

Software/Finland, February 13, 2019 Spot comment

### Growth remains an issue

SSH's Q4 result missed our expectations. On a positive, the company issued an outlook for 2019 and proclaimed the end of further litigation. We see current valuation as stretched given the relatively low and uncertain sales growth, thus we downgrade to SELL with target price EUR 1.6 (prev. 1.8).

#### Q4 misses our expectations

SSH Q4 missed our expectations, with net sales being EUR 6.4m (7.2m Evli) and EBIT being EUR 1.3m (1.8m Evli). The miss was due to abnormally low underlying software fees (0,6m excluding 1.5m license deal in Q4). Excluding patent income (2.7m) and a few larger license deals (2.8m), growth in 2018 would have been  $\sim$ 10% negative.

#### Outlook for 2019 given

In 2019 SSH expects double digit percentage growth from its core software business exceeding the projected annual cyber security market growth of approximately 10 %. In the medium term, SSH expects similar or faster growth and will also explore avenues for accelerated growth through inorganic growth opportunities. We had previously modeled 16% growth for 2019E based on the attractive growth opportunity apparent in the PAM market.

#### Estimates cut, slow growth with prudent cost control ahead

We've cut our net sales estimates for 2019-2021. We expect net sales in 2019E to be EUR 17.5m (-4% decline y/y) due to absence of patent income. For 2021E and 2022E we model 11% and 12% net sales growth respectively. No growth this year and slight growth in the coming years coupled with less litigation costs and a prudent cost control, means SSH will slowly start reaching organic profitability. We estimate EBIT of EUR 0.8m and EUR 1.9m in 2020 and 2021.

#### Downgrade to SELL with TP of 1.6 (prev. 1.8)

On our revised estimates, SSH is trading at EV/Sales 2019-20 of 3.9x and 3.5x. Our DCF indicates fair value of EUR 1.6. We see valuation as stretched given the uncertainty in sales growth, thus we downgrade to SELL with target price of EUR 1.6 (prev. 1.8). Our target price represents EV/Sales of 3.4x and 3.1x for 2019 & 2020.



BUY	HOLD	■ SELL
-----	------	--------

KEY FIGU	RES										
	Sales EURm	EBIT EURm	EBIT %	Ptx profit EURm	EPS EUR	P/E (x)	EV/Sales (x)	P/CF (x)	EV/EBIT (x)	DPS EUR	
2017	16	-2	-10.5%	-2	-0.08	-21.9	4.1	93.2	-39.1	0.00	
2018	18	1	2.7%	1	-0.01	-180.4	6.1	75.6	224.4	0.00	
2019E	18	0	0.6%	0	-0.03	-60.9	3.9	46.6	688.9	0.00	
2020E	20	1	4.1%	1	0.01	266.0	3.5	27.2	84.7	0.00	
2021E	22	2	8.7%	2	0.04	47.0	3.0	20.4	34.5	0.00	
Market ca	o, EURm		69 E	BV per share 201	19E, EUR		0.0 CAGR	EPS 2018-2	1, %	0.0	
Net debt*	2019E, EURm		-1 F	Price/book* 2019	ÐΕ		59.9 CAGR sales 2018-21, %				
Enterprise	value, EURm		69 E	Dividend yield 20	D19E, %		0.0 ROE 2019E, %				
Total assets 2019E, EURm 2				ax rate 2019E, o			0.7				
Goodwill 2	.019E, EURm		0 E	quity* ratio 201	8.4 PEG, P/E 19/CAGR						

<sup>\*</sup>EUR 12m hybrid included in debt

Software/Finland, February 13, 2019 Spot comment

	MCAP		EV/EBIT		[	EV/SALES			P/E	
Cybersecurity	MEUR	19	20	21	19	20	21	19	20	21
Check Point Software Tech	16464	14.2x	13.3x	14.4x	7.2x	6.8x	7.3x	19.7x	18.4x	16.7x
F-Secure	413	36.1x	21.4x		1.9x	1.8x		50.5x	28.5x	14.1x
Palo Alto Networks	18847	25.7x	18.7x	12.7x	5.9x	4.6x	3.4x	40.0x	33.1x	27.7x
Sophos Group	1859	24.7x	20.0x		2.8x	2.4x		30.4x	26.3x	26.8x
Symantec	13243	10.6x	9.1x		3.4x	3.1x		13.5x	12.2x	11.8x
Fortinet Inc	12534	25.0x	20.0x	16.8x	5.7x	4.8x	4.2x	40.1x	35.4x	32.3x
Peer Group Average	10165	22.7x	17.1x	14.6x	4.5x	3.9x	5.0x	32.4x	25.6x	21.6x
Peer Group Median	13243	24.9x	19.3x	14.4x	4.6x	3.8x	4.2x	35.2x	27.4x	21.8x
SSH (Evli est.)	69	688.9x	84.7x	34.5x	3.9x	3.5x	3.0x	-60.9x	266.0x	47.0x

