

ASML HOLDING NV  
Form 20-F  
February 08, 2017

United States  
Securities and Exchange Commission  
Washington, D.C. 20549  
Form 20-F  
ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(D)  
OF THE SECURITIES EXCHANGE ACT OF 1934  
for the fiscal year ended December 31, 2016  
Commission file number 001-33463

ASML HOLDING N.V.  
(Exact Name of Registrant as Specified in Its Charter)

THE NETHERLANDS  
(Jurisdiction of Incorporation or Organization)  
DE RUN 6501

5504 DR VELDHOVEN  
THE NETHERLANDS  
(Address of Principal Executive Offices)

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Chandler, AZ 85224, USA

(Name, Telephone, E-mail, and / or Facsimile number and Address of Company Contact Person)  
Securities registered or to be registered pursuant to Section 12(b) of the Act:

	Title of each class	Name of each exchange on which registered
Ordinary Shares (nominal value EUR 0.09 per share)	The NASDAQ Stock Market LLC	

Securities registered or to be registered pursuant to Section 12(g) of the Act:  
None

(Title of Class)  
Securities for which there is a reporting obligation pursuant to Section 15(d) of the Act:  
None  
(Title of Class)

Indicate the number of outstanding shares of each of the issuer's classes of capital or common stock as of the close of the period covered by the annual report.  
429,941,232 Ordinary Shares  
(nominal value EUR 0.09 per share)

Indicate by check mark if the registrant is a well-known seasoned issuer, as defined in Rule 405 of the Securities Act.  
Yes (x) No ( )

If this report is an annual or transition report, indicate by check mark if the registrant is not required to file reports pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934.  
Yes ( ) No (x)

Indicate by check mark whether the registrant: (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant

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was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.

Yes (x) No ( )

Indicate by check mark whether the registrant has submitted electronically and posted on its corporate web site, if any, every Interactive Data File required to be submitted and posted pursuant to Rule 405 of Regulation S-T (§232.405 of this chapter) during the preceding 12 months (or for such shorter period that the registrant was required to submit and post such files).

Yes (x) No ( )

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, or a non-accelerated filer.

See definition of "accelerated filer and large accelerated filer" in Rule 12b-2 of the Exchange Act. (Check one):

Large accelerated filer (x) Accelerated filer ( ) Non-accelerated filer ( )

Indicate by check mark which basis of accounting the registrant has used to prepare the financial statements included in this filing:

U.S. GAAP (x) International Financial Reporting Standards as issued by the International Accounting Standards Board ( ) Other ( )

If "Other" has been checked in response to the previous question, indicate by checkmark which financial statement item the registrant has elected to follow.

Item 17 ( ) Item 18 ( )

If this is an annual report, indicate by check mark whether the registrant is a shell company (as defined in Rule 12b-2 of the Exchange Act)

Yes ( ) No (x)

Name and address of person authorized to receive notices and communications from the Securities and Exchange Commission:

James A. McDonald

Skadden, Arps, Slate, Meagher & Flom (UK) LLP

40 Bank Street, Canary Wharf London E14 5DS England

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## Part I

### Special Note Regarding Forward-Looking Statements

In addition to historical information, this Annual Report contains statements relating to our future business and/or results. These statements include certain projections and business trends that are "forward-looking" within the meaning of the Private Securities Litigation Reform Act of 1995. You can generally identify these statements by the use of words like "may", "will", "could", "should", "project", "believe", "anticipate", "expect", "plan", "estimate", "forecast", "potential", "intend", "continue" and variations of these words or comparable words. They appear in a number of places throughout this Annual Report and include statements with respect to our outlook, including expected customer demand in specified market segments including memory, logic and foundry, expected trends, systems backlog and bookings, IC unit demand, expected financial results, including expected sales levels, including expected service and field options sales, gross margin, SG&A and R&D expenses, other income, expected tax rate, expected capital expenditures and repayment obligations, annual revenue and EPS opportunity and potential, customer, partner and industry roadmaps, including shrink roadmaps, the planned acquisition of a minority stake in Zeiss and its expected benefits, including the funding of the transaction and future funding of Zeiss by ASML, the development of High-NA and the expected production of higher performance microchips at lower costs, the acquisition of HMI and its expected benefits, including expected contribution to ASML's results, the provision of e-beam metrology capability and its effect on holistic lithography solutions, including the introduction of a new class of pattern fidelity control and the improvement of customers' control strategy, expected growth of our service business, expected shipments of systems, productivity of our tools and systems, including EUV productivity targets and goals, and system performance, including EUV system performance (such as endurance and availability of EUV systems), the development of EUV technology and EUV industrialization, the number of EUV systems expected to be shipped and recognized in revenue and timing of shipment, expected use of EUV systems in high volume manufacturing and revenue recognition, expected industry trends and expected trends in the business environment, including the expected continuation of Moore's law, dividend policy, our proposed dividend and plans to repurchase shares and the current share repurchase plan.

These forward-looking statements are not historical facts, but rather are based on current expectations, estimates, assumptions and projections about the business and our future financial results and readers should not place undue reliance on them. Forward-looking statements do not guarantee future performance, and actual results may differ materially from projected results as a result of certain risks, and uncertainties. These risks and uncertainties include, without limitation, those described under Item 3.D. "Risk Factors". These forward-looking statements are made only as of the date of this Annual Report. We do not undertake to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise.

Item 1 Identity of Directors, Senior Management and Advisors

Not applicable.

Item 2 Offer Statistics and Expected Timetable

Not applicable.

Item 3 Key Information

A. Selected Financial Data

The following selected consolidated financial data should be read in conjunction with Item 5 "Operating and Financial Review and Prospects" and Item 18 "Financial Statements".

On May 30, 2013, we acquired 100 percent of the issued share capital of Cymer. Financial information presented in our Annual Report includes Cymer from May 30, 2013 onwards.

On November 22, 2016, we acquired 100 percent of the issued share capital of HMI. Financial information presented in our Annual Report includes HMI from November 22, 2016 onwards.

A summary of all abbreviations, technical terms and definitions (of capitalized terms) used in this Annual Report is set forth on pages D-1 through D-5.



## Five-Year Financial Summary

Year ended December 31 (in thousands, except per share data)	2012 EUR	2013 EUR	2014 EUR	2015 EUR	2016 EUR
Consolidated Statements of Operations data					
Net sales	4,731,555	5,245,326	5,856,277	6,287,375	6,794,752
Cost of sales	(2,726,298)	(3,068,064)	(3,259,903)	(3,391,631)	(3,750,272)
Gross profit	2,005,257	2,177,262	2,596,374	2,895,744	3,044,480
Other income	—	64,456	81,006	83,200	93,777
Research and development costs	(589,182)	(882,029)	(1,074,035)	(1,068,077)	(1,105,763)
Selling, general and administrative costs	(259,301)	(311,741)	(321,110)	(345,732)	(374,760)
Income from operations	1,156,774	1,047,948	1,282,235	1,565,135	1,657,734
Interest and other, net	(6,196)	(24,471)	(8,600)	(16,515)	33,644
Income before income taxes	1,150,578	1,023,477	1,273,635	1,548,620	1,691,378
Provision for income taxes	(4,262)	(7,987)	(76,995)	(161,446)	(219,484)
Net income	1,146,316	1,015,490	1,196,640	1,387,174	1,471,894
Earnings per share data					
Basic net income per ordinary share	2.70	2.36	2.74	3.22	3.46
Diluted net income per ordinary share <sup>1</sup>	2.68	2.34	2.72	3.21	3.44
Number of ordinary shares used in computing per share amounts (in thousands)					
Basic	424,096	429,770	437,142	430,639	425,598
Diluted <sup>1</sup>	426,986	433,446	439,693	432,644	427,684

The calculation of diluted net income per ordinary share assumes the exercise of options issued under our stock option plans and the issuance of shares under our share plans for periods in which exercises or issuances would have a dilutive effect. The calculation of diluted net income per ordinary share does not assume exercise of such options or issuance of shares when such exercises or issuance would be anti-dilutive.

## Five-Year Financial Summary

As of and for the year ended December 31 (in thousands)	2012 EUR	2013 EUR	2014 EUR	2015 EUR	2016 EUR
Consolidated Balance Sheets data					
Cash and cash equivalents	1,767,596	2,330,694	2,419,487	2,458,717	2,906,868
Short-term investments	930,005	679,884	334,864	950,000	1,150,000
Working capital <sup>1</sup>	3,745,559	4,156,917	4,257,335	4,600,529	5,276,833
Total assets	7,410,478	11,513,730	12,203,945	13,295,031	17,205,961
Long-term debt <sup>2</sup>	759,490	1,074,570	1,154,137	1,129,685	3,319,465
Shareholders' equity	4,066,893	6,922,427	7,512,590	8,388,831	9,820,481
Share capital	37,470	40,092	39,426	38,786	39,391
Consolidated Statements of Cash Flows data					
Depreciation and amortization <sup>3</sup>	186,620	228,775	254,644	296,884	356,928
Impairment	3,234	13,057	10,528	2,287	3,466
Net cash provided by operating activities	703,478	1,054,173	1,025,206	2,025,580	1,665,906
Purchase of property, plant and equipment <sup>4</sup>	(171,878 )	(210,804 )	(358,280 )	(371,770 )	(316,338 )
Purchase of short-term investments	(1,379,997)	(904,856 )	(504,756 )	(950,000 )	(2,520,000 )
Maturity of short-term investments	449,992	1,195,031	849,776	334,864	2,320,000
Cash used for derivative financial instruments	—	—	—	(171,899 )	(15,034 )
Loans issued and other investments	—	—	—	—	(7,427 )
Acquisition of subsidiary (net of cash acquired)	(10,292 )	(443,712 ) <sup>5</sup>	—	—	(2,641,295 )
Net cash used in investing activities	(1,119,833)	(368,341 )	(16,212 )	(1,159,913 )	(3,188,478 )
Dividend paid	(188,892 )	(216,085 )	(267,962 )	(302,310 )	(445,865 )
Purchase of treasury shares	(535,373 )	(300,000 )	(700,000 )	(564,887 )	(400,000 )
Net proceeds from issuance of shares	3,907,666 <sup>6</sup>	31,822	39,679	33,230	582,742 <sup>7</sup>
Net proceeds from issuance of notes	—	740,445 <sup>8</sup>	—	—	2,230,619 <sup>9</sup>
Repurchase of notes	—	(368,303 ) <sup>10</sup>	—	—	—
Capital repayment	(3,728,324) <sup>11</sup>	—	—	—	—
Net cash from (used in) financing activities	(545,583 )	(113,111 )	(928,439 )	(833,946 )	1,963,639
Net increase (decrease) in cash and cash equivalents	(964,186 )	563,098	88,793	39,230	448,151

1. Working capital is calculated as the difference between total current assets and total current liabilities.

2. Long-term debt includes the current portion of long-term debt.

In 2016, depreciation and amortization includes EUR 290.8 million of depreciation of property, plant and equipment (2015: EUR 243.0 million, 2014: EUR 209.5 million, 2013: EUR 197.1 million and 2012: EUR 179.3 million), EUR 63.5 million of amortization of intangible assets (2015: EUR 51.2 million, 2014: EUR 43.9 million, 2013: EUR 27.6 million and 2012: EUR 6.1 million) and EUR 2.6 million of amortization of underwriting commissions and discount related to the bonds and credit facility (2015: EUR 2.7 million, 2014: EUR 1.2 million, 2013: EUR 4.1 million and 2012: EUR 1.2 million).

In 2016, an amount of EUR 21.6 million (2015: EUR 91.0 million, 2014: EUR 95.5 million, 2013: EUR 115.9 million, 2012: EUR 204.8 million) of the additions in property, plant and equipment relates to non-cash transfers from inventory. Since the transfers between inventory and property, plant and equipment are non-cash events, these are not reflected in the Consolidated Statements of Cash Flows data. For further details see Note 12 to the Financial Statements.

In addition to the cash paid in relation to the acquisition of Cymer, we issued 36,464,576 shares for an amount of EUR 2,346.7 million (non-cash event) as part of the consideration paid.

6. Net proceeds from issuance of shares include an amount of EUR 3,853.9 million related to the share issuances in connection to the CCIP. See Note 27 to the Financial Statements.
7. Net proceeds from issuance of shares includes an amount of EUR 536.6 million which is included in the consideration transferred for the acquisition of HMI. For further details see Note 2.
8. Net proceeds from issuance of notes relate to the total cash proceeds of EUR 740.4 million (net of incurred transaction costs) from the issuance of our EUR 750 million 3.375 percent senior notes due 2023.
9. Net proceeds from issuance of notes relate to the total cash proceeds of EUR 2,230.6 million (net of incurred transaction costs) from the issuance of our EUR 500 million 0.625 percent senior notes due 2022, our EUR 1,000 million 1.375 percent senior notes due 2026 and our EUR 750 million 1.625 percent senior notes due 2027.
10. Repurchase of notes relates to the net cash outflows of EUR 368.3 million for the partial repurchase of our EUR 600 million 5.75 percent senior notes due 2017 including the partial unwinding of the related interest rate swaps. The capital repayment was made in connection with the synthetic buyback relating to the CCIP. The difference of EUR 125.6 million between the capital repayment of EUR 3,728.3 million and the net proceeds from issuance of
11. shares of EUR 3,853.9 million in the CCIP relates to the capital repayment on ASML's treasury shares which was part of the synthetic share buyback in November 2012.

## Five-Year Financial Summary

As of and for the year ended December 31	2012	2013	2014	2015	2016
Ratios and other data					
Gross profit as a percentage of net sales	42.4	41.5	44.3	46.1	44.8
Income from operations as a percentage of net sales	24.4	20.0	21.9	24.9	24.4
Net income as a percentage of net sales	24.2	19.4	20.4	22.1	21.7
Shareholders' equity as a percentage of total assets	54.9	60.1	61.6	63.1	57.1
Income taxes as a percentage of income before income taxes	0.4	0.8	6.0	10.4	13.0
Sales of systems (in units)	170	157	136	169	157
ASP of system sales (in millions EUR)	22.4	25.4	31.2	25.1	29.1
Value of systems backlog (in millions EUR) <sup>1</sup>	1,214.1	1,953.3	2,772.4	3,184.3	3,961.3
Systems backlog (in units) <sup>1</sup>	46	56	82	79	83
ASP of systems backlog (in millions EUR) <sup>1</sup>	26.4	34.9	33.8	40.3	47.7
Value of booked systems (in millions EUR) <sup>1</sup>	3,312.3	4,644.0	4,902.2	4,639.0	5,396.3
Net bookings (in units) <sup>1</sup>	144	166	157	165	160
ASP of booked systems (in millions EUR) <sup>1</sup>	23.0	28.0	31.2	28.1	33.7
Number of payroll employees (in FTEs)	8,497	10,360	11,318	12,168	13,991
Number of temporary employees (in FTEs)	2,139	2,865	2,754	2,513	2,656
Increase (decrease) net sales in percentage	(16.3 )	10.9	11.6	7.4	8.1
Number of ordinary shares issued and outstanding (in thousands)	407,165	440,852	432,935	427,987	429,941
Closing ASML share price on Euronext Amsterdam (in EUR)	48.00	68.04	89.50	82.55	106.65
Volatility 260 days as percentage of our shares listed on Euronext Amsterdam (in EUR) <sup>2</sup>	28.64	23.98	27.49	33.62	25.47
Closing ASML share price on NASDAQ (in USD)	64.39	93.70	107.83	88.77	112.20
Volatility 260 days as percentage of our shares listed on NASDAQ (in USD) <sup>3</sup>	30.05	24.01	26.01	28.94	26.85
Dividend per ordinary share (in EUR)	0.53	0.61	0.70	1.05	1.20 <sup>4</sup>
Dividend per ordinary share (in USD)	0.69	<sup>5</sup> 0.84	<sup>5</sup> 0.76	<sup>5</sup> 1.21	<sup>5</sup> 1.28 <sup>4,6</sup>

1. Our systems backlog and net bookings include all system sales orders for which written authorizations have been accepted (for EUV starting with the NXE:3350B).

2. Volatility represents the variability in our share price on Euronext Amsterdam as measured over the 260 business days of each year presented (source: Bloomberg Finance LP).

3. Volatility represents the variability in our share price on NASDAQ as measured over the 260 business days of each year presented (source: Bloomberg Finance LP).

4. Subject to approval of the AGM to be held on April 26, 2017.

5. The dividend per ordinary share in USD has been adjusted compared to the relevant Annual Reports for such years to reflect the actual exchange rates at time of dividend payment.

6. The exchange rate used to express the proposed dividend per ordinary share in USD is the exchange rate of USD/EUR 1.07 as of January 29, 2017.



## Exchange Rate Information

We publish our Financial Statements in euro. A portion of our assets, liabilities, net sales and costs is, and historically has been, denominated in currencies other than the euro. For a discussion of the impact of exchange rate fluctuations on our financial condition and results of operations, see Item 3.D. "Risk Factors – Fluctuations in foreign exchange rates could harm our results of operations", Item 11 "Quantitative and Qualitative Disclosures About Market Risk", Note 1 and Note 4 to our Financial Statements.

The following are the Noon Buying Rates certified by the Federal Reserve Bank for customs purposes, expressed in US dollars per euro.

Calendar year	2012	2013	2014	2015	2016	2017 <sup>2</sup>
Period End	1.32	1.38	1.21	1.09	1.06	1.07
Period Average <sup>1</sup>	1.29	1.33	1.33	1.10	1.10	1.06
Period High	1.35	1.38	1.39	1.20	1.15	1.07
Period Low	1.21	1.28	1.21	1.05	1.04	1.04

1. The average of the Noon Buying Rates on the last business day of each month during the period presented.

2. Through January 29, 2017.

Months of	August 2016	September 2016	October 2016	November 2016	December 2016	January 2017
Period High	1.13	1.13	1.12	1.11	1.08	1.07
Period Low	1.11	1.12	1.09	1.06	1.04	1.04

## B. Capitalization and Indebtedness

Not applicable.

## C. Reasons for the Offer and Use of Proceeds

Not applicable.

## D. Risk Factors

In conducting our business, we face many risks that may interfere with our business objectives. It is important to understand the nature of these risks and the impact they may have on our business, financial condition and results of operations. Some of the more relevant risks are described below. These risks are not the only ones that we face. Some risks may not yet be known to us and certain risks that we do not currently believe to be material could become material in the future.

## Risks related to the semiconductor industry

The semiconductor industry is highly cyclical and we may be adversely affected by any downturn

As a supplier to the global semiconductor industry, we are subject to the industry's business cycles, of which the timing, duration and volatility are difficult to predict. The semiconductor industry has historically been cyclical. Sales of our lithography systems, services and Holistic Lithography products depend in large part upon the level of capital expenditures by semiconductor manufacturers. These capital expenditures depend upon a range of competitive and market factors, including:

- The current and anticipated market demand for semiconductors and for products utilizing semiconductors;
- Semiconductor prices;
- Semiconductor production costs and manufacturing capacity utilization of semiconductor manufacturers;
- Semiconductor equipment industry capacity and utilization;
- Changes in semiconductor inventory levels;
- General economic conditions; and
- Access to capital.

Reductions or delays in capital expenditures by our customers could have a material adverse effect on our business, financial condition and results of operations.

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In an industry downturn, our ability to maintain profitability will depend substantially on whether we are able to lower our costs and break-even level, which is the level of sales that we must reach in a year to achieve positive net income. If sales decrease significantly as a result of an industry downturn and we are unable to adjust our costs over the same period, our net income may decline significantly or we may suffer losses. As we need to keep certain levels of inventory on hand to meet anticipated product and service demand, we may also incur increased costs related to inventory obsolescence in an industry downturn, and such inventory obsolescence costs may be higher with our newer technology systems such as EUV. We have grown in terms of employees, facilities and inventories in recent years, including through the acquisitions of Cymer and HMI, so it may be even more difficult for us to reduce costs in order to respond to an industry downturn. In addition, industry downturns generally result in overcapacity, resulting in downward pressure on sales prices and impairment of assets, including inventories, intangible assets, and machinery and equipment, which in the past has had, and in the future could have, a material adverse effect on our business, financial condition and results of operations.

Current and future deteriorations in the financial markets and the global economy in general can have a number of effects on our business, including (i) declining business and consumer confidence resulting in reduced, or delayed purchase of our products or a delay in transition to newer technology systems; (ii) reducing the availability of financial resources on favorable terms to finance the future growth of our business, (iii) insolvency of key suppliers resulting in product delays, (iv) an inability of customers to obtain credit to finance purchases of our products, delayed payments from our customers and/or customer insolvencies and (v) other adverse effects that we cannot currently anticipate. If the financial markets and the global economy deteriorate, we are likely to experience material adverse impacts on our business, financial condition and results of operations.

Conversely, in anticipation of periods of increasing demand for semiconductor manufacturing equipment, we must maintain sufficient manufacturing capacity and inventory and we must attract, hire, integrate and retain a sufficient number of qualified employees to meet customer demand. Our ability to predict the timing and magnitude of industry fluctuations is limited, and as our products become increasingly sophisticated, the lead-time required to successfully deliver our systems has grown considerably. Accordingly, we may not be able to effectively increase our production capacity to respond to an increase in customer demand in an industry upturn resulting in lost sales, damage to customer relationships and we may lose market share.

We are also subject to trends in the key end markets of our customers - Memory and Logic, each of which exhibit different levels of cyclicity. Trends in our end markets may be affected by a number of factors, including business conditions in their respective markets (or in the economy generally), consumer confidence, competition, and changing consumer demand. Decreased demand in the end-markets of any of our customers could cause our customers to reduce their purchases of our systems, which could have a material adverse effect on our business, financial condition and results of operations.

Our business will suffer if we or the industry do not respond rapidly to commercial and technological changes in the semiconductor industry

The semiconductor manufacturing industry is subject to:

- Rapid change towards more complex and expensive technologies;
- Frequent new product introductions and existing product enhancements;
- Evolving industry standards;
- An increasing role of software and system architecture in IC production;
- Changes in customer requirements, including a heightened importance in system predictable availability and productivity; and
- Collaboration or cost sharing arrangements for research and development activities.

Our success in developing new products and in enhancing our existing products depends on a variety of factors, including the successful management of our and our suppliers' R&D programs and the timely completion of product development and design relative to competitors. If we do not develop and introduce new and enhanced systems at competitive prices and on a timely basis, our customers will not integrate our systems into the planning and design of new production facilities and upgrades of existing facilities, which would have a material adverse effect on our business, financial condition and results of operations.

In particular, we are investing considerable financial and other resources to develop and introduce new products and product enhancements, such as immersion, EUV and Holistic Lithography. If we or our suppliers are unable to successfully develop and introduce these products and technologies, or if our customers do not fully adopt the new technologies, products or product enhancements due to a preference for more established or alternative new technologies and products, due to a failure of our products to meet their development roadmaps or for any other reason, this could result in customers continuing to use existing or alternative technology systems, and we may not recoup all of our investments in these technologies or products, which could have a material adverse effect on our business, financial condition and results of operations.

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The success of EUV, which we believe is critical for keeping pace with Moore's Law, which postulates that the number of transistors on a chip doubles approximately every 24 months at equivalent costs, remains dependent on continuing technical advances by us and our suppliers. These advances include, in particular, advances in technology related to the light source, source power, system availability, and scanner performance, without which EUV systems cannot achieve the productivity and yield required to economically justify the higher price of these systems. Other advances necessary for further development of EUV technology include, in particular, advances in high numerical aperture (High-NA). A delay in these technological advances could lead to a delay in the development of these systems or a delay in such systems meeting production requirements, which could discourage or result in much slower adoption of this EUV technology and could delay purchases of these systems. High-NA, in particular, which is a further extension of our EUV technology, requires significant resources for its development. If we are unsuccessful in developing High-NA or if industry adoption is delayed or not achieved, this could impact our business and we may be unable to recoup all investments we have made, which could have a material adverse effect on our results of operations. In addition, the introduction of alternative technologies or processes by our competitors that compete with EUV could discourage adoption of EUV technology.

In addition, our Holistic Lithography offering is focused on enhancing the performance of lithography systems, both in new fabrication development and in existing installed base solutions. Our success in Holistic Lithography depends upon a variety of factors including our ability to design and develop new applications, timely and efficient implementation of our services, product performance and effective direct field support. If we are not successful in developing, marketing and implementing new applications or enhancing our existing applications, our business may suffer.

If the technologies that we pursue to assist our customers in producing smaller and more efficient chips are not as effective as those developed by our competitors, or if our customers adopt new technological architectures that are less focused on other lithography products, this may adversely affect our business, financial condition and results of operations, and we would not recoup the significant investments we have made in EUV and Holistic Lithography. Furthermore, our systems are complex and may not perform according to specifications or quality standards. The increasing complexity of our systems, particularly of EUV (including High-NA, when available), could lead to quality issues, which may result in additional expenses and may damage our reputation and reduce demand for our products, any of which could have a material adverse effect on our business, financial condition and results of operations. The increasing number of system upgrades as part of our offering also contributes to the risk of quality issues.

We maintain in inventory a certain amount of parts and components for system production and when we stop producing a particular model in favor of newer models, there is a risk that this inventory of parts and components may become obsolete, particularly as a result of the rapid pace of technological change. In such cases, we seek to use such parts and components in new systems, but in case we are not able to do so, this can result in impairments of inventory. Many of these parts and components are particularly expensive and may only be used in a single type of system.

Cadence for the introduction of new systems is lengthening

Our lithography systems have become more complex and costly to develop and build, in particular with respect to our EUV systems, including the further enhancement of EUV technology with High-NA. In addition, some of our customers have experienced delays in implementing their product roadmaps, which has resulted in delayed demand of new systems. These factors resulted in longer development cycles and a longer transition period (or cadence) both for our new systems and industry-wide, increasing the risk of a slowing down of the overall transition period for new systems as predicted by Moore's Law. A lengthening of the cadence for new system purchases by our customers could result in a slower adoption of EUV or any other new technology as a result of delays in the development of new systems or a change in the customer's product roadmaps or investment outlook. As a result of a lengthening of the cadence, our customers have purchased and may continue to purchase existing technology systems rather than new leading-edge systems or may delay their investment in new systems to the extent that such investment is not economical or required given their product cycles. A lengthening of the cadence for the introduction of our new systems can also result in increased competition, as competitors may have more time to develop competing systems. In addition, longer cadence means we face increasing competition from manufacturers who produce systems with lower performance levels than our new systems, particularly with end-market customers who do not require smaller

transistors. The change in cadence of our new systems could result in a decrease in the number of new systems or technology we sell in a given year, which could have a material adverse effect on our business, financial condition and results of operations.

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Industry adoption of EUV technology for high volume production may be delayed

EUV represents the next-generation lithography technology for ASML, and we have made significant investments, including our 2013 acquisition of Cymer and our intended investment in Carl Zeiss SMT, to develop EUV technology. To date, we have only sold a limited number of EUV systems. There are a number of development milestones to be met with respect to EUV systems for high volume production. There are a number of factors that may inhibit or delay industry adoption of our EUV systems for high volume production, including those set forth in this Risk Factors section. Any delay in industry adoption of our EUV systems for high volume production could have a material adverse effect on our business, financial condition and results of operations. In addition, for our EUV systems which we sell as part of our commercial sales, we defer a portion of the revenues pending completion of performance milestones agreed with the customer, so to the extent that our systems fail to meet these milestones, our revenues and profitability in certain periods may be lower.

We face intense competition

The semiconductor equipment industry is highly competitive. The principal elements of competition in our market are:

- The technical performance characteristics of a lithography system;
- The cost of ownership of lithography systems based on purchase price, maintenance costs, availability, productivity, and customer service and support costs;
- The exchange rate of the euro against the functional currency of our competitors and our customers, particularly against the Japanese yen;
- The strength and breadth of our portfolio of patents and other intellectual property rights; and
- Our customers' desire to obtain lithography equipment from more than one supplier.

Our competitiveness depends upon our ability to develop new and enhanced semiconductor equipment, related applications and services that are competitively priced and introduced on a timely basis, as well as our ability to protect and defend our intellectual property rights. See Item 4.B. "Business Overview - Intellectual Property", and Note 18 to the Financial Statements.

We compete primarily with Nikon and Canon in respect of systems. Each of Nikon and Canon has substantial financial resources and broad patent portfolios. Each continues to introduce new products with improved price and performance characteristics that compete directly with our products, which may cause a decline in our sales or a loss of market acceptance for our lithography systems. In particular, we have experienced increased competition from Nikon and Canon in existing technologies such as TWINSCAN XT systems, where end-market demand has increased. In addition, adverse market conditions, industry overcapacity or a decrease in the value of the Japanese yen in relation to the euro or the US dollar, could further intensify price-based competition in those regions that account for the majority of our sales, resulting in lower prices and margins and lower sales which could have a material adverse effect on our business, financial condition and results of operations. We also face the risk of a decline in sales if our products and services do not meet our customers' standards, which could result in decline in demand from or loss of such customers.

We also compete with providers of software applications that support or enhance complex patterning solutions, including lithography, such as KLA-Tencor Corporation. These applications effectively compete with our Holistic Lithography offering, which has become an increasingly significant part of our business. The competition we face in our applications business may be higher than for our systems, as there are more competitors and potential competitors in this market and such competitors may have greater financial resources and more experience in this market than us. In addition to competitors in lithography, we may face competition with respect to alternative technologies. If we fail to keep pace with Moore's Law or in the event the delivery of new technology is delayed, our customers may opt for other solutions in IC manufacturing as a substitute for purchasing our products.

In addition, the lengthening of the cadence for the introduction of our new systems can also result in increased competition, as competitors may have more time to develop competing systems. In addition, longer cadence means we face increasing competition from manufacturers who produce systems with lower performance levels than our new systems, particularly with end-market customers who do not require smaller transistors.

Furthermore, a number of business combinations and strategic partnerships among our customers and research partners in the semiconductor industry have occurred, and more could occur in the future. Consolidation among our customers and research partners could affect industry dynamics and could adversely affect our business and margins, which could have a material adverse effect on our business, financial condition and results of operations.

Risks related to ASML

The number of systems we can produce is limited by our dependence on a limited number of suppliers of key components

We rely on outside vendors for components and subassemblies used in our systems including the design thereof, each of which is obtained from a single supplier or a limited number of suppliers. Our reliance on a limited group of suppliers involves several risks, including a potential inability to obtain an adequate supply of required components, reduced control over pricing and the risk of untimely delivery of these components and subassemblies.



The number of lithography systems we are able to produce may be limited by the production capacity of Carl Zeiss SMT. Carl Zeiss SMT is our single supplier of lenses, mirrors, illuminators, collectors and other critical optical components (which we refer to as optics). If Carl Zeiss SMT is unable to maintain and increase production levels or if we are unable to maintain our business relationship with Carl Zeiss SMT in the future we could be unable to fulfill orders, which could damage relationships with current and prospective customers and have a material adverse effect on our business, financial condition and results of operations. If Carl Zeiss SMT is to terminate its relationship with us or if Carl Zeiss SMT is unable to maintain production of optics over a prolonged period, we would effectively cease to be able to conduct our business. See Item 4.B. "Business Overview—Manufacturing, Logistics and Suppliers". In addition to Carl Zeiss SMT's current position as a supplier of optics, a number of other critical components such as drive lasers included in our CO<sub>2</sub> lasers used in our EUV systems are available from only a limited number of suppliers. We have recently agreed to acquire a 24.9% stake in Carl Zeiss SMT. This acquisition is not yet complete and is subject to conditions. In addition, while we will have certain rights in the governance of Carl Zeiss SMT as a result of our intended acquisition of the 24.9% stake, we will not control Carl Zeiss SMT, so we continue to face the risks described above with respect to Carl Zeiss SMT, notwithstanding our recent agreement to acquire this interest in Carl Zeiss SMT. See "We have made a significant investment in Carl Zeiss SMT, but we will not control Carl Zeiss SMT and may not achieve expected benefits of this transaction."

Designing and manufacturing some of these components and subassemblies that we use in our manufacturing processes is an extremely complex process and could result in delays by our suppliers. Lead-times in obtaining components have increased as our products have become more complex, and our failure to adequately predict demand for our systems or any delays in the shipment of components can result in insufficient supply of components or, conversely, excess inventory or limiting our capabilities to react fast to changing market conditions. A prolonged inability to obtain adequate deliveries of components or subassemblies, or any other circumstance that requires us to seek alternative sources of supply, could significantly hinder our ability to deliver our products in a timely manner, which could damage relationships with current and prospective customers and have a material adverse effect on our business, financial condition and results of operations.

In addition, as we develop new technologies, such as EUV, this requires our suppliers to participate in the development process so that the components they supply will meet the requirements of our development roadmap, and this may require significant R&D spending and investment on the part of our suppliers, particularly with the long lead-time required for EUV components. If our suppliers are unable to meet our technological and supply demands in line with our development roadmap, this may delay the development and introduction of new products. In addition, our suppliers may not have or may not be willing to spend sufficient financial resources to make the necessary R&D expenditures and investments to enable them (and therefore us) to maintain their development roadmaps and ultimately meet our supply demands. In this case, we may co-invest with our suppliers to continue the R&D required to continue development roadmaps. A failure to obtain adequate supplies of components and other product inputs could lead us to acquire a supplier, which may be costly and involve risks associated with acquisitions.

A high percentage of net sales is derived from a few customers

Historically, we have sold a substantial number of lithography systems to a limited number of customers. We expect customer concentration to increase because of continuing consolidation in the semiconductor manufacturing industry. In addition, although Holistic Lithography constitutes an increasing portion of our revenue, a significant portion of those customers are the same customers as those of our systems. Consequently, while the identity of our largest customers may vary from year to year, sales may remain concentrated among relatively few customers in any particular year. In 2016, recognized net sales to our largest customer accounted for EUR 1,646.2 million, or 24.2 percent of net sales, compared with EUR 1,633.6 million, or 26.0 percent of net sales, in 2015. The loss of any significant customer or any significant reduction in orders by a significant customer may have a material adverse effect on our business, financial condition and results of operations.

Additionally, as a result of our limited number of customers, credit risk on our receivables is concentrated. Our three largest customers (based on net sales) accounted for EUR 655.3 million, or 51.8 percent of accounts receivable and finance receivables on December 31, 2016, compared with EUR 704.1 million, or 58.3 percent on December 31, 2015.

As a result of the foregoing risks, business failure or insolvency of one of our main customers may have a material adverse effect on our business, financial condition and results of operations.

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We derive most of our revenues from the sale of a relatively small number of products

We derive most of our revenues from the sale of a relatively small number of lithography equipment systems (157 units in 2016 and 169 units in 2015), with an ASP per system in 2016 of EUR 29.1 million (EUR 32.4 million for new systems and EUR 4.0 million for used systems) and an ASP per system in 2015 of EUR 25.1 million (EUR 28.5 million for new systems and EUR 5.1 million for used systems). As a result, the timing of shipment and recognition of revenue for a particular reporting period from a small number of system sales may have a material adverse effect on our business, financial condition and results of operations in that period. Specifically, the failure to receive anticipated orders, or delays in shipments near the end of a particular reporting period, due, for example, to:

- ▲ a downturn in the highly cyclical semiconductor industry;
- ▼ Volatility in the Logic and Memory end-markets as a result of oversupply;
- Ⓢ Shipment rescheduling;
- Ⓒ Cancellation or order push-back by customers;
- Ⓜ Manufacturing difficulties;
- ▲ a delay in the development and delivery of new technology; or
- Ⓓ Delays in deliveries by suppliers

may cause net sales in a particular reporting period to fall significantly below net sales in previous periods or below our expected net sales, and may have a material adverse effect on our results of operations for that period. In particular, our published quarterly earnings may vary significantly from quarter to quarter and may vary in the future and reduce our visibility on future sales for the reasons discussed above.

The time window for new product introduction is short and is accompanied by potential design and production delays and by significant costs

The development and initial production, installation and enhancement of the systems we produce is often accompanied by design and production delays and related costs of a nature typically associated with the introduction and transition to full-scale manufacturing of complex capital equipment. While we expect and plan for a corresponding learning-curve effect in our product development cycle, we cannot predict with precision the time and expense required to overcome these initial problems and to ensure full performance to specifications. Moreover, we anticipate that this learning-curve effect will continue to present increasingly difficult challenges with each new generation of our products as a result of increasing technological complexity. In particular, the development of an EUV volume production system is dependent on, and subject to the successful implementation of, among other things, technology related to the light source, source power, system availability, scanner performance and other technologies specific to EUV. There is a risk that we may not be able to introduce or bring to full-scale production new products as quickly as we anticipate in our product introduction plans, which could have a material adverse effect on our business, financial condition and results of operations.

As a result of the increased time required to introduce new technologies capable of full-scale production, in particular with respect to EUV, we offer customers the ability to upgrade these systems in order for the market to accept new technology enhancements and an increasing number of customers have opted for such upgrades. System upgrades can be complex and result in system downtime costs and quality issues, which could negatively impact our business, financial condition and results of operations.

We are also dependent on our suppliers to maintain their development roadmaps to enable us to introduce new technologies on a timely basis, and if they are unable to keep pace whether due to technological factors, lack of financial resources or otherwise, this could prevent us from meeting our development roadmaps.

Additionally, in connection with our EUV production, we have made advanced payments to suppliers that we may not recoup if we do not reach expected EUV sales levels in the future. We may make similar advance payments (or other investments in our suppliers) to suppliers in connection with EUV or other technologies we develop, and we may not recoup those advanced payments or other investments (e.g. if expected sales are not met). See Note 9 to our Financial Statements.

As lithography technologies become more complex, the success of our R&D programs becomes more uncertain, while their cost rises

Our lithography systems have become increasingly complex, and accordingly, the costs to develop new products and technologies have increased, and we expect such costs to continue to increase. This increase in costs requires us to continue obtaining sufficient funding for our R&D programs. For example, we obtained partial funding for our EUV R&D program through the CCIP. We may however, be unable to obtain this type of funding from customers in the future, or our customers may not show sufficient support for a particular technological development, which could lead us to delay or reduce investments in the R&D programs related to such development, in which case we may be unable or we may determine not to fund R&D investments necessary to maintain our technological leadership. The increasing complexity of new technologies, which leads to increasing cost of R&D programs for new technologies, also increases the risk that a new product or technology may not be successful.

Furthermore, as the innovation cycle becomes more complex, developing new technology, including EUV technology, requires increased R&D investments by our suppliers in order to meet the technology demands of us and our customers. Our suppliers may not have, or may not be willing to invest in, the resources necessary to continue the development of the new technologies to the extent such investments are necessary, which may result in our contributing funds to such R&D programs or limiting the R&D investments that we can undertake. For example, in connection with our intended acquisition of a 24.9% stake in Carl Zeiss SMT, we have agreed to make significant investments in Carl Zeiss SMT to fund programs for the development of High-NA. There is no assurance that these investments will be sufficient to meet development timetables or that we will recoup the benefits of these investments.

