Consolidated financial statements

In consolidation of the statement of income and the statement of financial position for the separate group entities with other functional currency than the group's presentation currency, it is translated directly into the presentation currency as follows:
- Assets and liabilities are translated using the exchange rate on the balance sheet date
- Income and expenses are translated using an average exchange rate per month
- Equity transactions, except net profit or loss for the period, are translated using the transaction date rates

All resulting exchange differences are booked as a separate component in Other comprehensive income (OCI)

Any goodwill arising on the acquisition of a foreign operation, and any fair value adjustment to the carrying amount of assets and liabilities arising on the acquisition, are treated as assets and liabilities of the foreign operation, and translated at the closing rate. On disposal of a foreign entity, the deferred cumulative amount recognised in Other comprehensive income relating to that particular foreign operation, is recognised in the profit or loss statement.

Goodwill

Goodwill is initially measured as the excess of the cost of an acquisition over the group's share of the fair values of the acquired entity's net identifiable assets at the acquisition date. If the fair value of the group's interest in the net assets of the acquired subsidiary exceeds the cost of the acquisition (negative goodwill), the differences are recognised directly in profit and loss. Goodwill is carried at cost less accumulated impairment losses. Goodwill is tested for impairment annually, or more frequently when there is an indication of impairment. An impairment loss recognised for goodwill is not reversed in subsequent periods.

Intangible assets

Intangible assets are stated in the consolidated financial statements at cost less accumulated amortisation and accumulated impairment losses. Intangible assets acquired in business combinations are recognised at fair value at the acquisition date. Intangible assets with a finite useful life are amortised, using the straight-line method. The estimated useful lives and amortisation method are reviewed at the end of each reporting period.

An intangible asset is derecognised on disposal, or when the group expects no future economic benefits from its use to be derived. Gain or loss arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, is recognised in profit or loss.

Expenditure on research activities is recognised as an expense in the period in which it is incurred. An intangible asset arising from an internal development project is recognised if the group can demonstrate technically feasibility of completing the intangible asset, has the intention to complete it, ability to use it, can demonstrate that it will generate probable future economic benefits and the cost can be reliably measured.

Property, plant and equipment

Property, plant and equipment are stated in the consolidated statement of financial position at cost less accumulated depreciation and accumulated impairment losses. Property, plant and equipment acquired in business combinations are recognised at fair value at the acquisition date. Properties in the course of construction are carried at cost less any recognised impairment loss. Such properties are classified to the appropriate categories of property, plant and equipment when completed and ready for the intended use. When parts of an item of property, plant and equipment have different useful lives, they are accounted for as separate items.

Initial costs include expenditures that are directly attributable to the acquisition of the asset. Self-constructed assets include the cost of materials and direct labour, any other costs directly attributable to bringing the assets to working condition for their intended use, and estimated dismantling or removing charges.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, when future benefits are probable and the cost can be measured reliably. The carrying amount of the replaced part is derecognised. Major periodic maintenance that is carried out less frequently than every year, is capitalised and depreciated over the period until the next periodic maintenance is performed. All other repairs and maintenance are charged to the income statement when incurred.

Depreciations are calculated based on estimated useful life and expected residual value for each recognised item of Property, plant and equipment, and are recognised in profit or loss using the straight-line method. The estimated useful lives, residual values (if any) and depreciation method is reviewed, and if necessary adjusted, at least annually. Depreciation commences when the assets are ready for their intended use.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on disposal or retirement of an Property, plant and equipment, determined as the difference between the sales proceeds and the carrying amount of the asset, is recognised in profit or loss.

Impairment of tangible and intangible assets

At the end of each reporting period, the group's management reviews the carrying amounts of its tangible and intangible assets in order to determine whether there is any indication of impairment. If any such indication exists, the recoverable amount of the asset is estimated in order to determine the extent of the impairment loss. The recoverable amount is the higher of fair value less the costs to sell, or its value in use. Value in use is the present value of the future cash flow expected to be derived from the asset or the cash generating unit to which it belongs, after taking into accounts all other relevant information.

The group's cash generating units are reflecting the company's business areas, which are the basis for the management review and monthly report. The capitalised value of tangible and intangible assets within the cash generating units is measured against the value in use of tangible and intangible assets within these units.

Leasing

Leases are classified as financial leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases. Assets held under finance leases are initially recognised as assets of the group at the fair value of the asset and the present value of the minimum lease payment. The corresponding liability to the lessor is included in the consolidated financial statement of financial position as a finance lease obligation. Each lease payment is allocated between the liability and finance charges, so as to achieve a constant rate on the finance balance outstanding.

Non-derivative financial assets not at fair value through profit or loss

Purchases and sales of financial assets are recognised at the date of transaction on which the group is committed to the purchase or the sale of the asset.

At initial recognition, the financial assets are carried in the balance sheet at fair value plus any transaction costs directly attributable to the acquisition or issue of the asset. Financial assets are derecognised once the right to future cash flows have expired or been transferred to a third party, and once the group has transferred substantially all the risk and rewards of control of these assets.

Financial assets with a maturity exceeding one year are classified as non-current financial assets. Short term investments that do not meet the definitions of a cash equivalent, and financial assets with a maturity of less than one year, are classified as current financial assets.

Financial assets at fair value through profit or loss

These are financial assets classified as held for trading as the group has acquired the assets for the purpose of selling it in the near term. The assets are carried in the balance sheet at fair value, with gains or losses recognised in the income statement.

Financial assets available for sale

Available-for-sale financial assets are non-derivatives that are either designated in this category or not classified in any of the other categories. These assets are included in non-current assets, unless the management intends to sell the investment within 12 months from the balance sheet date.

Loans and receivables

This category includes operating receivables, loans, guarantee deposits, and cash and cash equivalents.

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in a regulated market. After initial recognition, they are recognised at amortised cost using the effective interest method. Gains and losses are recognised in the consolidated income statement when the loans and receivables are derecognised or impaired, as well as through the amortisation process.

Trade and other receivables are initially recognised at fair value, which in most cases corresponds to their nominal amount. The carrying amount is subsequently measured at amortised cost using the effective interest rate method, less any impairment provision.

Short term receivables with no stated interest rate are recognised at their nominal amount.

Cash and cash equivalents are held for the purpose of meeting short term fluctuations in liquidity, rather than for investment purposes. Cash and cash equivalents comprise cash fund and short term deposits. Bank overdrafts are shown within interest bearing current liabilities on the balance sheet. Deposits and drawings within the group bank accounts are netted by offsetting deposits against withdrawals. For the purpose of the consolidated statement of cash flows, cash and cash equivalents consist of cash and short-term deposits, as defined above.

If there is objective evidence of impairment, or if there is a risk that the group may not recover the contractual amounts at the contractual maturity dates, an impairment loss is recognised in the income statement. The provision is equal to the difference between the carrying amount and the estimated future recoverable cash flows.

Non-derivative financial liabilities

Non-derivative financial liabilities include borrowings and trade payables. The liabilities are initially recognised at fair value of the amount required to settle the associated obligation, net of related costs. Subsequently and insofar, as they are not designated as liabilities at fair value through profit or loss, such liabilities are recognised at amortised cost using the effective interest rate method, and the difference between the cost and the amount of repayment being recognised in the income statement over the term of the borrowing. Commitment fees and up-front fees related to bank credit facilities are recognised as part of interest expenses as incurred.

Derivative financial instruments including derivative hedging instruments and non-financial contracts with net settlements that are to be treated as financial derivatives

Derivatives are initially recognised at fair value at the date when the derivative contracts are entered into. Transaction costs that are directly attributable to the acquisition of financial assets or liabilities at fair value through profit or loss, are recognised immediately in profit or loss. Subsequently the derivatives are remeasured to their fair value at the end of each reporting period. The resulting gain or loss is recognised in the income statement immediately, unless the derivative is designated and is effective as a hedging instrument, in which case the timing of the recognition in profit or loss depends on the nature of the hedge relationship. Financial assets are derecognised when the rights to receive cash flows from the investments have expired or have been transferred and the group has transferred substantially all risks and rewards of ownership. Financial liabilities are derecognised when they are extinguished.

Hedge accounting

The group can designate certain derivatives as hedging instruments for fair value hedges and cash flow hedges. At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions.

I) Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges, are recognised in profit or loss immediately, together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

II) Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges, are recognised in other comprehensive income and accumulated under the heading of cash flow hedging reserve. The gain or loss relating to the ineffective portion is recognised immediately in profit or loss.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in comprehensive income at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity, is immediately transferred to the income statement.

Commodity contract within the scope of IAS 39

Non-financial commodity contracts where the relevant commodity is readily convertible to cash, and where the contracts are not for own use, fall within the scope of IAS 39 Financial instruments - recognition and measurement. Such contracts are treated as derivatives in accordance with IAS 39. The group currently has energy contracts in Norway that do not meet their own use criteria according to IAS 39.5. The contracts must therefore be treated as derivatives and are booked at fair value through profit or loss (see also notes 9, 26 and 27). Commodity contracts within the scope of IAS 39 are classified as current assets or liabilities, unless they are expected to be realised more than 12 months after the balance sheet date. In that case, they are classified as non-current assets or liabilities.

Inventories

Inventories are measured at the lower of cost and net realisable value. The cost of inventory is measured at the cost of raw materials, energy for smelting, direct labour, other direct costs and production overhead cost based on the higher of actual and normal capacity. Net realisable value represents the estimated selling price for inventories less estimated costs of completion and variable selling expenses.

Cost of goods sold is included in different lines in the income statement based on nature; Raw materials and energy for smelting, Employee benefits and Other operating cost, for the remaining part.

Entities within the group sell goods to other group entities, consequently finished goods from one entity become raw materials or semi finished goods for an other group entity. The classification of goods in Elkem AS group's consolidated financial statements is based on the separate entity's classification.

Taxation

Income taxes

Current tax assets and liabilities are measured at the amount expected to be recovered or paid to the tax authorities. Current tax payable includes any adjustment to tax payable in respect of previous years. Income tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity or in comprehensive income. The group includes deductions for uncertain tax positions when it is probable that the tax position will be sustained in a tax review. The group records provisions relating to uncertain or disputed tax positions at the amount expected to be paid. The provision is reversed if the disputed tax position is settled in favour of the group and can no longer be appealed.

Interest and penalties related to income taxes are classified as tax expense in the statement of income, and accrued interest and penalties are included in income tax payables in statement of financial position.

Deferred tax

Deferred tax assets and liabilities are calculated using the liability method with full allocation for all temporary differences between the tax base and the carrying amount of assets and liabilities in the consolidated financial statements, including tax losses carried forward. Deferred tax relating to items outside profit or loss are recognised in correlation with the underlying transaction either in other comprehensive income or directly in equity. Deferred tax assets and liabilities are not recognised if the temporary difference arises from the initial recognition of goodwill. Deferred tax assets are recognised in the statement of financial position to the extent that it is more likely than not that the tax assets will be utilised against deferred tax liabilities or future taxable income. The tax rates at the end of the reporting period and undiscounted amounts are used. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets, and they relate to income taxes levied by the same tax authority on the same taxable entity, or on different tax entities, but they intend to settle current tax liabilities and assets on a net basis, or their tax assets and liabilities will be realised simultaneously.

Employee retirement benefits

Defined contribution plans

Defined contribution plans comprise of arrangements whereby the group makes monthly contributions to the employees' pension plans, and where the future pensions are determined by the amount of the contributions and the return on the individual pension plan asset. The contributions are expensed as incurred, there are no further obligation related to the contribution plans. Prepaid contributions are recognised as an asset.

Defined benefit plans

Defined benefit plans are recognised at present value of future liabilities considered retained at the end of the reporting period, calculated separately for each plan. Plan assets are recorded at fair value, and deducted in calculating the net pension liability. Past service cost arising due to amendments in the benefit plans are expensed as incurred. Accumulated effects of changes in estimates and financial and actuarial assumptions are recognised as Other comprehensive income. Service costs are classified as part of Employee benefit expenses and other employee remuneration and net interest on pension liabilities / assets are presented as a part of Finance expenses.

Multi-employer defined benefit plans, where information is insufficient to be able to calculate the present obligation, are accounted for as a contribution plan. Long term employee benefits are presented as a part of Provisions.

Provisions

A provision is recognised when the group has a present obligation and it is probable that an outflow of resources is required to settle the obligation. The amount recognised is the best estimate of the consideration required to settle the obligation, taking into account the risks and uncertainties surrounding the obligation, known at the end of the reporting period. Provisions are measured at present value, unless the time value is assessed to be immaterial.

Contingent liabilities

Contingent liabilities are liabilities which are not recognised because they are possible obligations that have not yet been confirmed, or they are present obligations where an outflow of resources is not probable. Any significant contingent liabilities are disclosed in the notes.

Contingent assets

Contingent assets are not recognised, but disclosed in the notes if probable.

Revenue recognition and other income

Revenue is recognised when it is probable that transactions will generate future economic benefits for the group and the revenue and the related costs can be measured reliably. Revenue is measured at the fair value of the considerations received or receivable, net of any taxes, rebates and discounts. Revenue and expenses that relate to the same transaction are recognised simultaneously.

Revenue from sale of goods is recognised when the significant risk and reward of the ownership of the goods have passed to the buyer, according to the agreed delivery term for each sale. Delivery terms are based on Incoterms 2010 issued by the International Chamber of Commerce, and the main terms are;
'F' terms, where the buyer arranges and pays for the main carriage. The risk and reward are passed to the buyer when the goods are handled over to the carrier engaged by the buyer.
'C' terms, where the group arranges and pays for the main carriage but without assuming the risk of the main carriage. The risk and reward are passed to the buyer when the goods are handled over to the carrier engaged by the seller.
'D' terms, where the group arranges and pays for the carriage and retain the risk and reward of the goods until delivery at agreed destination. The risk is transferred to the byer upon arrival at agreed destination, usually the purchaser's warehouse.

Revenue from sale of services is recognised when the services has been provided. External sales of electric power are recognised in income on the basis of the price agreed with the customer upon delivery.

Income from insurance settlements are recognised when it is virtually certain that the group will receive the compensation, and presented as other operating income. Interest income is recognised on accrual basis. Dividends are recognised when shareholders' right to receive dividends is determined by the shareholder's meeting.

Grants

Grants are recognised when it is virtually certain that the group will comply with the conditions attached to them, and the grants will be received. Grants relating to property, plant and equipment are deducted from the carrying amount of the asset. The grant is recognised as income over the lifetime of a depreciable asset by reducing the depreciation charge. Grants related to expenses are classified as Other operating income.

CO_2 emission quotas

CO_2 emission quotas allocated from the government are classified as Grants, measured at nominal value (zero). The CO_2 quotas are meant to cover CO_2 emissions from the group's plants in Norway. If actual emissions exceed the allocated emission quotas, additional quotas are purchased. Purchased CO_2 quotas are recognised at cost as Other operating expenses, and any sale of CO_2 quotas are recognised as Other operating income, according to transaction price.

CO_2 compensation

From 2013 the Norwegian government has established a CO_2 compensation scheme to compensate for CO_2 costs included in power contracts. The extent of the scheme may vary considerably from year to year depending on the future carbon price. This compensation scheme applies for the Norwegian plants, and is recognised as Other operating income when there is reasonable assurance that the entity will comply with the conditions attached and the grants will be received.

Statement of cash flows

The statement of cash flows is prepared under the indirect method. Cash inflows and outflows are shown separately for investing and financing activities, while operating activities include both cash and non-cash effect items. Interest received and paid and other financial expenses, such as borrowing fees and bank guarantee expenses, are reported as a part of operating activities. Net currency gains or losses related to financing activities are reported as part of financing activities. Dividend received are included in investing activities.

Events after the reporting period

Events after the reporting period related to the group's financial position at the end of the reporting period, are considered in the financial statement. Events after the reporting period that have no effect on the group's financial position at the end of the reporting period, but will have effect on future financial position, are disclosed if the future effect is material.

New interpretations and changes to existing standards not yet adopted

IASB has published a number of new standards and amendments to standards and interpretations that are not effective for the annual period ending on 31 December 2016. Some of these will affect the Elkem AS group's financial statements when approved by the EU.

The standards that could entail material changes are the new IFRS 16 Leases and IFRS 15 Recognition of Income. The new standards will not come into force until 2018/2019.

Estimated effect of implementing the new IFRS 16 Leases is presented in note 8 Operating lease.

For IFRS 15 Recognition of Income the core principle is for companies to recognise revenue to depict the transfer of goods or services to customers in amounts that reflect the consideration (i.e payment) to which the company expect to be entitled in exchange for those goods or services. The change will affect revenue recognition of combined deliveries. Combined deliveries means tied sales where it is difficult to distinguish between the purchased product and additional deliveries. The change is estimated to have limited effect on Elkem AS group periodisation of revenue.

3 Accounting estimates

The preparation of the consolidated financial statements according to IFRS requires management to make judgments, estimates and assumptions that affect the application of accounting policies and the reported amounts of assets, liabilities, income and expenses. Actual results may differ from these estimates.

Estimates and judgements are continually evaluated and are based on historical experience and other factors, including expectations of future events that are believed to be reasonable under the circumstances. Revisions of reported estimates are recognised in the period in which the estimates are revised and in any future period affected.

The management makes estimates and assumptions concerning the future, the resulting accounting estimates will, by definition, seldom equal the actual outcome. The estimates and assumptions that have a significant risk of causing a material adjustment to the carrying amounts of assets and liabilities within the next financial year are addressed below.

Property plant and equipment and intangible assets

The valuation of assets in connection with business combinations and testing of property, plant and equipment and intangible assets for impairment (see note 12 Property, plant and equipment and Intangible assets), is to a large extent be based on estimated future cash flows. These calculations require the use of estimates for cash flows and the choice of discount rate before tax for discounting the cash flows. Tangible and intangible assets are tested for impairment if there are indicators that an asset may be impaired. Intangible assets that are not amortised are, as a minimum, tested annually for impairment. Indicators of impairment will typically be changes in technological development and changes in the competitive situation.

Estimated useful lives, residual values (if any) included in calculation of depreciation and amortisation are reviewed, and if necessary adjusted, at least annually.

Deferred tax assets

The group performs annual tests for impairment of deferred tax assets. Part of the basis for recognising deferred tax assets is based on applying the loss carried forward against future taxable income in the group, which requires use of estimates for calculating future taxable income.

Financial instruments

Fair value for financial instruments are based on observable prices and assumptions derived from observable prices for comparable instruments. Net booked value as of 31 December 2016 is in total negative NOK 474 million, see note 26 Financial instruments for further details and note 27 Financial risk and capital management for sensitivity.

Provisions

Elkem AS group has several type of provisions due to its operations. The main types of provisions are related to committments to restore the site of operations to its original conditions after use, environmental measurements, warranties and litigations. Such liabilities are normally uncertain in timing and amount, and recognised amounts are estimated based on the available information on the balance sheet date. The estimates are updated when new or updated information are available. See note 24 Provisions and other non-current liabilities.

4 Operating income

By type	2016	2015
Revenue from sale of goods - external[1]	13 694 865	13 965 620
Revenue from sale of goods - China National Bluestar Group[2]	32 526	4 956
Other operating revenue - external	294 489	359 944
Other operating revenue - China National Bluestar Group[2]	23 517	30 882
Total revenue	14 045 397	14 361 403
Other operating income	180 772	179 654
Total operating income	**14 226 169**	**14 541 057**

[1] Included in Revenue from sale of goods is sale of power NOK 349,855 thousand in 2016 and NOK 305,246 thousand in 2015. The sales of power are towards the Norwegian market.

[2] See note 28 Related party transactions.

Total operating income by geographic market (customer location)	2016	2015
Nordic countries	1 537 040	1 625 423
United Kingdom	663 971	641 712
Germany	2 110 424	2 407 475
France	584 478	693 503
Italy	586 826	643 274
Poland	318 919	362 395
Luxembourg	281 462	336 461
Other European countries	1 667 185	1 524 828
Europe	**7 750 304**	**8 235 073**
Africa	**112 217**	**149 103**
North America	2 106 207	2 134 002
South America	880 824	632 801
America	**2 987 031**	**2 766 803**
China	1 030 290	973 926
Japan	675 183	632 016
South Korea	437 043	527 829
Other Asian countries	1 168 473	1 182 072
Asia	**3 310 989**	**3 315 843**
Rest of the world	**65 628**	**74 236**
Total operating income	**14 226 169**	**14 541 057**

Elkem AS group has several smaller and larger external customers, no single customer amount to 10% or more of the operating income.

Details of other operating income	2016	2015
Sale of fixed assets	4 040	1 164
Insurance settlement	216	1 817
Received grants[1]	175 777	176 231
Other	739	443
Total other operating income	**180 772**	**179 654**

[1] See note 29 Grants.

5 Employee benefit expenses

	2016	2015
Salaries and other benefits	(1 993 557)	(1 918 408)
Employer's national insurance contribution	(432 723)	(396 097)
Employee retirement benefits [1]	(79 347)	(86 371)
Other payments / benefits	(54 323)	(38 121)
Total employee benefit expenses	**(2 559 950)**	**(2 438 997)**

[1] See note 6 Employee retirement benefits.

Number of full time equivalent employees in Elkem AS group	3 806	3 628

Salary and other compensations above include the following compensations

Compensation to members of the board	2016	2015
Payment to board members in total	(489)	(489)

Senior staff compensation

Helge Aasen is the CEO of Elkem AS.

Salary and other compensations to the CEO	2016	2015
Salary, including holiday pay	(5 111)	(4 676)
Bonus [1]	(3 148)	(3 095)
Free car	(130)	(130)
Other compensation	(28)	(35)
Pension cost	(640)	(475)

[1] In addition to the performance bonus, a strategic project bonus of NOK 407 thousand and a ChemChina award of NOK 604 thousand were paid in 2016. In 2015 bonus payment included a 25 years anniversary payment of NOK 228 thousand and a ChemChina award of NOK 681 thousand.

Retirement age for the CEO is 65-70 years. Pension from the age of 70 and other pensions regarding spouse, children and disability are paid in accordance with the general pension policy of the company. In addition to the general pension policy of the company, the CEO is entitled to an early retirement pension from the age of 65, of 60 % of pensionable salary.

The CEO is also entitled to a performance bonus equivalent to maximum 100% of the base salary, based on the company's performance.

The following applies for the CEO upon termination by the company:
- Termination payment equal to 12 months' salary is to be paid on the last working day
- Severance payment equivalent to 18 months' salary

Loans and guarantees to employees

There are no loans or guarantees to board members or the CEO.

6 Employee retirement benefits

Elkem AS group has both defined contribution and defined benefit plans. For defined contribution plans the cost is equal to the group's contribution to the employee's pension savings during the period. For defined benefit plans the cost is calculated based on actuarial valuation methods, taking assumptions related to the employee's salary, turnover, mortality, discount rate, etc. into consideration.

Defined contribution plan

Defined contribution plans comprise arrangements whereby the company makes annual contributions to the employee's pension plan, and where the employee's future pension is determined by the amount of the contributions and the return on the pension plan asset. Contribution plans also comprise pension plans that are common to several companies, and where the pension premium is determined independently by the demographic profile in the individual companies (multi-employer plans). Employees in the group's Norwegian entities are primarily covered by pension plans that are classified as contribution plans.

The early retirement scheme effective from 2011 in Norway, is defined as a multi-employer plan and the costs are accounted for based on received invoices from 'Fellesordningen for AFP'. The plan is accounted for as a defined contribution plan, as the plan's administrators have not been able to calculate the pension obligation for each entity participating in the plan.

Defined benefit plans

Defined benefit plans are pension plans where the group is responsible for paying pensions at a certain level, based on employees' salaries when retiring. The group has funded and unfunded benefit plans in Norway, France, Germany, UK, Canada, Japan and South Africa, distributed as follows: Norway 16%, France 46%, other Europe 21%, Canada 14%, other countries 3%, based on net pension obligation per 31 December 2016. In Norway most of the pension plans comprise pension on salaries above a certain level (12G, where G refers to the national insurance scheme's basic amount in Norway, amounting to NOK 92,576 for 2016) and closed individual retirement schemes, plans which are unfunded. In Canada provisions are made for medical insurance as well as pension benefit plans.

Net interest is calculated based on net pension liability at the start of the period, multiplied by the discount rate. Any difference between actual return on pension assets and the interest income calculated as a part of the net interest, will be recognised directly in OCI. Interest on net pension liabilities are presented as a part of Finance expenses.

Breakdown of net pension expenses	2016	2015
Current service expenses	(23 704)	(29 152)
Accrued employer's national insurance contribution	(290)	(453)
General administration expenses	(820)	(587)
Net pension expenses, defined benefit plans	(24 814)	(30 192)
Curtailment/settlement of pension plans	11 241	-
Defined contribution plans	(52 160)	(42 970)
Early retirement scheme AFP (Norway)	(13 614)	(13 209)
Pension contribution expenses	(54 533)	(56 179)
Net pension expenses total	**(79 347)**	**(86 371)**
In addition, interest expenses on net pension liabilities is recognised as a part of finance expenses.	(9 640)	(9 804)

Net liabilities arising from defined benefit obligations	2016	2015
Present value of funded pension obligation	(434 716)	(391 500)
Fair value of plan assets	395 299	363 632
Net funded pension obligation	(39 417)	(27 868)
Present value of unfunded pension obligation	(383 122)	(365 868)
Net value of funded and unfunded obligations	(422 539)	(393 735)
Net pension liabilities	**(422 539)**	**(393 735)**
Booked net pension assets	2 949	-
Booked net pension liabilities	(425 488)	(393 735)
Net pension liabilities	**(422 539)**	**(393 735)**

Movement in the defined benefit obligations and plan assets

Movement in defined benefit obligations	2016	2015
Opening balance	(757 368)	(730 942)
Current service expenses and social contribution tax	(23 994)	(29 605)
Interest expenses	(23 938)	(23 114)
Actuarial gains / (losses)	(64 736)	9 672
Benefits paid	40 710	44 229
Business combinations and disposals	(27 288)	-
Curtailments/settlements	11 241	-
Other changes	(5 570)	(935)
Currency translation	33 104	(26 672)
Present value of pension obligation as at 31 December	(817 838)	(757 368)

Movement in fair value of plan assets	2016	2015
Opening balance	363 633	340 166
Interest income	14 298	13 268
Administration cost	(820)	(587)
Actuarial gains / (losses)	9 559	8 437
Contributions from employer and plan participants	15 648	9 901
Benefits paid	(21 229)	(16 009)
Other changes	4 800	234
Business combinations and disposals	26 509	-
Currency translation	(17 099)	8 223
Fair value of plan assets as at 31 December	395 300	363 633

Breakdown of pension plan assets (fair value) as at 31 December	Distribution % 2016	Fair value of plan assets 2016	Distribution % 2015	Fair value of plan assets 2015
Cash, cash equivalent and money market investments	10%	40 124	2%	6 848
Bonds	40%	156 610	41%	150 286
Shares	49%	194 518	55%	198 803
Property	1%	4 049	2%	7 696
Total pension fund	100%	**395 300**	100%	**363 633**

	2016		2015	
Actual return on plan assets	6.1%	**22 352**	3.3%	**12 064**

In addition, some Norwegian entities have pension contribution funds, mainly based on excess pension assets from settlement of the defined benefit plans in 2010. The pension contribution funds are classified as long-term pension funds, except next year's expected contributions which are classified as short-term (see note 16 Other non-current assets and 19 Other current assets).

