

## Agenda

- 1) Financial summary of 3rd quarter
- 2)Business environment
- 3)Topics from DMG MORI
  - How DMG MORI addresses the changes in the market
  - ADAMOS to offer democratic MES (Manufacturing Execution System)
  - Successful EMO to improve the presence in 5-axis, mill-turn and automation
  - Deeper cooperation in CO-AG joint development
  - Higher precision with standardized SmartSCALE
  - Efforts in ESG



## Highlights of 3<sup>rd</sup> quarter 2017

- ✓ Record-high quarterly order intake (JPY term:+37%(Jul-Sep) /+23%(Jan-Sep) )
- ✓ Uplifted annual order intake forecast: more than JPY 430bn
- ✓ Operating profit for the 9 months: JPY 14.9bn (previous year +2.6bn)
- ✓ Quarterly free cash flows +JPY 12.3bn (2016Q3, cash outflow of JPY 6bn)
- ✓ Another upward revision of annual forecast: sales revenue (JPY403bn→415bn), operating profit (JPY 26bn→JPY 28bn)
- ✓ ADAMOS to offer democratic MES(Manufacturing Execution System)
- ✓ Success at EMO: improved presence in 5-axis, mill-turn, automation



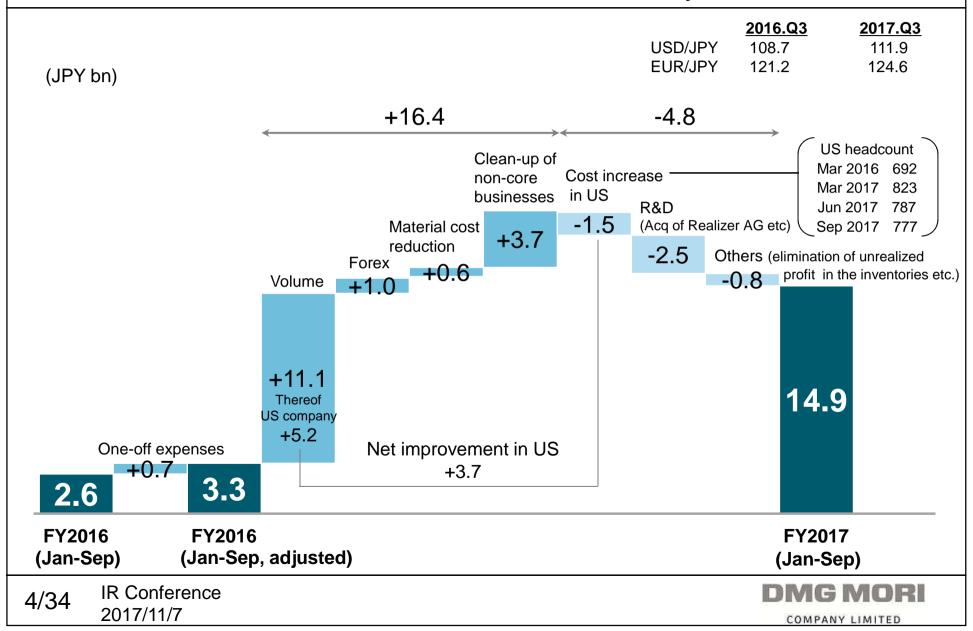
## 2017Q3 Income statement summary

	Jan –	- Mar	Apr –	Jun	Jul –	Sep	Change	Full-year	forecast
(JPY bn)	2016	2017	2016	2017	2016	2017	(%)	Previous	New
Sales revenue	95.4	97.2	89.9	100.9	82.4	105.2	+27.6%	403.0	415.0
Operating profit	2.3	4.0	1.2	5.0	-0.8	5.9		26.0	28.0
Operating profit margin (%)	2.4%	4.1%	1.3%	5.0%	-1.0%	5.6%		6.5%	6.7%
Net financial cost	-0.6	-1.1	-0.5	-1.0	-0.8	-1.1		-4.0	-4.5
(economic compensation associated with DA)	-	(-0.5)		(-0.5)	(-0.2)	(-0.5)		(-2.0)	(-2.1)
Net profit attributable to owners of the parent company	0.8	1.6	-0.1	2.0	-2.6	3.3		14.0	15.0
Depreciation & Amortization	4.3	4.4	4.1	4.5	3.9	4.5		17.0	17.5
Capex	2.9	1.6	4.2	2.2	2.5	2.6		10.0	10.0
USD/JPY	115.5	113.7	108.2	111.1	102.4	111.1		111.2	111.4
EUR/JPY	127.2	121.1	122.0	122.2	114.3	130.4		123.3	125.9
					*FX r	ate for Q4	USD/JPY EUR/JPY		110.0 130.0

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## 2017Q3 (Jan - Sep) Operating profit bridge (Y-o-Y)

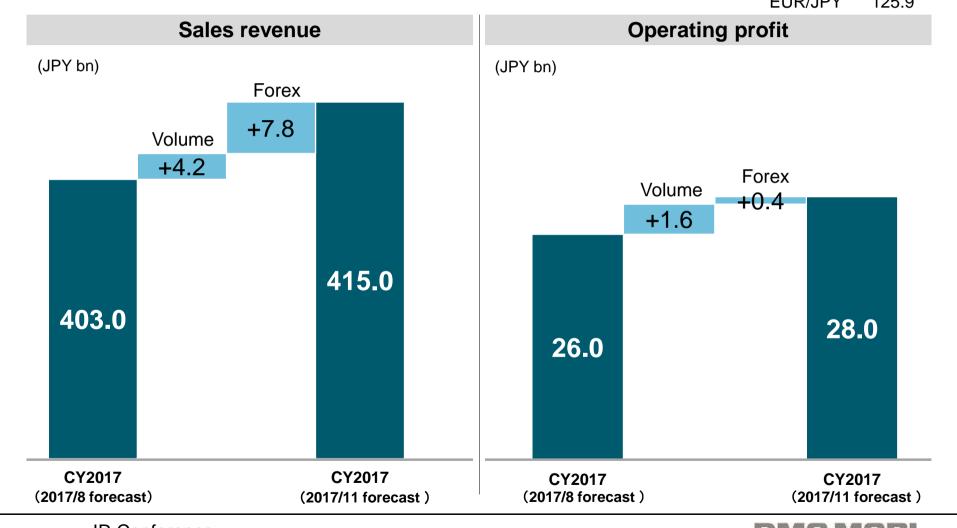
- Volume effect, Turn-around of US subsidiary