EUV is highly complex and remains under development

EUV technology is highly complex and further improvements in EUV technology are required for volume, production and shipment of EUV systems, including improvements in predictable availability and source power (which we refer to as industrialization of EUV). Such improvements will require further investment by us, our suppliers and our customers. In addition, the improvements in EUV required for EUV industrialization are dependent on technological developments by our suppliers, partners, including Zeiss, and customers. If our suppliers and partners do not advance the development and adoption of our EUV systems or if our customers do not develop the required manufacturing sites to accommodate our EUV systems, this could lead to an extension of the timeline of EUV development, which could have a material adverse effect on our business, financial condition and results of operations.

Failure to adequately protect the intellectual property rights upon which we depend could harm our business

We rely on intellectual property rights such as patents, copyrights and trade secrets to protect our proprietary

technology and applications. However, we face the risk that such measures could prove to be inadequate because:

- Intellectual property laws may not sufficiently support our proprietary rights or may change in the future in a manner adverse to us;

- Patent rights may not be granted or interpreted as we expect;

- Patents will expire which may result in key technology becoming widely available that may hurt our competitive position;

- The steps we take to prevent misappropriation or infringement of our proprietary rights may not be successful; and

- Third parties may be able to develop or obtain patents for broadly similar or similar competing technology.

In addition, legal proceedings may be necessary to enforce our intellectual property rights, to determine the validity and scope of the proprietary rights of others, or to defend against claims of infringement. Any such proceedings may result in substantial costs and diversion of management resources, and, if decided unfavorably to us, could have a material adverse effect on our business, financial condition and results of operations.

A disruption in our information technology systems, including incidents related to cyber security, could adversely affect our business operations

We rely on the accuracy, availability and security of our information technology systems. Despite the measures that we have implemented, including those related to cyber security, our systems could be breached or damaged by computer viruses and systems attacks, natural or man-made incidents, disasters or unauthorized physical or electronic access.

From time to time we experience cyber security attacks on our information technology systems, these attacks are increasing and becoming more sophisticated, and may be perpetrated by computer hackers, cyber terrorists or other corporate espionage. These attacks include malicious software (malware), attempts to gain unauthorized access to data, and other electronic security breaches of our information technology systems as well as the information technology systems of our suppliers, customers and other service providers that have led and could lead to disruptions in critical systems, unauthorized release of confidential or otherwise protected information (including confidential information relating to our customers, employees and suppliers), and corruption of data. To date, none of the attacks we have experienced has materially impacted our business or operations. Nevertheless, any system failure, accident or security breach could result in business disruption, theft of our intellectual property, trade secrets (including our proprietary technology), unauthorized access to, or disclosure of, customer, personnel or supplier information, or corruption of our data and of our systems.

Moreover, there can be no assurance that such measures we have implemented will be sufficient to prevent a system failure, accident or security breach from occurring. To the extent that our business is interrupted or data or proprietary technology or customer data is lost, destroyed or inappropriately used or disclosed, this could adversely affect our competitive position, relationships with customers, employees and suppliers and therefore our business, financial condition and results of operations. In addition, we may be required to incur significant costs to protect against or repair the damage caused by these disruptions or security breaches in the future.

In addition, from time to time, we implement updates to our information technology systems and software, which can disrupt or shutdown our information technology systems. We may not be able to successfully integrate and launch these new systems as planned without disruption to our operations. Information technology system disruptions, if not anticipated and appropriately mitigated, could have a material adverse effect on our operations.

Defending against intellectual property claims brought by others could harm our business

In the course of our business, we are subject to claims by third parties alleging that our products or processes infringe upon their intellectual property rights. If successful, such claims could limit or prohibit us from developing our technology and manufacturing our products, which could have a material adverse effect on our business, financial condition and results of operations.

In addition, our customers may be subject to claims of infringement from third parties, alleging that our products used by such customers in the manufacturing of semiconductor products and/or the processes relating to the use of our products infringe one or more patents issued to such third parties. If such claims were successful, we could be required to indemnify customers for some or all of any losses incurred or damages assessed against them as a result of such infringement, which could have a material adverse effect on our business, financial condition and results of operations.

We also may incur substantial licensing or settlement costs, which although potentially strengthening or expanding our intellectual property rights or limiting our exposure to intellectual property claims of third parties, may have a material adverse effect on our business, financial condition and results of operations.

From late 2001 through 2004, ASML was a party to a series of civil litigation and administrative proceedings in which Nikon alleged ASML's infringement of Nikon patents generally relating to lithography. ASML in turn filed claims against Nikon. Pursuant to agreements executed on December 10, 2004, ASML and Nikon agreed to settle all pending worldwide patent litigation between the companies. The settlement included an exchange of releases, a patent cross-license agreement related to lithography equipment used to manufacture semiconductor devices, and payments to Nikon by ASML. Under the Nikon Cross-License Agreement, ASML and Nikon granted to each other a non-exclusive license for use in the manufacture, sale, and use of lithography equipment, under their respective patents. The license granted relating to many of the patents of each party was perpetual, but the license relating to certain other of the patents expired at the end of 2009. Each party had the right to select a limited number of the other party's patents where the license for such patents expired in 2009 to be subject to a permanent covenant not to sue in respect of patent infringement claims. In October 2016, the Patent Selection was completed.

In addition, the Nikon Cross-License Agreement provided that following the termination of some of the licenses granted in the Nikon Cross-License Agreement on December 31, 2009, there would be a standstill period during which the parties agreed not to bring patent infringement suits against each other. This standstill period ran from January 1, 2010 through December 31, 2014. Damages resulting from claims for patent infringement occurring during the Cross-License Transition Period are limited to three percent of the net sales price of applicable licensed products including optical components. For more information on the Nikon Cross-License Agreement, see Item 4.B. "Business Overview - Intellectual Property."

Accordingly, from January 1, 2015, both Nikon and we are no longer prohibited under the agreement from bringing claims against each other on the basis of infringement of patents subject to the Nikon Cross-License Agreement, other than perpetually licensed patents. In addition, as described above, the Patent Selection was completed in October 2016. Therefore, there is now a defined group of patents owned by each party for which the license granted to the other party has expired.

If Nikon files suit against us alleging patent infringement, we may incur substantial legal fees and expenses, and we may not prevail. Similarly, if we file suit against Nikon alleging patent infringement, we may incur substantial legal fees and expenses, and we may not prevail. Patent litigation is complex and may extend for a protracted period of time, giving rise to the potential for both substantial costs and diverting the attention of key management and technical personnel. Potential adverse outcomes from patent litigation may include, without limitation, payment of significant monetary damages, injunctive relief prohibiting the sale of products, and/or settlement involving significant costs to be paid by us, any of which may have a material adverse effect on our business, financial condition and/or results of operations. We are unable to predict at this time whether any such patent suit will in fact materialize, or, if so, what its outcome might be.

We are subject to risks in our international operations

The majority of our sales are made to customers outside EMEA, see Note 20 to our Financial Statements. There are a number of risks inherent in doing business in some of those regions:

- Potentially adverse tax consequences;
- Unfavorable political or economic environments;
- Unexpected legal or regulatory changes;
- An inability to effectively protect intellectual property; and
- Adverse effects of foreign currency fluctuations.

If we are unable to manage successfully the risks inherent in our international activities, our business, financial condition and results of operations could be materially and adversely affected.



In particular, 30.7 percent of our 2016 net sales and 24.7 percent of our 2015 net sales were derived from customers in Taiwan. Taiwan has a unique international political status. The People's Republic of China asserts sovereignty over Taiwan and does not recognize the legitimacy of the Taiwanese government. Changes in relations between Taiwan and the People's Republic of China, Taiwanese government policies and other factors affecting Taiwan's political, economic or social environment could have a material adverse effect on our business, financial condition and results of operations. In addition, HMI, which we have acquired, is located in Taiwan, and as a result, the risks we face as a result of doing business in Taiwan will increase. Furthermore, certain of our manufacturing facilities as well as customers are located in South Korea. In particular, 23.3 percent of our 2016 net sales and 31.4 percent of our 2015 net sales were derived from customers in South Korea. There are tensions between the Republic of South Korea and the Democratic People's Republic of Korea (North Korea) since the division of the Korean Peninsula following World War II. The worsening of relations between those two countries or the outbreak of war on the Korean Peninsula could have a material adverse effect on our business, financial condition or results of operations.

In addition, the installation and servicing of our products requires us to travel to our customers' premises. Natural disasters could affect our ability to do so. For example, the Taiwanese earthquake in 2016 resulted in the disruption of our installation and servicing of systems for our customers in Taiwan. Natural disasters in areas where our customers are located could prevent or disrupt the installation or servicing of our systems. In addition, we have customers located in Israel. If the geopolitical environment prevents travel to Israel, it could result in the disruption of our installation and servicing of systems for our customers.

Lastly, if there is a pandemic outbreak located near any of our customers, it could result in the disruption of our installation and servicing of systems for our customers near the outbreak. Therefore, if there is a natural disaster, geopolitical conflict or pandemic that prevents our ability to travel to our customers' premises, our business, financial condition and results of operations may be materially adversely effected.

We are dependent on the continued operation of a limited number of manufacturing facilities

All of our manufacturing activities, including subassembly, final assembly and system testing, take place in cleanroom facilities in Veldhoven, the Netherlands, in Wilton, Connecticut and in San Diego, California, both in the United States, in Pyeongtaek, South-Korea, in Beijing, China and in Linkou and Tainan, Taiwan. These facilities may be subject to disruption for a variety of reasons, including work stoppages, fire, energy shortages, flooding or other natural disasters. We cannot ensure that alternative production capacity would be available if a major disruption were to occur or that, if such capacity was available, it could be obtained on favorable terms. Such a disruption could have a material adverse effect on our business, financial condition and results of operations. In addition, some of our key suppliers, including Zeiss, have a limited number of manufacturing facilities, the disruption of which may significantly and adversely affect our production capacity.

Because of labor laws and practices, any workforce reductions that we may seek to implement in order to reduce costs company-wide may be delayed or suspended

The semiconductor market is highly cyclical and as a consequence we may need to implement workforce reductions in case of a downturn, in order to adapt to such market changes. In accordance with labor laws and practices applicable in the jurisdictions in which we operate, a reduction of any significance may be subject to formal procedures that can delay or may result in the modification of our planned workforce reductions. For example, ASML Netherlands B.V., our operating subsidiary in the Netherlands, has a Works Council, as required by Dutch law. If the Works Council renders contrary advice in connection with a proposed workforce reduction in the Netherlands, but we nonetheless determine to proceed, we must temporarily suspend any action while the Works Council determines whether to appeal to the Enterprise Chamber of the Amsterdam Court of Appeal. This appeal process can cause a delay of several months and may require us to address any procedural inadequacies identified by the Court in the way we reached our decision. Such delays could impair our ability to reduce costs company-wide to levels comparable to those of our competitors. Also see Item 6.D. "Employees".

Fluctuations in foreign exchange rates could harm our results of operations

We are exposed to currency risks. We are particularly exposed to fluctuations in the exchange rates between the US dollar, Japanese yen and the euro, as we incur costs of sales predominantly in euros with portions of our net sales and cost of sales also denominated in US dollars.

In addition, a portion of our sales and costs are denominated in US and Taiwanese dollars, particularly following our acquisitions of Cymer in 2013 and HMI in 2016, and a small portion of our operating results are denominated in currencies other than the euro and the US or Taiwanese dollar. Our Financial Statements are expressed in euros. Accordingly, our results of operations are exposed to fluctuations in exchange rates between the euro and such other currencies, and changes in currency exchange rates can result in losses in our Financial Statements. In general, our customers generally run their businesses in US dollars and therefore a weakening of the US dollar against the euro might impact the ability or desire of our customers to purchase our products.

Furthermore, a strengthening of the euro particularly against the Japanese yen could further intensify price-based competition in those regions that account for the majority of our sales, resulting in lower prices and margins and a material adverse effect on our business, financial condition and results of operations.

We may be unable to make desirable acquisitions or to integrate successfully any businesses we acquire. Our future success may depend in part on the acquisition of businesses or technologies intended to complement, enhance or expand our current business or products or that might otherwise offer us growth opportunities. Our ability to complete such transactions may be hindered by a number of factors, including potential difficulties in obtaining government approvals.

On November 22, 2016, we acquired all of the outstanding shares of HMI, a supplier of pattern verification systems used for advanced semiconductor devices. We expect that the acquisition of HMI will enhance our holistic lithographic portfolio. However, achieving the benefits of the acquisition will depend in part on the integration of our operations and employees with those of HMI in a timely and efficient manner, and if we fail to do so, this may result in a delay in the benefits expected from the HMI acquisition. There can be no assurance that HMI will successfully execute its product roadmaps, will be successfully integrated in our business or that any of the anticipated benefits will be realized.

Any acquisition that we do make would pose risks related to the integration of the new business or technology with our business. We cannot be certain that we will be able to achieve the benefits we expect from a particular acquisition or investment. Acquisitions may also strain our managerial and operational resources, as the challenge of managing new operations may divert our management from day-to-day operations of our existing business. Our business, financial condition and results of operations may be materially and adversely affected if we fail to coordinate our resources effectively to manage both our existing operations and any businesses we acquire.

In addition, in connection with acquisitions, anti-trust regulators may impose conditions on us, including requirements to divest assets or other conditions that could make it difficult for us to integrate the businesses that we acquire. For example, in connection with the Cymer acquisition we have agreed to maintain Cymer Light Sources as a stand-alone business. Furthermore, as the industry is becoming more consolidated, anti-trust clearances may become harder to obtain, which could inhibit future desired acquisitions.

We may also face challenges with integrating any business we acquire into our organization.

As a result of acquisitions, we have recorded, and may continue to record, a significant amount of goodwill and other intangible assets. Under current accounting guidelines, we must assess, at least annually and potentially more frequently, whether the value of goodwill and other intangible assets has been impaired. Any reduction or impairment of the value of goodwill or other intangible assets will result in additional charges against earnings, which could materially reduce our reported results of operations in future periods.

We have made a significant investment in Carl Zeiss SMT, but we will not control Carl Zeiss SMT and may not achieve expected benefits of this transaction.

In November 2016, we announced that we have agreed to acquire a 24.9% interest in Carl Zeiss SMT for EUR 1 billion. This acquisition is expected to complete in the second quarter of 2017, but completion is subject to conditions, including regulatory clearances, and there is no guarantee that we will receive such clearances.

We will have certain governance rights with respect to Carl Zeiss SMT, but Zeiss, with a 75.1% interest in Carl Zeiss SMT, will continue to control most aspects of the operations of Carl Zeiss SMT. Therefore, we may not be able to influence the business of Carl Zeiss SMT in a manner that is optimal for ASML. Disputes between ASML and Zeiss as to the governance of Carl Zeiss SMT could result in a loss of the benefits of this transaction and could harm our relationship with Zeiss, a critical supplier.

In addition, we have agreed to invest EUR 760 million (over a period of 6 years) in Carl Zeiss SMT for R&D, capital expenditures and other supply chain investments in respect of High NA for projects relating to EUV optics, to enable Carl Zeiss SMT to produce optical components enabling High-NA. These R&D, capital expenditures and other supply chain investments may not produce the desired results, and this may adversely affect the development of High-NA technology, an important extension of EUV, which may have a material adverse effect on our business, financial condition and results of operations. In addition, as a result of this intended acquisition, we will record our interest in Carl Zeiss SMT as an equity investment. Under current accounting guidelines, we must assess each reporting period

whether there is any indication that this equity investment has been impaired. Any reduction or impairment of the value of this investment made will result in additional charges against earnings, which could materially reduce our reported results of operations in future periods.

Our business and future success depend on our ability to attract and retain a sufficient number of adequately educated and skilled employees

Our business and future success significantly depends upon our employees, including a large number of highly qualified professionals, as well as our ability to attract and retain employees. Competition for such personnel is intense, and we may not be able to continue to attract and retain such personnel. Our R&D programs require a significant number of qualified employees. If we are unable to attract sufficient numbers of qualified employees, this could affect our ability to conduct our research and development programs on a timely basis, which could adversely affect our business, financial condition and results of operations.

In addition, if we lose key employees or officers to retirement, illness or otherwise, particularly a number of our highly qualified professionals and/or senior management, we may not be able to timely find a suitable replacement. Moreover, as a result of the uniqueness and complexity of our technology, qualified engineers capable of working on our systems are scarce and generally not available (e.g. from other industries or companies). As a result, we must educate and train our employees to work on our systems. Therefore, a loss of a number of key professionals and/or senior management can be disruptive, costly and time consuming. Our R&D activities with respect to new technology systems such as EUV and our service activities have increased our need for qualified personnel. Competition for qualified personnel is significant in the area surrounding our headquarters in Veldhoven, the Netherlands and in the other regions where our facilities are located, where a number of high technology companies are located. Furthermore, the increasing complexity of our products results in a longer learning-curve for new and existing employees and suppliers leading to an inability to decrease cycle times and may result in the incurrence of significant additional costs.

Our suppliers face similar risks in attracting qualified employees, including attracting employees in connection with R&D programs that will support our R&D programs and technology developments. To the extent that our suppliers are unable to attract qualified employees, this could adversely affect our business, financial condition and results of operations.

Changes in taxation could affect our future profitability

We are subject to income taxes in the Netherlands and numerous other jurisdictions. Our effective tax rate has fluctuated in the past and may fluctuate in the future.

Changes in tax legislation in the countries where we operate can affect our effective tax rate. For example, the OECD has recently embarked on a project to propose measures against so called BEPS, which the OECD describes as tax planning strategies that exploit gaps and mismatches in tax rules to reduce overall corporate tax. In October 2015, the OECD published 15 reports on various BEPS topics. These reports introduced new tax concepts which has resulted, and is expected to result, in substantial changes to tax legislation in the countries in which ASML operates.

In particular, one of the OECD BEPS reports introduces minimum requirements for Patent Box Regimes. In 2007, a Patent Box Regime was introduced in The Netherlands, which provides that income generated from qualifying innovative activities is effectively taxed at a beneficial tax rate of currently 5% rather than the Dutch statutory tax rate of 25%. The Patent Box Regime is called Innovation Box in The Netherlands legislation. A portion of our earnings currently qualifies for beneficial tax treatment under the Dutch Innovation Box. To align the Dutch Patent Box Regime with the OECD reports, on September 20, 2016, proposed laws were published pertaining to Innovation Box. This proposal has not been adopted by either of the two chambers of the Dutch Parliament and is therefore not final. Changes in Dutch tax laws to comply with the OECD BEPS report may reduce ASML's current benefits under the Dutch Innovation Box from January 1, 2017 onwards.

Changes to tax legislation of jurisdictions ASML operates in may adversely impact ASML's tax position and consequently our net income. In addition, jurisdictions levy corporate income tax at different rates. The distribution of our systems sales over the various jurisdictions in which we operate may vary from year to year, resulting in a different mix of corporate income tax rates applicable to our profits, which can affect the world wide effective tax rate for ASML.

Hazardous substances are used in the production and operation of our systems and failure to comply with applicable regulations or failure to implement appropriate practices for customer and employee environment, health and safety could subject us to significant liabilities

Hazardous substances are used in the production and operation of our lithography systems, which subjects us to a variety of governmental regulations relating to environmental protection and employee and product health and safety, including the transport, use, storage, discharge, handling, emission, generation, and disposal of toxic or other hazardous substances. In addition, operating our machines (which use lasers and other potentially hazardous systems) is dangerous and can result in injury. The failure to comply with current or future regulations could result in substantial fines being imposed on us or other adverse consequences. Additionally, our products have become increasingly complex. The increasing complexity requires us to invest in continued risk assessments and development of appropriate preventative and protective measures for health and safety for both our employees (in connection with the production and installation of our systems) and our customers' employees (in connection with the operation of our systems). There can be no assurance that the health and safety practices we develop will be adequate to mitigate all health and safety risks. Failing to comply with applicable regulations or the failure of our implemented practices for customer and employee health and safety could subject us to significant liabilities, which could have a material adverse effect on our business, financial condition and results of operations.

#### Risks related to our ordinary shares

We may not declare cash dividends and conduct share buyback programs at all or in any particular amounts in any given year

We aim to pay an annual dividend that will be stable or growing over time. Annually, the BoM will, upon prior approval from the SB, submit a proposal to the AGM with respect to the amount of dividend to be declared with respect to the prior year. In addition, as part of our plan to return excess cash to shareholders, we conduct share buyback programs from time to time. The dividend proposal and amount of share buyback programs in any given year will be subject to the availability of distributable profits or retained earnings and may be affected by, among other factors, the BoM's views on our potential future liquidity requirements, including for investments in production capacity, the funding of our R&D programs and for acquisition opportunities that may arise from time to time; and by future changes in applicable income tax and corporate laws. Accordingly, the BoM may decide to propose not to pay a dividend or pay a lower dividend and may adjust the amount of share buyback programs with respect to any particular year in the future, which could have a negative effect on our share price.

#### Restrictions on shareholder rights may dilute voting power

Our Articles of Association provide that we are subject to the provisions of Dutch law applicable to large corporations, called "structuurregime". These provisions have the effect of concentrating control over certain corporate decisions and transactions in the hands of our SB. As a result, holders of ordinary shares may have more difficulty in protecting their interests in the face of actions by members of our SB than if we were incorporated in the United States or another jurisdiction.

Our authorized share capital also includes a class of cumulative preference shares and we have granted Stichting Preferente Aandelen ASML, a Dutch foundation, an option to acquire, at their nominal value of EUR 0.09 per share, such cumulative preference shares. Exercise of the preference share option would effectively dilute the voting power of our outstanding ordinary shares by one-half, which may discourage or significantly impede a third party from acquiring a majority of our voting shares.

See Item 6.C. "Board Practices", Item 10.B. "Memorandum and Articles of Association" and Note 25 to our Financial Statements.

Participating customers in our Customer Co-Investment Program together own a significant amount of our ordinary shares and their interests may not coincide with the interests of our other shareholders

In the CCIP, the Participating Customers, being Intel, Samsung and TSMC, through certain wholly-owned subsidiaries, acquired in aggregate 96,566,077 ASML shares, which represented 23% of our outstanding shares at that time. In the CCIP, all of the Participating Customers agreed to a lock-up arrangement with us which expired in the first half of 2015. As the lock-up has now expired, the Participating Customers are permitted to sell their shares. Based on publicly available information, all three of the Participating Customers are believed to have sold all or a portion of their holdings, although (based on public information) Intel remains a significant shareholder. The sale of a large number of shares by the Participating Customers, or the perception that such sales may occur, could have an adverse effect on the trading price of our shares.

See Item 7.A. "Major Shareholders".

Additionally, the interests of the Participating Customers who continue to own ASML shares may not always coincide with the interests of other holders of our shares. The shares acquired by the Participating Customers are held by Dutch foundations which have issued depository receipts in respect thereof and the Participating Customers may only vote those shares in General Meetings in exceptional circumstances. When such exceptional circumstances occur, the Participating Customers who continue to own ASML shares, and in particular Intel (due to the percentage of our shares that Intel owns), will be able to influence matters requiring approval by the General Meeting and may vote their ordinary shares in a way with which other shareholders may not agree.

#### Item 4 Information on the Company

##### A. History and Development of the Company

We commenced business operations in 1984. ASM Lithography Holding N.V. was incorporated in the Netherlands on October 3, 1994 to serve as the holding company for our worldwide operations. In 2001, we changed our name to ASML Holding N.V. Our registered office is located at De Run 6501, 5504 DR Veldhoven, the Netherlands,

telephone number +31 40 268 3000. We have operating subsidiaries in the Netherlands, the United States, Italy, France, Germany, the United Kingdom, Ireland, Belgium, Korea, Taiwan, Singapore, China, Hong Kong, Japan, Malaysia and Israel.

From time to time, we pursue acquisitions of businesses that we believe will complement or enhance our core lithography business: these have included the acquisitions of MaskTools (business unit of MicroUnity Systems Engineering Inc.) in 1999, Silicon Valley Group Inc. in 2001, Brion Technologies Inc. in 2007, Wijdeven Motion Holding B.V. and Wijdeven Motion B.V. in 2012, Cymer Inc. in 2013, and HMI in 2016.



On November 3, 2016 ASML and Zeiss announced that they agreed to strengthen their long-standing and successful partnership in the semiconductor lithography business. The main objective of this partnership is to facilitate the development of the future generation EUV lithography systems, including High-NA technology, due in the first few years of the next decade. We believe that this technology will enable the semiconductor industry to produce much higher performance microchips at lower costs. ASML has agreed with Zeiss to acquire a 24.9% minority stake in Carl Zeiss SMT, for EUR 1 billion in cash. The closing of this transaction is expected in the second quarter of 2017 and is conditional on, among other things, customary merger control approvals. In addition, ASML agreed to support Carl Zeiss SMT's R&D costs, capital expenditures and other supply chain investments, in respect of High-NA, in an amount of EUR 760 million over 6 years.

On November 22, 2016, we acquired HMI. The acquisition is intended to make a strong product offering even stronger. We believe our metrology technologies are complementary and, when combined, offer the chance to significantly improve process control, and hence yields, for our customers. See Note 2 to our Financial Statements. See Item 3.D. "Risk Factors - Risks related to ASML - We may be unable to make desirable acquisitions or to integrate successfully any businesses we acquire".

#### Capital Expenditures and Divestitures

Our capital expenditures (purchases of property, plant and equipment, see the Consolidated Statements of Cash Flows as recorded in the Financial Statements) for 2016, 2015 and 2014 amounted to EUR 316.3 million, EUR 371.8 million and EUR 358.3 million, respectively. The decreased capital expenditures in 2016 compared to 2015 and 2014 mainly reflect the construction of our EUV production facilities in Veldhoven, the Netherlands in 2015 and 2014. Capital expenditures are primarily financed through cash provided by operating activities. See item 4.D. "Property, Plant and Equipment" for our expected capital expenditures in 2017.

#### B. Business Overview

ASML is one of the world's leading manufacturers of chip-making equipment. Our vision is to enable affordable microelectronics that improve the quality of life. To achieve this, our mission is to invent, develop, manufacture and service advanced technology for high-tech lithography, metrology and software solutions for the semiconductor industry. ASML's guiding principle is continuing Moore's Law towards ever smaller, cheaper, more powerful and energy-efficient semiconductors. This results in increasingly powerful and capable electronics that enable the world to progress within a multitude of fields, including healthcare, technology, communications, energy, mobility, and entertainment. ASML is a multinational company with offices in 60 cities in 16 countries, headquartered in Veldhoven, the Netherlands. As of December 31, 2016, we employed 13,991 payroll employees (2015: 12,168) and 2,656 temporary employees (2015: 2,513), measured in FTEs. ASML is traded on Euronext Amsterdam and NASDAQ under the symbol ASML.

#### Our Business Model

For our business strategy, see Item 5. "Operating and Financial Review and Prospects – Executive Summary – Business Strategy - Business Strategy".

Our business model is derived from our "cost of ownership" concept which is based on the following principles:

- Offering ongoing improvements of productivity, patterning, imaging, overlay and availability by introducing advanced technology based modular platforms, advanced applications and Holistic Lithography solutions outside the traditional lithography business, each resulting in lower costs or higher value per product for our customers;
- Providing customer service that offers efficient installation and maintenance, superior support and training to optimize manufacturing processes of our customers;
- Enhancing the capabilities of the installed base of our customers through ongoing field upgrades of productivity, patterning, imaging, overlay, availability and Holistic Lithography solutions, based on further technology developments;
- Reducing the cycle time between a customer's order of a system and the use of that system in volume production; and
- Providing refurbishing services that effectively increase residual value by extending the life of equipment.

To be able to execute our business model we seek to:

- Maintain appropriate levels of R&D to offer the most advanced technology suitable for following Moore's Law, as well as achieving high-throughput and low-cost volume production at the earliest possible date;

Be able to attract, train, retain and motivate highly qualified, skilled and educated employees; and  
Retain operational flexibility in R&D and manufacturing by reinforcing strategic alliances with world class partners, including outsourcing companies.

#### Our Markets and Products

We have built a collaborative community of suppliers, customers, partners and research institutes that we work with to minimize the cost of innovation and maximize the chance of success. A significant part of the components and modules used in our systems are sourced from our supply chain and assembled in our factories to create the final products delivered to our customers.

Through 2016, all of the top 10 chipmakers worldwide, in terms of semiconductor capital expenditure, were our customers. We also have a significant share of customers outside the top 10. We strive for continued business growth with all our customers.

In 2016, our satisfaction ratings by customers surpassed every lithography competitor. According to VLSI Research, ASML ranks third among the large semiconductor industry equipment suppliers and first among lithography competitors. Our performance has consistently been strong; for more than thirteen years in a row we have both ranked among the top 5 semiconductor industry suppliers and our ranking surpassed that of any of our lithography competitors.

#### Markets

##### Memory chips

Memory chips can store a large amount of data in a very small area in electronic products like personal computers, tablets or smartphones. There are two main classes of Memory: DRAM and NAND. With NAND chips, information can be stored even when the device is powered off. DRAM memory is used to enhance the performance of the electronic product. These DRAM and NAND chips are made in dedicated Memory factories.

##### Logic chips

Logic chips process information in electronic devices. They are produced by two groups of manufacturers. The first group designs and manufactures Logic chips and is referred to as IDMs. The second group are contract manufacturers known as Foundries. Foundry manufacturers do not design chips, but produce chips for other companies.

Total net sales by end-use market for 2014 - 2016 for Memory, Foundry, IDM and net service and field option sales were divided as follows:

Year ended December 31 (in millions)	2014		2015		2016	
	EUR	% <sup>1</sup>	EUR	% <sup>1</sup>	EUR	% <sup>1</sup>
Memory	2,225.1	38.0%	2,115.0	33.6%	1,470.5	21.7%
Foundry	1,186.0	20.3%	1,608.1	25.6%	2,155.2	31.7%
IDM	831.7	14.2%	514.1	8.2%	945.4	13.9%
Net service and field option sales	1,613.5	27.5%	2,050.2	32.6%	2,223.7	32.7%
Total net sales	5,856.3		6,287.4		6,794.8	

1. As a percentage of total net sales.

#### Products

##### General

Our systems are essentially projection systems, comparable to a slide projector. Light is projected using a Reticle, which contains the blueprint of the pattern that will be printed. A lens or mirror focuses the pattern onto the wafer - a thin, round slice of semiconductor material- which is coated with a light-sensitive chemical. When the exposed parts are etched away, the pattern is revealed. Because lithography patterns the structures on a chip, it is lithography that determines how small the features on the chip can be, and how densely chip makers can pack transistors together. In other words, lithography is crucial to follow the path described by Moore's Law.

For a further discussion on Moore's law see Item 5 "Operating and Financial Review and Prospects - Executive Summary - Business Strategy - Business Strategy".

##### Systems

In 2000 we introduced the TWINSCAN platform, which is the basis for our current and next-generation systems, which are expected to be capable of extending shrink technology with MPT techniques. We offer TWINSCAN systems, equipped with i-line, KrF and ArF light sources for 300 mm processing wafers for manufacturing environments for which imaging at a small resolution is required. The modular upgradeable design philosophy of the older systems has been further refined and applied in the TWINSCAN design.

Due to the increasing demand for 200 mm systems in the market place, i.e. driven by several applications like Internet of Things, ASML has re-introduced TWINSCAN 200 mm systems equipped with i-line and KrF light sources, which are sold alongside the 300 mm version. These systems can be built new, unlike the PAS steppers and scanners, which can be only refurbished and are difficult to source in large volumes.

TWINSCAN systems also include immersion lithography systems (TWINSCAN immersion systems). With a TWINSCAN immersion system, wafer measurement, including focus and alignment, is completed in the dry stage, while the imaging process, using water, is completed in the wet stage. This immersion technology places water between the wafer and a system's projection lens to enhance focus and enable circuit line width to shrink to smaller

dimensions than what is possible with dry lithography systems. We fostered this wet technology and has experienced strong demand for immersion-based systems; this technology has been adopted by all of our leading customers. We are one of the world's leaders (measured in revenues) in immersion technology and we were the world's first producer of dual-stage design lithography systems.

We have developed different immersion systems for different customer needs. The TWINSCAN NXT platform enables next generations of semiconductors through the so-called MPT which requires two or more exposures per layer on a chip, enabling precise imaging patterns and lines by using our TWINSCAN NXT planar wafer stage and breakthrough grid metrology.

In 2016 we shipped 46 TWINSCAN NXT:1980 systems to support increasingly demanding multiple-patterning performance requirements. Demonstrating 1.2 nanometer (nm) dedicated chuck overlay and better than 10 nm focus uniformity, the NXT:1980 features new grid calibrations and hardware that enables chipmakers to achieve tighter process windows for next-generation process nodes. The NXT:1980Di improves throughput by 10% to 275 wafers per hour, compared to the NXT:1970Ci.

In 2010, we achieved a major milestone with EUV lithography when we shipped our first NXE:3100 system. NXE systems are equipped with EUV light source technology, based upon a tin plasma, producing light at a wavelength of 13.5 nm. The NXE system has an innovative optical technology, utilizing reflective mirrors rather than the traditional refractive optics, with a NA of 0.25. The light in a NXE system operates in a vacuum environment, through the entire optical path, to the wafer level. With the combination of these revolutionary technologies, EUV offers the potential to provide our customers a roadmap for future shrink, and we expect it to become the predominant lithography technology for the coming years. NXE systems are targeted for production of ICs down to minimum features of 13 nm with single patterning, addressing current Memory and Logic roadmaps and processes down to the 5 nm node. Extension beyond this 5 nm is possible, using High-NA.

The success of EUV is dependent on, and subject to, the successful implementation of, among other things, technology related to the light source, throughput, system availability, patterning, imaging, overlay and other technologies specific to EUV, by us and our suppliers. We acquired Cymer on May 30, 2013, with the goal of achieving our strategic objective of delivering an economically viable EUV scanner to semiconductor manufacturers as soon as reasonably possible. Combining Cymer's expertise in EUV light sources with our expertise in lithography systems design and integration reduces the risks related to further development of EUV technology.

In 2013, we shipped our first NXE:3300B systems. The NXE:3300B system is the successor of the NXE:3100 system and is our third-generation EUV-system. A NXE:3300B system combines a wavelength of 13.5 nm and an optical system with a NA of 0.33 to provide imaging at a resolution of 22 nm. Compared to the NXE:3100 system, the NXE:3300B system has among other things a better NA as well as an improved light source.

In April 2015 we signed an agreement with one of our major US customers to deliver a minimum of 15 EUV lithography systems to support increased development activity and pilot production of future-generation manufacturing processes. This customer has indicated that it intends to use EUV lithography for multiple processing steps in future process technology nodes.

Our fourth-generation EUV-system, the NXE:3350B, achieves an overlay of 1.0 nm, a 50% improvement over the NXE:3300B, and also features projection optics with a higher transmission, which means it generates higher throughput from a given EUV power source. In addition, the availability of systems in the field improved during 2016, with systems achieving a four-week availability of more than 80 percent regularly across the installed base; the best result was more than 90 percent over four weeks. Consistency of availability between systems and across sites still needs to be improved. EUV lithography met our 2016 productivity and availability targets. We achieved a productivity of more than 1,500 wafers per day, on a 3 day average in 2016 on an NXE:3350B system at a customer site. We shipped five of our latest NXE:3350B systems and plan to ship our first next generation system, NXE:3400B, in the first quarter of 2017. They will be used in our customers' factories for preparing the introduction of EUV into high volume manufacturing.

ASML Lithography System Product Portfolio for new systems:

System <sup>1</sup>	Resolution	Wavelength	Light source	Numerical aperture
TWINSCAN DUV SYSTEMS <sup>2</sup>				
TWINSCAN XT:400	350 nm	365 nm	i-line	0.48-0.65
TWINSCAN XT:800	120 nm	248 nm	KrF	0.55-0.80
TWINSCAN XT:860	110 nm	248 nm	KrF	0.55-0.80
TWINSCAN XT:10X0	80 nm	248 nm	KrF	0.50-0.93
TWINSCAN XT:1460	65 nm	193 nm	ArF	0.65-0.93
TWINSCAN NXT:19XX immersion	38 nm	193 nm	ArF	0.85-1.35

TWINSCAN EUV SYSTEMS

NXE:3300	22 nm	13.5 nm	EUV	0.33
NXE:3350	16 nm	13.5 nm	EUV	0.33
NXE:3400	13 nm	13.5 nm	EUV	0.33

1. This table does not include used systems or system enhancements on steppers and scanners and products other than systems (e.g. YieldStar or computational lithography products).

2. The X in the product number represents different models in the product portfolio within the same resolution. For example, XT:10X0 can either represent XT:1000 or XT:1060.

ASML's MPS business refurbishes PAS 5500 and TWINSCAN lithography equipment and offers associated services. Our PAS 5500 product family, which we no longer manufacture but continue to refurbish, comprises advanced wafer steppers and Step & Scan systems equipped with i-line, KrF and ArF light sources for processing wafers up to 200 mm in diameter, and are employed in volume manufacturing to achieve design nodes requiring imaging at a resolution down to 90 nm.

#### Installed base products and services

We continuously develop and sell a range of product options and enhancements designed to increase throughput and improve patterning and overlay to optimize cost of ownership over the entire life of our systems. This is complemented by full system upgrade packages which enable our TWINSCAN NXT immersion scanners to be upgraded from one model to another. This enables customers to migrate these systems in production from one process technology node to another, meeting tighter lithography requirements for the more advanced process technology nodes.

Our customers optimize their scanner performance by taking into account the entire chip creation process, from design to volume manufacturing, an approach we call Holistic Lithography. We complement our scanner products with a rapidly expanding Holistic Lithography portfolio of software and metrology products to help our customers optimize semiconductor scanner performance, provide a faster start to chip production and achieve better patterning at higher resolutions. Semiconductor manufacturers face increasingly smaller margins of error as they shrink chip features. Holistic Lithography provides a way to shrink within these margins, offering additional significant revenue-generating and cost-saving opportunities for our customers.

Our computational lithography products capture detailed knowledge of scanner design and real performance, which enables our systems to accurately predict real-life manufacturing performance. These predictions are essential in addressing possible ramp-up and yield problems in advance, potentially avoiding months of delay in time-to-market for our customers. The same prediction capabilities allow our scanners to be optimally calibrated for improved performance in production, given specific chip designs or masks, thereby achieving improved yield. Our current computational lithography portfolio comprises both traditional products, as well as solutions that directly interface with the numerous calibration controls in our scanner to optimize performance.

