



Margin improvement will continue

First Sensor's (FIS) new guidance for FY 2019e strives for further profitable growth and seems reasonable in our view. The EBIT-margin should reach 8.5% - 9.5% and compare to our current estimate of 8.7%. Based on a solid order backlog of EUR 97.6m (Dec. 2018, +5.1% yoy) we expect a promising start into Q1 2019e. The already outlined five pillar strategy leaves room for a further EBIT-margin expansion beyond 2019e in our view. TP slightly up to EUR 28.30 from EUR 27.80.

First Sensor's five pillar strategy

The profitable growth strategy is based on five pillars: 1) Target markets Industrial, Medical and Mobility where FIS will benefit from several megatrends e.g. digitalization, artificial intelligence or smart automotive. 2) Key customers and products: e.g. the number of key customers increased to 37 (2018) from 23 (2014) that resulted in better economies of scale. 3) Forward integration: Selling more systems and solutions offer a higher margin potential. 4) Internationalization: Entrance and penetration of new markets in North America ('18 share: 12.4% from 11.7%) and Asia ('18 share: 12.5% from 10.1%) will make further progress in 2019e. 5) Operational excellence: Cross sectional function for better margins.

EBIT-margin improvement

Since 2015 the group continuously improved the EBIT-margin to 7.9% in 2018. Despite a temporary more moderate market growth we estimate a further increase for the next years towards >9% (purely organic growth). FIS itself wants to achieve a level of 10% in 2020e.

EURm	2017	2018	2019e	2020e	2021e
Revenues	148	155	167	179	192
EBITDA	20	21	24	26	27
EBIT	11	12	14	16	17
EPS	0.40	0.72	0.84	0.94	1.03
EPS adj	0.40	0.72	0.84	0.94	1.03
DPS	0.16	0.20	0.23	0.25	0.28
EV/EBITDA	12.5	11.2	9.6	8.8	8.0
EV/EBIT	23.3	19.6	16.0	14.2	12.6
P/E adj	53.8	29.6	24.9	22.4	20.3
P/B	2.75	2.49	2.28	2.12	1.97
ROE (%)	5.3	8.7	9.5	9.8	10.0
Div yield (%)	0.7	0.9	1.1	1.2	1.3
Net debt	23	20	15	9	3

Source: Pareto

Target price (EUR)	28
Share price (EUR)	21

Forecast changes

%	2019e	2020e	2021e
Revenues	1	1	NM
EBITDA	4	3	NM
EBIT adj	8	5	NM
EPS reported	14	9	NM
EPS adj	14	9	NM

Source: Pareto

Ticker	SISG.DE, SIS GR
Sector	Hardware & Equipment
Shares fully diluted (m)	10.2
Market cap (EURm)	215
Net debt (EURm)	15
Minority interests (EURm)	1
Enterprise value 19e (EURm)	231
Free float (%)	46

Performance



Source: Factset

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Successful niche player in sensors

Investment case

The First Sensor group currently holds leading market positions in its defined strategic end-markets. These markets have entry barriers for other medium-sized companies and volumes most likely are too small for the larger players in our view.

The company covers the entire value chain for sensors and related systems. Looking forward, First Sensor is well positioned to benefit from some megatrends like for example autonomous driving or Industry 4.0. Benefitting from these trends the current strategy is directed to a higher margin level and since 2016 the group harvested the fruits of this program. The EBIT-margin increased from 6.6% (2016) to 7.9% in the last year.

Further triggers for the share price in our view, are any signs for a further sustainable margin improvement. The company's target for 2019e is to reach a level between 8.5% to 9.5% while we are estimating 8.7%. These signs can be for example the winning of new high-volume OEM customers, new product innovations, further internal cost optimizations or entering new markets. A possible escalation of the global trade war will not directly affect the business of First Sensor, according to the company. In 2018 the sales share in Asia increased to 12.5% from 10.1% while in the US-market the sales share also increased to 12.4% from 11.7%. An extension of duties for European carmakers could have a negative impact on First Sensor's Mobility segment (2018 share of sales of 25.9% from 30.1% a year earlier) in our view.

End of October last year the major shareholder Deutsche Private Equity made public to consider the sale of its 40.1% holding in First Sensor and this news immediately lifted the share price to a level of EUR 18-19. The management of First Sensor stated to take an active role and has hired Goldman Sachs to attend this process. During the annual press conference for FY 2018 no real news came out but we can imagine that there is some progress in the overall process.

Since the share price low at EUR 14.0 at the end of October 2018 First Sensor shares clearly have recovered and the expected margin improvement argues for further upside potential.