## 2017 full-year sales and operating profit forecast

- Bridge against previous forecast (Aug.2017)

USD/JPY 111.4 EUR/JPY 125.9

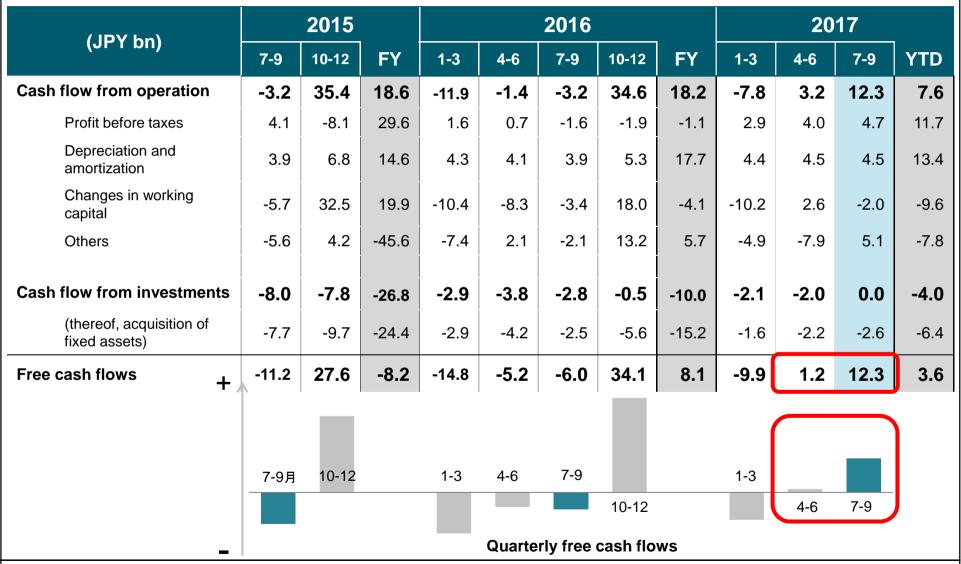


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### **Cash flows**

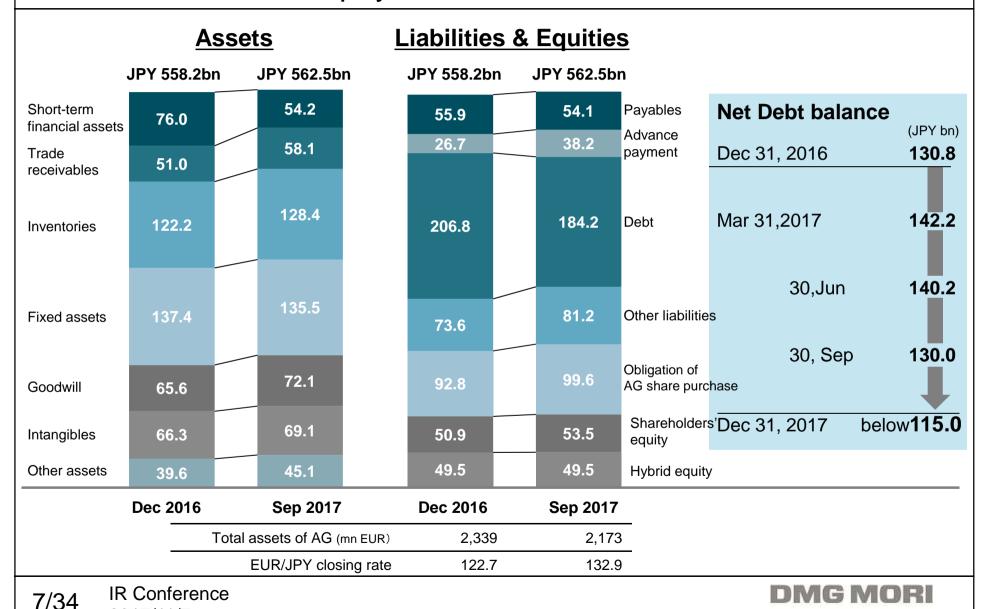
- Strong positive free cash flow



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# **Financial position** - strict inventory management, increased advance payments lead to Net Debt reduction



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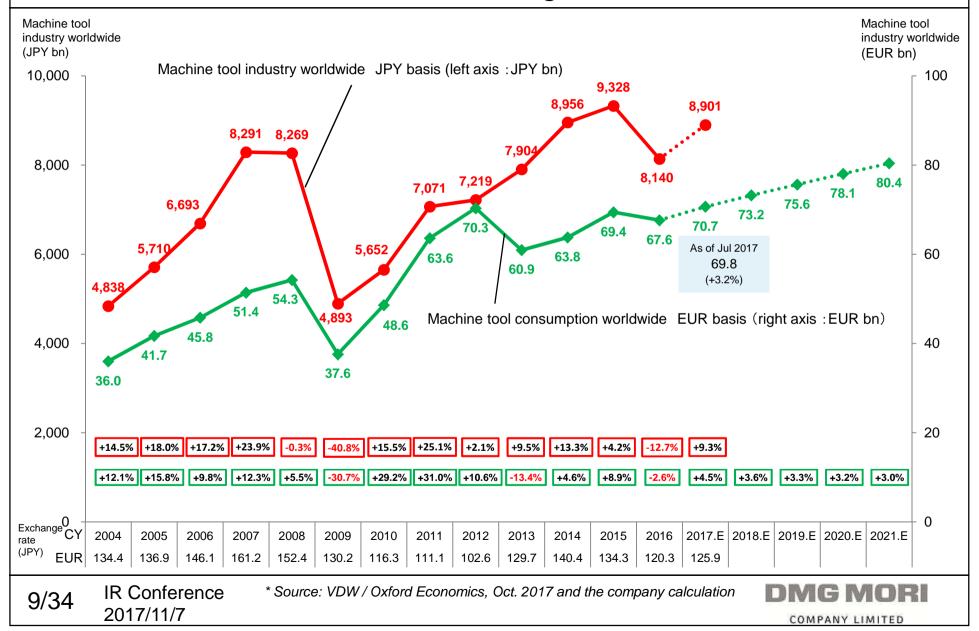
# 3)Topics from DMG MORI