To provide a total solution for scanner control we offer our own advanced wafer metrology system: YieldStar. This wafer metrology system leverages the scanner controls to compensate for potential performance drifts in the scanner itself, as well as in other steps of the device manufacturing process, such as mask deterioration, resist coating fingerprints, etching fingerprints, or chemical-mechanical polishing fingerprints. YieldStar uses scatterometry technology for overlay and CD measurements. YieldStar scatterometry provides high overlay and low cost wafer metrology data that can be used for further improving the performance of our systems.

In 2012, ASML began shipment of the third generation YieldStar metrology system, the S200C, which featured higher throughput and measurement overlay to support tighter on product wafer overlay and focus control performance of the NXT:19X0 systems. In 2014, we introduced the fourth generation YieldStar Metrology system, the 250D, available in both stand-alone and integrated version. The YieldStar 250D contains a source with wavelengths up to 765nm and has sensor improvements whereas the YieldStar 200 series enables more precise overlay measurement of thicker stacks with increased sampling as well as in-line focus and CD. In 2015, we shipped the first YieldStar 1250D, a measurement tool, which helps identify any inaccuracies in chips during the production cycle, enabling customers to make improvements and enhance the efficiency of their machines and therefore reduce cost. In 2016, we released the next generation metrology system: the YieldStar 350E. Built for the more exacting demands of today's multiple patterning lithography, it generates 40% more metrology data than its predecessor — and that can even go up to 70% more data for the most advanced and complex 10 nm logic node.

On November 22, 2016, we acquired HMI. We believe the addition of HMI's e-beam portfolio and technology to our existing Holistic Lithography portfolio offers the opportunity for a new class of products to provide logic and memory customers with a comprehensive control strategy, helping them achieve faster time to market and improved yield. We have also identified new process control opportunities, built on the same unique and proven approach that will continue to provide additional value to our customers. The largest new opportunity resides in the extension of overlay control to a comprehensive control of Pattern Fidelity. For more information, see Item 4.A. "History and Development

of the Company".

Our service business has been growing and is expected to grow the coming years and is critical to our overall success. We strive to define a comprehensive and cohesive service product offering to keep our customers' installed base in continued competitive operation. Our service business strategy puts customer value and satisfaction as first priority while seeking to optimize our net sales and gross margins. In order to maximize our total value proposition to our customers, the service product portfolio is structured in accordance with customers' technology node life cycle using a wide variety of service products. Furthermore, we offer our customers OnPulse contracts on DUV sources, providing on-site support from certified service engineers and continuous real-time light source monitoring. These contracts, used to enhance light source productivity, offer CLS customers predictable light source running costs that scale directly with pulse utilization.

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### Sales and Customer Service

Our top priority is to provide customers with the best possible products and services. We work closely with them to ensure we understand their needs, priorities and challenges. Only by collaborating and aligning with our customers we can help them to produce ever smaller and more energy efficient chips, thereby realizing Moore's law and sustaining the growth of the industry as a whole.

The cost of new semiconductor fabrication equipment continues to be a large incentive driving semiconductor manufacturing productivity improvements. Industry leaders are realizing that on their own, they cannot afford to do the learning necessary to maximize equipment investment. Hence, partnerships, collaboration, and the sharing of combined knowledge between ASML and its customers is key in optimization of equipment productivity.

We strive to meet the needs of our customers by regularly reviewing and aligning, at all levels, with customer demands, product roadmaps, support requirements and business terms.

We support our customers with a broad range of applications, services, and technical support products to maintain and maximize the performance of our systems at customer sites. We also offer refurbished systems and system upgrades. We market and sell our products through our direct sales force.

Our account managers, field and application engineers, service and technical support specialists are located throughout Asia, the US and Europe. We have established an industrial site in Linkou and Tainan, Taiwan. The primary goal of this site is to serve as a supplementary engine to propel ASML's long-term growth, by means of:

• Featuring customer support and training, logistics, refurbishment, technology and application development and also producing all YieldStar systems;

• Enabling sourcing of equipment modules, components and services in the region; and

• Performing as a training center to develop worldwide talent for our workforce and customers.

### Revenue per Geographic Market

In 2016, we derived 75.3 percent of net sales from Asia, 16.6 percent from the US and 8.1 percent from EMEA (2015: Asia: 77.3 percent; US: 19.3 percent and EMEA: 3.4 percent; 2014: Asia: 64.3 percent; US: 32.3 percent and EMEA: 3.4 percent).

### Manufacturing, Logistics and Suppliers

The execution of our business model is supported by outsourcing production of a significant part of components and modules that comprise our lithography systems, working in partnership with suppliers from all over the world. Our manufacturing activities comprise subassembly and testing of certain modules and the final assembly and fine tuning/testing of a complete system from components and modules that are manufactured to our specifications by third parties and by us. All of our manufacturing activities are performed in cleanroom facilities in Veldhoven, the Netherlands, in Wilton, Connecticut and in San Diego, California, both the US, in Beijing, China, in Linkou and Tainan, Taiwan and in Pyeongtaek, South Korea. We procure system components and subassemblies from single suppliers or a limited group of suppliers in order to ensure overall quality and on-time delivery. We jointly operate a strategy with suppliers known as "value sourcing", which is based on competitive performance. The essence of value sourcing is to maintain a supply base that is world class and globally competitive.

Value sourcing is intended to align the performance of our suppliers with our requirements on quality, logistics, technology, cost, and sustainability management.

Our value sourcing strategy is based on the following strategic principles:

- Maintaining long-term relationships with our suppliers;
- Sharing risks and rewards with our suppliers;
- Dual sourcing of knowledge, globally, together with our suppliers; and
- Single sourcing of products, where possible or required.

Carl Zeiss SMT is our single supplier, and we are their single customer, of optical components for lithography systems. Carl Zeiss SMT is capable of developing and producing these items only in limited numbers and only through the use of manufacturing and testing facilities in Oberkochen and Wetzlar, Germany. In 2016, 27.6 percent of our aggregate cost of system sales was purchased from Carl Zeiss SMT (2015: 26.2 percent; 2014: 27.4 percent).

Our relationship with Zeiss is structured as a strategic alliance pursuant to several agreements executed in 1997 and subsequent years. These agreements define a framework in all areas of our business relationship. The partnership

between ASML and Zeiss is focused on continuous improvement of operational excellence. Pursuant to these agreements, ASML and Zeiss have agreed to continue their strategic alliance until either party provides at least three years notice of its intent to terminate.

On November 3, 2016 ASML and Zeiss announced that they agreed to strengthen their long-standing and successful partnership in the semiconductor lithography business. For more information, see Item 4.A. "History and Development of the Company".

In addition to Carl Zeiss SMT we also rely on other outside vendors for the components and subassemblies used in our systems and sources, each of which is obtained from a limited number of suppliers many of whom have almost exclusive competences in their respective industries.

We have a flexible labor model with a mix of fixed and flexible contracted labor throughout our departments and facilities in Veldhoven, the Netherlands. This reinforces our ability to adapt to semiconductor market cycles, including support for potential 24/7 production activities as needed.

Maximizing the flexibility of our technically-skilled workforce means we can shorten lead-times, adding value for customers. Flexibility also reduces our working capital requirements.

#### Research and Development

The semiconductor manufacturing industry is subject to rapid technological changes driven by Moore's Law. We believe that continued and timely development and introduction of new and enhanced products are essential for us to maintain our competitive position. As a result, we have historically devoted a significant portion of our financial resources to R&D programs, and we expect to continue to allocate significant resources to these efforts. In addition, we have established sophisticated development centers in Veldhoven, the Netherlands, in Wilton, Connecticut, San Diego and San Jose, California, all in the US, in Shenzhen and Beijing, both in China and in Linkou and Tainan, both in Taiwan. We are also involved in joint R&D programs with both public and private partnerships and consortiums, involving independent research centers, leading chip manufacturers and governmental programs. We aim to own or license our jointly developed technology and designs of critical components.

On July 9, 2012, we announced our CCIP to accelerate our development of EUV technology and 450mm silicon wafer technology, the latter was paused in 2013. For further information about CCIP, see Note 27 to our Financial Statements.

During 2013, together with imec (an independent research partner), we established an advanced patterning center located at the imec campus in Leuven, Belgium. Together we plan to address upcoming scaling challenges due to the chips industry's move towards single digit nanometer dimensions.

As of 2014, in order to conduct fundamental and applied research in areas that are key to unlocking innovation in the global semiconductor industry, we established ARCNL in Amsterdam, the Netherlands, together with the Foundation for Fundamental Research on Matter (part of the Netherlands Organization for Scientific Research) and the University of Amsterdam / Vrije Universiteit Amsterdam.

During 2015, researchers from ASML, ARCNL, Tata Steel and Vrije Universiteit Amsterdam joined forces to develop new techniques for imaging surfaces based on lensless microscopy.

On November 3, 2016 ASML and Zeiss announced that they agreed to strengthen their long-standing and successful partnership in the semiconductor lithography business. For more information about this strengthening of this partnership, see Item 4.A. "History and Development of the Company".

On November 22, 2016, we acquired HMI. For more information about this acquisition, see Item 4.A. "History and Development of the Company".

See Item 4.B. "Business Overview – Our Markets and Products - Products" and Item 5.A. "Operating Results—Results of Operations 2016 compared to 2015 – Research and Development Costs".

#### Intellectual Property

We rely on IPR such as patents, copyrights and trade secrets to protect our proprietary technology. We aim to obtain ownership rights on technology developed by us or for us, alternatively, to have license rights in place with respect to such technology.

Our IPR management focuses on protecting ASML's intellectual property and respecting the intellectual property of other parties. Preservation of intellectual property and other assets is one of our business principles and part of our Code of Conduct.

From late 2001 through 2004, ASML was a party to a series of civil litigation and administrative proceedings in which Nikon alleged ASML's infringement of Nikon patents generally relating to lithography. ASML in turn filed claims against Nikon. Pursuant to agreements executed on December 10, 2004, ASML and Nikon agreed to settle all pending worldwide patent litigation between the companies. The settlement included an exchange of releases, a patent cross-license agreement related to lithography equipment used to manufacture semiconductor devices, and payments

to Nikon by ASML. Under the Nikon Cross-License Agreement, ASML and Nikon granted to each other a non-exclusive license for use in the manufacture, sale, and use of lithography equipment, under their respective patents. The license granted relating to many of the patents of each party was perpetual, but the license relating to certain other of the patents expired at the end of 2009. Each party had the right to select a limited number of the other party's patents where the license for such patents expired in 2009 to be subject to a permanent covenant not to sue in respect of patent infringement claims. In October 2016, the Patent Selection was completed.

In addition, the Nikon Cross-License Agreement provided that following the termination of some of the licenses granted in the Nikon Cross-License Agreement on December 31, 2009, there would be a standstill period during which the parties agreed not to bring patent infringement suits against each other. This standstill period ran from January 1, 2010 through December 31, 2014. Damages resulting from claims for patent infringement occurring during the Cross-License Transition Period are limited to three percent of the net sales price of applicable licensed products including optical components.

Accordingly, from January 1, 2015, both Nikon and we are no longer prohibited under the agreement from bringing claims against each other on the basis of infringement of patents subject to the Nikon Cross-License Agreement, other than perpetually licensed patents. In addition, as described above, the Patent Selection was completed in October 2016. Therefore, there is now a defined group of patents owned by each party for which the license granted to the other party has expired.

If Nikon files suit against us alleging patent infringement, we may incur substantial legal fees and expenses, and we may not prevail. Similarly, if we file suit against Nikon alleging patent infringement, we may incur substantial legal fees and expenses, and we may not prevail. Patent litigation is complex and may extend for a protracted period of time, giving rise to the potential for both substantial costs and diverting the attention of key management and technical personnel. Potential adverse outcomes from patent litigation may include, without limitation, payment of significant monetary damages, injunctive relief prohibiting the sale of products, and/or settlement involving significant costs to be paid by us, any of which may have a material adverse effect on our business, financial condition and/or results of operations. We are unable to predict at this time whether any such patent suit will in fact materialize, or, if so, what its outcome might be.

In connection with entering into the Nikon Cross-License Agreement, ASML entered into a sublicense agreement with Zeiss, effective November 12, 2004, pursuant to which Zeiss granted ASML a non-exclusive license of certain of the rights it received from Nikon under the Nikon-Zeiss Patent Cross-License Agreement between Nikon and Zeiss effective November 12, 2004.

In 2007, ASML and Zeiss signed an agreement with Canon for the global cross-license of patents in their respective fields of semiconductor lithography and optical components, used to manufacture ICs. The Canon Cross-License Agreement expired on December 31, 2016.

See Item 3.D. "Risk Factors – Risks related to ASML – Failure to adequately protect the intellectual property rights upon which we depend could harm our business" and "Risk Factors – Risks related to ASML – Defending against intellectual property claims brought by others could harm our business".

#### Competition

The semiconductor equipment industry is highly competitive. The principal elements of competition in our market are:

- The technical performance characteristics of a lithography system;
- The cost of ownership of lithography systems based on purchase price, maintenance costs, availability, productivity, and customer service and support costs;
- The exchange rate of the euro against the functional currency of our competitors and our customers, particularly against the Japanese yen;
- The strength and breadth of our portfolio of patents and other intellectual property rights; and
- Our customers' desire to obtain lithography equipment from more than one supplier.

We believe that the market for lithography systems and the investments required to be a significant competitor in this market segment has resulted in increased competition for market share through aggressive prosecution of patents. Our competitiveness depends upon our ability to protect and defend our patents, as well as our ability to develop new and enhanced semiconductor equipment that is competitively priced and introduced on a timely basis.

#### Government Regulation

Our business is subject to direct and indirect regulations in each of the countries in which our customers or we do business. As a result, changes in various types of regulations could affect our business adversely. The implementation of new safety, environmental or legal requirements could impact our products, or our manufacturing or distribution processes, and could affect the timing of product introductions, the cost of our production, and products as well as

their commercial success. The impact of these changes in regulation could adversely affect our business, financial condition and our results of operations even where the specific regulations do not directly apply to us or to our products.

C. Organizational Structure

ASML Holding N.V. is a holding company that operates through its subsidiaries. Our major operating subsidiaries, each of which is ultimately wholly-owned by ASML Holding N.V., are ASML Netherlands B.V., ASML Systems B.V., ASML Hong Kong Ltd. and ASML US Inc.

See Exhibit 8.1 for a list of our main subsidiaries.

#### D. Property, Plant and Equipment

We lease a number of our facilities under operating leases. We also own a number of buildings, mainly consisting of production facilities in Veldhoven, the Netherlands, in Wilton, Connecticut, and San Diego, California, both in the US, in Linkou and Tainan, both in Taiwan and in Pyeongtaek, South-Korea. The book value of land and buildings owned amounts to EUR 1,082.0 million as of December 31, 2016 compared with EUR 1,067.7 million as of December 31, 2015. See Note 12 to our Financial Statements.

Subject to market conditions, we expect that our capital expenditures (purchases of property, plant and equipment) in 2017 will be approximately EUR 300 million. These expenditures will mainly consist of further expansion and upgrades of facilities. We expect to finance these capital expenditures through cash generated by operations and existing cash and cash equivalents.

##### Facilities in Europe

Our headquarters, main manufacturing and R&D facilities are located at a single site in Veldhoven, the Netherlands. This state-of-the-art facility includes 66 thousand square meters of office space and 50 thousand square meters of cleanroom used for manufacturing and R&D activities and 24 thousand square meters of warehouses. Our facilities in Veldhoven, the Netherlands are partly owned and partly leased. During 2015 we have exercised purchase options which are effectuated in 2016. Some of our office facilities at our headquarters in Veldhoven, the Netherlands, are financed through a special purpose vehicle that is a VIE. We also lease several sales and service facilities at locations across Europe.

##### Facilities in the United States

Our US head office is located in a 5 thousand square meter office building in Chandler, Arizona. We maintain R&D and manufacturing operations in a 28 thousand square meter facility in Wilton, Connecticut, and a 9 thousand square meter facility in San Jose, California. Furthermore, our facilities in San Diego include 25 thousand square meters of buildings used for manufacturing and office space, 19 thousand square meters of buildings used for engineering and R&D activities and 7 thousand square meters of buildings used for warehousing. As a result of the HMI acquisition, our facilities in San Jose, California expanded by approximately 34 thousand square meters for R&D and local sales and service activities.

##### Facilities in Asia

Our Asian headquarters is located in Hong Kong, The People's Republic of China. In addition, our facility in Linkou, Taiwan comprises a cleanroom (approximately 3 thousand square meters) and office space (approximately 6 thousand square meters). Our facility in Korea comprises of a cleanroom (approximately 700 square meters) and office space (approximately 6 thousand square meters). We also lease and own several sales, service and training facilities at locations across Asia. As a result of the Cymer acquisition, we acquired a manufacturing facility in Pyeongtaek, South Korea, mainly used for refurbishment activities of light sources. As a result of the HMI acquisition, we acquired manufacturing facilities in Tainan, Taiwan (approximately 8 thousand square meters) and Beijing, China (approximately 4 thousand square meters) and office space in Hsinchu, Taiwan (approximately 2 thousand square meters). Additionally, both Cymer and HMI lease various smaller locations across Asia which are mainly used for local sales and service activities.

##### Item 4A Unresolved Staff Comments

Not applicable.

##### Item 5 Operating and Financial Review and Prospects

All information disclosed in this item is provided as a supplement to, and should be read in conjunction with, our Financial Statements and the accompanying Notes to the Consolidated Financial Statements included in Item 18 "Financial Statements".

##### Executive Summary

##### Business Strategy

##### Our Vision and Mission

Our vision is to enable affordable microelectronics that improve the quality of life.

To achieve this, our mission is to invent, develop, manufacture and service advanced technology for high-tech lithography, metrology and software solutions for the semiconductor industry. ASML's guiding principle is continuing

Moore's Law towards ever smaller, cheaper, more powerful and energy-efficient semiconductors. This results in increasingly powerful and capable electronics, with faster processing speeds, that enable the world to progress within a multitude of fields, including healthcare, technology, communications, energy, mobility, and entertainment. ASML creates economic value with strong financial results; social value by enhancing the welfare of our employees, suppliers and the communities we operate in; and environmental value by improving the energy efficiency of chips.

#### Our Strategy

We are a focused supplier of patterning products and services to IC manufacturers, providing high-performance hardware and software that allow our customers to increase the value and capability of their microchips, while reducing their cost. We work with a network of long-term partners to share the risk and reward of inventing, designing and manufacturing our high-end and market-leading technology. We set ourselves aggressive targets to get our innovations into the hands of our customers faster, while enhancing the value and reliability of our products with well-integrated software and services.



We have the following strategic objectives that we want to achieve for our stakeholders in the period from 2016 to 2021:

**Employees:** We want to secure long-term employability for our employees by offering them continuous professional and personal development. We need to equitably balance the company's need for flexibility with our employees' desire for long-term employment and security.

**Suppliers:** We need to create long-term relationships with our suppliers based on technological capability, reliability and transparency. We do this as we share with them both the risks and rewards of our business.

**Customers:** For our customers, we need to create customer value by enabling the continued shrinkage of integrated circuits. We need to deliver quality and help reduce total cost of ownership of both our systems and services.

**Society:** We aim to achieve our business objectives in a responsible manner, taking into account the economic, social and environmental impact of our activities.

**Shareholders:** For our investors, we need to improve our financial results and strive for profitability. We seek to meet targets for total net sales, gross margin, expenditure, cash conversion, and return on investment.

These are translated into five corporate priorities and several, more detailed, business priorities that guide our entire company.

**Corporate Priority 1 - "Make it work":** Execute the product and installed base services roadmap in EUV, DUV and Holistic Lithography.

**Corporate Priority 2 - "Make it well":** Deliver quality products and services that consistently meet or exceed the expectations as agreed with customers, reinforced by an ASML quality culture.

**Corporate Priority 3 - "Make it together":** Drive the patterning ecosystem with customers, suppliers and peers in target market segments.

**Corporate Priority 4 - "Make it worth it":** Improve return on investments for ASML and its stakeholders with a focus on cost of ownership and cost awareness.

**Corporate Priority 5 - "Make us grow":** Develop our people and processes to support the growth of the organization towards a EUR 11 billion company.

In addition to our corporate priorities, other strategic priorities are to proceed with the successful industrialization of EUV, secure DUV competitiveness, build a leadership position in patterning fidelity control and plan for the introduction of High-NA.

For more information about our corporate priorities, see our 2016 Integrated Report as published on our Website. See item 4.B. "Business Overview - Our Markets and Products".

#### Profitability

Our long-term business and financial model targets an annual revenue opportunity (ASML and HMI combined) of around EUR 11 billion in 2020 and a target EPS of more than EUR 9, thereby creating significant value for all stakeholders. Our roadmap to an annual revenue opportunity of EUR 11 billion is primarily based on organic growth. ASML continuously reviews its product roadmap and has, from time to time, made focused acquisitions to enhance the industrial value of its product offering. Based on such reviews and the assessment of clear potential product and value synergies, ASML may also entertain focused merger and acquisition activities in the future.

## ASML Operations Update on Key Performance Indicators

The following table presents the key performance indicators used by our BoM and senior management to regularly measure performance.

Year ended December 31 (in millions, unless otherwise indicated)	2014		2015		2016	
	EUR	% <sup>1</sup>	EUR	% <sup>1</sup>	EUR	% <sup>1</sup>
<b>Sales</b>						
Total net sales	5,856.3		6,287.4		6,794.8	
Increase in total net sales (%)	11.6		7.4		8.1	
Net system sales	4,242.8		4,237.2		4,571.1	
Net service and field option sales	1,613.5		2,050.2		2,223.7	
Sales of systems (in units)	136		169		157	
ASP of total system sales	31.2		25.1		29.1	
ASP of new system sales	35.6		28.5		32.4	
ASP of used system sales	5.8		5.1		4.0	
Value of systems backlog <sup>2</sup>	2,772.4		3,184.3		3,961.3	
Systems backlog (in units) <sup>2</sup>	82		79		83	
ASP of systems backlog <sup>2</sup>	33.8		40.3		47.7	
ASP of systems backlog (New) <sup>2</sup>	42.0		46.3		55.8	
ASP of systems backlog (Used) <sup>2</sup>	4.7		3.2		4.1	
Immersion systems recognized (in units) <sup>3</sup>	76		67		70	
EUV systems recognized (in units)	5		1		4	
<b>Profitability</b>						
Gross profit	2,596.4	44.3	2,895.7	46.1	3,044.5	44.8
Income from operations	1,282.2	21.9	1,565.1	24.9	1,657.7	24.4
Net income	1,196.6	20.4	1,387.2	22.1	1,471.9	21.7
<b>Liquidity</b>						
Cash and cash equivalents	2,419.5		2,458.7		2,906.9	
Short-term investments	334.9		950.0		1,150.0	
Net cash provided by operating activities	1,025.2		2,025.5		1,665.9	
Free cash flow <sup>4</sup>	664.0		1,652.6		1,341.2	

1. As a percentage of total net sales.

2. Our systems backlog and net bookings include all system sales orders for which written authorizations have been accepted (for EUV starting with the NXE:3350B).

3. Included in the total number of immersion systems recognized in 2016 are 46 units of our most advanced immersion technology NXT:1980 systems (2015: 7 and 2014: 0).

4. Free cash flow is defined as net cash provided by operating activities minus purchase of property, plant and equipment (2016: EUR 316.3 million; 2015: EUR 371.8 million and 2014: EUR 358.3 million) and purchase of intangible assets (2016: EUR 8.4 million; 2015: EUR 1.1 million and 2014: EUR 3.0 million). We believe that free cash flow is an important liquidity metric, reflecting cash that is available for acquisitions, to repay debt and to return money to our shareholders by means of dividends and share buybacks. Property, plant and equipment and purchase of intangible assets are deducted from net cash provided by operating activities because these payments are necessary to support the maintenance and investments in our assets to maintain the current asset base. Free cash flow therefore provides an alternative measure (in addition to net cash provided by operating activities) for investors to assess our ability to generate cash from our business. For further details about purchase of property, plant and equipment and purchase of intangible assets see the Consolidated Statements of Cash Flows.

**Backlog**

We started 2016 with a systems backlog of 79 systems. In 2016, we booked orders for 160 systems, and recognized sales for 157 systems (including 1 NXE:3300B system, which was not included in backlog). This resulted in a systems

backlog of 83 as of December 31, 2016.

As of December 31, 2016, our systems backlog was valued at EUR 3,961.3 million and includes 83 systems with an ASP of EUR 47.7 million. As of December 31, 2015, the systems backlog was valued at EUR 3,184.3 million and included 79 systems with an ASP of EUR 40.3 million. The ASP of our systems backlog increased as of December 31, 2016 compared to 2015 mainly as a result of the inclusion of 13 additional EUV systems.

For discussion on the main key performance indicators indicated above, see Item 5.A. "Operating Results" and Item 5.B. "Liquidity and Capital Resources".

## A. Operating Results

## Critical Accounting Policies Using Significant Estimates

Our discussion and analysis of our financial condition and results of operations are based upon our Financial Statements, which have been prepared in conformity with US GAAP. The preparation of our Financial Statements requires us to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities on the balance sheet dates, and the reported amounts of net sales and costs during the reported periods. Actual results could differ from those estimates. We evaluate our estimates continuously and we base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates if the assumptions prove incorrect. To the extent there are material differences between actual results and these estimates, our future results could be materially and adversely affected.

See Note 1 to our Financial Statements for a summary of our significant accounting policies.

## Results of Operations 2016 Compared to 2015

The following discussion and analysis of Results of Operations should be viewed in the context of the risks that may interfere with our business objectives or otherwise affect our results of operations, described in Item 3.D. "Risk Factors".

Set out below are our Consolidated Statements of Operations data for the years ended December 31, 2015 and 2016:

Year ended December 31 (in millions)	2015 EUR	2016 EUR
Total net sales	6,287.4	6,794.8
Cost of sales	(3,391.7)	(3,750.3)
Gross profit	2,895.7	3,044.5
Other income	83.2	93.8
Research and development costs	(1,068.1)	(1,105.8)
Selling, general and administrative costs	(345.7)	(374.8)
Income from operations	1,565.1	1,657.7
Interest and other, net	(16.5)	33.7
Income before income taxes	1,548.6	1,691.4
Provision for income taxes	(161.4)	(219.5)
Net income	1,387.2	1,471.9

Set out below are our Consolidated Statements of Operations data for the years ended December 31, 2015 and 2016 expressed as a percentage of our total net sales:

Year ended December 31	2015	2016
Total net sales	100.0	100.0
Cost of sales	(53.9)	(55.2)
Gross profit	46.1	44.8
Other income	1.3	1.4
Research and development costs	(17.0)	(16.3)
Selling, general and administrative costs	(5.5)	(5.5)
Income from operations	24.9	24.4
Interest and other, net	(0.3)	0.5
Income before income taxes	24.6	24.9
Provision for income taxes	(2.6)	(3.2)
Net income	22.1	21.7



## Total Net Sales and Gross Profit

The following table shows a summary of sales data, units sold, gross profit and ASP data for the years ended December 31, 2015 and 2016:

Year ended December 31 (in millions, unless otherwise indicated)	2015 EUR	2016 EUR
Total net sales	6,287.4	6,794.8
Net system sales	4,237.2	4,571.1
Net service and field option sales	2,050.2	2,223.7
Total sales of systems (in units)	169	157
Total sales of new systems (in units)	144	139
Total sales of used systems (in units)	25	18
Gross profit as a percentage of net sales	46.1	44.8
ASP of system sales	25.1	29.1
ASP of new system sales	28.5	32.4
ASP of used system sales	5.1	4.0

In 2016 we delivered record financial performance, with contributions from each of our wide range of product offerings, notably DUV and Holistic Lithography. It was also the year when the industry turned the corner on the introduction of EUV. We laid the foundation for further expansion of our pattern fidelity strategy with the acquisition of HMI. We strengthened our partnership with Zeiss by agreeing to acquire a minority stake in Carl Zeiss SMT to secure the extension of EUV beyond the next decade.

We shipped 46 TWINSCAN NXT:1980 systems in 2016, supporting the ramp of the 10 nm node as well as process development for the 7 nm foundry node. With the introduction of the NXT:1980, we have shortened the time to maturity, enabling a faster, more cost-effective node ramp. More customers are now recognizing the value of upgrading their existing NXT systems to the latest performance, which has supported our field upgrade sales. We also continue to support our XT and NXT systems with productivity upgrades and as part of the transition from planar to NAND, we have supported a large additional number of system relocations, helping customers to optimize their ramp plans.

Our fourth-generation EUV-system, the NXE:3350B, achieves an overlay of 1.0 nm, a 50% improvement over the NXE:3300B, and also features projection optics with a higher transmission, which means it generates higher throughput from a given EUV power source. In addition, the availability of systems in the field improved during 2016, with systems achieving a four-week availability of more than 80 percent regularly across the installed base; the best result was more than 90 percent over four weeks. Consistency of availability between systems and across sites still needs to be improved. EUV lithography met our 2016 productivity and availability targets. We achieved a productivity of more than 1,500 wafers per day, on a 3 day average in 2016 on an NXE:3350B system at a customer site.

Total net sales increased by 8.1 percent, driven by an increase in net system sales of 7.9 percent and an increase in net service and field option sales of 8.5 percent in 2016 compared to 2015. The increase in net system sales is mainly due to an increase in the number of EUV systems recognized in 2016 compared to 2015 (2016: 4 and 2015:1), which have a higher ASP than our DUV systems. The increase in net service and field option sales is mainly driven by an increase in the sales of productivity and focus upgrade packages.

The increase of the ASP of our new systems sold is due to a shift in the product mix of systems sold towards more high-end systems (e.g. more EUV and ArFi systems, less KrF systems) in 2016 compared to 2015.

Gross profit increased by EUR 148.8 million mainly due to a shift in the product mix of systems sold towards more high-end systems.

Gross profit as a percentage of total net sales decreased from 46.1 percent in 2015 to 44.8 percent in 2016 primarily driven by higher EUV system sales (which currently have a gross margin below the average of our DUV systems), partly offset by a shift in product mix of systems sold towards more high-end systems.

Other Income

Other income consists of contributions for R&D programs under the NRE funding arrangements from certain Participating Customers in the CCIP and amounted to EUR 93.8 million for 2016 (2015: EUR 83.2 million).

### Research and Development Costs

R&D costs (net of credits and excluding contributions under the NRE Funding Agreements from Participating Customers in the CCIP) were EUR 1,105.8 million in 2016 as compared to EUR 1,068.1 million in 2015. R&D costs for both 2016 and 2015 were primarily focused on programs supporting EUV, DUV immersion, and Holistic Lithography. In 2016, R&D activities mainly related to:

- EUV - Further improving productivity, and supporting the design and industrialization of our NXE:3400B system including pellicle development.

- DUV immersion - Focused on development of our next generation immersion platform, the NXT:2000i, as well as maturing the product introduction in the field of our NXT:1980 system.

- Holistic Lithography - Further development of YieldStar, process window control and enlargement solutions.

### Selling, General and Administrative Costs

SG&A costs increased by 8.4 percent mainly driven by HMI acquisition related expenses, an increase in the number of employees, and further impacted by exchange rate fluctuations, primarily related to our US operations.

### Interest and Other, Net

Interest and other, net increased by EUR 50.2 million in 2016 compared to 2015. In addition, in 2016 we recognized EUR 55.2 million gain on foreign currency revaluations on transactions and balances relating to the HMI acquisition in Interest and other, net.

### Income Taxes

The effective tax rate increased to 13.0 percent of income before income taxes in 2016 compared to 10.4 percent in 2015. This increase is mainly due to a change in legislation. Prior to 2016, the RDA was a corporate income tax credit used for R&D activities. As of 2016, the RDA is converted into a wage tax benefit reducing R&D costs.

### Net Income

Net income in 2016 amounted to EUR 1,471.9 million, or 21.7 percent of total net sales, representing EUR 3.46 basic net income per ordinary share, compared with net income in 2015 of EUR 1,387.2 million, or 22.1 percent of total net sales, representing EUR 3.22 basic net income per ordinary share.

### Results of Operations 2015 Compared to 2014

Set out below our Consolidated Statements of Operations data for the years ended December 31, 2014 and 2015:

Year ended December 31 (in millions)	2014 EUR	2015 EUR
Total net sales	5,856.3	6,287.4
Cost of sales	(3,259.9)	(3,391.7)
Gross profit	2,596.4	2,895.7
Other income	81.0	83.2
Research and development costs	(1,074.1)	(1,068.1)
Selling, general and administrative costs	(321.1)	(345.7)
Income from operations	1,282.2	1,565.1
Interest and other, net	(8.6)	(16.5)
Income before income taxes	1,273.6	1,548.6
Provision for income taxes	(77.0)	(161.4)
Net income	1,196.6	1,387.2



Set out below are our Consolidated Statements of Operations data for the years ended December 31, 2014 and 2015 expressed as a percentage of our total net sales:

Year ended December 31	2014	2015
Total net sales	100.0	100.0
Cost of sales	(55.7)	(53.9)
Gross profit	44.3	46.1
Other income	1.4	1.3
Research and development costs	(18.3)	(17.0)
Selling, general and administrative costs	(5.5)	(5.5)
Income from operations	21.9	24.9
Interest and other, net	(0.1)	(0.3)
Income before income taxes	21.7	24.6
Provision for income taxes	(1.3)	(2.6)
Net income	20.4	22.1

#### Net Sales and Gross Profit

The following table shows a summary of net sales, units sold, gross profit and ASP data for the years ended December 31, 2014 and 2015:

Year ended December 31	2014	2015
(in millions EUR, unless otherwise indicated)	EUR	EUR
Net sales	5,856.3	6,287.4
Net system sales	4,242.8	4,237.2
Net service and field option sales	1,613.5	2,050.2
Total sales of systems (in units)	136	169
Total sales of new systems (in units)	116	144
Total sales of used systems (in units)	20	25
Gross profit as a percentage of net sales	44.3	46.1
ASP of system sales	31.2	25.1
ASP of new system sales	35.6	28.5
ASP of used system sales	5.8	5.1

Net sales increased by 7.4 percent, driven by the increase in net service and field option sales of 27.1 percent, with a similar level of net system sales in 2015 compared to 2014. The increase in net service and field option sales was mainly driven by:

• An increase in the sales of productivity and focus upgrade packages; and

• Higher service sales mainly resulting from an increased installed base.

The decrease of the ASP of our new systems sold was due to a shift in the product mix of systems sold towards more lower-end systems (more KrF systems and less EUV systems) in 2015 compared to 2014.

Gross profit increased by EUR 299.3 million mainly due to higher service and field option sales and lower EUV system sales (which did not contribute to gross profit).

Gross profit as a percentage of net sales increased from 44.3 percent in 2014 to 46.1 percent in 2015 primarily driven by lower EUV system sales (which did not contribute to gross profit).

#### Other Income

Other income consisted of contributions for R&D programs under the NRE funding arrangements from certain Participating Customers in the CCIP and amounted to EUR 83.2 million for 2015 (2014: EUR 81.0 million).

#### Research and Development Costs

R&D costs (net of credits and excluding contributions under the NRE Funding Agreements from Participating Customers in the CCIP) were EUR 1,068.1 million in 2015 as compared to EUR 1,074.1 million in 2014. R&D costs

for both 2015 and 2014 were primarily focused on programs supporting EUV, DUV immersion, and Holistic Lithography. In 2015, R&D activities mainly related to:

- EUV - Further improving availability and productivity, and supporting the design of our NXE:3400B system;
- DUV immersion - Focused on the final stages of development relating to our NXT:1980 systems, of which we shipped the first systems in 2015, as well as development of future DUV platforms; and
- Holistic Lithography - Further development of Yieldstar and process window control solutions.

#### Selling, General and Administrative Costs

SG&A costs increased by 7.7 percent mainly driven by an increase in the number of employees, further impacted by exchange rate fluctuations, primarily related to our US operations.

#### Income Taxes

The effective tax rate increased to 10.4 percent of income before income taxes in 2015 compared to 6.0 percent in 2014. In 2014 the tax rate was favorably impacted by settling agreements entered into by ASML Netherlands B.V. and Cymer LLC., prior to our acquisition of Cymer in 2013, at different tax rates.

#### Net Income

Net income in 2015 amounted to EUR 1,387.2 million, or 22.1 percent of total net sales, representing EUR 3.22 basic net income per ordinary share, compared with net income in 2014 of EUR 1,196.6 million, or 20.4 percent of total net sales, representing EUR 2.74 basic net income per ordinary share.

#### B. Liquidity and Capital Resources

Our cash and cash equivalents increased to EUR 2,906.9 million as of December 31, 2016 from EUR 2,458.7 million as of December 31, 2015 and our short-term investments increased to EUR 1,150.0 million as of December 31, 2016 from EUR 950.0 million as of December 31, 2015.

Our principal sources of liquidity consist of cash flows from operations, cash and cash equivalents as of December 31, 2016 of EUR 2,906.9 million, short-term investments as of December 31, 2016 of EUR 1,150.0 million and available credit facilities as of December 31, 2016 of EUR 700.0 million. In addition, we may from time to time raise additional capital in debt and equity markets. Our goal is to remain an investment grade rated company and maintain a capital structure that supports this.

We invest our cash and cash equivalents and short-term investments in short-term deposits with financial institutions that have good credit ratings and in money market funds that invest in high-rated short-term debt securities of financial institutions and governments. Our investments are denominated in euros and US dollar.

Our available credit facilities amount to EUR 700.0 million as of December 31, 2016 and as of December 31, 2015.

No amounts were outstanding under these credit facilities at the end of 2016 and 2015. The amounts available at December 31, 2016 and 2015 consisted of one EUR 700.0 million committed revolving credit facility with a group of banks. In 2015, the terms and conditions of the facility were amended by, among other things, removing the financial covenant and by extending the maturity until 2020. In 2016, we exercised our extension option, extending the maturity date to 2021. Outstanding amounts under this credit facility will bear interest at EURIBOR or LIBOR plus a margin that depends on our credit rating.

In July 2016, we completed an offering of our EUR 500 million 0.625 percent senior notes due 2022, with interest payable annually on July 7. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on July 7, 2022.

Also in July 2016, we completed an offering of our EUR 1,000 million 1.375 percent senior notes due 2026, with interest payable annually on July 7. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on July 7, 2026.

In November 2016, we completed an offering of our EUR 750 million 1.625 percent senior notes due 2027, with interest payable annually on May 28. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on May 28, 2027.

We have the following repayment obligations relating to our Eurobonds:

€EUR 238.2 million in 2017;

€EUR 500.0 million in 2022;

€EUR 750.0 million in 2023;

€EUR 1,000.0 million in 2026; and

€EUR 750.0 million in 2027.

ASML seeks to ensure that our principal sources of liquidity will be sufficient to satisfy its liquidity requirements throughout every phase of the industry cycles.

