

Company Strategy, Market Trends and Stakeholder Value

Peter Wennink

President and Chief Executive Officer

Overview

Semi End Markets

- Healthy semiconductor end market growth fueled by major innovation drivers such as 5G Connectivity, Artificial Intelligence, Autonomous Driving, and Big Data
- Translates into growth of world-wide fab capacity in all segments, especially at the leading edge nodes

Lithography Market

- Moore's law continues to enable industry growth and lithography is a key enabler to cost effective shrink
- Strong growth opportunity in lithography beyond the next decade with a mix transition from DUV to EUV

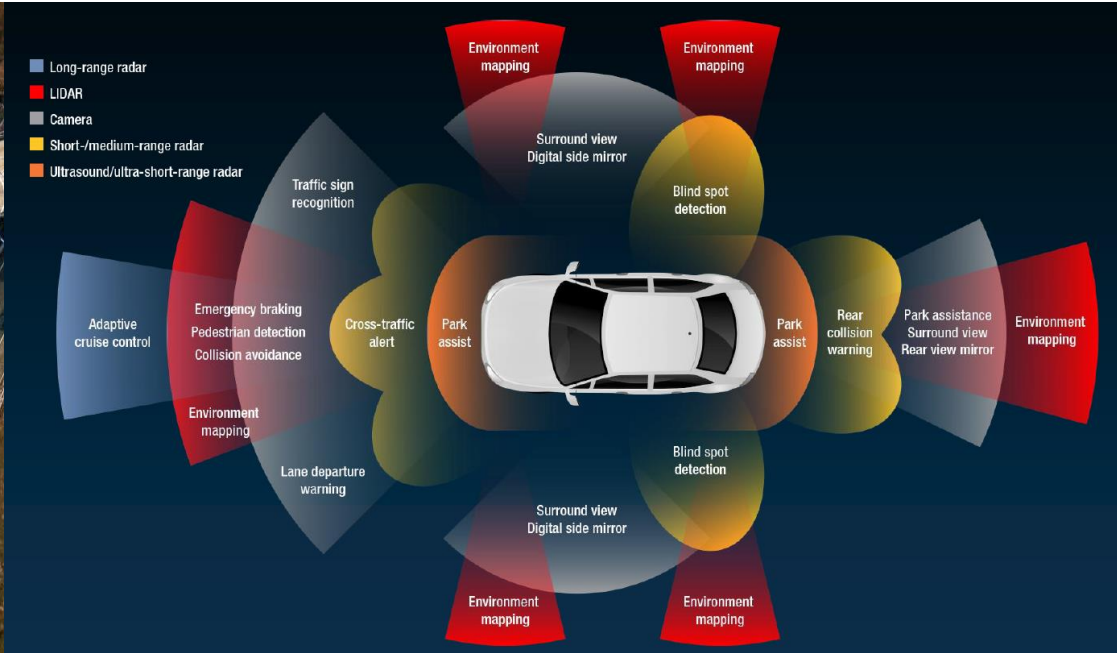
Stakeholder Value

- We continue to execute our strategy and expand our product portfolio
- Further driving growth opportunities and delivering value to our stakeholders

