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INVESTOR PRESENTATION

Q4 2019 RESULTS

February 25, 2020

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› Strong long term growth prospects

- ALD market expected to be a key growth market, ASMI has leadership position in ALD
- Driving structurally higher sales in the other product lines
- Strong outperformance in 2019 driven by ASMI's leading position in logic/foundry with share of wallet gains in the most advanced nodes

› Healthy profitability

- Excluding settlement effects gross margin of 43.6% in Q4, compared to 42.4% in Q3 driven by improved mix; FY19 gross margin improved y-o-y from 40.9% to 42.6%

› Strong balance sheet

- Solid cash position, no debt
- Strong free cash flow of €206m in 2019, excluding settlement gains
- Announcement of regular dividend of €1.50 per share over 2019, up 50% from 2018, plus extra-ordinary dividend of €1.50 per share over 2019, and new share buyback of €100m
- Returned €200m in cash to shareholders in 2019, more than €1bn in last three years

2019 KEY RESULTS (EXCL. SETTLEMENT GAINS)

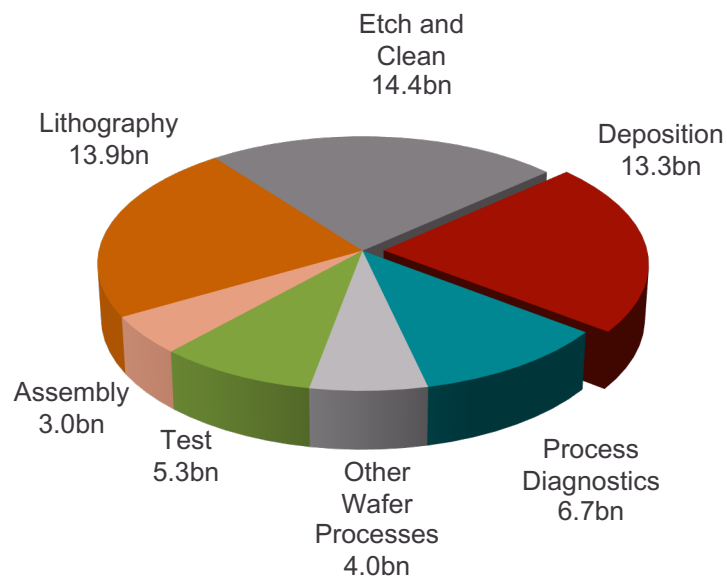


€ million	Q4 2018	Q3 2019	Q4 2019	2018	2019
New orders	301.6	291.8	373.0	942.1	1,169.7
Net sales	254.7	271.2	344.6	818.1	1,124.7
Gross profit margin %	41.7%	42.4%	43.6%	40.9%	42.6%
Operating results	46.2	50.6	74.9	124.3	219.6
Operating margin %	18.2%	18.7%	21.7%	15.2%	19.5%
Normalized result from investments	6.1	6.5	6.4	60.8	18.0
Amortization intangible assets resulting from the sale of the 12% stake of ASMPT	(2.4)	(3.5)	(3.5)	(12.3)	(13.8)
Net earnings*	43.7	53.5	104.5	157.1	329.0
Normalized net earnings (excl. amortization intangible assets resulting from the sale of the 12% stake of ASMPT)*	46.1	57.0	108.0	169.5	342.8

**including settlement gains*

- > ASM is a market leader in ALD
- > Positions in Epitaxy, PECVD and Vertical Furnaces

Equipment market segments 2019 (US\$)