Our liquidity needs are affected by many factors, some of which are based on the normal on-going operations of the business, and others that relate to the uncertainties of the global economy and the semiconductor industry. Although our cash requirements fluctuate based on the timing and extent of these factors, we believe that cash generated from operations, together with our other sources of liquidity are sufficient to satisfy our current requirements, including our expected capital expenditures and repayment obligations in 2017. We intend to return cash to our shareholders on a regular basis in the form of dividend payments and, subject to our actual and anticipated liquidity requirements and other relevant factors, share buybacks or capital repayments.

See Consolidated Statements of Cash Flows and Notes 4, 5, 14, 15, 25 and 26 to our Financial Statements.

### C. Research and Development, Patents and Licenses, etc.

#### Research and Development

See Item 4.B. "Business Overview – Research and Development" and Item 5.A. "Operating Results – Results of Operations 2016 Compared to 2015".

#### Intellectual Property Matters

See Item 3.D. "Risk Factors – Risks related to ASML – Failure to adequately protect the intellectual property rights upon which we depend could harm our business" and "Risk Factors – Risks related to ASML – Defending against intellectual property claims brought by others could harm our business" and Item 4.B. "Business Overview – Intellectual Property".

#### D. Trend Information

We expect that Moore's Law will continue in the coming decade including industry fundamentals of a decline in cost per transistor. There is a strong demand for advanced ICs, supported by a value chain with means and incentive to support this. However, cost and process complexity of shrinking with multiple patterning together with new device structures and materials reshapes customer roadmaps, resulting in a continued need to improve DUV lithography performance while exploiting execution of agreed EUV targets for the future and complementing it with a portfolio of product options, enhancements and upgrade packages that support product stewardship and optimize the cost of ownership over the entire lifetime of our systems. It also results in zero tolerance for non-performance, driving improvement of quality and cost efficiency of our products and services.

We expect the following in the first-quarter of 2017:

- Total net sales of approximately EUR 1.8 billion;

- Shipment of our first NXE:3400B EUV system, for which we expect to record revenue in the third quarter of 2017, as this system will ship in a non-final configuration. Together with the five NXE:3350B systems already shipped before 2017, it will be used in our customers' factories for preparing the introduction of EUV into high volume manufacturing;

- Net service and field option sales will be driven by continued demand for Holistic Lithography options, high value upgrades and our growing installed base;

- Gross margin of around 47 percent including the effect from the purchase price allocation for the HMI acquisition.

- The negative impact of the purchase price allocation adjustments is about one percentage point. The impact of the HMI acquisition on gross profit for the full fiscal year is expected to be about EUR 90 million and is expected to decrease to about EUR 40 million per year from 2018 onwards;

- R&D costs of about EUR 320 million. The increase in R&D costs is driven by the inclusion of HMI and accelerated investments in Pattern Fidelity metrology, our contributions to Carl Zeiss SMT's High-NA developments, our own High-NA development acceleration and the strong US Dollar;

- Other income of about EUR 23 million, which consists of contributions from the participants of the CCIP;

- SG&A costs of about EUR 95 million;
- and

- An effective annualized tax rate of between 13 and 14 percent.

In Holistic Lithography, we successfully completed the acquisition of HMI in November 2016 and began the integration of HMI's e-beam systems into our Holistic Lithography portfolio.

The following table sets forth our systems backlog<sup>1</sup> as of December 31, 2015 and 2016.

Year ended December 31	2015	2016
(in millions EUR, unless otherwise indicated)		
New systems backlog (in units)	68	70
Used systems backlog (in units)	11	13
Total systems backlog (in units)	79	83
Value of new systems backlog	3,149.6	3,907.9
Value of used systems backlog	34.7	53.4
Total value of systems backlog	3,184.3	3,961.3

ASP of new systems backlog	46.3	55.8
ASP of used systems backlog	3.2	4.1
ASP of total systems backlog	40.3	47.7

<sup>1</sup> Our systems backlog includes all system sales orders for which written authorizations have been accepted (for EUV starting with the NXE:3350B).

Historically, orders have been subject to cancellation or delay by the customer. Due to possible customer changes in delivery schedules and to cancellation of orders, our systems backlog at any particular date is not necessarily indicative of actual sales for any succeeding period.

Logic chip manufacturers have built up capacity for the 10 nm node in 2016, and we also saw healthy demand from Memory manufacturers both for DRAM and NAND production. Together with solid growth in net service and field option sales. These trends are expected to continue into 2017.

Regarding EUV, we executed on the customer-aligned productivity and availability targets, which gave customers the confidence to place 13 orders in 2016, bringing our EUV backlog to 18 systems worth EUR 2.0 billion, or about half of the total backlog at December 31, 2016. These orders show that customers are committed to take EUV into production, and we expect that the first customers will start volume manufacturing with EUV at the 7 nm logic node and the mid-10 nm DRAM node. We are now moving to the next phase of EUV industrialization. We remain committed to deliver the performance requirements for customer volume manufacturing, while continuing to build up our manufacturing, supply chain and service capabilities.

The trends discussed in this Item 5.D. "Trend information" are subject to risks and uncertainties. See "Part I – Special Note Regarding Forward Looking Statements" and item 3.D. "Risk Factors".

#### E. Off-Balance Sheet Arrangements

None.

#### F. Tabular Disclosure of Contractual Obligations

Our contractual obligations as of December 31, 2016 can be summarized as follows:

Payments due by period (in thousands)	Total EUR	1 year EUR	2 year EUR	3 year EUR	4 year EUR	5 year EUR	After 5 years EUR
Long-Term Debt Obligations, including interest expense <sup>1</sup>	3,757,498	306,215	83,752	56,718	56,762	56,246	3,197,805
Operating Lease Obligations	103,568	35,486	23,613	18,616	13,577	7,050	5,226
Purchase Obligations	2,202,595	1,923,647	233,021	9,481	7,901	7,417	21,128
Zeiss High-NA Funding Commitment	748,000	129,000	219,500	179,500	113,000	69,000	38,000
Total Contractual Obligations <sup>2</sup>	6,811,661	2,394,348	559,886	264,315	191,240	139,713	3,262,159

1. See Note 14 to our Financial Statements for the amounts excluding interest expense.

2. We have excluded unrecognized tax benefits for an amount of EUR 136.4 million as the amounts that will be settled in cash are not known and the timing of any payments is uncertain.

Long-term debt obligations mainly relate to interest payments and principal amounts of our Eurobonds. See Note 14 to our Financial Statements.

Operating lease obligations include leases of equipment and facilities. Lease payments recognized as an expense were EUR 45.2 million, EUR 45.1 million and EUR 43.9 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Several operating leases for our buildings contain purchase options, exercisable at the end of the lease, and in some cases, during the term of the lease. During 2015 we have exercised these options which are effectuated in 2016, therefore no purchase options exist as per year end December 31, 2016.

Purchase obligations exist of purchase commitments towards suppliers in the ordinary course of business. ASML expects that it will honor these purchase obligations to fulfill future sales, in line with the timing of those future sales. The general terms and conditions of the agreements relating to the major part of our purchase commitments as of December 31, 2016 contain clauses that enable us to delay or cancel delivery of ordered goods and services up to the dates specified in the corresponding purchase contracts. These terms and conditions that we typically agree with our supply chain partners give us additional flexibility to adapt our purchase obligations to our requirements in light of the cyclical and technological developments inherent in the industry in which we operate. We establish a provision for cancellation costs when the liability has been incurred and the amount of cancellation fees is reasonably estimable.

On November 3, 2016 ASML and Zeiss announced that they agreed to strengthen their long-standing and successful partnership in the semiconductor lithography business. ASML has agreed with Zeiss to support Carl Zeiss SMT's R&D costs, capital expenditures and other supply chain investments, in respect of High NA, for an amount of EUR 760.0 million over 6 years. At the end of 2016 an amount of EUR 12.0 million was paid, resulting in a remaining commitment as of December 31, 2016 of EUR 748.0 million.

G. Safe Harbor

See Part I "Special Note Regarding Forward-Looking Statements".



## Item 6 Directors, Senior Management and Employees

## A. Directors and Senior Management

The members of our SB and our BoM are as follows:

Name	Title	Year of Birth	Term Expires
Gerard J. Kleisterlee <sup>2,3</sup>	Chairman of the Supervisory Board	1946	2019
Douglas A. Grose <sup>2,3</sup>	Vice Chairman and Member of the Supervisory Board	1950	2017
Pauline F.M. van der Meer Mohr <sup>1,2</sup>	Member of the Supervisory Board	1960	2017
Wolfgang H. Ziebart <sup>3,4</sup>	Member of the Supervisory Board	1950	2017
Clara (Carla) M.S. Smits-Nusteling <sup>1</sup>	Member of the Supervisory Board	1966	2017
Johannes (Hans) M.C. Stork <sup>3,4</sup>	Member of the Supervisory Board	1954	2018
Antoinette (Annet) P. Aris <sup>3,4</sup>	Member of the Supervisory Board	1958	2019
Rolf-Dieter Schwalb <sup>1,4</sup>	Member of the Supervisory Board	1952	2019
Peter T.F.M. Wennink	President, Chief Executive Officer and Chairman of the Board of Management	1957	2018
Martin A. van den Brink	President, Chief Technology Officer and Vice Chairman of the Board of Management	1957	2018
Frits J. van Hout	Executive Vice President, Chief Program Officer and member of the Board of Management	1960	2017
Frédéric J.M. Schneider-Maunoury	Executive Vice President, Chief Operations Officer and Member of the Board of Management	1961	2018
Wolfgang U. Nickl	Executive Vice President, Chief Financial Officer and Member of the Board of Management	1969	2018

1. Member of the AC.

2. Member of the Selection and Nomination Committee.

3. Member of the Technology and Strategy Committee.

4. Member of the RC.

5. Ms. Van der Meer Mohr and Messrs. Grose and Ziebart are to retire by rotation at the 2017 AGM.

Mr. Van der Poel retired from the SB per the 2016 AGM.

The Works Council has an enhanced right to make recommendations for nomination of one-third of the members of the SB, which recommendations may be rejected by the SB in limited circumstances. See Item 6.C. "Board Practices — Supervisory Board". At the AGM held in 2009, Ms. Van der Meer Mohr was appointed pursuant to this recommendation right, and at the 2013 AGM she was reappointed in accordance with this recommendation right. At the 2014 AGM, Mr. Stork was appointed pursuant to this recommendation right. At the 2015 AGM, Ms. Aris was appointed based on this enhanced recommendation right.

The SB spends considerable time discussing its future composition, in view of the rotation schedule and envisaged changes in the coming years. For the fulfillment of vacancies several factors are taken into consideration. The SB profile includes the intention to have at least 30 percent representation of each gender in ASML's SB. This aspect will be taken into account in the nominations for (re)appointment of SB members that will be submitted to the 2017 AGM. There are no family relationships among the members of our SB and our BoM.

## Director and Officer Biographies

## Gerard J. Kleisterlee

Mr. Kleisterlee was appointed to our SB in April 2015 and was appointed Chairman in 2016. Mr. Kleisterlee joined Philips in 1974. In 2001 Mr. Kleisterlee became President and CEO of the Board of Management of Royal Philips

N.V., a position he has held until 2011. Currently, Mr. Kleisterlee is the Chairman of the Board of Vodafone Group Plc. and Non-Executive Director of Royal Dutch Shell Plc.

Douglas A. Grose

Mr. Grose was appointed to our SB in April 2013. Mr. Grose was CEO of GlobalFoundries. Mr. Grose also served as senior vice president of technology development, manufacturing and supply chain for AMD. Prior to that, Mr. Grose spent 25 years at IBM as General Manager of technology development and manufacturing for the systems and technology group. Currently, Mr. Grose is the CTO of BessTech and a member of the Board of Directors of SBA Materials, Inc.

Pauline F.M. van der Meer Mohr

Ms. Van der Meer Mohr was appointed to our SB in March 2009. Ms. Van der Meer Mohr was managing partner of the Amstelbridge Group, Senior Executive Vice President at ABN AMRO Bank, Head of Group Human Resources at TNT N.V., and has held several senior executive roles at the Royal/Dutch Shell group of companies in various areas. Ms. Van der Meer Mohr served as President of the Executive Board of the Erasmus University Rotterdam, the Netherlands until December, 2015. Currently, Ms. Van der Meer Mohr is the Chairperson of the supervisory board of EY Netherlands LLP, a member of the supervisory board of Royal DSM N.V., Non-Executive Director of HSBC Holdings Plc, Chairperson of the supervisory board of Nederlands Danstheater and a member of the Board Concertgebouw Fonds.

Wolfgang H. Ziebart

Mr. Ziebart was appointed to our SB in March 2009. Mr. Ziebart was President and CEO of Infineon Technologies A.G. Prior to that, Mr. Ziebart was on the Boards of Management of car components manufacturer Continental A.G. and automobile producer BMW A.G. Mr. Ziebart was the Group Engineering Director of Jaguar Land Rover Ltd. until April 2015. Currently, Mr. Ziebart is the Chairman of the supervisory board of Nordex SE and a member of the Board of Autoliv, Inc.

Clara (Carla) M.S. Smits-Nusteling

Ms. Smits-Nusteling was appointed to our SB in April 2013. Ms. Smits-Nusteling was CFO and a member of the Board of Management of Royal KPN N.V. Ms. Smits-Nusteling also held several finance and business related positions at Royal KPN N.V. and PostNL. Currently, Ms. Smits-Nusteling is a Non-Executive Director of the Board of Tele2 AB, a member of the Management Board of the Foundation Unilever N.V. Trust Office, Non-Executive Director of the Board of Directors of Nokia Corporation and lay judge of the Enterprise Court of the Amsterdam Court of Appeal.

Johannes (Hans) M.C. Stork

Mr. Stork was appointed to our SB in April 2014. Mr. Stork held various management positions at IBM Corporation, Hewlett Packard Company, Texas Instruments, Inc. and Applied Materials, Inc., including Senior Vice President and CTO of Texas Instruments, Inc. and Group Vice President and CTO of Applied Materials, Inc. Further, Mr. Stork was a member of the Board of Sematech. Currently, Mr. Stork serves as Senior Vice President and CTO of ON Semiconductor Corporation and is also a member of the Scientific Advisory Board of imec.

Antoinette (Annet) P. Aris

Ms. Aris was appointed to our SB in April 2015. Ms. Aris is Adjunct Professor of Strategy at INSEAD, France, a position she has held since 2003. From 1994 to 2003 Ms. Aris was a partner at McKinsey & Company in Germany. Ms. Aris was a member of the Board of Directors of Sanoma Oyj until April, 2015 and a member of the supervisory board of Kabel Deutschland AG until July, 2015. Currently, Ms. Aris is a Non-Executive Director of Thomas Cook Plc. and a member of the supervisory boards of ProSiebenSat.1 AG, Jungheinrich AG and ASR Nederland N.V.

Rolf-Dieter Schwalb

Mr. Schwalb was appointed to our SB in April 2015. Mr. Schwalb was CFO and member of the Board of Management of Royal DSM N.V. from 2006 to 2014. Prior to his appointment at DSM, Mr. Schwalb was CFO and member of the Executive Board of Beiersdorf AG. Before that, Mr. Schwalb held a variety of management positions in Finance, IT and Internal Audit at Beiersdorf AG and Procter & Gamble Co.

Peter T.F.M. Wennink

Mr. Wennink joined ASML in January, 1999 and was appointed as Executive Vice President, CFO and member of our BoM in July, 1999. Mr. Wennink was appointed as President and CEO on July 1, 2013. Mr. Wennink has an extensive background in finance and accounting. Prior to his employment with ASML, Mr. Wennink worked as a partner at Deloitte Accountants, specializing in the high technology industry with an emphasis on the semiconductor equipment industry. Mr. Wennink was a member of the supervisory board of Bank Insinger de Beaufort N.V. until December 31, 2016. Mr. Wennink is a member of the Dutch Institute of Registered Accountants, a member of the supervisory board of the Eindhoven University of Technology, and a member of the Advisory Board of the Investment Committee of Stichting Pensioenfonds ABP (Dutch pension fund for government employees). Mr. Wennink further serves on the board of the FME-CWM (the employers' organization for the technology industry in the Netherlands).

Martin A. van den Brink

Mr. Van den Brink joined ASML when the company was founded in 1984. Mr. Van den Brink held several positions in engineering and from 1995 he served as Vice President Technology. Mr. Van den Brink was appointed as Executive Vice President Product & Technology and member of the BoM in 1999. On July 1, 2013, Mr. Van den Brink was appointed as President and CTO. Mr. Van den Brink earned a degree in Electrical Engineering from HTS Arnhem (HAN University), and a degree in Physics (1984) from the University of Twente, the Netherlands. In 2012, he was awarded an honorary doctorate in physics by the UvA, the Netherlands.

#### Frits J. van Hout

Mr. Van Hout joined ASML in 1984 and rejoined ASML in 2001, after an eight year absence. He was appointed as a member of our BoM on March 26, 2009. Mr. Van Hout was appointed as Executive Vice President and CPO on July 1, 2013. Prior to that, Mr. Van Hout served as Executive Vice President and CMO, Executive Vice President Integral Efficiency, Senior Vice President Customer Support and held various other positions. From 1992 until 2001, Mr. Van Hout served as CEO of the Beyeler Group and held various management positions at Datacolor International. Mr. van Hout earned a Master's degree in Theoretical Physics (1981), University of Oxford; and a Master's degree in Applied Physics (1984), Eidgenössische Technische Hochschule, Zürich. Mr. Van Hout is a member of the Board of the Stichting Brainport, the Eindhoven Region Economic Development Board.

#### Frédéric J.M. Schneider-Maunoury

Mr. Schneider-Maunoury joined ASML in December, 2009, as Executive Vice President and COO and was appointed to our BoM on March 24, 2010. Prior to joining ASML, Mr. Schneider-Maunoury served as Vice President Thermal Products Manufacturing of the power generation and rail transport equipment group ALSTOM. Previously, Mr. Schneider-Maunoury was general manager of the worldwide Hydro Business of ALSTOM. Further, Mr. Schneider-Maunoury held various positions at the French Ministry of Trade and Industry. Mr. Schneider-Maunoury is a graduate of Ecole Polytechnique (1985) and Ecole Nationale Supérieure des Mines (1988) in Paris.

#### Wolfgang U. Nickl

Mr. Nickl joined ASML in December, 2013, as Executive Vice President and CFO and was appointed as a member of our BoM per the 2014 AGM. Prior to joining ASML, Mr. Nickl served as Executive Vice President and CFO at Western Digital Corporation, a US-headquartered, NASDAQ-listed developer and manufacturer of storage devices, where he held several financial and operational leadership roles. Before Western Digital, Mr. Nickl gained experience in finance and IT consulting. He earned a BA in Business from the University of Cooperative Education in Stuttgart, Germany, and an MBA from the University of Southern California's Marshall School of Business in Los Angeles, United States.

#### B. Compensation

The information required by Item 6.B. is incorporated by reference from our 2016 Statutory Annual Report (pages 6 through 11 and 106 through 109) which is included as exhibit 99.1 on Form 6-K furnished with the SEC on February 8, 2017.

#### C. Board Practices

##### General

We endorse the importance of good corporate governance, of which independent supervision, accountability and transparency are the most significant elements. Within the framework of corporate governance, it is important that a relationship of trust exists between the BoM, the SB, our employees and our shareholders.

We pursue a policy of active communication with our shareholders. In addition to the exchange of ideas at the General Meeting of Shareholders, other important forms of communication are the publication of our annual and quarterly financial results as well as press releases and publications posted on our Website.

Our corporate governance structure is intended to:

Provide shareholders with regular, reliable, relevant and transparent information regarding our activities, structure, financial condition and results of operations, performance and other information, including information on our social, ethical and environmental matters and policies;

Apply high-quality standards for disclosures, accounting and auditing; and

Apply stringent rules with regard to insider securities trading.

##### Two-Tier Board Structure

ASML is incorporated under Dutch law and has a two-tier board structure. Responsibility for the management of ASML lies with the BoM. Independent, non-executive members serve on the SB, which supervises and advises the members of the BoM in performing their management tasks. The BoM has the duty to keep the SB informed, consult with the SB on important matters and submit certain important decisions to the SB for its approval. The SB is responsible for supervising, monitoring and advising the BoM on: (i) the achievement of ASML's objectives,

(ii) ASML's strategy and management of risks inherent to ASML's business activities, (iii) the structure and operation of internal risk management and control systems, (iv) the financial reporting process and (v) the compliance with applicable legislation and regulations.

SB members are prohibited from serving as officers or employees of ASML, and members of the BoM cannot serve on the SB.

#### Board of Management

The BoM consists of at least two members or such larger number of members as determined by the SB. Members of the BoM are appointed by the SB. The SB must notify the General Meeting of Shareholders of the intended appointment of a member of the BoM. In accordance with the Dutch Corporate Governance Code, members of the BoM shall be appointed for a maximum period of four years, but may be re-appointed. Members of the BoM serve until the end of the term of their appointment, voluntary retirement, or suspension or dismissal by the SB. In the case of dismissal, the SB must first inform the General Meeting of Shareholders of the intended removal.

The SB determines the remuneration of the individual members of the BoM, in line with the remuneration policy adopted by the General Meeting of Shareholders, upon a proposal of the SB. ASML's remuneration policy is included in the Supervisory Board Report of the 2016 Statutory Annual Report.

For more details on the BoM, see Item 6.A. "Directors and Senior Management" and Item 6.B. "Compensation".

#### Supervisory Board

The SB consists of at least three members or such larger number as determined by the SB. The SB prepares a profile in relation to its size and composition; ASML's SB profile is posted on ASML's Website.

Members of the SB are appointed by the General Meeting of Shareholders from nominations of the SB. Nominations must be reasoned and must be made available to the General Meeting of Shareholders and the Works Council simultaneously. Before the SB presents its nominations, both the General Meeting of Shareholders and the Works Council may make recommendations (which the SB may reject). In addition, the Works Council has an enhanced right to make recommendations for nomination of one-third of the members of the SB, which recommendation may only be rejected by the SB: (i) if the relevant person is unsuitable or (ii) if the SB would not be duly composed if the recommended person were appointed as a SB member. If no agreement can be reached between the SB and the Works Council on these recommendations, the SB may request the Enterprise Chamber of the Amsterdam Court of Appeal to declare its objection legitimate. Any decision of the Enterprise Chamber on this matter is non-appealable.

Nominations of the SB may be rejected by the General Meeting of Shareholders by an absolute majority of the votes representing one-third of the total outstanding capital. If the votes cast in favor of such resolution do not represent one-third of the total outstanding capital, a new meeting can be convened at which the nomination can be rejected by an absolute majority. If a nomination is rejected, the SB must make a new nomination. If a nomination is not rejected and the General Meeting of Shareholders does not appoint the nominated person, the SB will appoint the nominated person.

Members of the SB serve for a maximum term of four years from the date of their appointment, or a shorter period as set out in the rotation schedule as adopted by the SB. They may be re-appointed, provided that their entire term of office does not exceed twelve years. The General Meeting of Shareholders may, with an absolute majority of the votes representing one-third of the total outstanding capital, dismiss the SB in its entirety for lack of confidence. In such event, the Enterprise Chamber of the Amsterdam Court of Appeal shall appoint new members of the SB at the request of the BoM.

Upon the proposal of the SB, the General Meeting of Shareholders determines the remuneration of the members of the SB. A member of the SB may not be granted any shares or share options by way of remuneration.

For more details on the SB, see Item 6.A "Directors and Senior Management" and Item 6.B."Compensation".

#### Approval of Board of Management Decisions

The BoM requires prior approval of the General Meeting of Shareholders for resolutions concerning an important change in the identity or character of ASML or its business, including:

- A transfer of all or substantially all of the business of ASML to a third party;
- Entering into or the termination of a long-term material joint venture between ASML and a third party; and
- An acquisition or divestment by ASML of an interest in the capital of a company with a value of at least one-third of ASML's assets (determined by reference to ASML's most recently adopted Statutory Annual Report).

#### Rules of Procedure

The BoM and the SB have adopted Rules of Procedure for each of the BoM, SB and the four Committees of the SB. These Rules of Procedure are posted on our Website.

#### Directors and Officers Insurance and Indemnification

Members of the BoM and SB, as well as certain senior management members, are insured under ASML's Directors and Officers Insurance Policy. Although the insurance policy provides for broad coverage, our directors and officers may incur uninsured liabilities. ASML has agreed to indemnify its members of the BoM and SB against any claims arising in connection with their position within ASML, provided that such claim is not attributable to willful misconduct or intentional recklessness.

#### Corporate Governance Developments

ASML continuously monitors and assesses applicable corporate governance rules, including recommendations and initiatives regarding principles of corporate governance. These include rules that have been promulgated in the United States both by NASDAQ and by the SEC. See also Item 16.G. "Corporate Governance".

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The Code came into effect on January 1, 2004 and was amended as of January 1, 2009. Dutch listed companies are required to either comply with the principles and the best practice provisions of the Code, or to explain on which points they deviate from these best practice provisions and why. In February 2016 the Dutch Corporate Governance Code Monitoring Committee started a consultation process that has led to a revision of the Code. The amended Code was published on December 8, 2016 and came into effect on January 1, 2017. As part of the continued effort of our SB and BoM to ensure that our practices and procedures comply with Dutch corporate governance requirements, we are currently assessing the implications of the amended Code for our corporate governance structure.

ASML reports on its compliance with the Code in its 2016 Statutory Annual Report.

#### Committees of ASML's Supervisory Board

While retaining overall responsibility, the SB assigns certain of its tasks to its four Committees: the AC, the RC, the Selection and Nomination Committee and the Technology and Strategy Committee. Members of these Committees are appointed from among the SB members.

The Chairman of each Committee reports to the SB the issues and items discussed in each meeting. In addition, the minutes of each Committee are available to all members of the SB, enabling the SB to make the appropriate decisions.

**Audit Committee**  
The current members of our AC are Ms. Smits-Nusteling (Chairperson), Ms. Van der Meer Mohr, and Mr. Schwalb, each of whom is an independent, non-executive member of our SB in accordance with the NASDAQ Listing Rules and SEC regulations. The SB has determined that each of Ms. Smits-Nusteling and Mr. Schwalb qualify as AC financial expert pursuant to Section 407 of the Sarbanes-Oxley Act and the rules promulgated thereunder. Our external auditor, CEO, CFO, Corporate Controller, Corporate Chief Accountant, Vice President Corporate Risk and Assurance, as well as other ASML employees invited by the Chairperson of the AC may also attend the meetings of the AC. The Chairman of our SB, Mr. Kleisterlee, attends the AC meetings whenever possible.

The AC assists the SB in:

- Overseeing the integrity of our Financial Statements and related financial and non-financial disclosures;
- Overseeing the qualifications, independence and performance of the external auditor; and
- Overseeing our disclosure controls and procedures (as defined in the Exchange Act Rules 13a-15(e) and 15d-15(e)) and internal control over financial reporting (as defined in Exchange Act Rules 13a-15(f) and 15d-15(f)).

In 2016, the AC held nine scheduled meetings, either in person or via conference call.

#### Remuneration Committee

The current members of our RC are Mr. Schwalb (Chairman), Ms. Aris, Mr. Stork and Mr. Ziebart, each of whom is an independent, non-executive member of our SB in accordance with the NASDAQ Listing Rules. In 2016, the RC held seven scheduled meetings, either in person or via conference call.

For details on the RC, see Item 6.B. "Compensation".

#### Selection and Nomination Committee

The current members of our Selection and Nomination Committee are Mr. Kleisterlee (Chairman), Mr. Grose and Ms. Van der Meer Mohr. Each of the members is an independent, non-executive member of our SB in accordance with the NASDAQ Listing Rules.

The Selection and Nomination Committee assists the SB in:

- Preparing the selection criteria and appointment procedures for members of ASML's SB and BoM;
- Periodically evaluating the scope and composition of the BoM, the SB, and proposing the profile of the SB in relation thereto;
- Periodically evaluating the functioning of the BoM and the SB and the individual members of those boards and reporting the results thereof to the SB; and
- Proposing (re-)appointments of members of the BoM and the SB, and supervising the policy of the BoM in relation to the selection and appointment criteria for senior management.

The Selection and Nomination Committee furthermore discusses corporate governance developments that may affect ASML, for example those based on legislative proposals, but also the outcome of the Report of the Monitoring Committee with respect to compliance with the Code, as well as revisions to the Code.

In 2016, the Selection and Nomination Committee held three scheduled meetings, either in person or by conference call.

Technology and Strategy Committee

The current members of our Technology and Strategy Committee are Mr. Grose (Chairman), Ms. Aris, Mr. Kleisterlee, Mr. Stork, and Mr. Ziebart. The Technology and Strategy Committee may appoint one or more advisors from within and/or from outside ASML. The advisors to the Technology and Strategy Committee may be invited as guests to the meetings, or parts thereof, but are not entitled to vote in the meetings.

The Technology and Strategy Committee assists the SB in relation to the following responsibilities and may prepare resolutions for the SB related thereto:

- Familiarization with and risk assessment and study of potential strategies, required technical resources, technology roadmaps and product roadmaps; and

- Providing advice to the SB with respect to matters related thereto.

In 2016, the Technology and Strategy Committee held six scheduled meetings, either in person or via conference call. Disclosure Committee

ASML has a DC to ensure compliance with applicable disclosure requirements arising under US and Dutch law and applicable stock exchange rules, US GAAP, IFRS as adopted by the EU and the Sarbanes-Oxley Act. The DC is composed of various members of senior management in the departments corporate risk & assurance, investor relations, communications, corporate legal, treasury, finance & control and corporate strategy & marketing, and reports to the CEO and CFO. The DC informs the AC about the outcome of the DC meetings.

The DC gathers all relevant financial and non-financial information and assesses materiality, timeliness and necessity for disclosure of such information. In addition the DC advises the CEO and CFO on the effectiveness of the disclosure controls and procedures and, of the internal control over financial reporting, each as contemplated by the Sarbanes-Oxley Act.

During 2016, the DC reviewed, among other things, the quarterly and annual financial results announcements, announcements of strategic transactions, the Statutory Interim Report, the Annual Report on Form 20-F and the Statutory Annual Report. In addition, the DC also advised the CEO and CFO on the effectiveness of the disclosure controls and procedures, and of the internal control over financial reporting in accordance with disclosures and certifications required under the Sarbanes-Oxley Act.

#### D. Employees

The following table presents our total numbers of payroll employees and temporary employees as of December 31, 2016, 2015 and 2014 (in FTEs). These employees work primarily in manufacturing & logistics and in R&D:

As of December 31	2014	2015	2016
Payroll Employees	11,318	12,168	13,991
Temporary Employees	2,754	2,513	2,656
Total in FTEs	14,072	14,681	16,647

During 2016, the average number of payroll employees in FTEs was 12,852, and the average number of temporary employees in FTEs employed was 2,565. The increases in payroll employees in FTEs in 2016 compared to 2015 and in 2015 compared to 2014 are in line with our net sales growth. Additionally the increase in payroll employees in FTEs in 2016 compared to 2015 includes an addition of approximately 700 HMI FTEs.

For a more detailed description of our payroll employee information, see Notes 17 and 21 to our Financial Statements.

Our future success also depends on our ability to attract, train, retain and motivate highly qualified, skilled and educated employees, who are in great demand. We are particularly reliant on the services of several key employees, including a number of systems development specialists with advanced university qualifications in engineering, optics and computing. See Item 3.D. "Risk Factors – Risks related to ASML – Our business and future success depend on our ability to attract and retain a sufficient number of adequately educated and skilled employees."

ASML Netherlands B.V., our operating subsidiary in the Netherlands, has a Works Council, as required by Dutch law. A Works Council is a representative body of the employees of a Dutch company elected by the employees. The BoM of any Dutch company that runs an enterprise with a Works Council must seek the non-binding advice of the Works Council before taking certain decisions with respect to ASML, such as those related to a major restructuring or a change of control. In case the Works Council renders a contrary advice on a particular decision and the BoM nonetheless wishes to proceed, the BoM must temporarily suspend any further action while the Works Council determines whether to appeal to the Enterprise Chamber of the Amsterdam Court of Appeal. Other decisions directly involving employment matters that apply either to all employees, or certain groups of employees, may only be taken

with the Works Council's approval. Failing approval of the Works Council, the respective decision can only be taken with the approval of the Dutch District Court.

E. Share Ownership

For information with respect to the grant of shares and stock options to our employees see Note 17 to our Financial Statements, Item 6.B. "Compensation" and Item 7.A. "Major Shareholders".

Item 7 Major Shareholders and Related Party Transactions

A. Major Shareholders

The following table sets forth the total number of ordinary shares owned by each shareholder that reported to the AFM or SEC a beneficial ownership of ordinary shares that is at least 3.0 percent (5.0 percent, in the case of the SEC) of our ordinary shares issued and outstanding, as well as the ordinary shares (including shares underlying options) owned by our members of the BoM (which includes those persons specified in Item 6.A. "Directors, Senior Management and Employees"), as a group, as of December 31, 2016. The information set out below with respect to shareholders other than the BoM is solely based on public filings with the SEC and AFM as of January 31, 2017.

Identity of Person or Group	Shares Owned	Percent of Class <sup>6</sup>	
Capital Group International, Inc <sup>1</sup>	67,265,695	15.65	%
Stichting Administratiekantoor MAKTSJAB/Intel <sup>2</sup>	62,977,877	14.65	%
BlackRock Inc. <sup>3</sup>	28,406,210	6.61	%
Members of ASML's Board of Management (5 persons) <sup>4,5</sup>	210,291	0.05	%

As reported to the AFM on April 25, 2014, Capital Group International, Inc. and CRMC, which we believe to be an affiliate of Capital Group International, Inc., indirectly have 605,391,255 voting rights corresponding to 67,265,695 shares (based on nine votes per share) of our ordinary shares but do not have ownership rights related to those shares. Capital World Investors reported on a Schedule 13-G/A filed with the SEC on February 12, 2016, that it is the beneficial owner of 47,701,246 shares of our ordinary shares as a result of its affiliation with CRMC. In addition, the Growth Fund of America reported to the AFM on May 15, 2014 that it owns 3.22% of our outstanding shares. We believe that some or all of these shares are included within the shares reported to be owned by Capital Group International, Inc., as set forth above.

Stichting Administratiekantoor MAKTSJAB owns the stated percentage of our ordinary shares and has issued corresponding depository receipts to Intel. Intel has reported that it has sold a portion of these shares that it initially acquired, but has not reported the number of shares sold.

Based solely on the Schedule 13-G/A filed by BlackRock Inc. with the SEC on January 19, 2017; BlackRock reports voting power with respect to 25,484,553 of these shares. A public filing with the AFM on December 29, 2016 shows aggregate holdings of various BlackRock funds of 4.83 percent, based on total number of issued shares at the time, and 5.94 percent in voting rights.

Does not include unvested shares granted to members of the BoM. Further information required by Item 7.A. is incorporated by reference from our SB report as included in our 2016 Statutory Annual Report, see Item 6.B. "Compensation".

No shares are owned by members of the SB.

As a percentage of the total number of ordinary shares issued and outstanding (429,941,232) as of December 31, 2016, which excludes 9,258,282 ordinary shares which have been issued but are held in treasury by ASML. Please note that share ownership percentages reported to the AFM are expressed as a percentage of the total number of ordinary shares issued (including treasury stock) and that accordingly, percentages reflected in this table may differ from percentages reported to the AFM.

The Intel Stichting acquired the shares indicated above as part of our CCIP in the second half of 2012 (as did the Stichtingen that acquired shares for the other Participating Customers in the CCIP). The Intel Stichting does not vote on the ordinary shares held by it, unless instructed to do so by Intel in accordance with its shareholder agreement with us. Intel is not entitled to vote on the ASML shares held by the Intel Stichting, except in certain exceptional circumstances: i) the authorization of certain significant share issuances and share repurchases, ii) any amendment to the Articles of Association that would materially affect the specific voting rights of Intel, iii) any significant change in the identity or nature of ASML or its business, iv) the dissolution of ASML, v) any merger or demerger which would result in a material change in the identity or nature of ASML or its business.

We do not issue share certificates. See Item 10.B. "Memorandum and Articles of Association".

As of December 31, 2016, 68,073,837 ordinary shares were held by 358 registered holders with a registered address in the United States. Since certain of our ordinary shares were held by brokers and nominees, the number of record holders in the United States may not be representative of the number of beneficial holders or of where the beneficial holders are resident.

**Obligations of Shareholders to Disclose Holdings under Dutch Law**

Holders of our shares may be subject to reporting obligations under the FMSA.

The disclosure obligations under the FMSA apply to any person or entity that acquires, holds or disposes of an interest in the voting rights and/or the capital of a public limited company incorporated under the laws of the Netherlands whose shares are admitted to trading on a regulated market within the EU, such as ASML. Disclosure is required when the percentage of voting rights or capital interest of a person or an entity reaches, exceeds or falls below 3.0, 5.0, 10.0, 15.0, 20.0, 25.0, 30.0, 40.0, 50.0, 60.0, 75.0 or 95.0 percent (as a result of an acquisition or disposal by such person, or as a result of a change in our total number of voting rights or capital issued). With respect to ASML, the FMSA requires any person or entity whose interest in the voting rights and/or capital of ASML reached, exceeded or fell below those percentage interests to notify the AFM immediately.

For the purpose of calculating the percentage of capital interest or voting rights, the following interests must, among other arrangements, be taken into account: shares and votes (i) directly held by any person, (ii) held by such person's subsidiaries, (iii) held by a third party for such person's account, (iv) held by a third party with whom such person has concluded an oral or written voting agreement (including on the basis of an unrestricted power of attorney), (v) held by a third party with whom such person has agreed to temporarily transfer voting rights against payment, (vi) financial instruments of which the increase in value is wholly or partially dependent on an increase in value of our shares or distributions in respect thereof (including certain cash settled financial instruments such as contracts for difference and total return swaps), (vii) put options pursuant to which a person can be required to purchase our shares, and (viii) other contracts under which a person has a position economically comparable to having our shares. Interests held jointly by multiple persons are attributed to those persons in accordance with their entitlement. A holder of a pledge or right of usufruct in respect of shares can also be subject to these reporting obligations if such person has, or can acquire, the right to vote on the shares or, in case of depositary receipts, the underlying shares. The managers of certain investment funds are deemed to hold the capital interests and voting rights in the funds managed by them.

For the same purpose, the following instruments qualify as "shares": (i) shares, (ii) depositary receipts for shares (or negotiable instruments similar to such receipts), (iii) negotiable instruments for acquiring the instruments under (i) or (ii) (such as convertible bonds), and (iv) options for acquiring the instruments under (i) or (ii).