Immersive devices will be the next computing wave

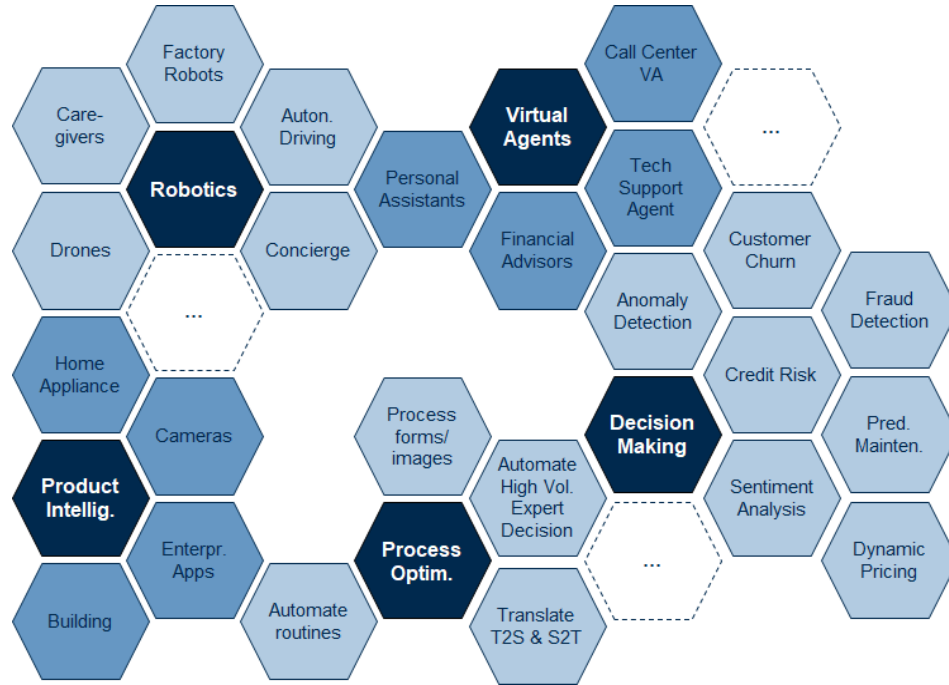


The revolution in automotive

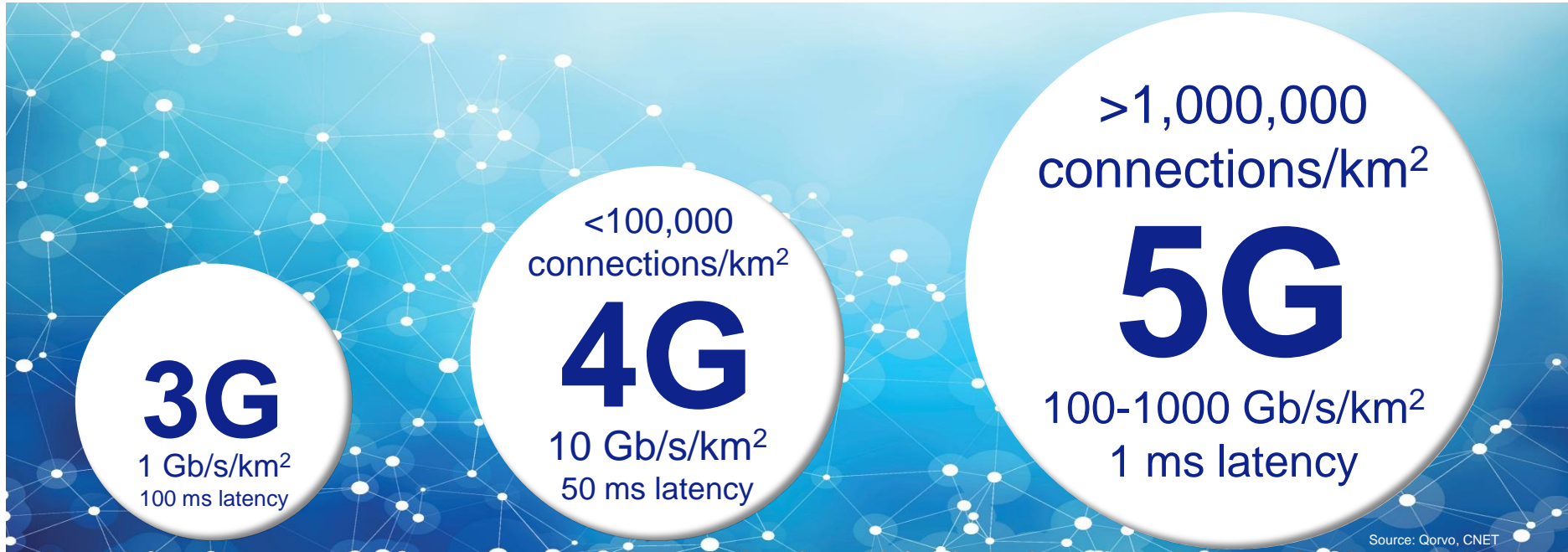


Autonomous and connected cars drive double digit growth to 80 B\$ by 2025

Artificial Intelligence impacting multiple applications

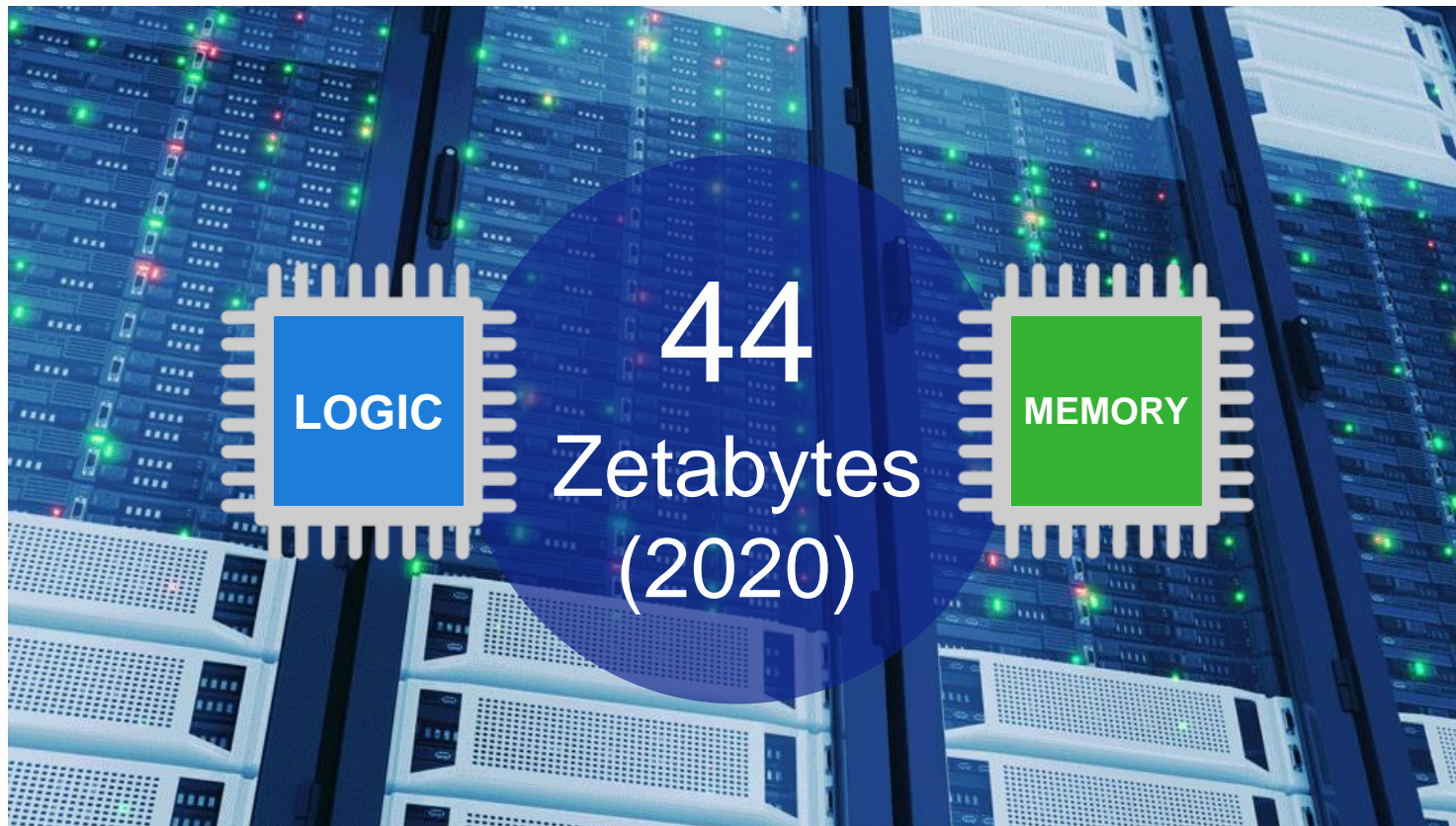


Artificial Intelligence (AI) as a major industry disruptor will represent a >15B\$ new revenue opportunity in semiconductors by 2022

