

Okmetic

Company report

11/2015

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res.**

Proven success strategy

We expect that Okmetic will continue to outperform the struggling silicon wafer industry by accelerating the shift to high-margin silicon wafers. The share gives a good >6 % annual dividend yield and an option for upside since the current valuation multiples are relatively conservative.

One of the most profitable in its industry

Okmetic is a technology company operating at the beginning of the global electronics supply chain. The company supplies tailor-made silicon wafers for sensor and semiconductor industries. Okmetic's key strengths in the highly competitive industry are in flexible production, strong expertise in selected technologies and customer relationships. During the past 10 years, the company has gone through significant transformation process as the highly profitable solar business collapsed in 2011. At the same time, Okmetic's prior technology choices in the silicon wafer business turned as correct and started to bear fruit, making Okmetic now one of the most profitable companies in its industry.

Challenging market, but successful strategy

The competitive balance of the \$8 billion silicon wafer industry is unhealthy and the industry has been suffering from over capacity for several years. With two dominating Japanese players Shin-Etsu and Sumco absorbing more than 100 % of industry's EBIT during the last three consecutive years, the industry has no other choice than consolidation among mid-sized players in order to gain healthier competitive balance. In long term, we consider Okmetic as a potential takeover target in this upcoming industry consolidation. Okmetic is the industry's agile niche player operating in high-margin areas, which the industry giants have ignored or where they are not competitive. Okmetic has been able to increase its price premium over the industry average ASP from 20 % in 2012 to 100 % in 2015. This reflects a very successful strategy implementation so far.

Solid growth outlook in Okmetic's product areas

Trends driving the technology industry provide a solid growth market for Okmetic in the long term. Demand for Okmetic's high performance wafers for power management, radio frequency and sensor applications are driven by strong trends such as IoT. However, the silicon wafer industry will remain a highly challenging market and shareholder value creation in this industry will require a complete success in strategy implementation. Accelerating the shift to higher margin products is at the core of Okmetic's strategy. This will be achieved by leveraging from common technology platforms in different product segments.

Strong dividend yield, attractive valuation multiples

2015 will mark the first year of significant recovery in Okmetic's earnings since the silicon wafer market started deteriorating in 2012. The silicon wafer demand will experience a rapid but short decline in demand during the end of this year, but the outlook for next 2-3 years remains solid and the company will accelerate investments in new capacity. We estimate the company's EBIT-% to be in line with the 10-15 % target and revenues to grow 5-10 % during the next 5 years. Okmetic's current valuation multiples are relatively attractive (2016e P/E 13x) and our positive view of the stock is also supported by the company's strong competitive advantages, solid long-term industry growth drivers and strong dividend yield (>6 %).

Analyst

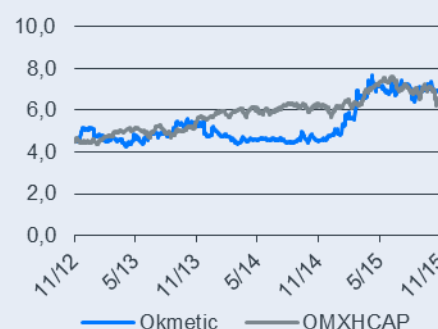
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Recommendation

Accumulate

Target: 7,70 € (unchanged)



Last close **6.97 EUR**

12 month range **4,53-7,66 EUR**

Upside **10,5 %**

Key figures

	2014	2015e	2016e
Revenue	74,1	81,4	88,8
- growth-%	8 %	10 %	9 %
EBIT	6,4	10,5	11,4
- EBIT-%	8,6 %	13,0 %	12,8 %
Pre-tax profit	6,1	10,3	11,2
Net earnings	4,8	7,9	8,8
EPS	0,28	0,47	0,52
Dividend	0,45	0,45	0,48
Payout ratio	161 %	96 %	93 %
P/E	17,3	14,8	13,5
P/B	1,3	1,8	1,8
EV/EBIT	12,9	11,1	10,1
EV/Sales	1,1	1,4	1,3
Yield-%	9,3 %	6,5 %	7,0 %

Source: Inderes

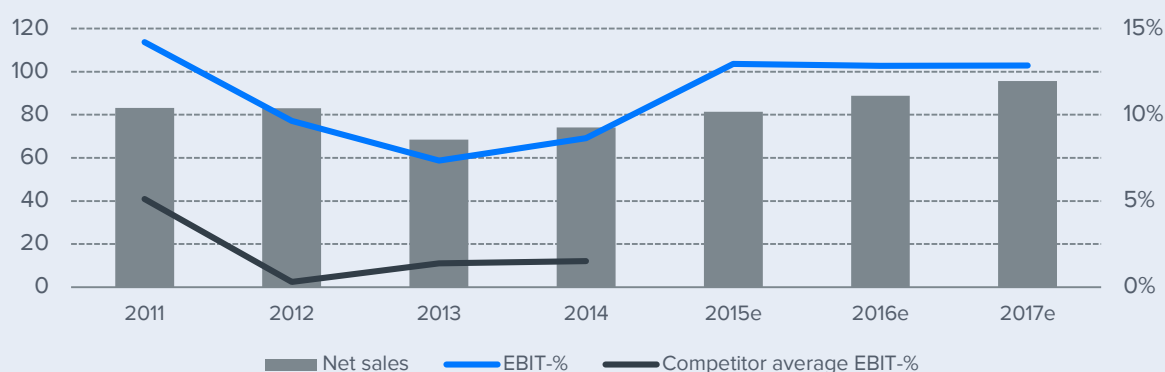
Okmetic Summary

Investment case

Value drivers	- Solid industry growth drivers in long term - Strong customer base and position in selected niche markets - Strong profitability, cash flow and dividends	➤
Investment risks	- Volatile demand and overcapacity in the industry - Okmetic's potential failure to adopt future technologies - Customer consolidation gives them more bargaining power	
Valuation	- Valuation multiples at a conservative level - Strong dividend yield supports the valuation - The stock is a solid bond+option case	

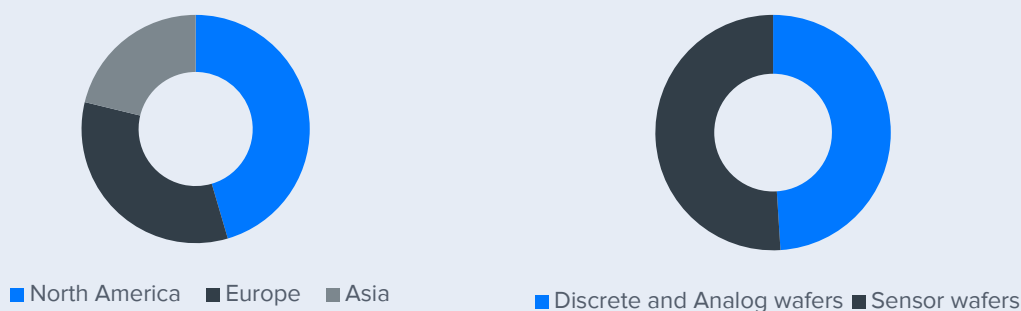
Accumulate
Target: 7,70 €

Company performance



Source: Inderes, Bloomberg

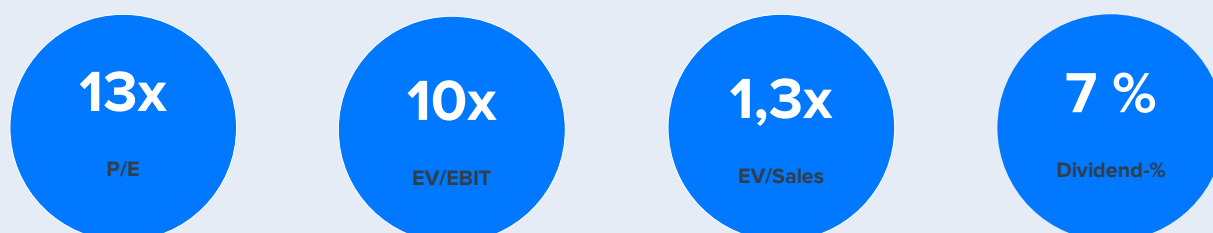
Revenue split in 1-9'2015



Source: Okmetic

Note: new customer segments starting 2016

Valuation 2016e



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Company and business description

Okmetic is a technology company operating at the beginning of the global electronics supply chain. The company supplies tailor-made silicon wafers for sensor and semiconductor industries. Silicon is the key raw material for nearly all semiconductor devices and thus it provides the foundation for the entire global electronics industry. The manufacturing process of silicon wafers is highly complex, requires skilled personnel, advanced and costly equipment and deep understanding of the technologies and customer needs. Okmetic's key strengths in the highly competitive industry are in flexible production, strong expertise in selected technologies (like crystal growing and SOI) and customer relationships. The company's revenue was 74 MEUR and EBIT 6.4 MEUR (respective an EBIT-margin of 8.6 %) in 2014, making Okmetic one of the most profitable companies in the struggling silicon wafer industry. During the past 10 years, the company has gone through significant transformation process as the highly profitable solar business started to collapse in 2011. At the same time, Okmetic's prior technology choices in the silicon wafer business turned as correct and started to bear fruit.

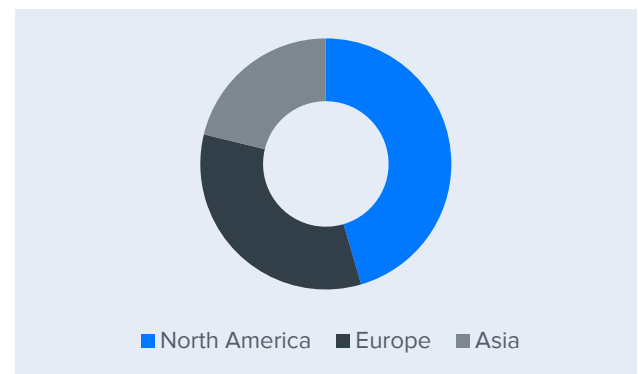
Company description

Okmetic was founded in 1985 as a joint venture of Nokia and Outokumpu. The company started production of crystal and wafers with its first production plant in Espoo in 1987. Later, the Espoo plant was closed and now the company operates in Vantaa (FIN), which started operations in 1997 and in Allen (US), which was acquired in 1999. The company went public in 2000.

Currently, Okmetic employs 384 people and operates two own production facilities (Vantaa and Allen). Vantaa is the most important, highly competitive and flexible production plant for both crystal growing and wafer manufacturing. Allen provides only value-added processing (EPI) for the wafers, which has relatively small role in the company's strategy. The company has sales offices in Japan and Hong Kong and fab-lite contract manufacturers in Japan and China.

Okmetic supplies its wafers to a wide variety of customers in the semiconductor industry. In the first nine months of 2015, 45 % of the sales came from North America, 33 % from Europe and 21 % from Asia. The sensors and semiconductors manufactured by Okmetic's customers are used for example in mobile devices, the automotive industry, industrial process control, and medical applications. According to our understanding, the most significant industries from the end-user point of view for Okmetic are automotive and consumer electronics.

Revenue distribution in 1-9/2015

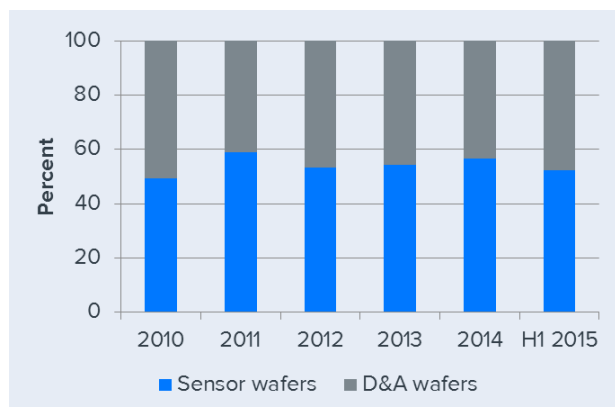


Source: Okmetic

Historically, Okmetic has reported its wafer deliveries separately for sensor and semiconductor wafers. This year, sensor wafers have accounted for 66 % of deliveries. For us, this reporting mainly highlights the split between high-margin and bulk products, since in the old reporting sensor wafers also included many high value added semiconductor products.

From the beginning of 2016, the company will report its revenues for two separate segments: Sensor wafers and Discrete&Analog wafers. The two segments are almost equal in size and both have solid growth drivers. The new reporting highlights the strategic long term goal of having 100 % of production in high-margin products. Both of the segments are based on Okmetic's key technology platforms and choices, which include: 1) SOI (Silicon on Insulator) technology, 2) 200mm wafers and 3) expertise in crystal growing.

Sales split between new reporting segments



Source: Okmetic

Reporting segment 1: Sensor wafers

Sensor wafers include materials Okmetic provides for MEMS (Micro Electro Mechanical Systems) and other sensor applications. Okmetic says it supplies wafers for 80 % of the TOP30 MEMS players in the world. The MEMS industry is increasingly utilizing SOI technology, which is one of Okmetic's strengths.

End-user applications for these wafers include for example accelerometers, pressure sensors, MEMS microphones and gyroscopes. These applications are found in automotive and smartphones for example. The demand for sensor applications is driven by increasing number of sensors in mobile devices and consumer electronics, automotive and industrial sectors.

Internet of Things (IoT) is also one of the key future growth drivers for MEMS. For IoT applications like smart homes, buildings, cities and cars MEMS is the key technology for sensing the environment around us. In IoT applications MEMS sensors gather and digitalize the real-world data that can be then shared over the information networks so that humans and machines can react appropriately.

Reporting segment 2: Discrete and Analog wafers

The D&A segment consists of silicon wafers for discrete semiconductors and analog circuits. Many of these products also utilize Okmetic strengths in SOI technology and crystal growing. The key value-added products of this segment include high resistivity wafers and high voltage SOI wafers. Especially the manufacturing of high and low resistivity products is very challenging and requires crystal growing expertise that is very difficult for competitors to match.