Pension contribution funds	2016	2015
Current part of contribution fund	6 094	10 912
Long-term part of contribution fund	2 760	6 160
	8 854	**17 072**

Summary of pension liabilities and change in actuarial gains / losses

Net pension liabilities	2016	2015
Pension obligations	(817 838)	(757 368)
Pension plan assets	395 299	363 633
	(422 539)	**(393 735)**

Note 6 continues >

Total actuarial gains / (losses) recognised in other comprehensive income this period	2016	2015
Changes in actuarial gain / (loss) in pension obligation	(64 736)	9 672
Changes in actuarial gain / (loss) in pension assets	9 559	8 437
	(55 177)	**18 108**

The principal assumptions used for the actuarial valuations in 2016 and 2015

	Norway		France		Canada		Germany		UK	
Discount rate	2.0%	(2.5%)	1.0%	(2.0%)	3.8%	(4.0%)	1.8%	(2.1%)	2.6%	(3.7%)
Expected rate of salary increase	2.0%	(2.5%)	2.5%	(2.8%)	3.5%	(3.5%)	3.0%	(3.0%)	3.4%	(3.0%)
Annual regulation of pensions paid	1.0%	(1.0%)	-		-		2.0%	(2.0%)	-	
Change in public pension base rate (G)	2.0%	(2.3%)	-		-		-		-	

Assumptions regarding future mortality are set based on actuarial advice in accordance with published statistics and experience in each country.

Sensitivity on pension liabilities based on changes in main actuarial assumptions
The defined benefit pension schemes exposes the group to actuarial risks such as investment risk, interest rate risk, salary growth risk, mortality risk and longevity risk. A decrease in corporate bond yields, a rise in inflation or an increase in life expectancy would result in an increase to plan liabilities.

The sensitivity analysis below shows estimated effects in the defined pension liabilities based on reasonable changes in the main assumptions. The calculations are based on a change in one assumption while holding all other assumptions constant. Negative amounts shows an expected decrease in the Net pension liability.

Assumption	Discount rate		Life expectancy		Salary growth	
	0.5% increase	0.5% decrease	1 year increase	1 year decrease	0.5% increase	0.5% decrease
2016: Effect on the pension liability in NOK million	(53)	58	25	(25)	25	(23)
2015: Effect on the pension liability in NOK million	(45)	50	21	(22)	23	(21)

As the group's main pension plans are defined contribution plans, there are no group policies for funding of the defined benefit plans. This is managed locally, based on the terms and status for the individual plan.

Expected contribution for the pension plans next year and average duration for the main defined benefit plans

	Norway	France	Canada	Germany	UK	Other
Contribution to be paid to defined pension plans next year	8 229	38 694	8 884	1 453	3 784	382
Weighted average duration of the defined benefit obligation	9 years	8 years	16 years	15 years	15 years	15 years

7 Other operating expenses

	2016	2015
Loss on disposal of fixed assets	(2 464)	(1 573)
Freight and commission expenses	(835 773)	(837 303)
Leasing expenses	(139 667)	(125 338)
External services [1]	(1 250 508)	(1 127 936)
Insurance expenses	(58 786)	(65 084)
Impairment losses receivables	(7 329)	(6 018)
Other operating expenses [2]	(854 865)	(884 799)
Total other operating expenses	**(3 149 390)**	**(3 048 051)**

[1] Including services from auditor, see specification below
[2] Including change in direct costs on inventory and capitalised salary on fixed assets projects. Capitalised salary amounts to: 69 566 9 849

During 2016, Elkem AS group expensed NOK 122,294 thousand (NOK 140,303 thousand) as research and development related to processes, products and business development, and in addition capitalised R&D expenses of NOK 52,341 thousand (NOK 52,926). Furthermore Elkem AS group expensed NOK 166,909 thousand (NOK 110,293 thousand) as improvement projects. In total R&D and improvment project expenses amounted to NOK 341,634 thousand (303,523 thousand). Grants received relating to research and development amount to NOK 65,907 thousand for 2016 (NOK 70,057 thousand) are included in other operating income.

KPMG is the group auditor of Elkem AS group. KPMG succeded PwC as Elkem AS group auditor with effect from the fiscal year 2016.

The following table shows fees to KPMG and fees to PwC and other audit firms.

Audit and other services	2016	2015
KPMG		
Audit fee	(8 348)	-
Other services	(1 268)	-
PwC and other audit firms		
Audit fee	(4 858)	(15 897)
Other assurance services	(680)	(868)
Tax services	(5 568)	(2 442)
Other services	(1 880)	(2 813)
Total	**(22 602)**	**(22 020)**

Fees to auditors are reported exclusive of VAT.

8 Operating lease

2016	Machinery and plant	Land, buildings and other properties	Equipment, furniture, systems and vehicles	Total
Lease expenses 2016	(13 659)	(82 380)	(43 628)	**(139 667)**
Lease in accordance to contract due:				
Within one year	(6 061)	(50 969)	(36 847)	**(93 877)**
In the second to fifth year inclusive	(2 196)	(124 961)	(104 950)	**(232 106)**
Over five years	-	(50 112)	(16 439)	**(66 551)**

2015	Machinery and plant	Land, buildings and other properties	Equipment, furniture, systems and vehicles	Total
Lease expenses 2015	(10 025)	(73 084)	(42 229)	**(125 338)**
Lease in accordance to contract due:				
Within one year	(2 431)	(43 148)	(34 235)	**(79 814)**
In the second to fifth year inclusive	(4 257)	(95 998)	(93 405)	**(193 660)**
Over five years	-	(54 607)	(13 157)	**(67 764)**

New IFRS 16 Leases
The new standard, applicable in 2019, requires lessees to initially recognize a right-of-use asset and the associated lease liability for the lease term for all lease contracts (with an option to exclude leases with a lease term of 12 months or less and leases for which the underlying asset is of low value). The lease liability is measured at the present value of the lease payments over the lease term. Based on reported leases the effect of implementing the new standard is estimated to a capitalisation of more than NOK 300,000 thousand. The effect would reduce the group's equity ratio in 2016 from 50.3% to approximately 49.4%. Under the current IFRS, leases classified as operational leases are presented as operating expenses. Under the new IFRS 16 the capitalised leases will be depreciated over the lease term and presented as depreciation, and the interest effect from the discounted liability will be presented as a financial item in the statement of income. Profit (loss) before income tax will not be affected by the changes, but gross operating profit (loss) and operating profit (loss) will be affected positively by the change.

9 Other gains and losses

	2016	2015
Dividend income from available for sale financial assets	2 344	830
Write down on shares[1]	(1 838)	(31 435)
Change in fair value commodity contracts	58 563	(270 429)
Net foreign exchange gains / losses – foreign exchange forward contracts	26 595	41 587
Operating foreign exchange gains / losses	(19 936)	9 954
Ineffectiveness on cash flow hedges	(4 584)	27 593
Gains / losses disposal of subsidiaries	1 305	3 107
Other expenses[2]	(10 011)	(2 211)
Total other gains and losses	**52 438**	**(221 006)**

[1] In 2015, NOK 30,440 thousand relates to write down of shares in Bluestar Silicones Tianjin Co. Ltd.

[2] Other expenses mainly consist of expenses related to business projects and business combinations.

See note 26 Financial instruments for details related to valuation and recognition of financial assets and liabilities.

10 Finance income and expenses

	2016	2015
Interest income[1]	21 779	56 979
Other financial income	838	513
Total finance income	**22 617**	**57 492**
Interest expenses borrowings[2]	(70 833)	(124 396)
Unwinding of discounted liabilities	3 669	(17 347)
Interest on net pension liabilities	(9 640)	(9 804)
Other interest expenses	(10 881)	-
Other financial expenses	(816)	(2 520)
Total finance expenses	**(88 501)**	**(154 067)**
Net foreign currency translation expenses	49 661	32 533
Net finance income (expences)	**(16 223)**	**(64 042)**

[1] The decrease in interest income from 2015 to 2016 is mainly related to loans to Elkem Solar AS. The loans were sold to Bluestar Elkem Investment Co. Ltd. 19 June 2015.

[2] The decrease in interest expenses borrowings from 2015 to 2016 is mainly related to repayment and debt conversion of loans to parent companies and reduction of external debt in the Silicones division.

11 Taxes

Income tax recognised in profit or loss	2016	2015
Profit (loss) before income tax	946 537	1 267 071
Current taxes	(158 281)	(222 613)
Deferred taxes	(30 286)	(202 050)
Total tax (expense) / income	**(188 567)**	**(424 663)**
Income taxes recognised in other comprehensive income (OCI)		
Remeasurements of post employment benefit obligation	13 587	(4 617)
Hedging of net investment in foreign operations	(6 108)	-
Cash flow hedges	(238 356)	203 982
Total tax charged to OCI	**(230 877)**	**199 365**

Reconciliation of tax (expense) / income	2016	2015
Profit (loss) before income tax	**946 537**	**1 267 071**
Expected income taxes, 25% of profit before tax (27% in 2015)	(236 634)	(342 109)
Tax effects of:		
Difference in tax rates for each individual jurisdiction	(12 252)	23 101
Permanent differences		
Tax effect of income from Norwegian controlled foreign companies (NOKUS)	(6 619)	(6 741)
Tax effect share of profit (loss) associates and joint ventures	(3 148)	4 658
Tax effect finance expenses holding companies[1)]	2 078	(48 354)
Tax effects other permanent differences	31 847	(779)
Other effects		
Tax effect of not capitalised deferred tax assets this year	49 797	(2 420)
Tax credits utilised	(1 199)	1 422
Tax effect change in tax rate[2)]	6 190	17 492
Other current tax paid	(33 258)	(15 657)
Previous year tax adjustment	14 631	(55 276)
Tax (expense) / income for the year	**(188 567)**	**(424 663)**
Effective tax rate	20%	34%

[1)] Elkem AS group has a company in Luxembourg. Elkem AS group does not have taxable income from other activities that can be utilised against taxable loss from finance and operating expenses in this entity. The company was merged with Elkem AS in 2016

[2)] The effect relates mainly to changes in tax rate from 25% to 24% in Norway from 2017 and in 2015 changes in tax rate from 27% to 25% in Norway from 2016. The changes in tax rates were approved by the governments before year end the respective years.

Deferred tax assets and deferred tax liabilities	31.12.2016	31.12.2015
Cash flow hedges recognised in other comprehensive income	139 635	377 990
Property, plant, equipment and Intangible assets	(446 245)	(333 725)
Pension fund	118 629	109 964
Other differences	(37 681)	(19 895)
Accounts receivable	(1 378)	(742)
Inventories	(51 759)	(45 975)
Provisions	95 745	38 388
Tax losses to carry forward	415 510	403 998
Deferred tax assets (liabilities)	**232 456**	**530 003**
Not recognised deferred tax asset to tax losses to carry forward	(279 290)	(330 510)
Net deferred tax assets (liabilities) recognised	**(46 834)**	**199 493**

Note 11 continues >

Change in net deferred tax assets and deferred tax liabilities	2016	2015
1 January	199 493	205 877
Recognised in profit or loss for the year	(30 286)	(202 050)
Effect of business combination	12 303	-
Recognised in other comprehensive income	(230 877)	199 365
Foreign currency exchange differences	2 533	(3 699)
31 December	**(46 834)**	**199 493**

Deferred taxes	31.12.2016	31.12.2015
Deferred tax assets	67 348	323 969
Deferred tax liabilities	(114 182)	(124 476)
Net deferred tax assets (liabilities)	**(46 834)**	**199 493**

31.12.2016 Tax losses carryforward	Gross tax losses carryforward	Deferred tax asset	Not recognised deferred tax asset	Recognised deferred tax asset
France	955 235	328 509	(199 721)	128 788
Brazil	234 689	79 794	(75 450)	4 344
USA	7 929	3 062	-	3 062
UK	3 686	737	(733)	4
Malaysia	14 108	3 386	(3 386)	-
Croatia	109	22	-	22
Total related to loss carryforward	**1 215 756**	**415 510**	**(279 290)**	**136 220**

31.12.2015 Tax losses carryforward	Gross tax losses carryforward	Deferred tax asset	Not recognised deferred tax asset	Recognised deferred tax asset
France	977 019	336 077	(263 437)	72 640
Brazil	196 150	66 691	(66 535)	156
UK	2 691	538	(538)	-
Hong Kong	2 994	494	-	494
Shanghai	1 318	198	-	198
Total related to loss carryforward	**1 180 172**	**403 998**	**(330 510)**	**73 488**

The major part of the taxable loss can be carried forward for an unlimited period.

Deferred tax assets not recognised current year

When an entity has a history of recent losses, the deferred tax assets arising from unused tax losses is recognised only to the extent that there is convincing evidence that sufficient future taxable profit will be generated.

Other tax related matters

Bluestar Silicones France SAS has four internal debt-forgiveness agreements where internal loans were converted to equity and the converted amounts were treated as taxable income. Bluestar Silicones France SAS can only utilise the agreements to the extent that the company has an accounting profit according to IFRS. All debt that is repaid under the agreements can be deducted against taxable income. Bluestar Silicones France SAS has repaid NOK 47,100 thousand in 2016 that gives a tax credit of NOK 15,703 thousand. The amount is included in tax effects other permanent differences in the reconciliation of tax (expenses) / income above.

Debt forgiveness in	2010	2012	2013	2014	Total
Gross value of debt forgiveness	817 675	181 705	145 364	247 728	1 392 472
Usage 2016	(47 100)	-	-	-	(47 100)
Total debt that can be reversed	**770 575**	**181 705**	**145 364**	**247 728**	**1 345 372**
Deferred tax not recognised	**256 910**	**60 580**	**48 464**	**82 593**	**448 547**
The respective agreements expire in	9 years	11 years	12 years	13 years	

Pending tax issues with the tax authorities

See note 24 Provisions and other non-current liabilities.

12 Property, plant and equipment and intangible assets

Property, plant and equipment

2016	Land and other property	Buildings	Machinery and plants	Equipment, furniture and transport-vehicles	Construction in progress	Total
Opening balance Net booked value 2016	**110 050**	**1 331 921**	**3 403 958**	**161 142**	**595 138**	**5 602 208**
Additions	856	554	22 442	6 496	663 362	**693 710**
Disposals	-	(50)	(1 683)	(527)	-	**(2 261)**
Business combination	-	116 017	232 153	1 270	8 367	**357 808**
Reclassification[1)]	(137)	(10 064)	(7 786)	427	-	**(17 560)**
Transferred from CiP	10 023	110 987	664 265	53 272	(838 548)	-
Impairment losses	-	(7 079)	(4 646)	(93)	-	**(11 818)**
Depreciation expenses	(2 369)	(93 463)	(501 569)	(37 464)	-	**(634 865)**
Foreign currency exchange differences	(4 345)	(17 747)	(52 387)	(1 998)	(1 659)	**(78 135)**
Closing balance Net booked value 2016	**114 078**	**1 431 076**	**3 754 746**	**182 526**	**426 660**	**5 909 087**
Fixed assets under financial leasing						
Included in Net booked value	21 193	-	10 408	1 378	-	**32 979**
Historical cost	160 860	3 022 230	9 812 611	531 801	426 660	**13 954 162**
Accumulated depreciation	(36 071)	(1 579 672)	(5 962 242)	(348 647)	-	**(7 926 630)**
Accumulated impairment losses	(10 711)	(11 482)	(95 624)	(628)	-	**(118 445)**
Closing balance Net booked value 2016	**114 078**	**1 431 076**	**3 754 746**	**182 526**	**426 660**	**5 909 087**
Estimated useful life	0-50 years	5-50 years	3-50 years	3-20 years		
Depreciation plan	Straight-line	Straight-line	Straight-line	Straight-line		

[1)] In 2014 when Elkem group purchased assets from MSCH Europe GmbH, the right to use the technology related to the production process was included. In 2016 the value of the technology, NOK 17,560 thousand, is reclassified from Machinery and plants to intangible assets. The estimated useful life is not changed, and the reclassification does not affect comparable figures in the statement of income.

Depreciations start when the asset is ready for use. Land is not depreciated.

Note 12 continues >

Property, plant and equipment

2015	Land and other property	Buildings	Machinery and plants	Equipment, furniture and transport-vehicles	Construction in progress	Total
Opening balance Net booked value 2015	**105 008**	**1 351 826**	**3 268 149**	**112 997**	**345 181**	**5 183 162**
Additions	2 616	24 444	95 524	15 803	787 455	**925 842**
Disposals	-	(567)	(4 454)	(1 693)	-	**(6 714)**
Reclassification	(1 666)	1 550	919	(246)	-	**558**
Transferred from CiP	4 340	27 791	435 582	68 721	(536 434)	**-**
Impairment losses	-	(122)	(1 593)	(99)	-	**(1 813)**
Depreciation expenses	(2 649)	(85 902)	(469 769)	(34 198)	-	**(592 518)**
Disposal of discontinued operations	-	-	-	-	-	**-**
Foreign currency exchange differences	2 400	12 899	79 599	(143)	(1 063)	**93 692**
Closing balance Net booked value 2015	**110 050**	**1 331 921**	**3 403 958**	**161 142**	**595 138**	**5 602 208**
Fixed assets under financial leasing						
Included in Net booked value	22 786	-	10 817	467	-	**34 070**
Historical cost	160 419	2 823 459	9 137 519	492 468	595 138	**13 209 004**
Accumulated depreciation	(39 123)	(1 486 005)	(5 633 049)	(330 707)	-	**(7 488 884)**
Accumulated impairment losses	(11 246)	(5 534)	(100 512)	(620)	-	**(117 911)**
Closing balance Net booked value 2015	**110 050**	**1 331 921**	**3 403 958**	**161 142**	**595 138**	**5 602 208**
Estimated useful life	0-50 years	5-50 years	3-50 years	3-20 years		
Depreciation plan	Straight-line	Straight-line	Straight-line	Straight-line		

Intangible assets

2016	Goodwill	Other intangible assets	Technology and licences	Develop-ment	IT systems and programmes	Intangible assets under construction	Total other intangible assets
Opening balance Net booked value 2016	**244 088**	**63 681**	**168 533**	**189 076**	**120 805**	**101 398**	**643 493**
Additions	-	6 517	102	-	5 547	93 292	**105 458**
Disposals	-	-	-	-	-	-	-
Business combination	**98 030**	36 289	-	-	8	-	**36 297**
Reclassification	-	12 617	3 138	869	937	-	**17 560**
Transferred from CiP	-	-	5 720	16 722	14 237	(36 679)	-
Amortisation	-	(2 988)	(21 242)	(35 793)	(22 893)	-	**(82 916)**
Foreign currency exchange differences	**550**	(10 637)	(2 275)	(8 489)	(102)	(5 376)	**(26 879)**
Closing balance Net booked value 2016	**342 645**	**105 479**	**153 976**	**162 385**	**118 539**	**152 635**	**693 013**
Historical cost	**342 645**	166 153	436 128	416 141	318 256	152 635	**1 489 314**
Accumulated amortisation	-	(59 883)	(282 153)	(253 757)	(199 717)	-	**(795 510)**
Accumulated write-downs	-	(790)	-	-	-	-	**(790)**
Closing balance Net booked value 2016	**342 645**	**105 480**	**153 975**	**162 385**	**118 539**	**152 635**	**693 014**
Estimated useful life	Indefinite	3–10 years	3–15 years	3–16 years	3–10 years		
Amortisation plan		Straight-line	Straight-line	Straight-line	Straight-line		

The investments related to intangible assets mainly consist of additions of R&D of NOK 52,341 thousand.

During 2016, Elkem AS group expensed NOK 122,294 thousand as research and development related to processes, products and business development, and in addition capitalised R&D expenses of NOK 52,341 thousand. In addition Elkem AS group expensed NOK 166,909 thousand as improvement projects and technical customers support. In total R&D and improvment project expenses amounted to NOK 341,634 thousand.

2015	Goodwill	Other intangible assets	Technology and licences	Develop-ment	IT systems and programmes	Intangible assets under construction	Total other intangible assets
Opening balance Net booked value 2015	**229 470**	**32 887**	**163 737**	**133 869**	**130 765**	**112 825**	**574 083**
Additions	-	31 986	17 560	15 511	9 164	66 589	**140 810**
Disposals 2015	-	-	-	-	-	-	-
Transferred from CiP	-	-	-	78 173	2 214	(80 387)	-
Amortisation	-	(2 272)	(15 987)	(42 584)	(21 022)	-	**(81 865)**
Foreign currency exchange differences	**14 618**	1 080	3 195	4 106	271	2 371	**11 023**
Closing balance Net booked value 2015	**244 088**	**63 681**	**168 533**	**189 076**	**120 805**	**101 398**	**643 493**
Historical cost	**244 093**	121 418	451 539	419 717	302 384	101 398	**1 396 456**
Accumulated amortisation	-	(56 902)	(283 005)	(230 642)	(181 579)	-	**(752 128)**
Accumulated write-downs	**(5)**	(835)	-	-	-	-	**(835)**
Closing balance Net booked value 2015	**244 088**	**63 681**	**168 533**	**189 076**	**120 805**	**101 398**	**643 493**
Estimated useful life	Indefinite	3–10 years	3–15 years	3–16 years	3–10 years		
Amortisation plan		Straight-line	Straight-line	Straight-line	Straight-line		

The investments related to intangible assets mainly consist of R&D of NOK 52,926 thousand.

During 2015, Elkem AS group expensed NOK 140,303 thousand as research and development related to processes, products and business development, and capitalised R&D expenses of NOK 52,926 thousand. In addition Elkem AS group expensed NOK 110,293 thousand as improvement projects and technical customers support. In total R&D and improvment project expenses amounted to NOK 303,523 thousand.

Valuation of fixed assets, intangible assets and goodwill

Fixed assets and intangible assets are stated in the consolidated financial statement at cost less subsequent accumulated depreciations, amortisation and write-down. Fixed assets are tested for impairment whenever there is an indication of such. Goodwill and intangible assets with an indefinite useful life are not amortised, but are tested for impairment annually. If the fair value of the assets is lower than the carrying amount, a write-down will be recognised.

Goodwill

Impairment tests are performed by comparing the carrying amount for the asset or the Cash Generating Unit (CGU) including goodwill, with the recoverable amount. The recoverable amount is based on value in use, calculated using the discounted cash flow method. A Cash Generating Unit (CGU) is the lowest level at which independent cash inflows can be measured.

Note 12 continues >

Impairment test goodwill and intangible assets

Goodwill per entity/CGU 2016	Silicon materials	Foundry products	Silicones	Carbon	Total
Elkem Foundry Hingna Nagpur	-	36 979	-	-	**36 979**
Elkem Rana AS	61 903	-	-	-	**61 903**
Elkem Oilfield Chemical FZCO	20 110	-	-	-	**20 110**
Elkem Materials Process Services BV	142	-	-	-	**142**
Elkem Participacòes Indústria e Comércio Limitada	-	-	-	10 930	**10 930**
Ferroveld JV	-	-	-	46 559	**46 559**
Elkem Carbon China Comp Ltd.	-	-	-	1 000	**1 000**
NEH Inc.	22 565	58 476	-	14 979	**96 020**
Bluestar Silicones group		-	69 003	-	**69 003**
Total Goodwill	**104 719**	**95 455**	**69 003**	**73 468**	**342 645**

Goodwill per entity/CGU 2015	Silicon materials	Foundry products	Silicones	Carbon	Total
Elkem Oilfield Chemical FZCO	20 562	-	-	-	**20 562**
Elkem Materials Process Services BV/Dehong JV	165	-	-	-	**165**
Elkem Participacòes Indústria e Comércio Limitada	-	-	-	9 369	**9 369**
Ferroveld JV	-	-	-	41 951	**41 951**
Elkem Carbon China Comp Ltd.	-	-	-	1 000	**1 000**
NEH Inc.	23 072	59 792	-	15 316	**98 180**
Bluestar Silicones group	-	-	72 861	-	**72 861**
Total Goodwill	**43 799**	**59 792**	**72 861**	**67 636**	**244 088**

Discounted cash flow models are applied to determine the value in use for the cash-generating units. Management in each CGU has projected cash flows based on forecast and strategy plans covering a four-year period. Currency rates and power prices are based on external official sources such as Reuters and Nasdaq. Beyond the explicit forecast period of four years, the cash flows are extrapolated using constant nominal growth rates.

Key assumptions

Key assumptions used in the calculation of value in use are growth rate, EBITDA levels, capital expenditure and discount rates.

Growth rates: The expected growth rates for a cash-generating unit converge from its current level experienced over the last few years, to the long-term growth level in the market in which the entity operates. The growth rates used to extrapolate cash flow projections beyond the explicit forecast period, are based on management's past experience, assumptions in terms of market share and expectations for the market development in which the entity operates.

EBITDA levels: The EBITDA level represents the operating margin before depreciation and amortisation, and it is estimated based on the current level and expected future market development, which also takes into consideration committed operational efficiency programs. Changes to the outcome of these initiatives may affect future estimated EBITDA levels.

Capital expenditure ('Capex'): A normalised capex is assumed in the long run. Estimated capital expenditures do not include capital expenditures that significantly enhance the current performance, as such effects generally are not included in the cash flow projections.

Discount rates: The required rate of return was calculated by the WACC method. The cost of a company's equity and liabilities, weighted to reflect its capital structure of 50:50 respectively, derive from its weighted average cost of capital. The WACC rates used in discounting the future cash flows, are based on a Norwegian 10 year risk-free interest rate, adjusted for inflation differential and country risk premium. The discount rates take into account the debt premium, market risk premium, corporate tax rate and asset beta.

The following pre-tax discount rate (WACC) and sustained growth rate year five and forward have been used for the impairment test

	WACC	Growth
Foundry Products	8.2%	2.0%
Silicon Materials	7.4%	2.0%
Carbon	9.7%	2.0%
Silicones	7.9%	2.0%

Impairment – test results and conclusion

Impairment tests of goodwill, included in each CGU shown above, are done annually. The tests indicated no need for write-down as of December 2016.

Sensitivity of estimated cash flows

A 30% change in WACC and other key assumptions will not affect the conclusion for Elkem AS group.

13 Joint arrangements

In 2015 and 2016 Elkem AS group has interests in the following jointly controlled arrangements

Name of entity	Business office	Country	Principal activities
Elkem Ferroveld JV	Ferrobank Emalahleni	South Africa	Electrode paste production
Dehong Elkem Materials Co. Ltd.	Dehong, Yunnan	China	Microsilica production
Elkania DA	Hauge i Dalane	Norway	Microfine weighting material
Igazú Alloys S.A.	Montevideo	Uruguay	Production of foundry products
North Sea Container Line AS	Haugesund	Norway	Shipping services
Klafi EHF	Grundartangi, Akranes	Iceland	Transportation / harbour services
Elkem Solar Holding S.a.r.l	Luxembourg	Luxembourg	Solar technology

Name of entity	% equity interest 2016	% equity interest 2015	2016 Classification	2015 Classification
Elkem Ferroveld JV	50%	50%	JO	JO
Dehong Elkem Materials Co. Ltd.	-	50%	JO	JO
Elkania DA	50%	50%	JO	JO
Igazú Alloys S.A.	50%	50%	JV	JV
North Sea Container Line AS	50%	50%	JV	JV
Klafi EHF	50%	50%	JV	JV
Elkem Solar Holding S.a.r.l	-	-	JV	JV

In the column for classification JO is equal to joint operations and JV is equal to joint ventures.