SSH prem./disc. to peer median

-14% -10% -28% Source FactSet, Evli Research

	Sales		Sales growt		EBIT-%		
Cybersecurity	18	19	20	21	19	20	21
Check Point Software Tech	1677	5%	4%	5%	50.6 %	51.0 %	50.9 %
F-Secure	190	15%	8%	6%	5.4 %	8.3 %	15.9 %
Palo Alto Networks	1962	37%	18%	16%	23.0 %	24.6 %	27.0 %
Sophos Group	609	10%	10%	6%	11.3 %	12.0 %	
Symantec	4210	3%	5%	1%	32.4 %	33.8 %	34.1 %
Fortinet Inc	1586	16%	13%	11%	22.9 %	23.8 %	24.7 %
Peer Group Average	1706	14%	10%	8%	24.3 %	25.6 %	30.5 %
Peer Group Median	1632	13%	9%	6%	23.0 %	24.2 %	27.0 %
SSH (Evli est.)	18	-4%	11%	12%	0.6 %	4.1 %	8.7 %

Source FactSet, Evli Research

	MCAP		EV/EBIT		E	EV/SALES			P/E	
PAM vendors	MEUR	19	20	21	19	20	21	19	20	21
CyberArk Software	2792	28.5x	22.1x	15.8x	6.6x	5.2x	4.1x	44.9 x	36.2x	30.0x
Wallix Group	61		14.1x		1.3x	0.8x			43.2x	
Peer Group Average	1426	28.5x	18.1x	15.8x	4.0x	3.0x	4.1x	44.9x	39.7x	30.0x
Peer Group Median	1426	28.5x	18.1x	15.8x	4.0x	3.0x	4.1x	44.9x	39.7x	30.0x
SSH (Evli est.)	69	688.9x	84.7x	34.5x	3.9x	3.5x	3.0x	-60.9x	266.0x	47.0x

SSH prem./disc. to peer median Source FactSet, Evli Research

-27%

	Sale	es	Sales		EBIT-%				
PAM vendors	18	19	20	21	19	20	21		
CyberArk Software	29	2 19%	20%	21%	23.3 %	23.6 %	26.0 %		
Wallix Group	14	47%	55%		-15.5 %	5.9 %			
Peer Group Average	15	3 33%	37%	21%	3.9 %	14.7 %	26.0 %		
Peer Group Median	15	3 33%	37%	21%	3.9 %	14.7 %	26.0 %		
SSH (Evli est.)	18	-4%	11%	12%	0.6 %	4 %	9 %		

Source FactSet, Evli Research

	MCAP		EV/EBIT		E	V/SALES			P/E	
Nordic software companies	MEUR	19	20	21	19	20	21	19	20	21
Basware	553				4.0x	3.7x	3.3x			
Efecte	27									
Enea	254	15.2x	12.0x	10.3x	3.2x	2.7x	2.4x	17.5x	14.8x	13.7x
Infront	66	15.6x	11.7x	10.2x	1.6x	1.4x	1.2x	20.6x	16.7x	13.6x
Qt Group	241	218.6x	27.2x		4.2x	3.3x		406.0x	34.4x	13.7x
Peer Group Average	228	83.1x	16.9x	10.2x	3.2x	2.8x	2.3x	148.0x	22.0x	13.7x
Peer Group Median	241	15.6x	12.0x	10.2x	3.6x	3.0x	2.4x	20.6x	16.7x	13.7x
SSH (Evli est.)	69	688.9x	84.7x	34.5x	3.9x	3.5x	3.0x	-60.9x	266.0x	47.0x
SSH prem./disc. to peer median		4328%	609%	237%	10%	15%	26%	-396%	1493%	244%

