

DRIVE INNOVATION • DELIVER EXCELLENCE >



SHRINKING DIMENSIONS EXPANDING PERSPECTIVES

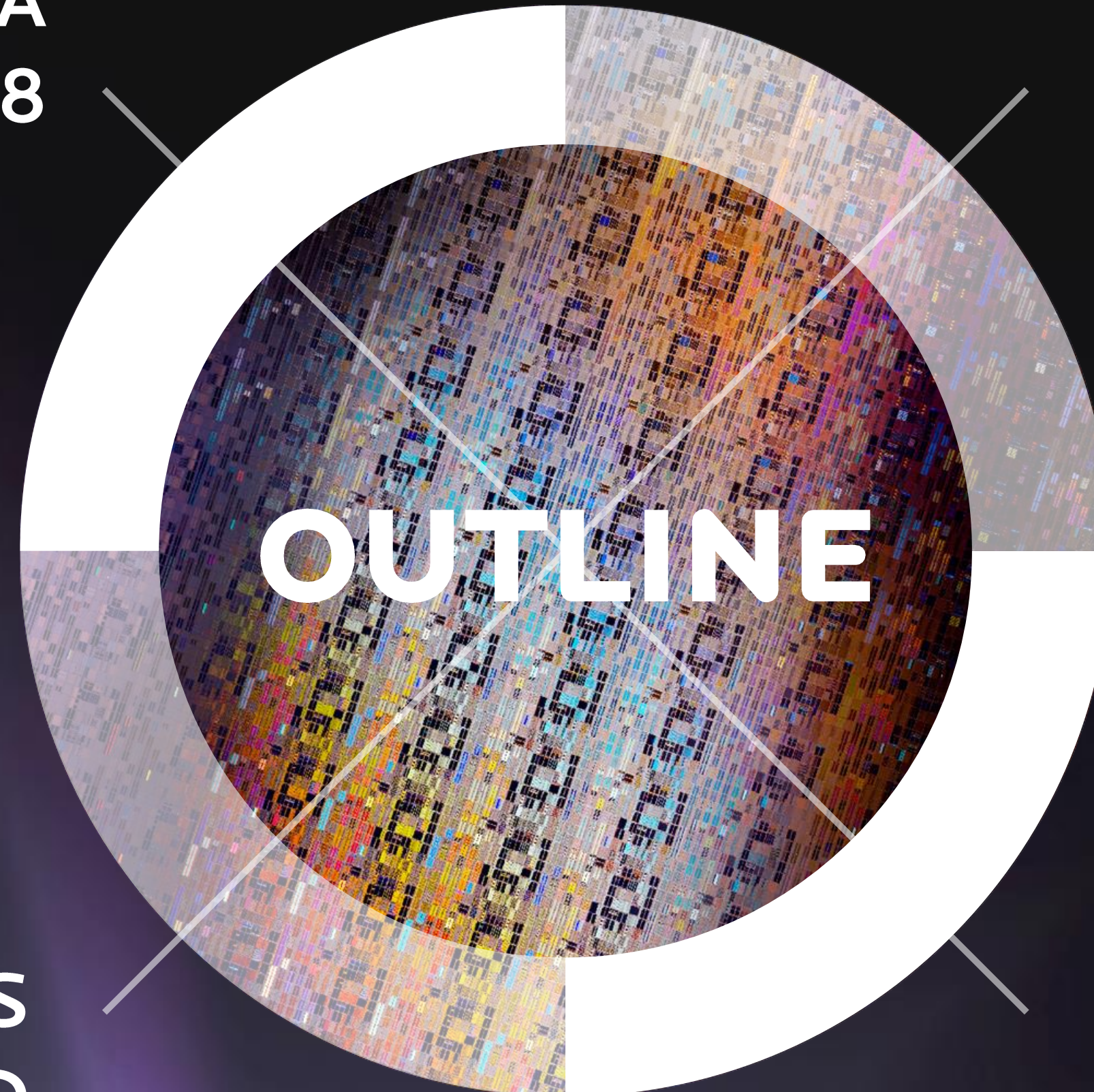
ASMI ANNUAL MEETING
OF SHAREHOLDERS 2018

Chuck del Prado, President & CEO
May 28, 2018

Cautionary Note Regarding Forward-Looking Statements: All matters discussed in this presentation, except for any historical data, are forward-looking statements. Forward-looking statements involve risks and uncertainties that could cause actual results to differ materially from those in the forward-looking statements. These include, but are not limited to, economic conditions and trends in the semiconductor industry generally and the timing of the industry cycles specifically, currency fluctuations, corporate transactions, financing and liquidity matters, the success of restructurings, the timing of significant orders, market acceptance of new products, competitive factors, litigation involving intellectual property, shareholders or other issues, commercial and economic disruption due to natural disasters, terrorist activity, armed conflict or political instability, epidemics and other risks indicated in the Company's reports and financial statements. The Company assumes no obligation nor intends to update or revise any forward-looking statements to reflect future developments or circumstances.