Dehong Elkem Materials Co. Ltd. was liquidated in 2016.
Elkem Solar Holding S.à.r.l was sold on 19 June 2015 to Bluestar Elkem Investment Co. Ltd.
Elkem AS group's share of the loss in Elkem Solar S.à.r.l was NOK 111,935 thousand for the period 1 January to 18 June 2015. The sales resulted in a gain for Elkem AS group of NOK 104,838 thousand. The net profit of NOK 7,097 thousand is presented as discontinued profit (loss).

There is no quoted market price for the investments.

There are limited business transactions between the consolidated joint operations and the consolidated entities within Elkem AS group. The transactions between the joint ventures are described in note 28 Related party transactions.

Note 13 continues >

There are no contingent liabilities or commitments related to the joint ventures as at 31 December 2016 and 2015.

For the joint venture in Paraguay, Igazú Alloys S.A., the Elkem group has, together with the other investor, obligations to finance the development of the foundry plant, that is under construction. The Elkem group has therefore given a long-term loan of NOK 58 million (NOK 88 million) as at 31 December 2016. The decrease from 2015 to 2016 is due to conversion of parts of the loan to shares in the company.

	2016		2015	
	Total	Elkem Solar Holding S.á.r.l	Other	Total
Total interest in joint ventures 1 January	**52 935**	**886 737**	**69 656**	**956 393**
Acquired shares	60 272	-	-	-
Sale of shares	-	(883 062)	-	**(883 062)**
Dividend received	(15 000)	-	(25 000)	**(25 000)**
Share of profit continued operations	1 408	-	9 539	**9 539**
Share of profit discontinued operations	-	(111 935)	-	**(111 935)**
Share of other comprehensive income discontinued operations	-	(2 536)	-	**(2 536)**
Other comprehensive income transferred to income on disposal, discontinued	-	5 958	-	**5 958**
Gain on sale of shares in joint ventures, discontinued	-	104 838	-	**104 838**
Currency effects	9 363	-	(1 260)	**(1 260)**
Total interest in joint ventures 31 December	**108 978**	**-**	**52 935**	**52 935**
Included in investment in joint ventures	**108 978**	-	67 476	**67 476**
Presented as write-down on receivable/Included in other liabilities[1)]	**-**	**-**	**(14 541)**	**(14 541)**

[1)] The amounts NOK 14,541 thousand relates to provision for investment commitments in Igazú Alloys S.A.

For 2016 Elkem AS group's proportionate share of revenues, expenses, assets, liabilities and cash flows in the joint ventures are included in the consolidated financial statement as follows

	Total
Current assets, including cash and cash equivalents NOK 91,851 thousand	171 551
Non-current assets	289 129
Current liabilities, including current financial liabilities NOK 5,373 thousand	41 464
Non-current liabilities, including non-current financial liabilities NOK 200,531 thousand	201 261
Net assets/equity	217 955
Group's carrying amount	108 978
Total revenue	423 875
Total expenses, including depreciation and amortisation NOK 2,197 thousand	(417 845)
Financial income, including interest income NOK 785 thousand	785
Financial expenses, including interest expenses NOK 298 thousand	(3 433)
Tax expense	(567)
Total profit for the year continuing operations	2 815
Other comprehensive income	-
Total comprehensive income	2 815
Group's share of profit for the year	1 408
Group's share of other comprehensive income	-

For 2015 Elkem AS group's proportionate share of revenues, expenses, assets, liabilities and cash flows in the joint ventures are included in the consolidated financial statement as follows

2015	Elkem Solar Holding S.á.r.l	Other	Total
Current assets, including cash and cash equivalents NOK 643,625 thousand	-	167 562	167 562
Non-current assets	-	154 919	154 919
Current liabilities, including current financial liabilities NOK 3,503 thousand	-	36 186	36 186
Non-current liabilities, including non-current financial liabilities NOK 2,882,745 thousand	-	180 424	180 424
Net assets/Equity	-	105 870	105 870
Group's carrying amount	-	52 935	**52 935**
Total revenue	338 824	424 932	763 756
Total expenses, including depreciation and amortisation NOK 284,982 thousand	(459 121)	(407 987)	(867 108)
Financial income, including interest income NOK 9,255 thousand	4 463	1 022	5 485
Financial expenses, including interest expenses NOK 112,292 thousand	(108 037)	2 448	(105 589)
Tax expense	-	(1 337)	(1 337)
Total profit for the year continuing operations	(223 871)	19 078	(204 792)
Other comprehensive income	(5 072)	-	(5 072)
Total comprehensive income	(228 943)	19 078	(209 864)
Group's share of profit for the year	(111 935)	9 539	**(102 396)**
Group's share of other comprehensive income	(2 536)	-	**(2 536)**

14 Interest in associates and other companies

	31.12.2016	31.12.2015
Interest in associates	54 543	47 788
Interest in other companies	45 973	48 257
Total interest in associates and other companies	**100 516**	**96 046**

	2016	2015
Total interest in associates at opening balance	47 788	41 157
Share of profit	20 722	11 788
Dividend received	(11 190)	(7 155)
Acquired shares in associates[1)]	-	67
Other changes	(2 777)	1 931
Total interest in associates	**54 543**	**47 788**

[1)] The acquired shares relates to increased investment in Combined Cargo Warehousing BV and Euro Nordic Agencies Belgium NV.

As at 31 December 2016 the Elkem AS group has interest in following associates

Name of entity	Principal activities	Country	Proportion of shares/ votes (%)	Net assets	Total operating income	Group's share of profit of associates	Carrying amount
Elkem Chartering AS	Deep sea charter services	Oslo, NO	25%	62 276	93 877	7 740	15 569
Euro Nordic Agencies Belgium NV	Ship agencies services	Antwerp, BE	50%	1 494	564	282	747
Euro Partnership BV	Ship management services	Moerdijk, NL	50%	66 426	20 650	10 325	33 213
Combined Cargo Warehousing BV	Warehousing	Moerdijk, NL	33%	15 194	28 790	2 375	5 014
Total interest in associates						**20 722**	**54 543**

As at 31 December 2015 the Elkem AS group has interest in following associates

Name of entity	Principal activities	Country	Proportion of shares/ votes (%)	Net assets	Total operating income	Group's share of profit of associates	Carrying amount
Elkem Chartering AS	Deep sea charter services	Oslo, NO	25%	41 880	28 510	1 897	10 470
Euro Nordic Agencies Belgium NV	Ship agencies services	Antwerp, BE	50%	979	3 262	186	489
Euro Partnership BV	Ship management services	Moerdijk, NL	50%	64 449	233	7 561	32 224
Combined Cargo Warehousing BV	Warehousing	Moerdijk, NL	33%	13 954	9 690	2 144	4 605
Total interest in associates						**11 788**	**47 788**

15 Group entities

The following subsidiaries are included in the consolidated financial statements

Company	Functional currency	Country of incorporation	2016 equity interest	2015 equity interest	Owner
Dehong Elkem Materials Co. Ltd. [1]	CNY	China	-	50%	Elkem AS
Elkania DA	NOK	Norway	50%	50%	Elkem AS
Elkem Carbon AS	NOK	Norway	100%	100%	Elkem AS
Elkem Chartering Holding AS	NOK	Norway	80%	80%	Elkem AS
Elkem Distribution Center B.V.	EUR	Netherland	100%	100%	Elkem AS
Elkem Foundry Invest AS	NOK	Norway	100%	100%	Elkem AS
Elkem GmbH	EUR	Germany	100%	100%	Elkem AS
Elkem Iberia SLU	EUR	Spain	100%	100%	Elkem AS
Elkem Iceland EhF	NOK	Iceland	100%	100%	Elkem AS
Elkem International AS	NOK	Norway	100%	100%	Elkem AS
Elkem Japan K.K	JPY	Japan	100%	100%	Elkem AS
Elkem LTD.	GBP	England	100%	100%	Elkem AS
Elkem Materials Processing (Tianjin) Co.,Ltd.	CNY	China	100%	100%	Elkem AS
Elkem Materials Processing Services BV	EUR	Netherland	100%	100%	Elkem AS
Elkem Metal Canada Inc	CAD	Canada	100%	100%	Elkem AS
Elkem Milling Services GmbH	EUR	Germany	100%	100%	Elkem AS
Elkem Nordic A.S.	DKK	Denmark	100%	100%	Elkem AS
Elkem Oilfield Chemicals FZCO	AED	Dubai	51%	51%	Elkem AS
Elkem S.a.r.l.	EUR	France	100%	100%	Elkem AS
Elkem S.r.l.	EUR	Italy	100%	100%	Elkem AS
Elkem Singapore Materials Pte. Ltd.	SGD	Singapore	100%	100%	Elkem AS
Elkem South Asia Private Limited	INR	India	100%	100%	Elkem AS
NEH LLC	USD	USA	100%	100%	Elkem AS
Nor-Kvarts AS [2]	NOK	Norway	100%	67%	Elkem AS
Elkem Rana AS [3]	NOK	Norway	100%	-	Elkem AS
Bluestar Silicones International S.à.r.l [4]	EUR	Luxembourg	-	100%	Elkem AS
Bluestar Silicones France SAS [4]	EUR	France	100%	100%	Elkem AS
Bluestar Silicones Services S.à.r.l [4]	EUR	France	100%	100%	Elkem AS
Bluestar Siliconas España S.A.U [4]	EUR	Spain	100%	100%	Elkem AS
Bluestar Siliconi Italia S.r.l [4]	EUR	Italy	100%	100%	Elkem AS
Bluestar Silicones Germany GmbH [4]	EUR	Germany	100%	100%	Elkem AS
Bluestar Silicones (UK) Ltd. [4]	GBP	United Kingdom	100%	100%	Elkem AS
Bluestar Silicones USA Corp. [4]	USD	USA	100%	100%	Elkem AS
Bluestar Silicones Canada Corp. [4]	CAD	Canada	100%	100%	Elkem AS
Bluestar Silicones Brasil Ltda [4]	BRL	Brasil	100%	100%	Elkem AS
Bluestar Silicones Finland OY [4]	EUR	Finland	100%	100%	Elkem AS
Bluestar Silicones Scandinavia AS [4]	NOK	Norway	100%	100%	Elkem AS
Bluestar Silicones Poland p. z o.o [4]	PLN	Poland	100%	100%	Elkem AS
Bluestar Silicones Czech Republic s.r.o [4]	CZK	Czech Republic	100%	100%	Elkem AS
Bluestar Silicones Shanghaï Co. Limited [4]	CNY	China	100%	100%	Elkem AS
Bluestar Silicones Hong Kong Trading Co. Limited [4]	HKD	Hong Kong	100%	100%	Elkem AS
Elkem Foundry (China) Co. Ltd. [5]	CNY	China	100%	-	Elkem AS
Elkem Carbon Malaysia Sdn. Bhd.	MYR	Malaysia	100%	100%	Elkem Carbon AS
Elkem Carbon Singapore Pte. Ltd.	SGD	Singapore	100%	100%	Elkem Carbon AS
Elkem Ferroveld JV	ZAR	South Africa	50%	50%	Elkem Carbon AS
Elkem Participacòes Indústria e Comércio Limitada	BRL	Brasil	100%	100%	Elkem Carbon AS

List continues >

Company	Functional currency	Country of incorporation	2016 equity interest	2015 equity interest	Owner
Elkem Carbon (China) Comp Ltd.	CNY	China	100%	100%	Elkem Carbon Singapore Pte. Lt
Euro Nordic Logistics BV	EUR	Netherland	80%	80%	Elkem Chartering Holding AS
Elkem Egypt for Industry, Contracting & Trading S.A.E	USD	Egypt	99.99%	99.99%	Elkem International AS
Elkem International Trade (Shanghai) Co. Ltd.	CNY	China	100%	100%	Elkem International AS
Elkem Madencilik Metalurji Sanayi Ve Ticaret Ltd. STI	EUR	Turkey	100%	100%	Elkem International AS
Gimtrade Ltd.	GBP	England	100%	100%	Elkem LTD.
Mill Street Ltd.	GBP	England	100%	100%	Elkem LTD.
Elkem Materials Delaware Inc.	USD	USA	100%	100%	Elkem Materials Inc
Elkem Materials South America Ltda	BRL	Brasil	100%	100%	Elkem Materials Inc
Euro Nordic Belgium BVBa [1]	EUR	Belgium	-	80%	Euro Nordic Logistics BV (NL)
Euro Nordic Netherlands BV	EUR	Netherland	80%	80%	Euro Nordic Logistics BV (NL)
Elkem Materials Inc.	USD	USA	100%	100%	NEH LLC
Explotacion de Rocas Industriales y Minerales S.A.[2]	EUR	Spain	100%	67%	Nor-Kvarts AS
Iniconce, S.L	EUR	Spain	97%	97%	Explotacion de Rocas Industriale
Norsil, S.A.	EUR	Spain	100%	100%	Iniconce, S.L (ES)

[1] The companies were liquidated in 2016.

[2] On 1 December Elkem AS group purchased the remaining 33% of the shares in Nor-Kvarts AS. For more information see note 30 Changes in the composition of the group and note 31 Business combinations.

[3] On 1 December Elkem AS group purchased 100% of the shares in Elkem Rana AS (previously named Fesil Rana Metall AS). For more information see note 30 Changes in the composition of the group and note 31 Business combinations.

[4] On 1 January 2016 Bluestar Silicones International S.à.r.l merged with Elkem AS. For more information see note 30 Changes in the composition of the group.

[5] The company was established by Elkem AS group in 2016.

16 Other non-current assets

	31.12.2016	31.12.2015
Long-term pension contribution fund [1]	2 760	6 160
Defined benefit pension asset [1]	2 949	-
Long-term deposit pension guarantee [2]	17 905	16 780
Restricted deposits [3]	78 028	58 627
Other deposits	34 785	13 786
Prepaid lease	2 897	-
Grants receivable [5]	136 234	-
Loans to joint arrangements	7 098	6 943
Loans to joint ventures [4]	59 853	74 499
Prepayments to supplier	9 776	-
External loans/receivables	-	32 068
Other long-term receivables	18 412	8 363
Total other non-current assets	**370 697**	**217 226**

[1] See note 6 Employee retirement benefits.

[2] Long-term deposit pension guarantee is related to unfunded pension liabilities for salaries above 12G.

[3] Off the deposits NOK 67,537 thousand relates to tax litigation in Elkem AS group's business in Brazil, see note 24 Provisions and other long term liabilities.

[4] See note 28 Related party transactions.

[5] See note 29 Grants.

17 Inventories

	31.12.2016	31.12.2015
Finished goods	2 111 814	2 097 641
Work in progress	251 356	256 485
Raw materials	652 333	640 590
Operating materials and spare parts	323 912	307 480
Total inventories	**3 339 415**	**3 302 196**
Provisions for write down of inventories as at 31 December	64 605	59 578

18 Accounts receivable

	31.12.2016	31.12.2015
Accounts receivable	1 819 355	1 785 029
Accounts receivable, related parties	33 304	32 619
Provision for doubtful accounts	(31 840)	(27 466)
Bills receivables[1)]	49 951	73 828
Total accounts receivable	**1 870 770**	**1 864 010**

[1)] A bills receivable is a document that the customer formally agrees to pay at maturity date. The bills receivable document effectively replaces, for the related amount, the open debt exchanged for the bill. Bills receivables are used at Elkem AS group's business in China.

Analysis of gross accounts receivable by age, presented based on the due date

	31.12.2016	31.12.2015
Not due	1 583 220	1 557 932
1–30 days	167 715	159 742
31–60 days	33 938	40 083
61–90 days	17 004	21 414
More than 90 days	50 782	38 477
Total accounts receivable	**1 852 659**	**1 817 648**

Elkem AS group applies for credit insurance for all customers. In cases where credit insurance coverage is refused, other methods of securing the sales income are used. Other methods used for securing the sales are, among others, prepayment, letter of credit, documentary credit, guarantee, etc.

Movement in allowance for doubtful accounts	31.12.2016	31.12.2015
Opening balance	(27 466)	(28 488)
Provisions / losses on doubtful accounts during the year	(10 577)	(9 835)
Reversed provisions	5 401	9 437
Forreign currency exchange differences	803	1 420
Closing balance	**(31 840)**	**(27 466)**

Analysis of current receivables that are past due date and impaired, by age

Overdue by	31.12.2016	31.12.2015
0-3 months	(6 231)	(830)
3-6 months	(3 650)	(56)
6-12 months	(1 241)	(3 261)
Over a year	(20 719)	(23 320)
Total impaired overdue receivables	**(31 840)**	**(27 466)**

19 Other current assets

	31.12.2016	31.12.2015
Pension contribution fund, short-term part[1)]	6 094	10 912
Deposits, restricted	3 771	-
Prepayments	66 670	59 791
CO_2 Compensation from the Norwegian Environment Agency[2)]	89 560	65 004
Grants receivable	94 896	261 620
VAT receivables	265 656	271 489
Corporate income tax receivables	51 093	36 564
Other receivables	26 916	50 357
Total other current assets	**604 656**	**755 737**

1) See note 6 Employee retirement benefits.
2) See note 29 Grants.

20 Shareholder information

Elkem AS is the parent company of Elkem AS group.
As of 31 December 2016 Elkem AS is 100% owned by Bluestar Elkem International Co. Ltd. S.A.
Elkem AS has its registered company address at Drammensveien 169, 0277 Oslo, Norway.

Share capital
Share capital as at 31 December 2016 in Elkem AS is NOK 2,010 million, divided in 1 share.

21 Finance lease liabilities

Elkem AS group leases some of its manufacturing equipment under finance lease. Interest rates range from 3.06% to 6.99%. The group has options to purchase the equipment for a nominal amount at the end of the lease term. The obligations under finance lease are secured by the lessors title to the leased assets.

Overview of finance lease	31.12.2016	31.12.2015
Within one year	4 394	40 149
Between 1 and 5 years	1 527	3 358
Over 5 years	-	-
Total lease payments	5 921	43 507
Less future finance charges	(91)	(2 041)
Present value of lease obligations	**5 830**	**41 466**
Less amount due for settlement within 12 months	4 333	38 254
Total non-current finance lease obligations	**1 497**	**3 212**
Leasing cost current year.	35 787	40 542

See also note 22 Interest-bearing asset / liabilities.

22 Interest-bearing assets / liabilities

	31.12.2016	31.12.2015
Non-current interest-bearing liabilities		
Loans from other related parties within China National Bluestar group	6 341	6 700
Financial leases[1)]	1 497	3 212
Loans from external part, other than bank	-	13 966
Bank financing	2 827 021	3 028 038
Total non-current interest-bearing liabilities	**2 834 859**	**3 051 916**
Current interest-bearing liabilities		
Financial leases[1)]	4 333	38 254
Bank financing	270 133	285 975
Accrued interest	3 504	3 752
Total current interest-bearing liabilities	**277 970**	**327 981**
Total interest-bearing liabilities	**3 112 829**	**3 379 897**
Interest-bearing assets		
Cash and bank balances	1 230 668	1 305 592
Restricted deposits	99 704	75 407
Interest-bearing financial assets	52 682	70 057
Accrued interest income	1 010	377
Total interest-bearing assets	**1 384 064**	**1 451 434**
Net interest-bearing assets / (liabilities)	**(1 728 765)**	**(1 928 463)**

[1)] See note 21 Finance lease liabilities.

Interest-bearing liabilities by currency	Currency amount	NOK 31.12.2016	Currency amount	NOK 31.12.2015
EUR	326 453	2 965 922	335 646	3 219 952
USD	5 772	49 747	6 165	54 332
NOK	97 163	97 163	105 588	105 588
Other currencies		(3)		25
Total interest-bearing liabilities		**3 112 829**		**3 379 897**

Maturity of interest-bearing liabilities as at 31 December 2016	Loans from other related parties	Financial leases	Loans from external party, other than bank	Bank financing	Accrued interest	Total
2017	-	4 333	-	270 133	3 504	277 970
2018	6 341	1 452	-	550 479	-	558 272
2019	-	45	-	504 442	-	504 487
2020	-	-	-	1 639 614	-	1 639 614
2021	-	-	-	48 533	-	48 533
2022 and later	-	-	-	97 065	-	97 065
Total	**6 341**	**5 830**	**-**	**3 110 266**	**3 504**	**3 125 941**
Prepaid loan fees	**-**	**-**	**-**	**(13 112)**	**-**	**(13 112)**
Total interest bearing liabilities	**6 341**	**5 830**	**-**	**3 097 154**	**3 504**	**3 112 829**

Note 22 continues >

Maturity of interest-bearing liabilities as at 31 December 2015	Loans from other related parties	Financial leases	Loans from external party, other than bank	Bank financing	Accrued interest	Total
2016	-	38 254	-	285 975	3 752	327 981
2017	-	2 734	5 164	54 134	-	62 033
2018	6 700	426	1 748	532 925	-	541 798
2019	-	52	1 473	574 972	-	576 497
2020	-	-	1 473	1 730 072	-	1 731 545
2021 and later	-	-	4 108	153 739	-	157 847
Total	**6 700**	**41 466**	**13 966**	**3 331 818**	**3 752**	**3 397 702**
Prepaid loan fees	**-**	**-**	**-**	**(17 805)**	**-**	**(17 805)**
Total interest bearing liabilities	**6 700**	**41 466**	**13 966**	**3 314 013**	**3 752**	**3 379 897**

Credit facilities

As of 31 December 2016 the group has drawn NOK 62 million of total granted credit facilities of NOK 2,167 million.
As of 31 December 2015 the group had drawn NOK 75 million of total granted external credit facilities of NOK 2,343 million.
The drawn amounts are classified as short term bank financing.

The main revolving credit facilities are granted to Elkem AS but the facilities can be utilised by Elkem AS and its subsidiaries. The main facilities amount to EUR 200 million (NOK 1,817 million) and NOK 250 million respectively.

Loan covenant

Elkem AS group has covenants related to it's two main external interest bearing loan facilities. In addition to the covenants on these two loan facilities there are loan covenants related to the credit facilities in Elkem Metal Canada Inc. of CAD 2 million (CAD 10 million). Elkem Metal Canada Inc. is not in breach with its covenants at the end of 2016 and 2015.

For the two main credit facilities and term loans in Elkem AS group, the loan covenants relates to the financial performance of Elkem AS group as specified in the table below.

Covenant Elkem AS group related to drawn loan of NOK 2,834 million (NOK 3,023 million) in Elkem AS		31.12.2016	31.12.2015	Loan covenant
Total Equity	NOK	7 459 042	6 167 047	
Total Assets	NOK	14 813 342	14 476 852	
Equity ratio		**50%**	**43%**	**> 30%**
EBITDA	NOK	1 617 790	2 206 988	
Net finance charges	NOK	61 639	103 979	
Interest cover ratio		**26.25**	**21.23**	**> 4.00**

23 Pledge of assets and guarantees

Pledges
The main part of Elkem AS group's interest-bearing liabilities is neither pledged nor guaranteed. Details of liabilities that have pledged assets related to them are stated below.

Mortgaged liabilities	31.12.2016	31.12.2015
Mortgaged liabilities	67 847	187 904
Mortgaged provisions	55 596	119 700

Book value mortgaged assets	31.12.2016	31.12.2015
Building	163 029	111 961
Machinery and plant	843	843
Receivables	-	95 992
Other assets	92 034	144 859

Elkem AS group makes limited use of guarantees, see specification below.

Guarantee commitments	31.12.2016	31.12.2015
Guarantee commitment KLIF (Climate and Pollution Agency)	4 618	4 618
Environmental guarantee	-	6 386
Other guarantees	107	113

As a part of the share purchase agreement signed between Bluestar Silicones International S.à.r.l and Rhodia for the acquisition of the silicone business, Bluestar benefits from a right to claim for compensation, especially on tax environmental matters. The aggregate amount of the warranty is limited to a maximum of EUR 73 million and was applicable until 2016.

24 Provisions and other non-current liabilities

Total provisions and other non-current liabilities	31.12.2016	31.12.2015
Total provisions	429 413	221 893
Deferred Income	33 915	40 291
Other non-current liabilities	232	-
Total provisions and other non-current liabilities	**463 560**	**262 184**

Provisions include the following	Litigations	Site restoration	Onerous contracts	Employee benefits	Other provisions	Total provisions
Balance 1 January 2016	**262 398**	**68 227**	**-**	**73 652**	**9 101**	**413 378**
Additional provisions recognised	26 633	11 830	2 590	13 347	7 390	61 790
Additions business combinations	-	-	254 321	-	-	254 321
Used during the year	(129 316)	(1 828)	-	(5 770)	(8 021)	(144 935)
Foreign currency exchange differences	12 016	(792)	-	(4 774)	(501)	5 949
Balance 31 December 2016	**171 731**	**77 437**	**256 911**	**76 455**	**7 969**	**590 503**
Hereof classified as provisions and other non-current liabilities	97 225	59 385	202 754	68 931	1 118	429 413
Hereof classified as provisions and other current liabilities	74 506	18 052	54 157	7 524	6 851	161 090
Total provisions	**171 731**	**77 437**	**256 911**	**76 455**	**7 969**	**590 503**

Note 24 continues >

Provisions include the following	Litigations	Site restoration	Onerous contracts	Employee benefits	Other provisions	Total provisions
Balance 1 January 2015	**350 787**	**75 867**	**-**	**72 755**	**9 792**	**509 200**
Additional provisions recognised	55 668	2 695	-	7 573	1 860	67 796
Used during the year	(134 176)	(11 746)	-	(11 108)	(2 939)	(159 968)
Foreign currency exchange differences	(9 881)	1 410	-	4 432	389	(3 650)
Balance 31 December 2015	**262 398**	**68 227**	**-**	**73 652**	**9 101**	**413 378**
Hereof classified as provisions and other non-current liabilities	90 918	53 194	-	69 068	8 714	221 893
Hereof classified as provisions and other current liabilities	171 480	15 033	-	4 584	388	191 485
Total provisions	**262 398**	**68 227**	**-**	**73 652**	**9 101**	**413 378**

Litigation

The provisions due to litigations are mainly related to tax reassessments for value added tax and withholding tax in the Silicones division and tax cases in the Carbon division in Brazil. For the tax reassessment cases regarding VAT there are ongoing proceedings. The tax reassessment cases regarding withholding tax were concluded in 2016.

For the tax cases in the Carbon division in Brasil the cases can take a substantial amount of time before resolution by the tax authorities in Brazil. A provision is made for each case where the risk of loss is considered to be above 50%. The time of settlement is uncertain. In accordance with Brazilian regulations, an amount have been transferred to a restricted bank account and are adjusted for interest rates on an annual basis. The restricted cash is included in other non-current assets, see note 16 Other non-current assets.