VLSI Research, January 2020

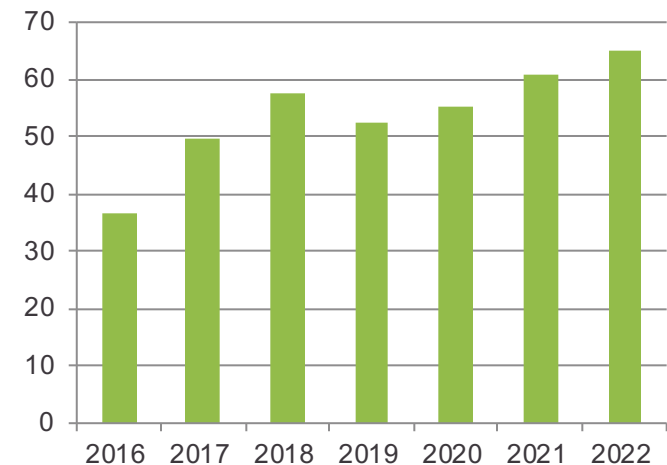
ASM's focus is on deposition equipment

EQUIPMENT MARKET OUTLOOK

- › Gartner expects 1% decrease in WFE in 2020, following 8% decrease in 2019 (Dec 2019)
- › VLSI Research expects 5% increase in WFE in 2020, following 9% decrease in 2019 (Jan 2020)
- › Drop in WFE in 2019 was mainly caused by a significant decline in memory, while logic/foundry showed a healthy increase
- › ASMI's statement on the WFE outlook is as follows: "We expect logic/foundry to continue its strength as we move into 2020. Based upon this we expect the Wafer Fab Equipment market in 2020 to be up with a high single digit percentage, with upside to double digits depending on the strength and timing of memory spending recovery."