The applications for D&A wafers are in the areas of power semiconductors and radio frequency (RF) semiconductors. Demand for these wafers is also driven by smartphones and Internet of Things, which require advanced RF-applications

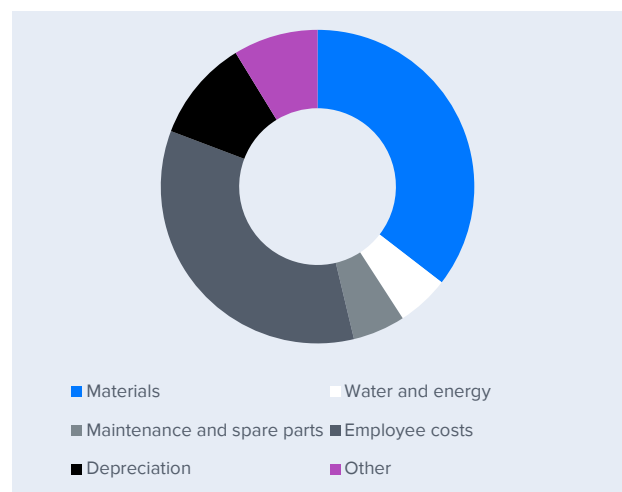
and low power consumption. The company says it is supplying wafers to 80 % of main players in the targeted product areas (power semiconductors, Radio Frequency semiconductors).

Business model

Silicon wafer manufacturing is capital intensive industry with high proportion of fixed costs tied to the manufacturing processes. Thus companies in the sector need to operate with very high capacity utilization rates in order to remain profitable. In addition to operating in the right segments with competitive products, factors such as production flexibility, efficiency and production yields play a key role in determining profitability. The silicon wafer consumers are large semiconductor companies with strong purchasing power. Majority of the market is in bulk products where volumes are high and margins low. Okmetic operates in selected niches and takes the advantage of its flexible operations by manufacturing mainly small production batches of higher margin products that are designed in close cooperation with the customer.

The key production inputs for silicon wafers include raw material (poly silicon), energy, water and blue collar workers. In addition, the production requires costly equipment and maintenance.

Okmetic's expenses in 2014 (68 MEUR)



Source: Okmetic annual report 2014

Raw material

The principal raw material used in the silicon wafer manufacturing process is polysilicon. Polysilicon is the second most abundant element available in nature, but there are only a handful of companies that provide semiconductor grade polysilicon in the world (for example

Hemlock, Tokuyama, Wacker Chemie). The lower purity solar grade polysilicon is used by the solar industry.

After 2008, the solar industry has rapidly surpassed the semiconductor industry in polysilicon consumption. At that time, secure access to polysilicon was a major topic in the solar industry, since capacity expansions lagged behind demand growth. This led to polysilicon spot prices soaring to record high levels, from \$30/kg to over \$400/kg. By that time, Okmetic and many other silicon wafer manufacturers were able to make significant arbitrage profit since they had long multi-year purchase agreements that allowed them to purchase poly silicon for prices that were only a fraction of the spot prices. The market however collapsed quickly, leaving the polysilicon industry struggling with overcapacity.

Today Okmetic, along with many of its competitors, is still tied to those historical, used-to-be-profitable, multi-year poly silicon purchase agreements, which forces them to buy poly silicon at prices above spot prices. This has burdened Okmetics inventories and profitability during the past years, but the contracts are now maturing and the company will be able to renegotiate all of them by the end of 2016. We estimate that this will free up cash flow from inventories and give a small boost for Okmetic's margins in the upcoming years.

Step 1: Crystal growing

The manufacturing process begins with the raw material, hyperpure polysilicon. The polysilicon is first melted and the crystal is grown in a furnace with exactly defined and tailored amounts of electrically active elements. The resulting body of the silicon is called ingot. The process takes about a day and it is a very complex process and yield rates are usually relatively low (70-75 %). Okmetic's expertise in crystal growing gives the company a competitive advantage in manufacturing of the most challenging silicon wafer products.

Okmetic has currently 28 furnaces for crystal growing capacity. This means that the crystal growing capacity produces more ingots than the Vantaa plant's wafer capacity is able to consume. To utilize the excess production and to leverage its crystal growing technologies, Okmetic uses fab-lite subcontractor partners for wafer manufacturing. Also, the company sells part of the ingots to the solar industry, which used to be a significant business for the company in 2006-2012.

Step 2: Wafer processing

After the crystal growing process the wafer manufacturing starts either in Okmetic's Vantaa plant or in fab-lite subcontractor's plant. The resulting ingots from crystal growing are sliced into thin wafers. Next, the wafers go through several mechanical and chemical processing steps like polishing and cleaning to achieve the properties predefined by the customer. After that, the wafers are

inspected and packed to be shipped for the customer. The products are usually shipped by air freight.

Step 3: value-added processing: SOI, EPI

Okmetic offers additional wafer customization through SOI (Silicon-On-Insulator) and EPI (epitaxial) processes. SOI is one of the company's key strengths and future investment areas and the growth outlook for these products is attractive. Okmetic is one of the leading wafer manufacturers in bonded SOI wafers. SOI wafers are typically used for RF devices, power amplifiers, switches and sensors. This process is done in the Vantaa plant.

EPI processing is done in the Allen plant in the US which is not very profitable according to our understanding. Also, EPI is provided by many of the competitors and Okmetic does not have clear competitive advantage in this area. EPI wafers improve the reliability and decrease the power consumption of semiconductor devices and therefore are increasingly used for example in mobile devices.

Okmetic's customers

Silicon wafers are sold to customers in specific diameter sizes, since the customer's own production capabilities are always build to process specific size wafers. If the silicon wafer industry moves into new wafer sizes for a specific product, it always requires significant investments and changes on the customer side as well. The larger the wafer diameter, the more chips the customer can manufacture from it. However, going into larger size wafers always requires significant CAPEX and that's why especially many special products are manufactured from small wafers.

The wafers sizes Okmetic focuses on are 150mm and 200mm, and the company also has capabilities in smaller size. The highest volumes in the industry are in 300mm wafers while attempts to go into 450mm have failed. The MEMS industry, which is one of Okmetic's key customer industries, is mainly operating in 150mm and 200mm wafers, and it is unlikely to go into 300mm in the foreseeable future.

Okmetic sells the products to major semiconductor manufacturers around the world, including integrated device manufacturers and pure-play semiconductor foundries. Big players in the industry include companies like ST Microelectronics, Infineon, Texas Instruments, Renesas and so on. Okmetic does not disclose names of its customers. The customer relationships are usually long and strong since they are based on long product development co-operation.

Typically the customers do not qualify more than 3-5 key suppliers as this is a costly exercise which usually takes more than six months. In automotive applications, the qualification process may take more than a year. In the niche areas Okmetic operates in, the company is many times the sole supplier or one of two suppliers in a specific product. Once you have a strong relationship in a customer,

it is very difficult for the competition to replace you unless you make severe mistakes for example in product quality.

Usually Okmetic ships the wafers directly to the customer and recognizes revenues immediately. However, in some cases Okmetic sells wafers to certain customers under consignment arrangements. These arrangements require Okmetic to maintain a certain quantity of wafers in inventory at a storage facility designated by the customer. Under a consignment arrangement, Okmetic ships the wafers to the storage facility, but revenue is recognized only after the product passes to the customer. This is the reason why the value of Okmetic's wafer deliveries and sales may vary from quarter to quarter.

R&D process

Developing raw materials for the electronics industry is a long-term process. The materials Okmetic develops are usually developed in close cooperation with the customer's R&D. Winning business in the future high volume products requires that Okmetic wins the customer in the very early stages of the R&D process. This could take years of R&D co-operation with the customer and shipments of several test batches. For example, many of the products where Okmetic is putting R&D efforts today, may ramp up into volume products as late as in 2019 or even later. If the company wins these high volume products after years of R&D co-operation, the customer relationships are typically strong and long. However, in many cases the new products fail and they never become high volume products for Okmetic.

The key to leverage the R&D expertise of the company is to create product platforms that can be refined for other customer's needs. Okmetic's reported R&D expense is around 3 % of revenues and the company does not activate R&D expenses to its balance sheet. This figure does not include R&D done in cooperation with the customers. We understand that this is usually a higher figure than the reported R&D.

Pricing of the products

Continuous price erosion is a built-in characteristic for the electronics industry. In silicon wafers, prices generally decline over time and the newest wafer generations declining more significantly as they lose their initial premium.

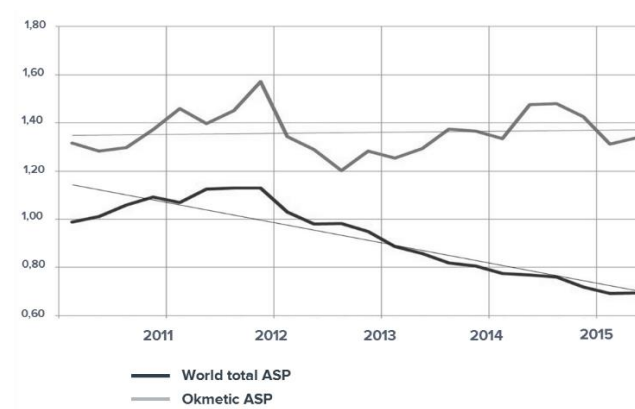
In high volume products that are manufactured by several suppliers, the customer has strong bargaining power and prices usually decrease over time. However, in special products of silicon wafers the prices may develop very differently over time. If Okmetic is the sole supplier or one of two suppliers in a selected product, it may have good pricing power and prices are more stable, or even increasing over time. This requires that the company finds the niche areas where competitors do not have the expertise or incentive to operate in.

In the most basic products where Okmetic is "just another supplier", the company is basically a price taker. Okmetic manufactures these products mainly only to fill excess capacity and their share of production has been decreasing over time.

To give the idea, a basic 200mm silicon wafer may cost 20\$ for the customer, while a 200mm SOI wafer may cost up to 200-300\$ per wafer.

Reflecting the successful strategy implementation, Okmetic has been able to protect its pricing against the industry's decreasing prices, measured in \$ per square inch. In future, the company aims to grow even more aggressively in high performance wafers where the company has pricing power.

Average silicon wafer price \$/Sqi



Source: Okmetic CMD 2015

History and business transformation

Despite the fact that Okmetic has been able to generate relatively stable revenue and profitability level over the past 10 years, the underlying business has gone through a significant transformation process. During 2006-2012 the company was making profits mainly from the solar business and as a silicon wafer company, Okmetic has become a healthy and profitable business only recently.

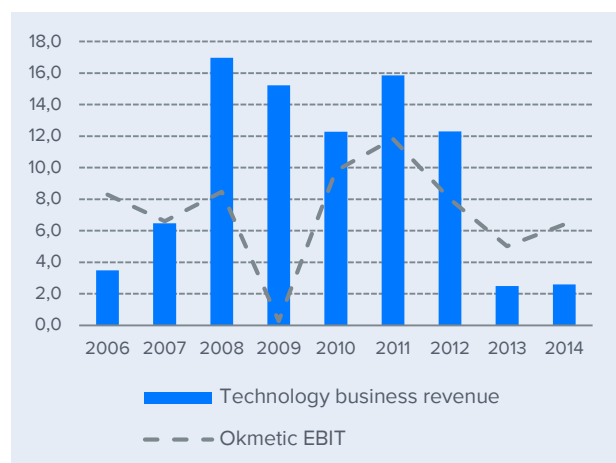
2006-2012: Solar arbitrage era

In 2006-2008, secure access to polysilicon became a major topic for the solar industry as the production of polysilicon lagged behind demand. Okmetic was able to take profit from this situation, as it had purchase contracts that allowed the company to purchase poly silicon clearly below spot prices. This cheap raw material could be traded or used to manufacture silicon crystals for the solar industry, with very high margins. The business however came to an end in 2012, as the company's high-margin solar crystal growing

agreements and technology licensing agreements terminated and the spot prices for solar poly had collapsed. Okmetic's technology business generated as high as 12-17 MEUR annual revenues during 2006-2012, but the business collapsed to 2.5 MEUR in 2013.

While the solar business was booming in 2006-2012, Okmetic's silicon wafer business was barely profitable or making losses for the company, especially when the semiconductor market collapsed in 2009. But the high profitability of the solar business allowed the company to invest in the wafer business in technologies like SOI. Today, these investments are starting to bear fruit. If Okmetic had not invested in the wafer business at that time, we believe the company could be in serious trouble right now. Even worse, it might not have survived the recession in 2012-2014 the silicon wafer market went through.

Okmetic's technology business 2006-2014 driving profits first up and then down



Source: Inderes

2012-2014 The Era of structural change

During 2012-2014 Okmetic's business went through a significant and turbulent transformation. First, after 2012 the solar business started to collapse. Second, the global silicon wafer market entered into a recession with the global market declining by double digit figures in value. Finally, at the same time, Okmetic's historical long-term poly silicon purchase agreements turned unprofitable and since then the company has been forced to purchase raw material at prices above the spot. This curbed the Okmetic's profitability and tied significant amounts of working capital, since the company had to buy raw materials more than it needed and it was very difficult to get rid of it without making losses. This drag from historical raw material purchase agreements still remains today, but it will ease next year and end in 2017 as new contracts are negotiated. The historical purchase agreements, however, are not a significant competitive disadvantage for Okmetic, since

majority of the whole industry is operating under similar or even worse raw material purchase agreements.

In 2013, Okmetic's EBIT fell to 5.0 MEUR from 8.0 MEUR in 2012. At the same time, revenues from the technology business fell from 12.3 MEUR to 2.5 MEUR. In 2014, the company's EBIT recovered slightly to 6.4 MEUR while the technology business remained at insignificant levels. This reflects the improving underlying profitability of the silicon wafer business. In 2015, the technology (or "other business" currently) revenue will be insignificant, but the company is likely to reach above 10 MEUR EBIT for the full year, reflecting healthiness of the wafer business.