- How DMG MORI address the changes in the market
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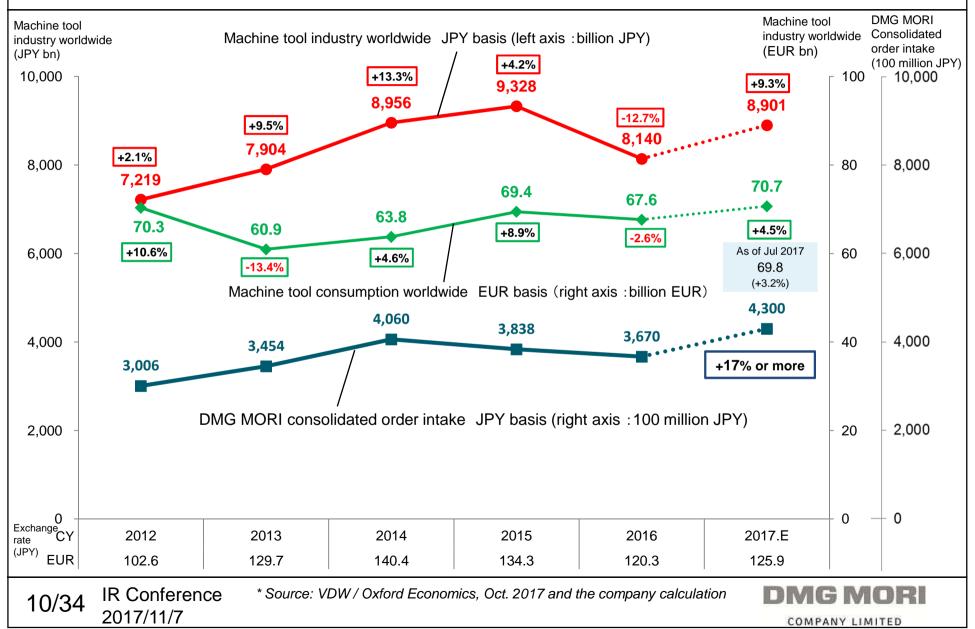