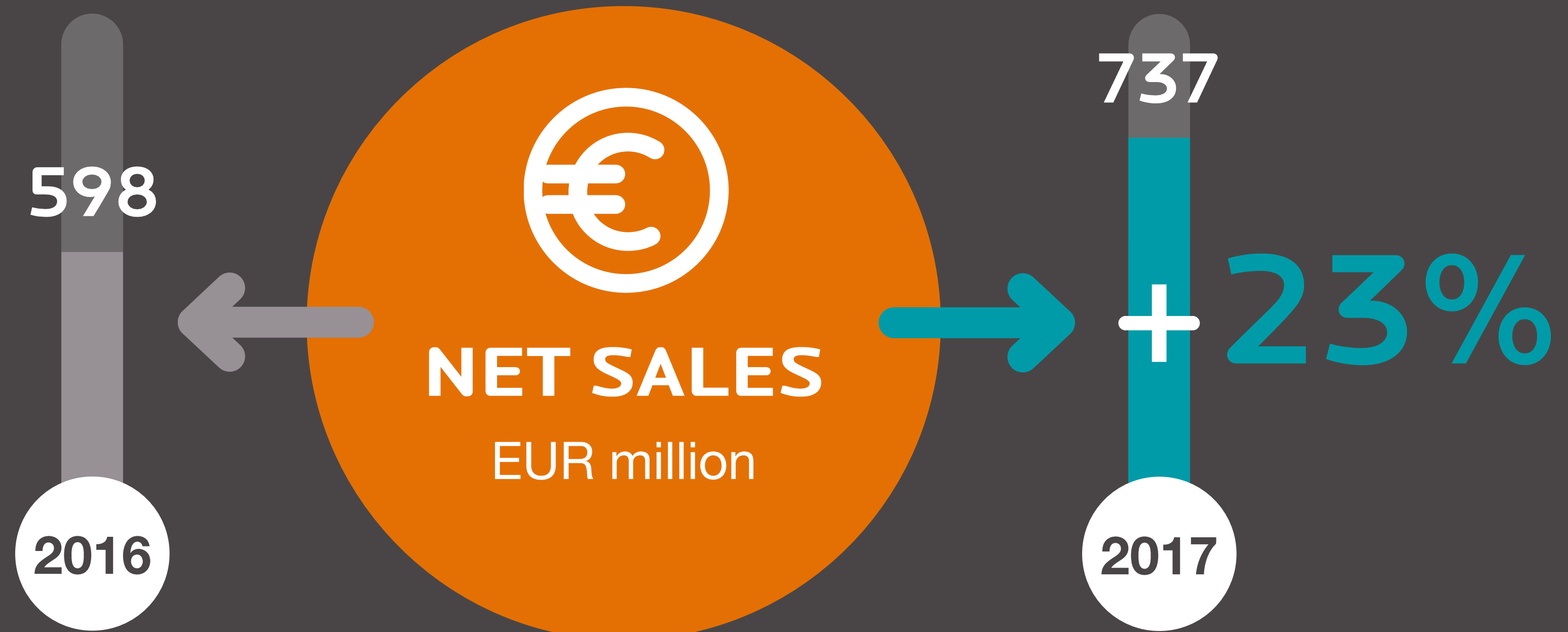
**BUSINESS AGENDA
AND OUTLOOK 2018**

**FINANCIAL
HIGHLIGHTS 2017**



**BUSINESS
ENVIRONMENT AND
ACHIEVEMENTS 2017**

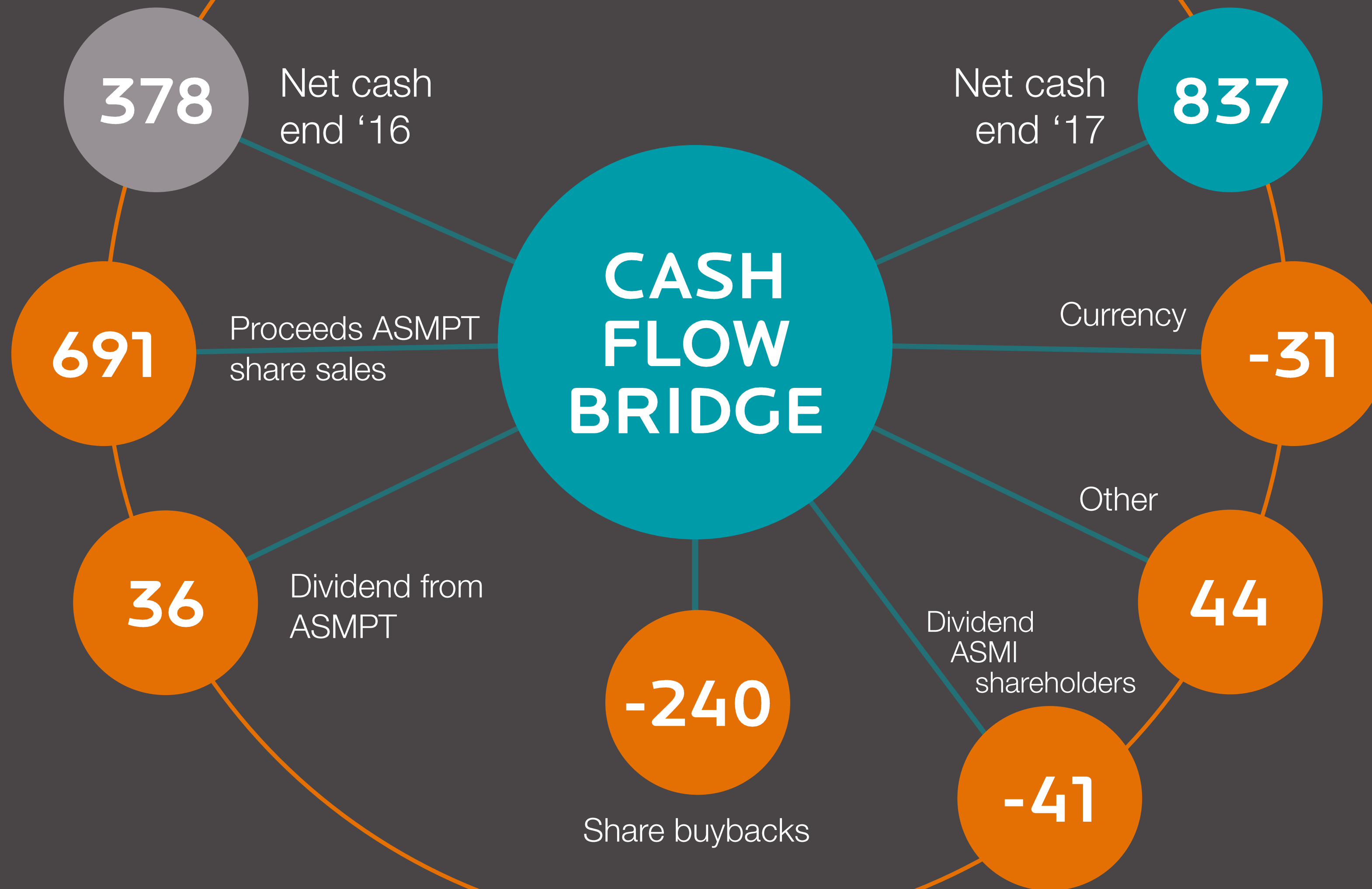
**NON-FINANCIAL
HIGHLIGHTS 2017**







● Book profit ASMPT share sales ● Net result



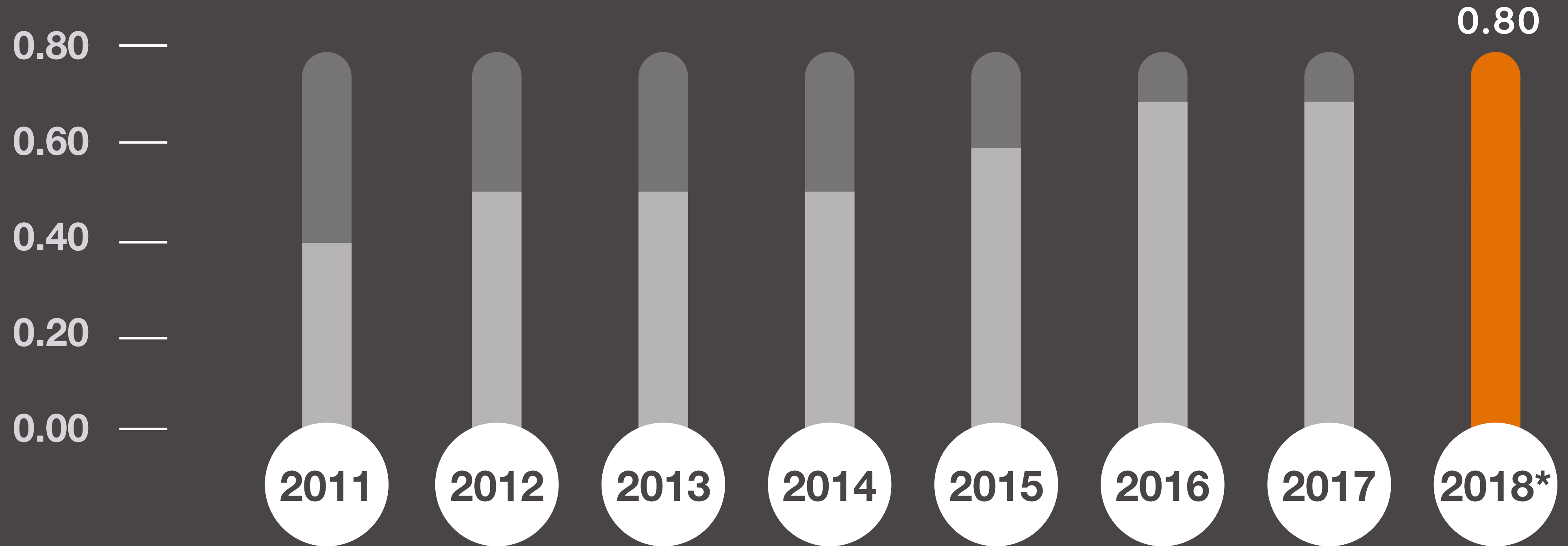
**PROPOSED
DIVIDEND
€0.80**

**+14%
FROM
2017**

**SIGNIFICANT
DIVIDEND
FOR 8
CONSECUTIVE
YEARS**



DIVIDEND PER SHARE (EUR)



* PROPOSED



Continued commitment to use excess cash for the benefit of the shareholders

Share buybacks

- 3rd consecutive €100 million program completed in August 2017
 - €250 million program started in September 2017 and completed March 2018
 - New €250 million program announced February 2018
-

Proposed capital repayment of €4.00 per share

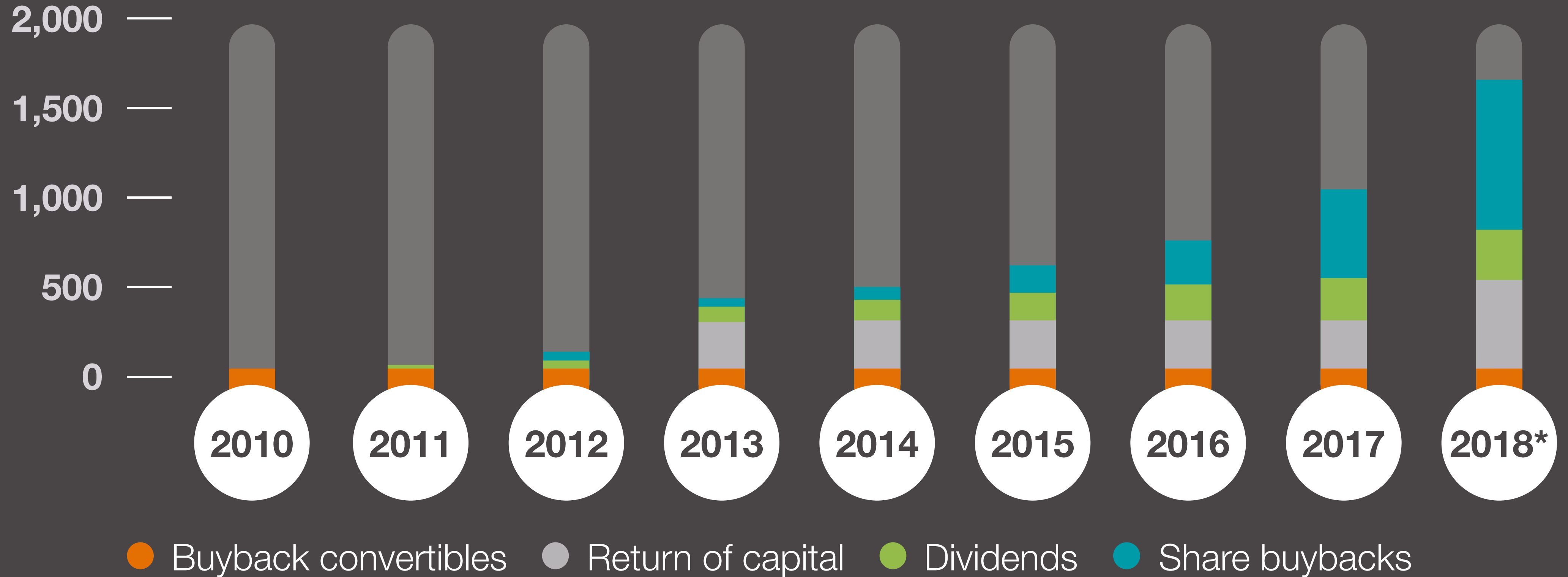
- Using proceeds of 9% stake sale
-

Proposed shareholder remuneration totals more than €500 million in 2018



FINANCIAL HIGHLIGHTS 2017

CUMULATIVE CASH RETURNED TO MARKET '10-'18 (EUR MILLION)