DPE: Consideration of sale of its 40.1% stake

Risks to the investment case

- ▶ First Sensor might not keep the speed with regard to new innovative products and as a result could lose market share overtime
- ▶ The company will not meet timely all defined milestones of their overall strategy plan what can result in a lower than expected profitability
- ▶ Hiring of new and skilled employees could become more challenging
- ▶ Possible delays in transition from 4-inch to 6-inch wafer production; when finalized will lead to improved production efficiency

Valuation update

- ▶ Buy recommendation confirmed
- ▶ New TP at EUR 28.30 from EUR 27.80 per share (+ 2%)
- ▶ Base parameters for our DCF-model have not changed: Beta at 1.1; perpetual growth rate at 2.5% and sustainable margin at 9.5%
- ▶ Current upside potential for the share price of +35%

The major changes that were made in our DCF-model are slightly higher sales estimates and furthermore slightly higher EBIT-margins, reflecting the new guidance for 2019e. Only minor changes were made for our capex forecasts and for working capital movements.

Exhibit 1: First Sensor: DCF model: Further margin improvement leads to clear upside potential

EUR m	Phase I					Phase II					Phase III
	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	
Revenues	167.0	179.0	192.0	206.5	221.0	234.9	247.8	259.6	270.0	278.8	
growth rate	7.7%	7.2%	7.3%	7.6%	7.0%	6.3%	5.5%	4.8%	4.0%	3.3%	
EBIT	14.5	15.9	17.3	18.9	20.4	21.8	23.1	24.4	25.5	26.5	
EBIT margin	8.7%	8.9%	9.0%	9.1%	9.2%	9.3%	9.3%	9.4%	9.4%	9.5%	
Tax	-4.3	-4.8	-5.2	-5.7	-6.1	-6.5	-6.9	-7.3	-7.7	-7.9	
Tax rate	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	
Depr. & Amort.	9.6	9.8	10.0	10.1	10.4	11.2	12.0	12.6	13.1	13.6	
% of sales	5.7%	5.5%	5.2%	4.9%	4.7%	4.8%	4.8%	4.8%	4.9%	4.9%	
Capex	-10.2	-10.4	-11.0	-11.2	-11.3	-12.0	-12.7	-13.3	-13.8	-14.3	
% of sales	6.1%	5.8%	5.7%	5.4%	5.1%	5.1%	5.1%	5.1%	5.1%	5.1%	
Change in WC & P	-1.5	-0.7	-0.5	0.3	0.4	0.3	0.3	0.3	0.3	0.2	
% of sales	0.9%	0.4%	0.3%	-0.2%	-0.2%	-0.1%	-0.1%	-0.1%	-0.1%	-0.1%	
Free Cash Flow	8.0	9.9	10.6	12.5	13.7	14.8	15.8	16.7	17.4	18.1	417.3
growth rate	nm	22.9%	7.6%	17.4%	10.2%	8.0%	6.5%	5.4%	4.5%	3.7%	2.5%
Present Value FCF	7.6	8.8	8.8	9.7	10.0	10.1	10.0	9.9	9.7	9.4	216.8

PV Phase I	44.9	Risk free rate	3.5%	Targ. equity ratio	60%
PV Phase II	49.1	Premium Equity	5.0%	Beta	1.1
PV Phase III	216.8	Premium Debt	2.0%	WACC	6.9%