## Worldwide machine tool consumption (VDW/Oxford Economics)

- Increase for 2017 and moderate growth in the mid-term

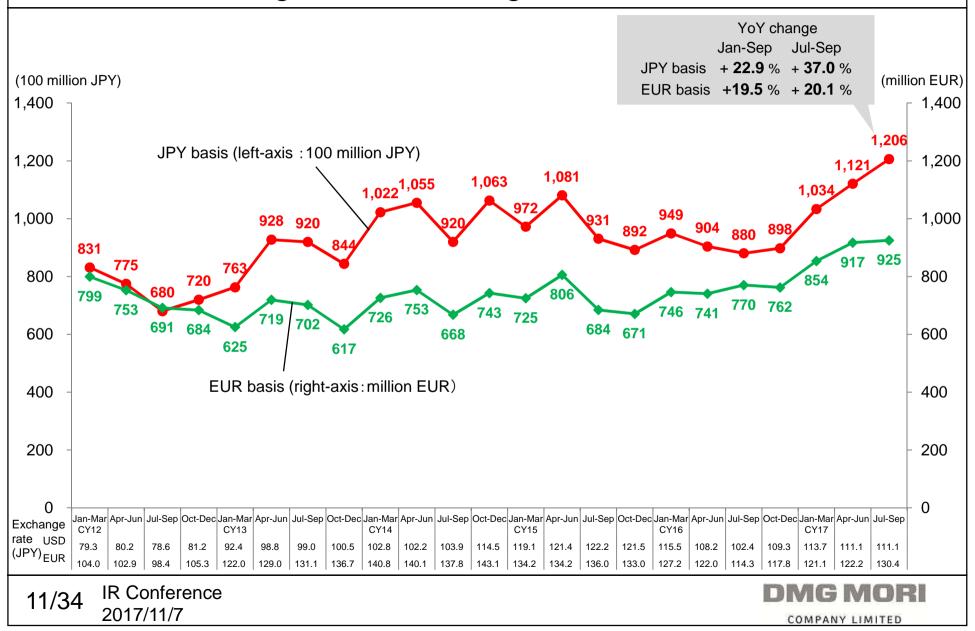


# Worldwide machine tool consumption(VDW/Oxford Economics) / DMG MORI consolidated order intake – another revision

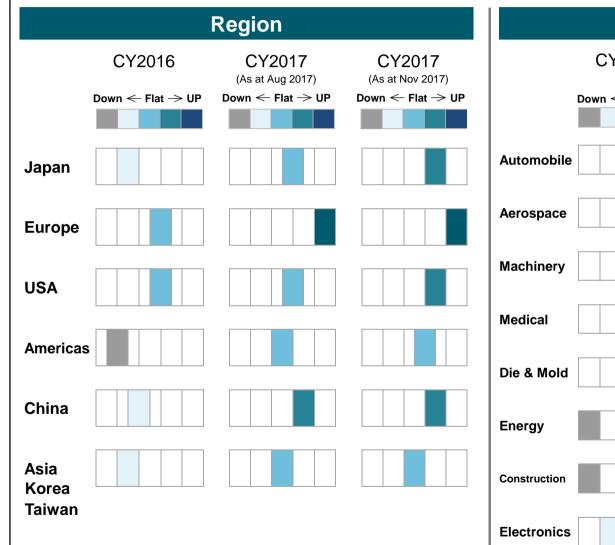


## DMG MORI quarterly consolidated order intake

- New record-high since full-integration with AG



## Overview (by region & by industry)



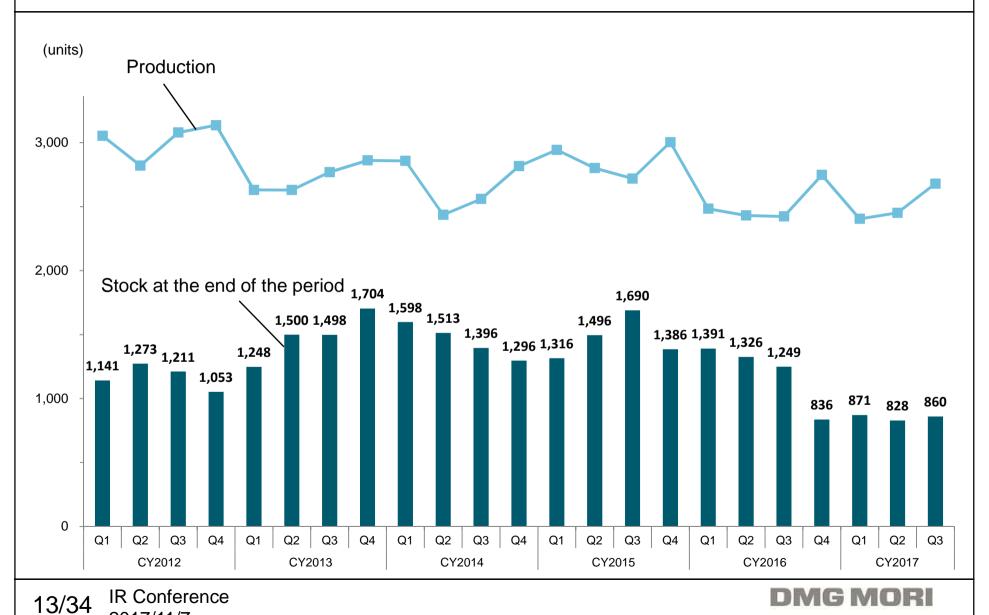
	Ir	ndustry	
	CY2016	CY2017 (As at Aug 2017)	CY2017 (As at Nov 2017)
	Down ← Flat → UP	Down ← Flat → UP	$Down \leftarrow Flat \rightarrow UP$
Automobile			
Aerospace			
Machinery			
Medical			
Die & Mold			
Energy			
Construction			
Electronics			

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## Consolidated stock and production

- Production to increase towards Q4

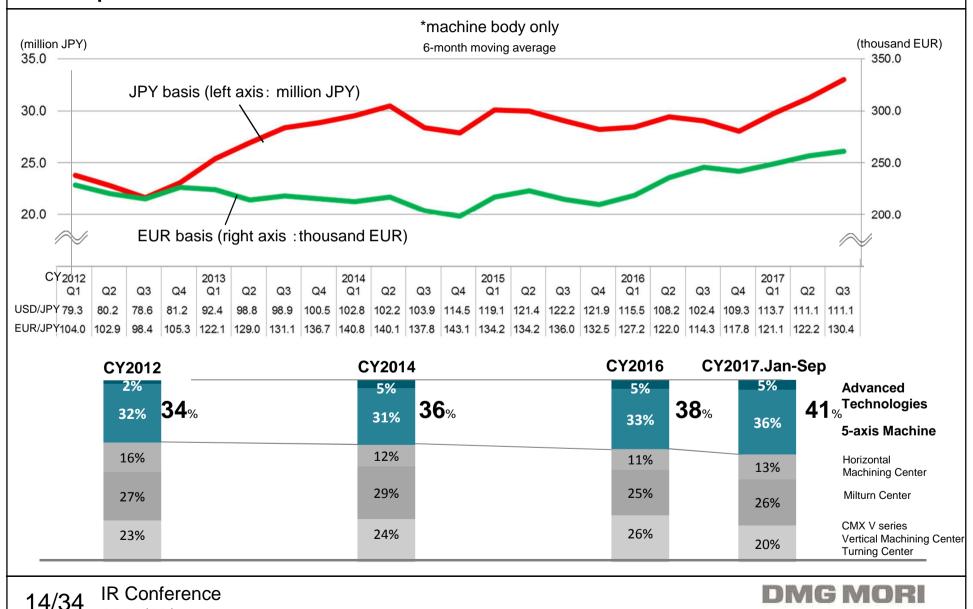
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## Consolidated order intake - average price

- Upward trend due to 5-axis, multi-function and automation

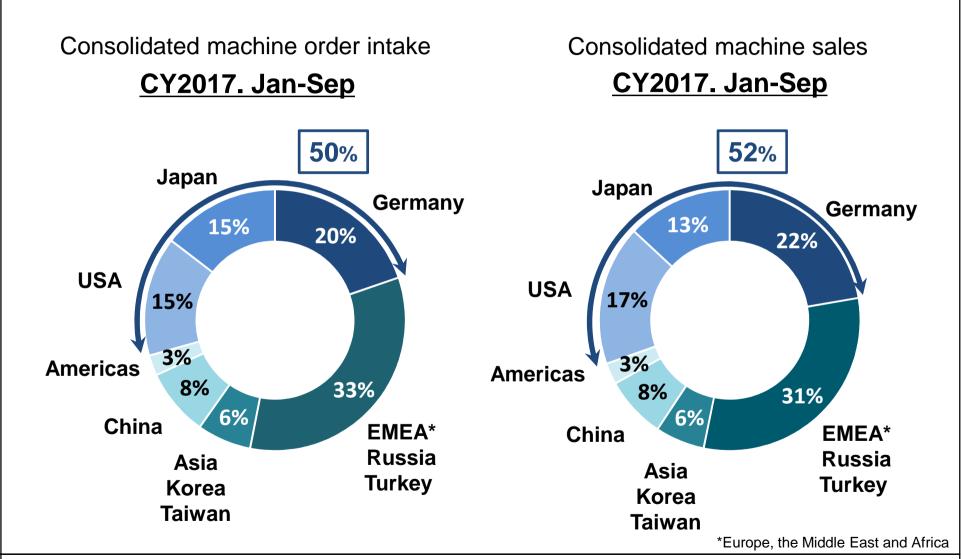


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## Order and sales composition (by region)