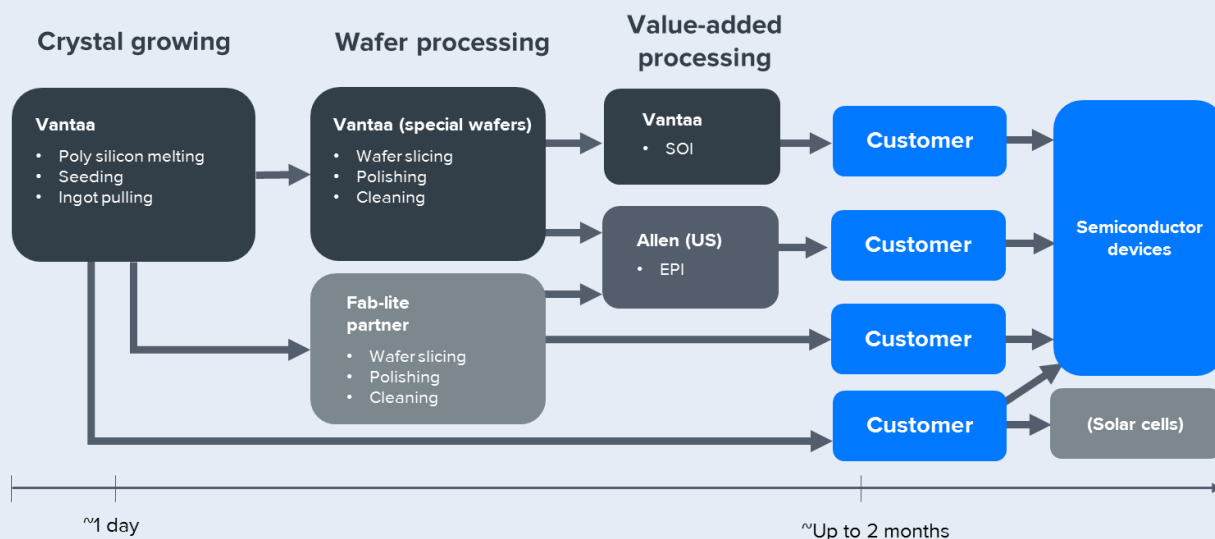
2015 - New Okmetic

After 2014, most of the historical challenges were behind. Silicon wafer market started finally to recover from its recession starting in H2'14, though competition remained fierce. Okmetic had managed the collapse of the solar business and working capital problems were under control. At the same time, the company's long-term investments in high value-added products continued to bear fruit as the share of higher margin products increased. Sensor wafer's (in old reporting) share of revenue had increased to 67 % in 2014 from 43 % in 2010. This is why the silicon wafer business was profitable again.

Going forward, the share of high margin products in Okmetic's business will continue to increase, driving higher profitability for the company. Today, the company's silicon wafer business alone is able to generate similar annual EBIT than the whole company made during the solar boom. The company is targeting 10-15 % EBIT-margin in the long term, which we consider as a realistic target. At the same time, the company's strong balance sheet and improving working capital will allow the company to invest in growth in areas like SOI and 200mm technology.

Okmetic's business

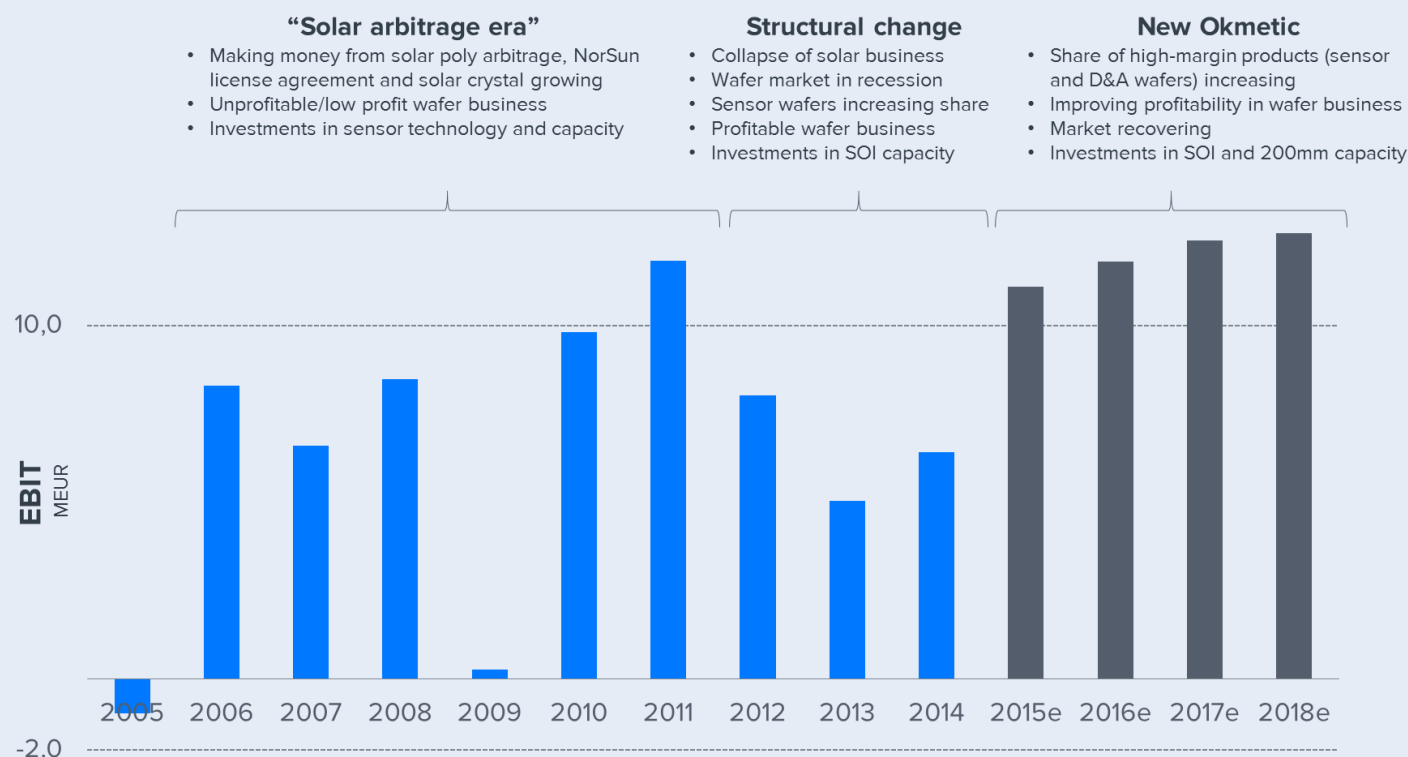
Okmetic's business model



Okmetic's order book and visibility into demand usually 1-2 months

Source: Inderes

Okmetic's history and business transformation



Source: Inderes

Silicon wafer industry and competition

Semiconductor silicon wafers provide the basis for most of the global production of semiconductor devices. The value of the global silicon wafer market is approximately \$8 billion, while the value of the customer industry (semiconductor market) is \$335 billion. The silicon wafer market is highly concentrated and the TOP5 players account for almost 90 % of the industry value. Also, the competitive balance of the industry is unhealthy and the industry has been suffering from over capacity. With two dominating Japanese players Shin-Etsu and Sumco absorbing more than 100 % of industry's EBIT during the last three consecutive years, the industry has no other choice than consolidation among midsize players in order to gain healthier competitive balance. Okmetic is the industry's agile niche player operating in areas, which the industry giants have ignored or where they are not competitive. The fiercest competition is in the high volume 300mm wafers where Okmetic does not operate. Many of Okmetic's competitors have been ceasing production capacity in the 150mm and smaller wafers, which may benefit the pricing environment in the wafer size where Okmetic operates. In long term, we consider Okmetic as a potential takeover target in the industry consolidation.

Industry overview and outlook

The silicon wafers are the raw material of the global electronics industry, worth around \$ 1800 billion in annual revenues. Between the silicon wafer market and the electronics market is the semiconductor market, worth \$335 billion in annual revenues. Silicon wafers are a relatively small but crucial industry in the global electronics value chain.

Since silicon wafers are at the very beginning of the electronics value chain and product development cycles are relatively long, the companies in this industry must be able to foresee the future trends in the electronics industry years ahead. New silicon material products researched and developed today are the materials that will be used in electronics in the 2020's.

The tricky part for both the semiconductor and silicon wafer market is forecasting the end-demand to meet the right supply/demand balance. Both industries have faced times of overcapacity with too many producers simultaneously expanding capacity despite limited end-demand growth, resulting in fierce price competition. In strong demand environment, the situation may be the opposite. This results in relatively high volatility of the industry revenues and profitability, since the companies must operate with relatively high fixed cost base.

Semiconductor industry

The semiconductor silicon wafer market has similar cyclical characteristics to the semiconductor market. Thus the global silicon wafer shipment growth has a high correlation with the global semiconductor unit growth.

The growth of the semiconductor industry has been largely driven by the growth in mobile devices market in the recent

years. Connectivity of everyday devices to the internet, or Internet of Things, represents the most significant growth opportunity and growth driver for the industry in the future. Also, further growth will be driven by several different industries (like automotive and health care) incorporating new technology-driven applications to their services and products.

This year, the sales of the semiconductor industry are estimated to be around \$338 billion (Gartner), a decline of 0.8 % Y-o-Y. The growth forecasts for 2015 have been revised downwards this year and they indicate first decline in market revenues since 2012 when the market declined by 2.6 %. This is because the outlook for the major applications that drive the semiconductor market, including PCs, smartphones and tablets, has been revised downward. Also, the global economic headwinds, such as the slowing Chinese economy and the strong dollar, are pushing up the cost of electronic equipment in many markets. The most rapid deceleration in the market this year will take place in Q4, which will affect Okmetic's Q4 performance as well.

However, the market contraction in the end of 2015 will probably be relatively short, since the long-term drivers of the industry are unchanged. Gartner predicts a more positive outlook for 2016 and is forecasting semiconductor revenues to increase 1.9% to \$344 billion.

Semiconductor silicon wafer industry

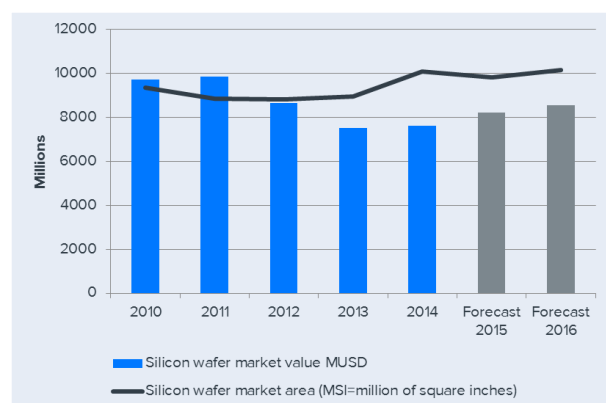
Semiconductor silicon wafer market has been volatile in recent years due to fluctuations in pricing. Volatility in the industry occurs due to changes in the supply and demand for semiconductor devices, which is impacted by general economic conditions, and particularly by trends that change demand for mobile, storage, industrial, automotive and other electronic applications.

For example, from 2008 to 2014, average selling prices of semiconductor silicon wafers in US Dollars declined by

more than 40 percent, according to Gartner. Overcapacity in the semiconductor silicon wafer industry has in particular been the reason for rapid price declines from time to time. For example, in 2012 the prices fell by 8.8 % and in 2013 the prices declined by 14 % according to Gartner. This has been mainly attributable to overcapacity in 300 mm wafers. Also, consolidation within the semiconductor industry has also increased the pricing power of the customers in recent years. If this trend continues, silicon wafer manufacturers may be forced to accept further price reductions. Finally, significantly weakened Japanese Yen has given the Japanese giant suppliers room for price reductions, pushing down the industry's value.

The most fierce price decline in the industry has been in 300mm wafers where Okmetic is not operating, but there is a spillover of price pressure from 300mm to smaller wafer sizes. Thus Okmetic is never fully protected from the pricing environment of the industry.

Silicon wafer market value and area



Source: SEMI, May 2015 and October 2014 (Okmetic CMD)

Looking ahead, the decline in the silicon wafer market value measured in US dollars is estimated to have stopped. According to SEMI, a growth of 1-3 % in surface area is estimated for the silicon wafer market for the years 2015-2017. Meanwhile, Gartner estimates the semiconductor silicon wafer market measured in square inches to grow at a five percent compound annual growth rate (CAGR) from 2013 to 2018. After three years of market falling in US dollar value, the decline in market value is estimated to have stopped. Thus the market is likely to experience small growth both in terms of surface area and value during the upcoming years.

Pricing of the industry is likely to stabilize in the upcoming years, because the industry capacity has been relatively flat since 2012 and the demand measured in silicon wafer area is forecasted to grow in the upcoming years. Currently there are no major capacity expansions planned in the industry since the return expectations are too low at the present price levels. For example, Sumco has said that a 30 % price hike would be necessary for it to increase 300mm wafer capacity. According to Siltronic, it takes up to four years to

plan, finance, construct and equip a new facility. Therefore, the companies must usually make a decision to build a new facility, or to reequip an existing facility, with no reliable forecast of what the supply/demand ratio and price levels are likely to be when the facility is scheduled to begin operation. At the current unstable market, it is unlikely that major capacity expansions in the industry would take place. However, more excess capacity in the industry could occur in a scenario where someone wants to take market share in the industry for strategic reasons. For example, there is a speculation that the Chinese electronics cluster is willing to secure its long-term access to the raw material by building new wafer capacity to the country.

Silicon wafer outlook in 200mm wafers and SOI

Okmetic's strategy focuses especially in 150mm and 200mm wafers in wafer size and in SOI wafers in wafer specification. The outlook for both 200mm wafers and SOI wafers (which may also be in 200mm) is relatively strong as many growth drivers are supporting these segments. For example most chips used in autos, machinery, household appliances and Internet of Things applications are made on 200mm wafers. Pricing outlook for the smaller wafers Okmetic is supplying is also healthier, since several suppliers have recently ceased capacity in 150mm and smaller wafers (for example Siltronic, LG Siltron).