* Including proposed 2018 dividend, capital return of €4 per share, and planned new share buyback of €250 million



DURING 2017 WE REDUCED OUR STAKE IN ASMPT FROM 39% TO 25%

- In April 2017, ASMI sold a 5% stake in ASMPT for proceeds of approximately €245 million
- Last November, ASMI sold a 9% stake in ASMPT for proceeds of approximately €445 million



DURING 2017 WE REDUCED OUR STAKE IN ASMPT FROM 39% TO 25%

WITH THIS REDUCTION IN THE ASMPT STAKE THE MANAGEMENT BOARD AIMS TO TAKE AN IMPORTANT FURTHER STEP IN CREATING LONG TERM VALUE FOR THE COMPANY

- Next to continuous efforts in strengthening the company's Front-end operations
- Total proceeds of nearly €700 million are used for:
 - €250 million share buyback program that started in September 2017 and was completed March 2018
 - Proposed tax efficient capital repayment of €4 per share
 - Planned new €250 million share buyback program



DURING 2017 WE REDUCED OUR STAKE IN ASMPT FROM 39% TO 25%

WITH THIS REDUCTION IN THE ASMPT STAKE THE MANAGEMENT BOARD AIMS TO TAKE AN IMPORTANT FURTHER STEP IN CREATING LONG TERM VALUE FOR THE COMPANY

MANAGEMENT BOARD REMAINS OF THE OPINION THAT, AT THIS MOMENT, A SIGNIFICANT STAKE IN ASMPT IS OF STRATEGIC VALUE TO ASMI



NON-FINANCIAL HIGHLIGHTS 2017



NON-FINANCIAL HIGHLIGHTS 2017

STRIVING FOR ZERO HARM!





NON-FINANCIAL HIGHLIGHTS 2017

STRIVING FOR ZERO HARM!

→ **OUR LOWEST RECORDABLE
INJURY RATE**

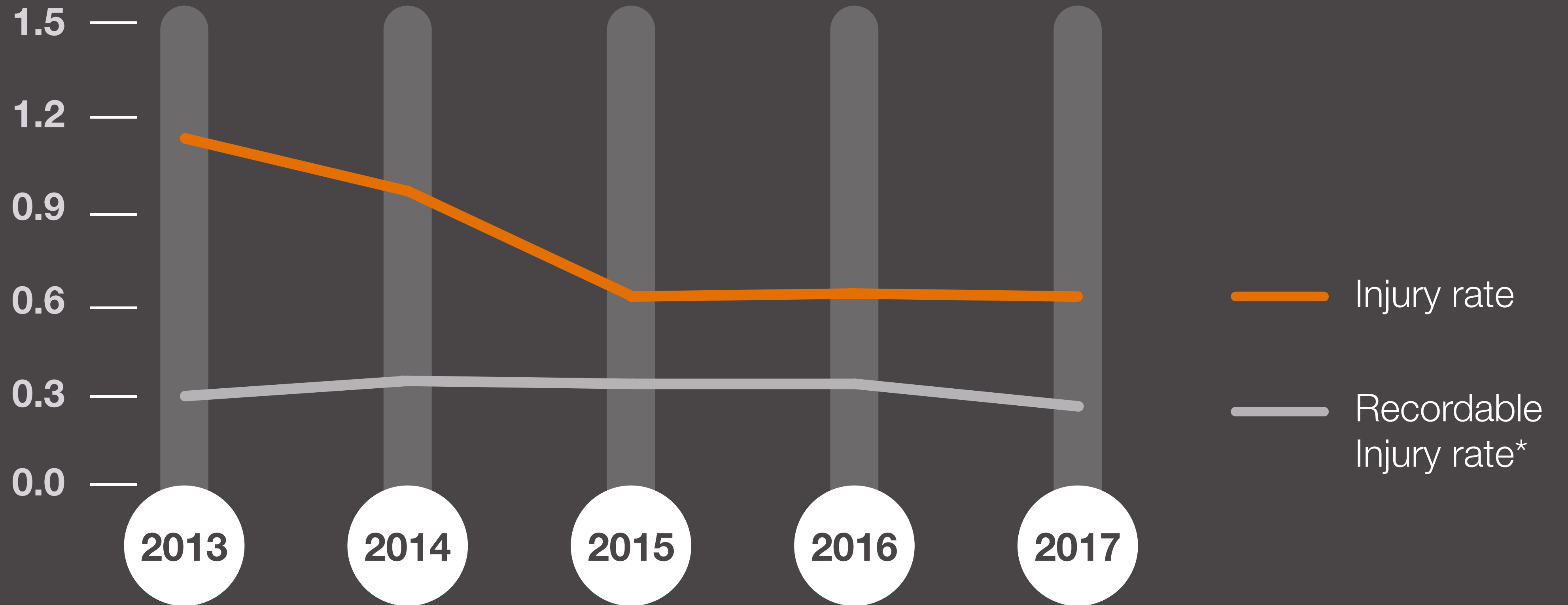
→ **CONTINUED DRIVE TOWARD
ZERO HARM!**





NON-FINANCIAL HIGHLIGHTS 2017

GLOBAL INJURY RATES

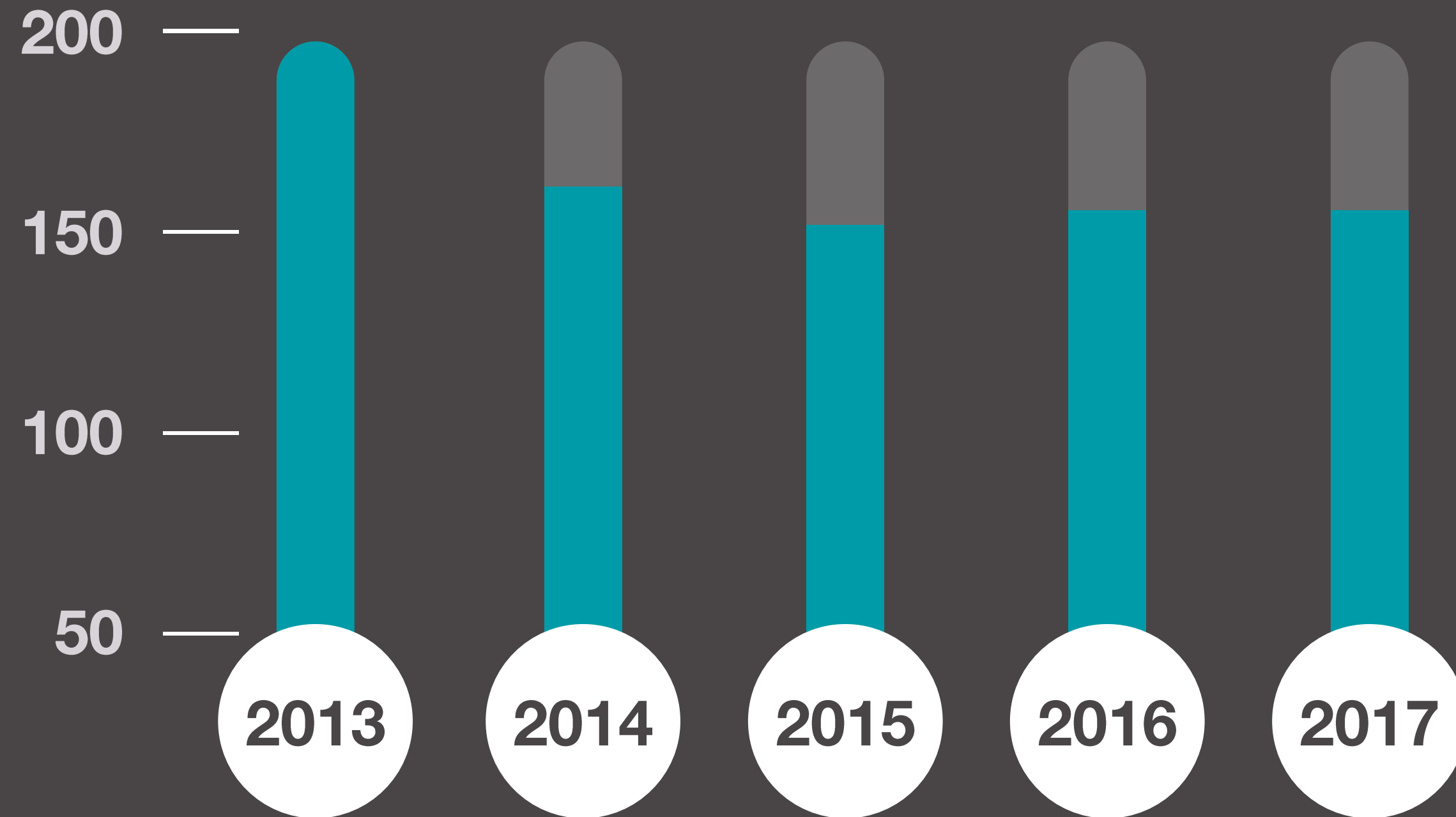


* Injuries requiring > first aid, restricted duty, or lost work days, rate per 100 employees



NON-FINANCIAL HIGHLIGHTS 2017

GLOBAL ASM WATER CONSUMPTION (M³)