Wafer Fab Equipment spending

US\$bn



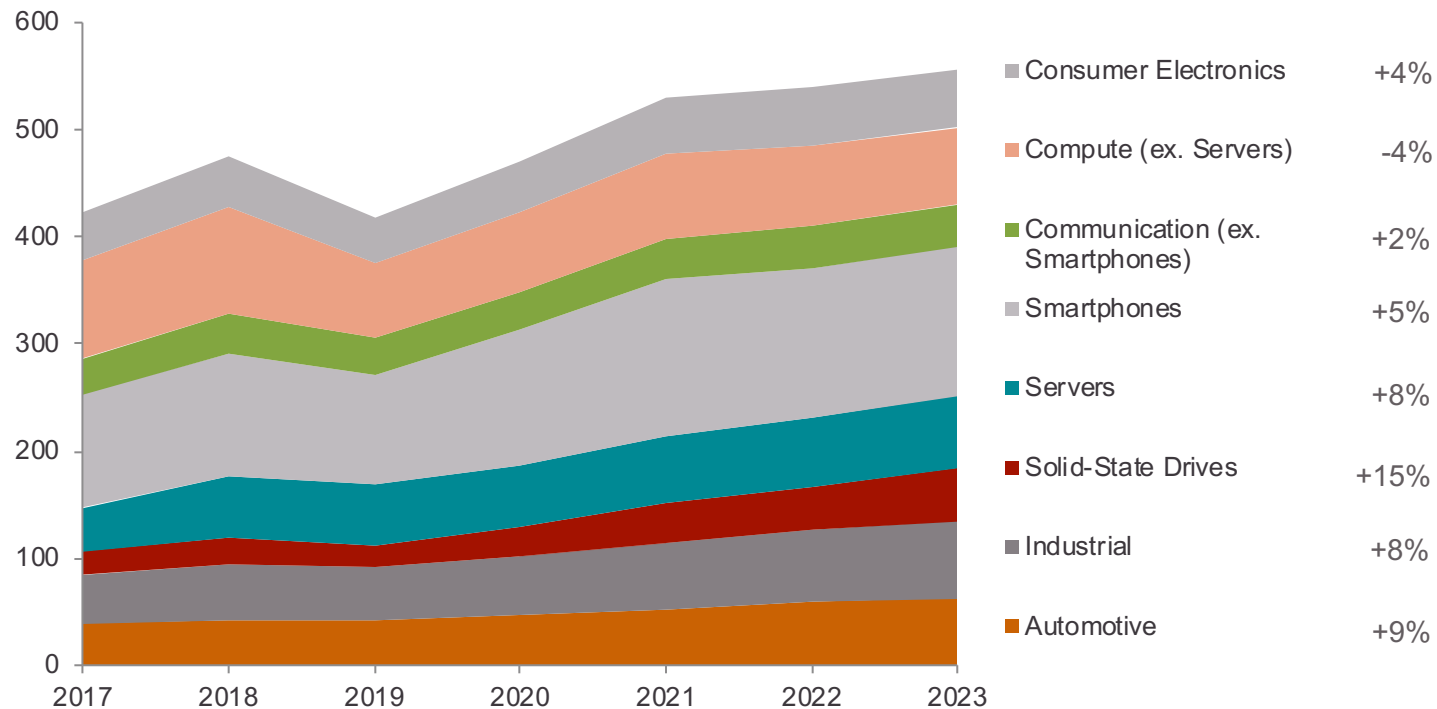
VLSI Research, January 2020

WFE market is expected to recover in 2020, following drop in 2019

SEMICONDUCTOR MARKET GROWTH DRIVERS

Semiconductor sales by key application

CAGR
'17-23

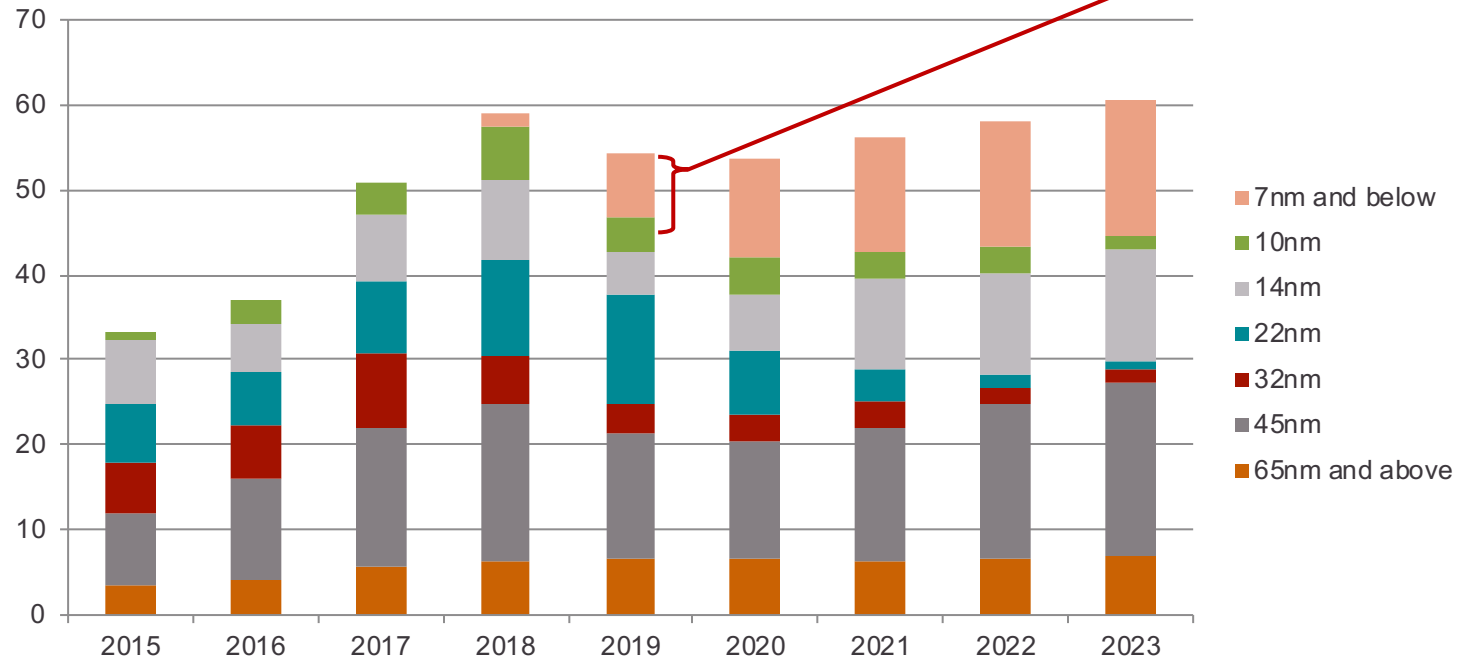


Gartner, December 2019

- > Smartphones expected to resume growth driven by 5G
- > New structural drivers are Solid State Drives, Servers, Industrial and Automotive