- \* Value basis
- \* Machine body only

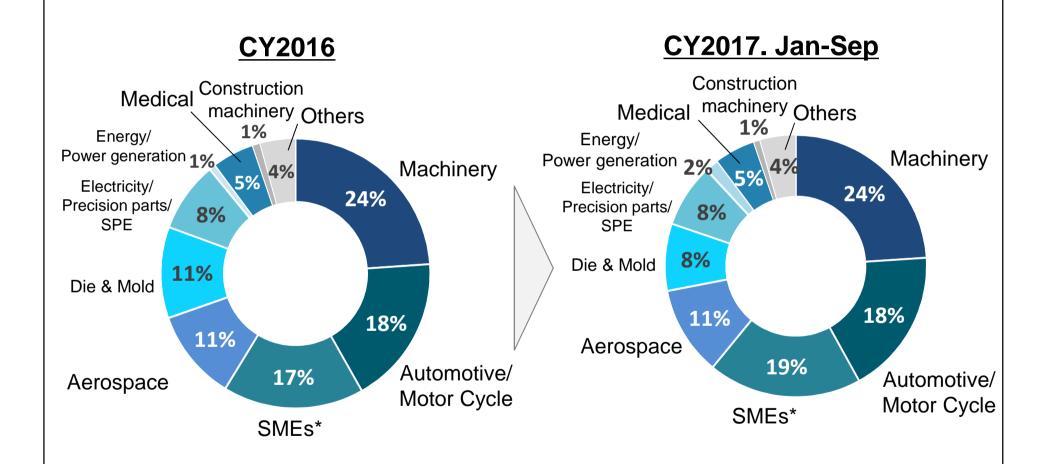


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## Order composition (by industry)

- Orders from SMEs continues to be strong

- \* Value basis
- \* Machine body only



\*Small and medium-sized enterprises



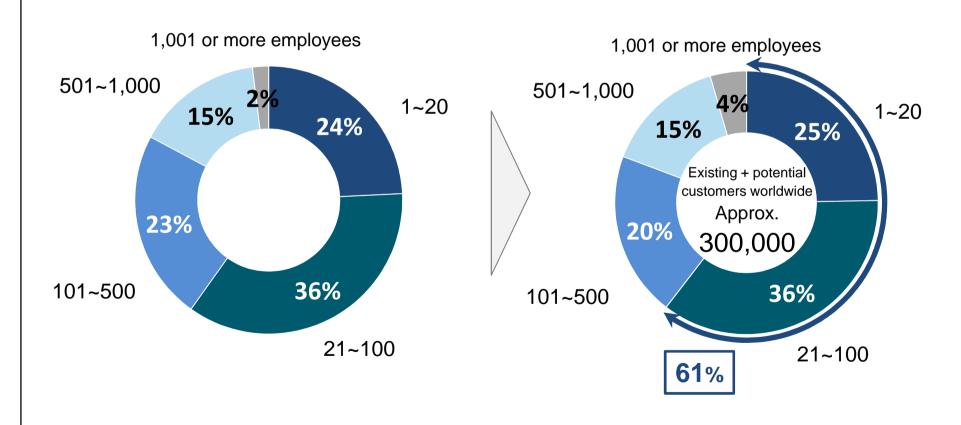
## Order composition

(by customers' number of employees)

- \* Value basis
- \* Machine body only



#### CY2017. Jan-Sep

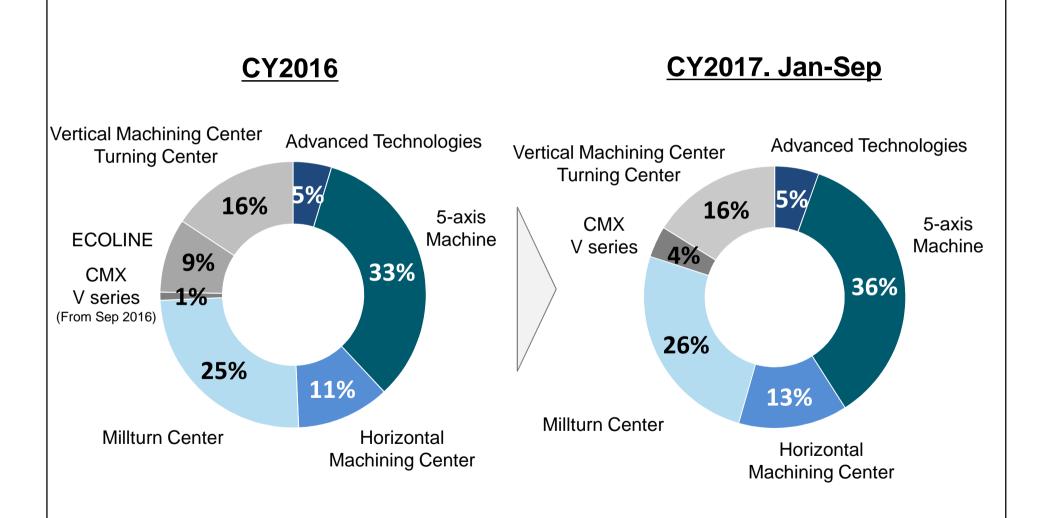


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## Order composition (by product type)

- \* Value basis\* Machine body only
- Further expansion of 5-axis machines and mill-turn