Source FactSet, Evli Research

	Sales		Sales growth	า		EBIT-%		
Nordic software companies	18	19	20	21	19	20	21	
Basware	141	5%	10%	12%	-7.9 %	-4.6 %	-2.4 %	
Efecte	12	21%	29%	27%	-11.1 %	-4.6 %	-0.5 %	
Enea	80	19%	9%	7%	20.9 %	22.8 %	23.3 %	
Infront	28	28%	7%	25%	10.1 %	11.9 %	11.3 %	
Qt Group	46	20%	26%	30%	1.9 %	12.3 %	23.1 %	
Peer Group Average	62	18%	16%	20%	2.8 %	7.5 %	11.0 %	
Peer Group Median	46	20%	10%	25%	1.9 %	11.9 %	11.3 %	
SSH (Evli est.)	18	-4%	11%	12%	0.6 %	4.1 %	8.7 %	

Source FactSet, Evli Research

VALUATION RESULTS	BASE CASE DETAILS	VALUATION ASSUMPTIONS	ASSUMPTIONS FOR WACC	
Current share price	1.80 PV of Free Cash Flow	24 Long-term growth, %	3.5 Risk-free interest rate, %	2.25
DCF share value	1.64 PV of Horizon value	39 WACC, %	11.0 Market risk premium, %	5.8
Share price potential, %	-8.6 Unconsolidated equity	-1 Spread, %	0.5 Debt risk premium, %	2.8
Maximum value	1.8 Marketable securities	14 Minimum WACC, %	10.5 Equity beta coefficient	1.38
Minimum value	1.5 Debt - dividend	-12 Maximum WACC, %	11.5 Target debt ratio, %	15
Horizon value, %	61.4 Value of stock	63 Nr of shares, Mn	38.6 Effective tax rate, %	20

DCF valuation, EURm	2018	2019E	2020E	2021E	2022E	2023E	2024E	2025E	2026E	2027E	2028E	Horizon
Net sales	18	18	20	22	25	29	33	38	43	48	50	52
Sales growth, %	13.0	-4.4	11.4	11.8	15.0	16.0	15.0	15.0	12.0	12.0	3.5	3.5
Operating income (EBIT)	1	0	1	2	3	6	7	8	9	10	10	10
EBIT margin, %	2.7	0.6	4.1	8.7	10.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
+ Depreciation+amort.	2	2	1	1	1	1	1	1	1	1	1	
- Income taxes	0	0	0	0	-1	-1	-1	-2	-2	-2	-2	
- Change in NWC	-1	0	0	1	1	1	1	1	1	1	0	
NWC / Sales, %	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9	-23.9	
+ Change in other liabs	0	0	0	0	0	0	0	0	0	0	0	
- Capital Expenditure	-2	-1	-1	-1	-1	-1	-1	-1	-1	-2	-2	-2
Investments / Sales, %	11.3	<i>5.7</i>	5.5	5.0	4.6	4.2	3.9	3.6	3.4	3.2	4.0	4.0
- Other items	-1	-1	0	0	0	0	0	0	0	0	0	
= Unlevered Free CF (FCF)	-2	0	1	2	3	6	6	7	8	9	8	108
= Discounted FCF (DFCF)		0	1	2	2	3	3	4	3	3	3	39
	•	•	•	•			•			•		•
= DFCF min WACC		0	1	2	2	3	4	4	4	4	3	43
= DFCF max WACC		0	1	2	2	3	3	3	3	3	3	35

