

## First light at the end of the (restructuring) tunnel

*From today's point of view FY 2019e will be the last year of restructuring. Management stated that ~80% were done until end of 2018. Schaltbau's new financial guidance for FY 2019e indicates a further margin improvement and is justified in our view. Within the financial restructuring a syndicated credit line of EUR 100m, that terminates end of December, has to be replaced and negotiations are in process in our view. Our new TP is EUR 34.90 from EUR 32.30 and we continue to rate the Schaltbau shares as a Buy.*

### Further EBIT-margin improvement

Within the new 2019e guidance the EBIT-margin (before adjustment items) should increase to 5.0%-6.0% (2018: 3.3%; Pareto 2019e: 5.3%) and is explained e.g. by a better operational performance and the benefits from internal cost savings. Mid- to long-term the EBIT-margin should reach 7.0%-9.0% according to the company.

### Financial restructuring will continue

End of 2018 the net financial debt was reduced to EUR 100.4m from EUR 158.4m. End of December 2019e a syndicated credit line of EUR 100m has to be refinanced. Negotiations are already in process in our view and various options are under consideration. We expect the finalization to be in time.

### Further upside based on our DCF

Based on our updated TP of EUR 34.90 per share (+ 8.0%) the shares currently offer a significant upside potential. The implicit P/E 19e equals to 26.8x and for 20e to 22.8x.

EURm	2017	2018	2019e	2020e	2021e
Revenues	516	518	507	530	559
EBITDA	20	23	35	42	46
EBIT	(25)	(10)	23	30	34
EPS	(8.03)	(1.94)	0.99	1.53	1.86
EPS adj	(5.27)	(0.03)	1.30	1.53	1.86
DPS	-	-	-	-	0.20
EV/EBITDA	17.8	13.7	10.2	8.4	7.5
EV/EBIT	-	-	15.4	11.5	9.9
P/E adj	-	-	20.0	17.0	14.0
P/B	4.29	2.77	3.14	2.65	2.23
ROE (%)	-	-	12.7	16.9	17.3
Div yield (%)	-	-	-	-	0.8
Net debt	159	100	99	90	83

Source: Pareto

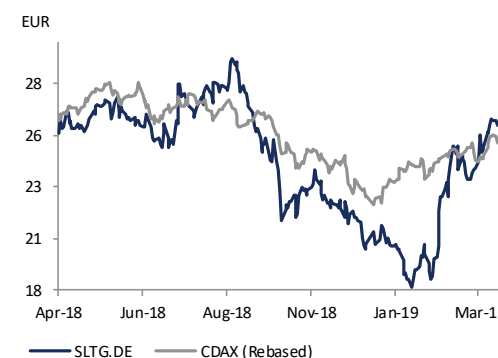
Target price (EUR)	35
Share price (EUR)	26

Forecast changes			
%	2019e	2020e	2021e
Revenues	1	2	NM
EBITDA	3	5	NM
EBIT adj	11	(2)	NM
EPS reported	(19)	(8)	NM
EPS adj	8	(8)	NM

Source: Pareto

Ticker	SLTG.DE, SLT GY
Sector	Industrials
Shares fully diluted (m)	8.9
Market cap (EURm)	230
Net debt (EURm)	99
Minority interests (EURm)	29
Enterprise value 19e (EURm)	358
Free float (%)	32

### Performance



Source: Factset

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### Analysts

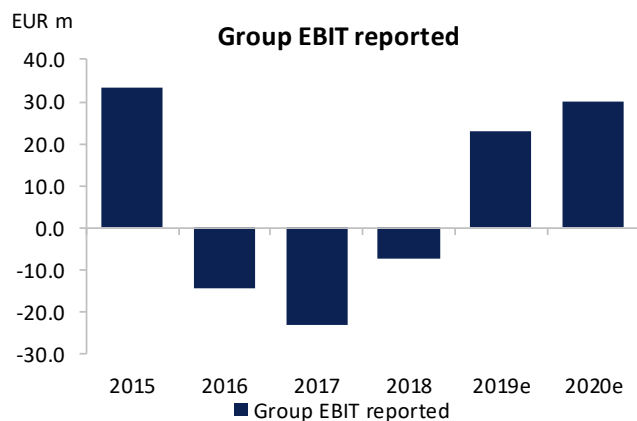
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## Investment case

### Final stage of restructuring

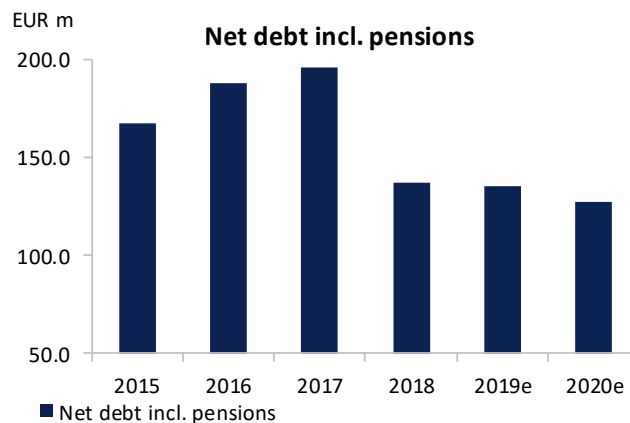
The Schaltbau Group has gone through three to four years of a deep restructuring process. Within the three years from 2015 to 2018 the group had to report an accumulated substantial negative EBIT of EUR 44.8m. More critical in our view was the stressed financial situation with a peak net debt including pensions of EUR 196m for FY 2017.

Exhibit 1: Three to four years of restructuring . . .