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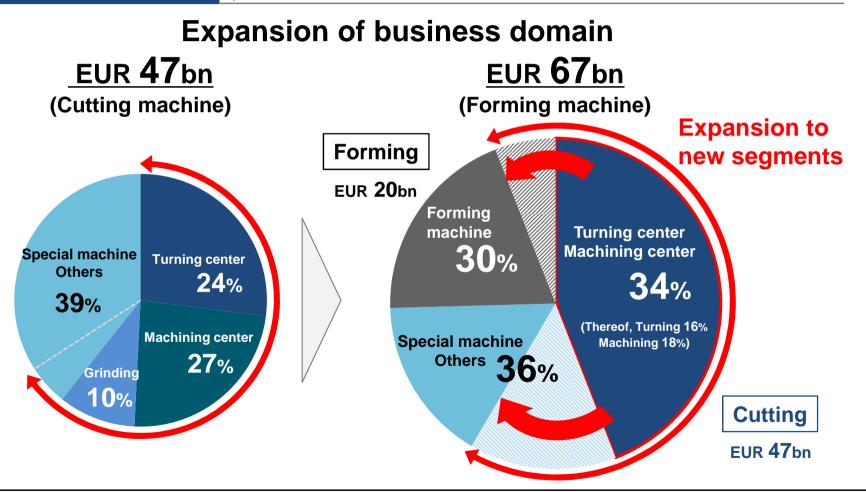
## **Changes in the market**

	Milestones	Market changes	Technical requirements	DMG MORI capabilities
1.	Electric Vehicle (EV)	<ul> <li>Material Diversification         (plastic, carbon fiber etc.)</li> <li>Low-volume production</li> <li>Frequent model changes         = Higher demand for         die and mold</li> </ul>	High-precision die and mold (plastic etc.) Machining of hard-to-cut material	5-axis Machines Laser machining technology
2.	Aging	<ul> <li>Increasing demand for medical parts</li> <li>Implants</li> <li>Bone screws</li> <li>Knee/ hip joint sockets etc.</li> </ul>	Complex-shaped and tailor-made parts Machining of hard-to-cut material Higher safety requirement	5-axis Machines Mill-turn Centers Ultrasonic Machines Additive manufacturing
3.	Artificial Intelligence (AI)	a aminon duptor and		Ultra-precision sensor technology 5-axis Machines Mill-turn Centers
	Application to machine tools	Goal	Application of AI	DMG MORI competitiveness
		<ul> <li>Predictive maintenance</li> <li>Process optimization</li> </ul>	Big Data analysis	<ul> <li>Merit as world No.1 builder</li> <li>Accumulated machining database</li> <li>20+ year of PPR* experience</li> <li>*Product Problem Report</li> </ul>
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## DMG MORI strategy to expand business domain

**Special machine Forming machine** 

5-axis machine, mill-turn, additive manufacturing, advanced technology



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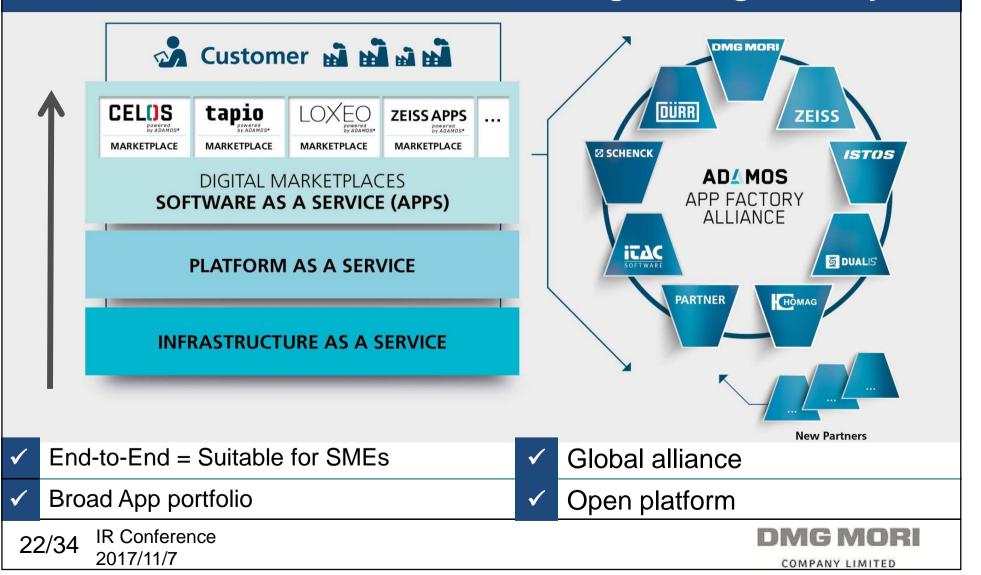
Source: Company estimation based on statistics by VDW(2015)



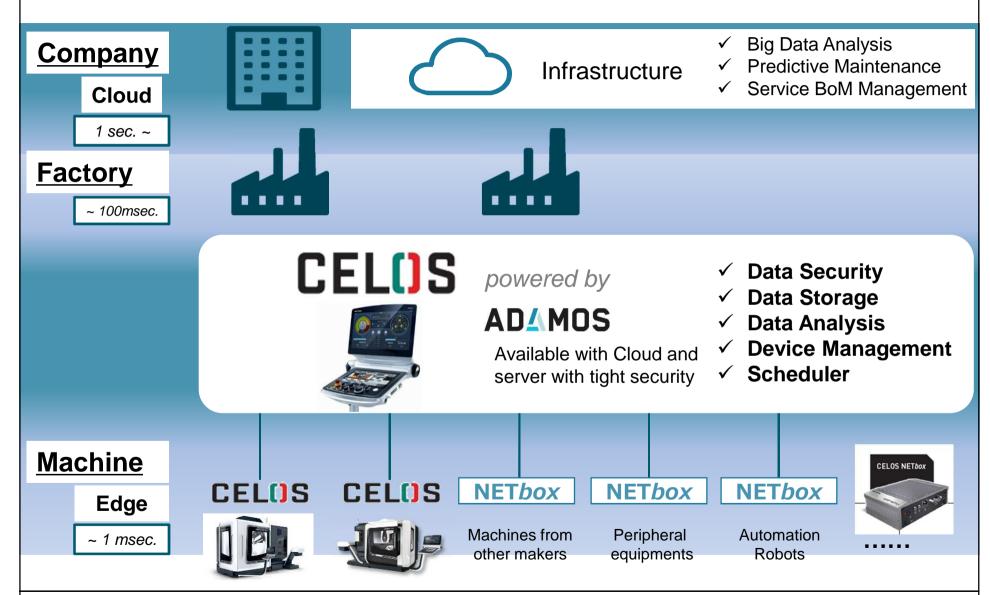
### Launch of ADAMOS

- Offering "democratic" MES (Manufacturing Execution System)