# SSH COMMUNICATIONS SECURITY

INT	FRI	M	FI	GH	RES

EVLI ESTIMATES, EURm	2018Q1	2018Q2	2018Q3	2018Q4	2018	2019Q1E	2019Q2E	2019Q3E	2019Q4E	2019E	2020E	2021E
Net sales	5	4	3	6	18	4	4	5	5	18	20	22
EBITDA	0	0	0	2	2	0	1	1	1	2	2	3
EBITDA margin (%)	10.3	8.0	-11.9	26.5	11.3	-13.9	18.2	15.2	14.3	9.7	11.5	14.8
EBIT	0	0	-1	1	1	-1	0	0	0	0	1	2
EBIT margin (%)	2.1	-2.7	-23.5	20.3	2.7	-25.0	9.1	6.5	6.1	0.6	4.1	8.7
Net financial items	0	0	0	0	0	0	0	0	0	0	0	0
Pre-tax profit	0	0	-1	1	1	-1	0	0	0	0	1	2
Tax	0	0	0	0	0	0	0	0	0	0	0	0
Tax rate (%)	0.0	0.0	0.0	0.0	0.0	20.0	20.0	20.0	20.0	20.0	20.0	20.0
Net profit	0	0	-1	1	0	-1	0	0	0	-1	0	1
EPS	-0.01	-0.01	-0.03	0.03	-0.01	-0.03	0.00	0.00	0.00	-0.03	0.01	0.04
EPS adjusted (diluted no. of shares)	-0.01	-0.01	-0.03	0.03	-0.01	-0.03	0.00	0.00	0.00	-0.03	0.01	0.04
Dividend per share	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00	0.00
SALES, EURm												
Software fees	2	1	1	2	6	1	2	2	2	7	8	10
Professional services	1	1	0	2	4	0	0	0	0	1	2	2
Recurring revenue	2	2	2	2	9	2	2	2	2	9	9	9
Total	5	4	3	6	18	4	4	5	5	18	20	22
SALES GROWTH, Y/Y %												
Software fees	183.3	-30.0	42.9	23.5	37.5	-35.3	171.4	110.0	9.5	34.5	12.2	22.9
Professional services	150.0	50.0	-50.0	-16.0	7.7	-70.0	-66.7	50.0	-85.7	-71.4	66.7	10.0
Recurring revenue	0.0	0.0	10.0	4.8	3.6	4.8	4.8	0.0	4.5	3.5	3.4	2.2
Total	54.8	0.0	9.7	1.6	13.0	-25.0	18.9	35.3	-23.4	-4.4	11.4	11.8
EBIT, EURm												
	0	0	-1	1	1	-1	0	0	0	0	0	2
	0	0	0	0	0	0	0	0	0	0	1	0
Total	0	0	-1	1	1	-1	0	0	0	0	1	2
EBIT margin, %							_					
Total	2.1	-2.7	-23.5	20.3	2.7	-25.0	9.1	6.5	6.1	0.6	4.1	8.7

INCOME STATEMENT, EURm	2014	2015	2016	2017	2018	2019E	2020E	2021E
Sales	16	19	15	16	18	18	20	22
Sales growth (%)	22.7	16.6	-20.1	7.3	13.0	-4.4	11.4	11.8
Costs	-15	-22	-24	-16	-16	-16	-17	-19
Reported EBITDA	1	-3	-9	0	2	2	2	3
Extraordinary items in EBITDA	0	0	0	0	0	0	0	0
EBITDA margin (%)	8.7	-14.7	-58.8	1.8	11.3	9.7	11.5	14.8
Depreciation	-1	-2	-2	-2	-2	-2	-1	-1
EBITA	0	-4	-11	-2	1	0	1	2
Goodwill amortization / writedown	0	0	0	0	0	0	0	0
Reported EBIT	0	-4	-11	-2	1	0	1	2
EBIT margin (%)	1.2	-23.3	-71.5	-10.5	2.7	0.6	4.1	8.7
Net financials	0	1	0	0	0	0	0	0
Pre-tax profit	0	-4	-11	-2	1	0	1	2
Extraordinary items	0	0	0	0	0	0	0	0
Taxes	0	0	0	0	0	0	0	0
Minority shares	0	0	0	0	0	0	0	0
Net profit	0	-4	-12	-3	0	-1	0	1
BALANCE SHEET, EURm	-				-			
Assets								
Fixed assets	4	5	5	5	5	5	4	4
% of sales	4 25	5 26	36	30	5 <i>30</i>	5 27	4 23	4 19
Goodwill	0	0	0	0	0	0	0	0
% of sales	0	0	0	0	0	0	0	0
Inventory	0	0	0	0	0	0	0	0
% of sales	0	0	0	0	0	0	0	0
Receivables	8	6	9	5	5	5	6	6
% of sales	46	29	57	30	30	30	30	30
Liquid funds	6	11	8	14	14	13	6	7
% of sales	38	60	52	83	74	76	30	30
Total assets Liabilities	18	22	22	23	24	23	16	17
Equity	8	-1	-4	1	2	2	2	4
% of sales	48	-3	-25	6	12	11	11	17
Deferred taxes	0	0	0	0	0	0	0	0
% of sales	0	0	0	0	0	0	0	0
Interest bearing debt	0	12	12	12	12	12	3	2
% of sales	0	64	79	74	67	69	17	8
Non-interest bearing current liabilities	10	10	14	10	10	9	10	12
% of sales	60	55	90	64	54	54	54	54
Other interest free debt	0	0	0	0	0	0	0	0
% of sales	0	0	0	0	0	0	0	0
Total liabilities	18	22	22	23	24	23	16	17
CASH FLOW, EURm								
+ EBITDA	1	-3	-9	0	2	2	2	3
- Net financial items	0	1	0	0	0	0	0	0
- Taxes	0	0	0	0	0	0	0	0
- Increase in Net Working Capital	0	3	0	0	-1	0	0	1
+/- Other	0	0	-1	-1	-1	-1	0	0
= Cash flow from operations	2	0	-10	-1	0	0	2	3
•	-2	-3	-2	-1	-2	-1	-1	-1
- Capex - Acquisitions	-2 0	-3 0	-2 0	-1	-2 0	-1	-1 0	-1
•	0		0				0	
+ Divestments		0		0	0	0		0
= Net cash flow	0	-2 12	-12	-2	-2	-1	1	2
+/- Change in interest-bearing debt	-4	12	0	0	0	0	-9	-2
+/- New issues/buybacks	4	-5	9	8	2	1	0	0
- Paid dividend	0	0	0	0	0	0	0	0
+/- Change in loan receivables	0	0	0	0	0	0	0	0
Change in cash	0	5	-3	6	0	0	-8	1