Source: Company data, Pareto Securities Research

Exhibit 2: . . . will come to its end



Source: Company data, Pareto Securities Research

With the support from an external consultant the group executed an in-depth restructuring plan including e.g. the sale and planned sale of loss-making companies, the sale of companies having no perspective for a sufficient and sustainable level of profitability, cost savings programs, and the financial debt recovery. From today's point of view it seems that at the end of FY 2019e the period of restructuring will come to its end and Schaltbau can turn over a new leaf in its history in our view.

Since the last AGM in summer 2018 this was accompanied by a partly changed management and supervisory board.

Exhibit 3: Management and Supervisory Board members

Executive Board			Supervisory Board		
Dr. A. Köhler	CEO and Spokesman	since 19 May 2018	Dr. H. Fechner	Chairman	since 07 June 2018
Th. Dippold	CFO	since 01 January 2017	Prof. Dr. Th. Grenz	Vice Chairman	since 07 June 2018
V. Kregelín	Chief Officer for MTT, STT	since 01 December 2018	A. Knitter	ordinary member	since 08 June 2017
			J. Pilloud	ordinary member	since 07 June 2018
			H. Treutingner	Employee representative	since 13 September 2017
			Achim Stey	Employee representative	since 26 June 2018

Source: Company data

With this new setup two aspects are important in our view:

- ▶ The new Executive and Supervisory Boards now are much more experienced with regard to the overall railway industry in addition to the existing financial and restructuring expertise
- ▶ The relationship between Executive and Supervisory Board is now based more on arms-length principles than in history.

On 29 March 2019 the company announced the resignation of board member Dr. M. Kleinschmitt by the end of March 2019. Dr. Kleinschmitt (lawyer by

*MTT segment mainly will increase the group's profitability*

profession) was board member since August 2017 and was mainly responsible for the restructuring and in this function worked closely together with Roland Berger as being Schaltbau's restructuring consultant. The three remaining board members have already worked on the restructuring plan too and will continue to do so. We interpret this move as a positive sign that the overall restructuring of the Schaltbau Group has made progress so far.

The profile of the "new" Schaltbau Group will become more and more visible. The company will continue to operate in the three segments Mobile Transportation Technology (MTT), Stationary Transportation Technology (STT) and Components (COM). The main drivers for the expected improved profitability will be the MTT segment, dominated by the Bode group (door specialist), followed by the STT segment. The Components segment is expected to remain on its high level of profitability. Mid- to long-term a sustainable EBIT-margin of 7.0% – 9.0% should be reached. This is a challenging target but achievable, in our view. On this basis the reopening of dividend payments from 2021e is also realistic to reach. Our forecast amounts to EUR 0.20 per share.

Since end of January 2019 the share price rallied to the current level of EUR 26.0 per share. Looking to our DCF-model and our derived target price of EUR 34.90 per share there is further significant upside potential, while the peer-group comparison currently shows that Schaltbau's multiples higher than the median figures, that is typical to some extent for turnaround situations. We will keep our Buy recommendation.

### Risks to the investment case

- ▶ The expected growth of the global railway markets will not meet Schaltbau's expectations with regard to their own targets
- ▶ The company will not meet all milestones fixed in the general restructuring plan, e.g. profitability improvement or working capital reduction targets
- ▶ Reduction of the group's financial debt might take longer than expected
- ▶ General inherent risks of the project business could lead to cost overruns or other burdening factors
- ▶ Further impairment risks in the group's company portfolio

### Valuation Update

- ▶ Buy recommendation confirmed
- ▶ Updated TP increased to EUR 34.90 from EUR 32.30 per share (+8.0%)
- ▶ Current upside potential of 34%

*Buy, TP EUR 34.90 (+8.0%)*

Including the 2018 results into our model we have shifted our DCF calculation to FY 2019. The main reason for the target price increase is a higher top-line growth compared to our former calculation. The base parameters like e.g. risk-free rate, perpetual growth rate and sustainable margin have not changed. Due to the capital increase from February last year the number of shares now is higher with 8.85m.

## Exhibit 4: Schaltbau Holding: DCF-model update leads to higher TP

EUR m	Phase I					Phase II					Phase III
	2019e	2020e	2021e	2022e	2023e	2024e	2025e	2026e	2027e	2028e	
Revenues	507.0	530.0	559.0	589.0	616.0	641.6	665.5	687.4	707.0	724.2	
growth rate	-2.2%	4.5%	5.5%	5.4%	4.6%	4.2%	3.7%	3.3%	2.9%	2.4%	
EBIT	27.0	30.1	34.1	37.7	42.3	44.2	45.9	47.6	49.1	50.4	
EBIT margin	5.3%	5.7%	6.1%	6.4%	6.9%	6.9%	6.9%	6.9%	6.9%	7.0%	
Tax	-8.1	-9.0	-10.2	-11.3	-12.7	-13.2	-13.8	-14.3	-14.7	-15.1	
Tax rate	30%	30%	30%	30%	30%	30%	30%	30%	30%	30%	
Depr. & Amort.	12.0	11.5	11.5	11.5	11.7	12.2	12.7	13.1	13.5	13.8	
% of sales	2.4%	2.2%	2.1%	2.0%	1.9%	1.9%	1.9%	1.9%	1.9%	1.9%	
Capex	-14.5	-15.0	-15.1	-14.9	-15.0	-14.2	-14.0	-14.1	-14.3	-14.5	
% of sales	2.9%	2.8%	2.7%	2.5%	2.4%	2.2%	2.1%	2.1%	2.0%	2.0%	
Change in WC & P	-3.9	-4.3	-3.3	-3.8	-3.9	-4.0	-4.2	-4.3	-4.4	-4.5	
% of sales	0.8%	0.8%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	0.6%	
Free Cash Flow	12.5	13.3	16.9	19.2	22.4	24.9	26.6	28.0	29.0	30.0	545.3
growth rate	nm	6.7%	27.2%	13.5%	16.6%	10.8%	7.0%	5.1%	3.9%	3.5%	2.0%
Present Value FCF	11.8	11.7	13.9	14.6	15.8	16.3	16.2	15.8	15.3	14.7	267.0