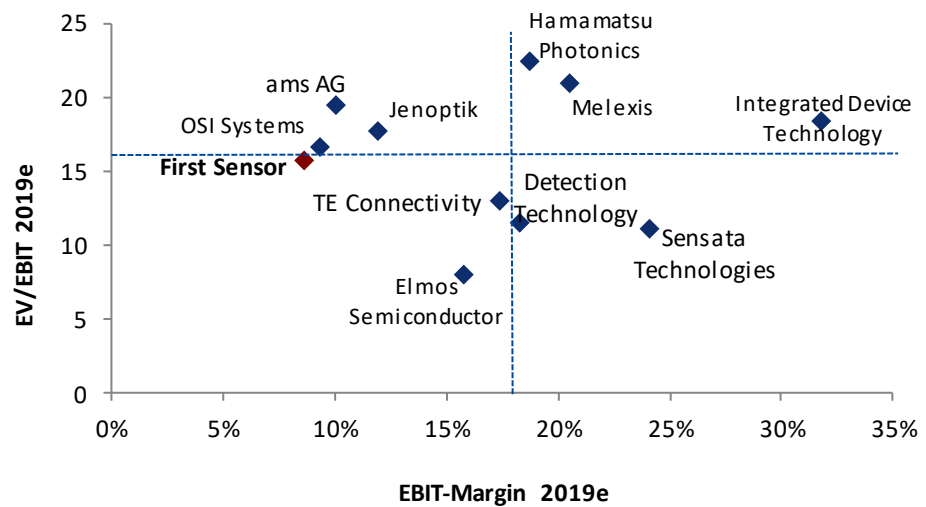
Enterprise value	310.8	Sensitivity	Growth in phase III				
- Net Debt (Cash)	19.5		1.5%	2.0%	2.5%	3.0%	3.5%
- Pension Provisions	0.3	6.25%	28.4	31.0	34.3	38.5	44.4
- Minorities & Peripherals	1.3	6.59%	26.2	28.4	31.0	34.5	39.0
+ MV of financial assets		WACC 6.94%	24.3	26.1	28.3	31.2	34.8
- Paid-out dividends for last FY		7.29%	22.6	24.1	26.0	28.4	31.3
+/- Other EV items		7.63%	21.1	22.4	24.0	26.0	28.4

Equity value	289.7
Number of shares	10.2
Value per share (€)	28.3
Current Price (€)	21.0
Upside	35%

Source: FactSet (closing price as of 27 March 2019, Pareto Securities Research)

The overall sensor market is fragmented and there are both non-listed and listed companies. In Exhibit 2 we have selected listed companies only. In general, all companies are active in the global sensor market, but vary in specific business activities, core competences, serving end-markets or profitability. Currently First Sensor's EBIT-margin ranks somewhat behind the peer group, but the EV/EBIT multiple is comparably high. FIS covers the chip production, packaging technology and distribution of sensor products which vary in their margin level.

Exhibit 2: First Sensor: Peer-group comparison



Source: FactSet (prices as of 27 March 2019), Pareto Securities Research

The key results for FY 2018 were in line with the company targets and met our expectations. The management's dividend proposal of EUR 0.20 per share beat our forecast of EUR 0.18 per share. If the AGM agrees, the pay-out ratio will amount to 28%.

Exhibit 3: FY 2018 results meet expectations

First Sensor (EUR m)	FY 2017	FY 2018 reported	FY 2018e		Deviation		Pareto estimates		
			Cons.*	Pareto	Cons.*	Pareto	2019e	2020e	2021e
Industrial	75.1	80.4					86.0	91.0	96.0
Medical	27.9	34.6					39.0	43.0	47.0
Mobility	44.5	40.2					42.0	45.0	49.0
Group sales	147.5	155.1	n.m.	155.1	n.m.	0.0%	167.0	179.0	192.0
EBIT	10.6	12.2	n.m.	12.2	n.m.	0.0%	14.5	15.9	17.3
EBIT-margin, %	7.2%	7.9%	n.m.	7.9%	n.m.	0.0%	8.7%	8.9%	9.0%
EPS, EUR	0.40	0.72	n.m.	0.66	n.m.	9.1%	0.84	0.94	1.03

* FactSet

Source: Pareto Securities Research

Other selective highlights in FY 2018 were:

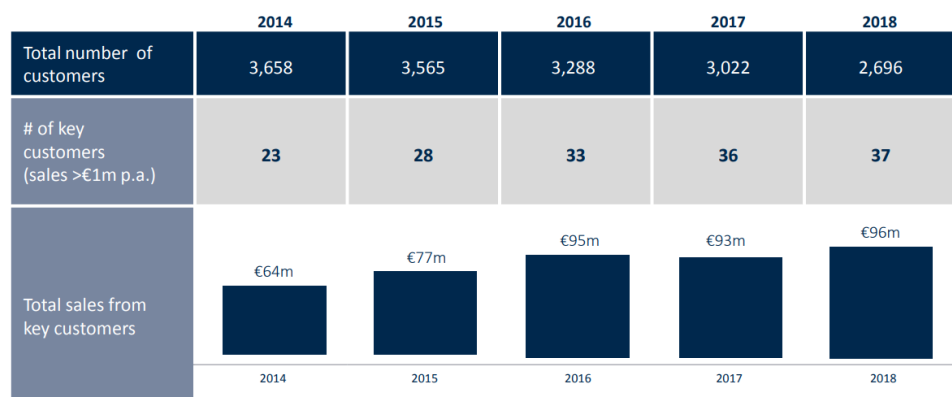
- ▶ Order intake end of December 2018 at EUR 159.6m vs. EUR 163.7m (-2.5% yoy); book-to-bill-ratio at 1.03 (1.11)
- ▶ Segment sales '18 (yoy): Industrial: +7.0%; Medical: +23.7%; Mobility: -9.6% (reflects some weakness from Automotive customers)
- ▶ EBIT-margin increased to 7.9% from 7.2% or in absolute terms to EUR 12.2m from EUR 10.6m: Product mix: + EUR 4.0m; volume effect: + EUR 3.4m; costs: - EUR 5.8m. This reflects, among other factors, the success to increase the number of and the sales volume with key customers
- ▶ Operating cash flow remains nearly stable at EUR 15.9m from EUR 16.0m: FCF at EUR 6.5m from EUR 3.5m a year earlier
- ▶ The company could strengthen their financial profile: Equity ratio at 52.7%; net financial debt was reduced to EUR 19.5m from EUR 22.8m