<sup>\*</sup>EUR 12m hybrid included in debt

KEY FIGURES	2015	2016	2017	2018	2019E	2020E	2021E
M-cap	95	67	68	72	69	69	69
Net debt	1	4	-1	-1	-1	-2	-5
Enterprise value	95	71	67	112	69	68	66
Sales	19	15	16	18	18	20	22
EBITDA	-3	-9	0	2	2	2	3
EBIT	-4	-11	-2	1	0	1	2
Pre-tax	-4	-11	-2	1	0	1	2
Earnings	-4	-12	-3	0	-1	0	1
Book value	-1	-4	1	1	1	1	3
Valuation multiples	·					•	
EV/sales	5.1	4.7	4.1	6.1	3.9	3.5	3.0
EV/EBITDA	-34.3	-8.0	229.5	54.0	40.5	30.3	20.3
EV/EBITA	-21.7	-6.6	-39.1	224.4	688.9	84.7	34.5
EV/EBIT	-21.7	-6.6	-39.1	224.4	688.9	84.7	34.5
EV/operating cash flow	-422.7	-8.2	91.2	117.5	46.3	26.5	19.3
EV/cash earnings	-41.3	-7.8	-316.9	54.0	50.7	35.2	23.3
P/E	-24.1	-5.6	-21.9	-180.4	-60.9	266.0	47.0
P/E excl. goodwill	-24.1	-5.6	-21.9	-180.4	-60.9	266.0	47.0
P/B	-160.6		75.6	51.5	-60.9 59.9	48.9	24.0
•		-17.6		3.9	4.0	3.6	3.2
P/sales P/CF	5.0	4.4	4.2				
•	-419.7	-7.7	93.2	75.6	46.6	27.2	20.4
Target EV/EBIT	0.0	0.0	0.0	0.0	611.7	75.1	30.4
Target P/E	0.0	0.0	0.0	0.0	-54.1	236.5	41.8
Target P/B	0.0	0.0	0.0	0.0	53.2	43.4	21.3
Per share measures	04.070	0.4.504		00.570	00.570	00.570	
Number of shares	31,370	34,561	38,441	38,578	38,578	38,578	38,578
Number of shares (diluted)	31,370	34,561	38,441	38,578	38,578	38,578	38,578
EPS	-0.13	-0.35	-0.08	-0.01	-0.03	0.01	0.04
EPS excl. goodwill	-0.13	-0.35	-0.08	-0.01	-0.03	0.01	0.04
Cash EPS	-0.07	-0.27	-0.01	0.05	0.04	0.05	0.07
Operating cash flow per share	-0.01	-0.25	0.02	0.02	0.04	0.07	0.09
Capital employed per share	0.00	0.01	-0.02	0.03	0.02	-0.01	-0.03
Book value per share	-0.02	-0.11	0.02	0.04	0.03	0.04	80.0
Book value excl. goodwill	-0.02	-0.11	0.02	0.04	0.03	0.04	80.0
Dividend per share	0.00	0.00	0.00	0.00	0.00	0.00	0.00
Dividend payout ratio, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Dividend yield, %	0.0	0.0	0.0	0.0	0.0	0.0	0.0
Efficiency measures							
ROE	0.0	0.0	0.0	-34.8	-89.1	20.2	68.4
ROCE	-45.7	-110.1	-16.1	3.6	0.7	8.2	34.1
Financial ratios							
Capex/sales, %	13.7	15.8	9.2	11.3	5.7	5.5	5.0
Capex/depreciation excl. goodwill,%	159.2	124.5	74.9	131.7	62.0	75.1	81.9
Net debt/EBITDA, book-weighted	-0.2	-0.5	-5.2	-0.6	-0.8	-1.1	-1.5
Debt/equity, market-weighted	0.1	0.2	0.2	0.2	0.2	0.0	0.0
Equity ratio, book-weighted	-3.4	-29.1	3.9	9.0	8.4	13.8	21.5
Gearing	-1.14	-1.09	-1.67	-0.54	-0.69	-1.10	-1.28
Number of employees, average	109	84	80	0	0	0	0
Sales per employee, EUR	173,303	179,762	202,500	0	0	0	0
EBIT per employee, EUR	-40,367	-128,571	-21,250	0	0	0	0
zan per employee, zon	+0,307	120,011	21,200	U	U	0	J