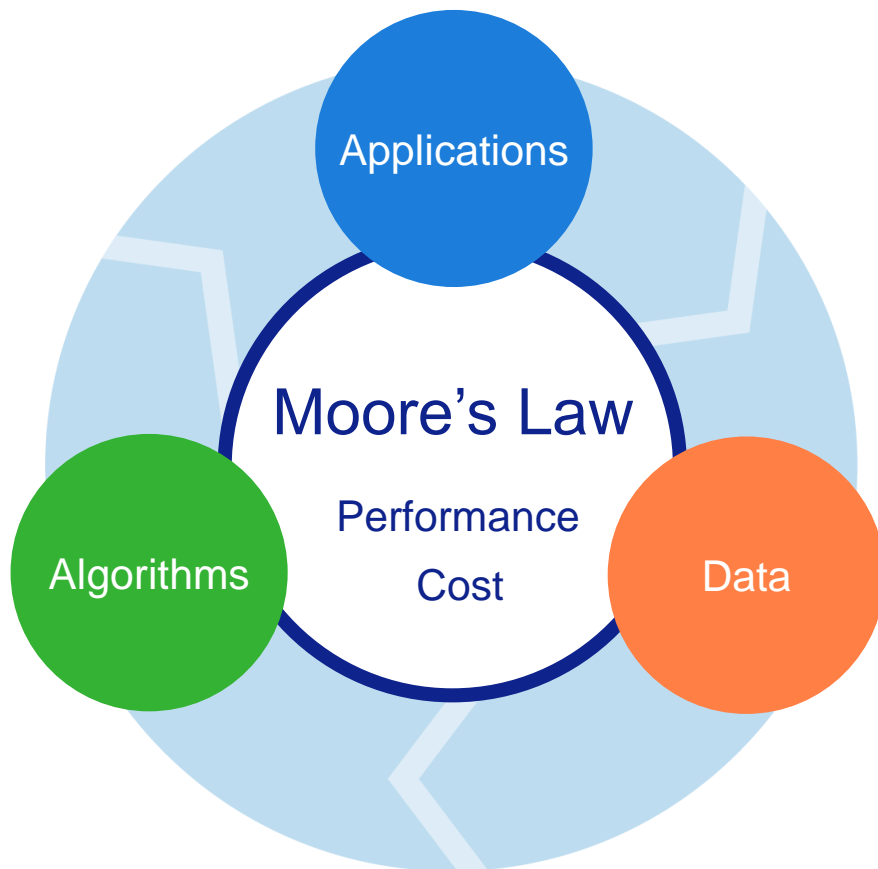


5G connectivity speed and latency improvement drives applications with more volume and real-time use

Advanced chips are needed to store and crunch data



Major trends in semiconductor-enabled computing



- Autonomous decisions
- Immersive resolution
- On-device Artificial Intelligence
- Virtual / augmented reality

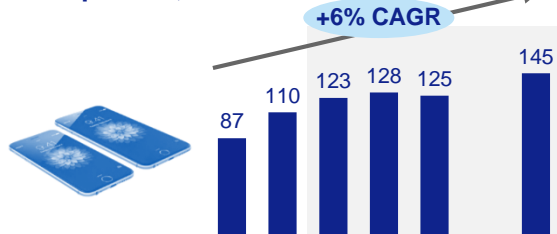
- 5G connectivity
- Real-time latency
- Growing data volumes

- From big data to value
- Enhanced processing
- Deep learning

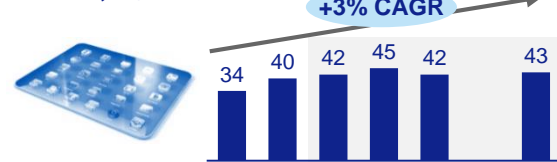
End market growth drives our opportunity