200mm wafer demand and production capacities increased through the early 2000s and peaked during 2006-07 as the high-volume semiconductor applications started to move to 300mm solutions due to the lower cost of the larger wafer size. After that, total capacity for 200mm wafers started to decline, but the demand for these wafers has now stabilized. Actually, today 200mm wafers are the most attractive wafer segment in the market due to better pricing than in 300mm.

In long term, the shift from 200mm to 300mm wafers will proceed due to economies of scale, but manufacturers are likely to continue using 200mm and smaller wafers to make chips for small-volume production of a diverse range of applications. 300mm wafers are mainly used in higher volume applications such as memory, microprocessor and logic applications. Especially in MEMS and in several RF- and power management applications 200mm will hold its position as the mainstream technology.

Also, the demand outlook for SOI wafers is strong. This segment is growing due to the ability of SOI wafers to enhance the performance of RF devices such as power amplifiers, switches and sensors. According to the SOI Industry Consortium, the total available market for SOI wafers is expected to double over the next five years, driven by the increased penetration in mobile system-on-chips and RF devices.

Sensor industry outlook

Wafers for the sensor industry represent around half of Okmetic's revenue. In 2015, the sales value in the sensor industry is estimated to grow by 6-11 percent. For the next five years, the annual growth rate of 7-17 percent is expected for the industry according to market researchers (IC Insights, IHS, Semico, Yole). In terms of volume, sensor deliveries are likely to clearly rise to a record level in 2015. The sensor wafer sales growth is attributable to the proliferation of mobile devices in particular. According to Okmetic, SOI technology is increasingly used in the manufacture of sensor products.

Okmetic's addressable market

In the whole silicon wafer market, Okmetic's market share is around 1%. However, the company operates only in a few segments of the semiconductor market. The company has estimated that the semiconductor segments relevant for Okmetic are worth \$74 billion in revenues, and the market for silicon wafers in these segments is around \$1bn in revenues. This translates into an estimated 10 % market share in the segments the company is targeting. The target markets include sensors (\$200 million), discrete semiconductors (\$300 million) and analog circuits (\$500 million).

Competition

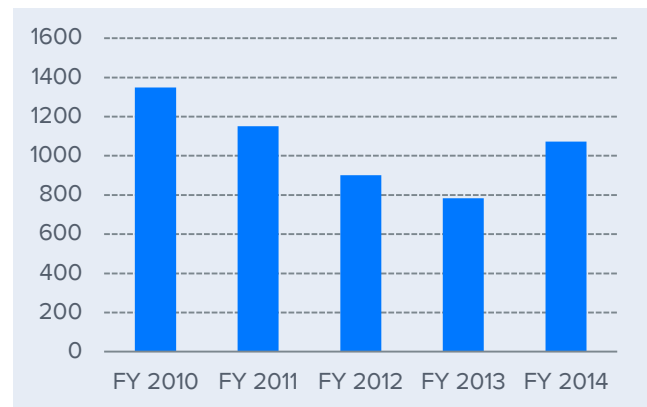
The key competitive factors in the semiconductor silicon wafer market include product quality, technology, reliability, price and customer service. Around 60 % of the market in terms of area is in the 300mm wafers, where volumes are high and product differentiation is difficult. In the high volume products, economies of scale play key role in competition. Okmetic tries to avoid the most competed areas of the market and focuses on products where the company can differentiate and has pricing power.

Key suppliers and performance

The top five vendors in the industry include Shin-Etsu Handotai, SUMCO Corporation, SunEdison Semiconductor, LG Siltron and Siltronic. The market is highly concentrated with the TOP5 accounting for around 90 % of industry revenues. Furthermore, the TOP2 suppliers Shin-Etsu and Sumco account for more than 50 % of the market, which gives these Japanese suppliers a dominant position in the market. Okmetic is the eight largest supplier in the industry, behind Wafer Works and Globalwafers.

Reflecting the rapidly falling prices in the industry, combined EBITDA of the TOP8 suppliers fell from 1151 MEUR in 2011 to only 784 MEUR in 2013. In terms of EBIT, the whole \$8 billion market generated only around 200 MEUR profit in 2012.

Combined EBITDA of TOP8 suppliers (m\$)



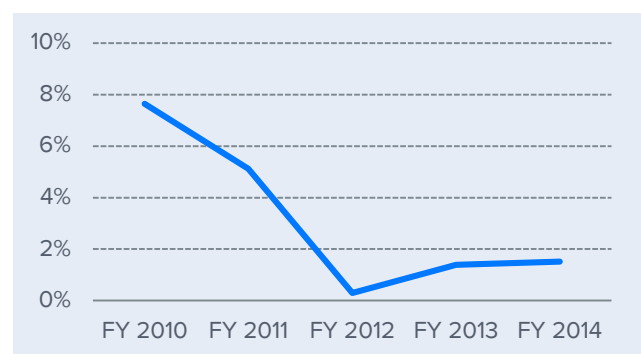
Source: Bloomberg, Inderes

While the industry has had difficult years in terms of making profits, the competitive balance of the suppliers has made things even worse. The two dominating Japanese suppliers have over 50 % combined market share, which has made them as price leaders and the others as price takers, especially in the high volume 300mm wafers. The weak Japanese Yen has made these suppliers even stronger in the competition. The mid-sized suppliers Siltronic, SunEdison Semiconductor and LG Siltron have been squeezed by this competitive pressure and they basically have no chances to fight back. Each of these three suppliers generated negative EBIT in 2013 and 2014.

For the Japanese suppliers this balance suits well, since they are able to absorb the industry profits. This is why the two are unlikely to hike prices much, since that could give the mid-sized suppliers more breathing room and attract new capacity to the industry. In 2014, the two Japanese suppliers accounted for 70 % of the TOP8 supplier's combined EBITDA and 125 % of the combined EBIT.

EBIT-% of the two industry leaders range in the 10-15 % level and their EBITDA-% are around 20-25 %. In 2014, the TOP8 average EBITDA was 15 % and average EBIT-% was 2 %. This year the industry profitability is likely to slightly recover from the collapse in 2012-2014.

Average EBIT-% of the TOP8 suppliers



Source: Bloomberg, Inderes

The average ROA-% of the TOP8 suppliers was only 1.4 % in 2014. This also indicates that it makes no sense for the industry to invest in new capacity, at least from the financial point of view.

Industry consolidation

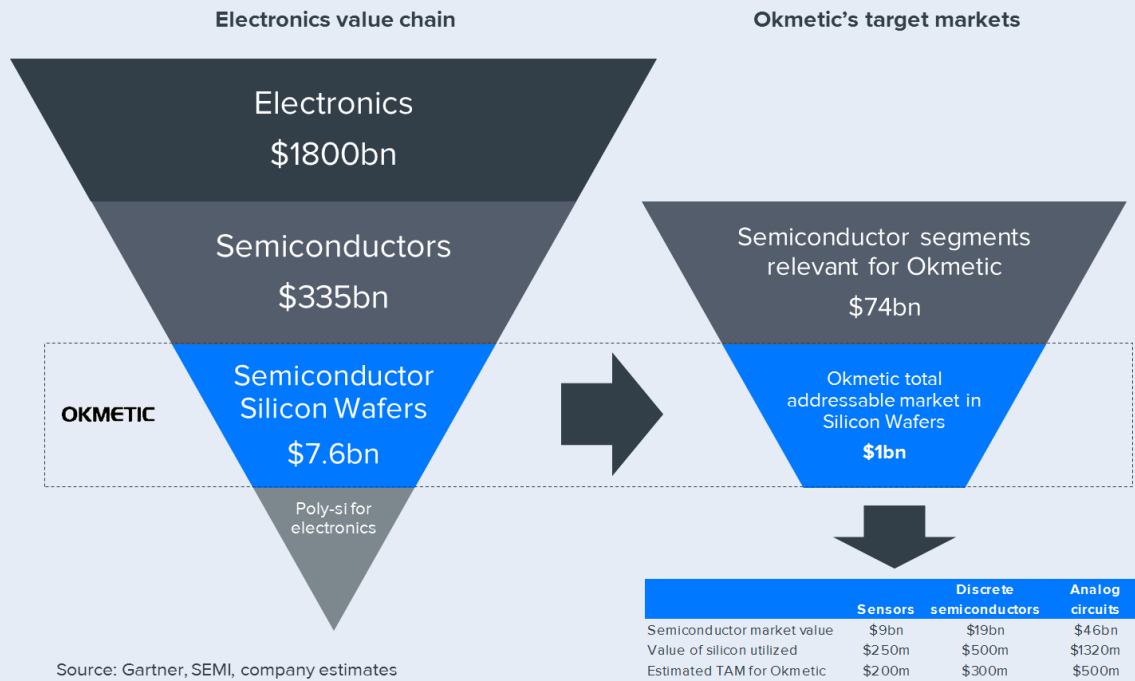
The silicon wafer industry has experienced a rapid consolidation over the past 20 years. The number of suppliers has decreased from more than 20 in the 1990s to only five major suppliers present today. The consolidation is mainly due to the substantial increase in the capital investment and manufacturing capacity needed to compete effectively.

Due to unhealthy competitive balance, consolidation of the customer industry and weak industry profitability, the silicon wafer industry still needs to consolidate further. For the unprofitable mid-sized suppliers (LG Siltron, SunEdison Semiconductor, Siltronic), consolidation will probably be the only way for them to gain enough pricing power and scale to fight the Japanese dominants in competition. In 2014 and 2015, SunEdison and Siltronic were spun off from their parents with an IPO. This could pave way for possible future consolidation, but the challenging financial position of the suppliers makes it difficult for them to make the required investments.

Looking ahead, it is obvious that the industry will continue to consolidate at some point of time. We believe Okmetic could be a potential takeover target when the larger players start making their strategic moves. Also, any consolidation would be good for the industry and Okmetic, since it is likely to result in capacity closures and healthier pricing environment.

Silicon wafer industry

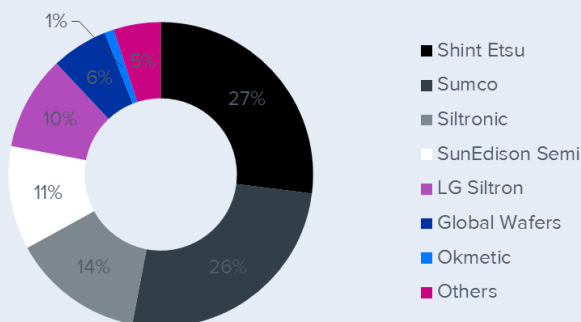
Silicon wafer market and Okmetic's markets in the electronics value chain



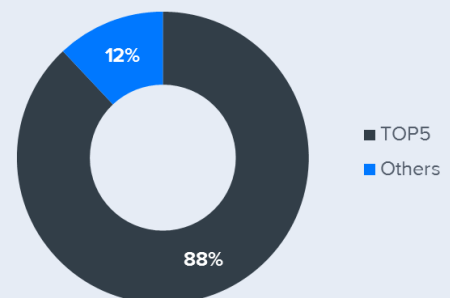
Silicon wafer competition and wafer segments



Vendor market shares (2013)



Market concentration



Source: Gartner, Inderes

Okmetic's strategy and competitive advantages

Trends driving the technology industry provide a solid growth market for Okmetic in the long term. Demand for Okmetic's high performance wafers for power management, radio frequency and sensor applications are driven especially by IoT. However, the silicon wafer industry will remain a highly challenging market and shareholder value creation in this industry will require a complete success in strategy implementation. Okmetic has declared it will not take part in the industry's price competition and accelerating the shift to higher margin products is at the core of Okmetic's strategy. This will be achieved by leveraging from common technology platforms in the both product segments. Okmetic has been able to increase its price premium over the industry average ASP from 20 % in 2012 to 100 % in 2015. This reflects a very successful strategy implementation so far. The company's key competitive advantages include efficient and agile manufacturing, customer relationships and technology IPR. The competitive advantages of the company have been reflected in superior profitability performance relative to the struggling industry.

Strategy

The technology industry growth trends provide a solid growth market for Okmetic into the foreseeable future. However, the silicon wafer industry is likely to remain overcrowded and consolidation among customers will ensure that the silicon wafer market will not be an easy industry to make profits in the years to come. For Okmetic, the key strategic objective for long-term shareholder value creation is to accelerate the shift to value-added products. For many competitors, the upcoming years will be more about survival, which places Okmetic in a good position to execute its strategy.

Technology choices

Okmetic's 25-year focus on sensor technologies and other high performance silicon materials provides basis for the technology choices and competitive advantages. The three main technology platforms Okmetic aims to leverage across both Sensor and D&A -segments are 200mm wafers, SOI and crystal growing technology. Technology platforms mean that the company is able to use the same core technologies for several different silicon wafer products and customer applications. This enables higher margins and price premium over competitors.

However, maintaining a price premium requires continuous investments in R&D. Okmetic's competitors may adapt technological changes more quickly and they might develop new wafer specifications faster and at lower prices or with better performance characteristics than Okmetic. The technology competition is thus a never ending race between the companies.

Strategic actions

In short, Okmetic's strategy is about avoiding low-margin business with competition and going after high-margin business in high-value-added niche products where Okmetic is preferably the sole supplier. The company has been able to improve its product mix continuously over the past years and the ambition is to accelerate this shift further.

At the same time, the company aims to continue the tight cost control it has implemented successfully so far. We do not believe there is much room for cost cuts, but some profitability leverage may be achieved through revenue growth. To improve efficiency of the manufacturing processes, Okmetic will also continue to leverage on the fab-lite supply chain partner model in 150mm and 200mm wafers. The company is working hard to find new fab-lite partners and to get customer qualifications for the partners. This way Okmetic is able to capitalize on the excess capacity of the industry and leverage its technology in other suppliers' production.

The growth ambitions of Okmetic will require the company to increase CAPEX during 2015-2020 strategy period. The investments are related to the capacity and capability in 200mm wafers and demanding crystal growing. Most recently, the company announced 8 MEUR investments this summer. CAPEX will thus be higher than depreciation in the upcoming years, but the cash flow effect will be partly offset by improving working capital.