PV Phase I	67.9	Risk free rate	3.50%	Targ. equity ratio	65%
PV Phase II	78.4	Premium Equity	5.00%	Beta	1.2
PV Phase III	267.0	Premium Debt	2.00%	WACC	7.6%

Enterprise value	413.3	Sensitivity	Growth in phase III				
			1.0%	1.5%	2.0%	2.5%	3.0%
- Net Debt (Cash)	38.4						
- Pension Provisions	36.8	6.86%	36.1	39.1	42.8	47.3	52.9
- Minorities & Peripherals	29.2	7.24%	32.9	35.5	38.6	42.3	46.9
+ MV of financial assets		WACC 7.62%	30.1	32.3	34.9	38.0	41.8
- Paid-out dividends for last FY	0.0	8.00%	27.6	29.5	31.7	34.3	37.5
+/- Other EV items		8.38%	25.3	27.0	28.9	31.2	33.8

Equity value	308.9
Number of shares	8.85
Value per share (€)	34.90
Current Price (€)	26.00
Upside	34.2%

Source: FactSet (share price as of 09 April 2019), Pareto Securities Research

## Exhibit 5: Schaltbau Holding: Peer-group comparison

Company	PE 2019e	PE 2020e	EV/EBIT 2019e	EV/EBIT 2020e	EV/Sales 2019e	EV/Sales 2020e
Vossloh AG	28.1	19.3	17.1	13.3	1.1	1.0
Ansaldo STS SpA	nm	nm	nm	nm	nm	nm
Construcciones y Auxiliar de Ferrocarriles, S.A.	16.2	13.6	9.7	8.6	0.7	0.7
Talgo SA	17.1	11.7	10.9	7.9	1.5	1.1
Westinghouse Air Brake Technologies Corporation	17.8	15.1	7.9	7.5	1.1	1.1
Greenbrier Companies, Inc.	8.7	8.0	3.7	3.2	0.3	0.3
Knorr-Bremse AG	21.3	20.1	13.2	12.2	2.1	2.0
<b>Median</b>	<b>17.5</b>	<b>14.4</b>	<b>10.3</b>	<b>8.2</b>	<b>1.1</b>	<b>1.1</b>
<b>Schaltbau Holding AG</b>	<b>20.0</b>	<b>17.0</b>	<b>14.0</b>	<b>12.3</b>	<b>0.7</b>	<b>0.7</b>

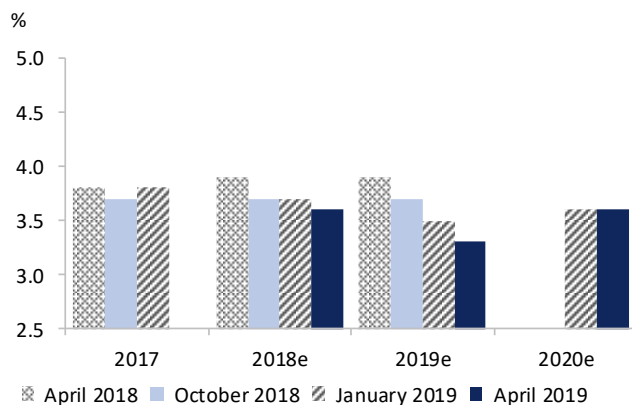
Source: FactSet (share prices as of 09 April 2019), Pareto Securities Research

## Market outlook

The overall macro picture has become worse during the last months. The IMF this week presented an update of their World Economic Outlook. In general, projections were revised down further and the World Output estimate for 2019e now amounts to a growth rate of 3.3% yoy compared to 3.5% yoy from January 2019. A more drastic revision was made for Germany: The forecast was revised down to +0.8% yoy compared to +1.3% from January 2019.

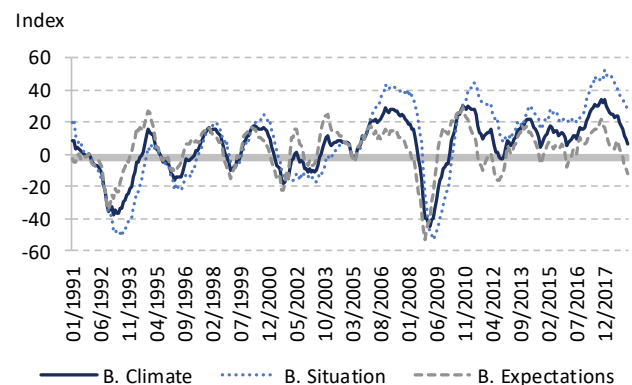
The Business Climate indicator for Germany, provided by Ifo, in March 2019 slightly recovered to 99.6 index points from 98.7 in February, what is the first increase after six declines in a row. Both the indicators for the Business Situation and the Business Expectations were slightly up. In contrast, 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 6: IMF World Output: Growing pessimism for 2019e**



Source: IMF World Economic Outlook

**Exhibit 7: Ifo Business Climate Manufacturing sector**



Source: Ifo Institute (data until March 2019)

According to a study from ResearchandMarkets the global railway market is expected to grow by a CAGR of 4.4% to an absolute level of USD 73.8bn until 2025e. By region, Asia/Pacific is expected to report the highest growth rate, followed by Europe and North America. Investments will be made both in the railway network and in infrastructure projects. In Germany, according to the Federal Transport Infrastructure Plan 2030 ("Bundesverkehrswegeplan 2030") for the period 2016 to 2030 on average per year a finance volume of EUR ~15bn is planned. Thereof, some 42% are related to rail infrastructure projects.