Environmental – Consumption

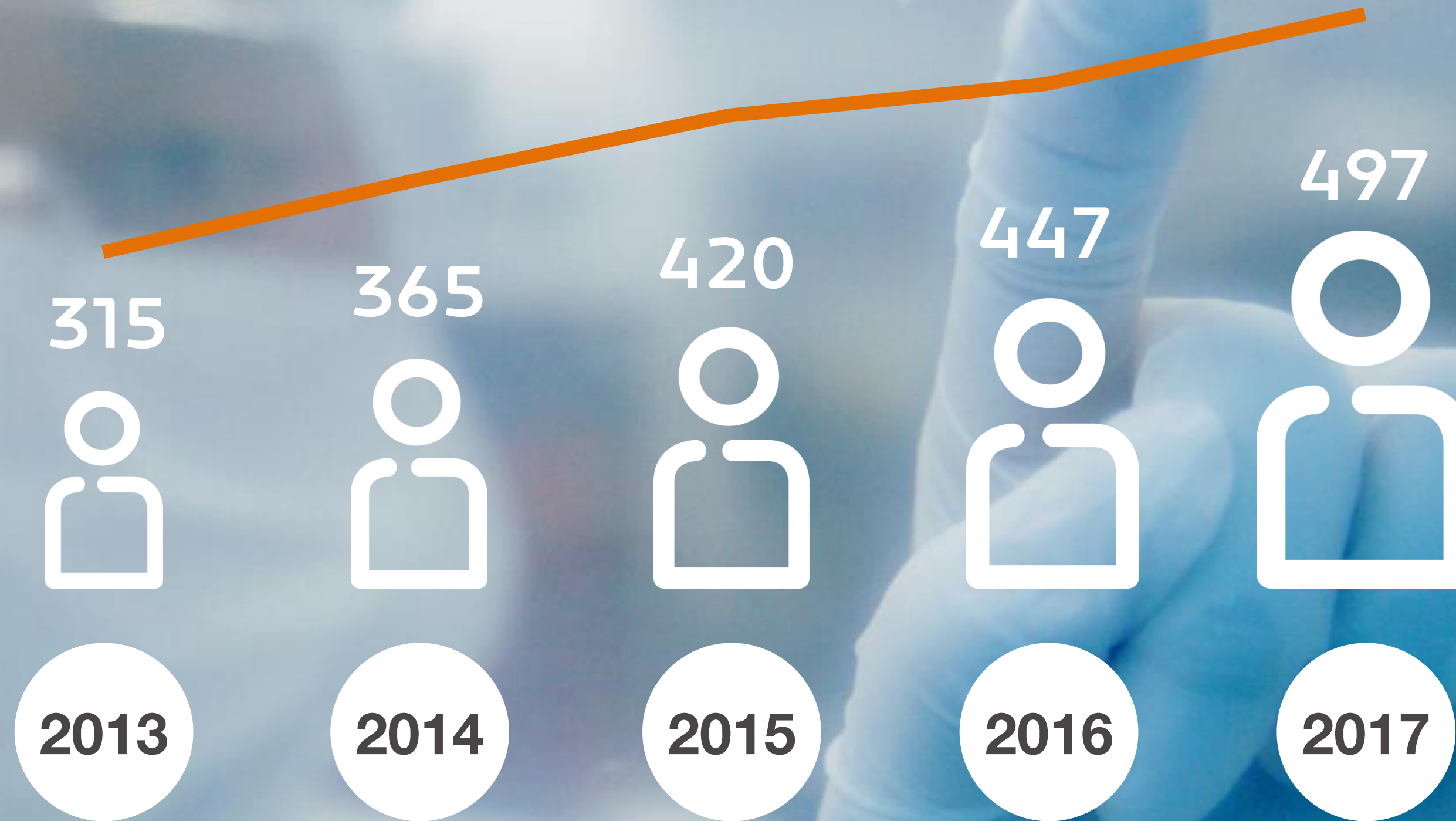
- Phoenix wastewater recirculation on-line February 2018
- Continuing to pursue further reduction opportunities