<sup>\*</sup>EUR 12m hybrid included in debt

## SSH COMMUNICATIONS SECURITY

Software/Finland, February 13, 2019 Spot comment

COMPANY DESCRIPTION: SSH Communications Security Corp (NASDAQ OMX Nordic: SSH1V) is a provider of enterprise cybersecurity solutions for securing access to servers and the cloud.

INVESTMENT CASE:

OWNERSHIP STRUCTURE	SHARES	EURm	0/0
Ylonen Tatu	14,508,473	26.115	37.6%
Clausal Computing Oy	3,808,650	6.856	9.9%
Mikkonen Juha Taneli	2,100,000	3.780	5.4%
Elo Mutual Pension Insurance Company	1,500,000	2.700	3.9%
Gaselli Capital Oy	1,200,000	2.160	3.1%
Ilmarinen Mutual Pension Insurance Company	1,165,300	2.098	3.0%
Syrj• I• Timo Kalevi	835,011	1.503	2.2%
Varma Mutual Pension Insurance Company	755,300	1.360	2.0%
Taaleritehdas Mikro Markka Fund	623,000	1.121	1.6%
AC Invest Oy	400,000	0.720	1.0%
Ten largest	26,895,734	48.412	70%
Residual	11,682,266	21.028	30%
Total	38,578,000	69.440	100%

EARNINGS CALENDAR			
OTHER EVENTS			

COMPANY MISCELLANEOUS

CEO: Kaisa Olkkonen CFO: Niklas Nordstrom IR: Kornetintie 3, FIN-00380 Helsinki Tel: +358 20 500 7000

Software/Finland, February 13, 2019 Spot comment

### **DEFINITIONS**

N.E.	FDC
P/E	EPS
Price per share	Profit before extraordinary items and taxes
Earnings per share	– income taxes + minority interest
	Number of shares
P/Sales	DDC
•	DPS  Dividend for the financial period per share
<u>Market cap</u>	Dividend for the financial period per share
Sales	
P/BV	CEPS
Price per share	Gross cash flow from operations
Shareholders' equity + taxed provisions per share	Number of shares
Shareholdes equity it taxed provisions per share	realiser of shares
P/CF	EV/Share
Price per share	Enterprise value
Operating cash flow per share	Number of shares
there 2 are a because	
EV (Enterprise value)	Sales/Share
Market cap + net debt + minority interest at market value	Sales
– share of associated companies at market value	Number of shares
•	_
Net debt	EBITDA/Share
Interest bearing debt – financial assets	Earnings before interest, tax, depreciation and amortisation
	Number of shares
EV/Sales	EBIT/Share
Enterprise value	<u>Operating profit</u>
Sales	Number of shares
D//DITDA	TATI CL
EV/EBITDA Enterprise value	EAFI/Share Pretax profit
Earnings before interest, tax, depreciation and amortisation	Number of shares
earnings before interest, tax, depreciation and amortisation	Number of Shares
EV/EBIT	Capital employed/Share
Enterprise value	Totalassets – non interest bearingdebt
Operating profit	Number of shares
, ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	
Div yield, %	Total assets
Dividend per share	Balancesheet total
Price per share	
Payout ratio, %	Interest coverage (x)
Total dividends	Operatingprofit
$Earnings before \ extraordinary \ items \ and \ taxes-income \ taxes+minority interest$	Financialitems
N. J. JG	
Net cash/Share	Asset turnover (x)
Financial assets — interest bearing debt	Turnover
Number of shares	Balancesheet total(average)
DOA 0/4	Dobt/Equity, 06
ROA, %  Operatingprofit + financial income + extraordinary items	Debt/Equity, %  Interest bearing debt
Balancesheet total — interest free short term debt	
	Shareholders' equity + minority interest + taxed provisions
<ul> <li>long term advances received and accounts payable (average)</li> </ul>	
ROCE, %	Fauity ratio 0/a
·	Equity ratio, %
Profit before extraordinary items + interest expenses + other financial costs	Shareholders' equity + minority interest + taxed provisions
Balancesheet total — noninterest bearing debt(average)	Totalassets – interest free loans
ROE, %	CAGR, %
	1
	3 3-3 7
Profit before extraordinary items and taxes – income taxes  Shareholders' equity + minority interest + taxed provisions (average)	Cumulative annual growth rate = Average growth per year