As a reminder, end of September 2018 the management and supervisory board of Deutsche Bahn decided to invest another EUR 1.0bn in the expansion and modernisation of the ICE fleet. In more detail the order for Siemens covers:

- ▶ Eighteen new ICE-4 trains with seven individual cars each train
- ▶ 50 individual power cars for the expansion of already ordered ICE-4 trains from twelve to thirteen cars
- ▶ Modernisation of the existing ICE-1 fleet is executed by Deutsche Bahn itself with the perspective of being in operation until 2030.

Outside the railway industry the other relevant industrial end-market for Schaltbau also offer growth perspectives. Here, it is worthwhile mentioning that Schaltbau companies are suppliers for several components in electromobility for busses, trucks, and people mover. The same is the case in New Energy markets, what was outlined, among other topics, during a roadshow we have organized for the company.

## Mobile Transportation Technology (MTT)

*Bode Group dominates the MTT segment*

The segment's activities are mainly represented by the Bode group with a sales share 2018 of 68% (EUR 185.6m /EUR 271.5m). The main activities cover the areas of sliding doors and entry systems for trains. This know-how already has been transferred into other industries outside rail as for example body boxes and sliding side doors for the Streetscooter of Deutsche Post is a good example.

### Exhibit 8: Schaltbau Holding Group: Mobile Transportation Technology (MTT)

EUR m	2014	2015	2016	2017	2018	2019e	2020e	2021e	2022e	2023e
Incoming orders	195.7	224.9	263.2	304.3	326.0	328.0	331.0	342.0	352.0	355.0
yoy %		14.9%	17.0%	15.6%	7.1%	0.6%	0.9%	3.3%	2.9%	0.9%
Divisional sales	186.0	225.5	222.9	228.0	271.5	280.0	301.0	327.0	350.0	371.0
yoy %		21.2%	-1.2%	2.3%	19.1%	3.1%	7.5%	8.6%	7.0%	6.0%
EBIT reported	12.7	16.0	5.2	-26.4	-22.8	3.0	8.4	11.0	14.0	18.2
Analysis										
Book-to-bill ratio (x)	1.05	1.00	1.18	1.33	1.20	1.17	1.10	1.05	1.01	0.96
EBIT reported - margin	6.8%	7.1%	2.3%	-11.6%	-8.4%	1.1%	2.8%	3.4%	4.0%	4.9%

Source: Company data, Pareto Securities Research; from 2017 onwards like-for-like figures

The segment could report a solid growth in orders and sales, while the reported EBIT came out below the company's expectations. Adjusted for impairments and loss-making projects within the discontinuing operations the adjusted EBIT reached EUR-0.9m, that was not satisfying too.

Looking forward, the sale of both Sepsa and Alte Technologies should be finalized in the course of FY 2019e, according to the company. At the Bode Group the "Fit-for-the-Future"-program was implemented, directed to improve the cost base, productivity and efficiency. Major cost benefits are expected to materialize in the current year. On this basis we expect a turnaround in EBIT adjusted with a positive value of EUR 7.0m, equal to a margin of 2.5%. Thanks to a favourable order situation and further internal improvements EBIT-margins are expected to return to more "normal" levels.

## Stationary Transportation Technology (STT)

The segment is composed of the Pintsch subgroup and ranks as the number three player in various submarkets like e.g. level crossings, shunting equipment or heating systems.

Profitability in 2018 was burdened by several loss-making projects and the EBIT before extraordinary items reached EUR -0.7m

For FY 2019e we expect for the segment a nearly stable EBIT of EUR 2.5m and have not included any further adjustments items in our forecast. The segment will benefit from lower costs coming from a collectively bargained restructuring plan which will terminate end of 2019e. For the following years we have increased again our forecast for personnel costs in STT. Thanks to expected higher infrastructure investments from Deutsche Bahn in Germany from 2020e onwards a further margin improvement is likely in our view.

## Exhibit 9: Schaltbau Holding Group: Stationary Transport Technology (STT)

EUR m	2014	2015	2016	2017	2018	2019e	2020e	2021e	2022e	2023e
Incoming orders	138.9	155.5	157.8	60.4	77.1	80.0	81.0	84.0	87.0	92.0
yoy %		11.9%	1.5%	-61.7%	27.6%	3.8%	1.3%	3.7%	3.6%	5.7%
Divisional sales	139.5	144.2	149.4	70.8	60.9	80.0	70.0	71.0	74.0	76.0
yoy %		3.4%	3.6%	-52.6%	-14.0%	31.4%	-12.5%	1.4%	4.2%	2.7%
EBIT reported	2.5	1.2	-28.1	-5.5	2.6	2.5	2.2	2.4	2.6	2.8
Analysis										
Book-to-bill ratio (x)	1.00	1.08	1.06	0.85	1.27	1.00	1.16	1.18	1.18	1.21
EBIT reported - margin	1.8%	0.8%	-18.8%	-7.8%	4.3%	3.1%	3.1%	3.4%	3.5%	3.7%

Source: Company data, Pareto Securities Research; from 2017 onwards like-for-like figures

## Components (COM)

The COM segment represents mainly direct current (DC) technology for trains, new energy and electromobility and driver desk equipment. During the crisis years of the Schaltbau Group the segment was able to report solid profits. In 2018 the EBIT-margin reached 17.3% from 16.4% a year earlier.