Financial objectives

In October 2015, Okmetic updated its long-term financial targets. The company is now aiming for 10-15 % EBIT-% (earlier target: >10 %) and 5-10 % organic growth in net sales. Earlier, the company targeted above 10 % growth for the sensor wafers with no target for other product segments. The new targets are applied as of 1.1.2016. We believe the

targets are realistic and our own estimates are in line with them. Also, we estimate that reaching these targets will enable the company to generate strong cash flow and dividends. The only thing we would like to hear is how the company is going to improve its ROE, since the balance sheet could be used more efficiently. On the other hand, strong balance sheet is also a good thing in this industry.

Competitive advantages

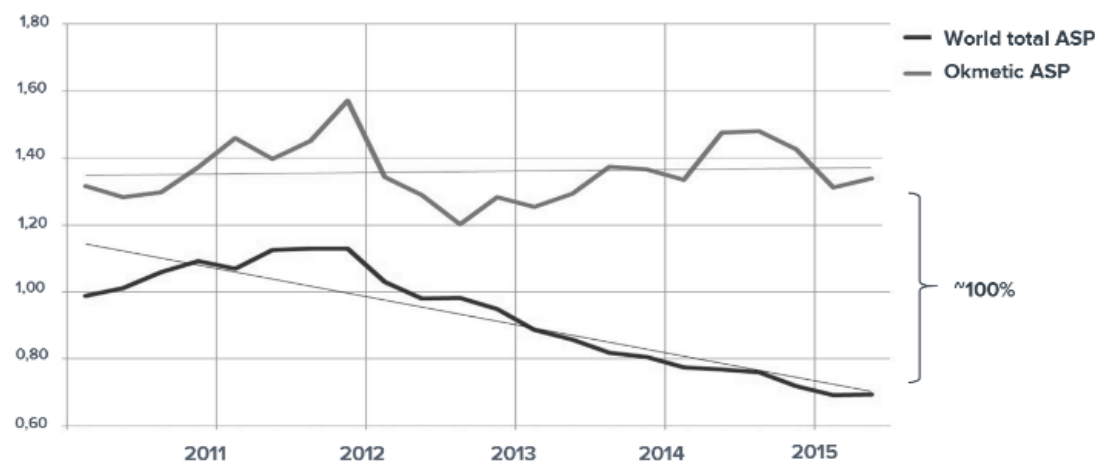
We believe the key competitive factors that enable Okmetic to operate with a clear premium over average market prices are the following:

- **Efficient and agile manufacturing and operations.** Cost efficiency is a must in this industry since competition will always remain fierce. Okmetic has been able to keep its fixed cost base relatively stable in recent years. The company's plant in Vantaa is agile and efficient plant for crystal growing and manufacturing of small diameter wafers in small production batches. The fab-lite operating model allows the company to operate close to full capacity even in weak demand situations, while in strong demand the company can utilize the fab-lite partners if the company is capacity constrained. We have understood that Okmetic is the only company in the industry operating with the fab-lite model.
- **Customer relationships.** Statistically customer relations in Okmetic's industry are stronger than marriage. During its history, the company has built a strong customer base in the selected markets. For example, Okmetic is supplying to 80 % of the TOP30 players in the MEMS market. For the semiconductor companies, switching costs related to wafer suppliers are relatively high, since the supplier qualification process may take more than a year. Especially in automotive applications once a supplier has gained position, it is very unlikely to be kicked out from the supplier list unless it makes severe mistakes.

- **Strong technology IPR in selected markets.** Okmetic has focused its key technology choices on selected areas like crystal growing and SOI technologies. For example, the company started to invest in SOI and sensor technologies more than ten years ago when the company was able to foresee the upcoming explosion in the number of sensors used in everyday products like smartphones and cars. Successful technology bets like these have given the company a several year head start against many competitors. Silicon wafers are highly complex products and the company's expertise and technologies related to the manufacturing processes and products are highly difficult for competitors to copy. The company has some patents, but in the silicon materials industry patents do not usually play significant role in competition.
- **Strong performance track-record.** Okmetic's superior performance relatively to the struggling industry in recent years confirms that the company has advanced technology and efficient operations. This makes the company a more reliable supplier for customers.

Okmetic's biggest competitive disadvantage in our view is the lack of scale and resources of a small player. This may limit the company's ability to compete in price and to gain access to biggest customers. As Okmetic's customers in the semiconductor industry consolidate and become bigger, it may be difficult for small suppliers like Okmetic to maintain position in the customer's supply chain.

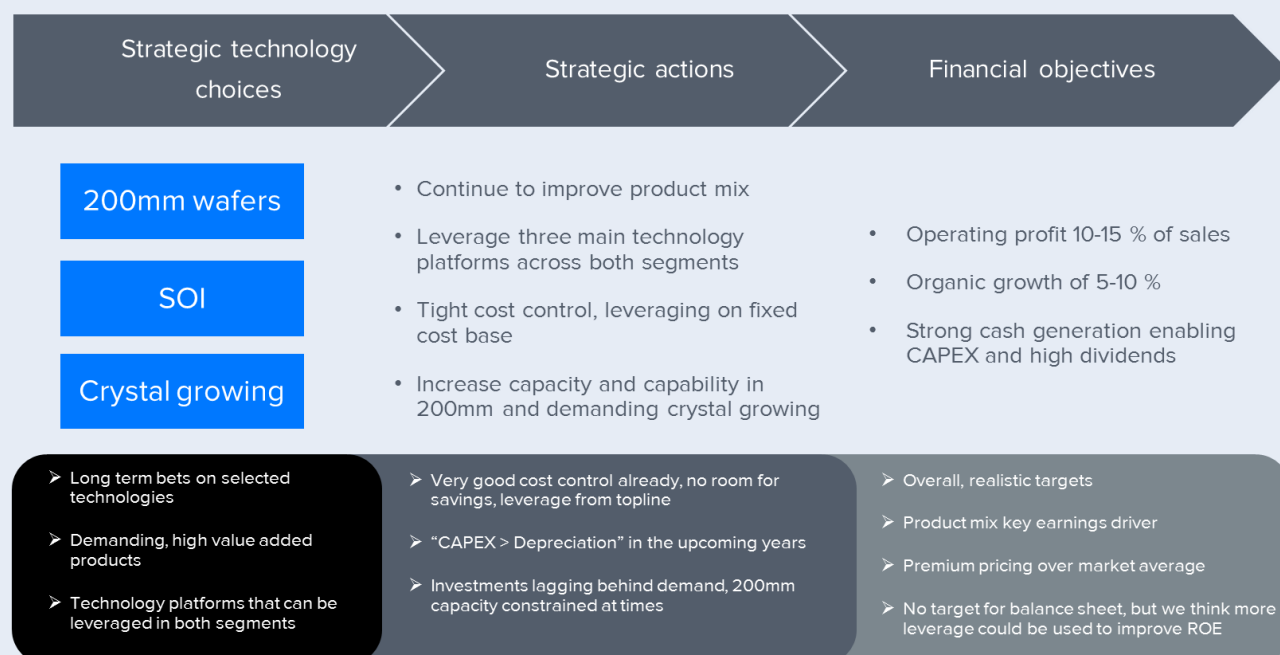
Okmetic's price premium over industry's average ASP



Source: Okmetic CMD 2015

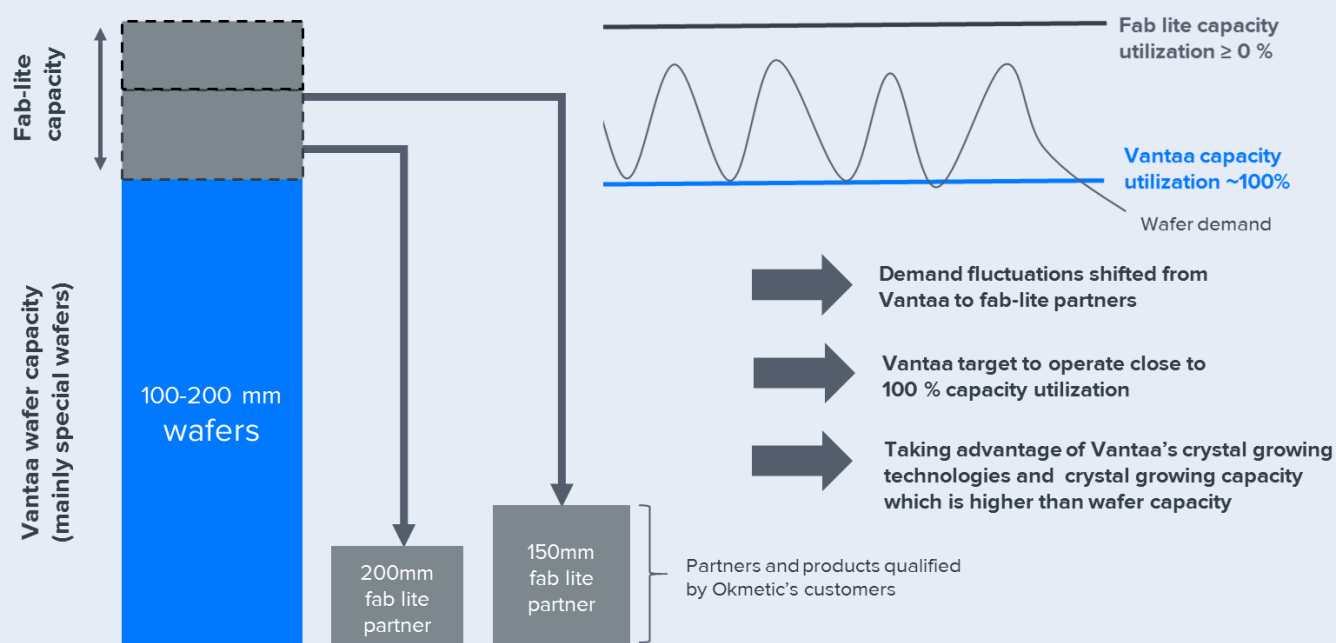
Okmetic's strategy

Strategic choices, actions and financial objectives



Source: Inderes, Okmetic

Fab-lite operating model brings flexibility to buffer demand fluctuations



Source: Inderes

Estimates and valuation

During the last 5 years, Okmetic has been able to clearly outperform many of its peers in profitability, though earnings growth has not given the owners reasons to celebrate. However, 2015 will mark the first year of significant recovery in earnings since the market started deteriorating in 2012. The silicon wafer demand will experience a rapid but short decline in demand during the end of this year, but outlook into 2016 gives no reason to worry about the challenging Q4'15. We estimate the company's EBIT-% to be in line with the 10-15 % target and revenues to grow 5-10 % during the upcoming years. Okmetic's current valuation looks relatively attractive (2016e P/E 13x) and our positive view of the stock is supported by the company's strong competitive advantages, solid long-term industry growth drivers and strong dividend yield (>6 %).

Historical performance

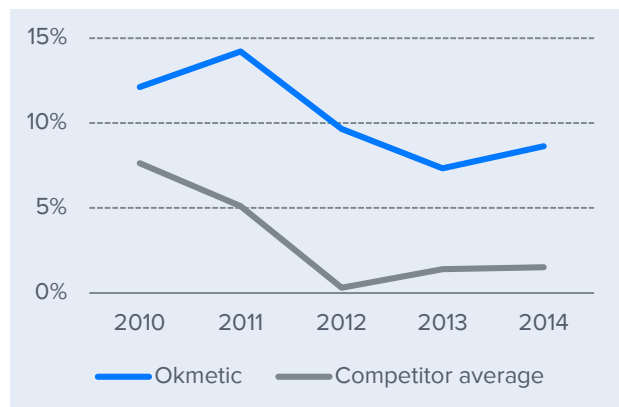
Outperforming the underperforming industry

During the last 5 years, Okmetic has been able to significantly outperform its peers in terms of profitability. Okmetic's EBIT-% has ranged from 7 % to 14 % and represented over 5 percentage point premium over the peer group average. Okmetic is one of the few suppliers in the industry who have been able to reach almost as high profitability as the industry giants Sumco and Shin-Etsu in the recent years.

Also, Okmetic is one of the few suppliers who have been able to recover revenue back to close to 2011 levels, the year before the industry entered into the slump.

Though the company has been outperforming the peers, it does not mean that the profitability of the recent years would give reason for owners to celebrate. During 2011-2014, the company's EPS fell from 0.59 EUR to 0.28 EUR. This year will mark the first year of significant recovery in earnings since the market started deteriorating in 2012.

Okmetic profitability (EBIT-%) vs. industry TOP8 average



Source: Bloomberg

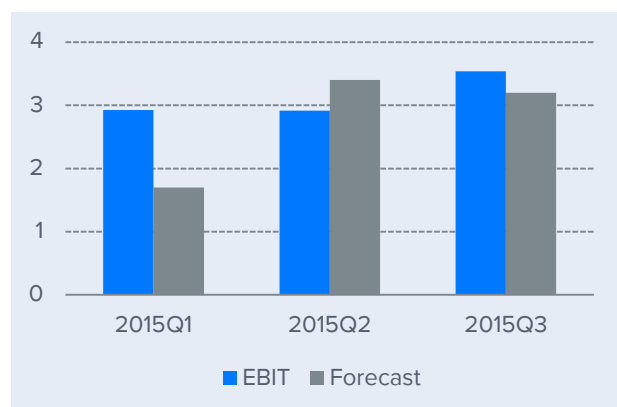
Performance in 2015

This year, the company has performed quite well in line with our forecasts and our 2015 EBIT estimates are slightly above the EBIT estimates we had in January. In Q1 and Q2 the company was capacity constrained due to strong demand especially in 200mm wafers, which resulted in very solid revenue growth (19 %) and results (EBIT-% 13.2 %) for H1.