Site restoration

Elkem AS group has provisions for future remediation work related to the necessary site remediation work that it will have to undertake in respect of its quartz mines. Total provision NOK 26,930 thousand (NOK 23,402 thousand).

Elkem AS group has worldwide operations representing potential exposure towards environmental consequences. Elkem AS group has established clear procedures to minimise environmental emissions, well within public emission limits. However, in some cases Elkem AS group faces potential claims regarding environmental issues. Total provision NOK 50,507 thousand (NOK 44,824 thousand).

Onerous loss contracts

The provisions regarding onerous contracts mainly relates to two power contracts acquired by the Elkem AS group in 2016 through purchase of Fesil Rana. The contracts meet the definition of own use contracts, IAS 39, and are after initial recognition accounted for as cost. The provision is calculated based on differences between contract price and market price at NASDAQ at the date of purchase, 1 December 2016.

Employee benefits

Employee benefits consist of provisions related to jubilee / long-service benefits, mainly in the Silicones division.

Other provisions

Other provisions mainly consist of accruals for loss related to a fire. In addition Elkem AS group has participated in the Central Bank of Iceland's Investment Programme and purchased a bond loan in ISK, with payment in EUR. The gain from the purchase in EUR is dependent on retaining the ownership of the securities in 5 years (ending in 2017). The currency gain is recognised as deferred income and is amortised over the required ownership period, ending in 2017.

25 Provisions and other current liabilities

	31.12.2016	31.12.2015
Employee withholding taxes, social security, vacation pay, etc.	548 290	575 525
VAT payable	53 678	84 177
Deferred income	26 693	34 029
Liability acquisition land use rights	-	29 020
Provisions, short term part [1)]	161 090	191 485
Accrued expenses	117 229	111 217
Other current liabilities	15 155	5 928
Provisions and other current liabilities	**922 135**	**1 031 380**

1) See note 24 Provisions and other non-current liabilities

26 Financial instruments

Financial assets and liabilities by category 31 December 2016

	Note	Assets at fair value through profit or loss	Derivatives used for hedging	Financial assets available for sale	Loans and receivables	Non-financial assets	Total
Interest in associated and other companies	14	-	-	45 973	-	54 543	**100 516**
Derivatives, non-current		83 113	36 048	-	-	-	**119 161**
Other non-current assets	16	-	-	-	315 998	54 699	**370 697**
Accounts receivable	18	-	-	-	1 870 770	-	**1 870 770**
Derivatives, current		2 607	53 782	-	-	-	**56 388**
Other current assets	19	-	-	-	188 227	416 429	**604 656**
Cash and cash equivalents	22	-	-	-	1 230 668	-	**1 230 668**
Total		**85 720**	**89 829**	**45 973**	**3 605 662**	**525 671**	

	Note	Liabilities at fair value through profit or loss	Derivatives used for hedging	Financial liabilities at amortised cost	Non-financial liabilities	Total
Interest-bearing liabilities, non-current	22	-	1 953	2 832 906	-	**2 834 859**
Derivatives, non-current		(7 998)	569 129	-	-	**561 131**
Provisions and other non-current liabilities	24	-	-	-	463 560	**463 560**
Accounts payable		-	-	1 527 587	-	**1 527 587**
Interest-bearing liabilities, current	22	-	318	277 652	-	**277 970**
Derivatives, current		(21 152)	149 153	-	-	**128 001**
Other current liabilities	25	-	-	-	922 135	**922 135**
Total		**(29 150)**	**720 553**	**4 638 145**	**1 385 695**	

Note 26 continues >

Financial assets and liabilities by category 31 December 2015

	Note	Assets at fair value through profit or loss	Derivatives used for hedging	Financial assets available for sale	Loans and receivables	Non-financial assets	Total
Interest in associated and other companies	14	-	-	48 257	-	47 789	**96 046**
Derivatives, non-current		38 860	1 620	-	-	-	**40 480**
Other non-current assets	16	-	-	-	202 703	14 523	**217 226**
Accounts receivable	18	-	-	-	1 864 010	-	**1 864 010**
Derivatives, current		14 332	-	-	-	-	**14 332**
Other current assets	19	-	-	-	326 624	429 113	**755 737**
Cash and cash equivalents	22	-	-	-	1 305 592	-	**1 305 592**
Total		**53 192**	**1 620**	**48 257**	**3 698 929**	**491 425**	

	Note	Liabilities at fair value through profit or loss	Derivatives used for hedging	Financial liabilities at amortised cost	Non-financial liabilities	Total
Interest-bearing liabilities, non-current	22	-	-	3 051 916	-	**3 051 916**
Derivatives, non-current		(23 969)	949 821	-	-	**925 853**
Provisions and other non-current liabilities	24	-	-	-	262 184	**262 184**
Accounts payable		-	-	1 448 578	-	**1 448 578**
Interest-bearing liabilities, current	22	-	-	327 981	-	**327 981**
Derivatives, current		7 121	608 088	-	-	**615 208**
Other current liabilities	25	-	-	29 019	1 002 361	**1 031 380**
Total		**(16 848)**	**1 557 909**	**4 857 493**	**1 264 545**	

Fair value measurement

Financial instruments at fair value through profit or loss and financial assets available for sale are measured using different levels of input. There are no material differences between fair value and amortised cost for financial liabilities and financial assets at amortised cost.

Level 1 inputs are quoted prices (unadjusted) in active markets for identical assets or liabilities that the entity can access at the measurement date.
Level 2 inputs are inputs, other than quoted prices, included within Level 1 that are observable for the asset or liability, either directly or indirectly.
Level 3 inputs are unobservable inputs for the asset or liability.

The Elkem AS group's assets and liabilities measured at fair value as at 31 December 2016	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit or loss	-	2 607	83 113	**85 720**
Derivatives designated in a hedging relationship	-	89 829	-	**89 829**
Financial assets available for sale	9 262	-	36 711	**45 973**
Total assets	**9 262**	**92 436**	**119 824**	**221 522**
Financial liabilities at fair value through profit or loss	-	91 650	(120 800)	**(29 150)**
Derivatives designated in a hedging relationship	2 271	49 514	668 769	**720 553**
Total liabilities	**2 271**	**141 164**	**547 968**	**691 403**

The Elkem AS group's assets and liabilities measured at fair value as at 31 December 2015	Level 1	Level 2	Level 3	Total
Financial assets at fair value through profit or loss	-	14 332	38 860	**53 192**
Derivatives designated in a hedging relationship	-	1 620	-	**1 620**
Financial assets available for sale	2 900	-	45 357	**48 257**
Total assets	**2 900**	**15 952**	**84 217**	**103 069**
Financial liabilities at fair value through profit or loss	-	100 290	(117 137)	**(16 848)**
Derivatives designated in a hedging relationship	-	543 025	1 014 884	**1 557 909**
Total liabilities	**-**	**643 315**	**897 747**	**1 541 061**

Level 1:
Financial assets measured at level 1 apply to external noted shares. The noted shares are measured based on the listed price. Dividends from the external shares are classified as other gains and losses.

Level 2:
Financial assets and liabilities measured at level 2 applies to forward foreign exchange contracts, commodity contracts and embedded foreign currency derivatives. The contracts are measured at fair value by estimating the future cash flows.

Level 3:
The financial assets and liabilities at fair value through profit or loss measured at level 3 consist of power contracts with Statkraft (one contract bought from Norske Skog in 2010 and swap contracts) and a contract called '30-øringen' based on how the power price in the contract is determined. The usage of power from the contract bought from Norske Skog is restricted to industrial purposes, and the power from the 30-øring contract is restricted to be used at Elkem AS plants. The contracts are assessed to be settled net in cash and are therefore within the scope of IAS 39 and recognised as financial instruments.

When valuing these contracts observable data is used, such as power price, currency rates, CPI and CfD, when available. The power prices for long-term electricity contracts in Norway are not directly observable in the market for the whole contract length. Power prices are observable until 2026, CfD to 2021 and the currency rates are observable until 2021. Valuation of the contracts for the remaining periods are based on the latest observable data adjusted for CPI, if relevant.

See note 27 Financial risk and capital management for sensitivity analysis.

Assessment of fair value of contracts with Statkraft:
The Elkem AS group pays fixed power prices to Statkraft, specified for each contract/year in the contracts.

Assumptions for valuation of the contracts:
- Discount rate: Risk free rate plus a margin of 0.75% p.a (0.75% p.a). This is estimated based on our contract counterparty's assumed cost of capital.
- Power prices: Market prices at 31 December for the duration of the contract.
- CfD's: Four year average historic CfD prices based on Nord Pool Spot prices.
- Currency rate EUR: Market prices tradable for the group as of 31 December for the duration of the contract.

As of 1 January 2013, the Statkraft contract bought from Norske Skog has been designated as a hedging instrument in a cash flow hedge of highly probable future purchases. Changes in fair value for the power contract are therefore from the same date booked against OCI. Realised effects from the fair value as at 31 December 2012 are booked through profit or loss. Swap contracts with Statkraft and embedded derivatives EUR are booked according to hedge accounting principles from 1 January 2016.

Assessment of fair value of 30-øring contract:
The 30-øre power contracts last until 31 December 2030.
For the years 2017-2020 the price under the contract is fixed except if the spot price at the relevant grid points exceed a certain threshold, in which case the price equals the spot price. For the last 10 years of the contract the price is fixed based on the average spot price the preceding four years, adjusted for inflation.
The fixed price and the threshold price are based on a start date and adjusted with inflation annually year thereafter.

Note 26 continues >

Assumptions for valuation of the contract:

- Discount rate: 3.6% p.a (3.6% p.a). This is estimated based on our contract counterparty's assumed cost of capital, adjusted for risk related to the estimated cash flows under the contracts.
- Inflation: 2.0% p.a., (2.0% p.a.).
- Power prices: Market prices per 31 December 2016 until 2026, thereafter prices are based on 2026, adjusted with inflation rate.
- CfD's: Four year average historic CfD prices based on Nord Pool Spot prices.
- Currency rate EUR: Market prices tradable for the group as of 31 December 2016 until 2020, thereafter prices equal to 2020 rates.

Changes in fair value for the '30-øringen' contract are presented as a part of Other gains / losses.

In addition, level 3 includes shares in unlisted external companies. These shares are booked at cost and written down if the value of the company is assessed to be lower than cost.

Specification of movements in measurement on level 3	2016	2015
Opening balance 01 January	(813 530)	(161 096)
Transfer to / from other levels	(4 829)	-
Change in fair value recognised in OCI	236 481	(679 510)
Settlement	99 652	200 131
Disposal	(261)	(765)
Acquisition	75	235
Other changes in fair value through profit or loss	56 060	(175 918)
Translation effects	(1 793)	3 393
Closing balance 31 December	**(428 144)**	**(813 530)**

Details of financial instruments

Details of foreign exchange contracts as at 31 December 2016

Purchase currency	Purchase ccy 1000	Sale currency	Sale ccy 1000	Type of instrument	Currency deal rate	Due	Fair value in NOK 1000	Notional amount in NOK 1000 [1]
CAD	7 517	EUR	5 200	Fwd	1.4455	2017	449	47 244
NOK	1 227 584	EUR	132 050	Fwd	9.2964	2017	17 788	1 199 713
CAD	1 499	GBP	800	Fwd	1.8743	2017	1 092	8 499
NOK	46 356	GBP	4 200	Fwd	11.0372	2017	1 592	44 618
NOK	146 124	JPY	1 980 000	Fwd	0.0738	2017	(740)	145 810
NOK	536 836	USD	65 800	Fwd	8.1586	2017	(29 286)	567 104
CAD	3 951	USD	3 000	Fwd	1.3171	2017	(463)	25 856
NOK	524 796	EUR	58 000	Fwd	9.0482	2018	(12 850)	526 947
NOK	88 663	JPY	1 036 000	Fwd	0.0856	2018	10 352	76 292
NOK	101 569	USD	13 000	Fwd	7.8130	2018	(9 884)	112 042
NOK	89 917	JPY	1 036 000	Fwd	0.0868	2019	10 128	76 292
NOK	87 003	JPY	988 000	Fwd	0.0881	2020	9 351	72 758
Total fair value currency forward contracts							**(2 470)**	

[1] Notional value of the contracts, based on currency rates 31 December 2016.

Details of foreign exchange contracts as at 31 December 2015

Purchase currency	Purchase ccy 1000	Sale currency	Sale ccy 1000	Type of instrument	Currency deal rate	Due	Fair value in NOK 1000	Notional amount in NOK 1000 [1]
USD	616	JPY	75 087	Fwd	0.0082	2016	(60)	5 429
NOK	1 209	AUD	200	Fwd	6.0465	2016	(78)	1 289
CAD	6 688	EUR	4 800	Fwd	1.3932	2016	(3 712)	46 048
NOK	2 710 039	EUR	300 300	Fwd	9.0244	2016	(187 922)	2 880 864
CAD	4 392	GBP	2 160	Fwd	2.0333	2016	(345)	28 221
NOK	46 114	GBP	3 780	Fwd	12.1995	2016	(3 313)	49 387
NOK	73 236	JPY	1 118 000	Fwd	0.0655	2016	(9 244)	81 861
NOK	510 653	USD	65 950	Fwd	7.7430	2016	(70 544)	581 184
NOK	929 152	EUR	100 400	Fwd	9.2545	2017	(51 528)	963 166
NOK	54 332	JPY	848 000	Fwd	0.0641	2017	(9 101)	62 091
NOK	167 423	USD	22 050	Fwd	7.5929	2017	(25 849)	194 316
NOK	524 796	EUR	58 000	Fwd	9.0482	2018	(46 910)	556 411
NOK	101 569	USD	13 000	Fwd	7.8130	2018	(11 809)	114 563
Total fair value currency forward contracts							**(420 416)**	

[1] Notional value of the contracts, based on currency rates 31 December 2016.

Details of contracts within the scope of IAS 39 as at 31 December 2016

	Volume GWh/CUR/Oz	Due	Fair value in NOK 1000	Notional amount in NOK 1000 [1]
Forward contracts financial institutions	281	2017	14 996	66 247
Forward contracts financial institutions	140	2018	6 216	26 113
Commodity contract '30-øringen'	501	2017	(10 713)	141 589
Commodity contract '30-øringen'	6 517	2018 - 2030	83 113	1 688 680
Commodity contracts Statkraft	1 699	2017	(55 481)	496 872
Commodity contracts Statkraft	5 304	2018-2027	(481 775)	1 613 426
Embedded derivatives power contracts (EUR)	24 928	2017	(4 243)	226 474
Embedded derivatives power contracts (EUR)	174 481	2018-2027	(58 141)	1 585 210
Commodity contracts Platinum	9 891	2017	(5 085)	38 514
Fair value contracts within scope of IAS 39			**(511 113)**	

[1] Notional value of underlying asset at the balance sheet date, calculated as volume * price * currency rate per 31 December 2016 (if other currencies than NOK).

Note 26 continues >

Details of contracts within the scope of IAS 39 as at 31 December 2015

	Volume GWh/CUR/Oz	Due	Fair value in NOK 1000 [1]	Notional amount in NOK 1000 [2]
Forward contracts financial institutions	962	2016	(111 812)	276 131
Forward contracts financial institutions	166	2017	1 077	32 951
Commodity contract '30-øringen'	501	2016	(46 971)	138 462
Commodity contract '30-øringen'	7 014	2017-2030	38 860	1 374 436
Commodity contracts Statkraft	1 500	2016	(175 492)	427 440
Commodity contracts Statkraft [1]	7 008	2017-2027	(675 284)	2 128 316
Embedded derivatives power contracts (EUR) [1]	146 904	2017-2027	(105 372)	1 409 295
Commodity contracts related party	220	2016	14 332	53 893
Commodity contracts related party	26	2017	543	5 925
Commodity contracts Platinum	5 331	2016	(5 715)	47 650
Fair value contracts within scope of IAS 39			**(1 065 833)**	

[1] Opening balance of embedded derivatives and swap contracts Statkraft are restated.

[2] Notional value of underlying asset at the balance sheet date, calculated as volume * price * currency rate per 31 December 2016 (if other currencies than NOK).

Hedge accounting

Elkem AS group is applying hedge accounting for parts of the foreign exchange forward contracts and for certain power contracts. The currency exchange contracts are designated as a cash flow hedge to hedge currency fluctuations in highly probable future sales, mainly in USD and EUR. Realised effects from these contracts, a loss of NOK 175,569 thousand (loss of NOK 150,878 thousand), is therefore booked as an adjustment of the sales revenue. Also embedded EUR derivatives in power contracts are designed as hedging instruments to hedge currency fluctuations in highly probable future sales. Effects from other currency forward contracts, both unrealised and realised, are booked directly to Other gains / losses. The commodity contracts power designated as hedging instruments in a cash flow hedge of price fluctuations for highly probable future purchases. Hence, the effective part of change in fair value is booked against OCI, and booked as an adjustment of the power cost (part of COGS) when realised. The realised effects for these contracts was in 2016 a loss of NOK 157,371 thousand (loss of NOK 290,044 thousand). An ineffectiveness loss of NOK 4,6 thousand (gain NOK 27,593 thousand) is booked as Other gains / losses.

The table below shows fair value for the derivative financial instruments, classified by type of hedging

Derivative financial instruments	2016 Assets fair value	2016 Liabilities fair value	2015 Assets fair value	2015 Liabilities fair value
Forward foreign exchange contracts - cash flow hedges	68 617	94 030	-	445 545
Forward power contract Statkraft - cash flow hedges	-	692 336	-	1 014 884
Forward power contract Statkraft swap- cash flow hedges	-	(23 567)	-	-
Forward power contracts embedded derivatives cash flow hedges	-	(44 517)	-	-
Forward power contracts financial institutions- cash flow hedges	21 212	-	1 620	97 480
Currency effect loan EUR - cash flow hedge [1]	-	2 271	-	-
Total derivative instruments	**89 829**	**720 553**	**1 620**	**1 557 909**
Less non-current portion				
Forward foreign exchange contracts - cash flow hedges	29 832	22 734	-	145 198
Forward power contract Statkraft - cash flow hedges	-	596 837	-	804 623
Forward power contract Statkraft swap- cash flow hedges	-	(9 932)	-	-
Forward power contracts embedded derivatives cash flow hedges	-	(40 510)	-	-
Forward power contracts financial institutions- cash flow hedges	6 216	-	1 620	-
Currency effect loan EUR - cash flow hedge [1]	-	1 953	-	-
Current portion of derivative instruments	**53 781**	**149 471**	**-**	**608 087**

[1] See note 22 Net interest-bearing assets / liabilities

The table below shows the movements in OCI related to hedging instruments

Derivative financial instruments recognised against OCI	Opening balance 2016	Net change in fair value	Reclassified to P&L	Closing balance 2016
Change in fair value from derivatives designated as a hedge of future sales	(445 545)	244 562	175 569	(25 413)
Change in fair value from derivatives designated as a hedge of future need for power (Financial institutions) [1]	(95 518)	72 131	44 599	21 213
Change in fair value from derivatives designated as a hedging of future need for power (Statkraft) [2]	(970 899)	214 752	112 723	(643 424)
Change in fair value from derivatives designated as a hedging of future need for power (Statkraft swap) [3]	-	44 517	-	44 517
Change in fair value from embedded derivatives designated as a hedge of future sales [4]	-	23 567	-	23 567
Change in fair value from derivatives designated as a hedge of future sales [5]	-	(2 271)	-	(2 271)
Total gains / losses (before tax) in OCI 31.12.	**(1 511 961)**	**597 258**	**332 891**	**(581 812)**

[1] Contracts with Nasdaq and other financial institutions.

[2] Contract with Statkraft. As of 1 January 2013, the Statkraft contract has been designated as a hedging instrument in a cash flow hedge of highly probable future purchases. Changes in fair value for the power contract are therefore from the same date booked against OCI. Changes in fair value up to 31 December 2012 were booked through profit or loss, classified as Other gains / losses. Reversal of unrealised effects from these contracts will be offset by realised effects, only the interest element will affect the profit or loss.

[3] Power contracts swap, with Statkraft. Hedge accounting from 2016.

[4] Embedded derivatives EUR power contracts. Hedge accounting from 2016.

[5] Currency effects loan EUR.

Accumulated gains / losses from cash flow hedges recognised in OCI are expected to be recycled to profit or loss in the period of 2017-2027, see further details in the tables above specifying financial instruments by duration.

Note 26 continues >

The table below shows the movements in OCI related to hedging instruments

Derivative financial instruments recognised against OCI	Opening balance 2015	Net change in fair value	Reclassified to P&L	Closing balance 2015
Change in FV derivatives designated as a hedge of future sales	(89 821)	(506 608)	150 878	(445 551)
Change in FV derivatives designated as a hedge of future need for power [1]	(94 548)	(146 255)	145 286	(95 517)
Change in FV derivatives designated as a hedge of future need for power [2]	(460 112)	(679 510)	168 723	(970 899)
Total gains / losses (before tax) in OCI 31.12.	**(644 481)**	**(1 332 373)**	**464 887**	**(1 511 967)**

[1] Contracts with Nasdaq and other financial institutions.

[2] Contract with Statkraft. As of 1 January 2013, the Statkraft contract has been designated as a hedging instrument in a cash flow hedge of highly probable future purchases. Changes in fair value for the power contract are therefore from the same date booked against OCI. Changes in fair value up to 31 December 2012 were booked through profit or loss, classified as Other gains / losses. Reversal of these unrealised effects contract will be offset by realised effects, only the interest element will affect the profit or loss.

Offsetting financial assets and liabilities

Financial liabilities are subject to offsetting

2016	Gross amount of financial assets	Gross amount of financial liabilities set off in the balance sheet	Net amounts of financial assets recognised/ presented	Financial instruments not set off in the balance sheet	Cash collateral pledged	Net amount
Commodity contracts, embedded derivatives	6 457	(6 457)	-	-	-	-
Commodity contracts NASDAQ and other financial institutions	22 804	(1 592)	21 212	-	-	21 212
Foreign exchange forward contracts	70 059	-	70 059	(17 061)	-	52 998
Total	**99 320**	**(8 049)**	**91 271**	**(17 061)**	**-**	**74 210**

Financial liabilities subjected to offsetting

2016	Gross amount of recognised financial liabilities	Gross amount of recognised financial assets set off in the balance sheet	Net amounts of financial liabilities presented	Financial instruments not set off in the balance sheet	Cash collateral pledged	Net amount
Commodity contracts, embedded derivatives	68 842	(6 457)	62 384	-	-	62 384
Commodity contracts NASDAQ and other financial institutions	1 592	(1 592)	-	-	-	-
Foreign exchange forward contracts	72 529	-	72 529	(17 061)	-	55 468
Total	**142 963**	**(8 049)**	**134 914**	**(17 061)**	**-**	**117 853**

Financial assets are subject to offsetting

2015	Gross amount of recognised financial assets	Gross amount of recognised financial liablilities set off in the balance sheet	Net amounts of financial assets presented	Financial instruments not set off in the balance sheet	Cash collateral pledged	Net amount
Commodity contracts Platinum	148	(148)	-	-	-	-
Commodity contracts NASDAQ	15 952	-	15 952	-	-	15 952
Foreign exchange forward contracts	3 077	(3 077)	-	-	-	-
Total	**19 177**	**(3 225)**	**15 952**	**-**	**-**	**15 952**

Financial liabilities are subject to offsetting

2015	Gross amount of recognised financial liabilities	Gross amount of recognised financial assets set off in the balance sheet	Net amounts of financial liabilities presented	Financial instruments not set off in the balance sheet	Cash collateral pledged	Net amount
Commodity contracts Platinum	5 863	(148)	5 715	-	-	5 715
Commodity contracts NASDAQ	111 812	-	111 812	-	-	111 812
Foreign exchange forward contracts	423 492	(3 077)	420 415	-	-	420 415
Total	**541 167**	**(3 225)**	**537 942**	**-**	**-**	**537 942**

27 Financial risk and capital management

Introduction
Elkem AS group is exposed to a variety of financial risks such as currency risk, liquidity risk, interest rate risk, credit risk and risks relating to prices of finished goods and raw materials. The financial risks affect the group's income or the value of financial instruments held. Elkem AS group operates in an international and cyclical industry, and all financial risks related to its operations are monitored and handled at Elkem AS group centrally. Elkem AS group has financial risk policies in place, approved by its board of directors.

FINANCIAL RISK FACTORS

(a) Market risk

(I) Currency risk

Transaction risk - cash flow hedge
Elkem AS group has sales revenue and operating costs in various currencies. The prices of finished goods are to a large extent determined in international markets, primarily in USD and EUR. This is partly offset by purchase of raw materials denominated in the same currencies. Elkem AS group has net positive cash flows in most currencies, but has a net cost position, mainly Norwegian krone, Canadian dollars and Icelandic krona.

Elkem AS group's policy is to hedge foreign exchange risk against functional currency to even out fluctuations in result and cash flow. The target is to hedge net cash flow for 0–3 months on a 90% hedging ratio. Net cash flow for 4–12 months should be hedged on a rolling basis based on a 45% hedging ratio target. The hedging ratio for 4–12 months may vary between 25% and 75%.
On two occasions, last in Q2 2015, a mandate was given from the board to increase the hedging horizon for EUR and USD up to 36 months. For 2016 the hedging ratio was set to 75%, for 2017 to 25% and for 2018 to 15%. Elkem AS group also has a hedge in JPY until 2020 related to a long-term-customer contract. Elkem AS group uses hedge accounting for all cash flow hedges over 3 months. In 2016, Elkem AS group realised a loss of NOK 175 million from this hedging program (loss of NOK 151 million).

Foreign exchange - sensitivity analysis on financial instruments
Elkem AS group is presenting its accounts in Norwegian krone, but it has underlying assets and liabilities in various currencies. These effects are monitored and managed centrally.

The table below shows currency effect by lines in the financial statement

Currency effect included in financial statement	2016	2015
Net foreign exchange gains / losses - foreign exchange forward contracts - included in Other gains and losses	26 595	41 587
Operating foreign exchange gains / losses - included in Other gains and losses	(19 936)	9 954
Net foreign currency exchange gain / loss on financing activities	49 661	32 533
Currency translation differences - included in comprehensive income	(64 508)	251 943

Sensitivity on profit and loss from financial instruments: the sensitivity related to financial instruments on Elkem AS group's profit or loss, is based on a strengthening / weakening of all currencies by 10% against the Norwegian krone, which is the presentation currency for Elkem AS group. If the Norwegian krone is strengthened by 10% against all other currencies, the isolated effect on financial instruments would have been a reduced profit before tax of approximately NOK 273 million (NOK 582 million).

Sensitivity on balance sheet from financial instruments: the sensitivity related to financial instruments on Elkem AS group's balance sheet, is based on a weakening / strengthening of all currencies by 10% against the Norwegian krone, which is the presentation currency for Elkem AS group. If the Norwegian krone is strengthened by 10% against all other currencies, the isolated effect on financial instruments would have given an increased equity of NOK 92 million (NOK 64 million). This effect does not include the effects from the sensitivity on profit or loss as calculated above.