## Exhibit 10: Schaltbau Holding Group: Components (COM)

EUR m	2014	2015	2016	2017	2018	2019e	2020e	2021e	2022e	2023e
Incoming orders	114.7	131.5	130.1	146.3	150.5	152.0	157.0	162.0	167.0	170.0
yoy %		14.7%	-1.1%	12.5%	2.9%	1.0%	3.3%	3.2%	3.1%	1.8%
Divisional sales	105.6	133.9	138.1	130.7	145.2	148.0	160.0	162.0	166.0	170.0
yoy %		26.7%	3.2%	-5.4%	11.1%	1.9%	8.1%	1.3%	2.5%	2.4%
EBIT reported	18.9	23.4	17.2	21.4	25.1	25.5	26.5	26.7	27.1	27.3
Analysis										
Book-to-bill ratio (x)	1.09	0.98	0.94	1.12	1.04	1.03	0.98	1.00	1.01	1.00
EBIT reported - margin	17.9%	17.5%	12.4%	16.4%	17.3%	17.2%	16.6%	16.5%	16.3%	16.1%

Source: Company data, Pareto Securities Research; from 2017 onwards like-for-like figures

Looking forward, 2019e the segment will benefit from a higher demand from outside rail markets. That is driven from a renaissance from the direct current technology.

## Profitability improvement

Schaltbau, in 2018 reached its own sales and margin targets. Group sales on a like-for-like basis reached EUR 477.7m (+12.1% yoy), that was marginally below the company's target of EUR 480-500m. The adjusted EBIT-margin reached 3.3% and compares to the guided margin of >3.0%. On group level 2018 profitability (EBIT) was burdened by several extraordinary items, as can be seen in Exhibit 11. The major part came from impairment losses and revaluations at Alte Technologies and Bode UK in the amount of EUR 13.9m. From today's point of view we expect no further adjustment items for the current year.

## Exhibit 11: Schaltbau Holding: Earnings quality will improve

EUR m	2015	2016	2017	2018	2019e	2020e	2021e	2022e	2023e
<b>EBIT reported</b>	<b>33.4</b>	<b>-14.5</b>	<b>-23.0</b>	<b>-7.3</b>	<b>23.0</b>	<b>30.1</b>	<b>34.1</b>	<b>37.7</b>	<b>42.3</b>
one-off / extraordinary income (-)									
Revaluation of Albatros S.L.U. (Spain) "Sepsa"		-7.0							
Revaluation RDS (Poland)	-2.5								
Income related to prior periods	-3.5	-3.4		-3.2					
one-off / extraordinary expenses (+)									
impairment at Alte & Bode U.K.				13.9					
depreciation of other assets at Alte Techn.									
extraord. expenses related to Sepsa insolvency					4.0				
Revaluation: Schaltbau Sepsa			24.2						
Revaluation: Pintsch Bubenzer			1.1	0.6					
Expenses related to prior periods	0.6	0.6	0.1	5.2					
IFRS 5 effect Sepsa real estate				3.8					
Further revaluation at Alte Technologies S.L.U.				3.0					
<b>EBIT operating</b>	<b>28.0</b>	<b>-24.3</b>	<b>2.4</b>	<b>16.0</b>	<b>27.0</b>	<b>30.1</b>	<b>34.1</b>	<b>37.7</b>	<b>42.3</b>
<b>EBIT operating - margin, %</b>	<b>5.6%</b>	<b>n.m.</b>	<b>0.6%</b>	<b>3.3%</b>	<b>5.3%</b>	<b>5.7%</b>	<b>6.1%</b>	<b>6.4%</b>	<b>6.9%</b>

Source: Company data, Pareto Securities Research

## FY 2019e with further increase in profitability

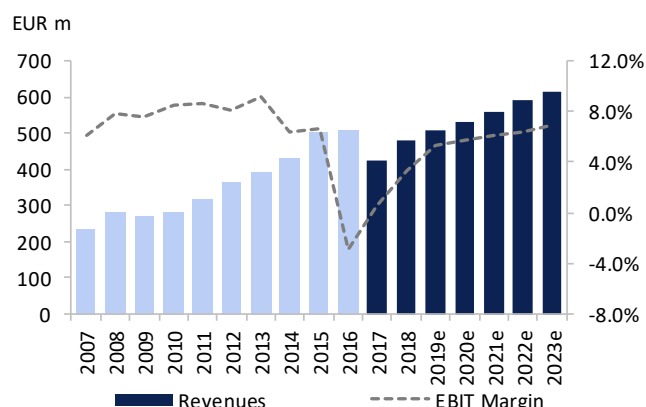
Further EBIT-margin increase expected

Based on an order book end of 2018 of EUR 583m (including discontinuing operations) and an expected order intake of EUR 480-500m the Schaltbau Group 2019e wants to generate sales of EUR 480-500m based on continuing operations. We are slightly more optimistic and expect sales of EUR 507m. That is explained mainly by a strong growth in the STT segment, as the internal planning for this segment in connection with the impairment test for 2018 expects significant growth for e.g. Pintsch (annual report 2018 page 88).

As the EBIT-margin is concerned, Schaltbau wants to reach an EBIT-margin level of 5%-6%, also based on continuing operations. That compares to our own estimate of 5.3% or EUR 27.0m in absolute terms.

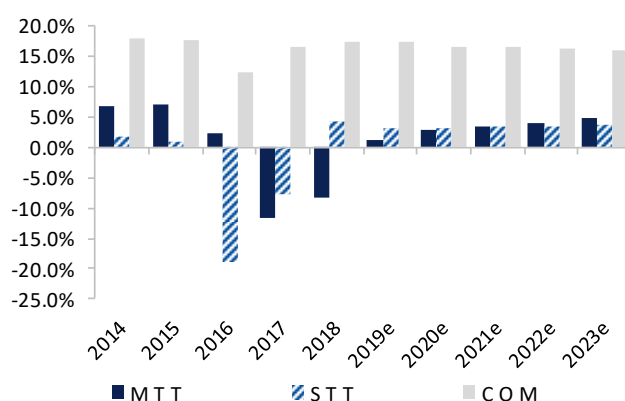
The major improvement will be seen in the MTT segment, in which the EBIT-margin is expected to rise to 2.5% from -0.3% the year before. We expect the Components division to keep its high EBIT-margin level with 16.0% to 17.0%.