We have outlined several times that First Sensor made progress in executing their five-pillar strategy and this was, among other factors, one of the reasons for the margin improvement in our view. It is a clear target to increase the number of

key customers, defined as customers with sales p.a. of more than EUR 1.0m, and to increase the sales volume with key products, defined as products with a sales volume p.a. of more than EUR 1.0m.

As can be seen in Exhibit 4, the number of key customers increased from 23 in 2014 to 37 in 2018 (+61%). The total sales volume from these customers increased to EUR 96.0m in FY 2018, representing 62% of the group's total. On average, in 2018 a sales volume of EUR 2.59m per customer was achieved, compared to EUR 2.78m for FY 2014. In this context one should bear in mind, that in 2016 FIS lost an important customer with a sales volume of EUR 10m and the company could more than counterbalance that gap until FY 2018. Also remarkable is the overall reduction of customers by nearly 1,000 within the five-years period. That was and is an active strategy in order to reduce low volume business and to increase efficiency and profitability.

Exhibit 4: First Sensor with strongly increased number of key customers



Source: First Sensor

For the same period 2014 to 2018 the number of key products increased from 9 to 12, while the corresponding sales volume was up from EUR 30.0m to EUR 39.0m (+30%). This resulted in a moderate increase of the share of total sales to 25.0% from 24.2%.

With regard to the Operative Excellence the move towards a more flexible production network is also of importance. In this context the company announced this morning that they have qualified a well-established Eastern European electronics manufacturer to become a contract producer for First Sensor for the standard H-series pressure sensors. The major two advantages are an increase of production capacity and becoming more flexible in the cost structure.

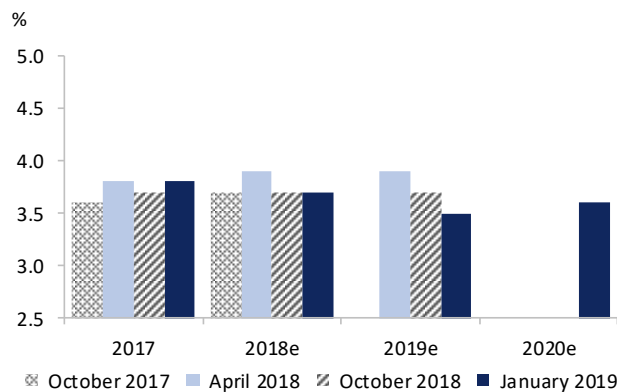
Outlook for 2019e and beyond

The overall macro picture has become worse during the last months. The IMF presented during the World Economic Forum in Davos an update of their World Economic Outlook. In general, projections were revised down and the World Output estimate for 2019e now amounted to a growth rate of 3.5% compared to 3.7% from October 2018. A more drastic revision was made for Germany: The forecast was revised down to +1.3% yoy compared to +1.9% from October 2018.

The Business Climate indicator for Germany, provided by Ifo, in March 2019 slightly recovered to 99.6 index points from 98.7 in February, what is the first increase after six declines in a row. Both the indicators for the Business Situation and the Business Expectations were slightly up. In contrast, the Business Climate

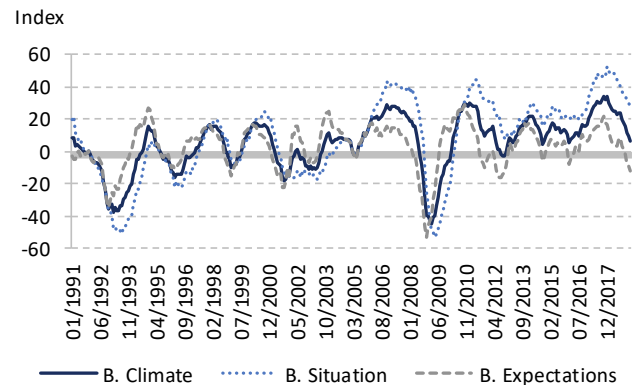
for the Manufacturing sector (Exhibit 6) shrank to 6.6 from 9.1 in February. The Business Expectations sub-index reached the lowest level since November 2012.