Software/Finland, February 13, 2019
Spot comment

#### Important Disclosures

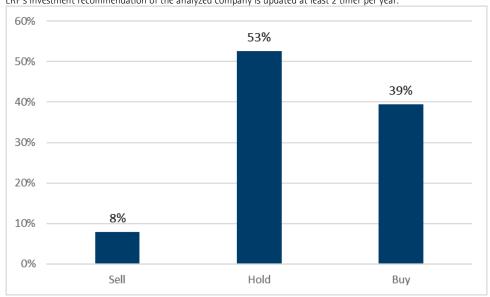
Evli Research Partners Plc ("ERP") uses 12-month target prices. Target prices are defined by utilizing analytical techniques based on financial theory including (but not limited to) discounted cash flow analysis and comparative valuation. The selection of valuation methods depends on different circumstances. Target prices may be altered on the basis of new information coming to light in the underlying company or changes in interest rates, changes in foreign exchange rates, other securities prices or market indices or outlook for the aforementioned factors or other factors that may change the conditions of financial markets. Recommendations and changes by analysts are available at <a href="https://research.evli.com/JasperAllModels.action?authParam=key;461EtauthParam=x:G3rNagWrtf7KEtauthType=3">https://research.evli.com/JasperAllModels.action?authParam=key;461EtauthParam=x:G3rNagWrtf7KEtauthType=3</a>

Investment recommendations are defined as follows:

Target price compared to share price Recommendation

< -10 % SELL -10 - (+10) % HOLD > 10 % BUY

ERP's investment recommendation of the analyzed company is updated at least 2 timer per year.



The graph above shows the distribution of ERP's recommendations of companies under coverage in 1st of February 2019. If recommendation is not given, it is not mentioned here.

#### Name(s) of the analyst(s): Forslund

This research report has been prepared by Evli Research Partners Plc ("ERP" or "Evli Research"). ERP is a subsidiary of Evli Bank Plc. Production of the investment recommendation has been concluded on 13.02.2019, 9:00. This report has been published 13.02.2019, 9:10.

None of the analysts contributing to this report, persons under their guardianship or corporations under their control have a position in the shares of the company or related securities.

The date and time for any price of financial instruments mentioned in the recommendation refer to the previous trading day's closing price(s) unless otherwise stated in the report.

Each analyst responsible for the content of this report assures that the expressed views accurately reflect the personal views of each analyst on the covered companies and securities. Each analyst assures that (s)he has not been, nor are or will be, receiving direct or indirect compensation related to the specific recommendations or views contained in this report.

Companies in the Evli Group, affiliates or staff of companies in the Evli Group, may perform services for, solicit business from, hold long or short positions in, or otherwise be interested in the investments (including derivatives) of any company mentioned in the publication or report.

Neither ERP nor any company within the Evli Group have managed or co-managed a public offering of the company's securities during the last 12 months prior to, received compensation for investment banking services from the company during the last 12 months prior to the publication of the research report.

ERP has signed an agreement with the issuer of the financial instruments mentioned in the recommendation, which includes production of research reports. This assignment has a limited economic and financial impact on ERP and/or Evli. Under the assignment ERP performs services including, but not limited to, arranging investor meetings or –events, investor relations communication advisory and production of research material.

ERP or another company within the Evli Group does not have an agreement with the company to perform market making or liquidity providing services.

## SSH COMMUNICATIONS SECURITY

Software/Finland, February 13, 2019 Spot comment

For the prevention and avoidance of conflicts of interests with respect to this report, there is an information barrier (Chinese wall) between Investment Research and Corporate Finance units concerning unpublished investment banking services to the company. The remuneration of the analyst(s) is not tied directly or indirectly to investment banking transactions or other services performed by Evli Bank Plc or any company within Evli Group.