In Q3 Okmetic's revenues stood at 20.8 MEUR, slightly below our estimate of 21.7 MEUR. Revenues in constant currencies were flat Y-o-Y, which indicates the period of strong demand in H1 came to an end in Q3. The slowdown results from a weakened outlook in the semiconductor industry and it is likely last the rest of the year. Okmetic's revenues grew by 8 % in Q3 driven by currencies. In Q4, the tailwind from USD will diminish.

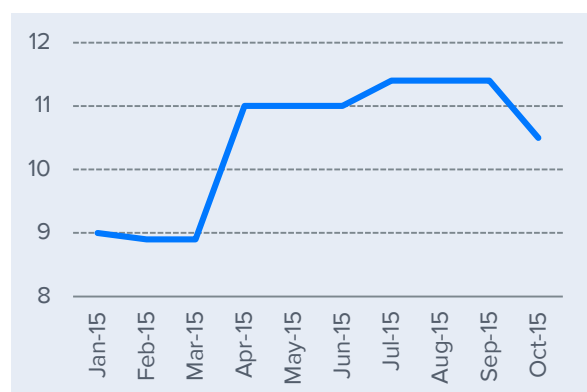
Despite the lower demand, the company had a very successful quarter in terms of profitability in Q3. EBIT-% stood at 17.0 % and EBIT of 3.5 MEUR exceeded our estimate of 3.2 MEUR (Q3'14: 2.8 MEUR). The strong profitability was driven by successful production during the quarter and a favorable product mix. Sensor wafer (in old segment reporting) shipments grew by 15.8 % indicating the shift towards higher margin products is continuing. This will make Okmetic less vulnerable to cyclicalities and price competition in the silicon wafer industry. The share of high-value-added products (sensor wafer segment in current reporting) from sales was 62 % (61 % in Q3'14).

Actualized EBIT vs. estimated EBIT in 2015



Source: Inderes

EBIT 2015 estimate changes this year



Source: Inderes

Balance sheet

At the end of Q3'15, Okmetic's equity ratio stood at 71 % and gearing at 1.5 %. This compares with clearly lower equity ratios of competitors (Siltronic 52 %, SunEdison Semic 44 %, Sumco 52 %, Wafer Works 58 %). This allows the company to pay high dividends while making the required investments to maintain growth.

Also, Okmetic's assets are relatively conservatively valued in the balance sheet, since much of the company's production facilities have already been depreciated from the balance sheet. This is also partly due to historical write-downs in the 2000's. The company's tangible assets are valued at 43 MEUR in the balance sheet. According to our understanding, building similar production capability on green field basis would cost up to 200 MEUR.

Estimates

Short term estimates

Okmetic's visibility into demand is very limited since order books in the industry are typically very short and they have become even shorter during this decade as the semiconductor customers have strived for even leaner inventories and processes. In a good situation, Okmetic has up to two months of visibility into demand. In a weak market like at the present time, the visibility could be as low as few weeks.

Based on the management comments and the Q3 report, Okmetic's demand outlook for Q4 is fairly challenging. The latest forecasts for the semiconductor market suggest that growth will be negative 2015 for the first time since 2012. Currently the estimates are at -1 to + 2 % growth for 2015 (Gartner, IC Insights, VLSI, WSTS). This means a drastic change in the Q3 and Q4 outlook, since before the summer the growth forecasts were at 3-8 % (WSTS, Gartner, IHS, IC Insights). One key reason for this is that smartphones and China are no longer driving the industry growth the way they used to.

The slowing demand in semiconductors is reflected in the consumption of silicon wafers as well. This will intensify the silicon wafer market's pricing environment and competition especially in the higher volume 300mm wafers. Okmetic operates in selected niche areas, but the company is not fully protected from the market cycles. The challenging short-term market further boost the industry's pressure to consolidate as several mid-sized players continue to struggle (Siltronic, SunEdison, LG Siltron).

For Okmetic, we understand that large customers may be temporarily freezing their orders and optimizing inventories, which will be reflected in the Q4 demand. Despite small USD tailwind, we estimate Q4 revenues to fall by 9.5 % to 16.9 MEUR and EBIT to amount 1.1 MEUR (Q4'14: 1.6 MEUR). Although Q4 will be weak, Okmetic will end this year with good numbers. We estimate 2015 sales to grow 10 % Y-o-Y and EBIT to amount to 10.5 MEUR (2014: 6.4 MEUR), representing a solid EBIT-margin of 13.0 % (2014: 8.6 %) for FY2015. The company will have no problem in meeting the current guidance: "sales and operating profit for 2015 are estimated to clearly exceed the level of 2014".

The company has indicated that the demand is likely to normalize in Q1'16. Thus we made only minor adjustments to our 2015 estimates after Q3 report.

Long term estimates

Despite the slowdown in Q4, 2015 will be a relatively good year for Okmetic driven by favorable currencies and strong H1 demand as the silicon wafer market recovered from the 2012-2014 recession. Thus we do not expect similar earnings growth to continue in the upcoming years and we keep our estimates as fairly conservative. We expect EBIT-%

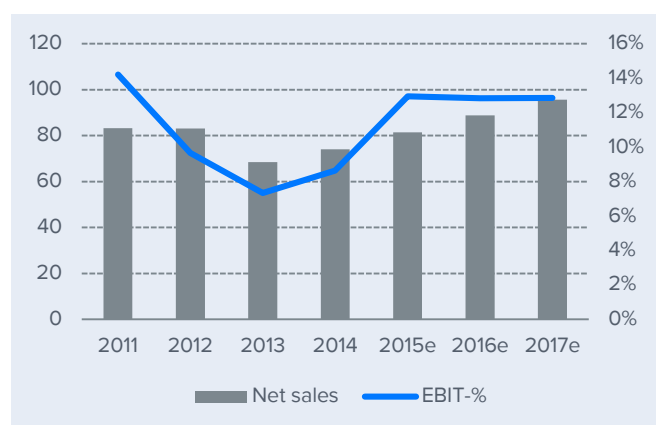
to remain in the 12-13 % range after 2015. Thus the growth in earnings will be driven by top line in our estimates. We expect the company's revenue to grow 9 % in 2016e, 8 % in 2017e and 7 % in 2018e. This is in line with the company's target of 5-10 % per annum. In our forecasts, the company's EPS rises from 0.47 EUR in 2015e to 0.61 EUR in 2018e. Our long-term estimates indicate EPS growth from 2015 will be in line with the topline growth (5-10 %).

Okmetic's topline growth in the upcoming years will be driven by continuing solid outlook in both the sensor segment (increasing demand for sensors in mobile, automotive and industrial electronics) and D&A -segment (FR applications, power semiconductors). Okmetic has also recently gained growth from its new high resistivity semiconductor wafer products, which have ramped up to volume production this year. Demand for these high-margin products has been particularly strong this year and the company highlighted new important customer wins in the US for these products in the Q3 report. Demand for high resistivity wafers is driven for example by new advanced RF (radio frequency) applications in mobile phones and IoT (Internet of Things) applications.

In long term, Okmetic's margins will continue to gain support from the continuing business mix shift towards higher valued added wafers. This is offset by a price erosion in semiconductor wafers and increases in OPEX as the company adds more capacity and has to shift production from 150mm wafers to 200mm wafers.

In the long term, we believe the company could reach as high as 15 % (sustainable) EBIT-margin if 1) the strategic shift towards higher margin products continues with the current pace, 2) the ramp up of 200mm wafers is successful and 3) the company makes right bets on right technologies with a right timing. In the scenario of 15 % EBIT-margins, almost all of the production would be in high value-added wafers and the low-margin products' role would be to fill in the capacity at times when demand is lower. However, we are not yet ready to model that high margins, since the business transformation is still ongoing.

Net sales and EBIT-% forecasts



Source: Inderes

Cash flow, dividends and balance sheet

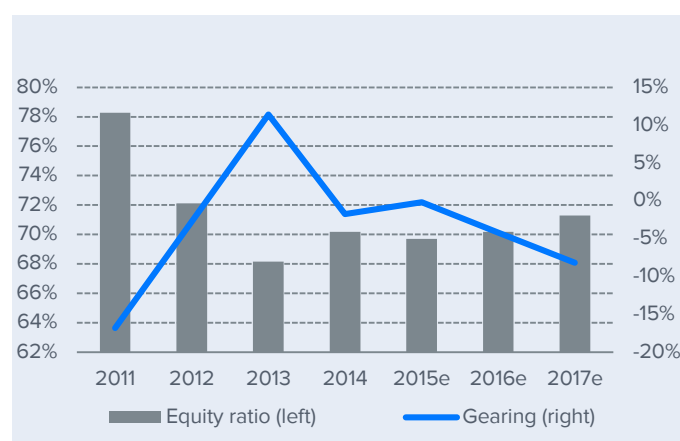
Okmetic's balance sheet is strong. Gearing stood at 2 % and equity ratio at 71 % at the end of Q3'15. The company has 10.9 MEUR in cash.

The strong balance sheet will enable the company to execute the CAPEX required for the targeted growth. We see that the new strategy will force the level of CAPEX to exceed depreciation levels during the next 5 years. One major investment was announced this summer when the company said it will invest 8.4 MEUR in Vantaa's 200mm and SOI capacity and capability. We forecast around 10 MEUR CAPEX for the next 3 years while the depreciation is at 7 MEUR level.

Despite the increasing CAPEX, cash flow will remain strong due to two factors. First, continuing solid and slightly growing EBITDA will support the cash flow. Second, the cash flow gap between depreciation and CAPEX will be mainly offset by improving working capital. We estimate that the company will be able to free up around 5 MEUR in inventories during the next 2 years. This is because the company's historical long-term purchase agreements are maturing which will, to our understanding, significantly free capital tied to the raw material inventories.

We would also like to highlight that Okmetic is operating in a highly capital intensive business, but the company is using very low leverage (gearing close to 0 %). Thus adding more leverage to finance investments is also a plausible option. We think also that Okmetic could add leverage to its business in order to boost its return on equity. This year, despite of the very good profitability, the company's ROE amounts only to 12.5 % in our estimate. This indicates that the capital allocation is very conservative and could be more efficient.

Okmetic balance sheet figures



Source: Inderes

Valuation and investment case

Investment case

Okmetic's current valuation looks relatively attractive and our positive view of the stock is supported by the company's strong competitive advantages, solid long-term industry growth drivers and strong dividend yield. We believe that the current profitability level the company has reached (EBIT% 12-13 %) is relatively sustainable even though the industry competition will remain fierce. If the company would be able to maintain its profitability at this level, it is difficult to see significant downside for the share price

In our investment case, we continue to look at Okmetic as a bond+option case. The share gives a good >6 % annual dividend yield and an option for share price appreciation. However, since the share has gained almost 50 % year to date, we see that the value of this option has already mostly materialized. We do not expect that the company could be able to grow earnings significantly from the current levels and we do not see the valuation multiples could stretch much further. Thus the triggers for significant share price gains depend mainly on the industry consolidation if the company was to become acquired or if the acquisition speculation was to become more active.

In an acquisition scenario, it is unlikely that the company could find a buyer from this industry that could be able or willing to pay significant premium over the current market capitalization in near term. We estimate that in the acquisition scenario, the value Okmetic's owners could fetch in a positive exit-scenario would be above 10 EUR per share (indicating Enterprise Value above 170 MEUR). This would indicate quite hefty >15x EV/EBIT multiples and >20x P/E multiples. However, Enterprise Value of 170 MEUR would still be below the estimated 200 MEUR replacement cost of Okmetic's production facilities. Thus the current market capitalization (EV ~120 MEUR) would give cheap access if a competitor would like to acquire competitive production capacity and Okmetic's technologies.

Investment risks

In addition to normal business risks, we consider the following the most relevant risks for Okmetic and its owners:

- **Customer consolidation** is one of the key risks Okmetic and for the whole silicon wafer industry. Consolidation in the semiconductor industry has been very rapid this year especially. Consolidation of the customers increases their bargaining power and it may make Okmetic more reliable on large customers. Also, if Okmetic's large customer becomes acquired, the company may be dropped from the supply chain of the new entity. Okmetic aims that no single customer would account for more than 10 % of its revenues.

- **Industry volatility** is a short term risks which is inevitable as the semiconductor industry adjusts to changes in demand of consumer electronics for example. As we will see in Q4'15, this may result in rapid deceleration in demand for silicon wafers as the industry adjusts inventories throughout the supply chain. Variations in Okmetic's demand from quarter to quarter may thus be significant and requires flexible operating model from the company. Also, visibility into future demand will always be very limited for Okmetic.
- **Failure in future technology choices** is one of the key long term risks for Okmetic. So far the company has made the right bets during the past 10+ years (like investments in SOI) but it is uncertain whether the company will as successful and more innovative in the future. Since Okmetic is a small company, investments in wrong technologies may result in significant deterioration in the company's performance. The company's key R&D personnel will play significant role in this.
- **Currency movements** (especially in USD and JPY) may affect adversely Okmetic's costs, revenues and competitive position. During the last 12 months, the company has gained significant tailwind from USD/EUR to its topline and cost competitiveness. In 2014 Okmetic had 54 % of revenues in USD. JPY has mainly indirect effect on the industry competition. For example, devaluation of JPY especially in 2012-2013 gave the dominating Japanese competitors significant cost advantage, which made the fierce price competition in the industry even worse.
- **Dependency on one production plant** makes Okmetic vulnerable to faults or accidents in the manufacturing processes. Faults in the plant could result in Okmetic's inability to supply for the customers for long periods of time. Luckily, unlike with the Japanese competitors, Vantaa is not located at an earthquake area.

Valuation multiples and peer group

Okmetic has several listed peers, but comparison to peer group does not give much support to valuation. This is because most of the companies in the industry are struggling and unprofitable, except the two Japanese industry leaders (Sumco and Shin-Etsu). Of the closest peers, SunEdison Semiconductor went public in 2014 while Siltronic went public this year. Despite operating in the same industry, Okmetic owns a very different business and investment profile than the peers. Earnings multiples have quite low information value due to poor profitability of the peers. According to the P/E and EV/EBIT ratios we consider as the most relevant, the share appears to be slightly undervalued.