12 RESPONSIBLE
CONSUMPTION
AND PRODUCTION





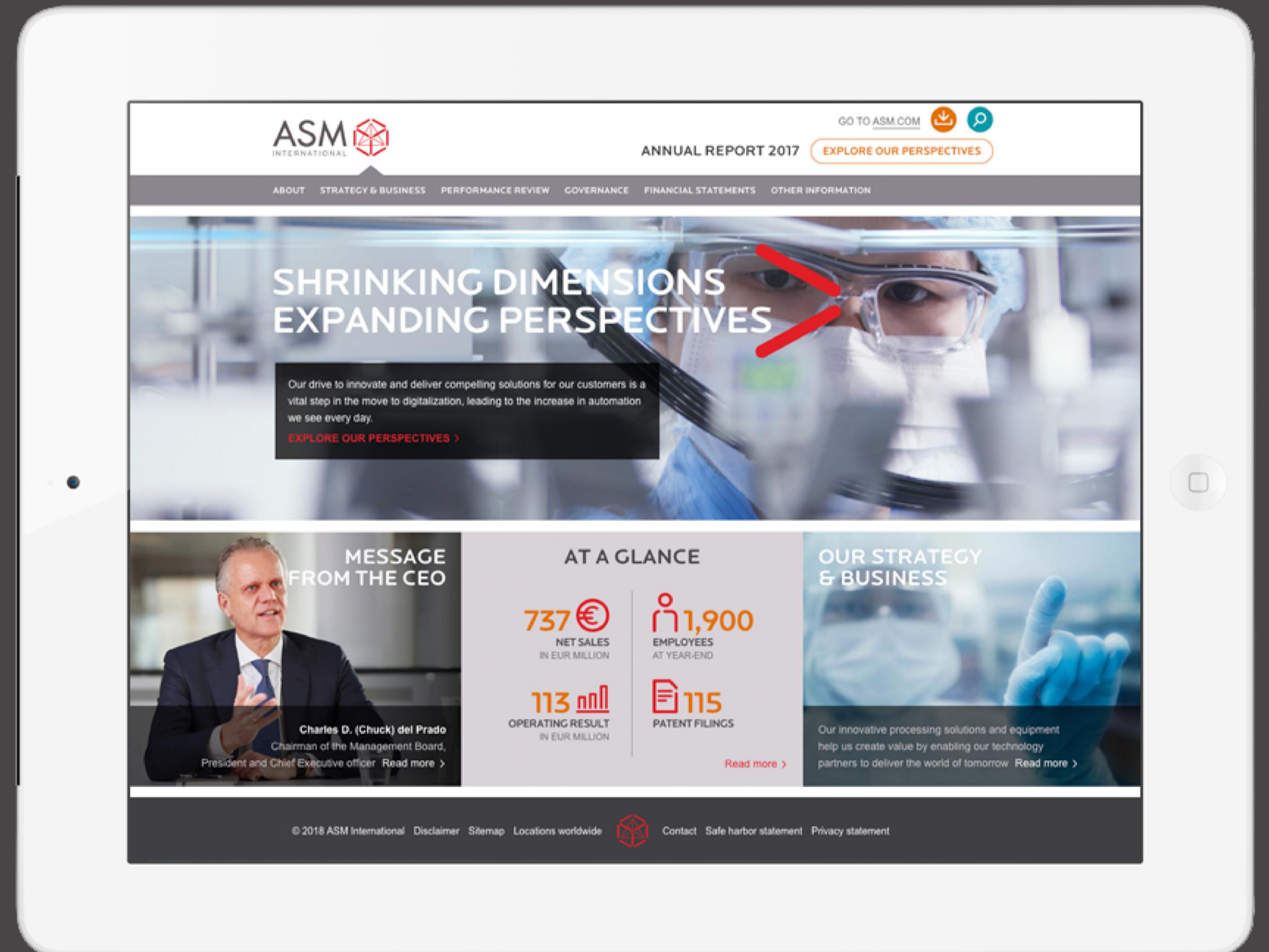
R&D HEADCOUNT





NON-FINANCIAL HIGHLIGHTS 2017

PROGRESSING TOWARDS INTEGRATED REPORTING





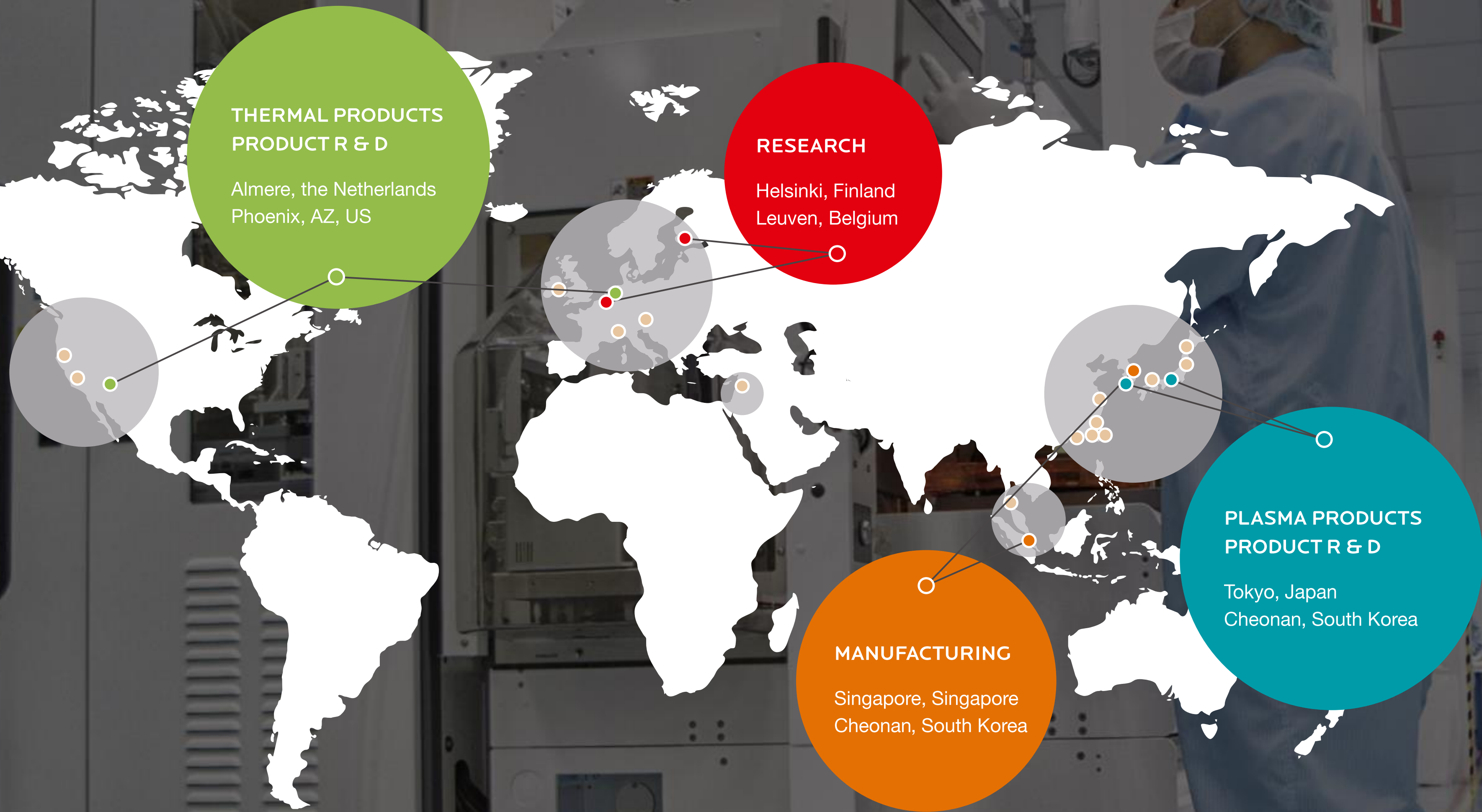
Ground breaking of new Korean facility closer to R&D and manufacturing of key customers

Preparing for the next stage of growth

In planning stages for additional manufacturing capacity in Singapore



**BUSINESS
ENVIRONMENT AND
ACHIEVEMENTS 2017**

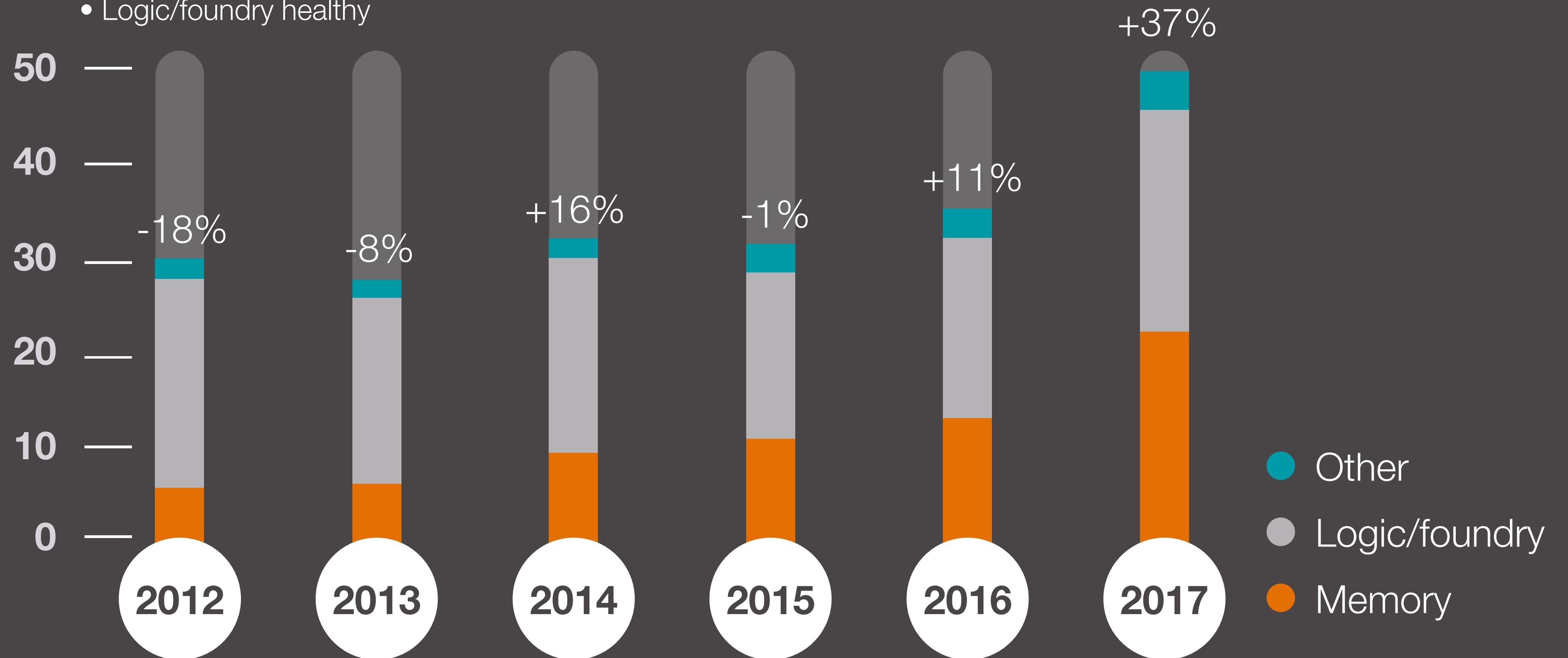




BUSINESS ENVIRONMENT AND ACHIEVEMENTS 2017

WAFER FAB EQUIPMENT BY DEVICE TYPE (US\$ BILLION)

- 2017 WFE spending increased by 37%
- Strong growth in memory
- Logic/foundry healthy

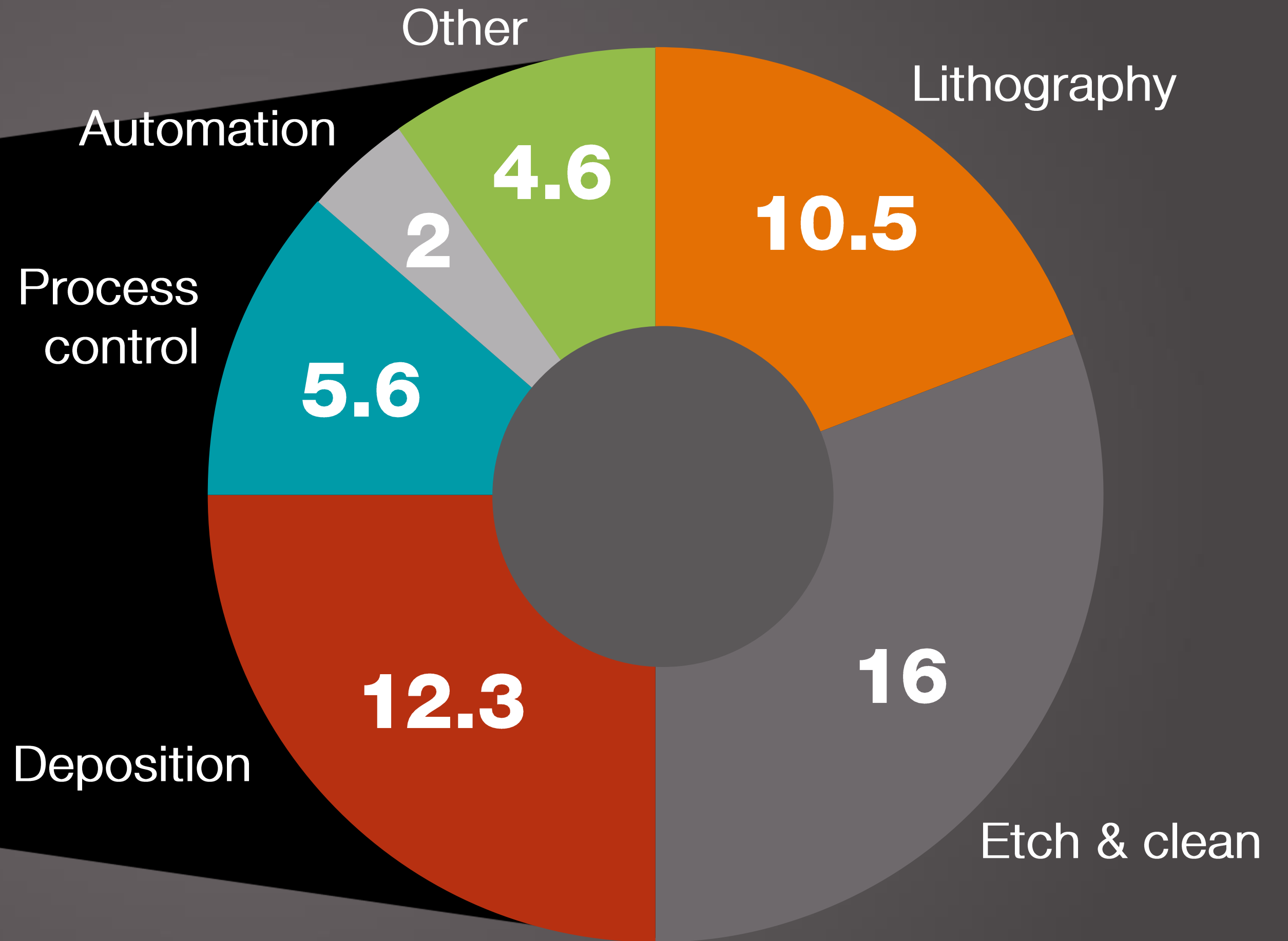


Source Gartner May 2018



BUSINESS ENVIRONMENT AND ACHIEVEMENTS 2017

**EQUIPMENT
MARKET
SEGMENTS**
(US\$ BILLION)



ASM's focus is on the deposition segment (24% of WFE in 2017)