WAFER FAB EQUIPMENT SPENDING BY NODE

US\$bn



Strongest growth in leading edge nodes

Gartner, December 2019

- > Advanced nodes: market segments with high expected growth
- > 45nm mainly driven by 3D-NAND spending

› **ALD technology is a key enabler of Moore's Law**

- Strengths of Atomic Layer Deposition: high-precision deposition of smooth and conformal ultra-thin films, ability to deposit new materials
- Device scaling, new materials and 3D architectures drive increased demand for ALD

› **ASMI has leading positions in ALD**

- ASMI has strongest position in logic/foundry. Logic/foundry ALD market more than doubled from 14nm/16nm to 7nm
- ALD continued to account for more than half of ASM's equipment revenue in 2019
- Strong focus on increasing our addressable market within single wafer ALD

› **Strong market outlook ALD**

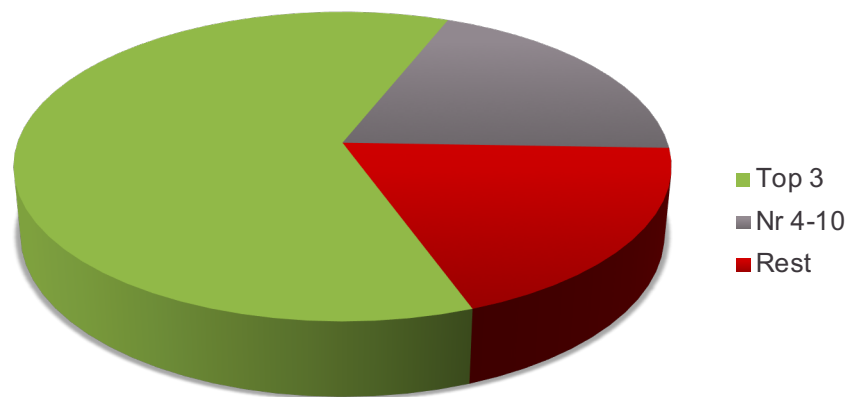
- The CAGR of the single wafer ALD segment is expected to be the highest within the deposition equipment market in the next years

COMPETITIVE ADVANTAGES

- › **Focused player, differentiated technologies**
- › **Track record of innovation**
- › **Global network, streamlined operations**
- › **Leadership in ALD**
 - Developing ALD technology since 1999
 - Leading market share in ALD
- › **Close cooperation with the leading IC manufacturers**
- › **Strong IP portfolio**

ASMI sales 2019

- › Engaged with all of the top-10 semiconductor capital equipment spenders



Growing share of wallet with top clients

HIGHLIGHTS

› Solid growth expected for the ALD market

- We expect the single wafer ALD market to reach a size of approx. US\$1.5 billion by '20-'21
- Focus on expanding our addressable market within the single wafer ALD space

› ASMI strongly outperformed WFE in 2019

- Sales in the logic/foundry segment grew strongly in 2019, driven by the most advanced nodes (10nm in logic and 5nm in foundry), while memory related sales remained relatively flat

› Patent litigation and arbitration settlement

- Full year 2019 sales and results included €159m in gains related to the settlement of the arbitration case and patent litigation with Kokusai Electric Corporation (KEC)
- All pending patent license disputes between ASM and KEC were resolved in 2019

› Shareholder remuneration

- Announcement of regular dividend of €1.50 per share over 2019, up 50% from 2018, plus an extra-ordinary dividend of €1.50 p.s., for a total dividend of €3.00 p.s. over 2019
- 2019/2020 €100m share buyback program started in Nov 2019 and was completed in Feb 2020. Authorization of a new €100m share buyback announced on Feb 25, 2020

ASMPT RESULTS

	Q4 2018	Q3 2019	Q4 2019
Net profit ASMPT (€ million, 100% based)	23	26	25
Normalized result from investments (including ASMI's share of ASMPT net profit)	6.1	6.5	6.4
Amortization intangible assets resulting from the sale of ASMPT stake in 2013	(2.4)	(3.5)	(3.5)
Results from investments after amortization	3.6	3.1	2.9