Shareholder value drivers

As we have said in the estimates section, we do not expect Okmetic is able to improve its profitability significantly from the current levels (EBIT 13 %) in long term (over the cycle).

Thus earnings growth will be driven by growth in top line, which we expect to be 5-10 % in the medium/long term.

We do not see significant upside in the company's valuation multiples (2016e P/E ~13x, EV/EBIT ~10x) going forward, since the good share price performance this year has narrowed valuation gap for the share. In short term, consolidation speculation in the industry might drive the multiples up slightly. In our estimates the dividend yield is at 6-7 % for the upcoming years.

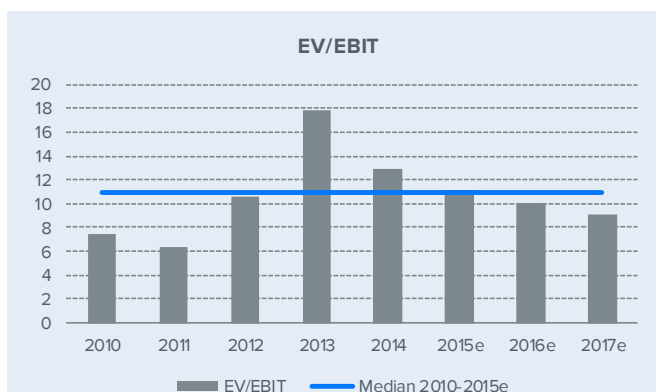
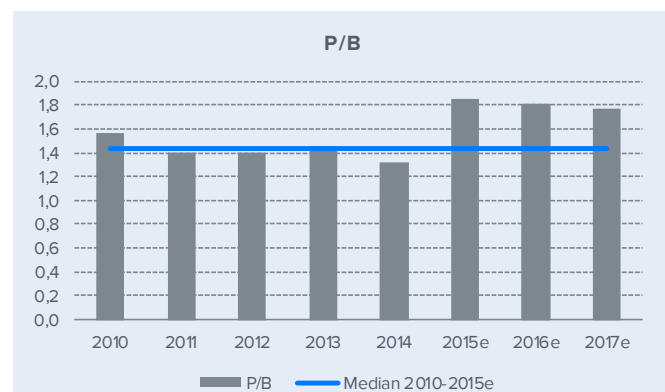
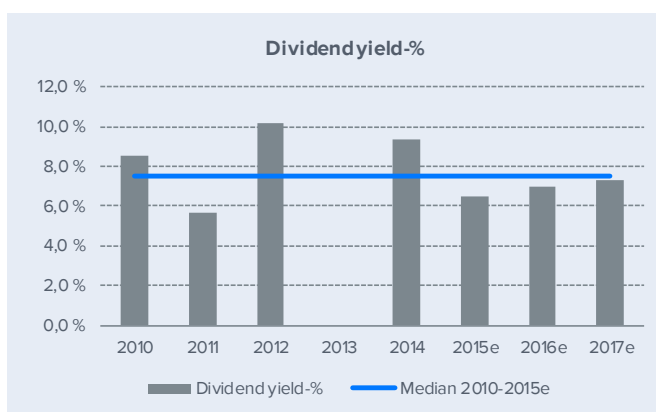
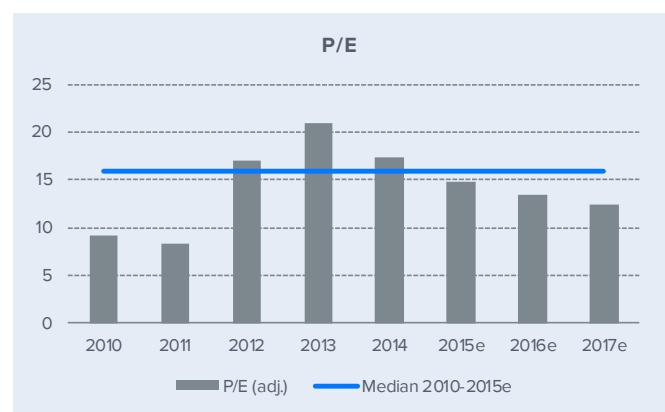
Given 5-10 % earnings growth, flat valuation multiples and 6-7 % dividend yield, total shareholder return expectation for the share amounts to 11-17 % in our model. We consider this as a relatively attractive return expectation against the risk level of the company's share and business operations.

DCF model

Our DCF-value for the share (7.7 EUR) reflects our target price for a 12 month period. In the model we estimate the company would reach 5-10 % growth in revenues and 12-13 % EBIT margins in 2015-2020, after which growth and margins would stabilize to 3 % and 10 % levels, respectively. WACC is at 8.2 % in our model. The weight of the terminal value is slightly below half.

Valuation	2010	2011	2012	2013	2014	2015e	2016e	2017e
Share price	5,29	4,92	5,02	4,82	4,83	6,97	6,97	6,97
MCAP	91	85	87	83	84	118	118	118
EV	73	75	85	90	82	117	115	112
P/E (adj.)	9,2	8,3	17,0	20,9	17,3	14,8	13,5	12,5
P/FCF	6,4	587,2	-21,5	87,0	13,1	16,7	11,4	10,7
P/B	1,6	1,4	1,4	1,5	1,3	1,8	1,8	1,8
P/S	1,1	1,0	1,0	1,2	1,1	1,4	1,3	1,2
EV/S	0,9	0,9	1,0	1,3	1,1	1,4	1,3	1,2
EV/EBITDA	4,4	4,1	6,1	8,4	6,5	6,9	6,1	5,6
EV/EBIT	7,5	6,3	10,6	17,9	12,9	11,1	10,1	9,1
Payout (%)	78 %	47 %	172 %	0 %	161 %	96 %	93 %	89 %
Dividend yield-%	8,5 %	5,7 %	10,2 %	0,0 %	9,3 %	6,5 %	7,0 %	7,3 %

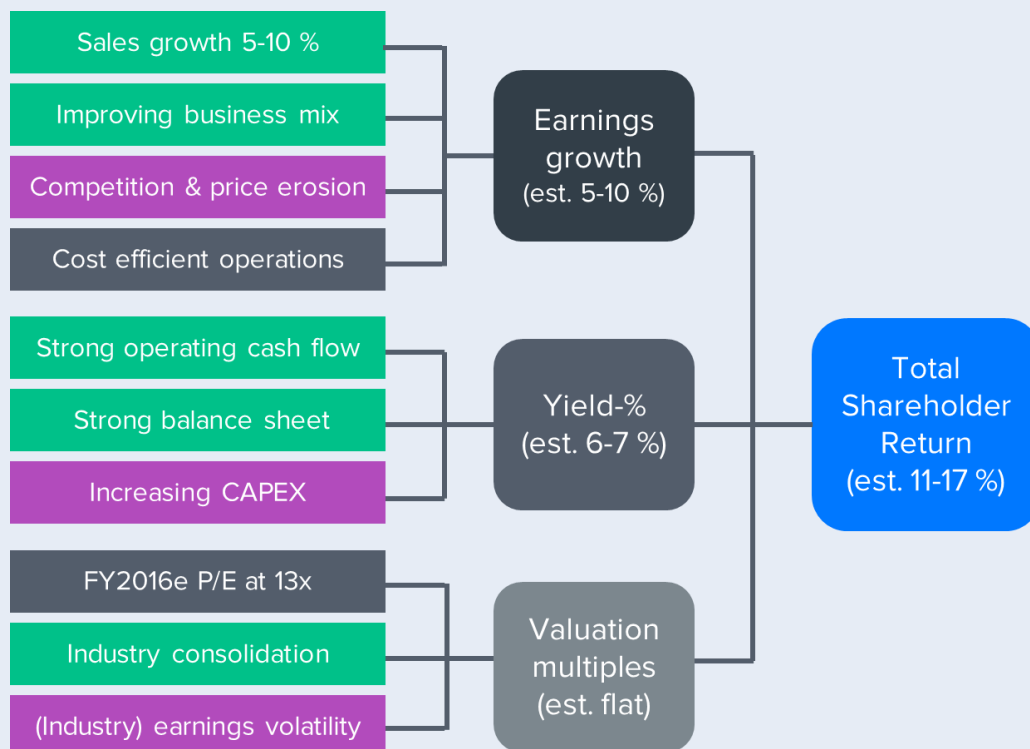
Source: Inderes



Source: Inderes

Valuation

Shareholder return components and drivers



Source: Inderes

Peer group valuation

Company	Share Price	MCAP MEUR	EV MEUR	EV/EBIT		EV/EBITDA		EV/Sales		P/E		Dividend yield -%		P/B
				2015e	2016e	2015e	2016e	2015e	2016e	2015e	2016e	2015e	2016e	2015e
Sumco	1318,00	2937	4523	19,7	16,0	11,2	9,8	2,5	2,4	20,9	16,1	1,5	1,8	1,9
Siltronic	22,24	667	499	141,6	7,3	3,9	2,7	0,5	0,5	17,0			0,7	1,4
SunEdison Semiconductor	8,21	323	445			5,5	5,0	0,6	0,6					0,6
Sino-American Silicon produc.	42,10	699	773			6,6	4,6	0,9	0,8	26,9	15,9	2,7	3,8	1,1
GlobalWafers	80,80	855	765			6,9	6,3	1,7	1,6	14,6	13,3	6,3	6,1	1,9
Shin-Etsu Chemical	7130,00	23413	17884	11,0	10,2	7,5	7,0	1,8	1,7	20,8	19,2	1,5	1,6	1,5
Okmetic (Inderes)	6,97	118	117	11,1	10,1	6,9	6,1	1,4	1,3	14,8	13,5	6,5	7,0	1,8
Average				57,5	11,2	7,0	5,9	1,4	1,3	20,8	16,3	3,0	2,8	1,4
Median				19,7	10,2	6,8	5,7	1,3	1,2	20,8	16,1	2,1	1,8	1,4
Premium/Discount vs. median				-44 %	-1 %	1 %	7 %	10 %	5 %	-29 %	-17 %			30 %

Source: Bloomberg / Inderes

Income statement, balance sheet and DCF model

Income statement

(MEUR)	2012	2013	2014	2015e	2016e	2017e
Net sales	83	69	74	81	89	96
Costs	-69	-58	-61	-64	-70	-76
EBITDA	13,9	10,7	12,7	17,1	18,9	19,9
Depreciation	-5,8	-5,6	-6,3	-6,6	-7,5	-7,6
EBIT	8,0	5,0	6,4	10,5	11,4	12,3
<i>NRIs in EBIT</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>	<i>0,0</i>
<i>EBIT (excl. NRIs)</i>	<i>8,0</i>	<i>5,0</i>	<i>6,4</i>	<i>10,5</i>	<i>11,4</i>	<i>12,3</i>
Net financial items	-1,4	-1,2	-0,8	-0,6	-0,4	-0,1
Associated companies	0,0	0,0	0,0	0,0	0,0	0,0
Pre-tax profit	7,6	4,4	6,1	10,3	11,2	12,2
Other items	0,0	0,0	0,0	0,0	0,0	0,0
Taxes	-2,5	-0,4	-1,2	-2,3	-2,4	-2,6
Minorities	0,0	0,0	0,0	0,0	0,0	0,0
Net earnings	5,1	4,0	4,8	7,9	8,8	9,6
<i>Net earnings (excl. NRIs)</i>	<i>5,1</i>	<i>4,0</i>	<i>4,8</i>	<i>7,9</i>	<i>8,8</i>	<i>9,6</i>
Extraordinaries	0,0	0,0	0,0	0,0	0,0	0,0
Profit for period	5,1	4,0	4,8	7,9	8,8	9,6
<i>EPS</i>	<i>0,30</i>	<i>0,23</i>	<i>0,28</i>	<i>0,47</i>	<i>0,52</i>	<i>0,56</i>
EPS (excl. NRIs)	0,30	0,23	0,28	0,47	0,52	0,56

Balance sheet

Assets (MEUR)	2012	2013	2014	2015e	2016e	Liabilities (MEUR)	2012	2013	2014	2015e	2016e
Non-current assets vastaavat	48	48	44	49	51	Equity	62	57	64	64	65
Goodwill	0	0	0	0	0	Share capital	12	12	12	12	12
Intangible assets	1	1	1	1	1	Retained earnings	50	45	52	52	53
Tangible assets	43	45	43	47	50	Shares repurchased	0	0	0	0	0
Associated companies	0	0	0	0	0	Revaluation reserve	0	0	0	0	0
Other investments	0	0	0	0	0	Other equity	0	0	0	0	0
Other non-current assets	3	1	1	1	1	Minorities	0	0	0	0	0
Deferred tax assets	1	0	0	0	0	Non-current debt	5	11	14	14	12
Current assets	38	36	47	43	41	Deferred tax liabilities	1	2	3	2	2
Inventories	14	17	18	17	15	Provisions	0	0	0	0	0
Other current assets	0	0	0	0	0	Long term debt	2	8	11	8	6
Receivables	17	14	14	15	17	Convertibles	0	0	0	0	0
Cash and equivalents	7	5	14	10	10	Other long term liabilities	1	0	0	4	4
Balance sheet total	86	84	91	91	93	Current debt	19	16	13	14	16
						Short term debt	3	4	3	2	1
						Payables	15	13	11	12	15
						Other current liabilities	0	0	0	0	0
						Balance sheet total	86	84	91	91	93