(II) Price risk

Elkem AS group is exposed to fluctuations in market prices both in the investment portfolio and in the operating business related to individual contracts. The investment portfolio is limited, see note 13 Joint arrangements (joint ventures) and note 14 Interest in associates and other companies.

Raw materials
The business is exposed to changes in market prices for raw materials and finished goods. The group seeks to minimise the exposure by entering into sales and purchase contracts with similar duration and volume.

Elkem AS group's main production capacity is focused towards specialised products. These products require special types of raw materials that have fixed customer specifications. Elkem AS group has acquired several raw material sources and / or enters into medium to long-term contracts with raw material suppliers.

Power
Elkem AS group purchases power contracts to minimise the future exposure to changes in power prices. These contracs are either financial instruments, physical commodity contracts that both meet and do not meet the criteria for own use according to IFRS.

Changes in fair value of commodity contracts reflect unrealised gains or losses and are calculated as the difference between market price and contract price, discounted to present value. Valuation techniques are used for available market information as much as possible. Techniques that reflect how the market could be expected to price instruments, are used in non-observable markets.

Elkem AS group's portfolio of commodity contracts consists mostly of physical energy contracts. Electric power is a key input factor for Elkem AS group. Elkem AS group's estimated future power exposure is partly hedged by long-term power contracts in addition to several contracts in the medium-term. Optimisation of 24-hour, seasonal and capacity utilisation variations are solved through utilising financial and physical contracts that are traded bilaterally, or at Nasdaq OMX. The purpose of the hedging activities is to reduce volatility in the power cost and increase the predictability of the cost base. Fair value of commodity contracts is especially sensitive for future changes in energy prices.

Valuation of the power contracts
The valuation technique used for valuing the power contracts is described in note 26 Financial instruments.

Sensitivity analysis - power contracts
Sensitivity on the Statkraft and the '30-øringen' contracts is as follows (figures in NOK million)

'30-øringen' contract		Fair value 31.12.2016	Adjusted NPV
WACC (used 3.6%)	change to 0%	72	137
WACC (used 3.6%)	change to 5%	72	54
CPI (used 2%)	change to 1%	72	120
CPI (used 2%)	change to 3%	72	22
Power price	decrease -10%	72	18
Power price	increase + 10%	72	124

Statkraft contract		Fair value 31.12.2016	Adjusted NPV
Power price	decrease -10%	(537)	(689)
Power price	increase + 10%	(537)	(386)
WACC (used 1.85%)	change to 0%	(537)	(560)
WACC (used 1.85%)	change to 5%	(537)	(497)

(III) Interest rate risks

Elkem AS group's interest rate risk arises from borrowings from external financial institutions. Elkem AS group's liabilities are mainly drawn in EUR.

Elkem AS group is exposed to fluctuating interest rates. Elkem AS group has a floating interest rate policy. Industry conditions are cyclical and prices and sales volumes for Elkem AS group's products tend to correlate with general economic conditions. During an economic downturn sales prices and volumes are expected to go down, while prices and volumes tend to go up during an economic upturn. A floating interest rate policy is seen as appropriate from a financial risk perspective. With floating interest rates the group will normally be in a position to benefit from lower interest rates in an economic downturn. A floating rate policy will, however, leave the group exposed to increased future interest rates.

Note 27 continues >

As at 31 December 2016 Elkem AS group has the following interest-bearing assets and liabilities

	Floating	Fixed	Total
Interest-bearing liabilities	3 112 829	-	3 112 829
Interest-bearing assets	1 384 064	-	1 384 064
Net exposure	**1 728 765**	**-**	**1 728 765**

Sensitivity
The interest rate sensitivity is based on a parallel shift in the interest rates that Elkem AS group is exposed to. If interest rates had been 50 basis points higher for a full year, based on net debt as at 31 December 2016, with all other variables held constant, the profit after tax would have been NOK 6.3 million lower (NOK 7 million). An overview of Elkem's debt portfolio is presented in note 22 Interest-bearing assets / liabilities.

(b) Counterparty credit risk

Credit risk is the risk of financial losses to the group if a customer or counterparty fails to meet contractual obligations. For Elkem AS group this arises mainly to trade receivables and financial trading counterparties.

Trade receivables are generally secured by credit insurance from a reputable credit insurance company. Credit limits for each customer and overdue receivables are monitored at Elkem AS group level. For customers where credit insurance cannot be obtained, other methods are generally used to secure the sales proceeds, such as prepayment, letter of credit, documentary credit or guarantees. In particular, when sales are made in countries with a high political risk, or to remote customers, trade finance products are used to reduce the credit risk. Approximately 90% of Elkem AS group's turnover is covered by credit insurance, trade finance or prepayments. Elkem AS group realised credit losses of NOK 7 million in 2016 (NOK 6 million). The maximum exposure to credit risk for the group is NOK 1,937 million per 31 December 2016 (NOK 1,978 million).

Evaluation of financial counterparties is based on external credit ratings from Moody's and/or Standard and Poor's. The general policy is that financial counterparties should have a rating equal to, or higher than, A- (or the equivalent) from the rating agencies, but exceptions may be made on a case-by-case basis, mainly for local banks in emerging markets. Elkem AS group has not had any losses in 2016 or 2015 related to financial counterparties.

(c) Liquidity risk

Liquidity risk is the risk that the group will encounter difficulty in meeting the obligations associated with its financial liabilities. Elkem AS group is exposed to liquidity risk related to its operations and financing.

Elkem AS group's cash flow will fluctuate due to economic conditions and financial performance. In order to assess its future operational liquidity risk, short-term and long-term cash flow forecasts are provided. The short-term forecast is updated each week, and the long-term cash flow projection is updated each quarter.

In order to mitigate the operational liquidity risk, Elkem AS group has cash and revolving credit facilities with banks. As at 31 December 2016 Elkem AS group has unrestricted cash of NOK 1,231 million (NOK 1,305 million). In addition, revolving credit facilities amount to NOK 2,167 million (NOK 2,343 million), of which NOK 2,105 million is undrawn (NOK 2,264 million).

The external loan agreements contains two financial covenants. The ratio of EBITDA to consolidated Net interest payable, as defined herein, for each measurement period, where the period is calculated as the 12 months ending on the last day of a financial quarter, must exceed 4.0. Additionally, the ratio of total equity to total assets must be more than 30% at all times. Elkem complies with these covenants as of 31 December 2016 and complied with the covenants as of 31 December 2015.

The policy is to have cash and available credit facilities to cover known capital needs and generally not less than 10% of annual turnover. In addition, the policy is to ensure that the main credit facilities have a remaining maturity of at least 12 months. The maturity profile of the credit facilities per 31 December 2016 for the Elkem AS group is shown in the table below.

Year / maturity	2017	2020	Total
Total amount of credit facilities	350	1 817	2 167

The table below analyses the group's non-derivative financial liabilities and net-settled derivative financial liabilities into relevant maturity groupings based on the remaining period at the balance sheet date to the contractual maturity date. Derivative financial liabilities are included in the analysis if their contractual maturities are essential for an understanding of the timing of the cash flows. The amounts disclosed in the table are the contractual undiscounted cash flows.

At 31 December 2016	Less than 6 months	6 months and 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Interest-bearing liabilities	136 819	136 819	556 820	2 192 589	97 065
Financial lease	2 167	2 167	1 452	45	-
Accounts payable	1 527 587	-	-	-	-
Other current liabilities	922 135	-	-	-	-

At 31 December 2015	Less than 6 months	6 months and 1 year	Between 1 and 2 years	Between 2 and 5 years	Over 5 years
Interest-bearing liabilities	190 322	99 405	59 298	2 849 363	157 847
Financial lease	19 127	19 127	2 734	477	-
Accounts payable	1 448 578	-	-	-	-
Other current liabilities	1 031 380	-	-	-	-

A total overview of Elkem AS group's debt portfolio and instalment profile is presented in note 22 Interest-bearing assets / liabilities.

Capital management

As of 31 December 2016, Elkem's equity was NOK 7,459 million, including minority interests of NOK 88 million. The equity ratio was 50%. In 2016, Elkem's capital structure has been affected by corporate transactions. In December Elkem acquired the shares in Fesil Rana Metall AS (Fesil Rana) and the iron foundry business of the Indian Company Minex Metallurgical Co.Ltd.

Elkem AS group is managing its financing and liquidity position to reduce liquidity risk and to ensure that the company can meet its financial obligations at all times.

28 Related party transactions

100% of the shares in the Elkem AS group are held by Bluestar Elkem International Co. Ltd. S.A., see note 20 Shareholder information. Balances and transactions between Elkem AS and subsidiaries have been eliminated in the consolidated financial statements and are not disclosed in this note. Details of transactions between the group and other related parties are disclosed below.

2016	Trade sales	Trade purchases	Sale of services	Purchase of services	Interest income	Interest expenses
Bluestar Elkem International Co. Ltd. S.A.	-	-	324	-	-	-
Joint arrangements and associates	121 245	(41 917)	103 160	(177 850)	2 556	-
Other related parties within China National Bluestar group	32 875	(295 574)	21 980	(1 035)	-	-
Total	**154 120**	**(337 491)**	**125 464**	**(178 885)**	**2 556**	**-**

2015	Trade sales	Trade purchases [1)]	Sale of services	Purchase of services	Interest income	Interest expenses
Bluestar Elkem International Co. Ltd. S.A.	-	-	893	-	-	-
Joint arrangements and associates	-	-	3	(155 097)	3 129	-
Other related parties within China National Bluestar group	145 394	(243 596)	100 845	(11 340)	30 905	(48 336)
Total	**145 394**	**(243 596)**	**101 741**	**(166 437)**	**34 034**	**(48 336)**

Loans from / to related parties	31.12.2016	31.12.2015
Loans to joint arrangements	66 951	81 442
Loans from other related parties within China National Bluestar group	(7 416)	(6 693)
Receivables from Bluestar Elkem International Co. Ltd. S.A	324	400
Payables to joint arrangements and associates	(12 656)	(9 070)
Receivables from joint arrangements and associates	2 227	-
Payables to other related parties within China National Bluestar group	(24 918)	(50 569)
Receivables from other related parties within China National Bluestar group	34 976	51 535

Information about transactions between related parties outside Elkem AS group

The main transactions between Elkem AS group and parties outside Elkem AS group are:

- Sale of management and technology services to Elkem Solar AS
- Power supply and sale of raw materials to Elkem Solar AS
- Purchase of short and deep sea transport from North Sea Containerline AS and Elkem Chartering AS
- Purchase of warehousing for Combined Cargo Warehousing BV
- Sale of silicone to companies within China National Bluestar group

Elkem AS group also has loans from other related parties within China National Bluestar group. The main loans are given from:

- Bluestar Silicones Investment Co. Ltd.

The sale and purchase from related parties outside Elkem AS group are made on terms equivalent to those that prevail in arm's length transactions. Prices are set upon negotiations between the parties.

Outstanding balances at year-end are unsecured, and the short-term receivables and payables are interest free, with an exception of the short-term loans. The long-term loans are interest bearing, and the interest is calculated based on interbank rates (for example LIBOR and EURIBOR) plus a margin.

One-time transactions with related parties

On 19 June 2015 Elkem AS group sold 50% of its shares in the joint venture Elkem Solar AS at a proceed of NOK 820 million together with a loan receivable of NOK 1,624 million against Elkem Solar AS. The sales resulted in a gain for Elkem AS Group of NOK 104,838 thousand. The gain is presented as part of discontinued profit (loss).

In June 2015 Elkem AS group purchased fixed assets at the Fiskaa plant in Kristiansand, Norway, from Elkem Solar AS. For the rest of 2015, included in sale of services to other related parties within China National Bluestar group, Elkem Solar AS paid a rent and service fee to Elkem AS group.

Commitments with related parties
For the joint venture in Paraguay, Igazú Alloys S.A., Elkem AS group has, together with the other investor, obligations to finance the development of the foundry plant that is under construction. Elkem AS group have therefore given a long-term loan of NOK 58.2 million (NOK 87.6 million) as at 31 December 2015. The decrease from 2015 to 2016 is due to conversion of parts of the loan to shares in the company.

Transactions with key management personnel
Information on transactions with key management personnel is included in note 5 Employee benefit expenses.

Information about eliminated transactions between related parties within the Elkem AS group
Elkem AS group follows internationally accepted principles for transactions between related parties within the group. In general, Elkem AS group seeks to use transaction based methods (comparable uncontrolled price, transactional net margin method, cost plus and resale price method) in order to set the price for the transaction. Elkem AS group's set-up for sales is based both on an agent structure and as a distribution network.

The related party transactions in Elkem AS group can be divided as follows:

1. Buy-sell off products
    a. Supply of raw materials to manufacturers (sales from sourcing companies)
    b. Sale/supply of finished goods from one Elkem manufacturer to another Elkem manufacturer(as in-bound to further production)
    c. Distribution of manufactured goods (directly from the plant or indirectly for resale by distributors)
    d. Flow-through (products are sold to and from Elkem AS due to treatment of indirect taxes)

2. Services
    a. Sales agent / commissionaire services
    b. Order handling services performed for a large part of the companies by one service company
    c. General services (cost plus)
        I. Sourcing services
        II. Technical support services (assistance from one company to another)
        III. Management services / Divisional management services / Cash management services
    d. Toll manufacturing services (milling services)

3. Financial services
    a. Cash pool
    b. Group loans

29 Grants

Elkem AS group has received the following government grants	2016	2015
Funding from the Norwegian government R&D	25 813	23 548
Funding from the French government R&D	40 094	46 509
CO_2 Compensation from the Norwegian Environment Agency	86 333	93 978
Funding related to energy recovery	28 666	31 011
Other grants	23 701	4 742
Total government grants received	**204 607**	**199 788**

Elkem AS group has received the following grants from other	2016	2015
Norwegian NO_X fund for reduced emission of NO_X [1)]	48 777	66 755
Norwegian emission fund for reduced emmision of SO_2 [1)]	32 222	1 788
Other grants received ftrom other than government	250	823
Total other grants received	**81 249**	**69 366**

1) The industry in Norway pays a fee for their emission of NO_X and SO_2 to two different foundations. The two foundations are self-financed by the fee and their purpose is to support projects that reduce SO_2 and NO_X emission from the industry in Norway.

Grants received is included in the financial statement as follows:

Other operating income	175 777	176 231
Deduction of carrying amount of fixed assets	110 079	92 923
Total	285 856	269 154
Receivables related to grants	320 690	326 624
Deferred income related to grants	(6 252)	(9 837)

In 2015 Elkem AS group received NOK 28,974 thousand in CO_2 compensation which relates to the year 2014 and 2013. The current CO_2 compensation programme will end in 2020.

30 Changes in the composition of the group

Elkem AS group has in 2016 invested NOK 471,012 thousand related to acquisition of subsidiaries and business (business combination). The amount comprises cash consideration transferred reduced by cash and cash equivalents of the acquiree. See note 31 Business combination for more information.

On 1 December Elkem AS group invested NOK 31,224 thousand related to increase of the ownership in Nor-Kvarts from 66.7% to 100%.

Changes in ownership interests in subsidiaries are accounted for as equity transactions. The effect on the equity attributable to owners of the parent is presented in the table below.

Effect of changes in composition of the group	2016
Net consideration received (paid)	(31 224)
Adjustment to non-controlling interest	27 321
Adjustment to equity attributable to owners of the parent	(3 903)

31 Business combinations

Elkem AS group has in 2016 invested NOK 439,788 thousand related to acquisition of new subsidiaries and business (business combination). The amount comprises cash consideration transferred reduced by cash and cash equivalents of the acquiree.

On 1 December 2016 Elkem AS group acquired 100% of the shares in Fesil Rana Metall AS, a producer of standard and speciality ferrosilicon and microsilica from Fesil AS.

9 December 2016 Elkem AS group acquired, through purchase of assets, the iron foundry business of the Indian Company Minex Metallurgical Co.Ltd., a leading provider of speciality alloys.

These transactions are considered a business combination according to IFRS 3. Acquisition method is applied by netting the fair value of consideration given to the transferee (the 'acquisition cost'), excluding cost related to the acquisition, with the fair value of the acquired assets, liabilities and contingent liabilities assumed at the acquisition date. The acquisition cost of a purchase is equal to the fair value of the assets transferred, the equity instruments issued and the liabilities incurred or assumed at the acquisition date. The fair values of assets and liabilities under contingent consideration agreements are likewise included.

Consideration	Fesil Rana	Minex	Total
Interest-bearing liabilities	349 844	109 594	459 438
Contingent consideration	-	-	-
Non-controlling ownership interest in subsidiary	-	-	-
Consideration transferred	**349 844**	**109 594**	**459 438**
Fair value of previously held equity interest	-	-	-
Total	**349 844**	**109 594**	**459 438**

Amounts for assets and liabilities recognised	Fesil Rana	Minex	Total
Property, plant and equipment	336 506	21 302	357 808
Other intangible assets	23 041	13 256	36 297
Investment in joint ventures	-	-	-
Interest in associated and other companies	75	-	75
Other non-current assets (including deferred tax assets)	13 404	-	13 404
Inventories	205 471	18 467	223 938
Accounts receivable	30 062	18 708	48 770
Derivatives, current asset	641	-	641
Other current assets	27 555	5 764	33 319
Cash and cash equivalents	19 650	-	19 650
Provisions and other non-current liabilities	(204 041)	-	(204 041)
Accounts payable	(85 950)	(2 273)	(88 223)
Income tax payables	-	-	-
Provisions and other current liabilities	(78 472)	(1 758)	(80 230)
Total	**287 942**	**73 466**	**361 408**
Non-controlling interests	-	-	-
Goodwill	61 902	36 128	98 030
Total	**349 844**	**109 594**	**459 438**

The goodwill of NOK 98 million recognised is attributable to the assembled workforce of the companies and synergies. The business combination is carried out as a part of Elkem AS group's growth strategy.

The fair value of acquired receivables NOK 49 million is equal to the gross contractual amount of receivables. At acquisition date and finalisation of purchase price allocation, management deems the contractual cash flows are expected to be collectible. The companies have credit insurance for the main part of their accounts receivable.

For the period from purchase to 31 December 2016 Fesil Rana have contributed NOK 76 million to operating revenue and contributed positively NOK 3 million to consolidated profit. If the acquisition date of business combination was 1 January 2016, the operating revenue of the Elkem group would have increased by NOK 740 million and profit would have decreased by NOK 31 million. The figures do not include business combinations completed through purchase of assets (Minex) for which no separate financial statements exists and intra group transactions.

The net assets recognised are based on provisional assessment of their fair value, since the business combinations where performed close to year end and the valuation has not been completed.

32 Business combinations under common control

On 19 June 2015 Elkem AS group purchased all the shares in Bluestar Silicones International S.a.r.l (BSI group) for a purchase price of EUR 1.7 million, from Bluestar Silicones Investment Co. Ltd. (BSI). Both Elkem AS group and BSI group are under common control by China National Bluestar (group) Co. Ltd. Business combinations involving entities under common control, are accounted for according to the 'pooling of interest method' and comparable figures are restated.

33 Supplemental information to the consolidated statement of cash flows

The liquidity effect of acquisitions consist of	2016	2015
Purchase price for new subsidiaries and increased ownership in subsidiaries	490 662	15 015
Cash and cash equivalents of the aquiree	19 650	-
Acquisition of subsidiaries net of cash acquired	**471 012**	**15 015**

34 Changes in accounting policies

As described in Note 2, the Elkem AS group has changed the accounting principle applied for recognition of long-term power contracts, embedded derivatives. In addition the group has two power contracts previously recognised as own use, but the contracts are settled net and are adjusted to fair value recognition. The impact on comparable figures in the statement of income and statement of financial position are shown in the tables below, see note 26 Financial instruments for more information about the contracts.

Income statement 1.1.15-31.12.2015	2015 Financial statement	Embedded derivatives	Net settlement contracts	2015 Restated
Other gains and losses	(65 779)	(72 049)	(83 178)	(221 006)
Operating profit (loss)	**1 465 013**	**(72 049)**	**(83 178)**	**1 309 786**
Tax (expense) / income	(462 529)	17 346	20 520	(424 663)
Profit (loss) for the year from continued operations	**959 769**	**(54 703)**	**(62 658)**	**842 408**

Balance sheet 31.12.2014 / Opening balance 1.1.2015	2014 Financial statement	Embedded derivatives	Net settlement contracts	2014 Restated
Retained earnings	(475 659)	(25 353)	(8 997)	(510 009)
Deferred tax liabilities	211 949	(8 996)	(3 708)	199 245
Derivatives, non-current liabilities	252 405	33 322	13 732	299 459

Balance sheet 31.12.2015	2015 Financial statement	Embedded derivatives	Net settlement contracts	2015 Restated
Retained earnings	3 107 336	(79 029)	(72 682)	2 955 625
Deferred tax liabilities	175 046	(26 343)	(24 227)	124 476
Derivatives, non-current liabilities	723 571	103 743	98 538	925 852

35 Discontinued operations

On 19 June 2015 Elkem AS group sold the remaining 50% of its shares in Elkem Solar AS at a proceed of NOK 820 million together with a loan receivable of NOK 1,624 million. The shares and the receivables were transferred to the acquirer, Bluestar Elkem Investment Co. Ltd., and then netted towards shareholder loans of NOK 1,440 million. The remaining receivables of NOK 1,067 million were distributed as dividend. Elkem AS group share of profit (loss) of Elkem Solar Holding, including gain on disposal, is included in profit (loss) for the year from discontinued operations in the statement of income. Below is an overview of the effects from disposal of Elkem Solar Holding.

Excerpt of the income statement for discontinued operations	2015
Revenue (external)	-
Operating expenses (external)	-
Operating profit	-
Finance expenses (external)	-
Profit before tax of discontinued operations	-
Tax	-
Profit after tax of discontinued operations	**-**
Pre-tax gain / (loss) recognised on the re-measurement of assets of disposal group	104 838
Tax	-
After tax gain / (loss) recognised on the re-measurement of assets of disposal group	104 838
Share of profit equity method [1)]	(111 935)
Profit for the year from discontinued operations	**(7 097)**

[1)] See note 13 Joint arrangements

Financial statement Elkem AS

Income statement – Elkem AS

1 January - 31 December	Note	2016	2015
Amounts in NOK 1000			
Revenues	4	6 900 847	7 155 256
Other operating income	4	110 132	123 166
Total operating income		**7 010 979**	**7 278 422**
Raw materials and energy for smelting		(3 962 601)	(3 970 252)
Employee benefit expenses	5,6	(912 939)	(902 483)
Amortisation and depreciation	12	(318 435)	(309 465)
Impairment losses	12	(8 052)	(1 814)
Other gains / losses related to operating activities	9	221 465	(653 064)
Other operating expenses	7,8	(1 480 646)	(1 436 560)
Total operating expenses		**(6 461 208)**	**(7 273 638)**
Operating profit (loss)		**549 771**	**4 784**
Income from subsidiaries	13	115 893	137 315
Income from joint ventures	14	-	(7 097)
Write down on shares in subsidiaries	13	(2 857)	-
Net gain (loss) from investments		113 036	130 218
Finance income	10	55 782	76 721
Foreign exchange gains (losses)	10	103 227	142 031
Finance expenses	10	(89 961)	(64 899)
Profit (loss) before income tax		**731 855**	**288 855**
Tax (expenses) / income	11	(146 920)	(79 471)
Profit (loss) for the year		**584 935**	**209 384**

Balance sheet – Elkem AS

1 January - 31 December	Note	2016	2015
Amounts in NOK 1000			
ASSETS			
Property, plant and equipment	12	1 902 936	1 867 784
Intangible assets	12	430 394	523 698
Deferred tax assets	11	-	33 452
Investments in subsidiaries	13	4 644 888	1 184 829
Investments in associates and other companies	15	12 669	14 254
Derivatives	27	36 028	40 480
Other non-current assets	16	760 233	3 280 308
Total non-current assets		**7 787 148**	**6 944 805**
Inventories	17	1 182 337	1 252 663
Accounts receivable	18	789 742	800 948
Other current assets	19	290 154	456 377
Derivatives	27	56 388	20 730
Cash and cash equivalents	20	292 468	723 569
Total current assets		**2 611 089**	**3 254 287**
TOTAL ASSETS		**10 398 237**	**10 199 092**
EQUITY AND LIABILITIES			
Paid-in capital	21	3 088 203	3 088 203
Retained earnings	21	1 284 671	554 635
Total equity		**4 372 874**	**3 642 838**
Non-current interest-bearing liabilities	23	2 895 032	3 090 450
Deferred tax liabilities	11	127 967	-
Pension liabilities	6	65 405	66 532
Derivatives	27	147 596	347 479
Provisions and other non-current liabilities	25	50 934	25 099
Total non-current liabilities		**3 286 934**	**3 529 560**
Accounts payable		584 277	660 470
Income tax payables		30 956	16 373
Current interest-bearing liabilities	23	1 728 799	1 578 381
Derivatives	27	62 843	433 941
Other current liabilities	26	331 554	337 529
Total current liabilities		**2 738 429**	**3 026 694**
TOTAL EQUITY AND LIABILITIES		**10 398 237**	**10 199 092**

Oslo, 3 April 2017

Elkem AS board of directors

Michael Koenig
Chairman of the board

Einar Støfringshaug

Marianne Færøyvik

Yougen Ge

Olivier de Clermont-Tonnerre

Sverre S. Tysland

Helge Aasen, CEO

Dazhuang Wang

Cash flow statement – Elkem AS

1 January - 31 December	Note	2016	2015
Amounts in NOK 1000			
Operating profit		549 771	4 784
Changes fair value financial instruments	9	(385 935)	363 948
Amortisation, depreciation and impairment changes	12	326 487	311 279
Changes in net working capital		(6 418)	108 216
Changes in other working capital		(136 792)	172 316
Interest payments received		5 441	76 300
Interest payments made		(59 723)	(48 606)
Income taxes paid		(14 461)	(1 348)
Cash flow from operating activities		**278 370**	**986 889**
Investments in property, plant and equipment and intangible assets	12	(208 210)	(448 093)
Sale of property, plant and equipment	12	2 425	545
Cash effect from merged companies		62 974	-
Acquisition of subsidiaries		(451 673)	(15 215)
Disposal of investment in subsidiaries and other companies		150	903
Increase / decrease in loans to joint ventures		-	-
Increase / decrease in loans to subsidiaries		(245 864)	(930 506)
Dividend		169 093	18 530
Cash flow from investing activities		**(671 105)**	**(1 373 836)**
Dividend	21	-	(1 900 000)
New loans raised		59 560	3 470 933
Repayment of loans		(97 810)	(559 896)
Cash flow from financing activities		**(38 250)**	**1 011 037**
Change in cash and cash equivalents		**(430 985)**	**624 090**
Currency exchange differences		(116)	186
Net change in cash and cash equivalents		**(431 101)**	**624 276**
Cash and cash equivalents Opening balance	**20**	**723 569**	**99 293**
Cash and cash equivalents Closing balance	**20**	**292 468**	**723 569**

Notes to the financial statement – Elkem AS

Amounts in NOK 1000

1 General information

Elkem AS is a company located in Norway, producing silicon, ferrosilicon and microsilica. The company is fully owned by Bluestar Elkem International Co. Ltd. S.A., Luxembourg.