Exhibit 5: IMF World Output: Growing pessimism for 2019e



Source: IMF World Economic Outlook

Exhibit 6: Ifo Business climate Manufacturing sector



Source: Ifo Institute

According to the AMA industrial association and other market research companies like e.g. Yolè or Mordor the global sensor market will continue its path of growth. Some megatrends like for example digitalization, artificial intelligence and Smart Automotive applications will drive further growth. AMA expects for 2019 a growth rate of 5% versus 10% in the year before. Mordor Intelligence expects the global market for pressure sensors to grow with a CAGR of 7% p.a. until 2022e. A more dynamic growth is seen for the Automotive MEMS market with a CAGR of 14.4% p.a. The largest market and the highest growth rate are expected for Asia-Pacific, where First Sensor last year increased its sales share by nearly two percentage points.

On this basis and other information, provided by the company and our own assessment we estimate for the current year a sales growth of 7.7% to EUR 167.0m. That compares to First Sensor's own sales target of EUR 160.0 – 170.0m. The company starts into the new business year with an order backlog of EUR 97.6m (end of December), of which some 80% will be transferred into sales within the current business year. We expect a strong growth rate in group sales for Q1 2019 due to the fact, that Q1 2018 group sales of EUR 34.5m were low because they were negatively impacted by the introduction of a new ERP system in January. Mid- to long-term First Sensor has identified for all three segments further areas for growth for all three segments. In the Mobility segment e.g. solutions for Automotive LiDAR applications will become more sales relevant during the next years.

The overall slowing economy is reflected in the guidance for selective peer group companies, as can be seen in Exhibit 8. Ams AG, having the highest exposure to the consumer electronics end-market is cautious for Q1 2019e, while Sensata will continue with its strong growth.

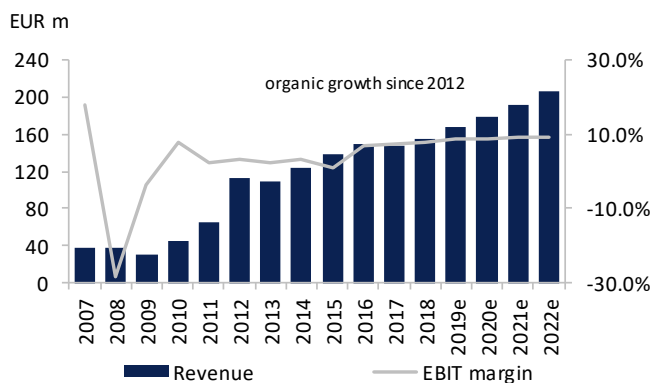
Exhibit 7: Guidance comparison for selective sensor companies

Company	2017 reported	2018 reported	yoy	2019e guidance	Comments
Sensirion (CHFm) (31.12.)					
Group sales	148.0	174.8	18.1%	175.0 - 190.0	H1'19: weaker market demand; H2'19: positive trend likely
EBITDA adj.	26.2	27.8	6.1%		
EBITDA adj.-margin, %	17.7%	15.9%		15.0% - 17.0 %	
ams AG (EUR m) (31.12.)					
Group sales	1,063.8	1,426.3	34.1%	Q1 '19: USD 350-390m	Consumer segment: 76% of revenues; Annual report: 29 Apr.
EBIT adj.	168.7	127.6	-24.4%		Reported EBIT '18 ('17): EUR 12.9m (75.9m)
EBIT adj.-margin, %	15.9%	8.9%		low single-digit percentage range	
Sensata Techn. (USD m) (31.12.)					
Group sales	3,306.7	3,521.6	6.5%	3,580.0 3,680.0m	
EBIT adj.	750.5	821.4	9.4%	858.0 - 886.0 m	Reported oper. Profit '18 ('17): USD 710.4m (555.8m)
Profit from Oper. - margin, %	22.7%	23.3%			
First Sensor (EUR m) (31.12.)					
Group sales	147.5	155.1	5.2%	160.0 - 170.0m	
EBIT	10.6	12.2	15.1%		
EBIT-margin, %	7.2%	7.9%		8.5% - 9.5%	