Mobile and PC maturing

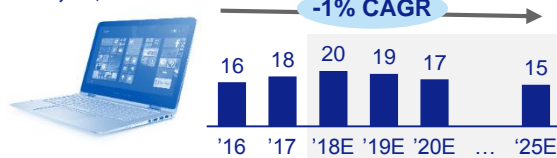
Smartphones, B\$



Tablets, B\$

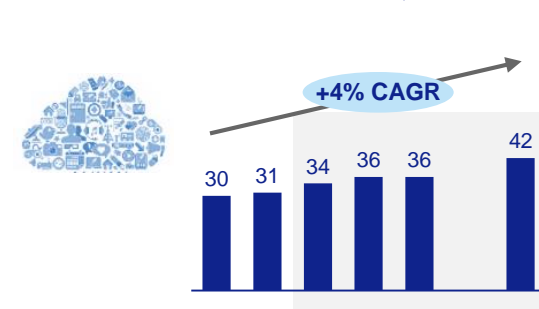


PCs, B\$

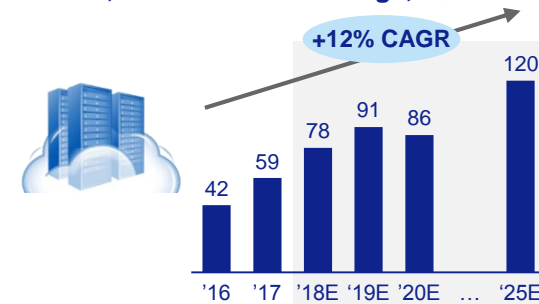


Continued growth in cloud applications

Wired & wireless Infrastructure, B\$

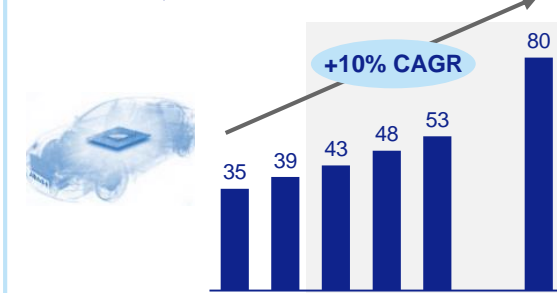


Servers, Datacenters & Storage, B\$

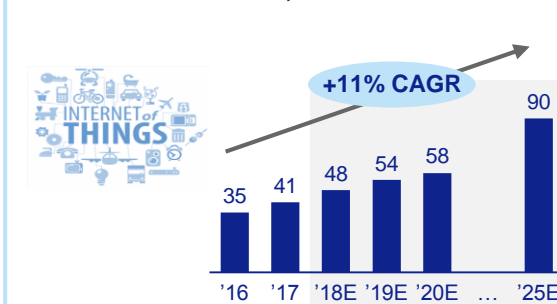


Emerging connected devices market

Automotive, B\$

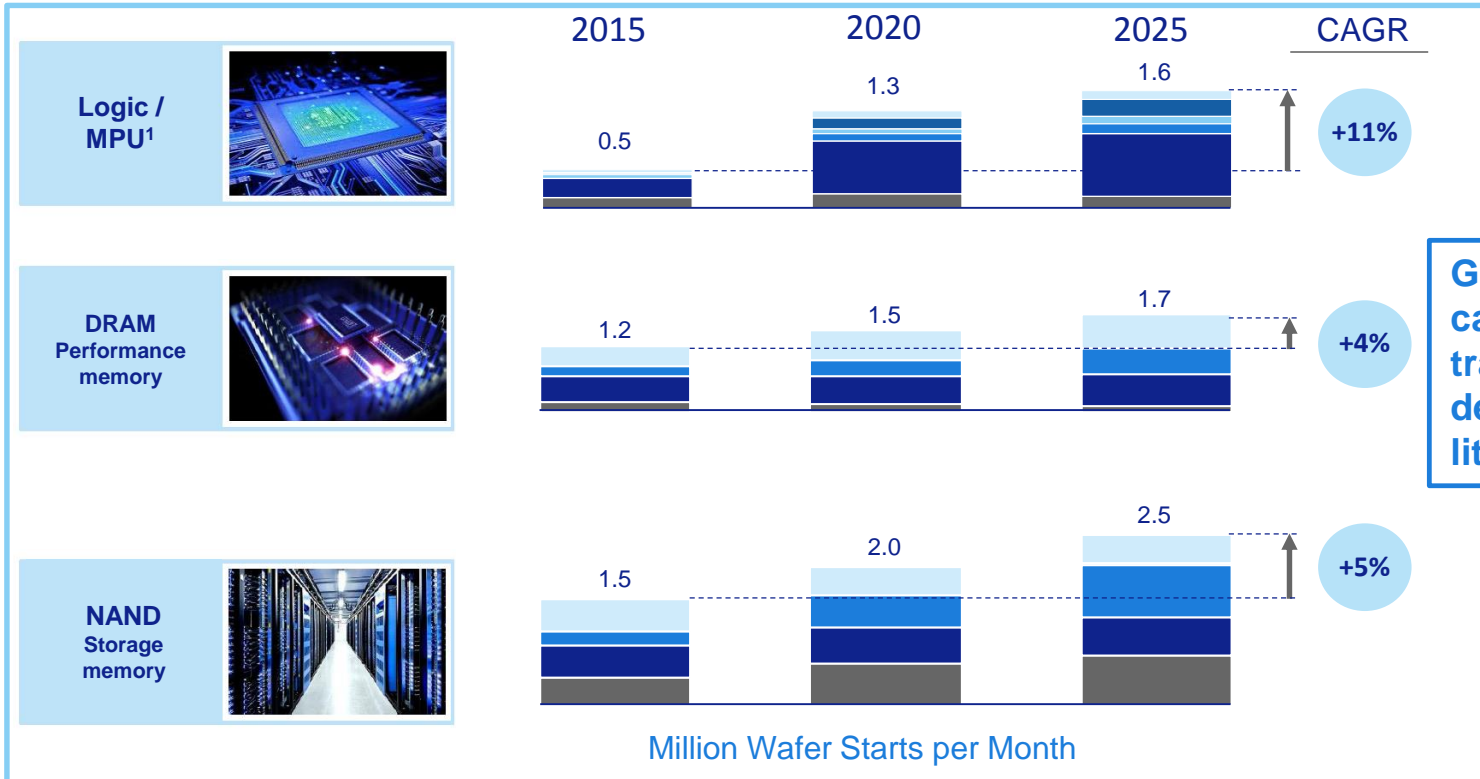


Industrial Electronics, B\$



Expected content and unit growth of semiconductor end markets translates into growth of wafer demand in all segments

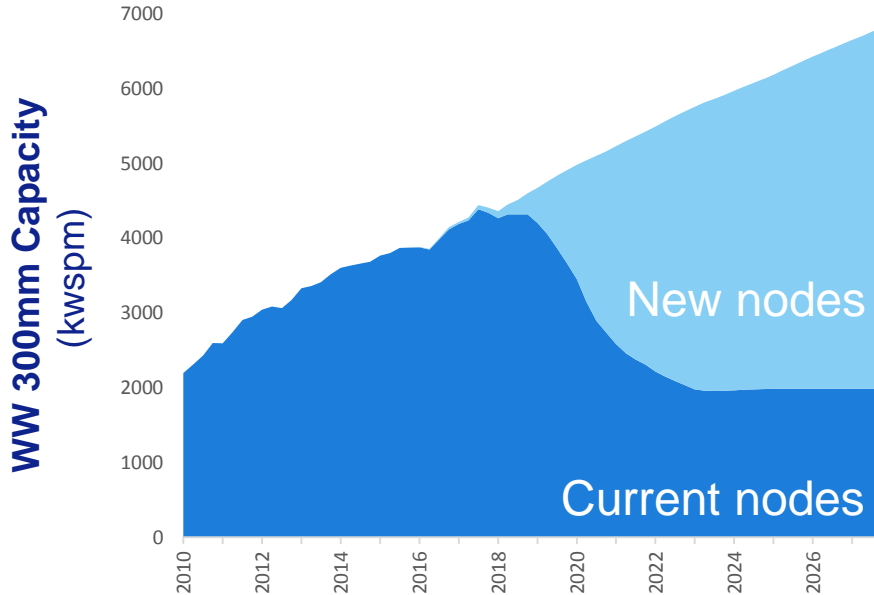
■ PCs and laptops ■ Smartphones and tablets ■ Servers ■ Automotive ■ Consumer incl. wearables ■ Other