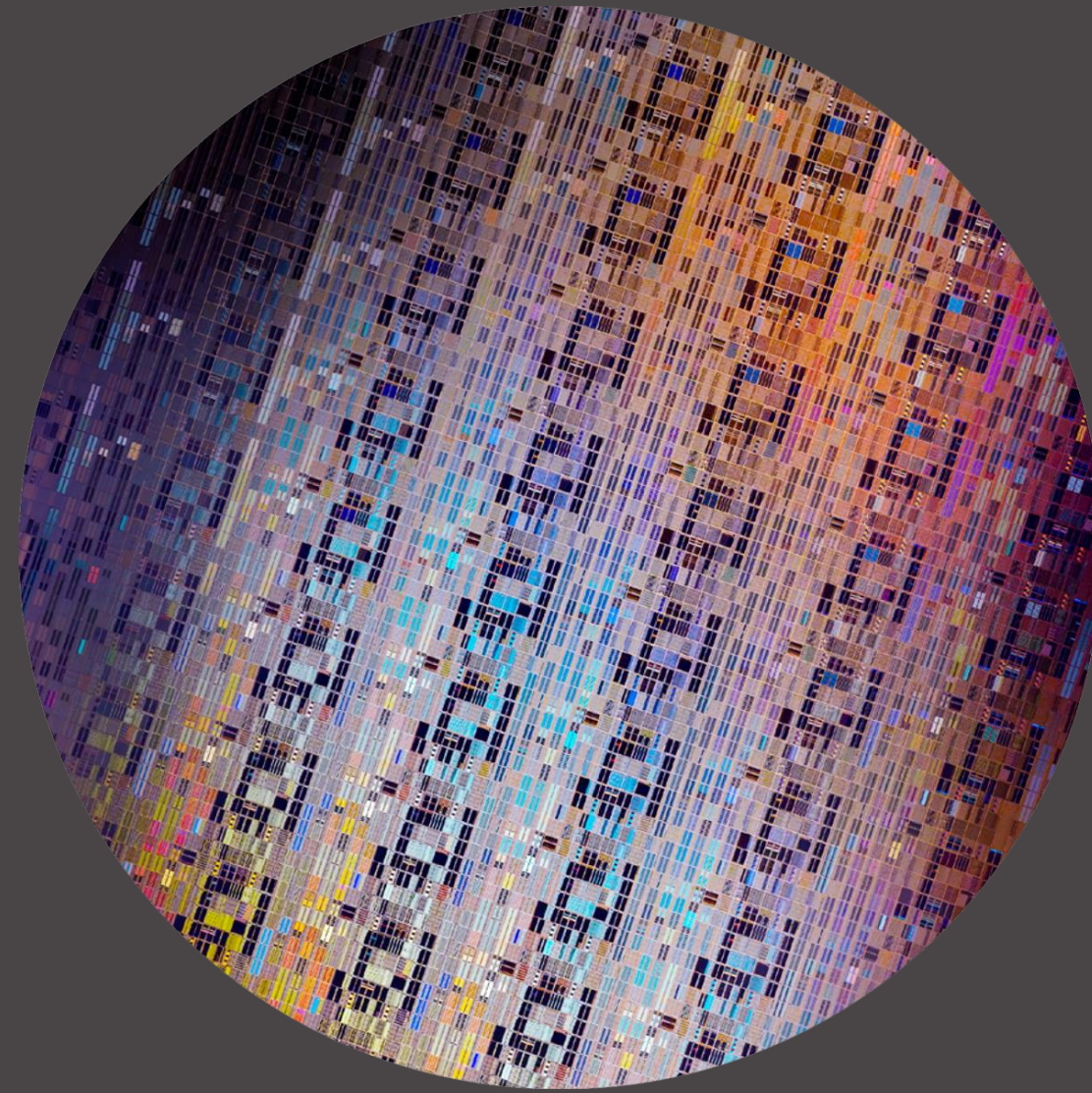


BUSINESS ENVIRONMENT AND ACHIEVEMENTS 2017

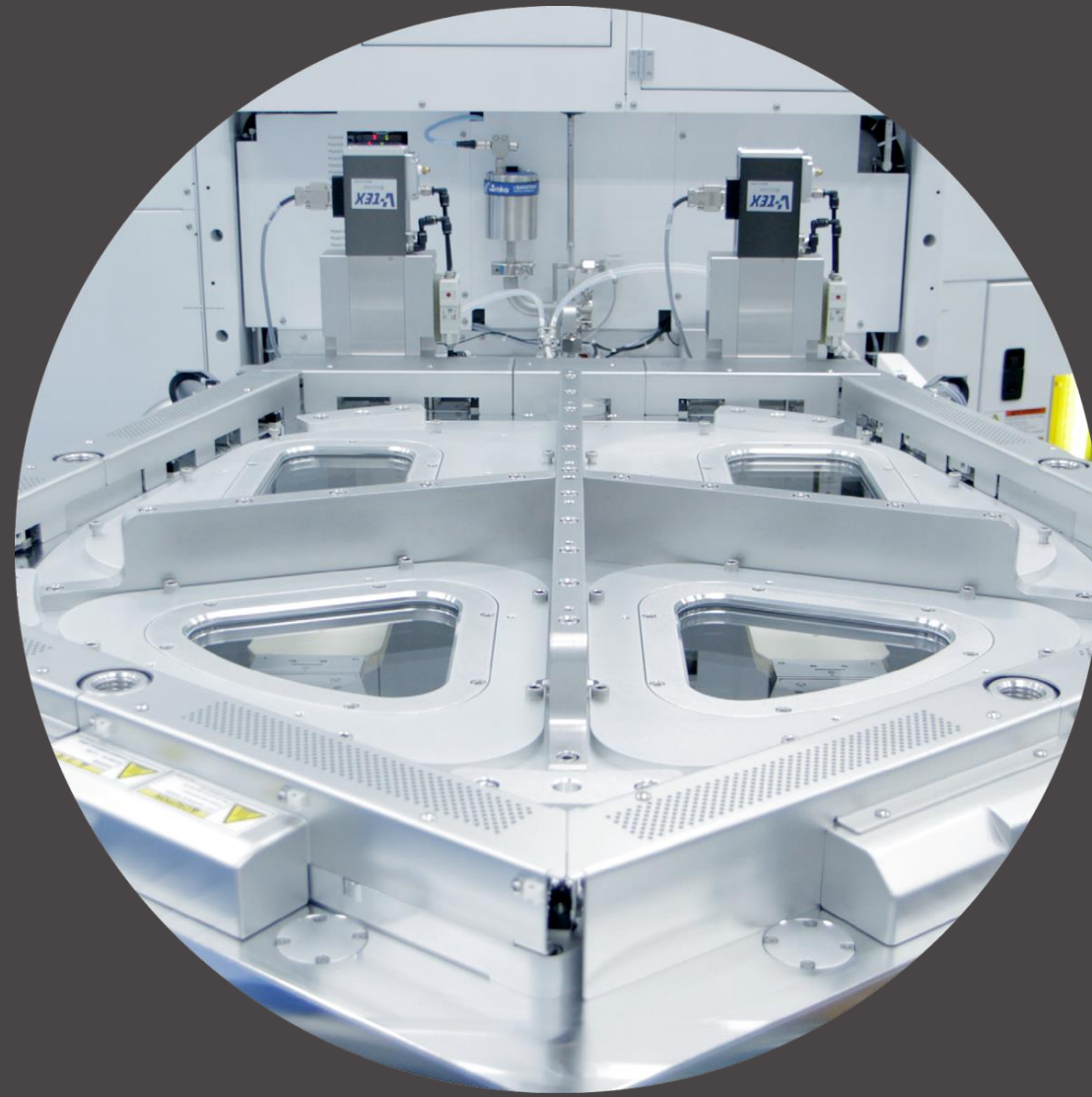
ASM FOCUSES ON DEPOSITION EQUIPMENT

ASM IS A MARKET LEADER IN ALD

POSITIONS IN EPITAXY, PECVD AND VERTICAL FURNACE



Wafer Fab Equipment market strongly increased in 2017,
driven by memory



**Wafer Fab Equipment market strongly increased in 2017,
driven by memory**

ASM revenue grew 25% (based on US\$)

- Our ALD revenue benefitted from a clear recovery of the single-wafer ALD market
 - Epitaxy and PECVD revenue grew strongly
-