This report has not been disclosed to the company prior to its dissemination.

This report is provided and intended for informational purposes only and may not be used or considered under any circumstances as an offer to sell or buy any securities or as advice to trade any securities.

This report is based on sources ERP considers to be correct and reliable. The sources include information providers Reuters and Bloomberg, stock-exchange releases from the companies and other company news, Statistics Finland and articles in newspapers and magazines. However, ERP does not guarantee the materialization, correctness, accuracy or completeness of the information, opinions, estimates or forecasts expressed or implied in the report. In addition, circumstantial changes may have an influence on opinions and estimates presented in this report. The opinions and estimates presented are valid at the moment of their publication and they can be changed without a separate announcement. Neither ERP nor any company within the Evli Group are responsible for amending, correcting or updating any information, opinions or estimates contained in this report. Neither ERP nor any company within the Evli Group will compensate any direct or consequential loss caused by or derived from the use of the information represented in this publication.

All information published in this report is for the original recipient's private and internal use only. ERP reserves all rights to the report. No part of this publication may be reproduced or transmitted in any form or by any means, electronic, mechanical, photocopying, recording or otherwise, or stored in any retrieval system of any nature, without the written permission of ERP.

This report or its copy may not be published or distributed in Australia, Canada, Hong Kong, Japan, New Zealand, Singapore or South Africa. The publication or distribution of this report in certain other jurisdictions may also be restricted by law. Persons into whose possession this report comes are required to inform themselves about and to observe any such restrictions.

Evli Bank Plc is not registered as a broker-dealer with the U. S. Securities and Exchange Commission ("SEC"), and it and its analysts are not subject to SEC rules on securities analysts' certification as to the currency of their views reflected in the research report. Evli Bank is not a member of the Financial Industry Regulatory Authority ("FINRA"). It and its securities analysts are not subject to FINRA's rules on Communications with the Public and Research Analysts and Research Reports and the attendant requirements for fairness, balance and disclosure of potential conflicts of interest. This research report is only being offered in U.S. by Auerbach Grayson & Company, LLC (Auerbach Grayson) to Major U.S. Institutional Investors and is not available to, and should not be used by, any U.S. person or entity that is not a Major U.S. Institutional Investor. Auerbach Grayson is a broker-dealer registered with the U.S. Securities and Exchange Commission and is a member of the FINRA. U.S. entities seeking more information about any of the issuers or securities discussed in this report should contact Auerbach Grayson. The securities of non-U.S. issuers may not be registered with or subject to SEC reporting and other requirements.

ERP is not a supervised entity but its parent company Evli Bank Plc is supervised by the Finnish Financial Supervision Authority.

### Contact information

Equity Sales		Trading		ETFs and Derivatives	
Ari Laine Lauri Ahokanto Niclas Henelius	+358 9 4766 9115 +358 9 4766 9117 +358 9 4766 9116	Lauri Vehkaluoto (Head) Pasi Väisänen Antti Kässi	+358 9 4766 9130 +358 9 4766 9120 +358 9 4766 9120	Tobias Björk (Head) Joachim Dannberg Kimmo Lilja Sami Järvinen	+358 9 4766 9130 +358 9 4766 9123 +358 9 4766 9130 +358 9 4766 9110
Structured Investments		Equity Research			
Heikki Savijoki Aki Lakkisto	+358 9 4766 9726 +358 9 4766 9123	Joonas Häyhä Jonas Forslund Joonas Ilvonen Jerker Salokivi	+358 9 4766 9662 +358 9 4766 9314 +358 44 430 9071 +358 9 4766 9149		
Evli Investment Solutions		comer calonin	7000 0 11 00 0 1 10		
Johannes Asuja Markku Reinikainen	+358 9 4766 9205 +358 9 4766 9669				

## SSH COMMUNICATIONS SECURITY

Software/Finland, February 13, 2019 Spot comment



Aleksanterinkatu 19 A P.O. Box 1081 FIN-00101 Helsinki, FINLAND Phone +358 9 476 690 Fax +358 9 634 382 Internet www.evli.com E-mail firstname.lastname@evli.com

EVLI BANK PLC, STOCKHOLMSFILIAL Kungsgatan 27, P.O. Box 16354 SE-111 56 Stockholm Sverige stockholm@evli.com Tel +46 (0)8 407 8000 Fax +46 (0)8 407 8001