Growing fab capacity and node transitions drive demand for our litho systems

¹ Advanced Logic and MPU nodes only ≤ 32 nm
Source: Gartner device units 2017-2022; ASML model extrapolated through 2025

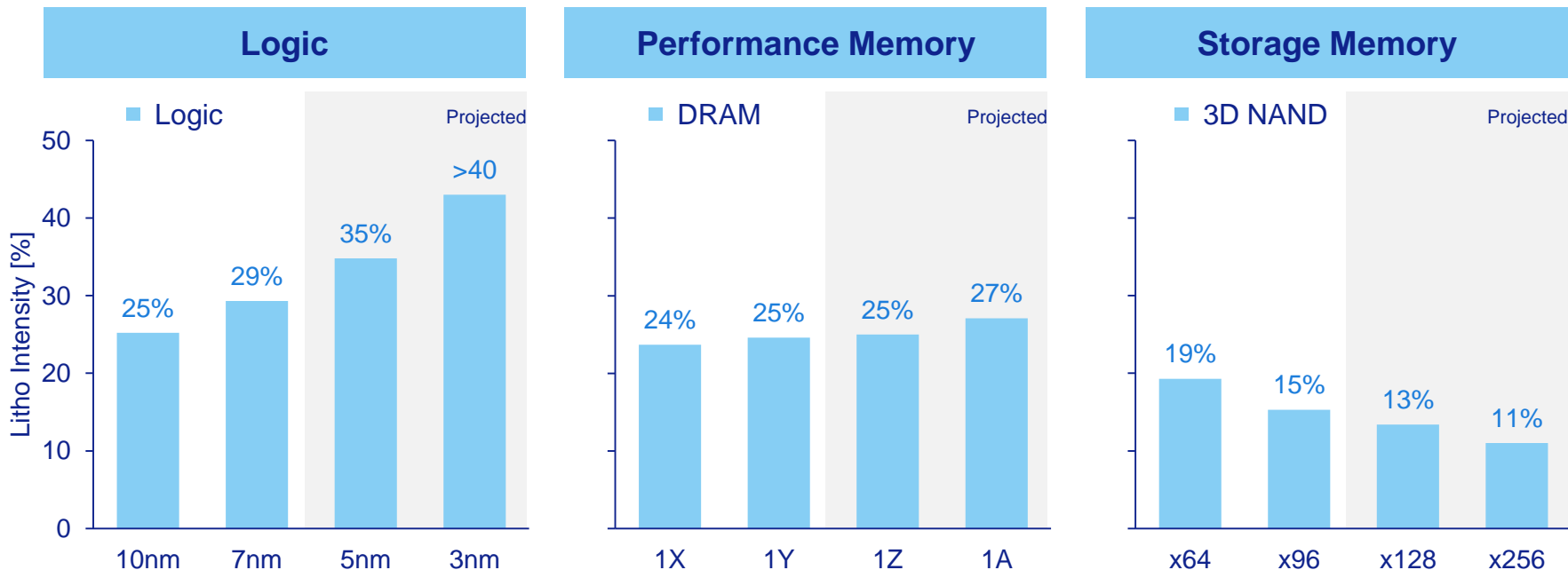
New semiconductor nodes drive investments in wafer capacity



- Growing wafer capacity drives increased litho demand
- New (leading edge) nodes with increased litho intensity further drives litho demand
- Conversion of existing nodes to new nodes also provide additional upgrade opportunity

New process nodes will be two thirds of the 300mm wafer volume by 2025

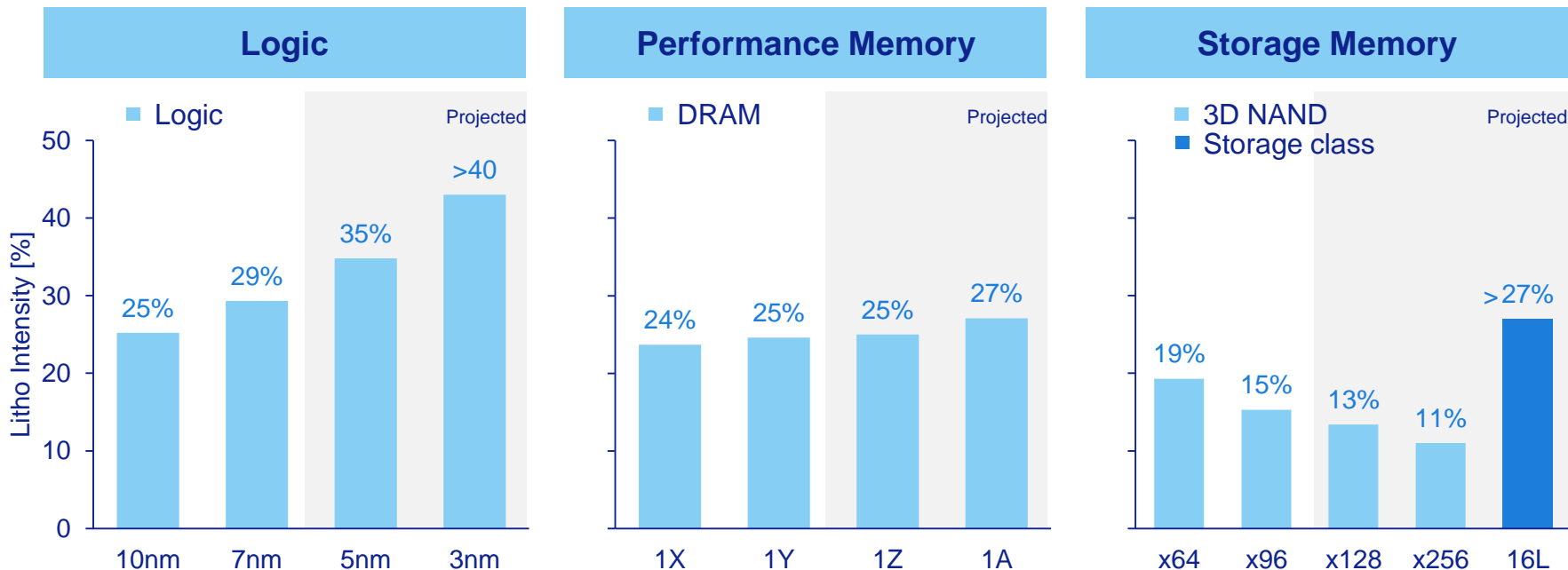
Litho Intensity¹ increasing for Logic and DRAM segments