2 Significant accounting policies

The financial statements have been prepared in accordance with the Norwegian Accounting Act and generally accepted accounting principles in Norway. The accounts are prepared on the basis of a going concern assumption.

Changes in accounting policies and classification

Changes in accounting policies are recognised directly in the equity, and the opening balance is adjusted as if the new accounting policy had always been applied. Last year's figures are changed correspondingly, for comparative purposes.

Elkem AS has changed the accounting principle for long-term power contracts settled in other currencies than the entity's functional currency. Under the old accounting practice, these contracts were recognised in their entirety on delivery according to the own use exemption. In a letter issued in June 2016, the Financial Supervisory Authority (FSA) of Norway stated that currency portion of these contracts is an embedded derivative that must be separated from the host contract and be accounted for separately as an independent derivative. Elkem AS has chosen to follow the new policy stated by the FSA. Comparative figures have been restated, see note 31 Changes in accounting policies.

Elkem has changed the presentation of gains and losses from commodity derivatives where hedge accounting is not applied, to be included in line item Other gains / losses related to operating activities. Elkem AS uses both currency and power derivatives to mitigate future fluctuations in cash flows. Previously the effect of fair value changes from commodity derivatives was presented as a finance income / expense and changes from currency derivatives as other gains / losses related to operating activities. Both types of derivatives are a part of Elkem's operational activities and a change in presentation gives a better overview of Elkem's operational performance and risks. Comparative figures have been restated, see note 31 Changes in accounting policies.

Accounting estimates

In the event of uncertainty, the best estimate is applied, based on the information available when the annual accounts are prepared. Estimates and underlying assumptions are reviewed on an ongoing basis. Revisions to accounting estimates are recognised in the period in which the estimates are revised and in any future periods affected. See note 3 Accounting estimates.

Foreign currency translation

Elkem AS functional currency is Norwegian Kroner (NOK). Transactions in currencies other than the entity's functional currency are translated using the transaction date's currency rate. If the currency exposure of a transaction is designated as part of a hedging relationship, realised effects from the associated hedging instrument is classified in the same line in the financial statements as the hedged transactions. Monetary items in foreign currencies are presented at the exchange rate applicable on the balance sheet date. Currency gains / losses related to operating activities, i.e. receivables, payables, bank accounts for operating purposes, are classified as a part of Operating profit (loss). As a result of this, currency effects included in Finance income and expenses are only related to loans and dividends.

Revenue recognition

Revenue is recognised when it is probable that transactions will generate future economic benefits for the company and the revenue and the related costs can be measured reliably. Revenue is measured at the fair value of the considerations received or receivable, net of any taxes, rebates and discounts. Revenue and expenses that relate to the same transaction are recognised simultaneously. When products are sold with warranties, the expected warranty amounts are recognised as expenses at the time of the sale, and are subsequently adjusted for any changes in estimates or actual outcome.

Revenue from sale of goods is recognised when the significant risk and reward of the ownership of the goods have passed to the buyer, according to the agreed delivery term for each sale. Delivery terms are based on Incoterms 2010 issued by International Chamber of Commerce, and the main terms are;
'F' terms, where the buyer arranges and pays for the main carriage. The risk and reward are passed to the buyer when the goods are handled over to the carrier engaged by the buyer.
'C' terms, where the group arranges and pays for the main carriage but without assuming the risk of the main carriage. The risk and reward are passed to the buyer when the goods are handled over to the carrier engaged by the seller.
'D' terms, where the group arranges and pays for the carriage and retain the risk and reward of the goods until delivery at agreed destination. The risk is transferred to the buyer upon arrival at agreed destination, usually the purchaser's warehouse.

Revenue from sale of services is recognised when the services has been provided.
External sales of electric power are recognised in income on the basis of the price agreed with the customer upon delivery.

Income from insurance settlements are recognised when it is virtually certain that the group will receive the compensation, and presented as other operating income. Interest income is recognised on accrual basis. Dividends are recognised when shareholders' right to receive dividends is determined by the shareholder's meeting. Sales revenues are presented net of VAT and discounts.

Investment in subsidiaries, associates and jointly controlled entities

Subsidiaries are companies in which Elkem AS has controlling interests, normally obtained when Elkem AS owns more than 50% of the shares.

Associates are those entities in which Elkem AS has significant influence, but no control, over the financial and operating policies. Significant influence is presumed to exist when Elkem AS holds between 20% and 50% of the voting power of another entity. Jointly controlled entities are those entities over whose activities Elkem AS has joint control, established by contractual agreement and requiring unanimous consent for strategic financial and operating decisions.

Subsidiaries

Interests in subsidiaries are recognised at cost less any write-down for impairment. An impairment loss is recognised if the impairment is considered not to be temporary.

Associates

Investments in associates are valued at cost and impairment loss is recognised if the carrrying amount exceeds the recoverable amount. The impairment is reversed if the basis for the write-down is no longer present.
Dividend received from associated companies are included in financial income.

Joint ventures

Elkem AS interests in jointly controlled entities, which operates within Elkem AS business areas (silicon, ferrosilicon and microsilica), are accounted for by proportionate consolidation. Elkem AS combines its share of the Joint ventures' individual income and expenses, assets and liabilities and cash flows on a line-by-line basis with similar items in the financial statements.

Elkem AS interests in joint controlled entities, which do not operate within Elkem AS business areas, are accounted for using the equity method. Under the equity method, the investment is initially recognised at cost, and the carrying amount is increased or decreased to recognise the investor's share of the profit or loss and other comprehensive income of the investee after the date of acquisition.

Intangible assets

Intangible assets are stated in the financial statement at cost less subsequent accumulated amortisation and subsequent accumulated impairment losses. Intangible assets with a finite useful life are amortised, using the straight-line method. The estimated useful life and amortisation method is reviewed at the end of each reporting period.

An intangible asset is derecognised on disposal, or when no future economic benefits from its use are expected to be derived. Gain or loss arising from derecognition of an intangible asset, measured as the difference between the net disposal proceeds and the carrying amount of the asset, is recognised in the income statement.

Expenditure on research activities is recognised as an expense in the period in which it is incurred. An intangible asset arising from an internal development project is recognised if the company can demonstrate technical feasibility in completing the intangible asset, has intention to complete it, ability to use it, can demonstrate that it will generate probable future economic benefits and the cost can be reliably measured.

Property, plant and equipment

Property, plant and equipment are presented at cost, less accumulated depreciations and any accumulated impairment losses. Construction in progress are carried at cost, less any recognised impairment loss. Such assets are classified to the appropriate class of property, plant and equipment when completed and ready for its intended use. Significant parts of an item of property, plant and equipment which have different useful life, are accounted for as separate items. Depreciation commences when the assets are ready for their intended use.

Initial costs include expenditures that are directly attributable to the acquisition of the asset. Self-constructed assets include cost of materials and direct labour, any other costs directly attributable to bringing the assets to working condition for their intended use, including estimated dismantling or removing charges if applicable, and capitalised borrowing costs.

Subsequent costs are included in the asset's carrying amount or recognised as a separate asset, as appropriate, when future benefits are probable and the cost can be measured reliably. The carrying amount of the replaced part is derecognised. Major periodic maintenance that is carried out less frequently than every year, is capitalised and depreciated over the period until the next periodic maintenance is performed. All other repairs and maintenance are charged to the income statement when incurred.

Depreciation is recognised using the straight-line method. The estimated useful life, residual values and depreciation method is reviewed at the end of each reporting period.

An item of property, plant and equipment is derecognised upon disposal or when no future economic benefits are expected to arise from the continued use of the asset. Any gain or loss arising on the disposal or retirement is determined as the difference between the sales proceeds and the carrying amount of the asset, and is recognised in the income statement.

Impairment of tangible and intangible assets

At the end of each reporting period, the carrying amounts of tangible and intangible assets are reviewed to determine whether there is any indication of impairment. If any such indications exist, the recoverable amount of the individual asset is estimated in order to determine the extent of the impairment loss/write-down. If it is not possible to estimate the recoverable amount of the individual asset, the recoverable amount of the lowest possible cash generating unit, to which the asset belongs, is estimated.

The recoverable amount is the higher of fair value less costs to sell, or its value in use. Value in use is the present value of the future cash flows expected to be derived from use of the cash generating unit, after taking into account all other relevant information.
If an impairment loss for assets other than goodwill is recognised in a previous period, the entity assesses whether there are indications that the impairment may have decreased or no longer exists. If so, the impairment loss / write-down is reversed, based on an updated estimate of the recoverable amount, but not exceeding the carrying amount that would have been determined had no impairment loss been recognised for the asset.

Leasing

Leases are classified as financial leases whenever the terms of the lease transfer substantially all the risks and rewards of ownership to the lessee. All other leases are classified as operating leases.

Assets held under finance leases are initially recognised as assets at the present value of the minimum lease payment. The corresponding liability to the lessor is included in the financial statements as a finance lease obligation.
Each lease payment is allocated between the liability and finance charges so as to achieve a constant rate on the obligation.

Non-derivative financial assets and liabilities

Purchases and sales of financial assets are recognised at the date of transaction on which Elkem AS is committed to the purchase or sale of the asset.

At initial recognition, the financial assets are carried in the balance sheet at fair value plus any transaction costs directly attributable to the acquisition or issue of the asset. Financial assets are derecognised once the right to future cash flows have expired or when substantially all risks and rewards related to control of the assets are transferred to a third party.

Financial assets with a maturity exceeding one year are classified as non-current financial assets. Short term investments that do not meet the definitions of a cash equivalent and financial assets with a maturity of less than one year are classified as current financial assets. Non-current financial assets are recognised and subsequently measured at cost less any impairment loss, if the impairment is assessed not to be temporary.

Financial assets classified as held for trading are assets that have been acquired for the purpose of selling in the near term. These assets are carried in the balance sheet at fair value with gains or losses recognised in the income statement.

Loans and receivables

Loans and receivables are non-derivative financial assets with fixed or determinable payments that are not quoted in a regulated market. They are recognised at amortised cost using the effective interest method. Gains and losses are recognised in the consolidated income statement when the loans and receivables are derecognised or impaired, as well as through the amortisation process. An impairment loss is recognised when the carrying amount exceeds the estimated recoverable amount.

The category includes operating receivables, deposits, guarantees and loans. These assets are classified in the balance sheet as non-current assets or other current assets, if the repayment schedule is less than one year.

Trade and other receivables

Trade and other receivables are recognised at nominal value less provisions for doubtful accounts.

Cash and cash equivalents

Cash and cash equivalents are held for the purpose of meeting short term fluctuations in liquidity, rather than for investment purposes. Cash and cash equivalents comprise cash fund and short term deposits. Bank overdrafts are shown within current interest bearing liabilities in the balance sheet. Elkem AS' deposits and drawings within the Group bank accounts are netted by offsetting deposits against withdrawals. The subsidiaries' deposits and drawings are classified as current assets / liabilities.

Derivative financial instruments

Derivatives are initially recognised at fair value on the date the derivative contracts are entered into, and are subsequently remeasured to their fair value at the end of the reporting period. The resulting gain or loss is recognised in the income statement immediately, unless when the derivative is designated and is effective as a hedging instrument. If the derivative is designated as a hedging instrument, timing of recognition in the income statement depends on the nature of the hedging relationship.

Embedded derivatives are separated from the host contract and booked at fair value, as an independent derivative.

Contracts for the entity's own use are contracts which are entered into and continue to be held for the purpose of the receipt of a non-financial item according to the company's usage requirements. This applies to power purchase contracts intended for use in the plant's production processes. Such contracts are booked in the income statement on realisation. Contracts for own use designated as a hedging instrument are booked at fair value, and the timing of recognition in the income statement depends on the timing of the effects of the hedged item.

Hedge accounting

Elkem AS may designate certain derivatives as hedging instruments for fair value hedges and cash flow hedges. At the inception of the hedge relationship, the entity documents the relationship between the hedging instrument and the hedged item, along with its risk management objectives and its strategy for undertaking various hedge transactions.

Fair value hedges

Changes in the fair value of derivatives that are designated and qualify as fair value hedges, are recognised in profit or loss immediately together with any changes in the fair value of the hedged asset or liability that are attributable to the hedged risk.

Cash flow hedges

The effective portion of changes in the fair value of derivatives that are designated and qualify as cash flow hedges, are recognised in the equity and accumulated under the heading of cash flow hedging reserve. The gain or loss relating to the ineffective portion is recognised immediately in the income statement. Gains / losses recognised in the equity are reclassified into Profit or Loss in the same period(s) as the hedged assets / liabilities.

When a hedging instrument expires or is sold, or when a hedge no longer meets the criteria for hedge accounting, any cumulative gain or loss existing in the equity at that time remains in equity and is recognised when the forecast transaction is ultimately recognised in the income statement. When a forecast transaction is no longer expected to occur, the cumulative gain or loss that was reported in equity is immediately transferred to the income statement.

Inventories

Inventories are recognised at the lowest of cost and net realisable value. The cost of inventory comprises of the costs incurred in bringing the goods to their current condition and location, such as raw materials, energy for smelting, direct labour, other direct costs and production overhead costs based on normal capacity. Net realisable value represents the estimated selling price for inventories less estimated costs of completion and variable selling expenses.

Cost of goods sold is included in different lines in the income statement based on nature; Raw materials and energy for smelting, Employee benefits and Other operating cost, for the remaining part.

Taxation

Income taxes

Current tax assets and liabilities are measured at the amount expected to be recovered or paid to the tax authorities. Current tax payable includes any adjustment to tax payable in respect of previous years. Income tax is recognised in the income statement except to the extent that it relates to items recognised directly in equity. Income tax relating to items recognised directly in equity is recognised in equity, not in the income statement.

Uncertain tax positions are included when it is probable that the tax position will be sustained in a tax review, and provisions are made relating to uncertain or disputed tax positions at the amount expected to be paid. The provision is reversed when the disputed tax position is settled in favour of the entity and can no longer be appealed.

Deferred tax

Deferred tax assets and liabilities are calculated using the liability method with full allocation for all temporary differences between the tax base and the carrying amount of assets and liabilities in the financial statements, including tax losses carried forward. Deferred tax relating to items outside profit or loss is recognised outside profit and loss. Deferred tax items are recognised in correlation to the underlying transaction either in other profit and loss or directly in equity. If the temporary difference arises from the initial recognition of goodwill, the deferred tax assets and liabilities are not recognised.

Deferred tax assets are recognised in the statement of financial position to the extent it is more likely than not that the tax assets will be utilised. The enacted tax rate at the end of the reporting period and undiscounted amounts are used. Deferred tax assets and liabilities are offset if there is a legally enforceable right to offset current tax liabilities and assets.

Employee benefits

Defined contribution plans

Defined contribution plans comprise arrangements whereby the company makes monthly contributions to the employees' pension plans, and where the future pensions are determined by the amount of the contributions and the return on the pension plan asset. The company's contribution constitutes from 4% to 8% of the basic salary between 1 and 12G (G refers to the Norwegian national insurance scheme's basic amount in, amounting to NOK 92 576 for 2016). A separate contribution plan is established for salaries above 12G. Payments related to the contribution plans are expensed as incurred, as a part of Employee benefit expenses.

Defined benefit plans

Defined benefit plans are recognised at present value of future liabilities considered retained at the end of the reporting period. Plan assets are recorded at fair value. Changes in benefit liabilities due to changes in benefit plans, are distributed over average remaining contribution time. Actuarial gains / losses due to changes in financial and actuarial assumptions are recognised directly in the equity. Net pension benefit costs are classified as part of Employee benefit expenses. Net interest on pension liabilities / assets are presented as a part of Finance expenses.

Provisions

A provision is recognised when a present obligation exists and it is probable that an outflow of resources is required to settle the obligation. The amount recognised is the best estimate of the consideration required to settle the obligation, taking into account the risks and uncertainties surrounding the obligation, known at the end of the reporting period. Provisions are measured at present value, unless the time value is assessed to be immaterial.

Grants

Grants are recognised when there is reasonable assurance that Elkem AS will comply with the conditions attaching them, and that the grants will be received. Grants are recognised in the income statement over the periods necessary to match them with the cost they are intended to compensate.

Contingent assets and liabilities

Contingent assets are not recognised, but presented in the notes if probable. Contingent liabilities are liabilities that are not recognised because they are possible obligations that have not yet been confirmed, or they are present obligations where an outflow of resources are not probable. Any significant contingent liabilities are disclosed in the notes.

Events after the reporting period

Events after the reporting period related to Elkem AS' financial position at the end of the reporting period, are considered in the financial statement. Events after the reporting period that have no effect on the company's financial position at the end of the reporting period, but will have effect on future financial position, are disclosed if the future effect is material.

3 Accounting estimates

In the event of uncertainty, the best estimate is applied, based on the information available when the annual accounts are prepared.

Property plant and equipment

The estimated useful life, residual values (if any) and depreciation method is reviewed, and if necessary adjusted, at least annually.

Deferred tax assets

Elkem AS performs annual tests for impairment of deferred tax assets. Part of the basis for recognising deferred tax assets is based on applying the loss carried forward against future taxable income in the group. This requires the use of estimates when calculating future taxable income.

Financial instruments

Elkem AS holds financial instruments such as forward exchange contracts, commodity contracts and embedded derivatives, EUR derivatives separated from commodity contracts nominated in EUR, which are booked according to hegde accounting principles. Other commodity contracts are booked at the lower of cost and fair value. Fair value for the contracts are based on observable prices and assumptions derived from observable prices for comparable instruments. Net booked value contracts booked at fair value as at 31 December 2016 is in total negative NOK 118 million, see note 27 Financial instruments for more information.

4 Operating income

By type	2016	2015
Revenue from sale of goods [1]	5 384 881	5 817 613
Revenue from sale of goods - group	1 232 236	1 050 606
Other operating revenue	211 730	176 392
Other operating revenue - group	72 000	110 645
Total revenue	6 900 847	7 155 256
Other operating income	110 132	123 166
Total operating income	**7 010 979**	**7 278 422**

[1] Included in Revenue from sale of goods is sale of power NOK 385,294 thousand in 2016 and 336,911 thousand in 2015.

Operating income by geographic market	2016	2015
Nordic countries	1 375 392	1 188 335
United Kingdom	354 075	346 035
Germany	1 343 490	1 607 258
France	610 055	561 789
Italy	334 463	367 575
Poland	158 394	183 433
Luxembourg	286 893	433 827
Switzerland	12 379	9 895
Netherlands	41 010	79 523
Other European countries	606 087	598 221
Europe	**5 122 238**	**5 375 891**
Africa	**16 988**	**16 246**
North America	541 691	549 211
South America	31 463	24 644
America	**573 154**	**573 855**
China	108 462	78 321
Japan	447 553	419 751
South Korea	437 838	314 405
Other Asian countries	291 179	492 328
Asia	**1 285 032**	**1 304 805**
The rest of the world	**13 567**	**7 625**
Total operating income	**7 010 979**	**7 278 422**

Details of other operating income	2016	2015
Sale of fixed assets	2 364	440
Insurance settlement	249	1 512
Received grants [1]	107 520	121 214
Total other operating income	**110 132**	**123 166**

1) See note 29 Grants.

5 Employee benefit expenses

	2016	2015
Salaries and other benefits	(764 226)	(767 538)
Employer's national insurance contribution	(96 613)	(89 771)
Employee retirement benefits [1]	(44 008)	(42 066)
Other payements / benefits	(8 091)	(3 108)
Salary, wages and other compensation	**(912 939)**	**(902 483)**

[1] See note 6 Retirement benefits.

In 2016 the number of full time equivalent employees in Elkem AS was 1,042. In 2015 the number was 1,053.

Salary and other compensations above include the following compensations

Compensation to members of the board	2016	2015
Payment to board members in total	(489)	(489)

Senior staff compensation
Helge Aasen is the CEO of Elkem AS.

Salary and other compensations to the CEO	2016	2015
Salary, including holiday pay	(5 111)	(4 676)
Bonus [1]	(3 148)	(3 095)
Free car	(130)	(130)
Other compensation	(28)	(35)
Pension cost	(640)	(475)

[1] In addition to the perfomance bonus, in 2016 a strategic project bonus of NOK 407 thousand and a ChemChina award of NOK 604 thouseand were paid. In 2015 bonus payment included a 25 years anniversary payment of NOK 228 thousand and a ChemChina award of NOK 681 thousand.

Retirement age for the CEO is 65-70 years. Pension from the age of 70 and other pensions regarding spouse, children and disability are paid in accordance with the general pension policy of the company. In addition to the general pension policy of the company, CEO is entitled to an annual early retirement pension from the age of 65, of 60% of pensionable salary.

The CEO is also entitled to a performance bonus equivalent to maximum 100 per cent of the base salary, based on the company performance. The following applies for the CEO upon termination by the company:

Termination payment equal to 12 months' salary is to be paid on the last working day, severance payment equivalent to 18 months' salary.

Loans and guarantees to employees
There are no loans or guarantees to board members or the CEO.

6 Retirement benefits

Defined contribution plan
Pension for employees in Elkem AS are mainly covered by pension plans that are classified as contribution plans.

Defined contribution plans comprise arrangements whereby the company makes annual contributions to the employees' pension plans, and where the future pension is determined by the amount of the contributions and the return on the individual pension plan assets.

Contribution plans also comprise pension plans that are common to several companies and where the pension premium is determined independently of the demographic profile in the individual companies (multiemployer plans).

The early retirement scheme, effective from 2011, 'ny AFP-ordning' is defined as a multi-employer plan and cost are accounted for based on annual premiums from 'Fellesordningen for AFP' (separate legal entity). The plan is accounted for as a defined contribution plan, as the plan's administrator has not been able to calculate the pension obligation for each entity participating in the plan.

All defined benefit plans are unfunded and relate to closed retirement schemes, closed individual and retirement schemes and pension on salary above 12G.

Net interest is calculated based on pension liability at the start of the period multiplied by the discount rate and are presented as a part of Financial expenses. Actuarial gains / losses for the defined benefit plans are recognized directly in equity.

The company's retirement schemes meet the minimum requirement in the Norwegian Act of Mandatory Occupational Pension.

Breakdown of net pension expenses	2016	2015
Current service expenses	(1 692)	(1 735)
Accrued employer's national insurance contribution	(203)	(390)
Net pension expenses, defined benefit plan	**(1 895)**	**(2 125)**
Defined contribution plan	**(30 355)**	**(28 223)**
Early retirement scheme (AFP)	**(11 758)**	**(11 718)**
Total pension cost	**(44 008)**	**(42 066)**

Calculated pension obligation	2016	2015
Present value of pension obligation (PBO)	(65 405)	(66 532)
Fair value of plan assets	-	-
Net unfunded pension obligation	**(65 405)**	**(66 532)**
Active participants in pension scheme for salary above 12G	52	51
Retired participants	77	77

Summary of pension obligation and actuarial gain / losses	2016	2015
Pension obligations	(65 405)	(66 532)
Changes in actuarial gains / (losses) recognised in Equity / Deferred tax	(1 765)	(2 602)
Total actuarial gains / (losses) recognised in Equity / Deferred tax as of 31 December	**(13 224)**	**(11 459)**

Economical assumptions	2016	2015
Discount rate [1)]	2.0%	2.5%
Change in public pension rate (G)	2.0%	2.25%
Annual regulation of pensions paid	1.0%	1.0%

[1)] The discount rate is based on high quality corporate bonds reflecting the timing of the benefit payments.

The company's chosen assumptions are in line with 'Guide to Pension Assumptions' published by The Norwegian Accounting Standard Board, September 2016.

7 Other operating expenses

	2016	2015
Travel expenses	(42 109)	(42 940)
Machinery, tools, fixtures and fittings	(250 210)	(254 204)
Repair, maintenance and other operating expenses	(117 246)	(123 146)
Other external expenses (fees, transport, IT services, etc.)	(228 845)	(231 687)
Loss on accounts receivable	(6 388)	(983)
Other energy and fuel expenses	(81 287)	(56 266)
Commission expenses	(83 918)	(79 650)
External distribution expenses	(415 343)	(436 617)
Rental/leasing expenses [1)]	(47 369)	(50 300)
Miscellaneous manufacturing, administration and selling expenses	(207 931)	(160 767)
Total other operating costs	**(1 480 646)**	**(1 436 560)**

[1)] See note 8 Operating lease.

In 2016 Elkem AS expensed NOK 57,571 thousand (in 2015 NOK 79,177 thousand) related to research and development, which are included in the figures above. Grants received relating to research and development amount to NOK 20,614 thousand for 2016 (for 2015 NOK 19,232 thousand) are included in other operating income.

Audit and other services	2016	2015
KPMG		
Audit fee	(1 939)	-
Other services	(1 268)	-
PwC and other audit firms		
Audit fee	(1 442)	(3 180)
Other assurance services	(258)	(719)
Tax services	(626)	(144)
Other services	(79)	(6)
Total audit fees	**(5 611)**	**(4 049)**

Fees to auditors are reported exclusive of VAT.

8 Operating lease

2016	Machinery and plant	Land, buildings and other properties	Equipment, furniture, systems and vehicles	Total
Lease expenses 2016	(9 532)	(36 137)	(1 700)	**(47 369)**
Lease in accordance with contract due:				
Within one year	(474)	(15 427)	(758)	**(16 660)**
In the second to fifth year inclusive	(277)	(46 171)	(1 955)	**(48 403)**
Over five years	-	(28 821)	-	**(28 821)**

2015	Machinery and plant	Land, buildings and other properties	Equipment, furniture, systems and vehicles	Total
Lease expenses 2015	(7 560)	(38 405)	(4 335)	**(50 300)**
Lease in accordance with contract due:				
Within one year	(1 140)	(15 303)	(926)	**(17 369)**
In the second to fifth year inclusive	(1 463)	(46 284)	(2 404)	**(50 151)**
Over five years	-	(48 180)	-	**(48 180)**

9 Other gains / losses related to operating activities

	2016	2015
Realised currency gains / (losses) from forward contracts	(149 081)	(118 956)
Unrealised currency gains / (losses) from forward contracts	412 099	(318 742)
Other currency gains / (losses) operational	(23 480)	(6 822)
Realised effects other financial instruments [1]	(26 506)	(47 450)
Unrealised effects other financial instruments [2]	8 091	(163 338)
Ineffectiveness on cash flow hedges power	342	2 244
Other gains / losses related to operating activities	**221 465**	**(653 064)**

[1] Other financial instruments consist of power contracts and embedded derivatives EUR. See note 27 Financial instruments for more information.

[2] The amount for 2015 includes effects from power contracts swap and embedded derivatives EUR. The contracts are booked according to hedge accounting principles from 1 January 2016.

10 Finance income and expenses

	2016	2015
Interest income [1]	3 371	34 290
Interest income - group	50 509	42 353
Dividend	1 550	75
Other financial income	352	3
Total finance income	55 782	76 721
Interest expenses [2]	(63 941)	(37 837)
Interest expenses - group	(21 157)	(22 263)
Interest expenses net pension liabilities	(2 310)	(1 821)
Other financial expenses	(2 553)	(2 978)
Total finance expenses	(89 961)	(64 899)
Net foreign currency exchange gain / loss [3]	103 227	142 031
Net finance income / (expenses)	**69 048**	**153 853**

1) The change in interest income from 2015 to 2016 is mainly related to the sale of receivable on Elkem Solar AS on 19 June 2015.