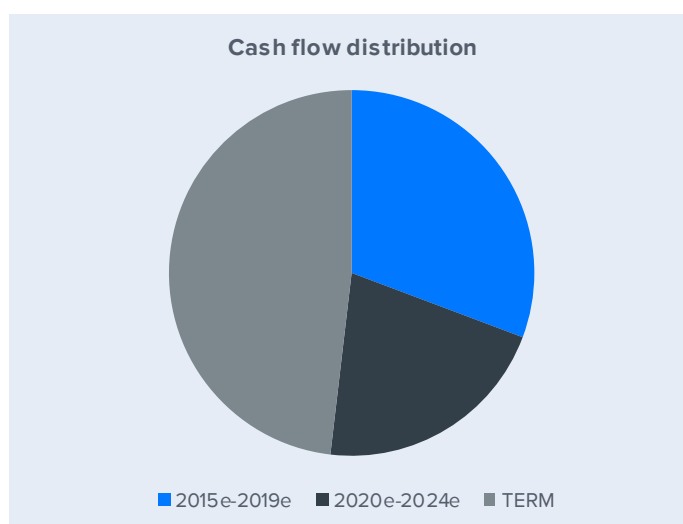
Ratios

Key ratios	2011	2012	2013	2014	2015e	2016e	2017e
Net sales growth-%	2,8 %	-0,2 %	-17,5 %	8,2 %	9,8 %	9,1 %	7,7 %
EBITDA-%	21,7 %	16,7 %	15,5 %	17,1 %	21,0 %	21,3 %	20,8 %
EBIT-%	14,2 %	9,7 %	7,3 %	8,6 %	13,0 %	12,8 %	12,9 %
ROE-%	17,2 %	8,3 %	6,7 %	8,0 %	12,5 %	13,7 %	14,6 %
ROI-%	19,9 %	12,6 %	7,6 %	8,9 %	14,2 %	15,8 %	17,3 %
Equity ratio	78,3 %	72,1 %	68,2 %	70,2 %	69,7 %	70,2 %	71,3 %
Gearing	-16,8 %	-2,8 %	11,4 %	-1,7 %	-0,2 %	-4,2 %	-8,2 %

DCF-model

Discounted cash flow model (MEUR)	2014	2015e	2016e	2017e	2018e	2019e	2020e	2021e	2022e	2023e	2024e	TERM
EBIT (operating profit)	6,4	10,5	11,4	12,3	13,3	13,5	13,4	12,8	12,1	11,8	12,1	
+ Depreciation	6,3	6,6	7,5	7,6	7,7	7,7	7,7	7,5	7,2	6,9	7,1	
- Paid taxes	-0,5	-2,8	-2,4	-2,6	-2,8	-2,9	-2,9	-2,8	-2,6	-2,6	-2,6	
- Tax, financial expenses	-0,1	-0,1	-0,1	-0,1	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
+ Tax, financial income	0,0	0,0	0,0	0,0	0,0	0,0	0,1	0,1	0,1	0,1	0,1	
- Change in working capital	-3,1	1,0	3,9	2,1	1,0	-0,1	-0,5	-0,6	-0,6	-0,5	-0,3	
Operating cash flow	8,9	15,3	20,4	19,4	19,3	18,2	17,8	17,1	16,1	15,8	16,3	
+ Change in other long-term liabilities	-0,1	3,3	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
- Gross CAPEX	-2,4	-11,7	-10,1	-8,4	-7,7	-7,7	-6,2	-5,2	-5,4	-8,3	-8,1	
Free operating cash flow	6,4	7,0	10,4	11,0	11,6	10,5	11,6	11,8	10,7	7,5	8,3	
+/- Other	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	
FCFF	6,4	7,0	10,4	11,0	11,6	10,5	11,6	11,8	10,7	7,5	8,3	136,4
Discounted FCFF		6,9	9,5	9,3	9,0	7,6	7,7	7,3	6,1	4,0	4,0	66,3
Sum of FCFF present value		137,7	130,7	121,3	112,0	103,0	95,4	87,7	80,4	74,3	70,3	66,3
Debt free DCF		137,7										
- Interesting bearing debt		-13,3										
+ Cash and equivalents		14,4										
-Minorities		0,0										
-Dividend/capital return		-7,8										
Equity value DCF		131,0										
Equity value DCF per share		7,76										

WACC	
Tax-% (WACC)	20,0 %
Target debt ratio (D/(D+E))	25,0 %
Cost of debt	6,5 %
Equity Beta	1,20
Market risk premium	4,75 %
Liquidity premium	0,50 %
Risk free interest rate	3,0 %
Cost of equity	9,2 %
Average cost of capital (WACC)	8,2 %

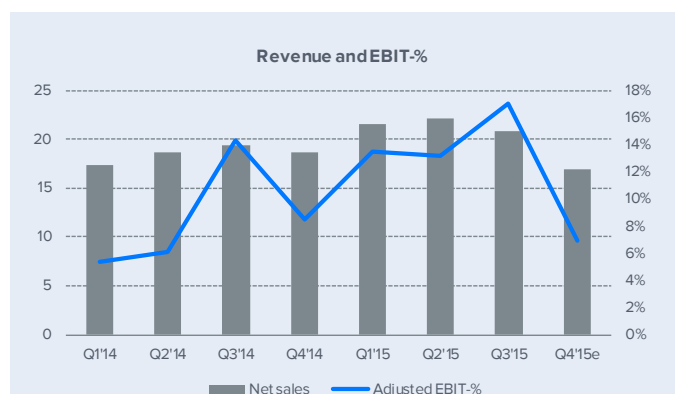


Quarterly estimates

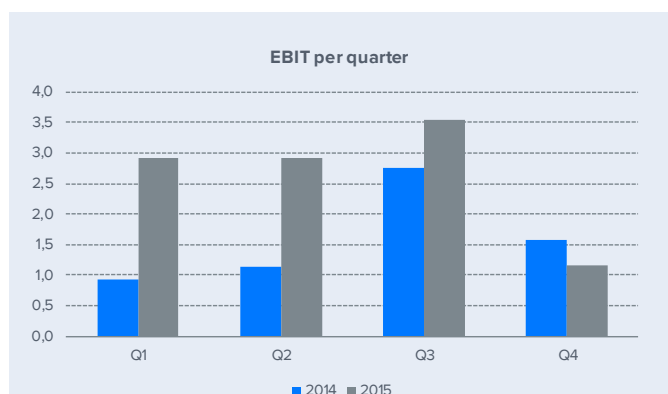
Quarterly earnings	2013	2014	Q1'15	Q2'15	Q3'15	Q4'15e	2015e	Q1'16e	Q2'16e	Q3'16e	Q4'16e	2016e	2017e
Net sales	68,5	74,1	21,6	22,1	20,8	16,9	81,4	20,5	23,3	24,0	21,0	88,8	95,7
Sensor wafers (value)	40,6	46,9	13,9	16,2	13,0	11,5	54,5	13,9	16,5	16,0	14,5	60,9	66,4
Semiconductor wafers (value)	25,5	24,6	7,0	7,4	7,9	5,4	27,6	6,6	6,8	8,0	6,5	27,9	29,3
Others / Adjustments	2,4	2,6	0,8	-1,5	0,0	0,0	-0,7	0,0	0,0	0,0	0,0	0,0	0,0
EBITDA	10,7	12,7	4,5	4,5	5,3	2,9	17,1	3,9	5,1	5,7	4,2	18,9	19,9
Depreciation	-5,6	-6,3	-1,5	-1,6	-1,8	-1,7	-6,6	-1,8	-1,9	-1,9	-1,9	-7,5	-7,5
EBIT (excl. NRI)	5,0	6,4	2,9	2,9	3,5	1,2	10,5	2,1	3,2	3,8	2,3	11,4	12,3
EBIT	5,0	6,4	2,9	2,9	3,5	1,2	10,5	2,1	3,2	3,8	2,3	11,4	12,3
(Group EBIT)	5,0	6,4	2,9	2,9	3,5	1,2	10,5	2,1	3,2	3,8	2,3	11,4	12,3
Net financial items	-0,6	-0,4	-0,1	0,0	-0,1	-0,1	-0,3	-0,1	-0,1	-0,1	-0,1	-0,2	-0,1
PTP	4,4	6,1	2,8	2,9	3,5	1,1	10,3	2,1	3,1	3,8	2,2	11,2	12,2
Taxes	-0,4	-1,2	-0,6	-0,7	-0,8	-0,2	-2,3	-0,4	-0,7	-0,8	-0,5	-2,4	-2,6
Minority interest	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0	0,0
Net earnings	4,0	4,8	2,2	2,2	2,7	0,9	7,9	1,6	2,5	3,0	1,8	8,8	9,6
EPS (adjusted)	0,23	0,28	0,13	0,13	0,16	0,05	0,47	0,10	0,14	0,17	0,10	0,52	0,56

Key figures	2013	2014	Q1'15	Q2'15	Q3'15	Q4'15e	2015e	Q1'16e	Q2'16e	Q3'16e	Q4'16e	2016e	2017e
Revenue growth-%	-17,5 %	8,2 %	24,2 %	18,0 %	7,8 %	-9,5 %	9,8 %	-5,1 %	5,6 %	15,3 %	24,3 %	9,1 %	7,7 %
Adjusted EBIT growth-%	-37,3 %	27,2 %	215,1 %	156,3 %	28,4 %	-26,0 %	64,8 %	-27,1 %	8,4 %	7,9 %	95,8 %	8,1 %	7,9 %
EBITDA-%	15,5 %	17,1 %	20,7 %	20,3 %	25,6 %	17,0 %	21,0 %	19,2 %	21,7 %	23,8 %	19,9 %	21,3 %	20,8 %
Adjusted EBIT-%	7,3 %	8,6 %	13,5 %	13,2 %	17,0 %	6,9 %	13,0 %	10,4 %	13,6 %	15,9 %	10,9 %	12,8 %	12,9 %
Net earnings-%	5,8 %	6,5 %	10,0 %	10,0 %	12,8 %	5,3 %	9,8 %	8,0 %	10,5 %	12,4 %	8,4 %	10,0 %	10,0 %

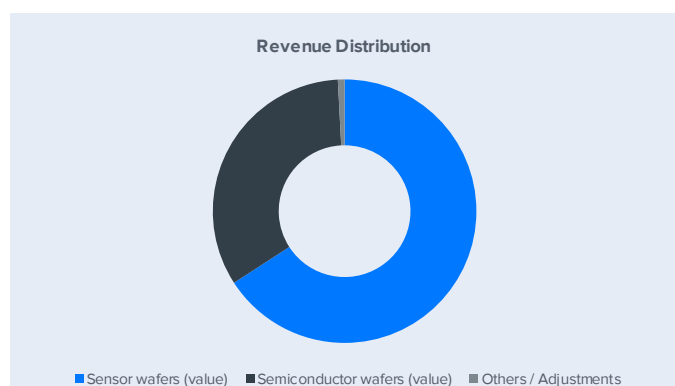
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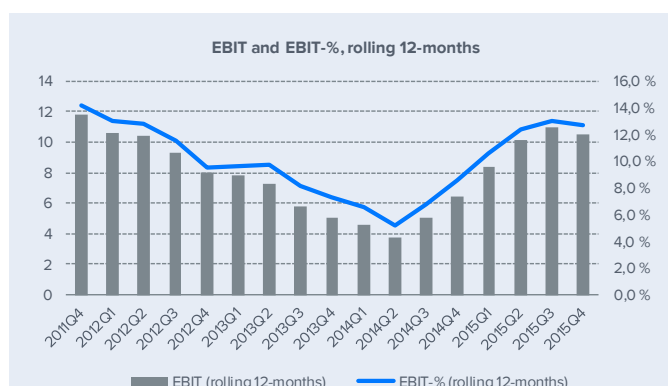
Suorces: Inderes



Suorces: Inderes



Suorces: Inderes



Suorces: Inderes

Summary

Income statement	2012	2013	2014	2015e	2016e
Sales	83,1	68,5	74,1	81,4	88,8
EBITDA	13,9	10,7	12,7	17,1	18,9
EBITDA-%	16,7	15,5	17,1	21,0	21,3
EBIT	8,0	5,0	6,4	10,5	11,4
PTP	7,6	4,4	6,1	10,3	11,2
Net earnings	5,1	4,0	4,8	7,9	8,8
Non-recurring items	0,0	0,0	0,0	0,0	0,0

Balance sheet	2012	2013	2014	2015e	2016e
Balance sheet total	85,8	84,0	90,7	91,5	92,7
Equity	61,9	57,3	63,6	63,8	65,0
Goodwill	0,0	0,0	0,0	0,0	0,0
Interest-bearing debt	5,6	11,7	13,3	10,0	7,0

Cash flow	2012	2013	2014	2015e	2016e
EBITDA	13,9	10,7	12,7	17,1	18,9
Change in NWC	0,2	-3,4	-3,1	1,0	3,9
Operating cash flow	10,6	8,5	8,9	15,3	20,4
Free cash flow	-4,0	1,0	6,4	7,0	10,4

Company description
Okmetic is a technology company which supplies tailor-made silicon wafers for sensor and semiconductor industries and sells its technological expertise.
Okmetic provides its customers with solutions that boost their competitiveness and profitability.

Share based key figures	2012	2013	2014	2015e	2016e
EPS	0,30	0,23	0,28	0,47	0,52
EPS (adj.)	0,30	0,23	0,28	0,47	0,52
Oper. cash flow per share	0,61	0,49	0,52	0,91	1,20
Book value per share	3,58	3,31	3,68	3,78	3,81
Dividend per share	0,51	0,00	0,45	0,45	0,48
Payout ratio (%)	172	0	161	96	93
Dividend yield (%)	10,2	0,0	9,3	6,5	6,9

Key figures	2012	2013	2014	2015e	2016e
P/E	17,0	20,9	17,3	14,8	13,3
P/B	1,4	1,5	1,3	1,8	1,8
P/S	1,0	1,2	1,1	1,4	1,3
P/CF	8,2	9,8	9,4	7,7	5,8
EV/S	1,0	1,3	1,1	1,4	1,3
EV/EBITDA	6,1	8,4	6,5	6,9	6,1
EV/EBIT	10,6	17,9	12,9	11,1	10,1

Largest shareholders	% of shares
Ilmarinen	5,8 %
Ingman	5,2 %
Mandatum Life	4,6 %
The State Pension Fund	3,5 %
Nordea Nordic Small Cap Fund	3,0 %

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2015

#1 estimates



2014

#1 estimates



2014

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2012

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2012

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