¹ Litho Intensity = Litho CapEx fraction of total WFE CapEx for Greenfield fab investment

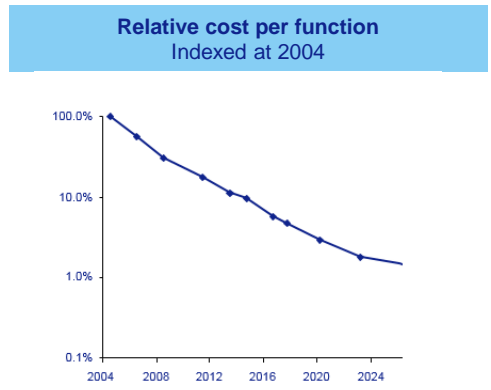
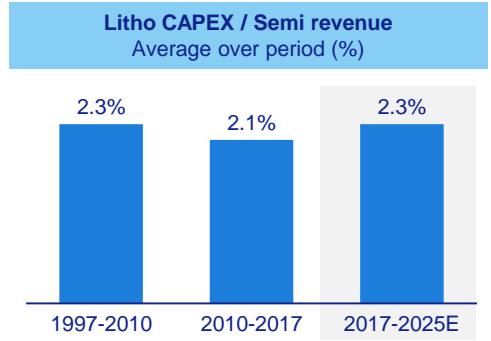
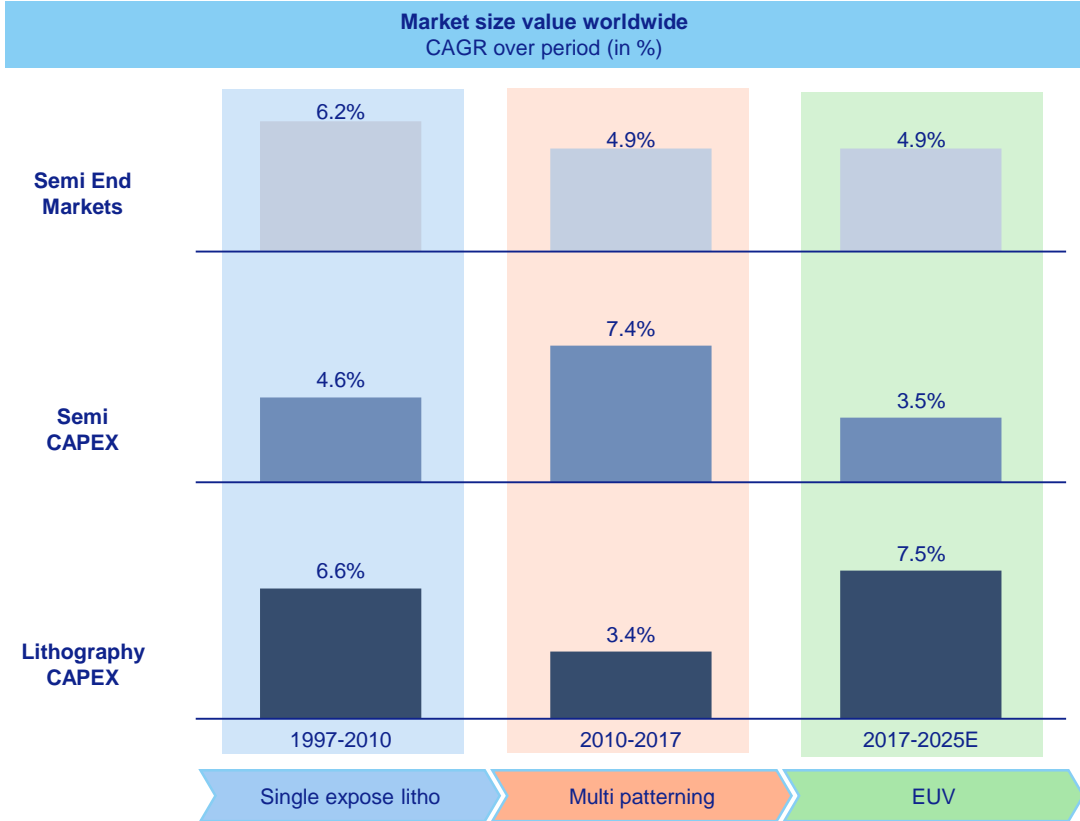
Litho Intensity¹ increasing for Logic and DRAM segments