2) The change in interest expenses from 2015 to 2016 is mainly related to the new external long-term loans entered into in September and November 2015.

3) Foreign exchange gain / loss in 2016 and 2015 is mainly related to gains on the new group loans to Bluestar Silicones International Co. Ltd. S.à.r.l. and loss on the bank loans in EUR.

11 Taxes

Income tax recognised in profit or loss	2016	2015
Current tax expenses	(34 019)	(16 417)
Previous year tax adjustment	1 885	(1 305)
Deferred tax	(114 786)	(61 749)
Total tax expenses recognised in profit	**(146 920)**	**(79 471)**

The table below shows the reconciliation of accounting profit and tax expense. Accounting profit is multiplied by the applicable tax rate.

	2016	2015
Profit before tax	**731 855**	**288 855**
Applicable tax rate Norway	25%	27%
Tax expense at applicable tax rate	(182 964)	(77 991)
Permanent differences		
Tax effect of income from Norwegian controlled foreign companies (NOKUS)	(6 619)	(6 741)
External gain / loss on shares within the Tax exemption method	-	2 824
Dividend within the Tax exemption method	16 886	5 172
Debt conversion [1]	11 775	-
Tax effect merger [2]	8 729	-
Impairment of shares / reversal of impairment	(981)	(269)
Tax effects other permanent differences	(1 390)	619
Other effects		
Previous year tax adjustment	(2 453)	(1 229)
Tax effect change in corporate tax rate [3]	5 759	(551)
Other current tax paid	4 338	(1 305)
Income tax for the year	**(146 920)**	**(79 471)**
Effective tax rate	20%	28%

[1] Elkem AS has four debt forgiveness agreements with Bluestar Silicones France SAS that Elkem AS received in connection with the merger with Bluestar Silicones International Co. Ltd. S.a.r.l. Nominal value of the agreements as of 31 December are NOK 1,299 million (EUR 143 million), book value NOK 0. Bluestar Silicones France SAS has repaid NOK 47 million under this agreement in 2016, the gain is classified as income from subsidiaries. Effect of repayment is tax exempted.

[2] Elkem AS merged with Bluestar Silicones International Co. Ltd. S.a.r.l. with tax effect as at 31 August 2016. The gain in the period 1 January to 31 August, NOK 35 million mainly currency effects, is tax exempted.

[3] The effect relates mainly to changes in tax rate from 25% to 24% in Norway from 2017 and in 2015 changes in tax rate from 27% to 25% from 2016. The changes in tax rates were approved by the governments before year end the respective years.

Deferred tax assets and deferred tax liabilities	31.12.2016	31.12.2015
Cash flow hedges recognised in other comprehensive income	(21 431)	23 879
Property, plant, equipment and intangible asset	(133 197)	(112 214)
Pension fund	15 492	15 197
Other differences	57 128	164 931
Accounts receivable	258	7
Inventory	(42 417)	(53 025)
Provisions	(3 800)	(5 323)
Deferred tax assets (liabilities)	**(127 967)**	**33 452**

Deferred tax	31.12.2016	31.12.2015
Opening balance - net deferred tax assets (liabilities)	33 452	96 354
Charged to Profit and Loss	(114 786)	(61 749)
Changes in deffered tax hedges charge to equity	(45 310)	(1 648)
Changes in actuary gains/losses charged to equity	309	475
Other items charged to equity	(1 615)	-
Foreign currency exchange differences	(17)	20
Net deferred tax assets (liabilities)	**(127 967)**	**33 452**

12 Property, plant and equipment and intangible assets

Property, plant and equipment

2016	Land and other property	Buildings	Machinery and plants	Equipment, furniture and transport-vehicles	Construction in progress	Total
Opening balance Net booked value 2016	**23 120**	**444 587**	**1 079 677**	**43 344**	**277 056**	**1 867 784**
Additions	-	-	45	8	264 530	264 583
Disposals	-	(50)	-	(11)	-	(61)
Transferred from CiP	3 390	65 263	284 452	6 949	(360 054)	-
Impairment losses	-	(6 897)	(1 118)	(37)	-	(8 052)
Depreciation expenses	(2 374)	(44 111)	(164 759)	(10 064)	-	(221 307)
Foreign currency exchange differences	-	-	(10)	(1)	-	(11)
Closing balance Net booked value 2016	**24 136**	**458 792**	**1 198 287**	**40 188**	**181 532**	**1 902 936**
Fixed assets under financial leasing included in Net booked value	21 193	-	-	1 378	-	22 571
Historical cost	61 350	1 201 761	3 513 783	117 499	181 532	5 075 926
Accumulated depreciation	(36 071)	(732 474)	(2 255 437)	(77 177)	-	(3 101 159)
Accumulated impairment losses	(1 144)	(10 494)	(60 059)	(134)	-	(71 831)
Closing balance Net booked value 2016	**114 078**	**1 431 076**	**1 198 287**	**40 188**	**181 532**	**5 909 087**
Estimated useful life	0-50 years	5-40 years	3-30 years	3-20 years		
Depreciation plan	Straight-line	Straight-line	Straight-line	Straight-line		

Depreciations start when the asset is ready for use. Land is not depreciated.

2015	Land and other property	Buildings	Machinery and plants	Equipment, furniture and transport-vehicles	Construction in progress	Total
Opening balance Net booked value 2015	**22 166**	**454 639**	**1 021 761**	**45 491**	**139 699**	**1 683 756**
Additions	259	-	1 793	1 258	396 217	399 527
Disposals	-	(411)	(34)	(122)	-	(567)
Transferred from CiP	3 494	33 959	214 763	6 644	(258 860)	-
Impairment losses	-	(122)	(1 593)	(99)	-	(1 814)
Depreciation expenses	(2 799)	(43 478)	(157 033)	(9 824)	-	(213 134)
Foreign currency exchange differences	-	-	20	(4)	-	16
Closing balance Net booked value 2015	**23 120**	**444 587**	**1 079 677**	**43 344**	**277 056**	**1 867 784**
Fixed assets under financial leasing included in Net booked value	24 313	-	-	-	-	24 313
Historical cost	63 388	1 143 137	3 286 202	116 733	277 056	4 886 516
Accumulated depreciation	(39 124)	(694 055)	(2 142 868)	(73 263)	-	(2 949 310)
Accumulated impairment losses	(1 144)	(4 494)	(63 658)	(126)	-	(69 422)
Closing balance Net booked value 2015	**23 120**	**444 587**	**1 079 677**	**43 344**	**277 056**	**1 867 784**
Estimated useful life	0-50 years	5-40 years	3-30 years	3-20 years		
Depreciation plan	Straight-line	Straight-line	Straight-line	Straight-line		

Intangible assets

2016	Other intangible assets	IT systems and programmes	Intangible assets under construction	Total intangible assets
Opening balance Net booked value 2016	**402 224**	**110 650**	**10 824**	**523 698**
Additions	-	1 338	2 486	3 824
Reclassification / Transferred from CiP	-	2 637	(2 637)	-
Reversal of impairment losses	-	-	-	-
Amortisation	(80 447)	(16 682)	-	(97 128)
Closing balance Net booked value 2016	**321 778**	**97 943**	**10 673**	**430 394**
Historical cost	805 339	210 162	10 673	1 026 174
Accumulated amortisation	(483 561)	(112 219)	-	(595 780)
Closing balance Net booked value 2016	**321 778**	**97 943**	**10 673**	**430 394**
Estimated useful life	3-10 years	3-10 years		
Amortisation plan	Straight-line	Straight-line		

The book value of the power contract against Statkraft as of 31 December 2016 is NOK 320 million and the notional amount is NOK 1,810 million.

2015	Other intangible assets	IT systems and programmes	Intangible assets under construction	Total intangible assets
Opening Balance Net Booked Value 2014	**482 386**	**117 698**	**9 123**	**609 207**
Additions	279	8 089	2 454	10 822
Reclassification / Transferred from CiP	-	753	(753)	-
Reversal of impairment losses	-	-	-	-
Amortisation	(80 441)	(15 890)	-	(96 331)
Closing balance Net booked value 2015	**402 224**	**110 650**	**10 824**	**523 698**
Historical cost	805 340	207 169	10 824	1 023 333
Accumulated amortisation	(403 116)	(96 519)	-	(499 635)
Closing balance Net booked value 2015	**402 224**	**110 650**	**10 824**	**523 698**
Estimated useful life	3-10 years	3-10 years		
Amortisation plan	Straight-line	Straight-line		

The book value of the power contract against Statkraft as of 31 December 2015 is NOK 400 million and the notional amount is NOK 2,238 million.

13 Investments in subsidiaries

Investment in subsidiaries of Elkem AS as of 31 December 2016:

Owned by Elkem AS	Country	Owner share Vote rights (%)	Equity 31.12.16	Profit 31.12.16	Book value 31.12.16
Elkem Carbon AS	Norway	100%	677 822	167 703	112 915
Elkem Chartering Holding AS	Norway	80%	2 027	15 240	747
Elkem Distribution Center B.V.	Netherland	100%	18 052	870	186
Elkem Foundry (China) Ltd. Co [3]	China	100%	38 768	(544)	39 067
Elkem Foundry Invest AS	Norway	100%	76 542	(9 595)	74 163
Elkem GmbH	Germany	100%	13 019	1 833	1 309
Elkem Iberia SLU	Spain	100%	5 188	1 717	476
Elkem Iceland Ltd.	Iceland	100%	1 550 540	(63 441)	783 790
Elkem International AS	Norway	100%	70 402	16 600	5 427
Elkem International Trade (Shanghai) Co. Ltd. [1]	China	11%	139 313	8 775	558
Elkem Japan K.K	Japan	100%	81 272	6 556	15
Elkem Ltd.	England	100%	3 612	(727)	18 983
Elkem Materials Processing (Tianjin) Co.,Ltd.	China	100%	2 764	319	793
Elkem Materials Processing Services BV	Netherland	100%	5 224	358	962
Elkem Metal Canada Inc	Canada	100%	833 433	102 936	5 870
Elkem Milling Services GmbH	Germany	100%	23 579	4 966	12 486
Elkem Nordic A.S.	Denmark	100%	5 615	658	5 139
Elkem Oilfield Chemicals FZCO	Dubai	51%	72 817	51 514	12 546
Elkem Rana AS [2]	Norway	100%	300 457	4 461	355 094
Elkem S.a.r.l.	France	100%	12 538	240	-
Elkem S.r.l.	Italy	100%	23 213	3 719	6 397
Elkem Singapore Materials Pte. Ltd.	Singapore	100%	28 953	6 405	46
Elkem South Asia Private Limited	India	100%	119 456	7 437	33 563
NEH LLC	USA	100%	306 278	7 204	97 506
Nor-Kvarts AS [4]	Norway	100%	37 963	445	59 810
Elkem Madencilik Metalurji Sanayi Ve Ticaret Ltd. STI [1]	Turkey	1%	5 224	358	77
Bluestar Silicones France SAS [5]	France	100%	2 089 936	93 500	2 147 832
Bluestar Silicones Services S.à.r.l [5]	France	100%	(19 646)	9 010	-
Bluestar Siliconas España S.A.U [5]	Spain	100%	120 111	1 535	125 444
Bluestar Siliconi Italia S.r.l [5]	Italy	100%	31 936	9 705	23 998
Bluestar Silicones Germany GmbH [5]	Germany	100%	135 169	13 044	129 657
Bluestar Silicones (UK) Ltd. [5]	United Kingdom	100%	54 367	5 939	60 227
Bluestar Silicones USA Corp. [5]	USA	100%	253 590	(523)	260 294
Bluestar Silicones Canada Corp. [5]	Canada	100%	11 081	5 175	5 824
Bluestar Silicones Brasil Ltda [5]	Brasil	100%	19 750	21 057	23 009
Bluestar Silicones Finland OY [5]	Finland	100%	9 518	(80)	10 201
Bluestar Silicones Scandinavia AS [5]	Norway	100%	17 619	2 090	15 188
Bluestar Silicones Poland p. z o.o [5]	Poland	100%	5 653	2 315	3 712
Bluestar Silicones Czech Republic s.r.o [5]	Czech Republic	100%	4 563	2 504	2 226
Bluestar Silicones Shanghaï Co. Limited [5]	China	100%	107 205	9 220	107 382
Bluestar Silicones Hong Kong Trading Co. Limited [5]	Hong Kong	100%	104 417	4 769	101 968
Total subsidiaries					**4 644 888**

[1] Elkem AS and subsidiary owns 100% of Elkem Madencilik Metalurji Sanayi Ve Ticaret Ltd. and Elkem International Trade (Shanghai) Co. Ltd.

[2] Elkem AS acquired 100% of the shares 1 December 2016. Elkem Rana is a producer of standard and speciality ferrosilicon and microsilica.

[3] The company was establised during 2016.

[4] The remaining 33.3% of the shares was purchased in December 2016 changing the ownership from 66.67% in 2015 to 100% at de end of 2016.

[5] On 1 January 2016 Bluestar Silicones International S.à.r.l merged with Elkem AS making all the subsidiaries of Bluestar Silicones International subsdiaries of Elkem AS.

Income on investments in subsidiaries	2016	2015
Dividend from subsidiaries	114 643	19 758
Income on disposal [1]	1 250	17 557
Group contribution received	-	100 000
Total income	**115 893**	**137 315**

[1] In January 2015 Hoffsveien 65 B AS was liquidated. The liquidation resulted in a gain of NOK 8,989 thousand. In August Finanz AG was liquidated and resulted in a gain of NOK 8,568 thousand. In January 2016 Dehong Ltd. was liquidated resulting in a gain of NOK 1,250 thousand.

Write-down / reversal of write-down on investments in subsidiaries	2016	2015
Write-down subsidiaries	(2 857)	-
Total write-down	**(2 857)**	**-**
Net gain/loss from investments in subsidiaries	**113 036**	**137 315**

14 Investments in joint ventures

	Company address	Country	Owner share Voting rights 2016	Owner share Voting rights 2015	Accounting method
Elkania DA	Hauge i Dalane	Norway	50%	50%	Proportionate
Dehong Elkem Materials Co. Ltd. [1]	Wanding, Dehong	China	-	50%	Proportionate

[1] The company was liquidated in 2016.

Main figures for the investments accounted for by equity method. The figures are Elkem AS portion

	2016	2015 [1]
Total interest in joint ventures 1 January	**-**	**886 737**
Acquired shares in Joint ventures/change of ownership	-	-
Sale of shares in joint ventures	-	(883 062)
Share of profit	-	(111 935)
Share of other comprehensive income	-	(2 536)
Transferred from equity	-	5 958
Gain on sale of shares in joint ventures	-	104 838
Total interest in joint ventures 31 December	**-**	**-**

[1] Elkem Solar Holding S.a.r.l went from 100% owned on 7 March 2014 to 50% owned. Share of profit in 2014 is for the period 1 March to 31 December 2014. In 2015 the last 50% share was sold on 19 June 2015 to Bluestar Elkem Investment Co. Ltd. Elkem AS share of the loss (NOK 111,935 thousand) in Elkem Solar S.à.r.l is for the period from 1 January to 18 June 2015. The sales resulted in a gain for Elkem Group of NOK 104,838 thousand. The net profit of NOK 7,097 thousand is presented as Income from joint ventures.

Note 14 continues >

Main figures for the investments accounted for by proportionate consolidation. The figures are the Elkem AS portion.

	Dehong Elkem Materials Co. Ltd.	Elkania DA	Total 2016
Current assets	-	14 199	14 199
Non-current assets	-	5 028	5 028
Current liabilities	-	15 412	15 412
Non-current liabilities	-	7 566	7 566
Net assets	-	(3 751)	(3 751)
Total revenue	-	5 390	5 390
Total expenses	(598)	(5 172)	(5 770)
Financial items	-	(155)	(155)
Tax	(142)	(98)	(240)
Total profit for the year	(739)	(35)	(774)

	Dehong Elkem Materials Co. Ltd.	Elkania DA	Total 2015
Current assets	1 948	11 352	13 300
Non-current assets	161	5 628	5 789
Current liabilities	(793)	13 383	12 590
Non-current liabilities	(178)	7 313	7 135
Net assets	3 081	(3 716)	(635)
Total revenue	1 426	3 348	4 774
Total expenses	(1 287)	(5 893)	(7 180)
Financial items	-	(189)	(189)
Tax	(30)	(90)	(120)
Total profit for the year	109	(2 824)	(2 715)

15 Investments in associates and other companies

	Owner share (%)	Book value 31.12.2016	Book value 31.12.2015
Elkem Chartering AS	25.0%	8 529	8 529
Alcoa	0.4%	2 715	2 900
Teknova AS	5.9%	333	1 583
LEAN Senteret Helgeland AS	18.5%	200	200
Other companies	-	892	1 042
Total investments in associates and other companies		**12 669**	**14 254**

16 Other non-current assets

	31.12.2016	31.12.2015
Long-term deposit pension guarantee	17 905	16 780
Pension contribution fund, long-term	2 760	6 160
Loans to joint arrangements	7 098	6 943
Non-current interest-bearing receivable - group [1]	717 922	3 249 207
Other non-current assets	14 548	1 218
Total other non-current assets	**760 233**	**3 280 308**

[1] See note 28 Related party transactions.

17 Inventories

	31.12.2016	31.12.2015
Finished goods	661 925	677 226
Work in progress	197 566	226 015
Raw materials	171 828	210 013
Operating materials and spare parts	151 018	139 409
Total inventories	**1 182 337**	**1 252 663**

As of 31 December 2016 inventories were written down by NOK 14,356 thousand As of 31 December 2015 inventories were written down by NOK 2,069 thousand.

18 Accounts receivable

	31.12.2016	31.12.2015
Accounts receivable	551 309	621 728
Short-term receivables - group	244 800	179 920
Provision for doubtful accounts	(6 367)	(700)
Total accounts receivable	**789 742**	**800 948**

The following is an analysis of gross accounts receivable by age, presented based on the due date

	31.12.2016	31.12.2015
Not due	708 552	710 333
1 - 30 days	60 573	69 438
31 - 60 days	3 524	11 983
61 - 90 days	7 308	2 549
More than 90 days	16 151	7 345
Total accounts receivable	**796 109**	**801 648**

Elkem applies for credit insurance for all customers when this can be obtained. In cases where credit insurance coverage is refused, other methods of securing the sales income are used. Other methods used for securing the sales are, among others, prepayment, letter of credit, documentary credit, guarantee etc.

Note 18 continues >

Movement in allowance for doubtful debts	31.12.2016	31.12.2015
Opening balance	(700)	(209)
Impairment losses recognised on receivables	(5 680)	(700)
Reversed impairment losses	13	209
Balance as of 31 December	**(6 367)**	**(700)**

The following is an analysis of current receivables that are past due date and written-down, by age:

Overdue by	31.12.2016	31.12.2015
less than 90 days	(3 292)	(13)
61 - 90 days	(2 203)	-
more than 90 days	(872)	(687)
Total receivables written-down	**(6 367)**	**(700)**

19 Other current assets

	31.12.2016	31.12.2015
Pension contribution fund, short term part [1]	5 214	10 120
CO_2 Compensation from Norwegian Environment Agency [2]	66 581	65 004
Grants [2]	47 096	68 912
VAT receivables	79 543	71 015
Prepayments	14 875	30 206
Receivable group entities related to Group bank accounts	68 744	102 379
Receivable group contribution	-	100 000
Other current assets	8 100	8 741
Total other current assets	**290 154**	**456 377**

[1] See note 6 Retirement benefits.
[2] See note 29 Grants.

20 Cash and cash equivalents

	31.12.2016	31.12.2015
Cash and bank balances	292 468	723 569
Cash and cash equivalents	**292 468**	**723 569**

21 Equity

Changes in equity

2016	Share capital	Other paid in capital	Total paid in capital	Fund	Other equity	Total retained earnings	Total equity
Equity 31.12.15	**2 010 000**	**1 078 203**	**3 088 203**	**2 311**	**552 324**	**554 635**	**3 642 838**
Hedging	-	-	-	-	144 347	**144 347**	**144 347**
Actuarial gain / loss	-	-	-	-	(1 458)	**(1 458)**	**(1 458)**
Currency translation Joint ventures	-	-	-	(2 311)	927	**(1 384)**	**(1 384)**
Merger [1]	-	-	-	-	3 596	**3 596**	**3 596**
Profit for the year	-	-	-	-	584 935	**584 935**	**584 935**
Equity 31.12.16	**2 010 000**	**1 078 203**	**3 088 203**	**-**	**1 284 671**	**1 284 671**	**4 372 874**

[1] See note 30 Merger Elkem AS and subsidiaries.

Fund

Fund is valuation variances in conjunction with Dehong who is consolidated by proportionate consolidation. The company was liquidated in 2016.

Shareholders

Elkem AS is the parent company of Elkem AS group. As of 31 December 2016 Elkem AS was 100% owned by Bluestar Elkem International Co. Ltd. S.A. Elkem AS has its registered company address at Drammensveien 169, 0277 Oslo, Norway.

Share capital

Share capital as of 31 December 2016 in Elkem AS is NOK 2,010,000 thousand, divided in 1 share.

Changes in equity

2015	Share capital	Other paid in capital	Total paid in capital	Fund	Other equity	Total retained earnings	Total equity
Equity 31.12.14	**2 010 000**	**3 295 203**	**5 305 203**	**1 903**	**378 615**	**380 518**	**5 685 721**
Effect of changes in accounting policy [2]	-	-	-	-	(34 350)	**(34 350)**	**(34 350)**
Balance 1.1.2015	**2 010 000**	**3 295 203**	**5 305 203**	**1 903**	**344 265**	**346 168**	**5 651 371**
Hedging	-	-	-	-	(2 619)	**(2 619)**	**(2 619)**
Actuarial gain / loss	-	-	-	-	(2 127)	**(2 127)**	**(2 127)**
Currency translation Joint ventures	-	-	-	408	-	**408**	**408**
Other equity transactions Joint venture [1]	-	-	-	-	3 422	**3 422**	**3 422**
Dividend	-	(2 217 000)	**(2 217 000)**	-	-	-	**(2 217 000)**
Profit for the year	-	-	-	-	209 384	**209 384**	**209 384**
Equity 31.12.15	**2 010 000**	**1 078 203**	**3 088 203**	**2 311**	**552 324**	**554 635**	**3 642 838**

[1] See note 14 Joint ventures.

[2] See note 31 Changes in accounting policies.

22 Finance lease liabilities

Elkem AS leases some of its manufacturing equipment under a finance lease. Interest rates range from 3.50% to 6.99%. Elkem AS' obligations under a finance lease are secured by the lessor's title to the leased assets. Elkem AS has the right to prolong some leasing agreements, and the right to keep the leased equipment after the closed leasing period for some leasing agreements.

Overview of finance lease	31.12.2016	31.12.2015
Within one year	2 582	4 453
Between 1 and 5 years	258	2 682
Over 5 years	-	-
Total lease payments	2 840	7 135
Less future finance charges	(32)	(246)
Present value of lease obligations	**2 808**	**6 889**
Less amount due for settlement within 12 months	2 560	4 299
Total non-current finance lease obligations	**248**	**2 590**
Leasing cost current year	2 565	4 333

23 Interest-bearing assets / liabilities

	31.12.2016	31.12.2015
Non-current interest-bearing liabilities		
Financing from subsidiaries	118 243	102 327
Financial leases [1]	248	2 590
Loans from external part, other than bank	-	6 459
Bank financing and other liabilities	2 776 541	2 979 074
Total non-current interest-bearing liabilities	**2 895 032**	**3 090 450**
Current interest-bearing liabilities		
Financing from subsidiaries	1 616 239	1 475 398
Financial leases [1]	2 560	4 299
Bank financing	106 965	95 219
Accrued interest	3 035	3 466
Total current interest-bearing liabilities	**1 728 799**	**1 578 381**
Total interest-bearing liabilities	**4 623 831**	**4 668 831**
Interest-bearing assets		
Cash and bank balances	292 468	723 569
Restricted deposits	17 905	16 780
Non-current loans to subsidiaries [2]	717 922	3 249 206
Non-current loans to joint arrangements	7 098	6 943
Current loans to subsidiaries	40 258	61 971
Financial assets	-	295
Total interest-bearing assets	**1 075 651**	**4 058 763**
Net interest-bearing assets / (liabilities)	**(3 548 180)**	**(610 068)**

1) See note 22 Finance lease liabilities.

2) The decrease in non-current loans to subsidiaries from 2015 to 2016 is manly related to debt conversion of the loans to Bluestar Silicones France SAS and the merger between Elkem AS and Bluestar Silicones International S.à.r.l.

Interest-bearing liabilities by currency	Currency amount	NOK 31.12.2016	Currency amount	NOK 31.12.2015
EUR	328 227	2 982 036	333 464	3 199 017
USD	24 742	213 243	30 522	268 971
NOK	755 392	755 392	604 513	604 513
Other currencies	-	673 160	-	596 330
Total interest-bearing liabilities		**4 623 831**		**4 668 831**

Maturity of interest-bearing liabilities at 31.12.2016	Group financing	Financial leases	Loans from external part other than bank	Bank financing	Accrued interest	Total
2017	1 616 239	2 560	-	106 965	3 035	1 728 799
2018	-	248	-	502 798	-	503 046
2019	-	-	-	502 798	-	502 798
2020	-	-	-	1 638 460	-	1 638 460
2021	-	-	-	48 533	-	48 533
2022 and later	118 243	-	-	97 065	-	215 308
Total	**1 734 482**	**2 808**	**-**	**2 896 619**	**3 035**	**4 636 944**
Prepaid loan fees	-	-	-	(13 113)	-	(13 113)
Total interest bearing liabilities	**1 734 482**	**2 808**	**-**	**2 883 506**	**3 035**	**4 623 831**

Maturity of interest-bearing liabilities at 31.12.2015	Group financing	Financial leases	Loans from external part other than bank	Bank financing	Accrued interest	Total
2016	1 475 398	4 299	-	95 219	3 466	1 578 381
2017	-	2 460	-	51 246	-	53 706
2018	-	130	-	530 911	-	531 041
2019	-	-	-	530 911	-	530 911
2020	-	-	-	1 730 072	-	1 730 072
2021 and later	102 327	-	6 459	153 739	-	262 525
Total	**1 577 725**	**6 889**	**6 459**	**3 092 098**	**3 466**	**4 686 636**
Prepaid loan fees	-	-	-	(17 805)	-	(17 805)
Total interest bearing liabilities	**1 577 725**	**6 889**	**6 459**	**3 074 293**	**3 466**	**4 668 831**

Elkem AS is granted credit facilities of EUR 200,000 thousand (NOK 1,817,059 thousand) and NOK 250,000 thousand, a total of NOK 2,067,059 thousand in granted credit facilities. Both facilities remained undrawn at 31 December 2016 and 31 December 2015.