- › As of March 2013 our share in ASMPT's net earnings is included in 'result from investments'
- › ASMI's stake in ASMPT amounts to approximately 25%. In 2017, ASMI reduced its stake in two steps from 39% to 25%
- › Related amortization intangible assets is expected to amount to €13.1m in 2020

FINANCIAL OVERVIEW

- › Revenue was up 35% y-o-y and up 27% q-o-q (excluding the €56m gain from the arbitration settlement in Q4 2019)
- › Bookings up 24% y-o-y and up 28% q-o-q (excluding settlement). Book-to-bill ratio of 1.1. Q4 backlog of €351m up from €330m in Q3
- › Gross margin 43.6% in Q4 (excl settlement) vs. 42.4% in Q3 driven by mix effects
- › SG&A increased 18% q-o-q. Besides slightly increased costs due to the higher activity levels, the costs of variable employee compensation increased with €4m in Q4 2019
- › R&D increased 17% q-o-q mainly due to impairments of €4m in Q4 2019
- › Currency translation loss of €14m in Q4 2019 vs. translation gain of €14m in Q3
- › Normalized net earnings* of €108m in Q4 (including settlement) vs. €57m in Q3
- › Free cash flow was €63m positive in Q4 2019, excluding settlement effects, driven by solid profitability and a decrease in working capital

* excluding amortization intangible assets resulting from the stake sale ASMPT in 2013

Based upon the current backlog and our current visibility:

For Q1 we expect sales of €310-330 million while for Q2 sales of €330-350 million are expected, both on a currency comparable level. Q1 bookings, on a currency comparable level, are expected to be in the range of €310-330 million. We expect logic/foundry to continue its strength as we move into 2020. Based upon this we expect the Wafer Fab Equipment market in 2020 to be up with a high single digit percentage, with upside to double digits depending on the strength and timing of memory spending recovery.

NET EARNINGS (INCL. SETTLEMENT GAINS)



€ million	Q4 2018	Q3 2019	Q4 2019	2018	2019
New orders	301.6	291.8	429.0	942.1	1,328.9
Backlog	301.5	330.4	351.2	301.5	351.2
Book-to-bill	1.2	1.1	1.1	1.2	1.0
Net sales	254.7	271.2	400.6	818.1	1,283.9
Equipment sales	201.7	216.2	288.8	631.5	909.5
Spares & service sales	53.0	55.0	55.8	186.6	215.2
Patent litigation & arbitration settlement	-	-	56.0	-	159.2
Gross profit	106.3	114.9	206.3	334.3	638.5
Gross profit margin %	41.7%	42.4%	51.5%	40.9%	49.7%
Selling, general and administrative expenses	(34.2)	(34.2)	(40.4)	(121.3)	(148.8)
Research and development expenses	(25.8)	(30.1)	(35.1)	(88.6)	(110.8)
Operating result	46.2	50.6	130.9	124.3	378.7
Operating margin %	18.2%	18.7%	32.7%	15.2%	29.5%
Net interest expenses	(0.3)	-	(0.2)	(1.4)	(0.1)
Currency translation gains	0.1	13.8	(13.7)	1.3	(0.1)
Income tax	(6.0)	(14.1)	(15.3)	(15.4)	(53.7)
Normalized result from investments	6.1	6.5	6.4	60.8	18.0
Amortization intangible assets resulting from the stake sale ASMPT in 2013	(2.4)	(3.5)	(3.5)	(12.3)	(13.8)
Net earnings	43.7	53.5	104.5	157.1	329.0
Normalized net earnings (excl. amortization intangible assets resulting from the stake sale ASMPT in 2013 and result from sale of ASMPT shares)	46.1	57.0	108.0	169.5	342.8

R&D EXPENDITURE

€ million	Q4 2018	Q4 2019	Q4 2019
R&D expenditure	(36.1)	(38.4)	(41.4)
Capitalized development expenditure	15.1	13.1	14.7
Amortization capitalized development expenditure	(3.7)	(4.6)	(4.6)
Impairment capitalized development expenditure	(1.2)	(0.1)	(3.8)
R&D expenses	(25.8)	(30.1)	(35.1)