3D XPoint expected to increase intensity for storage memory

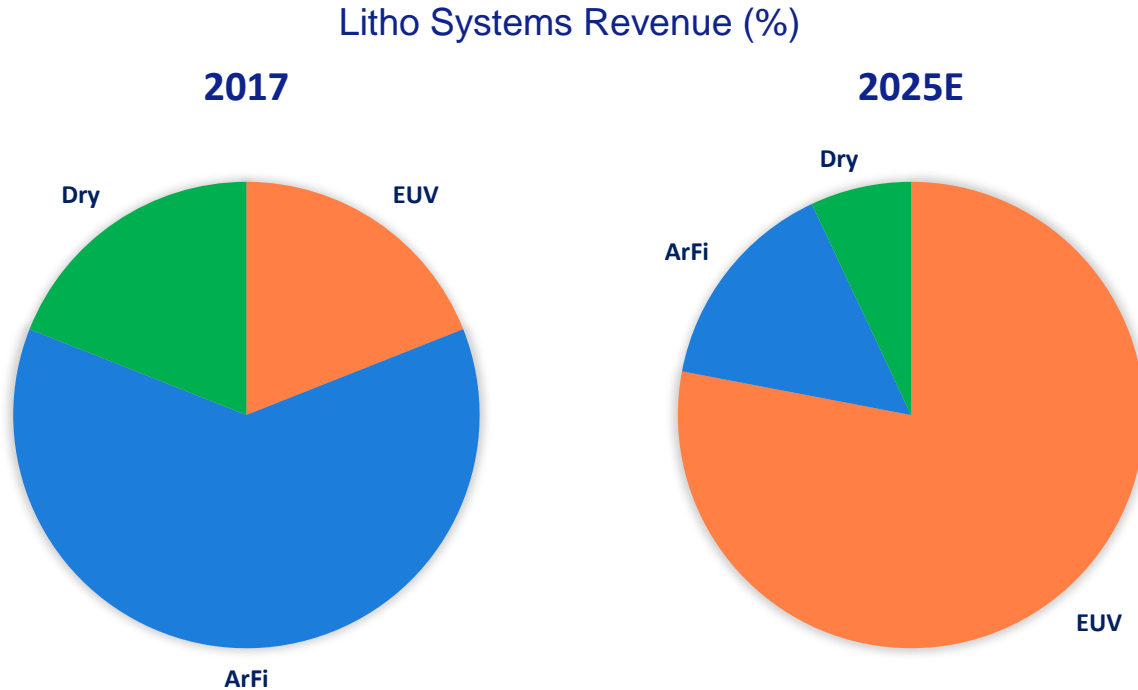


¹ Litho Intensity = Litho CapEx fraction of total WFE CapEx for Greenfield fab investment

Our long term view on litho market indicates strong growth ... with continued affordability



EUV and ArFi account for >85% of litho system market



Mix moves from majority ArFi today to majority EUV by 2025

Our strategy addresses challenges

Challenges

- Expand our Holistic Litho opportunities
- Remain competitive in DUV
- Bring EUV to high volume manufacturing
- Extend EUV technology beyond the next decade



ASML Strategy

Holistic Litho extension

- Strengthen Litho+ leadership with **in device metrology** enabling correction of process induced overlay
- Build a winning position in **Pattern Fidelity Control** leveraging e-beam metrology and inspection combined with superior computational Litho and fast stages

DUV performance

- Drive **DUV performance**
 - Continue to lead in innovation
 - Drive operational cost down and improve up-time
 - Expand installed base business

EUV industrialization

- Deliver on **high volume manufacturing, service and financial performance**
- Enhance EUV value for future nodes by **extending NA 0.33 product portfolio down to the 3nm Logic node**

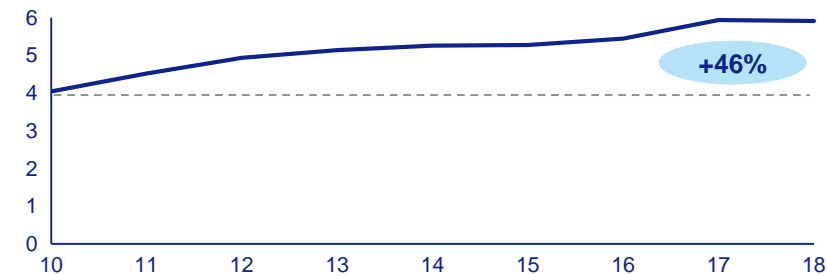
High NA

- Enable **High NA EUV** at 3nm Logic node, followed by memory nodes at comparable density

ASML continues to provide value for our customers, shareholders, employees, and supply chain partners

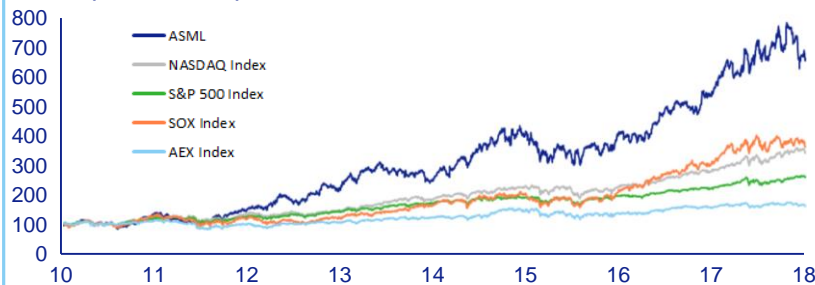
We have realized productivity improvement for our customers

Average wafers per day (best day of week), in thousands



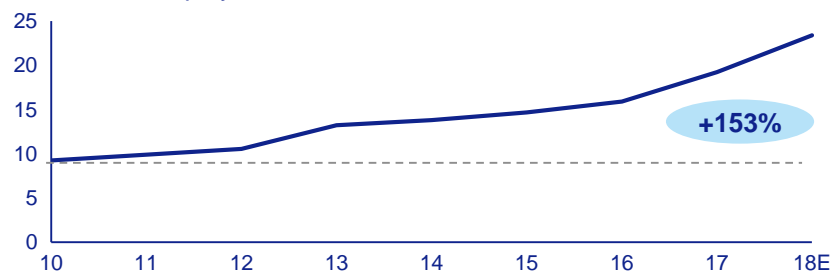
We have outperformed industry indices

Share price development, index = 2010



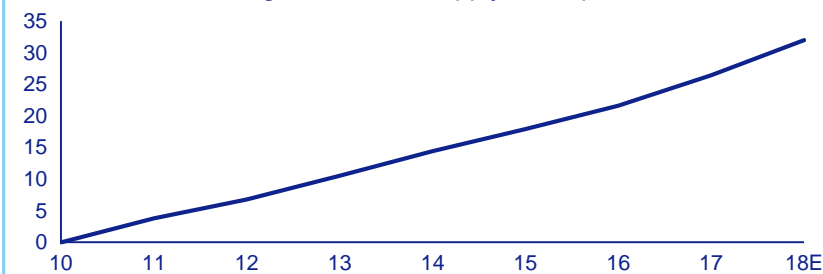
We have created career opportunities for professionals