The credit facilities and the term loans in Elkem AS contain financial covenants. The financial covenants and the calculations for the drawn loan of NOK 2,838,187 thousand (NOK 3,022,503 thousand) is described below

Covenant Elkem AS group		31.12.2016	31.12.2015	Loan covenant
Total Equity	NOK	7 459 042	6 167 047	
Total Assets	NOK	14 813 342	14 476 852	
Equity ratio		**50 %**	**43 %**	**> 30%**
EBITDA	NOK	1 617 790	2 206 988	
Net finance charges	NOK	61 639	103 979	
Interest cover ratio		**26,25**	**21,23**	**> 4.00**

24 Guarantees

Guarantee commitments	31.12.2016	31.12.2015
Guarantees given on behalf of subsidiaries regarding environmental obligations	4 618	4 618
Guarantees given on behalf of subsidiaries regarding financing	70 359	66 308

25 Provisions and other non-current liabilities

	31.12.2016	31.12.2015
Currency effects bond loan	-	2 694
Other non-current liabilities group companies	273	270
Site restoration	23 638	22 136
Obligation to finance subsidiary	27 023	-
Provisions	**50 934**	**25 099**

Currency effects bond loan
Elkem participated in the Central Bank of Iceland's Investment Programme and purchased a bond loan in ISK, with payment in EUR. The gain from the purchase in EUR is dependent on retaining the ownership of the securities in 5 years. The currency gain is recognised as deferred income and is amortised over the required ownership period, ending in 2017.

Site restoration
Elkem AS has provisions for future remediation work related to the necessary site remediation work that it will have to undertake in respect of its quartz mines.

Obliagtion to finance
The subsidiary Bluestar Silicones Services S.à.r.l has a negative equity and Elkem AS therefor has an obliagtion to fund the company's continued operations. At the time of the merger the obligation was NOK 27,023 thousand.

26 Other current liabilities

	31.12.2016	31.12.2015
Social securities tax and withholding tax employees	55 734	58 993
Value added tax	18 738	24 821
Current payroll payable and vacation pay	135 911	142 643
Payables to subsidiaries	19 711	22 152
Group contribution	12 392	-
Other short-term liabilities	89 068	88 920
Total other current liabilities	**331 554**	**337 529**

27 Financial instruments

Derivatives are initially recognised at fair value at the date on which a derivative contract is entered, and are subsequently remeasured at their fair value. The method of recognising the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the hedging.

Foreign exchange forward contracts
Elkem AS' Treasury department enters into to foreign forward contracts to meet Elkem Groups foreign currency exposure. Hedge accounting is not applied for these contracts, they are classified as held for trading and booked at fair value through profit and loss.

Elkem AS' Treasury department also offers internal currency hedging for major purchase / sale-contracts entered into by the subsidiaries. Such contracts can not be designated in a hedging relationship, changes in fair value are recognised through profit and loss.

See note 9 Other gains / losses related to operating activities for information of unrealised and realised effects booked through Other gains/losses related to operating activities.

Details of foreign exchange contracts as of 31 December 2016

Purchase Currency	Purchase ccy 1000	Sale Currency	Sale ccy 1000	Type of instrument	Currency rate	Due	Fair value in NOK 1000 [1]	Notional value in NOK 1000 [2]
CAD	7 517	EUR	5 200	Fwd	1.4455	2017	449	47 244
NOK	1 227 584	EUR	132 050	Fwd	9.2964	2017	17 788	1 199 713
CAD	1 499	GBP	800	Fwd	1.8743	2017	1 092	8 499
NOK	46 356	GBP	4 200	Fwd	11.0372	2017	1 592	44 618
NOK	146 124	JPY	1 980 000	Fwd	0.0738	2017	(740)	145 810
NOK	536 836	USD	65 800	Fwd	8.1586	2017	(29 286)	567 104
CAD	3 951	USD	3 000	Fwd	1.3171	2017	(463)	25 856
NOK	524 796	EUR	58 000	Fwd	9.0482	2018	(12 850)	526 947
NOK	88 663	JPY	1 036 000	Fwd	0.0856	2018	10 352	76 292
NOK	101 569	USD	13 000	Fwd	7.8130	2018	(9 884)	112 042
NOK	89 917	JPY	1 036 000	Fwd	0.0868	2019	10 128	76 292
NOK	87 003	JPY	988 000	Fwd	0.0881	2020	9 351	72 758
USD	20 000	CAD	26 680	Fxt	0.7496	2017	611	171 722
Total fair value currency forward contracts							**(1 859)**	

[1] The forward currency contracts are measured at fair value based on the observed forward exchange rate for contracts with a corrensponding maturity term, on the balance sheet date.

[2] Notional value of underlying asset, based on forward currency rates at 31.12.

Details of foreign exchange contracts as of 31 December 2015

Purchase Currency	Purchase ccy 1000	Sale Currency	Sale ccy 1000	Type of instrument	Currency rate	Due	Fair value in NOK 1000 [1]	Notional value in NOK 1000 [2]
NOK	1 209	AUD	200	Fwd	6.0465	2016	(78)	1 289
CAD	6 688	EUR	4 800	Fwd	1.3932	2016	(3 712)	46 048
NOK	2 710 039	EUR	300 300	Fwd	9.0244	2016	(187 922)	2 880 864
CAD	4 392	GBP	2 160	Fwd	2.0333	2016	(345)	28 221
NOK	46 114	GBP	3 780	Fwd	12.1995	2016	(3 313)	49 387
NOK	73 236	JPY	1 118 000	Fwd	0.0655	2016	(9 244)	81 861
NOK	510 653	USD	65 950	Fwd	7.7430	2016	(70 544)	581 184
NOK	929 152	EUR	100 400	Fwd	9.2545	2017	(51 528)	963 166
NOK	54 332	JPY	848 000	Fwd	0,.0641	2017	(9 101)	62 091
NOK	167 423	USD	22 050	Fwd	7.5929	2017	(25 849)	194 316
NOK	524 796	EUR	58 000	Fwd	9.0482	2018	(46 910)	556 411
NOK	101 569	USD	13 000	Fwd	7.8130	2018	(11 809)	114 563
USD	20 000	CAD	26 693	Fxt	0.7493	2016	6 398	175 988
Total fair value currency forward contracts							**(413 957)**	

[1] The forward currency contracts are measured at fair value based on the observed forward exchange rate for contracts with a corrensponding maturity term, on the balance sheet date.

[2] Notional value of underlying asset, based on forward currency rates at 31.12.

Note 27 continues >

Energy contracts booked at fair value

Elkem AS enters into forward power contracts to meet its need for power at the plants. Certain contracts are designated as hedging instruments, in addition Elkem AS holds energy contracts booked at the lower of cost and fair value.
Fair value of the power contracts are based on observable nominal values for similar contracts, adjusted for interest effects.

The effective part of change in fair value of the contracts designated in hedging relationships is booked temporarily in equity. Realised effects are booked as a part of the energy cost under cost of raw materials and other input factors. The ineffective part is booked as a part of other gains / losses related to operating activities.

See note 9 Other gains / losses related to operating activities for information of unrealised and realised effects booked through Other gains / losses related to operating activities.
In addition, realised effects from hedging of power in 2016 is a loss of NOK 44,599 thousand (loss of NOK 145,286 thousand).

Details of energy contracts booked at fair value as of 31 December 2016

	Volume GWh/CUR	Due	Fair value	Notional amount [1]
Forward contracts NASDAQ financial institutions	491	2017	16 142	71 858
Forward contracts NASDAQ financial institutions	140	2018	6 216	26 113
Commodity contract related party	(26)	2017	(1 165)	(5 611)
Commodity contract '30-øringen' [2]	501	2017	-	141 589
Commodity contract '30-øringen' [2]	6 517	2018-2030	-	1 688 680
Commodity contracts swap Statkraft	201	2017	(8 250)	60 187
Commodity contracts swap Statkraft	806	2018-2021	(66 721)	240 913
Embedded derivatives power contracts (EUR)	24 928	2017	(4 243)	226 474
Embedded derivatives power contracts (EUR)	174 481	2018-2027	(58 141)	1 585 210
Fair value energy contracts at fair value			**(116 163)**	

[1] Notional value based on currency rates at 31.12.

[2] The contract does not qualify as a hedging instrument, hence it is booked at the lower of cost and fair value.

Details of energy contracts booked at fair value as of 31 December 2015

	Volume GWh/CUR	Due	Fair value	Notional amount [1]
Forward contracts NASDAQ OMX Commodity	422	2016	(76 111)	199 013
Forward contracts financial institutions	479	2016	(35 701)	77 118
Forward contracts financial institutions	166	2017	1 077	32 951
Commodity contract Solar	(220)	2016	14 332	53 893
Commodity contract Solar	(26)	2017	543	5 925
Commodity contract '30-øringen' [2]	501	2016	(46 971)	138 462
Commodity contract '30-øringen' [2]	7 014	2017-2030	38 860	1 374 436
Commodity contracts swap Statkraft	1 008	2017-2021	(96 910)	317 936
Embedded derivatives power contracts (EUR) [3]	146 904	2017-2027	(105 372)	1 409 295
Fair value energy contracts at fair value			**(306 253)**	

[1] Notional value based on currency rates at 31.12.

[2] The contract does not qualify as a hedging instrument, hence it is booked at the lower of cost and fair value.

[3] Correction based on change in accounting policy, see note 31 Changes in accounting policies.

28 Related party transactions

100% of the shares in Elkem AS is held by Bluestar Elkem International Co., Ltd. S.A. Details of transactions between Elkem AS and other related parties are disclosed below.

2016	Trade sales	Trade purchases	Services sales	Services purchases	Interest income	Interest expenses
Bluestar Elkem International Co., Ltd. S.A.	-	-	718	-	-	-
Other related parties within China National Bluestar group	73 495	(10 695)	61 919	(12 332)	-	-
Subsidiaries	1 232 237	(1 474 347)	118 860	(156 470)	50 509	(21 158)
Joint arrangements and associates	-	-	-	(113 649)	155	-
Total	**1 305 731**	**(1 485 042)**	**181 498**	**(282 452)**	**50 664**	**(21 158)**

2015	Trade sales	Trade purchases	Services sales	Services purchases	Interest income	Interest expenses
Bluestar Elkem International Co., Ltd. S.A.	-	-	893	-	-	-
Other related parties within China National Bluestar group	67 502	(59 311)	69 185	(3 961)	30 905	-
Subsidiaries	1 050 605	(1 556 039)	108 277	(159 769)	42 053	(17 695)
Joint arrangements and associates	-	-	3	(110 365)	170	-
Total	**1 118 107**	**(1 615 350)**	**178 358**	**(274 094)**	**73 128**	**(17 695)**

Loans from/to related parties	31.12.2016	31.12.2015
Non-current loans from Other related parties within China National Bluestar group	(6 339)	-
Non-current loans from subsidiaries	(111 904)	(102 327)
Current loans from subsidiaries	(633 996)	(611 607)
Non-current deposit subsidiaries	717 922	3 249 206
Other receivables from subsidiaries	28 470	140 408
Non-current loans to joint arrangements and associates	7 098	6 943
Accounts receivable Bluestar Elkem International Co., Ltd. S.A.	354	400
Accounts receivable other related parties within China National Bluestar group	189	10 609
Accounts receivable subsidiaries	244 669	179 232
Accounts payables from other related parties within China National Bluestar group	(1 077)	(2 164)
Accounts payables from subsidiaries	(176 007)	(270 489)
Accounts payables from joint arrangements and associates	(12 656)	(8 455)

Information about transactions between related parties

Elkem follows internationally accepted principles for transactions between related parties. In general, Elkem seeks to use transaction based methods (comparable uncontrolled price, cost plus and resale price method) in order to set the price for the transaction. The majority of the transactions between related parties, relate to products involving:

- Raw materials (quartz) from quarries to plants
- Electrode paste from Carbon plants to FeSi and Silicon plants
- Surplus raw materials between plants
- Ad-hoc supplies of finished goods to Elkem's internal distributors
- Purchase of short and deep sea transport
- Sale of management and technology services
- Sale of power supply
- Rent of plant facilities and related services

Elkem's set-up for sales is based on an agent structure, rather than a distribution network. Elkem has also sourced companies that purchase key raw materials and other supplies from selected suppliers world-wide. In both activities above, the transaction between the related parties is a delivered service, either sales-service or sourcing-service. Additionally, Elkem has internal help chains that are established to serve several operating units more efficiently.

Elkem AS also have both long term receivables and long term payables to related parties. The group loans are normally interest bearing and interest is calculated based on interbank rates (for example NIBOR) and a margin.

Note 28 continues >

One-time transactions with related parties
On 19 June 2015 Elkem AS sold 50% of its shares in the Joint Venture Elkem Solar AS at a proceed of NOK 820,000 thousand together with a loan receivable of NOK 1,624,000 thousand against Elkem Solar AS. The sales resulted in a gain for Elkem AS of NOK 104,838 thousand. The gain is presented as part of income from Joint ventures.

In June 2015 Elkem AS purchased fixed assets at the Fiskaa plant in Kristiansand, Norway, from Elkem Solar AS.
For the rest of 2015, included in sale of services to other related parties within China National Bluestar group, Elkem Solar AS paid a rent and service fee to Elkem AS group.

Commitments with related parties
Elkem AS have no commitments to related parties.

Transactions with key management personnel
Information on transactions with key management personnel is included in note 5 Employee benefit expenses.

29 Grants

Elkem has received the following government grants	2016	2015
Funding from the Norwegian government R&D	20 364	19 232
CO_2 Compensation from the Norwegian Environment Agency	84 418	93 978
Funding related to energy recovery	27 741	17 134
Other government grants	86	-
Total government grants received	**132 609**	**130 344**

Elkem has received the following grants from other	2016	2015
Norwegian NO_X fund for reduced emission of NO_X [1]	48 777	66 755
Other grants received other than government	250	823
Total other grants received	**49 027**	**67 578**

[1] The industry in Norway pays a fee for their emission of NO_x to the Norwegian NO_x fund. The fund is self financed by the fee and its purpose is to support projects that reduces the NO_x emission from the industry in Norway.

Grants received is included in the financial statement as follows:

Other operating income	107 520	121 214
Deduction of carrying amount of fixed assets	74 116	76 708
Total	181 636	197 922
Receivables related to grants	113 677	133 916
Deferred income related to grants	(6 252)	(9 837)

In 2015 Elkem AS have received NOK 28,974 thousand in CO_2 compensation which relates to the year 2014 and 2013. The current CO_2 compensation programme will end in 2020.

30 Merger Elkem AS and subsidiaries

In 2016, Elkem AS has merged with the subsidiary Bluestar Silicones International Co. Ltd. S.a.r.l. Bluestar Silicones International Co. Ltd. S.a.r.l. is the parent company in the Silicones group. The Silicones group produce and sell silicone related products through the whole world.

The merged subsidiary was 100% fully owned by Elkem AS and the merger was effective from 1 January 2016 with Elkem AS as the surviving entity. The merged entity are included in Elkem AS based on group book value and the continuity accounting method. For accounting and tax purposes the merged entities were included in Elkem AS retrospectively as of 1 January 2016.

Details on the merged balances are outlined below:

Net assets	Note	TOTAL
Investments in subsidiaries	13	1 483 025
Other non-current assets (reduced assets)	19	(1 529 562)
Other current assets (reduced assets)	16	(2 219)
Cash and cash equivalents	20	62 974
Total Assets		14 218
Non-current interest-bearing liabilities	25	6 699
Accounts payables		3 896
Other current liabilities (reduced liabilities)	26	27
Total liabilities		10 622
Net assets / Equity contributed in the merger		**(74 673)**

31 Changes in accounting policies

Elkem AS has performed the following changes in accounting policies and presentation:

- Changed accounting principle that it uses for recognition of long-term power contracts, see note 2 Accounting principle.
- Changed the presentation of gains and losses from commodity derivatives where hedge accounting is not applied, to be included in line item other gains / losses related to opearting activities. Previously this effect was presented as a finance income / expense.
- Changed to net presentation of interest income / expense against the same counterparty in the Group bank accounts.

The impact on comparable figures in the income statement and balance sheet are shown in the tables below:

Income statement 1.1.-31.12.2015	2015 Financial statement	Change in accounting policies	Change in presentation	Reclassification	2015 Restated
Other gains/losses related to operating activities	(442 276)	(155 227)	(55 561)	-	(653 064)
Operating profit (loss)	**215 572**	**(155 227)**	**(55 561)**	**-**	**4 784**
Finance income	85 202	-	-	(8 481)	76 721
Finance expenses	(128 941)	-	55 561	8 481	(64 899)
Profit before income tax	**444 082**	**(155 227)**	**-**	**-**	**288 855**
Tax (expense) / income	(117 337)	37 866	-	-	(79 471)
Profit for the year	**326 745**	**(117 361)**	**-**	**-**	**209 384**

Balance sheet 31.12.2014 / Opening balance 1.1.2015	2014 Financial statement	Change in accounting policies	2014 Restated
Deferred tax assets	83 650	12 704	96 354
Retained earnings	(380 518)	34 350	(346 168)
Derivatives, non-current liabilities	(55 343)	(47 054)	(102 397)

Balance sheet 31.12.2015	2015 Financial statement	Change in accounting policies	2015 Restated
Deferred tax assets	-	33 452	33 452
Retained earnings	(706 346)	151 711	(554 635)
Deferred tax liabilities	(17 118)	17 118	-
Derivatives, non-current liabilities	(145 198)	(202 281)	(347 479)

KPMG AS
Sørkedalsveien 6
Postboks 7000 Majorstuen
0306 Oslo

Telephone +47 04063
Fax +47 22 60 96 01
Internet www.kpmg.no
Enterprise 935 174 627 MVA

To the Annual Shareholder's Meeting of Elkem AS

Independent Auditor's Report

Report on the Audit of the Financial Statements

Opinion

We have audited the financial statements of Elkem AS. The financial statements comprise:

- The financial statements of the parent company Elkem AS (the "Company"), which comprise the balance sheet as at 31 December 2016, and the income statement and cash flow statement for the year then ended, and notes to the financial statements, including a summary of significant accounting policies, and
- The financial statements of Elkem AS and its subsidiaries (the "Group"), which comprise the statement of financial position as at 31 December 2016, and the statement of income, statement of other comprehensive income, statement of changes in equity, statement of cash flow for the year then ended, and notes to the financial statements, including a summary of significant accounting policies.

In our opinion:

- The financial statements are prepared in accordance with the law and regulations.
- The accompanying financial statements give a true and fair view of the financial position of the Company as at 31 December 2016, and its financial performance and its cash flows for the year then ended in accordance with the Norwegian Accounting Act and accounting standards and practices generally accepted in Norway.
- The accompanying financial statements give a true and fair view of the financial position of the Group as at 31 December 2016, and its financial performance and its cash flows for the year then ended in accordance with International Financial Reporting Standards as adopted by the EU.

Basis for Opinion

We conducted our audit in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing (ISAs). Our responsibilities under those standards are further described in the *Auditor's Responsibilities for the Audit of the Financial Statements* section of our report. We are independent of the Company and the Group as required by laws and regulations, 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.

KPMG AS, a Norwegian limited liability company and member firm of the KPMG network of independent member firms affiliated with KPMG International Cooperative ("KPMG International"), a Swiss entity.

Statsautoriserte revisorer - medlemmer av Den norske Revisorforening

Offices in:

Oslo, Alta, Arendal, Bergen, Bodø, Drammen, Elverum, Finnsnes, Hamar, Haugesund, Knarvik, Kristiansand, Mo i Rana, Molde, Skien, Sandefjord, Sandnessjøen, Stavanger, Stord, Straume, Tromsø, Trondheim, Tynset, Ålesund

Other information

Management is responsible for the other information. The other information comprises the Board of Directors' report and information in the annual report, but does not include the financial statements and our auditor's report thereon. This includes other information, which we obtained prior to the date of this auditor's report, and the annual report, which is expected to be made available to us after that date.

Our opinion on the financial statements does not cover the other information and we do not express any form of assurance conclusion thereon, with the exception of our Report on Other Legal and Regulatory Requirements below.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit or otherwise appears to be materially misstated.

If, based on the work we have performed on the other information that we obtained prior to the date of this auditor's report, we conclude that there is a material misstatement of this other information, we are required to report that fact. We have nothing to report in this regard.

When we read the annual report, if we conclude that there is a material misstatement therein, we are required to communicate the matter to the Board of Directors.

Responsibilities of the Board of Directors and the Managing Director for the Financial Statements

The Board of Directors and the Managing Director (management) are responsible for the preparation in accordance with law and regulations, including fair presentation of the financial statements of the Company in accordance with the Norwegian Accounting Act and accounting standards and practices generally accepted in Norway, and for the preparation and fair presentation of the financial statements of the Group in accordance with International Financial Reporting Standards as adopted by the EU, 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 Company's and the Group's ability to continue as a going concern, disclosing, as applicable, matters related to going concern. The financial statements of the Company use the going concern basis of accounting insofar as it is not likely that the enterprise will cease operations. The financial statements of the Group use the going concern basis of accounting unless management either intends to liquidate the Group 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 laws, regulations, and auditing standards and practices generally accepted in Norway, including ISAs will always detect a material misstatement when it exists. Misstatements can arise from fraud or error and are considered material if, individually or in 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 in accordance with laws, regulations, and auditing standards and practices generally accepted in Norway, including International Standards on Auditing (ISAs), we exercise professional judgment and maintain professional scepticism throughout the audit. We also:

- identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error. We 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 Company's or the Group'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 and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the 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 Company to cease to continue as a going concern.
- evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- 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 the Board of Directors 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.

Report on Other Legal and Regulatory Requirements

Opinion on the Board of Directors' report

Based on our audit of the financial statements as described above, it is our opinion that the information presented in the Board of Directors' report concerning the financial statements, the going concern assumption, and the proposal for the allocation of the profit is consistent with the financial statements and complies with the law and regulations.

Opinion on Registration and Documentation

Based on our audit of the financial statements as described above, and control procedures we have considered necessary in accordance with the International Standard on Assurance Engagements *(ISAE) 3000, Assurance Engagements Other than Audits or Reviews of Historical Financial Information*, it is our opinion that management has fulfilled its duty to produce a proper and clearly set out registration and documentation of the Company's accounting information in accordance with the law and bookkeeping standards and practices generally accepted in Norway.

Oslo, 4 April 2017
KPMG AS

Øyvind Skorgevik

Øyvind Skorgevik
State Authorised Public Accountant

Group structure

Elkem is owned by China National Bluestar (Group) Co. Ltd. (Bluestar), which is a subsidiary of China National Chemical Corporation (ChemChina).

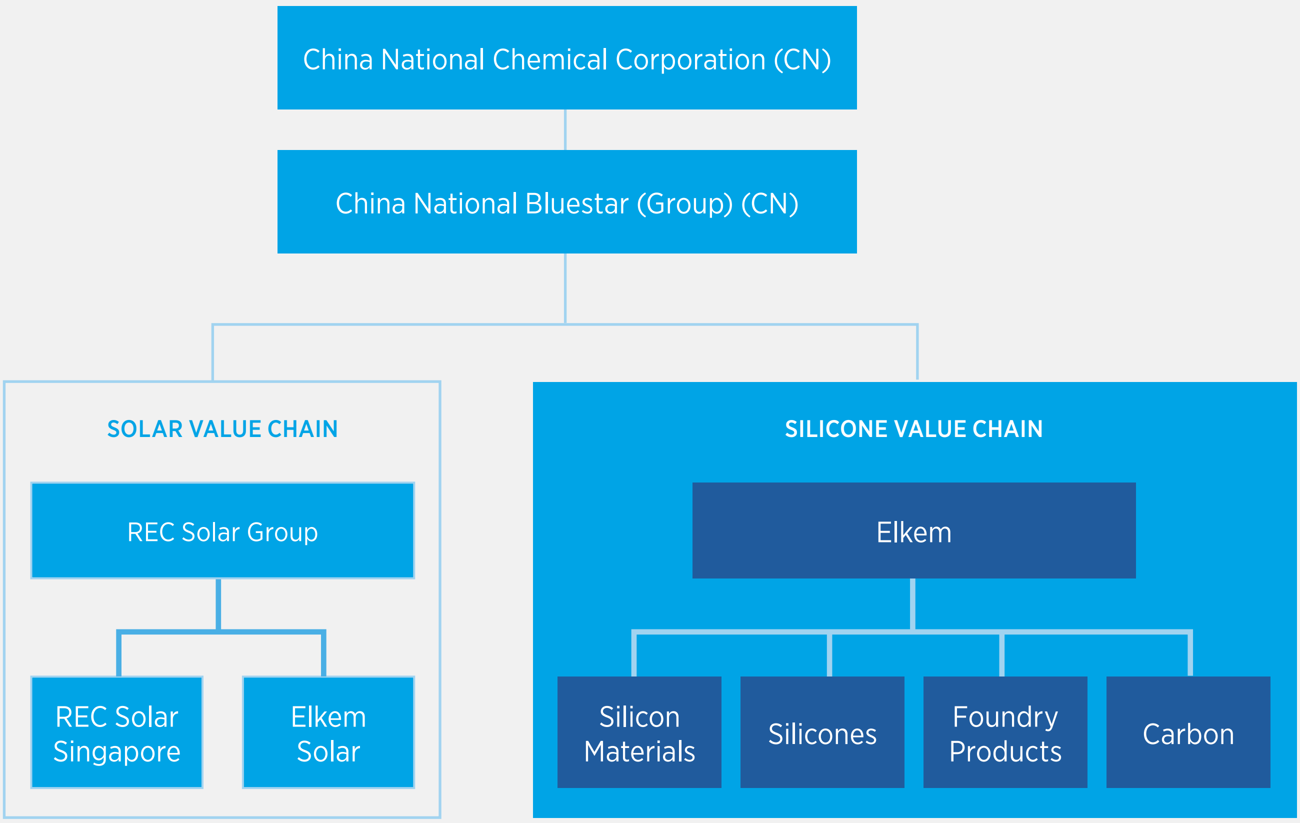
ChemChina is a state-owned enterprise incorporated in the People's Republic of China. The group is ranked as no. 234 on the Fortune Global 500, which is a list of the world's largest companies ranked by revenues. ChemChina is China's largest chemical company with more than 140,000 employees, of which 52,000 are outside China.

Bluestar was brought under the central government's administration in 2000 and became a special subsidiary of ChemChina in 2004. Bluestar is centred on the chemical industry with focus on new chemical materials and animal nutrition.

Bluestar has been the owner of Elkem since 2011, and of Elkem's Silicones division (Bluestar Silicones) since 2007. Bluestar Silicones became part of Elkem in 2015 to create a fully integrated silicone value chain from quartz to highly specialised silicones products.

Bluestar is also the owner of REC Solar, which is another fully integrated value chain from silicon to high quality solar panels. Bluestar acquired REC Solar ASA in May 2015. Elkem Solar AS was subsequently demerged from Elkem AS and integrated into the REC Solar group.

Elkem's annual report 2016 covers the silicone value chain.



Contact information

Visiting address
Elkem AS
Drammensveien 169
0277 Oslo, Norway

Postal address
Elkem AS
P.O. Box 334 Skøyen
NO-0213 OSLO

Telephone + 47 22 45 01 00
Fax + 47 22 45 01 55

www.elkem.com

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