**Wafer Fab Equipment market strongly increased in 2017,
driven by memory**

ASM revenue grew 25% (based on US\$)

- Our ALD revenue benefitted from a clear recovery of the single-wafer ALD market
 - Epitaxy and PECVD revenue grew strongly
-

Our overall penetration in 3D-NAND substantially increased

Further strengthened R&D engagements with key customers



INTEL PREFERRED QUALITY SUPPLIER (PQS) AWARD



TSMC EXCELLENT PERFORMANCE AWARD





Pulsar® XP
ALD high-k



XP8 ALD



EmerALD® XP ALD metal gate

Our largest product line, continuing to account for clearly more than half of total equipment sales

ASM has strongest position in logic/foundry

- Served Available Market more than doubled from 14nm/16nm to 7nm in logic/foundry
-

Strong focus on increasing our addressable market within single-wafer ALD

Positive overall long-term market outlook in ALD



INTREPID[®] ES[™] INTRODUCED IN 2017

Delivers process modules for improved within wafer and wafer-to-wafer performance with high throughput



Targeting advanced CMOS applications, gradually increasing our addressable Epi market



INTREPID[®] ES[™] EPITAXY

Epi market

- Epi steps for logic/foundry are expected to increase in future nodes
- Epi is also used in memory

ASM

- Epi sales doubled in 2017
- Engaged with multiple customers in R&D





DRAGON[®] XP8 PECVD

Expanding PECVD opportunities on the successful XP8 platform

- Maintained focus on selected applications for logic/foundry
- Increased PECVD revenue in 3D-NAND
- Smart expanded niche strategy





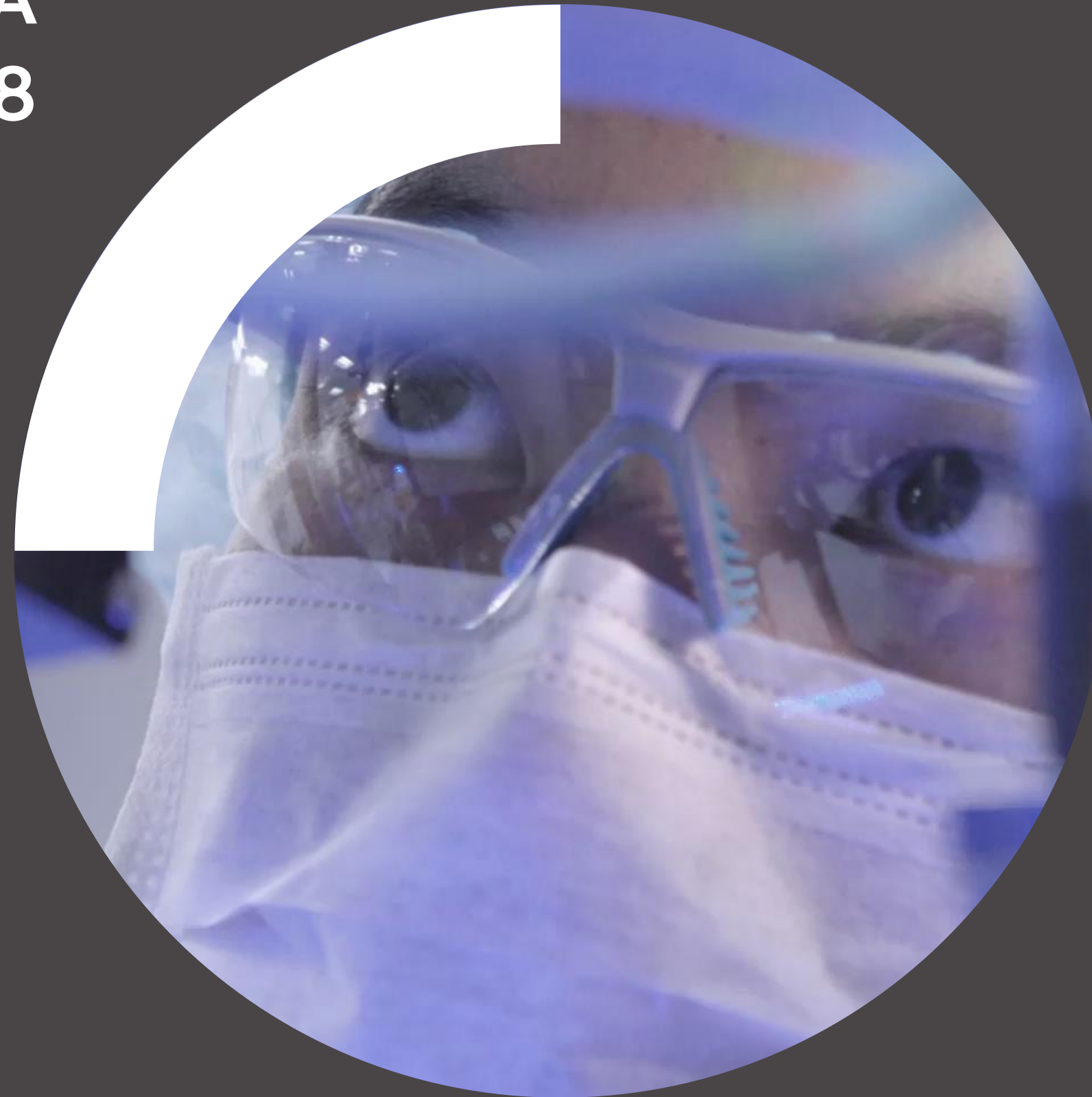
A412 VERTICAL FURNACE

Continued innovation in Vertical Furnace

- Niche focus on selected customers and markets such as analog
- Expanding focus on More-than-Moore market, creating new growth opportunities



BUSINESS AGENDA AND OUTLOOK 2018





BUSINESS AGENDA AND OUTLOOK 2018

1968



2022

MOORE'S LAW CONTINUES TO DRIVE SEMICONDUCTORS



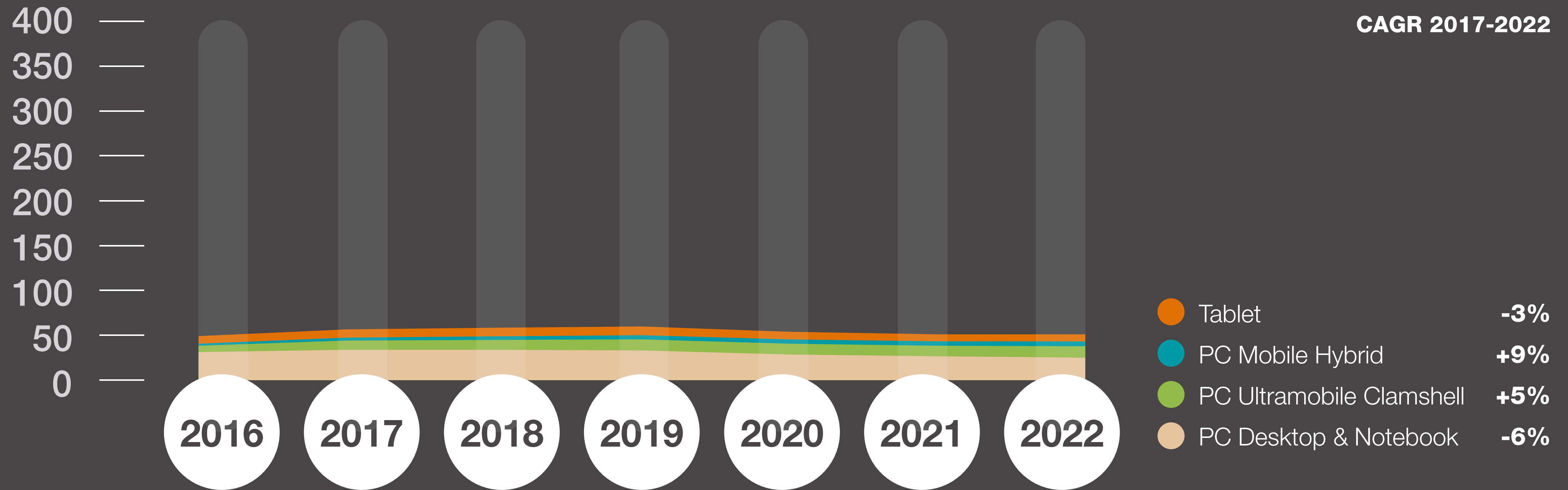


BUSINESS AGENDA AND OUTLOOK 2018

Semiconductor sales grew strongly $>+20\%$ in 2017, driven by high memory ASPs, and growth forecast to continue at a healthy rate in 2018

SEMICONDUCTORS SALES BY KEY APPLICATION (US\$ BILLION)