The AFM keeps a public registry of and publishes all notifications made pursuant to the FMSA.

We may request Euroclear Nederland and its admitted institutions as well as intermediaries, institutions and custodians of investment funds (in the Netherlands and abroad) of which we reasonably expect that they hold our shares other than as beneficial owner, to provide certain details on the identity and number of shares held, of their clients for whom they hold our shares. We must keep the information received confidential. We may only make such requests during a period of 60 days prior to the day on which our General Meeting of Shareholders will be held. No details are required to be given in respect of shareholders with an interest of less than 0.5 percent of our issued share capital. A shareholder who, individually or together with other shareholders, holds an interest of at least 10 percent of the issued share capital may request us to establish the identity of our shareholders in this manner so that we can forward to them information provided by such shareholder in respect of an item on the agenda for the General Meeting. This request may only be made during a period of 60 days until (and not including) the 42nd day before the day on which the General Meeting of Shareholders will be held.

#### B. Related Party Transactions

Intel is the largest participant in the CCIP, with an aggregate funding commitment of EUR 829.0 million and having made an investment in 15 percent of our ordinary shares (after giving effect to the synthetic share buyback in November 2012).

Please see Note 27 to our Financial Statements for more information about the CCIP. See Note 28 to our Financial Statements for details on sales to Intel in 2016 and outstanding balances as of December 31, 2016.

There have been no other material transactions during our most recent fiscal year, and there are currently no transactions, between ASML or any of its subsidiaries, and any significant shareholder and any director or officer or any relative or spouse thereof other than ordinary course compensation arrangements. During our most recent fiscal year, there has been no, and at present there is no, outstanding indebtedness to ASML owed or owing by any director or officer of ASML or any associate thereof, other than the virtual financing arrangement with respect to shares and stock options described under Note 17 to our Financial Statements. Furthermore, ASML has not granted any personal loans, guarantees, or the like to members of the BoM or SB.

#### C. Interests of Experts & Counsel

Not applicable.

#### Item 8 Financial Information

##### A. Consolidated Statements and Other Financial Information

###### Consolidated Financial Statements

See Item 18 "Financial Statements".

###### Export Sales

See Note 20 to our Financial Statements.

Legal Proceedings

See Item 4.B. "Business Overview – Intellectual Property" and Note 18 to our Financial Statements.

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#### Dividend Policy

As part of our financing policy, we aim to pay an annual dividend that will be stable or growing over time. Annually, the BoM will, upon prior approval from the SB, submit a proposal to the AGM with respect to the amount of dividend to be declared with respect to the prior year. The dividend proposal in any given year will be subject to the availability of distributable profits or retained earnings and may be affected by, among other factors, the BoM's views on our potential future liquidity requirements, including for investments in production capacity, the funding of our R&D programs and for acquisition opportunities that may arise from time to time; and by future changes in applicable income tax and corporate laws. Accordingly, it may be decided to propose not to pay a dividend or to pay a lower dividend with respect to any particular year in the future.

For 2016, a proposal to declare a dividend of EUR 1.20 per ordinary share will be submitted to the 2017 AGM.

#### B. Significant Changes

No significant changes have occurred since the date of our Financial Statements. See Item 5.D. "Trend Information" and Note 29 to the Financial Statements.

#### Item 9 The Offer and Listing

##### A. Offer and Listing Details

Our ordinary shares are listed for trading in the form of registered ASML NASDAQ shares and in the form of registered ASML Euronext Amsterdam shares. The principal trading market of our ordinary shares is Euronext Amsterdam. Our ordinary shares also trade on NASDAQ. For more information see Item 10.B. "Memorandum and Articles of Association".

Our shares listed on NASDAQ are registered with J.P. Morgan, our New York Transfer Agent, pursuant to the terms of the Transfer Agent Agreement between ASML and J.P Morgan. Our shares listed on Euronext Amsterdam are held in dematerialized form through the facilities of Euroclear Nederland, the Dutch centralized securities custody and administration system. The New York Transfer Agent charges shareholders a fee of up to USD 5.00 per 100 shares for the exchange of our shares listed at NASDAQ for our shares listed at Euronext Amsterdam and vice versa.

Dividends payable on our shares listed at NASDAQ are declared in euro and converted to US dollars at the rate of exchange at the close of business on the date determined by the BoM. The resulting amounts are distributed through the New York Transfer Agent and no charge is payable by holders of our shares listed at NASDAQ in connection with this conversion or distribution.

Pursuant to the terms of the Transfer Agent Agreement, we have agreed to reimburse the New York Transfer Agent for certain out of pocket expenses, including in connection with any mailing of notices, reports or other communications made generally available by ASML to holders of ordinary shares. The New York Transfer Agent has waived its fees associated with routine services to ASML associated with our shares listed at NASDAQ. In addition, the New York Transfer Agent in consideration of its acting as Transfer Agent has agreed to make a contribution towards covering certain expenses incurred by ASML in connection with the issuance and transfer of our shares listed on NASDAQ. In the year ended December 31, 2016, the Transfer Agent contributed USD 0.6 million towards coverage of expenses incurred by ASML (which mainly comprised of audit, advisory, legal and listing fees incurred due to the existence of our share listing on NASDAQ).

The following table sets forth, for the periods indicated, the high and low closing prices of our shares listed at NASDAQ and our shares listed at Euronext Amsterdam.

	ASML NASDAQ shares USD		ASML Euronext Amsterdam shares EUR	
	High	Low	High	Low
<b>Annual Information</b>				
2016	112.20	76.51	107.00	70.86
2015	113.80	83.08	103.80	73.64
2014	109.64	79.90	89.88	57.57
2013	100.96	63.08	74.30	47.20
2012	64.68	40.91	49.36	31.81
<b>Quarterly Information</b>				
4th quarter 2016	112.20	99.20	107.00	90.64
3rd quarter 2016	110.83	94.61	99.35	84.66
2nd quarter 2016	101.39	91.30	89.78	79.91
1st quarter 2016	99.90	76.51	88.18	70.86
4th quarter 2015	96.33	85.97	88.96	74.47
3rd quarter 2015	106.68	83.08	98.26	73.64
2nd quarter 2015	113.80	94.50	103.80	88.22
1st quarter 2015	110.75	98.65	101.85	84.67
<b>Monthly Information</b>				
January 2017	122.97	109.92	115.00	105.15
December 2016	112.20	99.78	107.00	93.79
November 2016	105.32	99.20	99.50	91.19
October 2016	108.96	100.39	97.93	90.64
September 2016	109.86	101.71	97.69	90.17
August 2016	110.83	105.45	99.35	93.13

#### B. Plan of Distribution

Not applicable.

#### C. Markets

See Item 9.A. "Offer and Listing Details".

#### D. Selling Shareholders

Not applicable.

#### E. Dilution

Not applicable.

#### F. Expenses of the Issue

Not applicable.

#### Item 10 Additional Information

##### A. Share Capital

Not applicable.

##### B. Memorandum and Articles of Association

Our Articles of Association included as Exhibit 99.1 to our form 6-K filed furnished with the SEC on February 8, 2013 (the "Articles of Association").

##### Current Authorizations to Issue and Repurchase Ordinary Shares

Our BoM has the power to issue ordinary and preference shares if and insofar as the BoM has been authorized to do so by the General Meeting of Shareholders. The BoM requires the approval of the SB for such an issue. An authorization

of the BoM to issue shares or preference shares may be effective for a specified period of up to five years and may be renewed. In the absence of such authorization, the General Meeting of Shareholders has the power to authorize the issuance of ordinary or preference shares, upon the proposal of the BoM, which proposal must be authorized by the SB.

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At our 2016 AGM, our shareholders authorized the BoM to issue ordinary shares and/or rights thereto through October 29, 2017, up to an aggregate maximum of 5.0 percent of ASML's issued share capital, at April 29, 2016, plus an additional 5.0 percent of ASML's issued share capital at April 29, 2016 that may be issued in connection with mergers, acquisitions and/or (strategic) alliances. At our 2017 AGM, our shareholders will be asked to extend this authority through October 26, 2018.

Holders of ASML's ordinary shares have a preemptive right of subscription, in proportion to the aggregate nominal amount of the ordinary shares held by them, to any issuance of ordinary shares for cash, which right may be restricted or excluded. Ordinary shareholders have no pro rata preemptive right of subscription to any ordinary shares issued for consideration other than cash or ordinary shares issued to employees. If authorized for this purpose by the General Meeting of Shareholders, the BoM has the power subject to approval of the SB, to restrict or exclude the preemptive rights of holders of ordinary shares. At our 2016 AGM, our shareholders authorized the BoM through October 29, 2017, subject to approval of the SB, to restrict or exclude preemptive rights of holders of ordinary shares up to a maximum of 10 percent of our issued share capital at April 29, 2016. At our 2017 AGM, our shareholders will be asked to extend this authority through October 26, 2018.

In addition, the articles of association provide for 9,000 ordinary shares B with a nominal value of EUR 0.01. Each ordinary share B entitles the holder thereof to cast one vote at the General Meeting of Shareholders. Holders of fractional shares had the opportunity, until July 31, 2013, to convert fractional shares into ordinary shares B to obtain voting rights with respect to those fractional shares. No ordinary shares B have been issued.

We may repurchase our issued ordinary shares at any time, subject to compliance with the requirements of Dutch law and our Articles of Association. Any such repurchases are subject to the approval of the SB and the authorization of shareholders at our General Meeting of Shareholders, which authorization may not be for more than 18 months. The BoM is currently authorized, subject to SB approval, to repurchase as of April 29, 2016 through October 29, 2017, up to a maximum of two times 10.0 percent of ASML's issued share capital as of April 29, 2016, at a price between the nominal value of the ordinary shares purchased and 110.0 percent of the market price of these securities on Euronext Amsterdam or NASDAQ. At our 2017 AGM, our shareholders will be asked to extend this authorization through October 26, 2018.

#### C. Material Contracts

Acquisition of Hermes Microvision, Inc.

On June 16, 2016, ASML and HMI entered into a share swap agreement pursuant to which ASML acquired HMI for a consideration of TWD 99.7 billion (EUR 2.9 billion). The acquisition was completed on November 22, 2016. See Note 2 to our Financial Statements.

Investment in Carl Zeiss SMT GmbH

On November 2, 2016, ASML, Zeiss, Carl Zeiss SMT Holding Management GmbH, Carl Zeiss SMT, and the Partnership entered into the CZ SMT Investment Agreement.

Under the CZ SMT Investment Agreement, we agreed to acquire a 24.9% limited partnership interest in the Partnership, which will be the sole owner of Carl Zeiss SMT, our sole supplier of critical optical components. The closing of the transaction is expected in the second quarter of 2017 and the purchase price for the interest is EUR 1.0 billion.

The CZ SMT Investment Agreement includes customary representations with respect to the Partnership and Carl Zeiss SMT. Completion of the acquisition of the limited partnership interest pursuant to the CZ SMT Investment Agreement is conditional on, among other things, merger control approvals. The CZ SMT Investment Agreement may be terminated by either party if closing has not occurred by October 31, 2017.

In accordance with the CZ SMT Investment Agreement, at closing, ASML, Zeiss, and Carl Zeiss SMT Holding Management GmbH will enter into the CZ SMT Partnership Agreement, establishing the Partnership. Under the CZ SMT Partnership Agreement, we have been granted minority protection and veto rights in the Partnership. The CZ SMT Partnership Agreement also includes transfer restrictions, including rights of first refusal and drag-along rights.

#### D. Exchange Controls

There are currently no limitations, either under the laws of the Netherlands or in the Articles of Association of ASML, to the rights of non-Dutch residents to hold or vote ordinary shares. Cash distributions, if any, payable in euros on our

shares listed at Euronext Amsterdam may be officially transferred by a bank from the Netherlands and converted into any other currency without being subject to any Dutch legal restrictions. However, for statistical purposes, such payments and transactions must be reported by ASML to the Dutch Central Bank. Furthermore, no payments, including dividend payments, may be made to jurisdictions subject to certain sanctions, adopted by the government of the Netherlands, implementing resolutions of the Security Council of the United Nations. Cash distributions, if any, on our shares listed at NASDAQ shall be declared in euros but paid in US dollars, converted at the rate of exchange at the close of business on the date fixed for that purpose by the BoM in accordance with the Articles of Association.

## E. Taxation

### Dutch Taxation

The statements below represent a summary of current Dutch tax laws, regulations and judicial interpretations thereof. The description is limited to the material tax implications for a holder of ordinary shares who is not, and/or is not deemed to be, a resident of the Netherlands for Dutch tax purposes ("Non-Resident Holder"). This summary does not address special rules that may apply to special classes of holders of ordinary shares and should not be read as extending by implication to matters not specifically referred to herein. As to individual tax consequences, each investor in ordinary shares should consult his or her tax counsel.

### General

The acquisition of ordinary shares by a non-resident of the Netherlands should not be treated as a taxable event for Dutch tax purposes. The income consequences in connection with owning and disposing of our ordinary shares are discussed below.

### Substantial Interest

A person that, (inter alia) directly or indirectly, and either independently or jointly with his partner (as defined in the Dutch Personal Income Tax Act 2001), owns 5.0 percent or more of our share capital, owns profit participating rights that correspond to at least 5.0 percent of the annual profits of a Dutch company or to at least 5.0 percent of the liquidation proceeds of such company or holds options to purchase 5.0 percent or more of our share capital, is deemed to have a substantial interest in our shares, or our options, as applicable. Specific rules apply in case certain family members of the Non-Resident Holder hold a substantial interest. A deemed substantial interest also exists if (part of) a substantial interest has been disposed of, or is deemed to be disposed of, in a transaction where no taxable gain has been recognized. Special attribution rules exist in determining the presence of a substantial interest.

### Income Tax Consequences for Individual Non-Resident Holders on Owning and Disposing of the Ordinary Shares

An individual who is a Non-Resident Holder will not be subject to Dutch income tax on received income in respect of our ordinary shares or capital gains derived from the sale, exchange or other disposition of our ordinary shares, provided that such holder:

- Does not carry on and has not carried on a business in the Netherlands through a permanent establishment or a permanent representative to which the ordinary shares are attributable;
- Does not hold and has not held a (deemed) substantial interest in our share capital or, in the event the Non-Resident Holder holds or has held a (deemed) substantial interest in our share capital, such interest is, or was, a business asset in the hands of the holder;
- Does not share and has not shared directly (through the beneficial ownership of ordinary shares or similar securities) in the profits of an enterprise managed and controlled in the Netherlands which (is deemed to) own(s), or (is deemed to have) has owned, our ordinary shares; and
- Does not carry out and has not carried out any activities which generate taxable profit in the Netherlands or taxable income in the Netherlands to which the holding of our ordinary shares was connected.

### Corporate Income Tax Consequences for Corporate Non-Resident Holders

Income derived from ordinary shares or capital gains derived from the sale, exchange or disposition of ordinary shares by a corporate Non-Resident Holder is taxable if:

- The holder carries on a business in the Netherlands through a permanent establishment or a permanent representative in the Netherlands (Dutch enterprise) and the ordinary shares are attributable to this permanent establishment or permanent representative, unless the participation exemption (discussed below) applies; or
- The holder is a resident of Aruba, Curacao or Saint Martin with a permanent establishment or permanent representative in Bonaire, Eustatius or Saba to which our ordinary shares are attributable and certain conditions are met; or
- The holder has a substantial interest in our share capital, which is held with the primary aim or one of the primary aims to evade the levy of income tax or dividend withholding tax at the level of another person and which is not put into place with valid commercial reasons that reflect economic reality; or
-

Certain assets of the holder are deemed to be treated as a Dutch enterprise under Dutch tax law and the ordinary shares are attributable to this Dutch enterprise.

To qualify for the Dutch participation exemption, the holder must generally hold at least 5.0 percent of our nominal paid-in capital and meet certain other requirements.

**Dividend Withholding Tax**

In general, a dividend distributed by us in respect of our ordinary shares will be subject to a withholding tax imposed by the Netherlands at the statutory rate of 15.0 percent.

Dividends include:

• Dividends in cash and in kind;

• Deemed and constructive dividends;

• Consideration for the repurchase or redemption of ordinary shares (including a purchase by a direct or indirect ASML subsidiary) in excess of qualifying average paid-in capital unless such repurchase is made for temporary investment purposes or is exempt by law;

• Stock dividends up to their nominal value (unless distributed out of qualifying paid-in capital);

• Any (partial) repayment of paid-in capital not qualifying as capital for Dutch dividend withholding tax purposes; and

• Liquidation proceeds in excess of qualifying average paid-in capital for Dutch dividend withholding tax purposes.

Under certain circumstances, a reduction of Dutch dividend withholding tax can be obtained:

An exemption at source is available if:

• The participation exemption applies and the ordinary shares are attributable to a business carried out in the Netherlands;

• An exemption at source is available for dividend distributions to certain qualifying EU/EEA resident corporate holders;

• Certain tax exempt organizations (e.g. pension funds and excluding collective investment vehicles) resident in EU/EEA member states or in qualifying non-EU/EEA states may be eligible for a refund of Dutch withholding tax upon their request. Based on a proposed domestic law not yet entered into force, in those circumstances, an exemption at source may also become available upon request;

• Upon request and under certain conditions, certain qualifying Non-Resident Individual and Corporate Holders of ordinary shares resident in EU/EEA member states or in a qualifying non-EU/EEA state may be eligible for a refund of Dutch dividend withholding tax insofar the withholding tax levied is higher than the personal and corporate income tax which would have been due if they were resident of the Netherlands.

Furthermore, a Non-Resident Holder of ordinary shares can be eligible for a partial or complete exemption or refund of all or a portion of the above withholding tax under a tax treaty that is in effect between the Netherlands and the Non-Resident Holder's country of residence. The Netherlands has concluded such treaties with the US, Canada, Switzerland, Japan, most EU member states, as well as many other countries. Under the treaty between the US and the Netherlands for the Avoidance of Double Taxation and the Prevention of Fiscal Evasion with Respect to Taxes on Income (the "US Tax Treaty"), dividends paid by us to a Non-Resident Holder that is a resident of the US as defined in the US Tax Treaty (other than an exempt organization or exempt pension trust, as discussed below) are generally liable to 15.0 percent Dutch withholding tax or, in the case of certain US corporate shareholders owning directly at least 10.0 percent of our voting power, a reduction to 5.0 percent, provided that the Holder is the beneficial owner of the dividends received and does not have an enterprise or an interest in an enterprise that is, in whole or in part, carried on through a permanent establishment or permanent representative in the Netherlands to which the dividends are attributable. The tax treaty also provides for a dividend withholding tax exemption on dividends, but only for a shareholder owning directly at least 80.0 percent of our voting power and meeting all other requirements. The US Tax Treaty provides for a complete exemption from tax on dividends received by exempt pension trusts and exempt organizations, as defined therein. Except in the case of exempt organizations, the reduced dividend withholding tax rate (or exemption from withholding) can be applied at the source upon payment of the dividends, provided that the proper forms have been filed in advance of the payment. Exempt organizations, in principle, remain subject to the statutory withholding rate of 15.0 percent and are required to file for a refund of such withholding, however such organizations may become eligible for the exemption at source when the proposed domestic law as described above has entered into force.

A Non-Resident Holder may not claim the benefits of the US Tax Treaty unless (i) he/she is a resident of the United States of America as defined therein, or (ii) he/she is deemed to be a resident on the basis of the provisions of article 24(4) of the US Tax Treaty, and (iii) his or her entitlement to those benefits is not limited by the provisions of article 26 (limitation on benefits) of the US Tax Treaty.

Dividend Stripping Rules



Under Dutch tax legislation regarding anti-dividend stripping, no exemption from, or refund of, Dutch dividend withholding tax is granted if the recipient of dividends paid by us is not considered the beneficial owner of such dividends.

**Gift or Inheritance Taxes**

Dutch gift or inheritance taxes will not be levied on the transfer of ordinary shares by way of gift, or upon the death of a Non-Resident Holder, unless the transfer is construed as an inheritance or as a gift made by or on behalf of a person who, at the time of the gift or death, is deemed to be, resident of the Netherlands.

Gift tax and inheritance tax are levied on the beneficiary. For purposes of Dutch gift and inheritance tax, an individual of Dutch nationality is deemed to be a resident of the Netherlands if he/she has been a resident thereof at any time during the ten years preceding the time of the gift or death. For purposes of Dutch gift tax, a person not possessing Dutch nationality is deemed to be a resident of the Netherlands if he/she has resided therein at any time in the twelve months preceding the gift.

**Value Added Tax**

No Dutch value added tax is imposed on dividends in respect of our ordinary shares or on the transfer of our shares.

## Residence

A Non-Resident Holder will not become resident, or be deemed to be resident, in the Netherlands solely as a result of holding our ordinary shares or of the execution, performance, delivery and/or enforcement of rights in respect of our ordinary shares.

## United States Taxation

The following is a discussion of the material US federal income tax consequences relating to the acquisition, ownership and disposition of ordinary shares by a United States Holder (as defined below) acting in the capacity of a beneficial owner who is not a tax resident of the Netherlands. This discussion deals only with ordinary shares held as capital assets and does not deal with the tax consequences applicable to all categories of investors, some of which (such as tax-exempt entities, financial institutions, regulated investment companies, dealers in securities/traders in securities that elect a mark-to-market method of accounting for securities holdings, insurance companies, investors owning directly, indirectly or constructively 10.0 percent or more of our outstanding voting shares, investors who hold ordinary shares as part of hedging or conversion transactions and investors whose functional currency is not the US dollar) may be subject to special rules. In addition, the discussion does not address any alternative minimum tax or any state, local, FIRPTA-related US federal income tax consequences, or non-US tax consequences.

This discussion is based on the US-Netherlands Income tax treaty, the Internal Revenue Code of 1986, as amended to the date hereof, final, temporary and proposed Treasury Department regulations promulgated, and administrative and judicial interpretations thereof, changes to any of which subsequent to the date hereof, possibly with retroactive effect, may affect the tax consequences described herein. In addition, there can be no assurance that the IRS will not challenge one or more of the tax consequences described herein, and we have not obtained, nor do we intend to obtain, a ruling from the IRS or an opinion of counsel with respect to the US federal income tax consequences of acquiring or holding shares. Prospective purchasers of ordinary shares are advised to consult their tax advisers with respect to their particular circumstances and with respect to the effects of US federal, state, local or non-US tax laws to which they may be subject.

As used herein, the term 'United States Holder' means a beneficial owner of ordinary shares for US federal income tax purposes whose holding of such ordinary shares does not form part of the business property or assets of a permanent establishment or fixed base in the Netherlands; who is fully entitled to the benefits of the treaty in respect of such ordinary shares; and is:

• An individual citizen or tax resident of the US; or

• A corporation or other entity treated as a corporation for US federal income tax purposes created or organized in or under the laws of the US or of any political subdivision thereof; or

• An estate of which the income is subject to US federal income taxation regardless of its source; or

• A trust whose administration is subject to the primary supervision of a court within the US and which has one or more US persons who have the authority to control all of its substantial decisions.

If an entity treated as a partnership for US federal income tax purposes owns ordinary shares, the US federal income tax treatment of a partner in such partnership will generally depend upon the status and tax residency of the partner and the activities of the partnership. A partnership that owns ordinary shares and the partners in such partnership should consult their tax advisors about the US federal income tax consequences of holding and disposing of the ordinary shares.

## Passive Foreign Investment Company Considerations

We believe we were not a PFIC for US federal income tax purposes in 2016 and that we will not be a PFIC in 2017. However, as PFIC status is a factual matter that must be determined annually at the close of each taxable year, there can be no certainty as to our actual PFIC status in any particular year until the close of the taxable year in question. We have not conducted a detailed study at this time to confirm our non-PFIC status. If we were treated as a PFIC in any year during which a United States Holder owned common shares, certain adverse tax consequences could apply. Investors should consult their tax advisors with respect to any PFIC considerations.

## Taxation of Dividends

United States Holders should generally include in gross income, as foreign-source dividend income the gross amount of any non-liquidating distribution (before reduction for Dutch withholding taxes) we make out of our current or

accumulated earnings and profits (as determined for US federal income tax purposes) when the distribution is actually or constructively received by the United States Holder. Distributions will not be eligible for the dividends-received deduction generally allowed to US corporations in respect of dividends received from other US corporations. The amount of the dividend distribution includible in income of a United States Holder should be the US dollar value of the foreign currency (e.g. euros) paid, determined by the spot rate of exchange on the date of the distribution, regardless of whether the payment is in fact converted into US dollars. Distributions in excess of current and accumulated earnings and profits, as determined for US federal income tax purposes, will be treated as a non-taxable return of capital to the extent of the United States Holder's US tax basis in the ordinary shares and thereafter as taxable capital gain. We presently do not maintain calculations of our earnings and profits under US federal income tax principles. If we do not report to a United States Holder the portion of a distribution that exceeds earnings and profits, the distribution will generally be taxable as a dividend even if that distribution would otherwise be treated as a non-taxable return of capital or as capital gain under the rules described above.

Subject to limitations provided in the United States Internal Revenue Code, a United States Holder may generally deduct from its US federal taxable income, or credit against its US federal income tax liability, the amount of qualified Dutch withholding taxes. However, Dutch withholding tax may be credited only if the United States Holder does not claim a deduction for any Dutch or other non-US taxes paid or accrued in that year. In addition, Dutch dividend withholding taxes will likely not be creditable against the United States Holder's US tax liability to the extent we are not required to pay over the amount withheld to the Dutch Tax Administration. Currently, a Dutch corporation that receives dividends from qualifying non-Dutch subsidiaries may credit source country tax withheld from those dividends against Dutch withholding tax imposed on a dividend paid by a Dutch corporation, up to a maximum of 3.0 percent of the dividend paid by the Dutch corporation. The credit reduces the amount of dividend withholding that we are required to pay to the Dutch Tax Administration but does not reduce the amount of tax we are required to withhold from dividends.

For US foreign tax credit purposes, dividends paid by us generally will be treated as foreign-source income and as 'passive category income' (or in the case of certain holders, as 'general category income'). Gains or losses realized by a United States Holder on the sale or exchange of ordinary shares generally will be treated as US-source gain or loss. The rules governing the foreign tax credit are complex and we suggest that each United States Holder consult his or her own tax advisor to determine whether, and to what extent, a foreign tax credit will be available.

Dividends received by a United States Holder will generally be taxed at ordinary income tax rates. However, the Jobs and Growth Tax Relief Reconciliation Act of 2003, as amended by the Working Families Tax Relief Act of 2004, the American Jobs Creation Act of 2004, and the American Taxpayer Relief Act of 2012, reduces to 20.0 percent the maximum tax rate for certain dividends received by individuals, so long as certain exclusions do not apply and the stock has been held for at least 60 days during the 121-day period beginning 60 days before the ex-dividend date.

Dividends received from 'qualified foreign corporations' generally qualify for the reduced rate. A non-US corporation (other than a PFIC) generally will be considered to be a qualified foreign corporation if: (i) the shares of the non-US corporation are readily tradable on an established securities market in the US or (ii) the non-US corporation is eligible for the benefits of a comprehensive income tax treaty with the US that has been identified as a qualifying treaty and contains an exchange of information program. Individual United States Holders should consult their tax advisors regarding the impact of this provision on their particular situations.

Dividends paid by us generally will constitute 'portfolio income' for purposes of the limitations on the use of passive activity losses (and, therefore, generally may not be offset by passive activity losses) and as 'investment income' for purposes of the limitation on the deduction of investment interest expense.

#### Taxation on Sale or Other Disposition of Ordinary Shares

Upon a sale or other disposition of ordinary shares, a United States Holder will generally recognize capital gain or loss for US federal income tax purposes in an amount equal to the difference between the amount realized, if paid in US dollars, or the US dollar value of the amount realized (determined at the spot rate on the settlement date of the sale) if proceeds are paid in currency other than the US dollar, as the case may be, and the United States Holder's US tax basis (determined in US dollars) in such ordinary shares. Generally, the capital gain or loss will be long-term capital gain or loss if the holding period of the United States Holder in the ordinary shares exceeds one year at the time of the sale or other disposition. The deductibility of capital losses is subject to limitations for US federal income tax purposes. Gain or loss from the sale or other disposition of ordinary shares generally will be treated as US source income or loss for US foreign tax credit purposes. Generally, any gain or loss resulting from currency fluctuations during the period between the date of the sale of the ordinary shares and the date the sale proceeds are converted into US dollars will be treated as ordinary income or loss from sources within the US. Each United States Holder should consult his or her tax advisor with regard to the translation rules applicable when computing its adjusted US tax basis and the amount realized upon a sale or other disposition of its ordinary shares if purchased in, or sold or disposed of for, a currency other than US dollar.

#### Information Reporting and Backup Withholding

Information returns may be filed with the IRS in connection with payments on the ordinary shares or proceeds from a sale, redemption or other disposition of the ordinary shares. A 'backup withholding' tax may be applied to, and withheld from, these payments if the beneficial owner fails to provide a correct taxpayer identification number to the

paying agent and to comply with certain certification procedures or otherwise establish an exemption from backup withholding. Any amounts withheld under the backup withholding rules might be refunded (or credited against the beneficial owner's US federal income tax liability, if any) depending on the facts and provided that the required information is furnished to the IRS.

The discussion set out above is included for general information only and may not be applicable depending upon a holder's particular situation. Holders should consult their tax advisors with respect to the tax consequences to them of the purchase, ownership and disposition of shares including the tax consequences under state, local and other tax laws and the possible effects of changes in US federal and other tax laws.

F. Dividends and Paying Agents

Not applicable.

#### G. Statement by Experts

Not applicable.

#### H. Documents on Display

We are subject to certain reporting requirements of the Exchange Act. As a "foreign private issuer", we are exempt from the rules under the Exchange Act prescribing certain disclosure and procedural requirements for proxy solicitations, and our officers, directors and principal shareholders are exempt from the reporting and "short-swing" profit recovery provisions contained in Section 16 of the Exchange Act, with respect to their purchases and sales of shares. In addition, we are not required to file reports and Financial Statements with the SEC as frequently or as promptly as companies that are not foreign private issuers whose securities are registered under the Exchange Act. However, we are required to file with the SEC, within four months after the end of each fiscal year, an Annual Report on Form 20-F containing Financial Statements audited by an independent accounting firm and interactive data comprising Financial Statements in extensible business reporting language. We publish unaudited interim financial information after the end of each quarter. We furnish this quarterly financial information to the SEC under cover of a Form 6-K.

Documents we file with the SEC are publicly available at its public reference room at 100 F Street, N.E., Washington, DC 20549, United States. The SEC also maintains a website that contains reports and other information regarding registrants that are required to file electronically with the SEC. The address of this website is <http://www.sec.gov>. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the public reference facilities.

#### I. Subsidiary Information

See Item 4.C. "Organizational Structure".

#### Item 11 Quantitative and Qualitative Disclosures About Market Risk

We are exposed to certain financial risks such as market risk (including foreign currency exchange risk and interest rate risk), credit risk, liquidity risk and capital risk. Our overall risk management program focuses on the unpredictability of financial markets and seeks to minimize potentially adverse effects on our financial condition and results from operations. We use derivative financial instruments to hedge certain risk exposures. None of our transactions are entered into for trading or speculative purposes. We believe that market information is the most reliable and transparent measure for our derivative financial instruments that are measured at fair value. To mitigate the risk that any of our counterparties in hedging transactions is unable to meet its obligations, we only enter into transactions with a limited number of major financial institutions that have good credit ratings. Also, we closely monitor the creditworthiness of our counterparties. Concentration risk is mitigated by limiting the exposure to a single counterparty. Our risk management program focuses appropriately on the current environment of uncertainty in the financial markets.

#### Foreign Currency Risk Management

Our sales are predominately denominated in euros. Exceptions may occur on a customer by customer basis. Our cost of sales and other expenses are mainly denominated in euros, to a certain extent in US dollars, Taiwanese dollars and Japanese yen and to a limited extent in other currencies. Therefore, we are exposed to foreign currency exchange risks.

Details of the forward foreign exchange contracts and hedging activities are included in Note 4 to our Financial Statements.

#### Interest Rate Risk Management

We have interest-bearing assets and liabilities that expose us to fluctuations in market interest rates. We use interest rate swaps to align the interest-typical terms of interest-bearing liabilities with the interest-typical terms of interest-bearing assets. There may be residual interest rate risk to the extent the asset and liability positions do not fully offset.

Details of the interest rate swaps and hedging activities are included in Note 4 to our Financial Statements.

#### Financial Instruments

We use foreign exchange contracts to manage our foreign currency risk and interest rate swaps to manage our interest rate risk. The following table summarizes the notional amounts and estimated fair values of our derivative financial instruments:

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As of December 31 (in thousands)	2015		2016	
	Notional amount EUR	Fair Value EUR	Notional amount EUR	Fair Value EUR
Forward foreign exchange contracts	898,227	(2,675 )	1,311,599	(63,517 )
Interest rate swaps	1,013,053	115,618	3,263,053	83,676

The valuation technique used to determine the fair value of forward foreign exchange contracts (used for hedging purposes) approximates the NPV technique, which is the estimated amount that a bank would receive or pay to terminate the forward foreign exchange contracts at the reporting date, taking into account current interest rates and current exchange rates.

The valuation technique used to determine the fair value of interest rate swaps (used for hedging purposes) is the NPV technique, which is the estimated amount that a bank would receive or pay to terminate the swap agreements at the reporting date, taking into account current interest rates.

#### Sensitivity Analysis Financial Instruments

##### Foreign Currency Sensitivity

We are mainly exposed to fluctuations in exchange rates between the euro and the US dollar, the euro and Taiwanese dollar and the euro and the Japanese yen. The following table details our sensitivity to a 10.0 percent strengthening of foreign currencies against the euro. The sensitivity analysis includes foreign currency denominated monetary items outstanding and adjusts their translation at the period end for a 10.0 percent strengthening in foreign currency rates. A positive amount indicates an increase in net income or equity, as shown.

(in thousands)	2015		2016	
	Impact on net income EUR	Impact on equity EUR	Impact on net income EUR	Impact on equity EUR
US dollar	(4,778	)22,834	(15,779	)17,527
Japanese yen	189	(7,495	)1,561	(399
Taiwanese dollar	(3,690	)—	(6,959	)23,385
Other currencies	(2,473	)—	(1,887	)—
Total	(10,752	)15,339	(23,064	)6,257

It is our policy to limit the effects of currency exchange rate fluctuations on our Consolidated Statements of Operations. The increased effect on net income in 2016 compared with 2015 reflects our higher net exposure at year end 2016. The negative effect on net income as presented in the table above for 2016 is mainly attributable to timing differences between the arising and hedging of exposures.

The effects of the fair value movements of cash flow hedges, entered into for US dollar and Japanese yen transactions are recognized in equity. The US dollar and Japanese yen effect on equity in 2016 compared with 2015 is the result of an decrease in outstanding purchase hedges and increase in outstanding sales hedges.

The effects of the fair value movements of net investment hedges, entered into for Taiwanese dollar are recognized in equity. This effect is offset by the translation adjustment on the net investment also recorded in equity. This offset is not included in the table above.

For a 10.0 percent weakening of the foreign currencies against the euro, there would be approximately an equal but opposite effect on net income and equity.

##### Interest Rate Sensitivity

The sensitivity analysis below has been determined based on the exposure to interest rates for both derivative financial and non-derivative financial instruments at the balance sheet date with the stipulated change taking place at the beginning of the financial year and held constant throughout the reporting period. The table below shows the effect of a 1.0 percentage point increase in interest rates on our net income and equity. A positive amount indicates an increase in net income and equity.

(in thousands)	2015		2016	
	Impact on net income EUR	Impact on equity EUR	Impact on net income EUR	Impact on equity EUR
Effect of a 1.0 percent point increase in interest rates	24,486	622	7,524	295

The positive effect on net income mainly relates to our cash and cash equivalents and short-term investments. The positive effect on equity, is mainly attributable to the fair value movements of the interest rate swaps designated as



cash flow hedges.

For a 1.0 percentage point decrease in interest rates there would be approximately an equal but opposite effect on net income and equity.

See Notes 4 and 5 to our Financial Statements for more information on our Financial Risk Management including Credit Risk Management.

Item 12 Description of Securities Other Than Equity Securities

Not applicable.

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## Part II

### Item 13 Defaults, Dividend Arrearages and Delinquencies

None.

### Item 14 Material Modifications to the Rights of Security Holders and Use of Proceeds

None.

### Item 15 Controls and Procedures

#### Disclosure Controls and Procedures

As of December 31, 2016, ASML's senior management conducted an evaluation, under the supervision and with the participation of ASML's CEO and CFO, of the effectiveness of the design and operation of ASML's disclosure controls and procedures (as defined in Rule 13a-15(e) under the Exchange Act). Based on such evaluation, ASML's CEO and CFO have concluded that, as of December 31, 2016, ASML's disclosure controls and procedures are effective in recording, processing, summarizing and reporting, on a timely basis, information required to be disclosed by ASML in the reports that it files or submits under the Exchange Act and are effective in ensuring that information required to be disclosed by ASML is accumulated and communicated to ASML's management, including ASML's CEO and CFO, as appropriate to allow timely decisions regarding required disclosure.

#### Management's Report on Internal Control over Financial Reporting

ASML's management is responsible for establishing and maintaining adequate internal control over financial reporting, as defined in Rule 13a-15(f) under the Exchange Act. Under the supervision and with the participation of ASML's CEO and CFO, ASML's management conducted an evaluation of the effectiveness of ASML's internal control over financial reporting as of December 31, 2016 based upon the framework in "Internal Control – Integrated Framework" (2013) issued by the Committee of Sponsoring Organizations of the Treadway Commission. Based on that evaluation, management has concluded that ASML's internal control over financial reporting was effective as of December 31, 2016 at providing reasonable assurance regarding the reliability of financial reporting and the preparation of the Financial Statements for external purposes in conformity with US GAAP.

ASML management has excluded HMI and its subsidiaries from its assessment of internal control over financial reporting as of December 31, 2016, as it was acquired on November 22, 2016. HMI and its subsidiaries are included in our consolidated financial statements as from the date of acquisition, and constituted 2.6% of consolidated total assets (excluding any purchase price allocation effect) and 0.4% of consolidated total net sales for the year ended December 31, 2016. Under guidelines established by the SEC, companies are allowed to exclude acquired companies from their assessment of internal control over financial reporting during the year such company was acquired.

KPMG Accountants N.V., an independent registered public accounting firm, has audited the Financial Statements included in Item 18 "Financial Statements" and, as part of the audit, has issued a report, included herein, on the effectiveness of ASML's internal control over financial reporting.

#### Changes in Internal Control over Financial Reporting

During the year ended December 31, 2016, there have been no changes in our internal control over financial reporting that have materially affected, or are reasonably likely to materially affect, our internal control over financial reporting.