## **IIoT-Platform for the mechanical engineering industry**



## **ADAMOS – Path of digitization**



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## EMO (Sep 2017, Hannover) - A whole building to show our latest technology and expertise by themes

☐ Order intake +11% from EMO 2013 (last EMO held in Hannover)

#### **Technical press conference**

130 technical journalists joined from all over the world

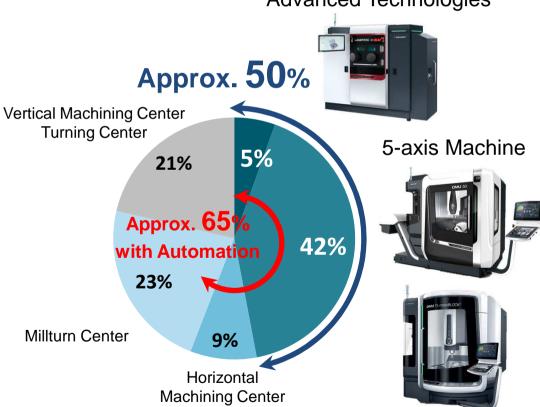




The video clip of the press conference is available here; https://youtu.be/TFqCukaBezw

#### Order intake (by model)

**Advanced Technologies** 

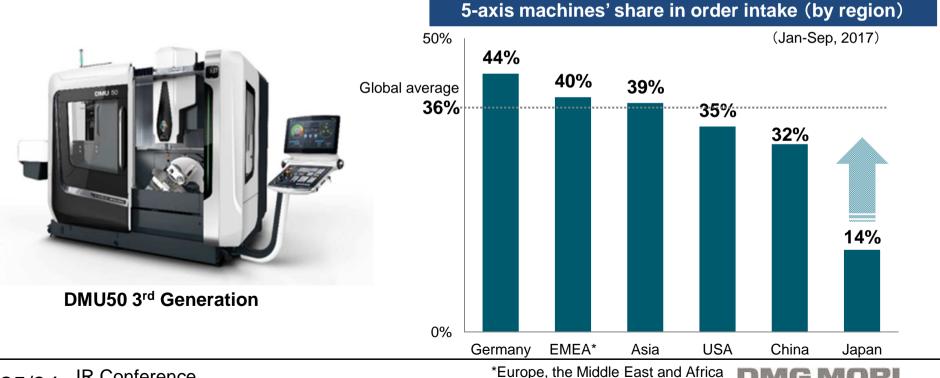


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## 5-axis machine sales promotion in Japan

- □ Exhibiting 5-axis machines to appeal the accuracy and productivity
  - ✓ Utilizing DMU50 3rd Generation to develop machining processes with top 50 users
  - ✓ Training operators for customers



## **Global Development Summit (GDS)**

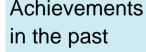
September 2017

☐ Accelerating global projects via face-to-face meetings





	Overview	
	4 <sup>th</sup> GDS	
Location	Seebach (Germany)	
No. of participants	180 developers for 10 workshops	
Achievements	Portfolio integration	



- Portfolio integratior (CTX, CMX etc.)
- Common PPR system
- Technology Cycles extension
- Digital Twin/ DMC340G

# Deeper global collaboration in the product development – Example: CTX2500

☐ Combined AG (CTX) and CO models (NLX) to develop into a machine with Europe specifications and a spindle produced in Iga

#### Jun, 2016

Feb, 2017

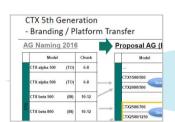
May

Sep

Project launch

Manufacturing training at Iga Assembly start at Bielefeld

World Premiere at EMO2017





Scraping training for FAMOT(Poland) employees at Iga



Casting part machining at FAMOT





Mass production from November

## DMU50 3<sup>rd</sup> Generation, NHX6300 2<sup>nd</sup> Generation on sale

☐ Improved cutting capability and accuracy by in-house components

**DMU50 3rd Generation** 



NHX6300 2<sup>nd</sup> Generation





- > 3-year warranty for MASTER series, the world's best spindles (starting 2018)
- > Feedback from SmartSCALE



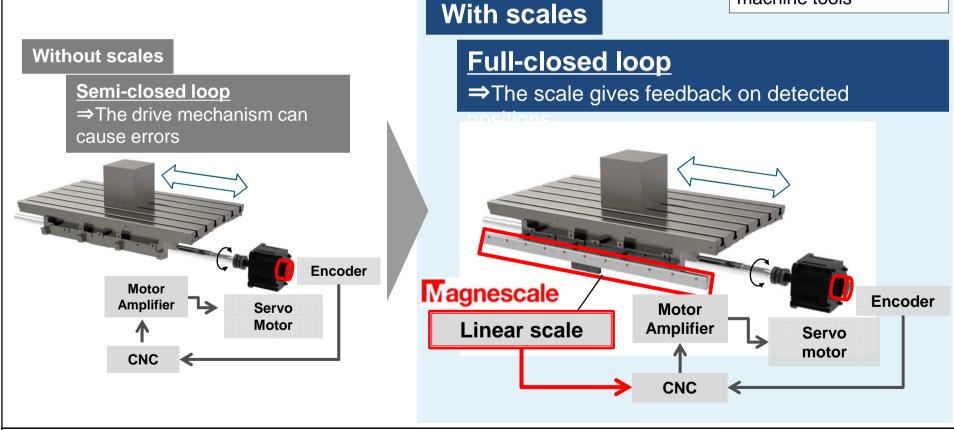
# All axes equipped with SmartSCALE to enhance accuracy – New in the industry