Source: Company data, Pareto Securities Research

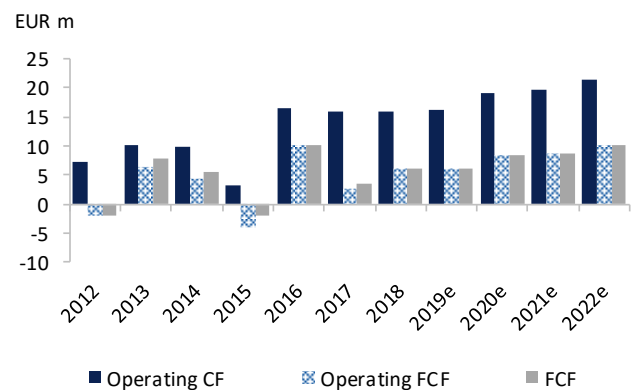
Appendix

Exhibit 8: EBIT-margin improvement



Source: Company data, Pareto Securities Research

Exhibit 9: First Sensor a strong cash flow generator



Source: Company data, Pareto Securities Research

Exhibit 10: Group key figures outlook: Further margin improvement

EUR m	2014	2015	2016	2017	2018	2019e	2020e	2021e	2022e	CAGR 14-18
Order intake	139.3	142.3	132.9	163.7	159.6	169.5	178.8	203.5	212.0	3.5%
Sales	124.0	137.7	150.1	147.5	155.1	167.0	179.0	192.0	206.5	5.7%
EBIT reported	4.1	1.2	10.0	10.6	12.2	14.5	15.9	17.3	18.9	31.3%
Operating Cash Flow	9.8	3.2	16.6	16.0	15.9	16.3	19.0	19.7	21.4	13.0%
Analysis										
Book-to-bill-ratio (x)	1.12	1.03	0.89	1.11	1.03	1.01	1.00	1.06	1.03	
EBIT-margin, %	3.3%	0.9%	6.6%	7.2%	7.9%	8.8%	8.9%	9.0%	9.1%	
Oper. CF-margin, %	7.9%	2.3%	11.1%	10.8%	10.3%	9.7%	10.6%	10.3%	10.4%	
Cash conversion (x) *	2.4	2.7	1.7	1.5	1.3	1.1	1.2	1.1	1.1	

* Operating Cash Flow / EBIT reported

Source: Company data, Pareto Securities Research

PROFIT & LOSS (fiscal year) (EURm)	2014	2015	2016	2017	2018	2019e	2020e	2021e
Revenues	124	138	150	148	155	167	179	192
EBITDA	13	12	19	20	21	24	26	27
Depreciation & amortisation	(9)	(10)	(9)	(9)	(9)	(10)	(10)	(10)
EBIT	4	1	10	11	12	14	16	17
Net interest	(2)	(2)	(2)	(2)	(2)	(2)	(2)	(2)
Other financial items	-	-	1	(2)	(0)	-	-	-
Profit before taxes	2	(1)	9	7	10	13	14	16
Taxes	(1)	(0)	(3)	(3)	(3)	(4)	(4)	(5)
Minority interest	(0)	(0)	(0)	(0)	(0)	(0)	(0)	(0)
Net profit	0	(2)	6	4	7	9	10	11
EPS reported	0.02	(0.17)	0.56	0.40	0.72	0.84	0.94	1.03
EPS adjusted	0.02	(0.17)	0.72	0.40	0.72	0.84	0.94	1.03
DPS	-	-	-	0.16	0.20	0.23	0.25	0.28
BALANCE SHEET (EURm)	2014	2015	2016	2017	2018	2019e	2020e	2021e
Tangible non current assets	36	35	33	36	39	39	39	39
Other non-current assets	52	50	49	49	47	48	48	49
Other current assets	43	49	48	49	54	56	57	58
Cash & equivalents	15	22	24	26	29	33	38	43
Total assets	146	155	154	160	168	176	182	189
Total equity	72	71	77	82	89	95	103	111
Interest-bearing non-current debt	44	55	48	48	48	49	47	46
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	30	29	28	29	31	31	32	32
Total liabilities & equity	146	155	154	160	168	176	182	189
CASH FLOW (EURm)	2014	2015	2016	2017	2018	2019e	2020e	2021e
Cash earnings	11	9	16	18	16	18	20	20
Change in working capital	(2)	(6)	1	(2)	0	(2)	(1)	(1)
Cash flow from investments	(4)	(5)	(7)	(13)	(10)	(10)	(10)	(11)
Cash flow from financing	(3)	10	(8)	(2)	(3)	(1)	(4)	(4)
Net cash flow	3	7	2	2	3	6	5	5
CAPITALIZATION & VALUATION (EURm)	2014	2015	2016	2017	2018	2019e	2020e	2021e
Share price (EUR end)	9.8	12.4	14.5	21.8	21.3	21.0	21.0	21.0
Number of shares end period	10	10	10	10	10	10	10	10
Net interest bearing debt	30	33	24	23	20	15	9	3
Enterprise value	128	160	173	246	239	231	225	219
EV/Sales	1.0	1.2	1.2	1.7	1.5	1.4	1.3	1.1
EV/EBITDA	9.8	13.9	8.9	12.5	11.2	9.6	8.8	8.0
EV/EBIT	31.2	-	17.4	23.3	19.6	16.0	14.2	12.6
P/E reported	-	-	25.7	53.8	29.6	24.9	22.4	20.3
P/E adjusted	-	-	20.2	53.8	29.6	24.9	22.4	20.3
P/B	1.4	1.8	1.9	2.8	2.5	2.3	2.1	2.0
FINANCIAL ANALYSIS & CREDIT METRICS	2014	2015	2016	2017	2018	2019e	2020e	2021e
ROE adjusted (%)	0.2	-	9.8	5.2	8.6	9.4	9.7	9.9
Dividend yield (%)	-	-	-	0.7	0.9	1.1	1.2	1.3
EBITDA margin (%)	10.6	8.4	12.9	13.3	13.7	14.4	14.3	14.2
EBIT margin (%)	3.3	0.9	6.6	7.2	7.9	8.7	8.9	9.0
NIBD/EBITDA	2.27	2.86	1.26	1.16	0.92	0.64	0.36	0.11
EBITDA/Net interest	5.41	4.86	10.84	10.55	12.91	12.82	13.52	14.84