#### Inherent Limitations of Disclosure Controls and Procedures in Internal Control over Financial Reporting

It should be noted that any system of controls, however well-designed and operated, can provide only reasonable, and not absolute, assurance that the objectives of the system will be met. In addition, the design of any control system is based in part upon certain assumptions about the likelihood of future events.

### Item 16

#### A. Audit Committee Financial Expert

Our SB has determined that effective April 22, 2015, Ms. Smits-Nusteling and Mr. Schwalb, both independent members of the SB, qualify as an Audit Committee Financial Expert. See also Item 6.A. "Directors and Senior Management" and Item 6.C. "Board Practices".

#### B. Code of Ethics

ASML fosters a culture of integrity where people comply with the law and with our Code of Conduct and Business Principles. We promote an open and honest culture that encourages people to speak up about irregularities and where

senior management set the right example.

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## Code of Conduct

Our Code of Conduct describes what ASML stands for and believes in:

♣We respect people and planet;

♣We operate with integrity;

- We preserve our assets;

♣We manage professionally; and

♣We encourage to Speak Up.

The Code of Conduct and Business Principles can be found on the Governance section of ASML's website.

Information on our Website is not incorporated into, and does not form a part of this Annual Report.

## Business Principles

The Code of Conduct has been translated into a set of practical Business Principles for all employees which provide greater clarity about the standards we expect our employees to follow and the behavior they must adopt. The Business Principles help to drive ethical and balanced behavior, control our business exposures, and safeguard our reputation. Employees must consult the business principles for their day-to-day guidance. The Business Principles focus on five core areas mentioned above.

## Code of Conduct Complaints

We encourage our employees to speak up and feel free to raise ethical issues without the fear of retaliation. ASML has a Speak Up policy in place for reporting issues relating to a (possible) breach of the Code of Conduct, including complaints of a financial nature (whistleblower's policy). For those employees who feel more comfortable speaking up anonymously, there is an external Speak Up system available (phone and webmail). The Speak Up policy can be found on the Governance section of ASML's website. Information on our Website is not incorporated into, and does not form a part of this Annual Report.

For more information about this topic see our 2016 Integrated Report as published on our Website. Information on ASML's website is not incorporated into, and does not form a part of, this Annual Report.

## C. Principal Accountant Fees and Services

KPMG has served as our independent registered public accounting firm for the year ending December 31, 2016. The following table sets out the aggregate fees for professional audit services and other services rendered by KPMG and their member firms and/or affiliates in 2016:

Year ended December 31 (in thousands)	2016		
	KPMG Accountants N.V. EUR	KPMG Network EUR	Total EUR
Audit fees	1,269	307	1,576
Audit-related fees	100	—	100
Tax fees	—	—	—
Other fees	—	—	—

Principal accountant fees 1,369 307 1,676

Audit fees and audit-related fees

Audit fees primarily relate to the audit of the Financial Statements as set out in this Annual Report, our Statutory Annual Report, limited procedures on our quarterly results, certain agreed-upon procedures on the targets achieved in order for the RC to assess compliance with the Remuneration Policy and services related to our statutory and regulatory filings of our subsidiaries. Audit-related fees relate to sustainability assurance services and other permissible non-audit services.

The AC has approved the external audit plan and audit fees for the year 2016.

Deloitte has served independent registered public accounting firm for the year ending December 31, 2015. The following table sets out the aggregate fees for professional audit services and other services rendered by Deloitte and

their member firms and/or affiliates in 2015:

Year ended December 31	2015		
	Deloitte Accountants B.V.	Deloitte Network	Total
(in thousands)	EUR	EUR	EUR
Audit fees in relation to annual reports	1,323	—	1,323
Other audit fees	68	359	427
Tax fees	157	2	159
Principal accountant fees	1,548	361	1,909

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#### Audit fees in relation to annual reports and other audit fees

Audit fees primarily relate to the audit of the Financial Statements as set out in this Annual Report, our Statutory Annual Report, limited procedures on our quarterly results, agreed upon procedures related to our Remuneration Report and services related to our statutory and regulatory filings and our subsidiaries.

#### Tax fees

The tax fees include tax compliance services and tax advisory services.

The AC monitors compliance with the Dutch and US rules on non-audit services provided by an independent registered public accounting firm, which outlines strict separation of audit and advisory services for Dutch public interest entities.

#### D. Exemptions from the Listing Standards for Audit Committees

Not applicable.

#### E. Purchases of Equity Securities by the Issuer and Affiliated Purchasers

In addition to dividend payments, we intend to return cash to our shareholders on a regular basis through share buybacks or capital repayments, subject to our actual and anticipated level of liquidity requirements, our current share price, other market conditions and other relevant factors.

On January 20, 2016 we announced our intention to repurchase approximately EUR 1.5 billion of our own shares within the 2016-2017 timeframe. This program includes an amount of approximately EUR 500.0 million remaining from the prior share repurchase program, announced January 21, 2015. We intend to cancel the shares upon repurchase. During the period from January 21, 2016 up to December 31, 2016, we purchased 4.8 million shares that will be canceled for a total consideration of EUR 400.0 million. In the light of the acquisition of HMI and the announced investment in Carl Zeiss SMT, we have paused the share buyback program. As a result, the 2016–2017 program may not be completed for the full amount. Otherwise, the current program will remain in place, yet it may be further suspended, modified or discontinued at any time. Furthermore, no shares were canceled in 2016, and we intend to cancel 7.7 million shares in 2017.

The following tables provide a summary of shares repurchased by ASML in 2016 and a historic overview of previous share buyback programs, respectively:

Period	Total number of shares purchased	Average price paid per Share (EUR)	Total number of shares purchased as part of publicly announced plans or programs	Maximum value of shares that may yet be purchased under the program (EUR thousands)
January 21 - 31, 2016	268,537	82.08	268,537	1,477,957
February 1 - 29, 2016	1,306,921	78.12	1,575,458	1,375,859
March 1 - 31, 2016	1,045,133	86.51	2,620,591	1,285,449
April 1 - 30, 2016	1,138,127	87.95	3,758,718	1,185,356
May 1 - 31, 2016	278,182	82.15	4,036,900	1,162,504
June 1 - 30, 2016	560,410	85.57	4,597,310	1,114,552
July 1 - 31, 2016	166,068	87.63	4,763,378	1,100,000
August 1 - 31, 2016	—	—	4,763,378	1,100,000
September 1 - 30, 2016	—	—	4,763,378	1,100,000
	—	—	4,763,378	1,100,000

October 1 - 31, 2016				
November 1 - 30, 2016	—	—	4,763,378	1,100,000
December 1 - 31, 2016	—	—	4,763,378	1,100,000
Total	4,763,378	83.97		

Period	Year	Total amount paid (in EUR millions)	Total Number of Shares Purchased	Average Price Paid per Share (EUR)
Share Buybacks	2006	677.2	40,385,139	16.77
Synthetic Share Buyback	2007	1,011.9	55,093,409	18.37
Share Buybacks	2007	359.8	17,000,000	21.16
Share Buybacks	2008	87.6	5,000,000	17.52
Share Buybacks	2011	700.0	25,674,576	27.26
Synthetic Share Buyback	2012	3,728.3	93,411,216	39.91
Share Buybacks	2012	535.2	13,478,058	39.71
Share Buybacks	2013	300.0	4,614,179	65.02
Share Buybacks	2014	700.0	9,981,375	70.13
Share Buybacks	2015	564.9	6,272,776	90.05
Share Buybacks	2016	400.0	4,763,378	83.97
Total / Average <sup>1</sup>		5,336.6	182,262,890	29.28

1. Totals and average are excluding the synthetic share buyback executed in 2012 as part of our CCIP.

#### F. Change in Registrant's Certifying Accountant

At the AGM held on April 22, 2015, KPMG Accountants N.V. was appointed as the new external audit firm for ASML for the 2016 reporting year. The appointment of KPMG Accountants N.V. was the result of a tender and selection process completed in June 2014 and the recommendation of KPMG Accountants N.V. by the AC.

The change in auditors was made to comply with the Dutch Audit Profession Act, which, as it was enforced in 2015, required the replacement of any external audit firm that performed the statutory audits of ASML for a period of eight consecutive years (effective as of January 1, 2016, this period was extended to ten consecutive years).

During the two years prior to December 31, 2015, (1) Deloitte Accountants B.V. had not issued any reports on the financial statements of ASML or on the effectiveness of internal control over financial reporting that contained an adverse opinion or a disclaimer of opinion, nor were the auditors' reports of Deloitte Accountants B.V. qualified or modified as to uncertainty, audit scope, or accounting principles, (2) there has not been any disagreement over any matter of accounting principles or practices, financial statement disclosure, or auditing scope or procedures, which disagreements if not resolved to Deloitte Accountants B.V.'s satisfaction would have caused it to make reference to the subject matter of the disagreement in connection with its auditors' reports, or any "reportable event" as described in Item 16F(a)(1)(v) of Form 20-F.

Furthermore, in the two years prior to December 31, 2015, we have not consulted with KPMG Accountants N.V. regarding either (i) the application of accounting principles to a specified transaction, either completed or proposed, or the type of audit opinion that might be rendered with respect to the consolidated financial statements of ASML; or (ii) any matter that was the subject of a disagreement as that term is used in Item 16F(a)(1)(iv) of Form 20-F or a "reportable event" as described in Item 16F(a)(1)(v) of Form 20-F.



#### G. Corporate Governance

NASDAQ rules provide that foreign private issuers may follow home country practice in lieu of the NASDAQ corporate governance standards subject to certain exceptions and except to the extent that such exemptions would be contrary to US federal securities laws. The practices followed by ASML in lieu of NASDAQ rules are described below:

ASML does not follow NASDAQ's quorum requirements applicable to meetings of ordinary shareholders. In accordance with Dutch law and Dutch generally accepted business practice, ASML's Articles of Association provide that there are no quorum requirements generally applicable to General Meetings of Shareholders.

ASML is exempt from NASDAQ's requirements regarding the solicitation of proxies and the provision of proxy statements for General Meetings of Shareholders. ASML does furnish proxy statements and solicit proxies for the General Meeting of Shareholders. Dutch corporate law sets a mandatory (participation and voting) record date for Dutch listed companies at the twenty-eighth day prior to the date of the General Meeting of Shareholders.

Shareholders registered at such record date are entitled to attend and exercise their rights as shareholders at the General Meeting of Shareholders, regardless of sale of shares after the record date.

ASML does not follow NASDAQ's requirement regarding distribution to shareholders of copies of an Annual Report containing audited Financial Statements prior to our AGM. The distribution of our Annual Report to shareholders is not required under Dutch corporate law or Dutch securities laws, or by Euronext Amsterdam. Furthermore, it is generally accepted business practice for Dutch companies not to distribute Annual Reports. In part, this is because the Dutch system of bearer shares has made it impractical to keep a current list of holders of the bearer shares in order to distribute the Annual Reports. Instead, we make our Annual Reports available at our corporate head office in the Netherlands (and at the offices of our Dutch listing agent as stated in the convening notice for the meeting) no later than 42 days prior to convocation of the AGM. In addition, we post a copy of our Annual Reports on our Website prior to the AGM.

ASML does not follow NASDAQ's requirement to obtain shareholder approval of stock option or purchase plans or other equity compensation arrangements available to officers, directors or employees. It is not required under Dutch law or generally accepted practice for Dutch companies to obtain shareholder approval of equity compensation arrangements available to officers, directors or employees. The AGM adopts the remuneration policy for the BoM, approves equity compensation arrangements for the BoM and approves the remuneration for the SB. The RC evaluates the achievements of individual members of the BoM with respect to the short and long-term quantitative performance, the full SB evaluates the quantitative performance criteria. Equity compensation arrangements for employees are adopted by the BoM within limits approved by the AGM.

#### H. Mine Safety Disclosure

Not applicable.

Part III

Item 17 Financial Statements

Not applicable.

Item 18 Financial Statements

In response to this item, we incorporate herein by reference our Financial Statements set out on pages F-2 through F-51 hereto.

Item 19 Exhibits

Exhibit No. Description

- |      |  |
|------|--|
| 1    | Articles of Association of ASML Holding N.V. (English translation) (Incorporated by reference to Amendment No. 13 to the Registrant's Registration Statement on Form 8-A/A, filed with the SEC on February 8, 2013)  |
| 4.1  | Agreement between ASM Lithography B.V. and Carl Zeiss, dated March 17, 2000 (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2000)   |
| 4.2  | Agreement between ASML Holding N.V. and Carl Zeiss, dated October 24, 2003 (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2003)   |
| 4.3  | Form of Indemnity Agreement between ASML Holding N.V. and members of its Board of Management (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2003)   |
| 4.4  | Form of Indemnity Agreement between ASML Holding N.V. and members of its Supervisory Board (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2003)   |
| 4.5  | Form of Employment Agreement for members of the Board of Management (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2003)   |
| 4.6  | Nikon-ASML Patent Cross-License Agreement, dated December 10, 2004, between ASML Holding N.V. and Nikon Corporation (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2014) <sup>1</sup>                      |
| 4.7  | ASML/Zeiss Sublicense Agreement, 2004, dated December 10, 2004, between Carl Zeiss SMT AG and ASML Holding N.V. (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the fiscal year ended December 31, 2004) <sup>1</sup>                          |
| 4.8  | ASML Performance Stock Plan for Members of the Board of Management (Version 1) (Incorporated by reference to the Registrant's Registration Statement on Form S-8 filed with the SEC on July 5, 2007 (file No. 333-144356))   |
| 4.9  | ASML Performance Stock Plan for Members of the Board of Management (Incorporated by reference to the Registrant's Registration Statement on Form S-8 filed with the SEC on October 13, 2009 (file No. 333-162439))   |
| 4.10 | ASML Board of Management Umbrella Share Plan (Incorporated by reference to the Registrant's Registration Statement on Form S-8 filed with the SEC on April 14, 2015 (file No. 333-203390))   |
| 4.11 | 450mm NRE Funding Agreement between ASML Holding N.V. and Intel Corporation, dated July 9, 2012 (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012) <sup>1</sup>   |
| 4.12 | EUV NRE Funding Agreement between ASML Holding N.V. and Intel Corporation, dated July 9, 2012 (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012) <sup>1</sup>   |
| 4.13 | Shareholder Agreement between ASML Holding N.V., Intel Holdings B.V., Intel Corporation and Stichting Administratiekantoor MAKTSJAB dated September 12, 2012 (Incorporated by reference to the Registrant's Annual Report on Form 20-F for the year ended December 31, 2012) |
| 4.14 | Share Swap Agreement between ASML Holding N.V. and Hermes Microvision, Inc., dated June 16, 2016 <sup>2</sup>  |

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- 4.15 Investment Agreement among ASML Holding N.V., Zeiss, Carl Zeiss SMT, Carl Zeiss SMT Holding GmbH & Co. KG and Carl Zeiss SMT Holding Management GmbH, dated November 2, 2016<sup>2</sup>
  - 8.1 List of Main Subsidiaries <sup>2</sup>
  - 12.1 Certification of CEO and CFO Pursuant to Rule 13a-14(a) of the Securities Exchange Act of 1934 <sup>2</sup>
  - 13.1 Certification of CEO and CFO Pursuant to Rule 13a-14(b) of the Securities Exchange Act of 1934 <sup>2</sup>
  - 15.1 Consent of Independent Registered Public Accounting Firm<sup>2</sup>
  - 15.2 Consent of Independent Registered Public Accounting Firm<sup>2</sup>
  - 15.3 Letter dated February 7, 2017 from Deloitte Accountants B.V.<sup>2</sup>
  - 101.INS XBRL Instance Document <sup>2</sup>
  - 101.SCH XBRL Taxonomy Extension Schema Document <sup>2</sup>
  - 101.CAL XBRL Taxonomy Extension Calculation Linkbase Document <sup>2</sup>
  - 101.DEF XBRL Taxonomy Extension Definition Linkbase Document <sup>2</sup>
  - 101.LAB XBRL Taxonomy Extension Label Linkbase Document <sup>2</sup>
  - 101.PRE XBRL Taxonomy Extension Presentation Linkbase Document <sup>2</sup>
1. Certain information omitted pursuant to a request for confidential treatment filed separately with the SEC.
2. Filed at the SEC herewith.
- ASML is party to five debt instruments under which the total amount of securities under each debt instrument does not exceed 10 percent of the total assets of ASML and its subsidiaries on a consolidated basis. Pursuant to paragraph 2(b) (i) of the instructions to the exhibits to Form 20-F, ASML agrees to furnish a copy of such instruments to the SEC upon request.

ASML Holding N.V. hereby certifies that it meets all of the requirements for filing on Form 20-F and that it has duly caused and authorized the undersigned to sign this Annual Report on its behalf.

ASML Holding N.V. (Registrant)

/s/ Peter T.F.M. Wennink

Peter T.F.M. Wennink

President, CEO and member of the Board of Management

Dated: February 7, 2017

/s/ Wolfgang U. Nickl

Wolfgang U. Nickl

Executive Vice President, CFO and member of the Board of Management

Dated: February 7, 2017

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Financial Statements

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## Consolidated Statements of Operations

Notes	Year ended December 31 (in thousands, except per share data)	2014 EUR	2015 EUR	2016 EUR
20	Net system sales	4,242,790	4,237,183	4,571,118
	Net service and field option sales	1,613,487	2,050,192	2,223,634
20	Total net sales	5,856,277	6,287,375	6,794,752
	Cost of system sales	(2,335,512)	(2,212,965)	(2,389,160)
	Cost of service and field option sales	(924,391)	(1,178,666)	(1,361,112)
21	Total cost of sales	(3,259,903)	(3,391,631)	(3,750,272)
	Gross profit	2,596,374	2,895,744	3,044,480
27	Other income	81,006	83,200	93,777
21, 22	Research and development costs	(1,074,035)	(1,068,077)	(1,105,763)
21	Selling, general and administrative costs	(321,110)	(345,732)	(374,760)
	Income from operations	1,282,235	1,565,135	1,657,734
23	Interest and other, net	(8,600)	(16,515)	33,644
	Income before income taxes	1,273,635	1,548,620	1,691,378
19	Provision for income taxes	(76,995)	(161,446)	(219,484)
	Net income	1,196,640	1,387,174	1,471,894
1	Basic net income per ordinary share	2.74	3.22	3.46
1	Diluted net income per ordinary share <sup>1</sup>	2.72	3.21	3.44
	Number of ordinary shares used in computing per share amounts			
1	Basic	437,142	430,639	425,598
1	Diluted <sup>1</sup>	439,693	432,644	427,684

1. The calculation of diluted net income per ordinary share assumes the exercise of options issued under our stock option plans and the issuance of shares under our share plans for periods in which exercises or issuances would have



a dilutive effect. The calculation of diluted net income per ordinary share does not assume exercise of such options or issuance of shares when such exercises or issuance would be anti-dilutive.

## Consolidated Statements of Comprehensive Income

Year ended December 31	2014	2015	2016
Notes (in thousands)	EUR	EUR	EUR
Net income	1,196,640	1,387,174	1,471,894
Other comprehensive income:			
Foreign currency translation, net of taxes:			
Gain (loss) on foreign currency translation and effective portion of hedges on net investments	230,388	272,427	120,452
Financial instruments, net of taxes:			
4 Gain (loss) on derivative financial instruments	17,375	9,872	5,990
4 Transfers to net income	6,691	(21,995)	2,410
Other comprehensive income, net of taxes	254,454	260,304	128,852
Total comprehensive income, net of taxes	1,451,094	1,647,478	1,600,746
Attributable to equity holders	1,451,094	1,647,478	1,600,746

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Consolidated Balance Sheets

As of December 31	2015	2016
Notes (in thousands, except share and per share data)	EUR	EUR
Assets		
5 Cash and cash equivalents	2,458,717	2,906,868
5 Short-term investments	950,000	1,150,000
6 Accounts receivable, net	803,696	700,206
7 Finance receivables, net	280,523	447,384
19 Current tax assets	19,080	11,622
8 Inventories, net	2,573,730	2,780,878
19 Deferred tax assets <sup>1</sup>	133,131	—
9 Other assets	488,824	560,471
Total current assets	7,707,701	8,557,429
7 Finance receivables, net	124,036	117,232
19 Deferred tax assets <sup>1</sup>	29,012	34,940
9 Other assets	450,882	612,305
10 Goodwill	2,624,552	4,873,894
11 Other intangible assets, net	738,170	1,322,924
12 Property, plant and equipment, net	1,620,678	1,687,237
Total non-current assets	5,587,330	8,648,532
Total assets	13,295,031	17,205,961
Liabilities and shareholders' equity		
Accounts payable	527,894	593,197
13 Accrued and other liabilities	2,566,593	2,236,012
19 Current tax liabilities	3,654	201,930
14 Current portion of long-term debt	4,211	247,672
Provisions	2,441	1,785
19 Deferred tax liabilities <sup>1</sup>	2,379	—
Total current liabilities	3,107,172	3,280,596
14 Long-term debt	1,125,474	3,071,793
19 Deferred and other tax liabilities <sup>1</sup>	256,740	396,837
Provisions	2,445	20,524
13 Accrued and other liabilities	414,369	615,730
Total non-current liabilities	1,799,028	4,104,884
Total liabilities	4,906,200	7,385,480
16, 18 Commitments and contingencies	—	—
Cumulative Preference Shares; EUR 0.09 nominal value; 700,000,000 shares authorized at December 31, 2016 and 2015; none issued and outstanding per December 31, 2016 and 2015	—	—
Ordinary Shares B; EUR 0.01 nominal value;		

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9,000 shares authorized at December 31, 2016 and 2015  
 none issued and outstanding per December 31, 2016 and 2015 — —

Ordinary shares; EUR 0.09 nominal value;		
699,999,000 shares authorized at December 31, 2016;		
429,941,232 issued and outstanding at December 31, 2016;		
699,999,000 shares authorized at December 31, 2015;		
427,986,682 issued and outstanding at December 31, 2015;		
Issued and outstanding shares	38,786	39,391
Share premium	3,070,332	3,693,587
Treasury shares at cost	(476,922)	(796,173)
Retained earnings	5,284,315	6,282,504
Accumulated other comprehensive income	472,320	601,172
25 Total shareholders' equity	8,388,831	9,820,481
Total liabilities and shareholders' equity	13,295,031	17,205,961

As of January 1, 2016, ASML early adopted the amendment to ASC 740 "Income taxes (Topic 740): Balance Sheet Classification of Deferred Taxes", which requires that deferred tax liabilities and assets are classified as non-current in the consolidated balance sheets. The comparative figures have not been adjusted to reflect this change in accounting policy.

## Consolidated Statements of Shareholders' Equity

Notes (in thousands)	Issued and Outstanding Shares		Share Premium	Treasury Shares at Cost	Retained Earnings	Accumulated OCI <sup>2</sup>	Total	
	Number <sup>1</sup>	Amount						
		EUR	EUR	EUR	EUR	EUR	EUR	
	Balance at January 1, 2014	440,852	40,092	2,912,862	(364,702)	4,376,613	(42,438)	6,922,427
Components of comprehensive income:								
	Net income	—	—	—	—	1,196,640	—	1,196,640
	Foreign currency translation and effective portion of hedges on net investments	—	—	—	—	—	230,388	230,388
4	Gain on financial instruments, net of taxes	—	—	—	—	—	24,066	24,066
	Total comprehensive income	—	—	—	—	1,196,640	254,454	1,451,094
CCIP:								
27	Fair value differences <sup>3</sup>	—	—	28,086	—	—	—	28,086
26	Purchase of treasury shares	(9,981)	—	—	(700,000)	—	—	(700,000)
26	Cancellation of treasury shares	—	(852)	—	610,698	(609,846)	—	—
17, 21	Share-based payments	—	—	63,380	—	—	—	63,380
17	Issuance of shares	2,064	186	(6,250)	64,561	(46,904)	—	11,593
25	Dividend paid	—	—	—	—	(267,962)	—	(267,962)
17, 19	Tax benefit from share-based payments	—	—	3,972	—	—	—	3,972
	Balance at December 31, 2014	432,935	39,426	3,002,050	(389,443)	4,648,541	212,016	7,512,590
Components of comprehensive income:								
	Net income	—	—	—	—	1,387,174	—	1,387,174
	Foreign currency translation and effective portion of hedges on net investments	—	—	—	—	—	272,427	272,427
4	Loss on financial instruments, net of taxes	—	—	—	—	—	(12,123)	(12,123)
		—	—	—	—	1,387,174	260,304	1,647,478

	Total comprehensive income							
	CCIP:							
27	Fair value differences <sup>3</sup>	—	—	17,888	—	—	—	17,888
26	Purchase of treasury shares	(6,273 )	(297 )	—	(564,590 )	—	—	(564,887 )
26	Cancellation of treasury shares	—	(462 )	—	389,302	(388,840 )	—	—
17, 21	Share-based payments	—	—	59,070	—	—	—	59,070
17	Issuance of shares	1,325	119	(12,336 )	87,809	(60,250 )	—	15,342
25	Dividend paid	—	—	—	—	(302,310 )	—	(302,310 )
17, 19	Tax benefit from share-based payments	—	—	3,660	—	—	—	3,660
	Balance at December 31, 2015	427,987	38,786	3,070,332	(476,922 )	5,284,315	472,320	8,388,831
	Components of comprehensive income:							
	Net income	—	—	—	—	1,471,894	—	1,471,894
	Foreign currency translation and effective portion of hedges on net investments	—	—	—	—	—	120,452	120,452
4	Gain on financial instruments, net of taxes	—	—	—	—	—	8,400	8,400
	Total comprehensive income	—	—	—	—	1,471,894	128,852	1,600,746
	CCIP:							
27	Fair value differences <sup>3</sup>	—	—	27,927	—	—	—	27,927
26	Purchase of treasury shares	(4,763 )	—	—	(400,000 )	—	—	(400,000 )
26	Cancellation of treasury shares	—	—	—	—	—	—	—
17, 21	Share-based payments <sup>4</sup>	—	—	49,162	—	—	—	49,162
17	Issuance of shares <sup>5</sup>	6,717	605	545,284	80,749	(27,840 )	—	598,798
25	Dividend paid	—	—	—	—	(445,865 )	—	(445,865 )
17, 19	Tax benefit from share-based payments	—	—	882	—	—	—	882
	Balance at December 31, 2016	429,941	39,391	3,693,587	(796,173 )	6,282,504	601,172	9,820,481

As of December 31, 2016, the number of issued shares was 439,199,514. This includes the number of issued and outstanding shares of 429,941,232 and the number of treasury shares of 9,258,282. As of December 31, 2015, the number of issued shares was 433,332,573. This includes the number of issued and outstanding shares of 1. 427,986,682 and the number of treasury shares of 5,345,891. As of December 31, 2014, the number of issued shares was 438,073,643. This includes the number of issued and outstanding shares of 432,935,288 and the number of treasury shares of 5,138,355.

As of December 31, 2016, accumulated OCI, net of taxes, consists of EUR 593.1 million relating to foreign 2. currency translation gain (2015: EUR 472.6 million gain; 2014: EUR 200.1 million gain) and EUR 8.1 million relating to unrealized gains on financial instruments (2015: EUR 0.3 million losses; 2014: EUR 11.9 million gains).

In 2016, EUR 27.9 million (2015: EUR 17.9 million; 2014: EUR 28.1 million) is recognized to increase equity to 3. the fair value of the shares issued to the Participating Customers in the CCIP. The portion of the NRE funding allocable to the shares is recognized over the NRE Funding Agreements period (2013-2017).

Share-based payments include an amount of EUR 1.5 million in relation to the fair value compensation of unvested 4. equity awards exchanged as part of the acquisition of HMI.

Issuance of shares includes 5,866,001 ordinary shares issued in relation to the acquisition of HMI for a total fair 5. value of EUR 580.6 million.

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Consolidated Statements of Cash Flows

Notes	Year ended December 31 (in thousands)	2014 EUR	2015 EUR	2016 EUR
	Cash Flows from Operating Activities			
	Net income	1,196,640	1,387,174	1,471,894
	Adjustments to reconcile net income to net cash flows from operating activities:			
9, 11, 12, 14	Depreciation and amortization <sup>1</sup>	254,644	296,884	356,928
10, 11, 12	Impairment	10,528	2,287	3,466
12	Loss on disposal of property, plant and equipment <sup>2</sup>	3,502	1,630	5,233
17, 21	Share-based payments	63,380	59,070	47,701
6	Allowance for doubtful receivables	133	3,870	3,161
8	Allowance for obsolete inventory	162,821	211,801	73,035
19	Deferred income taxes	(59,050 )	45,349	(580 )
	Changes in assets and liabilities:			
6	Accounts receivable	(164,850 )	243,097	187,427
7	Finance receivables	51,132	(145,278 )	(156,140 )
8	Inventories <sup>2,3</sup>	(293,404 )	(87,777 )	(43,662 )
9	Other assets	(112,424 )	(146,272 )	(152,905 )
13	Accrued and other liabilities	36,524	235,446	(273,930 )
	Accounts payable	(136,192 )	(77,090 )	50,917
19	Current income taxes	11,822	(4,611 )	93,361
	Net cash provided by operating activities	1,025,206	2,025,580	1,665,906
	Cash Flows from Investing Activities			
12	Purchase of property, plant and equipment <sup>3</sup>	(358,280 )	(371,770 )	(316,338 )
11	Purchase of intangible assets	(2,952 )	(1,108 )	(8,384 )
5	Purchase of short-term investments	(504,756 )	(950,000 )	(2,520,000)
5	Maturity of short-term investments	849,776	334,864	2,320,000
	Cash from (used for) derivative financial instruments	—	(171,899 )	(15,034 )
	Loans issued and other investments	—	—	(7,427 )
2	Acquisition of subsidiaries (net of cash acquired)	—	—	(2,641,295)
	Net cash used in investing activities	(16,212 )	(1,159,913)	(3,188,478)
	Cash Flows from Financing Activities			
25	Dividend paid	(267,962 )	(302,310 )	(445,865 )
25, 26	Purchase of treasury shares	(700,000 )	(564,887 )	(400,000 )
2	Net proceeds from issuance of shares	39,679	33,230	582,742 <sup>4</sup>
14	Net proceeds from issuance of notes	—	—	2,230,619 <sup>5</sup>
14	Repayment of debt	(4,128 )	(3,639 )	(4,739 )
17, 19	Tax benefit (deficit) from share-based payments	3,972	3,660	882
	Net cash from (used in) financing activities	(928,439 )	(833,946 )	1,963,639
	Net cash flows	80,555	31,721	441,067
	Effect of changes in exchange rates on cash	8,238	7,509	7,084
	Net increase in cash and cash equivalents	88,793	39,230	448,151
5	Cash and cash equivalents at beginning of the year	2,330,694	2,419,487	2,458,717
5	Cash and cash equivalents at end of the year	2,419,487	2,458,717	2,906,868
	Supplemental Disclosures of Cash Flow Information:			



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Interest and other paid	(42,439 )	(43,710 )	(55,688 )
Income taxes paid	(124,325 )	(126,908 )	(115,856 )

In 2016, depreciation and amortization includes EUR 290.8 million of depreciation of property, plant and equipment (2015: EUR 243.0 million, 2014: EUR 209.5 million), EUR 63.5 million of amortization of intangible assets (2015: EUR 51.2 million, 2014: EUR 43.9 million) and EUR 2.6 million of amortization of underwriting commissions and discount related to the bonds and credit facility (2015: EUR 2.7 million, 2014: EUR 1.2 million).

In 2016, an amount of EUR 22.8 million (2015: EUR 72.7 million, 2014: EUR 30.7 million) of the disposal of property, plant and equipment relates to non-cash transfers to inventory. Since the transfers between inventory and property, plant and equipment are non-cash events, these are not reflected in these Consolidated Statements of Cash Flows. For further details see Note 12.

In 2016, an amount of EUR 21.6 million (2015: EUR 91.0 million, 2014: EUR 95.5 million) of the additions in property, plant and equipment relates to non-cash transfers from inventory. Since the transfers between inventory and property, plant and equipment are non-cash events, these are not reflected in these Consolidated Statements of Cash Flows. For further details see Note 12.

Net proceeds from issuance of shares includes an amount of EUR 536.6 million which is included in the consideration transferred for the acquisition of HMI. For further details see Note 2.

Net proceeds from issuance of notes relate to the total cash proceeds of EUR 2,230.6 million (net of incurred transaction costs) from the issuance of our EUR 500 million 0.625 percent senior notes due 2022, our EUR 1,000 million 1.375 percent senior notes due 2026 and our EUR 750 million 1.625 percent senior notes due 2027.

## Notes to the Consolidated Financial Statements

### 1. General Information / Summary of Significant Accounting Policies

ASML, with its corporate headquarters in Veldhoven, the Netherlands, is engaged in the development, production, marketing, selling and servicing of advanced semiconductor equipment systems, exclusively consisting of lithography systems. ASML's principal operations are in the Netherlands, the US and Asia.

Our shares are listed for trading in the form of registered shares on NASDAQ and on Euronext Amsterdam. The principal trading market of our ordinary shares is Euronext Amsterdam.

#### Basis of Preparation

The accompanying Consolidated Financial Statements are stated in thousands of EUR unless indicated otherwise. The accompanying Consolidated Financial Statements have been prepared in conformity with US GAAP. We have reclassified certain prior period amounts to conform to current period presentation.

#### Use of Estimates

The preparation of our Consolidated Financial Statements in conformity with US GAAP requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities on the balance sheet dates, and the reported amounts of net sales and costs during the reported periods. Actual results could differ from those estimates. We evaluate our estimates continuously and we base our estimates on historical experience and on various other assumptions that we believe to be reasonable under the circumstances. Actual results may differ from these estimates if the assumptions prove incorrect. To the extent there are material differences between actual results and these estimates, our future results could be materially and adversely affected. We believe that the accounting policies described below require us to make significant judgments and estimates in the preparation of our Financial Statements. Our most critical accounting estimates include:

Revenue Recognition;

Business Combinations;

Inventories;

Income Taxes;

Contingencies and Litigation; and

Evaluation of Long-lived Assets for Impairment.

#### Principles of Consolidation

The Consolidated Financial Statements include the Financial Statements of ASML Holding N.V. and all of its subsidiaries and the VIE of which ASML is the primary beneficiary. All intercompany profits, balances and transactions have been eliminated in the consolidation.

#### Subsidiaries

Subsidiaries are all entities over which ASML has the control to govern financial and operating policies generally accompanying a shareholding of more than 50 percent of the outstanding voting rights. As from the date that these criteria are met, the financial data of the relevant subsidiaries are included in the consolidation.

#### Business Combinations

Acquisitions of subsidiaries are included on the basis of the acquisition method. The cost of acquisition is measured based on the consideration transferred at fair value, the fair value of identifiable assets distributed and the fair value of liabilities incurred or assumed at the acquisition date (i.e., the date which we obtain control). The excess of the costs of an acquired subsidiary over the net of the amounts assigned to identifiable assets acquired and liabilities incurred or assumed, is capitalized as goodwill. Acquisition-related costs are expensed when incurred in the period they arise or the service is received.

#### Variable Interest Entities

We assess whether we have a controlling financial interest in any VIE and, thus whether we are the VIE's primary beneficiary. We consolidate a VIE when we have a variable interest that provides us with a controlling financial interest. We are deemed to have a controlling financial interest in a VIE if both of the following characteristics are met: a) the power to direct the activities of a VIE that most significantly impact the VIE's economic performance and b) the obligation to absorb losses of the VIE that could potentially be significant to the VIE or the right to receive

benefits from the VIE that could potentially be significant to the VIE.

#### Foreign Currency Translation

The financial information for subsidiaries outside the euro-zone is generally measured using local currencies as the functional currency. The Financial Statements of those foreign subsidiaries are translated into euros in the preparation of ASML's Consolidated Financial Statements. Assets and liabilities are translated into euros at the exchange rate on the respective balance sheet dates. Income and costs are translated into euros based on the average exchange rate for the corresponding period. The resulting translation adjustments are recorded directly in shareholders' equity.

### Derivative Financial Instruments

We use derivative financial instruments for the management of foreign currency risks and interest rate risks. We measure all derivative financial instruments based on fair values derived from market prices of the instruments. We adopt hedge accounting for hedges that are highly effective in offsetting the identified hedged risks taking into account required effectiveness criteria.

Derivatives are initially recognized at fair value on the date a derivative contract is entered into and are subsequently remeasured. The method of recognizing the resulting gain or loss depends on whether the derivative is designated as a hedging instrument, and if so, the nature of the item being hedged. We designate certain derivatives as either:

- A hedge of the exposure to changes in the fair value of a recognized asset or liability, that is attributable to a particular risk (fair value hedge);

- A hedge of the exposure to variability in the cash flows of a recognized asset or liability, or of a forecasted transaction, that is attributable to a particular risk (cash flow hedge); or

- A hedge of the foreign currency exposure of a net investment in a foreign operation (net investment hedge).

We document at the inception of the transaction the relationship between hedging instruments and hedged items, as well as our risk management objectives and strategy for undertaking various hedging transactions. We also document our assessment, both at hedge inception and on an ongoing basis, of whether derivatives that are used in hedging transactions are highly effective in offsetting changes in fair values or cash flows of hedged items.

#### Fair Value Hedge

Changes in the fair value of a derivative financial instrument, that is designated and qualified as a fair value hedge, along with the gain or loss on the hedged asset or liability that is attributable to the hedged risk, are recorded in the Consolidated Statements of Operations.

Hedge accounting is discontinued when we revoke the hedging relationship, the hedging instrument expires or is sold, terminated or exercised, or no longer qualifies for hedge accounting. The adjustment to the carrying amount of the hedged item arising from the hedged risk is amortized to the Consolidated Statements of Operations from that date. Interest rate swaps that are being used to hedge the fair value of fixed loan coupons payable are designated as fair value hedges. The change in fair value is intended to offset the change in the fair value of the underlying fixed loan coupons, which is recorded accordingly. The gain or loss relating to the ineffective portion of interest rate swaps hedging fixed loan coupons payable is recognized in the Consolidated Statements of Operations as interest and other, net.

#### Cash Flow Hedge

Changes in the fair value of a derivative that is designated and qualified as a cash flow hedge are recorded in OCI, net of taxes, until the underlying hedged transaction is recognized in the Consolidated Statements of Operations. In the event that the underlying hedge transaction will not occur within the specified time period, the gain or loss on the related cash flow hedge is released from OCI and included in the Consolidated Statements of Operations, unless extenuating circumstances exist that are related to the nature of the forecasted transaction and are outside our control or influence and which cause the forecasted transaction to be probable of occurring on a date that is beyond the specified time period.