ASML total employees, in thousand FTE



We have commissioned sizeable business to our supply chain

Cumulative revenue generated for supply chain partners, in B€



Our Sustainable Development Goals

Priority	Our 2025 Ambition	Contribution to SDG
 PEOPLE	Have a highly engaged and employable workforce	 
 CIRCULAR ECONOMY	Ensure more sustainable use and re-use of materials in ASML and the value chain	
 CLIMATE & ENERGY	Reduce carbon emissions of our operations and products	
 INNOVATION ECOSYSTEM	Promote sustainable and responsible business practices in the supply chain	
 RESPONSIBLE SUPPLY CHAIN	Re-enforce our core strategic activities together with partners in the innovation ecosystem & nurture future growth opportunities	

Summary: clear value creation opportunity

Semi End Markets

- Healthy semiconductor end market growth fueled by major innovation drivers such as 5G Connectivity, Artificial Intelligence, Autonomous Driving, and Big Data
- Translates into growth of world-wide fab capacity in all segments, especially at the leading edge nodes

Lithography Market

- Moore's law continues to enable industry growth and lithography is a key enabler to cost effective shrink
- Strong growth opportunity in lithography beyond the next decade with a mix transition from DUV to EUV

Stakeholder Value

- We continue to execute our strategy and expand our product portfolio
- Further driving growth opportunities and delivering value to our stakeholders

Forward Looking Statements

ASML

Public

Slide 20

8 November 2018

This document contains statements relating to certain projections, business trends and other matters that are forward-looking, including statements with respect to expected trends and outlook, strategy, bookings, expected financial results and trends, including expected sales, EUV revenue, gross margin, capital expenditures, R&D and SG&A expenses, cash conversion cycle, and target effective annualized tax rate, and expected financial results and trends for the rest of 2018 and 2019, expected revenue growth and demand for ASML's products in logic and memory, expected annual revenue opportunity in 2020 and for 2025 and expected EPS potential in 2020 with significant growth in 2025, expected trends in the lithography system market, fab capacity by segment, the automotive and artificial intelligence industries, connectivity, semiconductor end markets and new semiconductor nodes, expected acceleration of chipmakers' performance for the next decade, expected EUV insertion and transistor density growth, trends in DUV systems revenue and Holistic Lithography and installed based management revenues, statements with respect to expectations regarding future DUV sales, including composition, margins, improvement of operations and performance, DUV product roadmaps, expected benefits of the holistic productivity approach, including in terms of wafers per year, expected industry trends and expected trends in the business environment, statements with respect to customer demand and the commitment of customers to High NA machines and to insert EUV into volume manufacturing by ordering systems, expected future operation of the High NA joint lab, statements with respect to holistic lithography roadmaps and roadmap acceleration, including the introduction of higher productivity systems in 2019 (including the expected shipment of NXE:3400C and expected timing thereof) and the expected benefits, ASML's commitment to volume manufacturing and related expected plans until 2030, ASML's commitment to secure system performance, shipments, and support for volume manufacturing, including availability, timing of and progress supporting EUV ramp and improving consistency, productivity, throughput, and production and service capability enabling required volume as planned, including expected shipments, statements with respect to growth of fab capacity driving demand in lithography systems, planned customer fabs for 200 systems and expected first output in 2019, expected EUV value increase and increase in EUV margins and ASML's expectation of EUV profitability at the DUV level, expected installed base of EUV systems, expected customer buildout of capacity for EUV systems, EUV estimated demand by market, expected increase in lithography intensity, statements with respect to the expected benefits of EUV, including year-on-year cost reduction and system performance, and of the introduction of the new DUV system and expected demand for such system, the expected benefits of HMI's e-beam metrology capabilities, including the expansion of ASML's integrated Holistic Lithography solutions through the introduction of a new class of pattern fidelity control, the extension of EUV to enable cost effective single patterning shrink with EUV, statements with respect to ASML's applications business, including statements with respect to expected results in 2018, expected growth of the applications business and expected drivers of growth, expected growth in margins, continued shrink and drivers, and expected accuracy, defect control and performance improvements, shrink being a key driver supporting innovation and providing long-term industry growth, lithography enabling affordable shrink and delivering value to customers, DUV, Holistic Lithography and EUV providing unique value drivers for ASML and its customers, expected industry innovation, the expected continuation of Moore's law and that EUV will continue to enable Moore's law and drive long term value for ASML beyond the next decade, intention to return excess cash to shareholders through stable or growing dividends and regularly timed share buybacks in line with ASML's policy, statements with respect to the expectation to continue to return cash to shareholders through dividends and share buybacks, and statements with respect to the expected impact of accounting standards. 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", "targets", "commits to secure" and variations of these words or comparable words. These 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 involve risks and uncertainties. These risks and uncertainties include, without limitation, economic conditions, product demand and semiconductor equipment industry capacity, worldwide demand and manufacturing capacity utilization for semiconductors, including the impact of general economic conditions on consumer confidence and demand for our customers' products, competitive products and pricing, the impact of any manufacturing efficiencies and capacity constraints, performance of our systems, the continuing success of technology advances and the related pace of new product development and customer acceptance of and demand for new products including EUV and DUV, the number and timing of EUV and DUV systems shipped and recognized in revenue, timing of EUV orders and the risk of order cancellation or push out, EUV production capacity, delays in EUV systems production and development and volume production by customers, including meeting development requirements for volume production, demand for EUV systems being sufficient to result in utilization of EUV facilities in which ASML has made significant investments, potential inability to successfully integrate acquired businesses to create value for our customers, our ability to enforce patents and protect intellectual property rights, the outcome of intellectual property litigation, availability of raw materials, critical manufacturing equipment and qualified employees, trade environment, changes in exchange rates, changes in tax rates, available cash and liquidity, our ability to refinance our indebtedness, distributable reserves for dividend payments and share repurchases, results of the share repurchase plan and other risks indicated in the risk factors included in ASML's Annual Report on Form 20-F and other filings with the US Securities and Exchange Commission. These forward-looking statements are made only as of the date of this document. We do not undertake to update or revise the forward-looking statements, whether as a result of new information, future events or otherwise.

Public

ASML

INVESTOR DAY

ASML **SMALL** **TALK** **2018**

VELDHOVEN