PC DESKTOP & NOTEBOOK, PC ULTRAMOBILE CLAMSHELL, PC MOBILE HYBRID, TABLET



Source Gartner April 2018

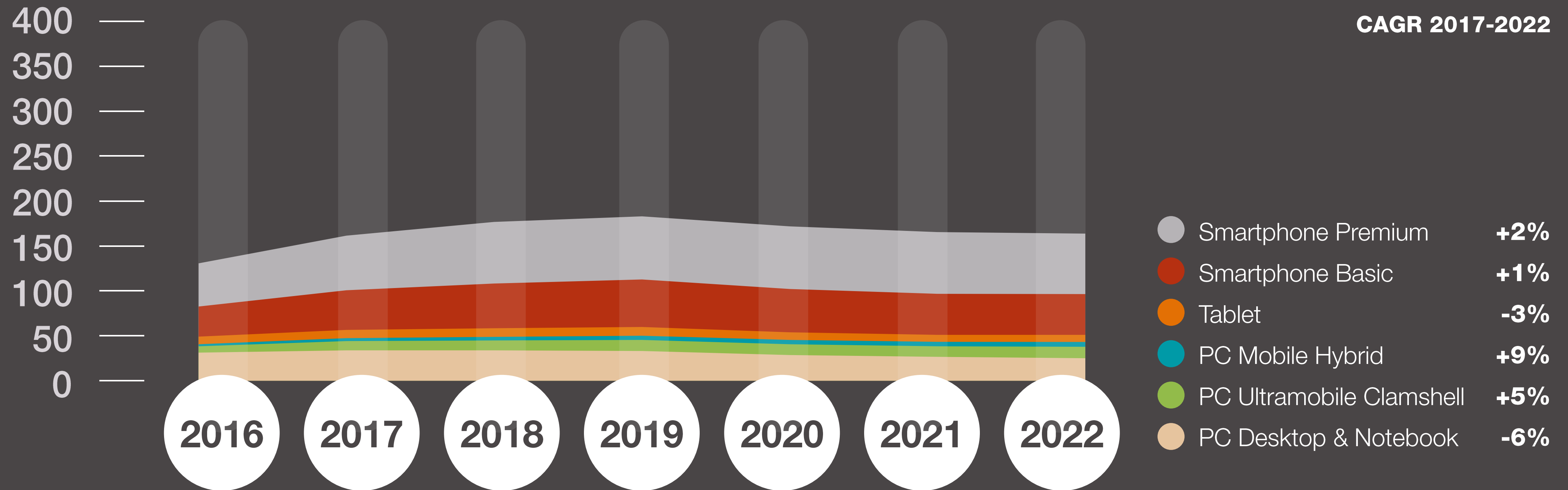


BUSINESS AGENDA AND OUTLOOK 2018

Semiconductor drivers are mobile devices,
but long term growth rate is slowing

SEMICONDUCTORS SALES BY KEY APPLICATION (US\$ BILLION)

SMARTPHONE BASIC, SMARTPHONE PREMIUM



Source Gartner April 2018

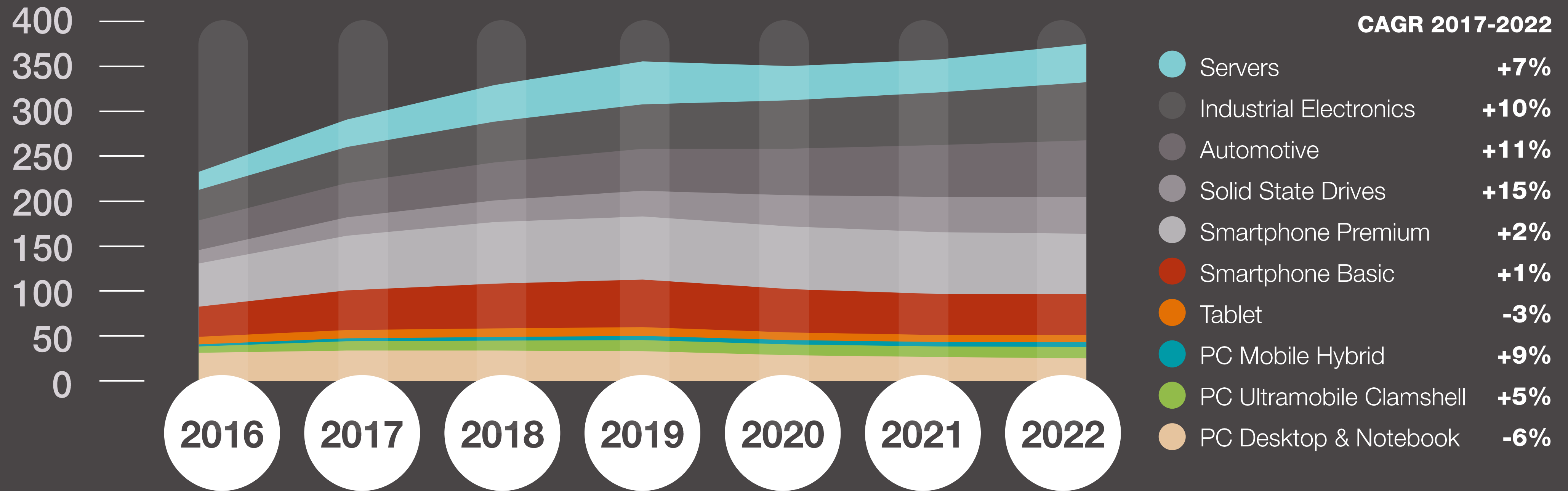


BUSINESS AGENDA AND OUTLOOK 2018

New semi growth drivers are solid state drives, servers, automotive and industrial

SEMICONDUCTORS SALES BY KEY APPLICATION (US\$ BILLION)

SOLID STATE DRIVES, AUTOMOTIVE, INDUSTRIAL ELECTRONICS, SERVERS

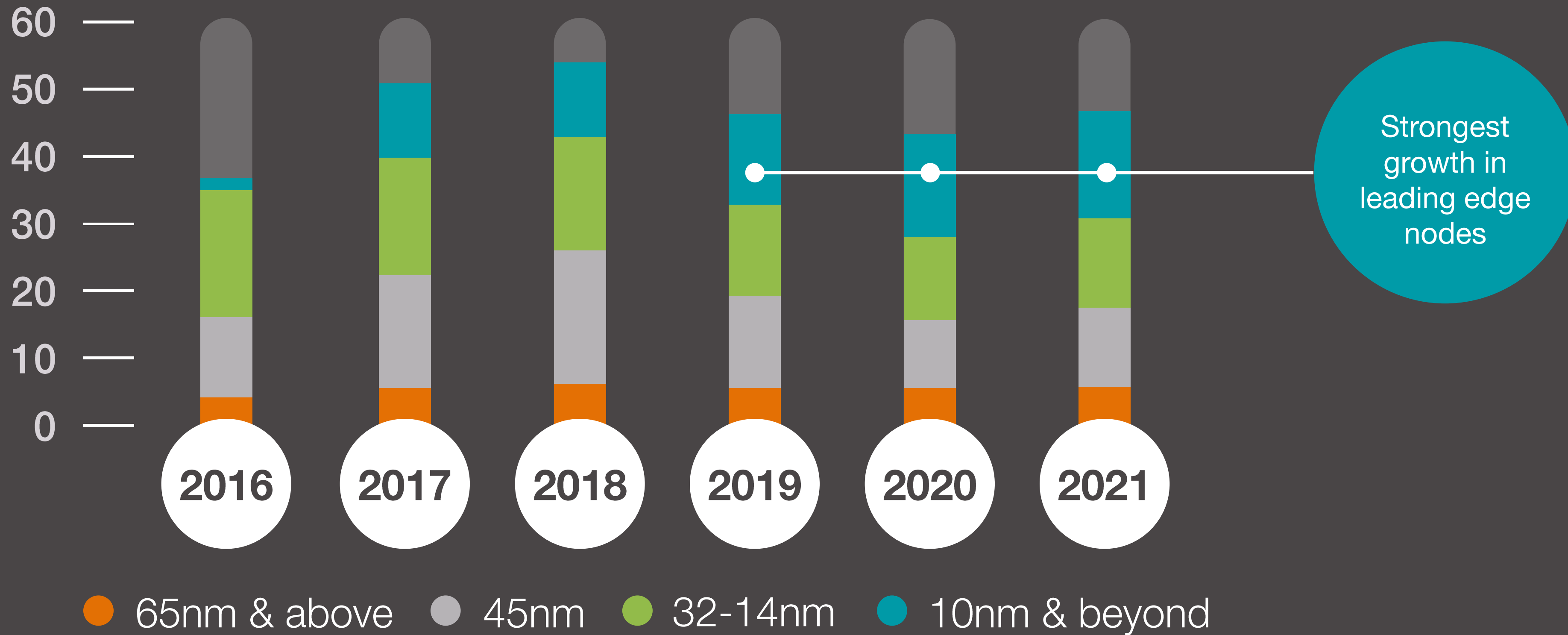


Source Gartner April 2018



BUSINESS AGENDA AND OUTLOOK 2018

WAFER FAB EQUIPMENT BY TECHNOLOGY NODE (US\$ BILLION)



Source Gartner May 2018



INDUSTRY SEGMENTS

DRAM

- New capacity investments driving growth
-

Logic

- Increased spending on 14/10 nm
-

Foundry

- Continued volume ramp of 7 nm, qualifications for 5 nm
-

3D-NAND

- Investments leveling off
-

ASM BUSINESS

China

- Doubling sales in 2018
-

Growth in More-than-Moore

- Multiple product lines are contributing
-

Expand R&D engagements

- New ALD solutions
 - Broaden position in Epi
-


Preparing for next stage of growth

- Korea, Singapore facilities
-



For Q2, on a currency comparable level, we expect sales of €200-230 million, and we expect an order intake of €160-200 million.

For 2018, market watchers currently expect the wafer fab equipment market to increase with, on average, a high single digit percentage. We aim to outgrow the wafer fab equipment market in 2018.

ASM 

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