☐ Full-closed loop for more precise control with SmartSCALE developed by Magnescale

#### Magnescale Co., Ltd

Sales 2017 JPY 10bn+

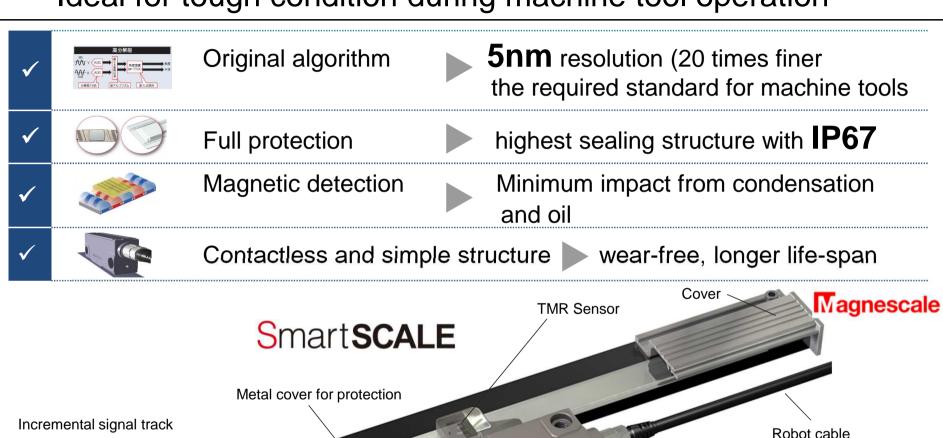
Good demand from Semiconductor and machine tools



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## **Advantages of SmartSCALE**

- Ideal for tough condition during machine tool operation



Absolute signal track

Absolute signal track

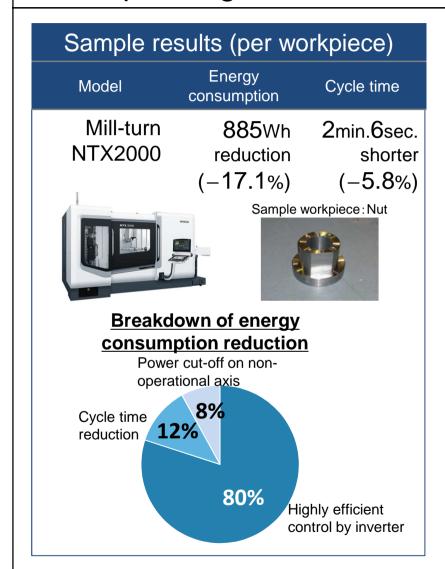
High performance signal processing circuit

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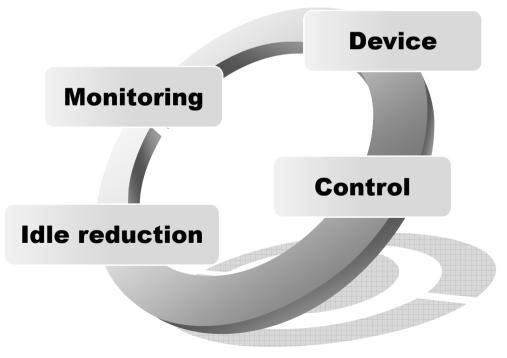


## More environment-friendly

- Expanding GREENmode functions towards 2020







## Internal day-care centers (for main plants/offices)

- Japan's highest standard child-care and education

☐ Available for all the female and male permanent employees with

pre-school children



Image (Iga/Nara)

- ✓ Operated by Poppins Co., Ltd. Received "Health, Labor and Welfare Ministry Award" in the 1<sup>st</sup> Nihon Service Award (June, 2016)
- ✓ Opening hours depending on each location's operating schedule
- ✓ Extensive education program (English classes etc.)

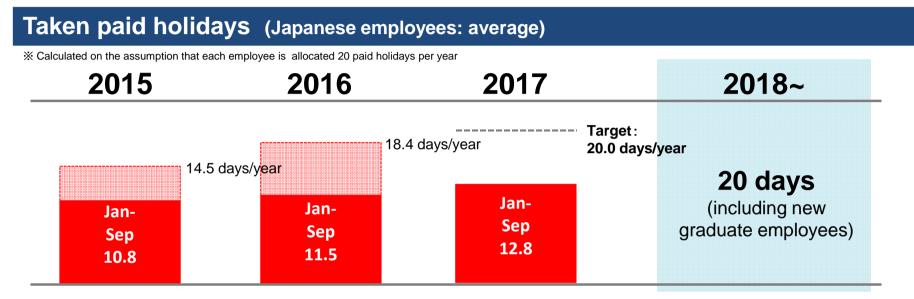
#### <u>Schedule</u>

2017 October Orientation, Application2018 February Facilities completion

March Preview April Open



## **Promoting diversity**



#### **Work-life balance**

- Promoting paid holidays
- Reducing overall working hours
- Core time, 3-shifts

### Continuous employment opportunity

Retirement age changed to 65 (from 2018)

### **Supporting child-care and nursing**

- Temporary leave
- Telecommuting
- Shorter working hours
- Day-care centers (Iga, Nara, Nagoya, Tokyo)

etc.

#### **Disclaimer**

This material contains targets, plans, etc. concerning the future of DMG MORI CO., LTD. and the DMG MORI Group. All predictions concerning the future are judgments and assumptions based on information available to DMG MORI at the time of writing. There is a possibility that the actual future results may differ significantly from these forecasts, due to changes in management policy or changes in external factors.

There are many factors which contain elements of uncertainty or the possibility of fluctuation including, but not limited to, the following:

- > Fluctuations in exchange rates
- ➤ Changes to the laws, regulations and government policies in the markets where DMG MORI CO., LTD. conducts its business
- > DMG MORI CO., LTD.'s ability to develop and sell new products in a timely fashion
- ➤ Instability of governments in the markets where DMG MORI CO., LTD. conducts its business
- > Operational changes by the competent authorities or regulations related to anti-trust, etc.