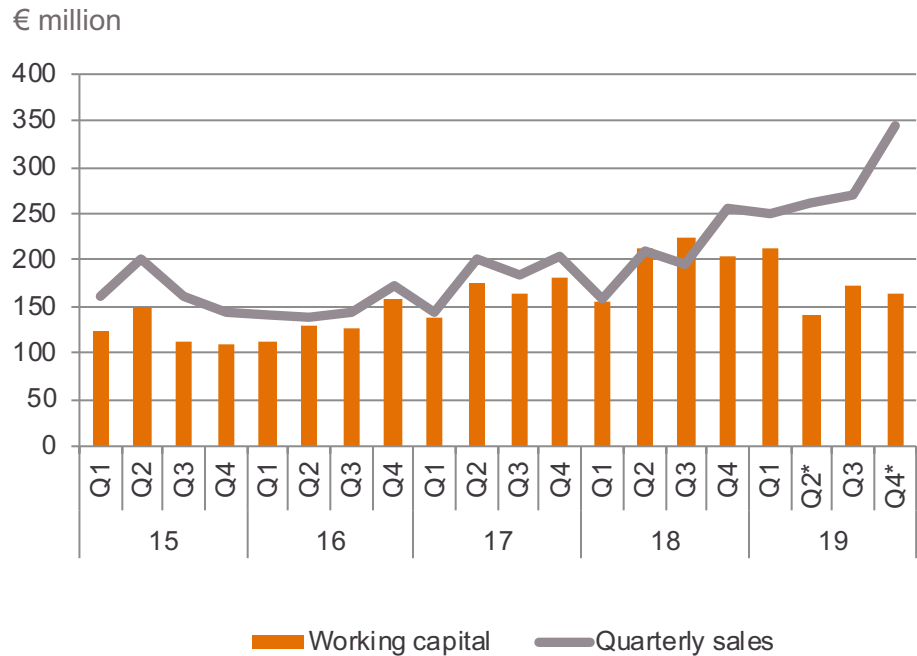
CASH FLOW

€ million	2018	2019
Net earnings	157.1	329.0
Depreciation, amortization and impairments	55.4	78.3
Result from investments	(48.4)	(4.2)
Evaluation tools	(23.0)	(13.7)
Other adjustments	4.1	63.5
Change in working capital	(8.4)	36.0
Net cash from operating activities	136.8	488.9
Capital expenditure	(63.3)	(48.7)
Capitalized development expenditure	(49.7)	(60.2)
Dividend received from investments	29.1	32.0
Purchase of intangible assets	(1.1)	(2.3)
Net cash from investing activities	(84.9)	(79.2)
Payment of lease liabilities	-	(12.0)
Dividend paid to ASMI shareholders	(43.6)	(99.3)
Capital repaid to ASMI shareholders	(208.8)	(1.1)
Share buyback	(355.0)	(99.9)
Other	4.8	6.8
Net cash from financing activities	(602.6)	(205.7)