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Appendix A

Disclosure requirements pursuant to the Norwegian Securities Trading Regulations section 3-10 (2) and section 3-11 (1), letters a-b

The below list shows companies where Pareto Securities AS - together with affiliated companies and/or persons – own a portion of the shares exceeding 5 % of the total share capital in any company where a recommendation has been produced or distributed by Pareto Securities AS.

Companies	No. of shares	Holdings in %	Companies	No. of shares	Holdings in %
Helgeland Sparebank	2,008,203	9.62%	SpareBank 1Østfold Akersl	1,139,560	9.20%
Pareto Bank ASA	10,843,900	18.50%	Sparebanken Vest	4,506,060	7.63%

Pareto Securities AS or its affiliates own as determined in accordance with Section 13(d) of the US Exchange Act, 1 % or more of the equity securities of:

Companies	No. of shares	Holdings in %	Companies	No. of shares	Holdings in %
Helgeland Sparebank	2,008,203	9.62%	SpareBank 1SMN	1,879,292	1.45%
NHST Media Group AS	21,475	1.85%	SpareBank 1Østfold Akersl	1,139,560	9.20%
Pareto Bank ASA	10,843,900	18.50%	Sparebanken Møre	311,739	3.15%
Selvaag Bolig ASA	2,174,147	2.32%	Sparebanken Sør	460,589	2.94%
SpareBank 1BV	1,557,140	2.48%	Sparebanken Vest	4,506,060	7.63%
SpareBank 1Nord-Norge	1,045,659	1.04%			

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Please find below an overview of material interests in shares held by employees in Pareto Securities AS, in companies where a recommendation has been produced or distributed by Pareto Securities AS. "By material interest" means holdings exceeding a value of NOK 50 000.