Foreign currency hedging instruments that are being used to hedge cash flows related to forecasted sales or purchase transactions in non-functional currencies are designated as cash flow hedges. The gain or loss relating to the ineffective portion of the foreign currency hedging instruments is recognized in the Consolidated Statements of Operations in net sales or cost of sales.

Interest rate swaps that are being used to hedge changes in the variability of future interest cash flows to certain of our operating lease obligations are designated as cash flow hedges. The changes in fair value of the derivatives are intended to offset changes in future interest cash flows of such operating lease obligations. The gain or loss relating to the ineffective portion of interest rate swaps hedging the variability of future interest cash flows is recognized in the Consolidated Statements of Operations as interest and other, net.

#### Net Investment Hedge

Foreign currency hedging instruments that are being used to hedge changes in the value of a net investment are designated as net investment hedges. Changes in the fair value of a derivative that is designated and qualifies as a net

investment hedge are recorded in other comprehensive income. The gain or loss relating to the ineffective portion is recognized in the Consolidated Statements of Operations as interest and other, net. Gains and losses accumulated in other comprehensive income are recognized in the Consolidated Statements of Operations when the foreign operation is (partially) disposed or sold.

Cash and Cash Equivalents

Cash and cash equivalents consist primarily of highly liquid investments, such as bank deposits, money market funds and interest-bearing bank accounts with insignificant interest rate risk and remaining maturities of 3 months or less at the date of acquisition.

### Short-term Investments

Investments with remaining maturities longer than 3 months and less than 1 year at the date of acquisition are presented as short-term investments. Gains and losses other than impairments, interest income and foreign exchange results, are recognized in OCI until the short-term investments are derecognized. Upon derecognition, the cumulative gain or loss recognized in OCI, is recognized in the Consolidated Statements of Operations.

### Accounts Receivable

Accounts receivable are measured at fair value and are subsequently measured at amortized cost using the effective interest rate method, less allowance for doubtful debts.

### Inventories

Inventories are stated at the lower of cost (applying the first-in, first-out method) or market value. Cost includes net prices paid for materials purchased, charges for freight and customs duties, production labor cost and factory overhead. Allowances are made for slow-moving, obsolete or unsellable inventory.

Allowances for inventory are determined based on the expected demand which is derived from sales forecasts, technical obsolescence as well as the expected market value of the inventory.

### Intangible Assets

#### Goodwill

Goodwill represents the excess of the costs of an acquisition over the fair value of the amounts assigned to assets acquired and liabilities incurred or assumed of the acquired subsidiary at the date of acquisition. Goodwill on acquisition of subsidiaries is allocated to RUs for the purpose of impairment testing. The allocation is made to those RUs that are expected to benefit from the business combination in which the goodwill arose. Goodwill is tested for impairment annually at the start of the fourth quarter and whenever events or changes in circumstances indicate that the carrying amount of the goodwill may not be recoverable. Goodwill is stated at cost less accumulated impairment losses.

#### Other Intangible Assets

Other intangible assets include brands, intellectual property, developed technology, customer relationships, and other intangible assets. Other intangible assets are stated at cost, less accumulated amortization and accumulated impairment losses (for the amount exceeding goodwill). Amortization is calculated using the straight-line method based on the estimated useful lives of the assets. The following table presents the estimated useful lives of our finite-lived other intangible assets:

Category	Estimated useful life
Brands	20 years
Intellectual property	3 - 10 years
Developed technology	6 - 15 years
Customer relationships	8 - 18 years
Other	2 - 6 years

### Property, Plant and Equipment

Property, plant and equipment are stated at cost, less accumulated depreciation and accumulated impairment losses. Costs of assets manufactured by ASML include direct manufacturing costs, production overhead and interest costs incurred for qualifying assets during the construction period. Depreciation is calculated using the straight-line method based on the estimated useful lives of the related assets. In the case of leasehold improvements, the estimated useful lives of the related assets do not exceed the remaining term of the corresponding lease.

The following table presents the estimated useful lives of our property, plant and equipment:

Category	Estimated useful life
Buildings and constructions	5 - 45 years

Machinery and equipment	2 - 5 years
Leasehold improvements	5 - 10 years
Furniture, fixtures and other equipment	3 - 5 years

Land is not depreciated.

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#### Evaluation of Long-lived Assets for Impairment

Long-lived assets include goodwill, other intangible assets and property, plant and equipment.

Goodwill is tested for impairment annually at the start of the fourth quarter and whenever events or changes in circumstances indicate that the carrying amount of the goodwill may not be recoverable. These events or circumstances could include a significant change in the business climate, legal factors, operating performance indicators, competition, or sale or disposition of a significant portion of a RU. This test is based on a two-step approach for each RU (being an operating segment or one level below an operating segment) in which goodwill has been recorded. To determine whether it is necessary to perform this two-step approach we may first assess qualitative factors. If we determine that it is more likely than not (a likelihood of more than 50 percent) that the fair value of a RU is less than its carrying amount (including goodwill), the two-step impairment test is performed. In the first step, the recoverability of goodwill is tested by comparing the carrying amount of the RU including goodwill with the fair value of the RU. If the carrying amount of the RU is higher than the fair value of the RU, the second step should be performed. Goodwill impairment is measured as the excess of the carrying amount of the goodwill over its implied fair value. The implied fair value of goodwill is determined by calculating the fair value of the various assets and liabilities included in the RU in the same manner as goodwill is determined in a business combination. Any excess of the carrying amount over the implied fair value is recognized as an impairment loss.

Indefinite-lived other intangible assets are tested for impairment annually at the start of the fourth quarter and whenever events or changes in circumstances indicate that the carrying amount of the indefinite-lived other intangible assets may not be recoverable. To determine whether it is necessary to perform a quantitative test, we may first assess qualitative factors. If we determine that it is more likely than not (a likelihood of more than 50 percent) that the fair value of the asset is less than its carrying amount, the quantitative test is performed. We have an unconditional option to bypass the qualitative assessment for any indefinite-lived intangible asset in any period and proceed directly to performing the quantitative impairment test. The quantitative impairment test for indefinite-lived other intangible assets consists of a comparison of the fair value of these assets with their carrying amounts. Any excess of the carrying amount over the fair value is recognized as an impairment loss.

Finite-lived other intangible assets and property, plant and equipment are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of those assets may not be recoverable. An impairment loss is recognized only if the carrying amount of finite-lived other intangible assets and property, plant and equipment is not recoverable and exceeds its fair value. The carrying amount is not recoverable if it exceeds the sum of the (un)discounted forecasted cash flows to result from the use and eventual disposition of such asset. An impairment loss is measured as the amount by which the carrying amount exceeds its fair value.

In determining the fair value of long-lived assets, we make estimates about future cash flows. These estimates are based on our strategic plan updated with the latest available projections of the semiconductor industry and our income and cost expectations, which are consistent with the plans and estimates that we use to manage our business. We also make estimates and assumptions concerning our WACC. It is possible that actual results may differ from our plans, estimates and assumptions. Future adverse changes in market conditions may also require impairment of certain long-lived assets, which could have a material adverse effect on our financial condition and results of operations.

#### Revenue Recognition

ASML recognizes revenue when all four revenue recognition criteria are met: persuasive evidence of an arrangement exists; delivery has occurred or services have been rendered; seller's price to buyer is fixed or determinable; and collectability is reasonably assured. At ASML this policy generally results in revenue recognition from the sale of a system upon shipment. The revenue from the installation of a system is generally recognized upon completion of that installation at the customer site. Prior to shipment, systems undergo a FAT in our cleanroom facilities, effectively replicating the operating conditions that will be present on the customer's site, in order to verify whether the system will meet its standard specifications and any additional technical and performance criteria agreed with the customer. A system is shipped, and revenue is recognized, only after all contractual specifications are met or discrepancies from agreed-upon specifications are waived and customer sign-off is received for acceptance. In case not all specifications are met and the remaining performance obligation is not essential to the functionality of the system but is substantive rather than inconsequential or perfunctory, a portion of the sales price is deferred. When the remaining obligation is

essential to the functionality of the delivered system, all revenue is deferred. Although each system's performance is re-tested upon installation at the customer's site, we have never failed to successfully complete installation of a system at a customer's premises.

In connection with the introduction of new technology, we initially defer revenue recognition until acceptance of the new technology based system or field option and completion of installation at the customer's premises. As our systems are based largely on two product platforms that permit incremental, modular upgrades, the introduction of genuinely "new" technology occurs infrequently, and in the past 16 years, has occurred on only two occasions: 2000 (TWINSCAN) and 2010 (EUV).

We have no significant repurchase commitments in our general sales terms and conditions. From time to time we repurchase systems that we have manufactured and sold and, following refurbishment, we resell those systems to other customers. This repurchase decision is mainly driven by market demand expressed by other customers and less frequently by explicit or implicit contractual arrangements relating to the initial sale. We consider reasonable offers from any vendor, including customers, to repurchase used systems so that we can refurbish, resell, and install these systems as part of our normal business operations. Once repurchased, the repurchase price of the used system is recorded in work-in-process inventory during the period it is being refurbished, following which the refurbished system is reflected in finished products inventory until it is sold to the customer. As of December 31, 2016 and 2015, ASML had no repurchase commitments.

We offer customers discounts in the normal course of sales negotiations. These discounts are directly deducted from the gross sales price at the moment of revenue recognition. From time to time, we offer free or discounted products or services (award credits) to our customers as part of a volume purchase agreement. In some instances these volume discounts can be used to purchase field options (system enhancements) and services. The related amount is recorded as a reduction in net sales at time of system shipment. The sales transaction that gives rise to these award credits is accounted for as a multiple element sales transaction as the agreements involve the delivery of multiple products. The consideration received from the sales transaction is allocated between the award credits and the other elements of the sales transaction. The consideration allocated to the award credits is recognized as deferred revenue until award credits are delivered to the customer and earned. The amount allocable to a delivered item is limited to the amount that is not contingent upon the delivery of additional items or meeting other specified performance conditions (the non-contingent amount).

Net sales are recognized excluding the taxes levied on sales (net basis).

For certain contracts and constructive obligations on which a loss is evident, we recognize the anticipated loss to the extent the costs of completing these contracts and constructive obligations exceed the amount of the contract price.

When we satisfy these obligations, we utilize the related liability.

#### Multiple-Element Arrangements

The main portion of our net sales is derived from contractual arrangements with our customers that have multiple deliverables (elements), which mainly include the sale of our systems, installation and training services and extended and enhanced (optic) warranty contracts. The requirements for establishing separate units of accounting in a multiple element arrangement require that the allocation of arrangement consideration to each deliverable is based on the relative selling price of the deliverable.

Each element in the arrangement is accounted for as a separate unit of accounting provided the following criteria are met: i) the delivered products or services have value to the customer on a standalone basis; and ii) for an arrangement that includes a general right of return relative to the delivered products or services, delivery or performance of the undelivered product or service is considered probable and is substantially controlled by us. We consider a deliverable to have stand-alone value if the product or service is sold separately by us or another vendor or could be resold by the customer. Further, our sales arrangements do not include a general right of return relative to the delivered products.

Where the aforementioned criteria for a separate unit of accounting are not met, the deliverable is combined with the undelivered element(s) and treated as a single unit of accounting for the purposes of allocation of the arrangement consideration and revenue recognition.

The hierarchy of evidence to determine a selling price in ASC 605-25 is as follows:

- VSOE – The price at which we sell the element in a separate stand-alone transaction;
- TPE – Evidence from us or other companies of the value of a largely interchangeable element in a transaction;
- BESP – Our best estimate of the selling price of an element in the transaction.

To determine the selling price in multiple element arrangements, we establish VSOE of the selling price for installation, training services and extended and enhanced (optic) warranty contracts. VSOE for installation is determined based on the costs we have to incur for the installation increased by the average margin that we realize on billable labor and materials consumed in comparable services (such as relocating a system to another customer site). VSOE for extended and enhanced (optic) warranty contracts is determined on the basis of equivalent products we sell on a standalone basis, such as full service contracts and billable lens swaps, and which are subject to normal price

negotiations. Revenue from installation and training services is recognized when the services are completed. Revenue from extended and enhanced (optic) warranty contracts is recognized over the term of the contract. When we are unable to establish the selling price using VSOE or TPE, we use BESP. The objective of using best estimated selling price-based methodology is to determine the price at which we would transact a sale if the product or service were sold on a stand-alone basis. Accordingly, we determine BESP considering several internal and external factors including, but not limited to, pricing practices, gross margin objectives, market conditions, competitive environment, internal costs and geographies.

For our NXE:3300B and NXE:3350B systems, we are unable to determine VSOE for installation, extended and enhanced (optic) warranty contracts. We determined for NXE:3300B and NXE:3350B systems that BESP is the appropriate reference in the fair value hierarchy for installation, extended and enhanced (optic) warranty contracts. We review selling prices periodically and maintain internal controls over the establishment and updates of these elements.

### Lease Arrangements

A lease is classified as a sales-type lease if any of the following lease classification criteria is met at its inception:

1. The lease transfers ownership of the property to the lessee by the end of the lease term;
2. The lease contains a bargain purchase option;
3. The lease term is equal to 75 percent or more of the estimated economic life of the leased property; or  
The present value at the beginning of the lease term of the minimum lease payments, excluding that portion of the payments representing executory costs such as insurance, maintenance, and taxes to be paid by the lessor, including
4. any profit thereon, equals or exceeds 90 percent of the excess of the fair value of the leased property to the lessee at lease inception over any related investment tax credit retained by the lessor and expected to be realized by the lessor.

Revenue is recognized at commencement of the lease term of a sales-type lease if the collectability of the minimum lease payments is reasonably predictable and there are no uncertainties surrounding unreimbursable costs. The present value of the lease payments is recognized as a finance receivable. The difference between the gross receivable and the present value of the receivable is recognized as unearned interest in the Consolidated Statements of Operations.

A lease is classified as an operating lease if the lease classification criteria (as described above) are not met. If ASML has offered its customers an operating lease arrangement, the contract consideration is recognized in the Consolidated Statements of Operations on a straight-line basis over the period of the lease.

### Warranty

We provide standard warranty coverage on our systems for 12 months and on certain optic parts for 60 months, providing labor and parts necessary to repair systems during the warranty period. The estimated warranty costs are accounted for by accruing these costs for each system upon recognition of the system sale. The estimated warranty costs are based on historical product performance and service records. We calculate the charge of average service hours and parts per system to determine the estimated warranty costs. On a semi-annual basis, we assess, and update if necessary, our accounting estimates used to calculate the standard warranty.

The extended and enhanced (optic) warranty on our systems is accounted for as a separate element of multiple element revenue recognition transactions.

### Customer Co-Investment Program

In connection with the CCIP, we entered into investment agreements, shareholders agreements, NRE Funding Agreements and a commercial agreement with Participating Customers.

The investment agreements, shareholder agreements, NRE Funding Agreements and commercial agreement are accounted for as a multiple-element arrangement with each of the Participating Customers. Based upon ASC 605-25 Multiple-Element Arrangements guidance, the following two separate elements are identified: (1) the share issuance (governed by the investment agreements and the shareholder agreements) and (2) the NRE funding and commercial discounts and credits (governed by the NRE Funding Agreements and the commercial agreement with Intel).

The shares issued to the Participating Customers are recorded at fair value based on quoted share prices (EUR 3,977.4 million) with the remaining aggregate arrangement consideration allocated to the NRE funding and commercial discounts and credits. The difference between the fair value of the shares and the subscription price of the shares (EUR 39.91) was recorded as a deduction from shareholders' equity upon issuance of the shares (EUR 123.4 million). Shareholders' equity is increased to the fair value of the shares as the portion of the NRE funding allocable to the shares is received over the NRE funding period (2013-2017). The amounts are deemed receivables from the Participating Customers in their capacity as shareholders of ASML.

A significant related party relationship exists between ASML and Intel as a result of the equity investment made by Intel as part of the CCIP. Based on the commercial discounts and credits (governed by the commercial agreement with Intel) and the significant related party relationship, all NRE funding from Intel will be deferred and recognized in the Consolidated Statement of Operations only when the commercial discounts and credits are earned.

In addition, see Other Income for further explanation on the accounting policies with respect to CCIP.

### Accounting for Shipping and Handling Fees and Costs

ASML bills the customer for, and recognizes as net sales, any charges for shipping and handling costs. The related costs are recognized as cost of sales.

Cost of Sales

Cost of system sales and field option sales comprise direct product costs such as materials, labor, cost of warranty, depreciation, amortization, shipping and handling costs and related overhead costs.

Costs of service sales comprise direct service costs such as materials, labor, depreciation and overhead costs.

#### Other Income

The portion of the NRE funding from TSMC and Samsung not allocable to the shares issued to those Participating Customers under the CCIP is recognized in other income when the R&D costs relating to lithography projects are recognized over the NRE funding period (2013-2017).

#### R&D Costs and Credits

Costs relating to R&D are charged to operating expenses as incurred. ASML receives subsidies and other grants from several Dutch and international (inter-)governmental institutes ('government grants'). These government grants that cover R&D costs relating to approved projects are recorded as R&D credits in the R&D costs in the Consolidated Statements of Operations.

Government grants are not recognized until there is reasonable assurance that ASML will comply with the conditions and that the grants will be received.

Government grants that are received as compensation for expenses or losses already incurred, or for the purpose of giving immediate financial support to ASML with no future related costs are recognized in the Consolidated Statements of Operations in the period in which they become receivable.

#### Borrowing Costs

Borrowing costs directly attributable to the acquisition, construction or production of qualifying assets, which are assets that necessarily take a substantial period of time to get ready for their intended use or sale, are added to the cost of those assets, until such time that the assets are substantially ready for their intended use or sale.

#### Share-based Payments

Compensation expenses in relation to share-based payments are recognized based upon the grant-date fair value of stock options and shares. The grant-date fair value of stock options is estimated using a Black-Scholes option valuation model. This Black-Scholes model requires the use of assumptions, including expected share price volatility, the estimated life of each award and the estimated dividend yield. The risk-free interest rate used in the model is determined, based on an index populated with euro-denominated European government agency bond with high credit ratings and with a life equal to the expected life of the equity-settled share-based payments. The grant-date fair value of shares is determined based on the closing price of our shares listed at Euronext Amsterdam on the grant-date.

The grant-date fair value of the equity-settled share-based payments is, based on the terms and conditions, expensed over the vesting period, based on our estimate of equity instruments that will eventually vest. At each balance sheet date, we revise our estimate of the number of equity instruments expected to vest. The impact of the revision of the original estimates, if any, is recognized in the Consolidated Statements of Operations in the period in which the revision is determined, with a corresponding adjustment to shareholders' equity.

#### Income Taxes

The asset and liability method is used in accounting for income taxes. Under this method, deferred tax assets and liabilities are recognized for the tax effect of incurred net operating losses and for tax consequences attributable to differences between the balance sheet carrying amounts of existing assets and liabilities and their respective tax bases. If it is more likely than not that the carrying amounts of deferred tax assets will not be realized, a valuation allowance is recorded for the differences. Tax expense includes current taxes on profit as well as actual or potential withholding taxes on current and expected income from group companies.

Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in the Consolidated Statements of Operations in the period that includes the enactment date.

We recognize liabilities for uncertain tax positions based on a two-step process. The first step is to evaluate the tax position for recognition by determining if the weight of available evidence indicates that it is more likely than not that the position will be sustained on audit, including resolution of related appeals or litigation processes, if any. The second step is to measure the tax benefit as the largest amount that is more than 50 percent likely of being realized upon settlement. While we believe we have appropriate support for the positions taken on our tax returns, we regularly assess the potential outcomes of examinations by tax authorities in determining the adequacy of our provision for income taxes, and adjust the income tax provision, income taxes payable and deferred taxes in the period in which the

facts that give rise to a revision become known.



### Contingencies and Litigation

In connection with proceedings and claims, our management evaluates, based on the relevant facts and legal principles, the likelihood of an unfavorable outcome and whether the amount of the loss can be reasonably estimated. In most cases, management determined that either a loss was not probable or was not reasonably estimable. Significant subjective judgments were required in these evaluations, including judgments regarding the validity of asserted claims and the likely outcome of legal and administrative proceedings. The outcome of these proceedings, however, is subject to a number of factors beyond our control, most notably the uncertainty associated with predicting decisions by courts and administrative agencies. In addition, estimates of the potential costs associated with legal and administrative proceedings frequently cannot be subjected to any sensitivity analysis, as damage estimates or settlement offers by claimants may bear little or no relation to the eventual outcome. Finally, in any particular proceeding, we may agree to settle or to terminate a claim or proceeding in which we believe that it would ultimately prevail where we believe that doing so, when taken together with other relevant commercial considerations, is more cost-effective than engaging in an expensive and protracted litigation, the outcome of which is uncertain. We accrue for legal costs related to litigation in our Consolidated Statements of Operations at the time when the related legal services are actually provided.

### Net Income per Ordinary Share

Basic net income per ordinary share is calculated by dividing net income by the weighted average number of ordinary shares outstanding for that period. The dilutive effect is calculated using the treasury stock method. Excluded from the diluted weighted average number of shares outstanding calculation are cumulative preference shares contingently issuable to the preference share foundation, since they represent a different class of stock than the ordinary shares. The basic and diluted net income per ordinary share has been calculated as follows:

Year ended December 31 (in thousands, except per share data)	2014 EUR	2015 EUR	2016 EUR
Net income	1,196,640	1,387,174	1,471,894
Weighted average number of shares outstanding	437,142	430,639	425,598
Basic net income per ordinary share	2.74	3.22	3.46
Weighted average number of shares outstanding	437,142	430,639	425,598
Plus shares applicable to			
Options and conditional shares	2,551	2,005	2,086
Dilutive potential ordinary shares	2,551	2,005	2,086
Diluted weighted average number of shares	439,693	432,644	427,684
Diluted net income per ordinary share <sup>1</sup>	2.72	3.21	3.44

The calculation of diluted net income per ordinary share assumes the exercise of options issued under our stock option plans and the issuance of shares under our share plans for periods in which exercises or issuances would have a dilutive effect. The calculation of diluted net income per ordinary share does not assume exercise of such options or issuance of shares when such exercises or issuance would be anti-dilutive.

### Comprehensive Income

Comprehensive income consists of net income and OCI.

OCI refers to gains and losses that are not included in net income (loss), but recorded directly in shareholders' equity. For the years ended December 31, 2016, 2015 and 2014 comprehensive income consists of net income, unrealized gains and losses on financial instruments, being derivative financial instruments designated for cash flow hedge accounting, net of taxes, and unrealized gains and losses on foreign currency translation and effective portion of

hedges on net investments, net of taxes.

New US GAAP Accounting Pronouncements

For the below mentioned ASUs, issued in 2016 and up to the date of this report, the impact on our Financial Statements needs to be assessed:

In March 2014, FASB issued ASU No. 2014-9 "Revenue From Contracts With Customers". In August 2015, the FASB amended ASU No. 2014-9 to defer the effective date by one year to annual reporting periods beginning after December 15, 2017 (ASU 2015-14 "Revenue From Contracts With Customers (Topic 606): Deferral of the Effective Date" ). In March 2016, the FASB released ASU No. 2016-08 "Revenue from Contracts with Customers (Topic 606): Principal versus Agent Considerations (Reporting Revenue Gross versus Net)" which clarifies the implementation guidance on principal versus agent considerations. In April 2016, the FASB issued ASU No. 2016-10 "Revenue from Contracts with Customers (Topic 606)" which clarifies guidance related to identifying performance obligations and licensing implementation guidance contained in the new revenue recognition standard. In

May 2016 ASU No. 2016-12 "Revenue from Contracts with Customers (Topic 606) - Narrow-Scope Improvements and Practical Expedients" was issued by the FASB which affects entities with transactions included within the scope of Topic 606. The scope of that Topic includes entities that enter into contracts with customers to transfer goods or services (that are an output of the entity's ordinary activities) in exchange for consideration.

The standard is a joint project of the FASB and the IASB, to clarify the principles for recognizing revenue and to develop a common revenue standard for US GAAP and IFRS that would:

Remove inconsistencies and weaknesses in previous revenue requirements;

- Provide a more robust framework for addressing revenue issues;
- Improve comparability of revenue recognition practices across entities, industries, jurisdictions and capital markets;
- Provide more useful information to users of financial statements through improved disclosure requirements; and
- Simplify the preparation of financial statements by reducing the number of requirements to which an entity must refer.

The new standard is effective for interim and annual periods beginning after December 15, 2017 and allows for either full retrospective adoption or modified retrospective adoption. We have selected full retrospective adoption and will therefore restate all years presented in our Consolidated Financial Statements upon adoption.

We are currently assessing the impact of adopting ASC 606 on our Consolidated Financial Statements, by assessing all contracts that have an impact on net system sales and net service and field option sales over 2016. As our assessment of all contracts is not yet finalized we cannot quantify or identify all:

- The impact on our net system sales and net service and field option sales over 2016;
- Deviations from our current revenue recognition accounting policies; and
- The potential impact of other significant matters.

In February 2016, FASB issued ASU No. 2016-2 "Leases (Topic 842)". The objective of this topic is to increase transparency and comparability among organizations by recognizing lease assets and lease liabilities on the balance sheet and disclosing key information about leasing arrangements by lessees. The new Standard is effective for fiscal years beginning after December 15, 2018, including interim periods within those fiscal years and supersede the leases requirements in Topic 840, Leases. Early application is permitted for all entities as of the beginning of an interim or annual reporting period. We are currently in the process of determining the impact of implementing this Standard on our Consolidated Financial Statements.

ASU No. 2016-13 "Financial Instruments - Credit Losses (Topic 326)" was issued by the FASB in June 2016 and will provide financial statement users with more decision-useful information about the expected credit losses on financial instruments and other commitments to extend credit held by a reporting entity at each reporting date. The Update is effective for fiscal years beginning after December 15, 2020, including interim periods within those fiscal years. We are currently in the process of determining the impact of implementing this Standard on our Consolidated Financial Statements.

In October 2016, ASU No. 2016-16 "Income Taxes (Topic 740) Intra-Entity Transfers of Assets Other Than Inventory" was issued by the FASB. The purpose of this Update is to improve the accounting for the income tax consequences of intra-entity transfers of assets other than inventory. The Update is effective for fiscal years beginning after December 15, 2017, including interim periods within those fiscal years. This change in accounting will be adjusted based on a modified retrospective basis with a cumulative effect adjustment to retained earnings as of the beginning of the period of adoption. The material impact of implementing this standard on our Consolidated Financial Statements mainly relates to a so-called bi-lateral advanced pricing agreement between the US and Dutch tax authorities on a inter group transfer of intellectual property rights.

## 2. Business Combinations

On November 22, 2016, we concluded the acquisition of HMI and obtained control through acquiring 100 percent of the issued share capital of HMI, for a total consideration of EUR 3.0 billion. There were no contingent consideration arrangements. The total consideration was allocated to other intangible assets of EUR 606.6 million, other net assets of EUR 259.2 million and goodwill of EUR 2,115.1 million.

Prior to the acquisition, HMI was the world's leading provider of e-beam inspection tools and solutions for defect control and yield management in the advanced semiconductor manufacturing process for R&D and high volume

production. HMI is headquartered in Hsinchu, Taiwan, where the business operations are primarily carried out, next to R&D and technical support. Other sites where HMI is located are in Tainan, Taiwan (R&D and manufacturing), Beijing, China (R&D and manufacturing), San Jose, US (R&D and technical support), Kyungki-do, South-Korea (sales and technical support) and Tokyo, Japan (sales and technical support).

With the acquisition of HMI, we will enter into two new markets, being wafer inspection as well as mask inspection for EUV lithography. In addition, we will expand our efforts in the process control market. The combination of ASML and HMI will allow us to further enhance our product offering at an accelerated pace. The metrology technologies are complementary (in short, HMI provides hardware and ASML's computational lithography division ASML Brion provides software) and when combined, they will offer the chance to significantly improve process control, and hence yields, for customers. As such, the acquisition further enables us to provide Holistic Lithography and process control.

The following table summarizes the major classes of consideration transferred, and the recognized amounts of the fair value of the identifiable assets distributed and the fair value of the liabilities incurred or assumed at the acquisition date. The amounts recorded for the acquisition as disclosed below are provisional. The measurement period remains open as we may further revise our preliminary purchase price allocation during the remainder of the measurement period when we obtain additional information, which might impact the fair value of assets and liabilities. Under ASC 805, adjustments to provisional fair values and goodwill may be made in the period subsequent to the business combination. The period during which such an adjustment is permitted is limited to 12 months from the date of acquisition.

(in thousands)	November 22, 2016 EUR <sup>1</sup>
Cash and cash equivalents	294,216
Accounts receivable, net	57,899
Current tax assets	146
Inventories, net	111,650
Deferred tax assets	2,000
Other assets, current and non-current	3,209
Other intangible assets, net	606,635
Property, plant and equipment, net	52,068
 Assets acquired	 1,127,823
Accounts payable	3,741
Current tax liabilities	1,713
Accrued and other liabilities, current and non-current	54,154
Deferred and other tax liabilities	202,390
 Liabilities assumed	 261,998
 Total net identifiable assets	 865,825
 Consideration for the transaction on November 22, 2016 <sup>2</sup>	 2,935,511
Fair value of shares <sup>3</sup>	43,983
Fair value of unvested equity awards to be exchanged	1,461
Total consideration transferred	2,980,955
 Goodwill on acquisition	 2,115,130

1. Amounts were converted into euro at the rate of TWD/EUR 33.965.

The consideration for the transaction includes an amount of EUR 536.6 million which has been reinvested in ASML through ASML ordinary shares bought by HEC and certain HMI officers (certain HMI shareholders) leaving a net consideration paid in cash of EUR 2,398.9 million.

As part of the consideration transferred, certain HMI shareholders agreed to purchase 5,866,001 ASML ordinary shares for a price of TWD 3,106 (EUR 91.48) per share. These shares were valued at EUR 98.98 being the opening price on Euronext at November 22, 2016. The difference (EUR 44.0 million) between EUR 536.6 million and the fair value of the shares (EUR 580.6 million) at November 22, 2016 is included as purchase consideration.

The majority of the goodwill arising on the acquisition of HMI is attributable to buyer specific synergies, net sales and profits assigned to future multi-beam technology, net sales and profits assigned to next generation single-beam technology and HMI workforce. Synergies relate to the unique combination of HMI's inspection tools and our defect

prediction/PFC software.

All goodwill has been allocated to the RU ASML. None of the goodwill recognized is expected to be deductible for income tax purposes.

In the period between the date of acquisition and December 31, 2016 HMI contributed EUR 25.7 million to net sales and a loss of EUR 5.4 million to net income (including a charge of EUR 13.7 million related to the purchase price allocation adjustments).

In 2016, we incurred EUR 18.7 million transaction costs relating to the acquisition of HMI. These costs are included in SG&A.

The following unaudited pro forma summary presents estimated consolidated information of ASML as if the HMI acquisition has occurred on January 1, 2015. These amounts have been calculated after applying our accounting policies and adjusting the results of HMI to reflect the charges and benefits assuming the fair value adjustments had been applied from January 1, 2015 with the consequential tax effects.

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	Unaudited 2015	Unaudited 2016
Pro Forma Year ended December 31 (in millions)	EUR	EUR
Total net sales	6,478	6,919
Net income	1,351	<sup>1</sup> 1,504 <sup>2</sup>

<sup>1</sup> Pro forma net income was adjusted to include EUR 47 million of non-recurring costs related to the fair value adjustments to acquisition date inventory and includes EUR 29 million of acquisition related costs incurred in 2016.

<sup>2</sup> Pro forma net income was adjusted to exclude EUR 9 million of non-recurring costs related to the fair value adjustments to acquisition date inventory and excludes EUR 29 million of acquisition related costs incurred in 2016.

### 3. Fair Value Measurements

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. The fair value measurement hierarchy prioritizes the inputs to valuation techniques used to measure fair value as follows:

Level 1: Valuations based on inputs such as quoted prices for identical assets or liabilities in active markets that the entity has the ability to access.

Level 2: Valuations based on inputs other than level 1 inputs such as quoted prices for similar assets or liabilities, quoted prices in markets that are not active, or other inputs that are observable or can be corroborated by observable data for substantially the full term of the assets or liabilities.

Level 3: Valuations based on inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities.

The fair value hierarchy gives the highest priority to quoted prices (unadjusted) in active markets for identical assets or liabilities (Level 1) and the lowest priority to unobservable inputs (Level 3). A financial instrument's fair value classification is based on the lowest level of any input that is significant in the fair value measurement hierarchy.

#### Financial Assets and Financial Liabilities Measured at Fair Value on a Recurring Basis

Investments in money market funds (as part of our cash and cash equivalents) have fair value measurements which are all based on quoted prices for identical assets or liabilities.

Our short-term investments consist of deposits with an original maturity beyond three months with financial institutions that have good credit ratings. The fair value of the deposits is determined with reference to quoted market prices in an active market for similar assets or discounted cash flow analysis.

The principal market in which we execute our derivative contracts is the institutional market in an over-the-counter environment with a high level of price transparency. The market participants usually are large commercial banks. The valuation inputs for our derivative contracts are based on quoted prices and quoting pricing intervals from public data sources; they do not involve management judgment.

The valuation technique used to determine the fair value of forward foreign exchange contracts (used for hedging purposes) approximates the NPV technique which is the estimated amount that a bank would receive or pay to terminate the forward foreign exchange contracts at the reporting date, taking into account current interest rates and current exchange rates.

The valuation technique used to determine the fair value of interest rate swaps (used for hedging purposes) is the NPV technique, which is the estimated amount that a bank would receive or pay to terminate the swap agreements at the reporting date, taking into account current interest rates.

Our Eurobonds serve as hedged items in fair value hedge relationships in which we hedge the variability of changes in the fair value of our Eurobonds due to changes in market interest rates with interest rate swaps. The fair value changes of these interest rate swaps are recorded on the Consolidated Balance Sheets under derivative financial instruments (within other current assets and other non-current assets) and the carrying amounts of the Eurobonds are adjusted for the effective portion of these fair value changes only. For the actual aggregate carrying amount and the fair value of our Eurobonds, see Note 14.





The following table presents our financial assets and financial liabilities that are measured at fair value on a recurring basis:

As of December 31, 2016 (in thousands)	Level 1 EUR	Level 2 EUR	Level 3 EUR	Total EUR
Assets measured at fair value				
Derivative financial instruments <sup>1</sup>	—	134,059	—	134,059
Money market funds <sup>2</sup>	2,151,969	—	—	2,151,969
Short-term investments <sup>3</sup>	—	1,150,000	—	1,150,000
Total	2,151,969	1,284,059	—	3,436,028
Liabilities measured at fair value				
Derivative financial instruments <sup>1</sup>	—	113,900	—	113,900
Assets and Liabilities for which fair values are disclosed				
Long-term debt <sup>4</sup>	3,386,213	—	—	3,386,213

1. Derivative financial instruments consist of forward foreign exchange contracts and interest rate swaps. See Note 4.

2. Money market funds are part of our cash and cash equivalents. See Note 5.

3. Short-term investments consist of deposits with an original maturity longer than three months. See note 5.

4. Long-term debt relates to Eurobonds. See Note 14.

As of December 31, 2015 (in thousands)	Level 1 EUR	Level 2 EUR	Level 3 EUR	Total EUR
Assets measured at fair value				
Derivative financial instruments <sup>1</sup>	—	133,803	—	133,803
Money market funds <sup>2</sup>	659,295	—	—	659,295
Short-term investments <sup>3</sup>	—	950,000	—	950,000
Total	659,295	1,083,803	—	1,743,098
Liabilities measured at fair value				
Derivative financial instruments <sup>1</sup>	—	20,860	—	20,860
Assets and Liabilities for which fair values are disclosed				
Long-term debt <sup>4</sup>	1,100,849	—	—	1,100,849

1. Derivative financial instruments consist of forward foreign exchange contracts and interest rate swaps. See Note 4.

2. Money market funds are part of our cash and cash equivalents. See Note 5.

3. Short-term investments consist of deposits with an original maturity longer than three months. See note 5.

4. Long-term debt relates to Eurobonds. See Note 14.

There were no transfers between levels during the years ended December 31, 2016 and December 31, 2015.

Assets and Liabilities Measured at Fair Value on a Non-recurring Basis

In 2016, we had no significant fair value measurements on a non-recurring basis. We did not recognize any impairment charges for goodwill and other intangible assets during 2016. See Notes 10 and 11 for more information. For fair value measurements in relation to the acquisition of HMI, we refer to Note 2.

4. Financial Risk Management

We are exposed to certain financial risks such as market risk (including foreign currency risk and interest rate risk), credit risk, liquidity risk and capital risk. Our overall risk management program focuses on the unpredictability of

financial markets and seeks to minimize potentially adverse effects on our financial performance. We use derivative financial instruments to hedge certain risk exposures. None of our transactions are entered into for trading or speculative purposes. We believe that market information is the most reliable and transparent measure for our derivative financial instruments that are measured at fair value.

#### Foreign Currency Risk Management

Our sales are predominately denominated in euros. Exceptions may occur on a customer by customer basis. Our cost of sales and other costs are mainly denominated in euros, to a certain extent in US dollars, Taiwanese dollars and Japanese yen and to a limited extent in other currencies. Therefore, we are exposed to foreign currency exchange risk. It is our policy to hedge material transaction exposures, such as forecasted sales and purchase transactions, and material net remeasurement exposures, such as accounts receivable and payable. We hedge these exposures through the use of foreign exchange contracts.

As of December 31, 2016, accumulated OCI includes EUR 10.4 million (2015: gain EUR 2.0 million and 2014: gain EUR 16.3 million) (net of taxes: 2016: EUR 9.3 million; 2015: EUR 1.8 million; 2014: EUR 14.5 million) representing the total anticipated gain to be released to cost of sales, which will offset the EUR equivalent of foreign currency denominated forecasted purchase transactions. All amounts are expected to be released over the next 12 months. As of December 31, 2016, accumulated OCI includes EUR 0.2 million (2015 and 2014: no amount), representing the total anticipated gain to be released to sales. The effectiveness of all contracts for which we apply hedge accounting is monitored on a quarterly basis throughout the life of the hedges. During 2014, 2015 and 2016, no ineffective hedge relationships were recognized.

As of December 31, 2016 an amount of EUR 2.8 million gain (2015: EUR 0.7 million loss) was recognized in accumulated OCI representing the effective portion of hedges on net investments.

#### Interest Rate Risk Management

We have interest-bearing assets and liabilities that expose us to fluctuations in market interest rates. We use interest rate swaps to align the interest-typical terms of interest-bearing liabilities with the interest-typical terms of interest-bearing assets. There may be residual interest rate risk to the extent the asset and liability positions do not fully offset.