BALANCE SHEET

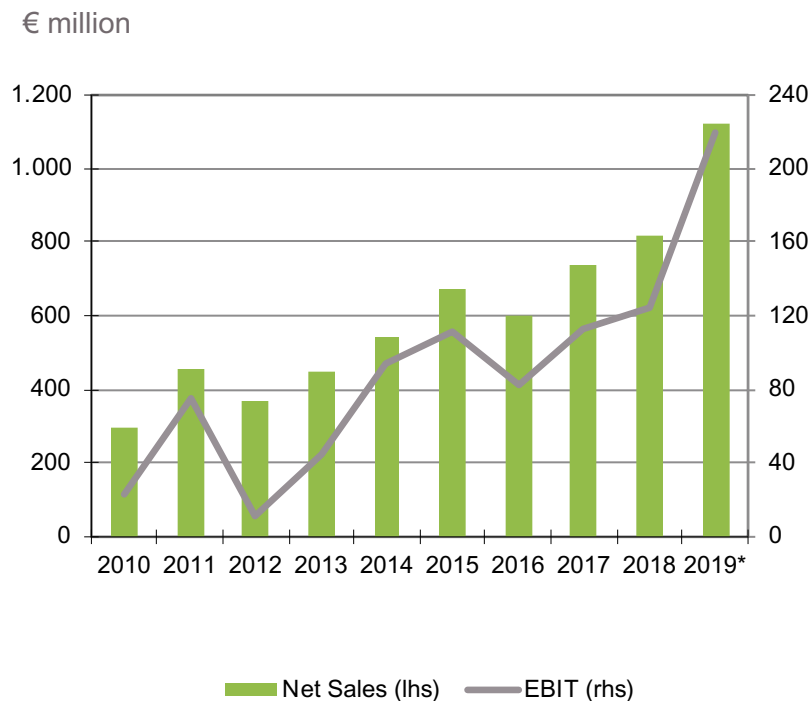
€ million	Dec 31, 2018	Sep 30, 2019	Dec 31, 2019
Cash and cash equivalents	286	480	498
Accounts receivable	173	241	200
Inventories	172	177	173
Other current assets	49	57	75
Right-of-use assets	-	30	28
Investments in associates	790	793	778
Property, plant and equipment	149	155	165
Goodwill and other intangible assets	161	200	200
Evaluation tools at customers	45	49	47
Other non-current assets	23	15	11
Total Assets	1,848	2,197	2,175
Accounts payable	81	108	120
Short-term debt	-	-	-
Other current liabilities	114	170	201
Long-term debt	-	-	-
Other non-current liabilities	12	30	36
Equity	1,642	1,888	1,819
Total Liabilities and Equity	1,848	2,197	2,175

WORKING CAPITAL

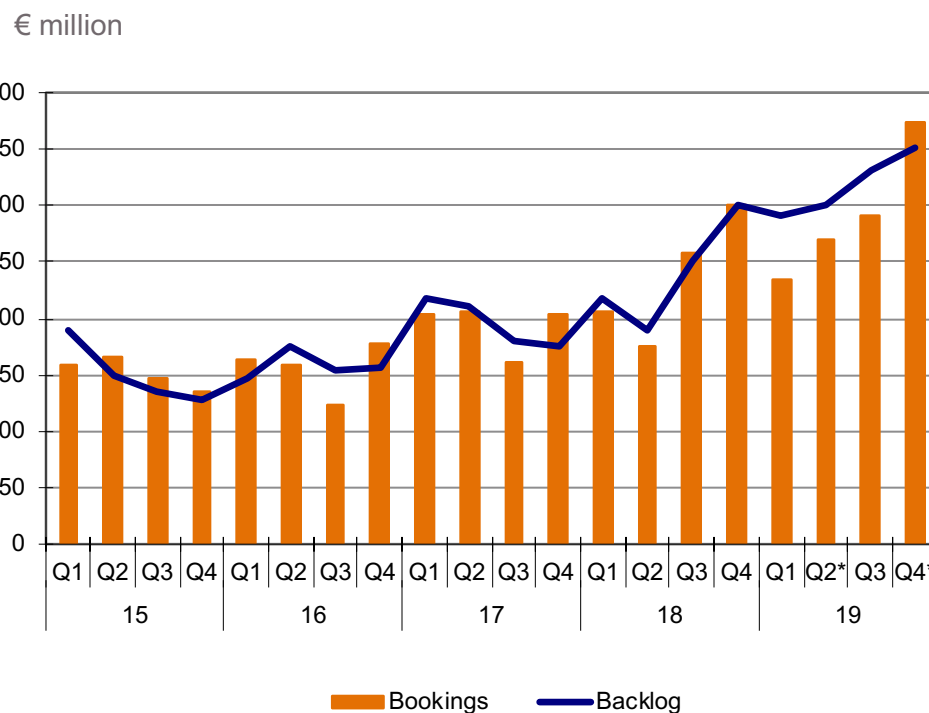


Numbers based on reported financials; * excludes impact patent litigation & arbitration settlements

HISTORICAL DEVELOPMENT



* 2019 excludes settlement gains of €159m



Numbers based on reported financials;
* excludes impact patent litigation & arbitration settlements