## Exhibit 12: Recovery of EBIT-margin



Source: Company data, Pareto Securities Research; from 2017 onwards like-for-like figures

## Exhibit 13: EBIT-margins by segment



Source: Company data, Pareto Securities Research; from 2017 onwards like-for-like figures

In a press release from 08 April 2019 the company announced that the sale of Sepsa is close to finalization. A so far unnamed strategic investor is prepared to acquire the major part of the Sepsa assets within a planned liquidation. Two conditions that were needed are the support of the workforce of Sepsa and the



acceptance of the Spanish law court. The maximum cash burden for Schaltbau could go up to EUR 8.0m and it was stated that this level will not be reached. We have included an extraordinary burden of EUR 4.0m (see Exhibit 11) in our calculation.

#### Exhibit 14: Schaltbau Group: Divisional forecasts

Schaltbau Holding Group (EUR m) *	2017	2018	2019e	2020e	2021e	2022e	2023e
<b>Order Intake</b>							
MTT	304.3	326.0	328.0	331.0	342.0	352.0	355.0
STT	60.4	77.1	80.0	81.0	84.0	87.0	92.0
COM	146.3	150.5	152.0	157.0	162.0	167.0	170.0
Other/Consolidation	0.1	0.3	0.0	0.2	0.2	0.2	0.2
<b>Order intake Group</b>	<b>511.1</b>	<b>553.9</b>	<b>560.0</b>	<b>569.2</b>	<b>588.2</b>	<b>606.2</b>	<b>617.2</b>
<b>Growth yoy</b>							
MTT		7.1%	0.6%	0.9%	3.3%	2.9%	0.9%
STT		27.6%	3.8%	1.3%	3.7%	3.6%	5.7%
COM		2.9%	1.0%	3.3%	3.2%	3.1%	1.8%
<b>Order intake Group, growth yoy</b>		<b>8.4%</b>	<b>1.1%</b>	<b>1.6%</b>	<b>3.3%</b>	<b>3.1%</b>	<b>1.8%</b>
<b>Group sales</b>							
MTT	228.0	271.5	280.0	301.0	327.0	350.0	371.0
STT	70.8	60.9	80.0	70.0	71.0	74.0	76.0
COM	130.7	145.2	148.0	160.0	162.0	166.0	170.0
Other/Consolidation	-3.2	0.1	-1.0	-1.0	-1.0	-1.0	-1.0
<b>Group sales</b>	<b>426.3</b>	<b>477.7</b>	<b>507.0</b>	<b>530.0</b>	<b>559.0</b>	<b>589.0</b>	<b>616.0</b>
<b>Growth (yoy)</b>							
MTT		19.1%	3.1%	7.5%	8.6%	7.0%	6.0%
STT		-14.0%	31.4%	-12.5%	1.4%	4.2%	2.7%
COM		11.1%	1.9%	8.1%	1.3%	2.5%	2.4%
<b>Group sales</b>		<b>12.1%</b>	<b>6.1%</b>	<b>4.5%</b>	<b>5.5%</b>	<b>5.4%</b>	<b>4.6%</b>
<b>EBIT before extraord. Items</b>							
MTT	-2.2	-0.9	7.0	8.4	11.0	14.0	18.2
STT	-4.4	-0.7	2.5	2.2	2.4	2.6	2.8
COM	21.4	25.1	25.5	26.5	26.7	27.1	27.3
Other/Consolidation	-12.4	-7.5	-8.0	-7.0	-6.0	-6.0	-6.0
<b>Group EBIT before extraord. items</b>	<b>2.4</b>	<b>16.0</b>	<b>27.0</b>	<b>30.1</b>	<b>34.1</b>	<b>37.7</b>	<b>42.3</b>
<b>EBIT-margin (%)</b>							
MTT	-1.0%	-0.3%	2.5%	2.8%	3.4%	4.0%	4.9%
STT	-6.2%	-1.1%	3.1%	3.1%	3.4%	3.5%	3.7%
COM	16.4%	17.3%	17.2%	16.6%	16.5%	16.3%	16.1%
<b>Group EBIT before extraord. items</b>	<b>0.6%</b>	<b>3.3%</b>	<b>5.3%</b>	<b>5.7%</b>	<b>6.1%</b>	<b>6.4%</b>	<b>6.9%</b>
<b>Book-to-bill-ratio</b>							
MTT	1.33	1.20	1.17	1.10	1.05	1.01	0.96
STT	0.85	1.27	1.00	1.16	1.18	1.18	1.21
COM	1.12	1.04	1.03	0.98	1.00	1.01	1.00
<b>Group sales</b>	<b>1.20</b>	<b>1.16</b>	<b>1.10</b>	<b>1.07</b>	<b>1.05</b>	<b>1.03</b>	<b>1.00</b>

MTT = Mobile Transportation Technology; STT = Stationary Transportation Technology; COM = Components  
\* like-for-like figures continuing operations

Source: Company data, Pareto Securities Research

The overall financial situation in FY 2018 improved further. Management was able to reduce the net financial debt (according to Schaltbau definition; excl. pensions) to EUR 100.4m from 158.4m end of 2017. The company raised fresh liquidity from two capital increases in May 2017 of EUR 15.6m and in February 2018 of EUR 46.1m. Furthermore, the successful sale of Pintsch Bubenzer led to another cash in of EUR 30.3m.