Company	Analyst holdings*	Total holdings	Company	Analyst holdings*	Total holdings	Company	Analyst holdings*	Total holdings
AF Gruppen	0	1,675	Helgeland Sparebank	0	1,700	Prosafe	0	5,984
Aker	0	682	Höegh LNG	0	6,085	Protector Forsikring	0	15,385
Aker BP	0	5,100	Jæren Sparebank	0	500	REC Silicon	0	157,742
Aker Solutions	0	1,825	Komplett Bank	0	104,934	SailMar	0	130
AKVA Group	0	1,500	Kongsberg Gruppen	0	5,901	Sandnes Sparebank	0	19,782
Archer	0	72,770	KWS Saat	15	15	Scatec Solar	0	35,635
Atea	0	450	Lerøy Seafood	0	33,795	Seadrill	0	8,661
Austevoll Seafood	0	5,780	Magseis Fairfield	0	12,879	Selvaag Bolig	0	5,000
Avance Gas	0	4,595	Monobank	0	1,371,000	SpareBank 1BV	0	17,700
Axactor	0	19,724	Mowi	0	1,964	SpareBank 1Nord-Norge	0	30,000
B2Holding	0	6,000	Nordic Semiconductor	0	6,000	SpareBank 1SMN	0	16,590
Bonheur	0	46,709	Norsk Hydro	0	125,295	SpareBank 1SR-Bank	0	34,187
Borr Drilling	0	4,685	Northern Drilling	0	6,060	SpareBank 1Østlandet	0	4,042
BWLPG	0	5,569	Norwegian Air Shuttle	0	19,202	Sparebanken Møre	0	6,550
DNB	0	35,132	Norwegian Property	0	150,000	Sparebanken Sør	0	43,280
DNO	0	29,377	Ocean Yield	0	32,967	Sparebanken Øst	0	1,500
Entra	0	14,362	Odjell Drilling	0	8,649	Storebrand	0	5,005
Equinor	0	10,201	Okeanis Eco Tankers	0	1,886	Subsea 7	0	7,484
Europris	0	10,850	Orkla	0	24,026	Telenor	0	2,311
Flex LNG	0	1,182	Panoro Energy	0	5,670	TGS-NOPEC	0	2,050
Frontline	0	13,793	Pareto Bank	0	968,027	XXL	0	11,115
Gjensidige Forsikring	0	8,623	Petroleum Geo-Services	0	60,134	Yara International	0	19,866
Golden Ocean Group	0	1,824	Pioneer Property	0	2,050	Zenterio	0	78,865
Grieg Seafood	0	770						

This overview is updated monthly (last updated 18.03.2019).

*Analyst holdings refer to positions held by the Pareto Securities AS analyst covering the company.

Appendix B

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letters e-f, ref the Securities Trading Act Section 3-10

Overview over issuers of financial instruments where Pareto Securities AS have prepared or distributed investment recommendation, where Pareto Securities AS have been lead manager/co-lead manager or have rendered publicly known not immaterial investment banking services over the previous 12 months:

Africa Energy	Ofinity Plc	OkeanisEco Tankers
Akva Group	Gulf Keystone Petroleum	Pandion Energy
Andfjord Salmon	Herttha BSC GmbH	Panoro Energy
APC Forsikringsmæglere A/S	HKN Energy Ltd	Pareto Bank
Arnarlax	Hunter Group	PetroMatad Limited
Atlantic Sapphire AS	Ice Group	Petroleum Geo-Services
Avida Holding AB	Instabank	Pioneer Public Properties Finland Oy
Bank Norwegian	Jactel AS	Point Resources AS
Bluewater Holding	Klavness Ship Holding	Quant AB
Borr Drilling Limited	Lundin Petroleum	Rødovre Port Holding A/S
DNO ASA	Magseis	Sand Hill Petroleum
DOF ASA	McDermott International	SAS
Dof Subsea AS	Monobank ASA	Scatec Solar
Echo Energy	Nemaska Lithium	Scorpio Tankers
Eco Atlantic Oil and Gas	NGEX Resources	Shamaran
Eidesvik Offshore	Northern Drilling	Sparebank 1 Østlandet
Eland Oil & Gas	Northmill Group AB	SpareBank1 Buskerud-Vestfold
FFS Bidco	Norwegian Air Shuttle	Sparebanken Vest
Flex LNG	Odfjell	Union Maritime Limited
Floatel	Odfjell Drilling	Vantage Drilling
Fortum	Okea AS	

This overview is updated monthly (this overview is for the period 28.02.2018 – 28.02.2019).

Appendix C

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11(4)

Distribution of recommendations

Recommendation	% distribution
Buy	67%
Hold	29%
Sell	4%

Distribution of recommendations (transactions*)

Recommendation	% distribution
Buy	92%
Hold	8%
Sell	0%

* Companies under coverage with which Pareto Securities Group has on-going or completed public investment banking services in the previous 12 months

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Appendix D

This section applies to research reports prepared by Pareto Securities AB.

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Green Landscaping Holding	Magnolia Bostad	ShaM aran Petroleum	

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Cibus Nordic Real Estate	SciBase Holding	ShaM aran Petroleum	Vostok Emerging Finance
Isofol Medical			

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Appendix E

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letter d, ref the Securities Trading Act Section 3-10

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Appendix F

Disclosure requirements pursuant to the Norwegian Securities Trading Regulation § 3-11, letter g, ref the Securities Trading Act Section 3-10

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comdirect	Hypoport AG	OHB SE	Vapiano

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