As part of our hedging policy, we use interest rate swaps to hedge changes in fair value of our Eurobonds due to changes in market interest rates, thereby offsetting the variability of future interest receipts on part of our cash and cash equivalents. During 2016, these hedges were highly effective in hedging the fair value exposure to interest rate movements. The changes in fair value of the Eurobonds were included in the Consolidated Statements of Operations in the same period as the changes in the fair value of the interest rate swaps.

Furthermore, as part of our hedging policy, we use interest rate swaps to hedge the variability of future interest cash flows relating to certain of our operating lease obligations. During 2016, these hedges were highly effective in hedging the cash flow exposure to interest rate movements.

#### Financial Instruments

We use foreign exchange contracts to manage our foreign currency risk and interest rate swaps to manage our interest rate risk. The following table summarizes the notional amounts and estimated fair values of our derivative financial instruments:

As of December 31 (in thousands)	2015		2016	
	Notional amount EUR	Fair Value EUR	Notional amount EUR	Fair Value EUR
Forward foreign exchange contracts	898,227	(2,675)	1,311,599	(63,517)
Interest rate swaps	1,013,053	115,618	3,263,053	83,676

The following table summarizes our derivative financial instruments per category:

As of December 31 (in thousands)	2015		2016	
	Assets EUR	Liabilities EUR	Assets EUR	Liabilities EUR
Interest rate swaps — cash flow hedges	—	2,716	—	1,703
Interest rate swaps — fair value hedges	118,334	—	120,025	34,646
Forward foreign exchange contracts — cash flow hedges	2,932	1,288	10,746	359
Forward foreign exchange contracts — net investment hedge	—	738	2,831	—
Forward foreign exchange contracts — no hedge accounting	12,537	16,118	457	77,192
Total	133,803	20,860	134,059	113,900

Less non-current portion:

Interest rate swaps — cash flow hedges	—	1,878	—	567
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Interest rate swaps — fair value hedges	81,777	—	89,516	37,496
Total non-current portion	81,777	1,878	89,516	38,063
Total current portion	52,026	18,982	44,543	75,837

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The fair value part of a hedging derivative financial instrument that has a remaining term of 12 months or less after balance sheet date is classified as current asset or liability. When the fair value part of a hedging derivative has a term of more than 12 months after balance sheet date, it is classified as non-current asset or liability. The current portion of derivative financial instruments is included in other current assets and current accrued and other liabilities in the Consolidated Balance Sheets. The non-current portion of derivative financial instruments is included in other non-current assets and non-current accrued and other liabilities in the Consolidated Balance Sheets.

For further information regarding our derivative financial instruments, see Note 3.

#### Foreign Exchange Contracts

The notional principal amounts of the outstanding forward foreign exchange contracts in the main currencies US dollar, Japanese yen and Taiwanese dollar at December 31, 2016 are USD 965.0 million, JPY 1.5 billion and TWD 14.6 billion (2015: USD 517.5 million, JPY 34.7 billion and TWD 4.3 billion).

The hedged highly probable forecasted transactions denominated in foreign currency are expected to occur at various dates during the coming 12 months. Gains and losses recognized in OCI on forward foreign exchange contracts as of December 31, 2016 will be recognized in the Consolidated Statements of Operations in the period during which the hedged forecasted transactions affect the Consolidated Statements of Operations.

In 2016, we recognized a net amount of EUR 2.4 million loss (2015: EUR 22.0 million gain; 2014: EUR 6.7 million loss) in the Consolidated Statements of Operations resulting from effective cash flow hedges for forecasted sales and purchase transactions that occurred in the year. Furthermore, we recognized a net amount of EUR 81.2 million loss in the Consolidated Statements of Operations resulting from derivative financial instruments measured at fair value through profit or loss (2015: EUR 129.9 million loss; 2014: EUR 119.3 million loss), which is almost fully offset by the revaluation of the hedged monetary items.

#### Interest Rate Swaps

The notional principal amount of the outstanding interest rate swap contracts as of December 31, 2016 was EUR 3,263.1 million (2015: EUR 1,013.1 million).

#### Credit Risk Management

Financial instruments that potentially subject us to significant concentration of credit risk consist principally of cash and cash equivalents, short-term investments, derivative financial instruments used for hedging activities, accounts receivable and finance receivables.

Cash and cash equivalents, short-term investments and derivative financial instruments contain an element of risk of the counterparties being unable to meet their obligations. Our risk management program focuses appropriately on the current environment of uncertainty in the financial markets. We invest our cash and cash equivalents and short-term investments in short-term deposits with financial institutions that have good credit ratings and in money market funds that invest in highly-rated short-term debt securities of financial institutions and governments. To mitigate the risk that our counterparties in hedging transactions are unable to meet their obligations, we enter into transactions with a limited number of major financial institutions that have good credit ratings and closely monitor their creditworthiness. Concentration risk is mitigated by limiting the exposure to each of the individual counterparties.

Our customers consist of IC manufacturers located throughout the world. We perform ongoing credit evaluations of our customers' financial condition. We mitigate credit risk through additional measures, including the use of down payments, letters of credit, and contractual ownership retention provisions. Retention of ownership enables us to recover the systems in the event a customer defaults on payment.

#### Capital Risk Management

We manage our capital availability risk by maintaining a conservative financial policy that focuses on liquidity and financial stability throughout industry cycles. This is pursued by maintaining a capital structure that supports a solid investment grade credit rating.

#### 5. Cash and Cash Equivalents and Short-term Investments

Cash and cash equivalents at December 31, 2016 include deposits with financial institutions that have good credit ratings of EUR 100.0 million (2015: EUR 1,423.0 million), investments in money market funds that invest in debt securities of financial institutions that have good credit ratings and governments of EUR 2,152.0 million (2015: EUR 659.3 million) and interest-bearing bank accounts of EUR 654.9 million (2015: EUR 376.4 million). Our cash and

cash equivalents are predominantly denominated in euros and partly in US dollars and Taiwanese dollars.

Cash and cash equivalents have insignificant interest rate risk and remaining maturities of three months or less at the date of acquisition. Except for an amount of EUR 5.4 million (2015: EUR 5.3 million), no restrictions on usage of cash and cash equivalents exist. The carrying amount of these assets approximates their fair value.

Short-term investments have insignificant interest rate risk and remaining maturities longer than three months but less than one year at the date of acquisition.

Short-term investments consist of the following:

As of December 31, 2016

(in thousands)	Cost basis	Unrealized Gains	Unrealized Losses	Recorded Basis
Deposits	1,150,000	—	—	1,150,000
Total	1,150,000	—	—	1,150,000

As of December 31, 2015

(in thousands)	Cost basis	Unrealized Gains	Unrealized Losses	Recorded Basis
Deposits	950,000	—	—	950,000
Total	950,000	—	—	950,000

#### 6. Accounts Receivable

Accounts receivable consist of the following:

As of December 31	2015	2016
(in thousands)	EUR	EUR
Accounts receivable, gross	809,299	702,368
Allowance for doubtful receivables	(5,603)	(2,162)
Accounts receivable, net	803,696	700,206

The decrease in accounts receivable as of December 31, 2016 compared to December 31, 2015 was mainly caused by relatively high payments received from customers prior to year-end 2016.

The carrying amount of the accounts receivable approximates the fair value. We perform ongoing credit evaluations on our customers' financial condition. We periodically review whether an allowance for credit losses is needed by considering factors such as historical payment experience, credit quality, aging of the accounts receivable balances, and current economic conditions that may affect a customer's ability to pay.

Movements of the allowance for doubtful receivables are as follows:

Year ended December 31	2015	2016
(in thousands)	EUR	EUR
Balance at beginning of year	(2,070)	(5,603)
Addition for the year <sup>1</sup>	(3,870)	(3,161)
Effect of changes in exchange rates	(131)	(3)
Utilization of the provision	468	6,605
Balance at end of year	(5,603)	(2,162)

1. The addition for the year is recorded in cost of sales.

#### 7. Finance Receivables

Finance receivables consist of receivables in relation to sales-type leases and non-current accounts receivable. The following table lists the components of the finance receivables as of December 31, 2016 and 2015:

As of December 31	2015	2016
(in thousands)	EUR	EUR
Finance receivables, gross	411,654	569,723
Unearned interest	(7,095)	(5,107)

Finance receivables, net	404,559	564,616
Current portion of finance receivables, gross	285,966	450,688
Current portion of unearned interest	(5,443 )	(3,304 )
Non-current portion of finance receivables, net	124,036	117,232

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The increase in finance receivables as of December 31, 2016 compared to December 31, 2015 was caused by an increased number and more high-end sales-type leases compared to prior year and an increase in non-current accounts receivable. At December 31, 2016, finance receivables due for payment in each of the next 5 years and thereafter are as follows:

(in thousands)	EUR
2017	450,688
2018	111,582
2019	—
2020	7,453
2021	—
Thereafter	—
Finance receivables, gross	569,723

We perform ongoing credit evaluations on our customers' financial condition. We periodically review whether an allowance for credit losses is needed by considering factors such as historical payment experience, credit quality, the aging of the finance receivables balances, and current economic conditions that may affect a customer's ability to pay. In 2016, 2015 and 2014 we did not record any expected credit losses from finance receivables. As of December 31, 2016, the finance receivables were neither past due nor impaired.

#### 8. Inventories

Inventories consist of the following:

As of December 31 (in thousands)	2015 EUR	2016 EUR
Raw materials	588,277	674,733
Work-in-process	1,370,934	1,415,452
Finished products	1,029,535	1,073,404
Inventories, gross	2,988,746	3,163,589
Allowance for obsolescence and/or lower market value	(415,016 )	(382,711 )
Inventories, net	2,573,730	2,780,878

The increase in inventory in 2016 compared to 2015 is mainly caused by the acquisition of HMI.

A summary of activity in the allowance for obsolescence and/or lower market value is as follows:

Year ended December 31 (in thousands)	2015 EUR	2016 EUR
Balance at beginning of year	(311,382)	(415,016)
Addition for the year	(211,801)	(73,035 )
Effect of changes in exchange rates	(10,451 )	(5,300 )
Utilization of the provision	118,618	110,640
Balance at end of year	(415,016)	(382,711)

In 2016, the addition for the year is recorded in cost of sales EUR 69.2 million and in R&D costs EUR 3.8 million (2015: cost of sales EUR 206.7 million and R&D costs EUR 5.1 million, 2014: cost of sales EUR 146.3 million and R&D costs EUR 16.5 million). The 2016 addition for the year mainly relates to inventory items which became obsolete due to technological developments and design changes.

Utilization of the provision mainly relates to the scrapping of obsolete inventories.



## 9. Other Assets

Other current assets consist of the following:

As of December 31 (in thousands)	2015 EUR	2016 EUR
Advance payments to Carl Zeiss SMT	75,059	71,908
Prepaid expenses	186,709	192,024
Operations to be invoiced	79,803	101,292
Derivative financial instruments	52,026	44,543
VAT	61,332	61,565
Other assets	33,895	89,139
Other current assets	488,824	560,471

Carl Zeiss SMT is our single supplier of main optical systems (lenses, mirrors, illuminators, collectors and other critical optical components) and, from time to time, receives non-interest bearing advance payments from us that support Carl Zeiss SMT's work-in-process, thereby securing lens and optical module deliveries to us. Amounts owed under these advance payments are settled through future lens or EUV optical component deliveries.

Prepaid expenses mainly include prepaid income taxes on intercompany profit not realized by the ASML group of EUR 74.3 million as of December 31, 2016 (2015: EUR 61.3 million).

Derivative financial instruments consist of forward foreign exchange contracts and the current part of the aggregate fair value of interest rate swaps, which decreased in value as a result of reduced time-to-maturity, see Note 4.

Other assets mainly increased as a result of an increase in the subsidies receivable from EUR 7.3 million as of December 31, 2015 to EUR 34.4 million as of December 31, 2016.

Other non-current assets consist of the following:

As of December 31 (in thousands)	2015 EUR	2016 EUR
Advance payments to Carl Zeiss SMT	305,642	305,714
Derivative financial instruments	81,777	89,516
Compensation plan assets <sup>1</sup>	31,393	38,031
Prepaid expenses	6,876	151,397
Subordinated loan granted to lessor in respect of Veldhoven headquarters <sup>2</sup>	5,445	5,445
Other assets	19,749	22,202
Other non-current assets	450,882	612,305

1. For further details on compensation plan assets see Note 17.

2. For further details on the loan granted to lessor in respect of Veldhoven headquarters see Note 12.

Derivative financial instruments consist of the non-current part of the fair value of interest rate swaps, which increased in value as a result of a decrease in market interest rates, see Note 4.

Prepaid expenses mainly include prepaid income taxes on intercompany profit not realized by the ASML group of EUR 144.1 million as of December 31, 2016 (2015: EUR 0.0 million). The increase in prepaid income taxes in 2016 is mainly explained by a so-called bi-lateral advance pricing agreement between the US and Dutch tax authorities on an inter group transfer of intellectual property rights.

## 10. Goodwill

Changes in goodwill are summarized as follows:

Year ended December 31 (in thousands)	2015 EUR	2016 EUR
--	-------------	-------------

Cost	
Balance at beginning of year	2,357,536,624,552
Acquisition through business combinations	— 2,115,130
Effect of changes in exchange rates	267,016 134,212
Balance at end of year	2,624,552,873,894

For more information with respect to business combinations, see Note 2.

Goodwill is tested for impairment annually at the start of the fourth quarter and whenever events or changes in circumstances indicate that the carrying amount of the goodwill may not be recoverable.

Goodwill mainly results from the acquisitions of Cymer and HMI. Within ASML we have identified two RUs, which are RU ASML and RU CLS.

As of December 31, 2016 the goodwill allocated to RU ASML amounts to EUR 4,348.0 million (2015: EUR 2,124.4 million) and for RU CLS this amounts to EUR 525.9 million (2015: EUR 500.2 million).

For 2016 and 2015, the fair value calculations of the RUs were performed by discounting the future cash flows generated from the continuing use of the RUs. Cash flows beyond the forecasted period of five years have been extrapolated using a 0 percent growth rate.

The pre-tax WACC used to determine the expected discounted future cash flows is 10.2 percent for RU ASML and 12.4 percent for RU CLS.

Based on the recoverability testing during the annual goodwill impairment test, we believe that the fair values of the RUs significantly exceed their carrying amounts, and therefore goodwill was not impaired as of December 31, 2016.

#### 11. Other Intangible Assets

As of December 31, 2016 other intangible assets consist of finite-lived other intangible assets. Brands, developed technology, customer relationships and other were mainly obtained from the acquisitions of HMI (2016), Cymer (2013) and Brion (2007).

Finite-lived other intangible assets consist of the following:

(in thousands)	Brands EUR	Intellectual property EUR	Developed technology EUR	Customer relationships EUR	Other EUR	Total EUR
<b>Cost</b>						
Balance at January 1, 2015	14,175	61,860	505,676	182,703	2,231	766,645
Additions	—	1,108	—	—	—	1,108
Effect of changes in exchange rates	1,610	—	51,853	19,755	—	73,218
Balance at December 31, 2015	15,785	62,968	557,529	202,458	2,231	840,971
Acquisitions through business combinations	23,601	—	541,663	40,798	573	606,635
Additions	—	250	—	—	14,646	14,896
Transfer from indefinite-lived other intangible assets	—	—	139,426	—	—	139,426
Disposals	—	(1,866)	—	—	—	(1,866)
Effect of changes in exchange rates	809	—	26,063	9,929	4	36,805
Balance at December 31, 2016	40,195	61,352	1,264,681	253,185	17,454	1,636,867
<b>Accumulated amortization</b>						
Balance at January 1, 2015	1,125	52,812	102,081	23,983	2,231	182,232
Amortization	774	3,145	36,465	10,790	—	51,174
Effect of changes in exchange rates	143	—	6,723	1,955	—	8,821
Balance at December 31, 2015	2,042	55,957	145,269	36,728	2,231	242,227
Amortization	978	3,124	46,709	11,164	1,539	63,514
Disposals	—	(1,226)	—	—	—	(1,226)
Effect of changes in exchange rates	153	—	7,184	2,090	1	9,428
Balance at December 31, 2016	3,173	57,855	199,162	49,982	3,771	313,943
<b>Carrying amount</b>						
December 31, 2015	13,743	7,011	412,260	165,730	—	598,744
December 31, 2016	37,022	3,497	1,065,519	203,203	13,683	1,322,924

The weighted-average amortization period for the total finite-lived other intangible assets acquired, as a result of the acquisition of HMI, is 15.1 years.

The weighted-average amortization period for the finite lived other intangible assets acquired, as a result of the acquisition of HMI, by major intangible asset class is as follows:

(in years) Brands Developed technology Customer relationships

Weighted-average amortization period 20.0 15.0 15.0

Acquired finite-lived other intangible assets are amortized on a straight-line basis not taking into account any residual value.

For more information with respect to business combinations, see Note 2.

As of September 1, 2016, we commenced amortization of our in-process R&D relating to the Cymer acquisition in 2013 and transferred the full amount to developed technology. We determined the amortization period to be 12 years. During 2016, we recorded amortization charges of EUR 63.5 million (2015: EUR 51.2 million; 2014: EUR 43.9 million) which were recorded in cost of sales for EUR 59.5 million (2015: EUR 49.1 million; 2014: EUR 41.9 million), in R&D costs for EUR 2.5 million (2015: EUR 2.1 million and 2014: EUR 2.0 million) and in SG&A costs for EUR 1.5 million (2015: EUR 0.0 million and 2014: EUR 0.0 million).

Indefinite-lived other intangible assets consist of the following:

(in thousands)	In-process R&D EUR
Carrying amount as of January 1, 2015	139,426
Additions	—
Carrying amount as of December 31, 2015	139,426
Additions	—
Transfer to finite-lived other intangible assets	(139,426 )
Carrying amount as of December 31, 2016	—

As of December 31, 2016, there are no indefinite-lived other intangible assets (2015: EUR 139.4 million, which were allocated to RU ASML).

During 2016, 2015 and 2014, we did not record any impairment charges for other intangible assets.

As of December 31, 2016, the estimated amortization expenses for other intangible assets, for the next five years and thereafter, are as follows:

(in thousands)	EUR
2017	108,015
2018	106,827
2019	106,343
2020	105,706
2021	104,752
Thereafter	791,281
Amortization expenses	1,322,924

## 12. Property, Plant and Equipment

Property, plant and equipment consist of the following:

(in thousands)	Land and buildings EUR	Machinery and equipment EUR	Leasehold improvements EUR	Furniture, fixtures and other equipment EUR	Total EUR
<b>Cost</b>					
Balance at January 1, 2015	1,269,488	799,709	231,810	303,090	2,604,097
Additions	154,505	246,332	12,438	46,352	459,627
Disposals	(1,346)	(117,250)	(451)	(3,920)	(122,967)
Effect of changes in exchange rates	27,438	35,153	1,748	2,962	67,301
Balance at December 31, 2015	1,450,085	963,944	245,545	348,484	3,008,058
Acquisitions through business combinations	23,851	26,041	1,263	913	52,068
Additions	75,283	203,801	6,745	30,356	316,185
Disposals	(3,226)	(82,268)	(906)	(26,551)	(112,951)
Effect of changes in exchange rates	10,537	21,617	1,556	5,808	39,518
Balance at December 31, 2016	1,556,530	1,133,135	254,203	359,010	3,302,878
<b>Accumulated depreciation and impairment</b>					
Balance at January 1, 2015	296,099	426,832	192,243	241,400	1,156,574
Depreciation	75,918	123,269	16,078	27,784	243,049
Impairment charges	—	2,287	—	—	2,287
Disposals	(115)	(44,189)	(439)	(3,902)	(48,645)
Effect of changes in exchange rates	10,459	21,202	605	1,849	34,115
Balance at December 31, 2015	382,361	529,401	208,487	267,131	1,387,380
Depreciation	88,427	155,660	15,685	31,041	290,813
Impairment charges	1,712	655	169	930	3,466
Disposals	(2,482)	(55,630)	(307)	(26,492)	(84,911)
Effect of changes in exchange rates	4,547	12,783	738	825	18,893
Balance at December 31, 2016	474,565	642,869	224,772	273,435	1,615,641
<b>Carrying amount</b>					
December 31, 2015	1,067,724	434,543	37,058	81,353	1,620,678
December 31, 2016	1,081,965	490,266	29,431	85,575	1,687,237

Property, plant and equipment include amounts recorded as a result of the acquisition of HMI. For more information with respect to business combinations, see Note 2.

As of December 31, 2016, the carrying amount includes assets under construction for land and buildings of EUR 32.7 million (2015: EUR 64.7 million), machinery and equipment of EUR 30.0 million (2015: EUR 47.3 million), leasehold improvements of EUR 1.7 million (2015: EUR 7.8 million) and furniture, fixtures and other equipment of EUR 6.2 million (2015: EUR 14.9 million).

As of December 31, 2016, the carrying amount of land amounts to EUR 96.3 million (2015: EUR 88.0 million).

As of December 31, 2016, the carrying amount of machinery and equipment includes an amount of EUR 17.0 million with respect to evaluation and operating lease systems (2015: EUR 23.5 million).

The majority of the additions in 2016 in property, plant and equipment relates to operating leases to customers, prototypes, evaluation and training systems and the expansion and upgrades of facilities.

The majority of additions in 2016 in machinery and equipment relates to operating leases to customers, prototypes, evaluation and training systems which are similar to those that ASML sells in its ordinary course of business. These



systems are capitalized under property, plant and equipment because these are held for own use, for operating lease and for evaluation purposes. These are recorded at cost and depreciated over their expected useful life taking into consideration their residual value. From the time that these assets are no longer held for own use but intended for sale in the ordinary course of business, they are reclassified from property, plant and equipment to inventory at their carrying value.

An amount of EUR 21.6 million (2015: EUR 91.0 million) of the additions in property, plant and equipment relates to non-cash transfers from inventory. Since the transfers between inventory and property, plant and equipment are non-cash events, these are not reflected in the Consolidated Statements of Cash Flows.

An amount of EUR 22.8 million (2015: EUR 72.7 million) of the disposal of property, plant and equipment relates to non-cash transfers to inventory. When sold, the proceeds and cost of these systems are recorded as net sales and cost of sales, respectively, identical to the treatment of other sales transactions. The cost of sales for these systems includes the inventory value and the additional costs of refurbishing (materials and labor). Since the transfers between inventory and property, plant and equipment are non-cash events, these are not reflected in the Consolidated Statements of Cash Flows.

During 2016, we recorded depreciation charges of EUR 290.8 million (2015: EUR 243.0 million; 2014: EUR 209.5 million) of which we recorded EUR 187.9 million (2015: EUR 191.7 million; 2014: EUR 153.9 million) in cost of sales, EUR 76.8 million (2015: EUR 19.7 million; 2014: EUR 36.3 million) in R&D costs and EUR 26.1 million (2015: EUR 31.6 million; 2014: EUR 19.3 million) in SG&A costs.

#### Variable Interest Entity

The carrying amount of land and buildings includes an amount of EUR 26.6 million (2015: EUR 28.1 million) relating to our headquarters in Veldhoven, the Netherlands, which is ultimately owned by Koppelenweg I B.V., a "VIE". As of 2003, we are leasing the Veldhoven headquarters for a period of 15 years from an entity ("lessor") that was incorporated by the VIE Shareholders. The lessor's shareholders' equity amounts to EUR 1.9 million and has not changed since 2003.

The VIE Shareholders each granted a loan of EUR 11.6 million and a fourth bank granted a loan of EUR 12.3 million (EUR 47.1 million in total) to the parent of the lessor. ASML provided the parent of the lessor with a subordinated loan of EUR 5.4 million and has a purchase option that is exercisable either at the end of the lease in 2018, at a price of EUR 24.5 million, or during the lease at a price equal to the book value of the assets. The total assets of the lessor entity amounted to EUR 54.5 million at inception of the lease. The entity is determined to be a VIE because the equity investors do not have sufficient equity at risk for the legal entity to finance its activities without sufficient additional subordinated support.

The primary purpose for which the VIE was created was to provide ASML with use of the building for 15 years, where ASML does not retain substantially all the risks and rewards from changes in value of the building. The main activities of the entity are to rent, re-market and ultimately sell the building that is owned by the VIE. The economic performance of the VIE is most significantly impacted by the ability of the lessee (ASML) to exercise the purchase option at any time during the lease term, and thus we could potentially benefit from increases in the fair value of the building.

While the debt holders have an interest, and may absorb losses, and the equity holders have an interest and may receive benefits, they do not have the power to direct activities that most significantly impact the entity's economic performance and therefore, cannot be the primary beneficiary. Through the pre-determined price of the call option ASML has the power over the VIE, therefore only ASML meets both the power and losses/benefit criterion and consolidates the VIE.

#### 13. Accrued and Other Liabilities

Accrued and other liabilities consist of the following:

As of December 31 (in thousands)	2015 EUR	2016 EUR
Deferred revenue	1,737,391	1,703,049
Costs to be paid	224,597	197,549
Down payments from customers	606,804	363,237
Personnel related items	341,554	401,790
Derivative financial instruments	20,860	113,900
Standard warranty reserve	18,803	36,463
Other	30,953	35,754
Accrued and other liabilities	2,980,962	2,851,742
Less: non-current portion of accrued and other liabilities <sup>1,2</sup>	414,369	615,730

Current portion of accrued and other liabilities 2,566,5932,236,012

As of December 31, 2015 the main part of the non-current portion of accrued and other liabilities relates to down  
1. payments received from customers regarding future shipments of EUV systems and deferred revenue with respect to services.

As of December 31, 2016 the main part of the non-current portion of accrued and other liabilities relates to  
2. down payments received from customers regarding future shipments of EUV systems and deferred revenue for pending services and EUV systems and upgrades.

The decrease in accrued and other liabilities mainly relates to a decrease in down payments from customers which is partly offset by an increase in derivative financial instruments.

Deferred revenue as of December 31, 2016 mainly consists of deferred revenue for system shipments and credits regarding free or discounted products or services as part of volume purchase agreements amounting to EUR 1,349.8 million (2015: EUR 1,402.6 million) and extended and enhanced (optic) warranty contracts amounting to EUR 312.1 million (2015: EUR 303.3 million). Both include deferred revenue with respect to our EUV systems, NXE:3300B and NXE:3350B.

Costs to be paid as of December 31, 2016 include anticipated losses on constructive obligations to upgrade EUV sources in the field of EUR 88.8 million (2015: EUR 92.7 million). In addition, costs to be paid include accrued costs for unbilled services provided by suppliers including contracted labor, outsourced services and consultancy.

Down payments from customers relate to amounts received from customers for systems that will be shipped in future periods. The decrease compared to 2015 is mainly due to EUV-related down payments which were recognized in net system sales in 2016.

Personnel related items mainly consist of accrued profit sharing, accrued management bonuses, accrued vacation days, accrued pension premiums, accrued wage tax and accrued vacation allowance. The increase in accrued personnel related items as of December 31, 2016 compared to December 31, 2015 is mainly the result of the increase in our number of FTEs.

Derivative financial instruments consist of the fair value of foreign currency contracts and the aggregate fair value of interest rate swaps which includes accrued interest that increased in value as a result of newly entered hedges for the eurobonds issued July 2016 and November 2016 and the strengthening of the US dollar, see Note 4.

Changes in standard warranty reserve for the years 2016 and 2015 are as follows:

Year ended December 31 (in thousands)	2015 EUR	2016 EUR
Balance at beginning of year	41,508	18,803
Acquisitions through business combinations	—	1,717
Additions for the year	23,067	51,148
Utilization of the reserve	(37,006)	(32,539)
Release of the reserve	(11,837)	(4,218)
Effect of exchange rates	3,071	1,552
Balance at end of year	18,803	36,463

The increase in the standard warranty reserve is mainly explained by more high-end technology systems (including 4 EUV systems as of December 31, 2016, where there was 1 EUV system included as of December 31, 2015) in their standard warranty period. For more information with respect to business combinations, see Note 2.

#### 14. Long-term Debt

Long-term debt consists of the following:

As of December 31 (in thousands)	2015 EUR	2016 EUR
EUR 600 million 5.75 percent senior notes due 2017, carrying amount	254,339	243,292
EUR 500 million 0.625 percent senior notes due 2022, carrying amount	—	489,497
EUR 750 million 3.375 percent senior notes due 2023, carrying amount	828,876	842,284
EUR 1,000 million 1.375 percent senior notes due 2026, carrying amount	—	956,326
EUR 750 million 1.625 percent senior notes due 2027, carrying amount	—	746,239
Loan headquarter building <sup>1</sup>	28,078	26,648
Other	18,392	15,179
Long-term debt	1,129,685	3,319,465
Less: current portion of long-term debt	4,211	247,672
Non-current portion of long-term debt	1,125,474	3,071,793

1. This loan relates to our VIE, see Note 12.

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Our obligations to make principal repayments under our Eurobonds and other borrowing arrangements excluding interest expense as of December 31, 2016, for the next five years and thereafter, are as follows:

(in thousands)	EUR
2017	242,360
2018	27,997
2019	1,762
2020	1,762
2021	1,762
Thereafter	3,002,180
Long-term debt	3,277,823
Less: current portion of long-term debt	242,360
Non-current portion of long-term debt	3,035,463

#### Eurobonds

The following table summarizes the carrying amount of our outstanding Eurobonds, including the fair value of interest rate swaps used to hedge the change in the fair value of the Eurobonds:

As of December 31	2015	2016
(in thousands)	EUR	EUR
Amortized cost amount	979,620	3,212,524
Fair value interest rate swaps <sup>1</sup>	103,595	65,114
Carrying amount	1,083,215	3,277,638

1. The fair value of the interest rate swaps excludes accrued interest.

In June 2007, we completed an offering of our EUR 600 million 5.75 percent senior notes due 2017, with interest payable annually on June 13. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on June 13, 2017. In September 2013, we repurchased a nominal amount of EUR 361.8 million of these notes in a tender offer for a cash amount of EUR 423.0 million including accrued interest.

In September 2013, we completed an offering of our EUR 750 million 3.375 percent senior notes due 2023, with interest payable annually on September 19. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on September 19, 2023.

In July 2016, we completed an offering of our EUR 500 million 0.625 percent senior notes due 2022, with interest payable annually on July 7. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on July 7, 2022.

In July 2016, we completed an offering of our EUR 1,000 million 1.375 percent senior notes due 2026, with interest payable annually on July 7. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on July 7, 2026.

In November 2016, we completed an offering of our EUR 750 million 1.625 percent senior notes due 2027, with interest payable annually on May 28. The notes are redeemable at the option of ASML, in whole or in part, at any time by paying a make whole premium, and unless previously redeemed, will be redeemed at 100 percent of their principal amount on May 28, 2027.

The Eurobonds serve as hedged items in fair value hedge relationships in which we hedge the variability of changes in the fair value of our Eurobonds due to changes in market interest rates with interest rate swaps. The fair value changes of these interest rate swaps are recorded on the Consolidated Balance Sheets under derivative financial instruments (within other current assets, other non-current assets, current accrued and other liabilities and non-current accrued and

or liabilities) and the carrying amount of the Eurobonds is adjusted for these fair value changes only. Following the repurchase of part of our EUR 600 million 5.75 percent senior notes due 2017, the corresponding part of the interest rate swaps was simultaneously terminated in 2013.

The following table summarizes the estimated fair value of our Eurobonds:

As of December 31	2015	2016
(in thousands)	EUR	EUR
Principal amount	988,153	3,238,153
Carrying amount	1,083,215	3,277,638
Fair value <sup>1</sup>	1,100,849	3,386,213

1. Source: Bloomberg Finance LP.

The fair value of our Eurobonds is estimated based on quoted market prices as of December 31, 2016. Due to changes in market interest rates and credit spreads since the issue of our Eurobonds which carry a fixed coupon interest rate, the fair value deviates from the principal amount.

#### 15. Lines of Credit

Our available credit facilities amount to EUR 700.0 million as of December 31, 2016 and as of December 31, 2015. No amounts were outstanding under these credit facilities at the end of 2016 and 2015. The amounts available at December 31, 2016 and 2015 consisted of one EUR 700.0 million committed revolving credit facility with a group of banks. In 2015, the terms and conditions of the facility were amended by, among other things, removing the financial covenant and by extending the maturity until 2020. In 2016, we exercised our extension option, extending the maturity date to 2021. Outstanding amounts under this credit facility will bear interest at EURIBOR or LIBOR plus a margin that depends on our credit rating.

#### 16. Commitments, Contingencies and Guarantees

We have various contractual obligations, some of which are required to be recorded as liabilities in our Financial Statements, including long- and short-term debt. Other contractual obligations, namely operating lease commitments, purchase obligations and guarantees, are generally not required to be recognized as liabilities on our Consolidated Balance Sheets but are required to be disclosed.

Our contractual obligations as of December 31, 2016 can be summarized as follows:

Payments due by period	Total	1 year	2 year	3 year	4 year	5 year	After 5 years
(in thousands)	EUR	EUR	EUR	EUR	EUR	EUR	EUR
Long-Term Debt Obligations, including interest expense <sup>1</sup>	3,757,498	306,215	83,752	56,718	56,762	56,246	3,197,805
Operating Lease Obligations	103,568	35,486	23,613	18,616	13,577	7,050	5,226
Purchase Obligations	2,202,595	1,923,647	233,021	9,481	7,901	7,417	21,128
Zeiss High-NA Funding Commitment	748,000	129,000	219,500	179,500	113,000	69,000	38,000
Total Contractual Obligations <sup>2</sup>	6,811,661	2,394,348	559,886	264,315	191,240	139,713	3,262,159

1. See Note 14 to our Financial Statements for the amounts excluding interest expense.

2. We have excluded unrecognized tax benefits for an amount of EUR 136.4 million as the amounts that will be settled in cash are not known and the timing of any payments is uncertain.

Long-term debt obligations mainly relate to interest payments and principal amounts of our Eurobonds. See Note 14. Operating lease obligations include leases of equipment and facilities. Lease payments recognized as an expense were EUR 45.2 million, EUR 45.1 million and EUR 43.9 million for the years ended December 31, 2016, 2015 and 2014, respectively.

Several operating leases for our buildings contain purchase options, exercisable at the end of the lease, and in some cases, during the term of the lease. During 2015 we have exercised these options which are effectuated in 2016, therefore no purchase options exist as per year end December 31, 2016.

Purchase obligations exist of purchase commitments towards suppliers in the ordinary course of business. ASML expects that it will honor these purchase obligations to fulfill future sales, in line with the timing of those future sales. The general terms and conditions of the agreements relating to the major part of our purchase commitments as of December 31, 2016 contain clauses that enable us to delay or cancel delivery of ordered goods and services up to the



dates specified in the corresponding purchase contracts. These terms and conditions that we typically agree with our supply chain partners give us additional flexibility to adapt our purchase obligations to our requirements in light of the cyclical nature and technological developments inherent in the industry in which we operate. We establish a provision for cancellation costs when the liability has been incurred and the amount of cancellation fees is reasonably estimable.

On November 3, 2016 ASML and Zeiss announced that they agreed to strengthen their long-standing and successful partnership in the semiconductor lithography business. ASML has agreed with Zeiss to support Carl Zeiss SMT's R&D costs, capital expenditures and other supply chain investments, in respect of High NA, for an amount of EUR 760.0 million over 6 years. At the end of 2016 an amount of EUR 12.0 million was paid, resulting in a remaining commitment as of December 31, 2016 of EUR 748.0 million.

We have a non-committed guarantee facility of EUR 15.0 million under which guarantees in the ordinary course of business can be provided to third parties.

#### 17. Employee Benefits

We have a performance related bonus plan for our senior management. Under this plan, the bonus amounts depend on actual performance against corporate and personal targets. Within ASML (excluding Cymer), the bonus for members of senior management can range between 0.0 percent and 75.0 percent of their annual salaries. Within Cymer, bonuses can range between 0.0 percent and 150.0 percent of their annual salary. The performance targets are set for a whole year. The bonuses over 2016 are accrued for in the Consolidated Balance Sheets as of December 31, 2016 and are expected to be paid in the first quarter of 2017.

Our bonus expenses for the BoM, former BoM and senior management were as follows:

Year ended December 31	2014	2015	2016
(in thousands)	EUR	EUR	EUR

Board of Management <sup>1</sup>	3,495	3,405	3,545
Other senior management	45,462	44,562	48,473
Bonus expenses	48,957	47,967	52,018

<sup>1</sup> Bonus expenses in relation to the STI cash bonus for our BoM and former BoM. Former BoM is only applicable in 2014.

#### Profit-sharing Plan

We have a profit-sharing plan covering all European and US non-sales employees who are not members of the BoM or senior management. Under the plan, eligible employees receive an annual profit-sharing, based on a percentage of net income relative to total net sales ranging from 0.0 to 20.0 percent of their annual salary. The profit sharing for the years 2016, 2015 and 2014 was 16.0 percent or EUR 93.3 million, 18.0 percent or EUR 95.1 million and 16.0 percent or EUR 71.3 million, respectively. Our profit is also one of the criteria for the variable pay programs for employees in Asia. Expenses in relation to these plans amount to EUR 33.8 million for 2016, EUR 32.0 million for 2015 and EUR 25.9 million for 2014.

#### Share-based Compensation

In the past we have adopted various share and option plans for our employees. Starting January 1, 2014 the Employee Umbrella Share Plan has become effective, covering all grants made as of that date for our employees. The AGM approves each year the maximum number of shares that can be used by ASML to execute share-based incentives. Within this limit, the SB determines the maximum number of shares that is granted to the BoM in line with the Remuneration Policy and the BoM determines the total maximum of shares that can be granted in that year for eligible employees in line with existing policies. Our current share-based compensation plans do not provide for cash settlement of options and shares.

The total gross amount of recognized compensation expenses associated with share-based payments (including share-based payments to the BoM) was EUR 47.7 million in 2016, EUR 59.1 million in 2015 and EUR 63.4 million in 2014. The tax benefit recognized related to the recognized share-based compensation costs amounted to EUR 10.0 million in 2016, EUR 13.8 million in 2015 and EUR 14.9 million in 2014.

Total compensation costs to be recognized in future periods amount to EUR 83.2 million as of December 31, 2016 (2015: EUR 65.4 million; 2014: EUR 69.8 million). The weighted average period over which these costs are expected to be recognized is calculated at 1.9 years (2015: 1.7 years; 2014: 1.6 years).

#### Employee Umbrella Share Plan

The Employee Umbrella Share Plan, effective as of January 1, 2014 covers all employees. Within this plan, we distinguish between performance and incentive shares. Within the incentive category, prior to October 3, 2016

employees could choose, at inception, to convert the shares into options. As of October 3, 2016 this option no longer exists. All grants under the Employee Umbrella Share Plan typically have a three-year vesting period.

#### Share Plans

Our current share plans typically include a three-year service period and some plans have vesting conditions which are based on performance. The fair value of shares is determined on the closing tra