End of FY 2019e a syndicated credit line of EUR 100m will become due and has to be refinanced. The Schaltbau management already is in negotiations to secure future liquidity and has various options in focus, as there are e.g. an asset securitisation, a new credit line, and a bonds issue. According to our own assessment these negotiations are in an advanced stage and will be finalized timely.

The group of lenders of the bonded loans will have an extraordinary right of termination with effect as of 31 December 2019 and has to be executed until 30 June 2019. Last year one lender voted for a termination in an amount of EUR 5.0m.

#### Exhibit 15: Schaltbau Holding group: Financial debt and maturities overview

Financial instrument	Volume (EUR m)	date of maturity
Syndicated credit line (bridge financing) + credit amortisation rate	32.5	28.02.2018
Syndicated credit line	100.0	31.12.2019
Bonded loan	28.5	30.06.2022
Bonded loan	41.5	30.06.2025
<b>Total amount Schaltbau group</b>	<b>202.5</b>	

Source: Company data, Pareto Securities Research

#### Exhibit 16: Schaltbau Holding Group: Financial recovery expected during the next years

Credit metrics	2014	2015	2016	2017	2018	2019e	2020e	2021e	2022e	2023e
<b>Leverage ratios</b>										
IBD / EBITDA (x)	2.8	3.5	10.9	9.1	5.4	3.4	2.9	2.6	2.3	2.1
NIBD / EBITDA (x)	2.1	2.8	9.1	7.9	4.5	2.8	2.2	1.8	1.5	1.2
<b>Coverage ratios</b>										
Equity ratio, %	25.8%	20.5%	16.1%	8.7%	16.3%	18.1%	20.6%	23.7%	26.6%	29.6%
Net gearing, %	127.3%	182.8%	255.4%	499.2%	212.4%	185.1%	147.1%	116.6%	93.4%	73.1%
Cash earnings, EUR m	35.5	40.6	13.6	13.3	20.8	28.2	32.7	35.2	37.6	41.1
Cash earnings / IBD (x)	0.3	0.3	0.1	0.1	0.2	0.2	0.3	0.3	0.3	0.4
Cash earnings interest coverage (x)	7.9	7.0	2.1	1.1	2.9	3.2	3.6	3.9	4.0	4.1
EBITDA interest coverage (x)	8.5	8.0	2.5	1.7	3.1	4.0	4.6	5.1	5.2	5.4
Operating Cash Flow / capex, %	91.3%	82.3%	129.0%	45.7%	-38.5%	162.3%	191.5%	206.0%	219.7%	242.3%

IBD = Interest Bearing Debt; NIBD = Net Interest Bearing Debt

Source: Company data, Pareto Securities Research

<b>PROFIT &amp; LOSS (fiscal year) (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
<b>Revenues</b>	<b>430</b>	<b>502</b>	<b>509</b>	<b>516</b>	<b>518</b>	<b>507</b>	<b>530</b>	<b>559</b>
<b>EBITDA</b>	<b>38</b>	<b>46</b>	<b>16</b>	<b>20</b>	<b>23</b>	<b>35</b>	<b>42</b>	<b>46</b>
Depreciation & amortisation	(11)	(13)	(31)	(43)	(30)	(12)	(12)	(12)
<b>EBIT</b>	<b>40</b>	<b>35</b>	<b>(11)</b>	<b>(25)</b>	<b>(10)</b>	<b>23</b>	<b>30</b>	<b>34</b>
Net interest	(4)	(5)	(5)	(11)	(6)	(7)	(7)	(7)
Other financial items	-	-	-	-	-	-	-	-
<b>Profit before taxes</b>	<b>35</b>	<b>30</b>	<b>(16)</b>	<b>(36)</b>	<b>(16)</b>	<b>16</b>	<b>23</b>	<b>27</b>
Taxes	(6)	(8)	4	(14)	2	(5)	(7)	(8)
Minority interest	(4)	(6)	(4)	(2)	(2)	(3)	(3)	(3)
<b>Net profit</b>	<b>25</b>	<b>17</b>	<b>(16)</b>	<b>(52)</b>	<b>(17)</b>	<b>9</b>	<b>14</b>	<b>16</b>
EPS reported	4.04	2.79	(2.61)	(8.03)	(1.94)	0.99	1.53	1.86
<b>EPS adjusted</b>	<b>4.04</b>	<b>2.16</b>	<b>(3.75)</b>	<b>(5.27)</b>	<b>(0.03)</b>	<b>1.30</b>	<b>1.53</b>	<b>1.86</b>
DPS	1.00	1.00	-	-	-	-	-	0.20
<b>BALANCE SHEET (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
Tangible non current assets	69	77	88	72	76	77	78	80
Other non-current assets	80	113	106	82	67	69	69	71
Other current assets	186	223	234	272	233	238	244	249
Cash & equivalents	26	32	30	25	21	21	31	35
<b>Total assets</b>	<b>361</b>	<b>446</b>	<b>459</b>	<b>452</b>	<b>397</b>	<b>405</b>	<b>421</b>	<b>436</b>
Total equity	113	125	107	71	94	103	116	133
Interest-bearing non-current debt	105	162	178	184	122	120	121	118
Interest-bearing current debt	-	-	-	-	-	-	-	-
Other Debt	104	122	134	160	145	145	147	148
<b>Total liabilities &amp; equity</b>	<b>361</b>	<b>446</b>	<b>459</b>	<b>452</b>	<b>397</b>	<b>405</b>	<b>421</b>	<b>436</b>
<b>CASH FLOW (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
Cash earnings	42	59	37	(24)	8	27	33	34
Change in working capital	(15)	(29)	(11)	35	(14)	(4)	(4)	(3)
Cash flow from investments	(38)	(49)	(18)	(34)	28	(15)	(13)	(16)
Cash flow from financing	(14)	(18)	(10)	19	43	(9)	(6)	(10)
Net cash flow	11	7	(2)	(5)	(4)	(0)	10	5
<b>CAPITALIZATION &amp; VALUATION (EURm)</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
<b>Share price (EUR end)</b>	<b>39.8</b>	<b>48.2</b>	<b>29.1</b>	<b>25.5</b>	<b>20.2</b>	<b>26.0</b>	<b>26.0</b>	<b>26.0</b>
Number of shares end period	6	6	6	7	9	9	9	9
Net interest bearing debt	80	130	148	159	100	99	90	83
<b>Enterprise value</b>	<b>344</b>	<b>460</b>	<b>360</b>	<b>358</b>	<b>308</b>	<b>358</b>	<b>350</b>	<b>342</b>
EV/Sales	0.8	0.9	0.7	0.7	0.6	0.7	0.7	0.6
<b>EV/EBITDA</b>	<b>9.0</b>	<b>9.9</b>	<b>22.1</b>	<b>17.8</b>	<b>13.7</b>	<b>10.2</b>	<b>8.4</b>	<b>7.5</b>
EV/EBIT	8.7	13.0	-	-	-	15.4	11.5	9.9
P/E reported	9.8	17.3	-	-	-	26.4	17.0	14.0
<b>P/E adjusted</b>	<b>9.8</b>	<b>22.3</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>20.0</b>	<b>17.0</b>	<b>14.0</b>
P/B	2.6	3.2	2.4	4.3	2.8	3.1	2.6	2.2
<b>FINANCIAL ANALYSIS &amp; CREDIT METRICS</b>	<b>2014</b>	<b>2015</b>	<b>2016</b>	<b>2017</b>	<b>2018</b>	<b>2019e</b>	<b>2020e</b>	<b>2021e</b>
ROE adjusted (%)	24.6	10.9	-	-	-	11.7	12.4	13.3
Dividend yield (%)	2.5	2.1	-	-	-	-	-	0.8
EBITDA margin (%)	8.9	9.3	3.2	3.9	4.3	6.9	7.9	8.2
EBIT margin (%)	9.2	7.1	-	-	-	4.6	5.7	6.2
NIBD/EBITDA	2.08	2.79	9.08	7.89	4.46	2.81	2.17	1.81
EBITDA/Net interest	8.91	8.61	3.13	1.84	3.95	4.88	5.57	6.23

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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%			

Pareto Securities AS may hold financial instruments in companies where a recommendation has been produced or distributed by Pareto Securities AS in connection with rendering investment services, including Market Making.

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	Høegh 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	Cfinity 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

This overview is updated monthly (last updated 18.03.2019).

## Appendix D

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

### Disclosure of positions in financial instruments

The beneficial holding of the Pareto Group is 1 % or more of the total share capital of the following companies included in Pareto Securities AB's research coverage universe: None

The Pareto Group has material holdings of other financial instruments than shares issued by the following companies included in Pareto Securities AB's research coverage universe: None

### Disclosure of assignments and mandates

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

Azelio	Jetpak Top Holding AB	Sedana Medical	Vostok New Ventures
Green Landscaping Holding	Magnolia Bostad	ShaM aran Petroleum	

Members of the Pareto Group provide market making or other liquidity providing services to the following companies included in Pareto Securities AB's research coverage universe:

Cavotec	Saltängen Property Invest	Sedana Medical	Tethys Oil
Cibus Nordic Real Estate	SciBase Holding	ShaM aran Petroleum	Vostok Emerging Finance
Isofol Medical			

Members of the Pareto Group have entered into agreements concerning the inclusion of the company in question in Pareto Securities AB's research coverage universe with the following companies: None  
*This overview is updated monthly (last updated 15.03.2019).*

## Appendix E

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

### Designated Sponsor

Pareto Securities acts as a designated sponsor for the following companies, including the provision of bid and ask offers. Therefore, we regularly possess shares of the company in our proprietary trading books. Pareto Securities receives a commission from the company for the provision of the designated sponsor services.

2G Energy *	Gesco *	Merkur Bank	SCOUT24
Aixtron *	GFT Technologies *	MLP *	Siemens Healthineers AG
Baywa	Gigaset *	MOBOTIX AG	SMT Scharf AG *
Biotest *	Heidelberg Pharma *	OVB Holding AG	Surteco Group *
Brenntag	Hypoport AG	Procredit Holding *	Syzygy AG *
CORESTATE Capital Holding S.A.	Intershop Communications AG	PSI SOFTWARE AG *	TAKKT AG
Demire	Leifheit *	PWO *	Vapiano
Epigenomics AG*	Logwin *	RIB Software *	va-Q-tec *
Euromicron AG *	Manz AG *	S&T AG *	Viscom *
Eyemaxx Real Estate	MAX Automation SE *	Schaltbau Holding AG	windeln.de
Freenet			

\* The designated sponsor services include a contractually agreed provision of research services.

## Appendix F

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

### Sponsored Research

Pareto Securities has entered into an agreement with these companies about the preparation of research reports and– in return - receives compensation.

Adler Modemaerkte	Daldrup & Söhne	Intershop Communications AG	OVB Holding AG
Baywa	Eyemaxx Real Estate	Merkur Bank	Schaltbau Holding AG
BB Biotech	First Sensor	MOBOTIX AG	Siegfried Holding AG
comdirect	Hypoport AG	OHB SE	Vapiano

*This overview is updated monthly (last updated 18.03.2019).*