

## **Investor presentation – Year-end results 2012**

Analyst and press conference – Hotel Savoy, Zurich – February 21, 2013

The following documentation contains forward-looking statements that are subject to certain risks and uncertainties. Actual results may differ materially from those anticipated in this presentation.

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## Overview

Markets

Products

- Hall-effect sensors

- Embedded controllers for smart actuators

- Gas sensors

Customers

Financials

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# Micronas at a glance



Known and recognized in the **automotive** and **industrial** business as a reliable global partner for **intelligent, sensor-based system solutions**

- ◆ About 900 employees worldwide
- ◆ Leading supplier of hall sensors for the automotive industry
- ◆ Full in-house production with own waferfab and backend operations including testing and packaging
- ◆ zero ppm quality to ensure customer satisfaction
- ◆ Commitment to environmental protection



# Group structure and locations



**Micronas Semiconductor Holding AG, Zurich, Switzerland**  
**Headquarters**

Micronas GmbH  
Freiburg, Germany  
Research & Development  
Marketing & Sales  
Production



Micronas Ltd.  
Glenrothes, Scotland  
Test center, Production

Micronas Japan K.K.  
Tokyo, Japan, Sales office

Micronas Villach  
Halbleiterentwicklungs GmbH  
Villach, Austria  
Research & Development

Micronas New Technologies  
GmbH  
Munich, Germany  
Research & Development  
Sales

Sales offices  
across Europe

Sales office  
Shanghai, China

Sales office  
Detroit, USA

Distributor base all around the world

# Performance in 2012

- ◆ Sales increase of 6 percent to CHF 168 million, focus line Automotive hall sensors grew by 11 percent
- ◆ Gross margin rose from 37 to 40 percent and EBIT margin increased from 13 to 14.4 percent
- ◆ Profit improved to CHF 19 million, EPS of CHF 0.66
- ◆ The Board of directors propose to pay out CHF 0.05 per share to shareholders in 2013
- ◆ In 2012, production facilities operated at slightly below 80 percent capacity and fell to 73 percent in Q4
- ◆ In Q4 the worldwide automotive business slowed significantly





# Performance in 2012, cont.



- ◆ Successful release of the first two products of the new linear HAL 24xy family
- ◆ Volume production started of sensors using the 3 D HAL technology
- ◆ New high-sensitivity current transducer for use in automotive and industrial applications added to portfolio
- ◆ Volume production of embedded high voltage controller (HVC) started for our key customer PMDM Minebea
- ◆ Launch of the latest generation mySENS gas sensors with smaller size and lower power consumption
- ◆ New SOIC8-SMD packaging line successfully put into operation and qualified



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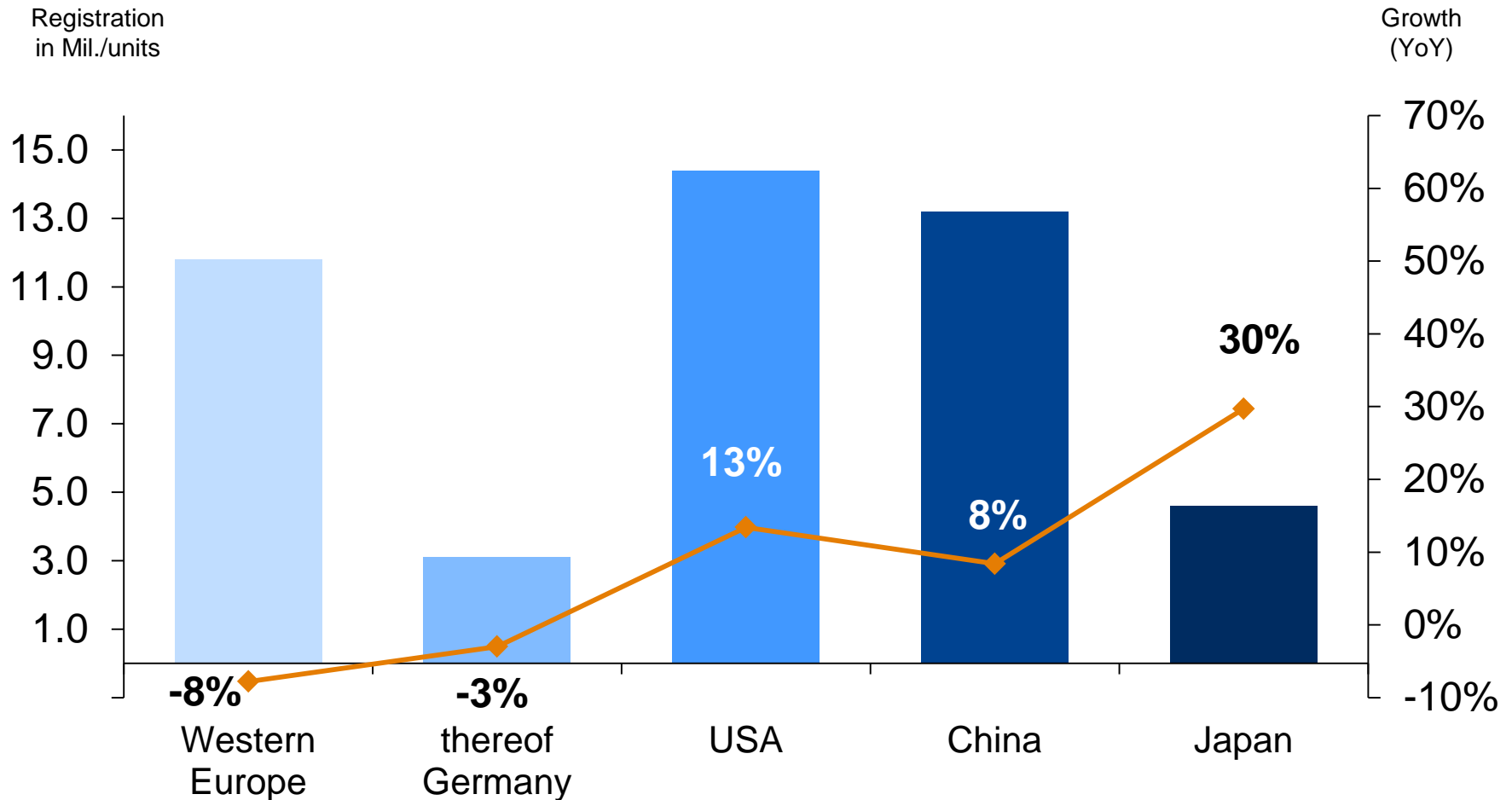
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## New passenger car registration for 2012



# Market and technology drivers



## Environmental protection

Increased demand for high energy efficiency and CO<sub>2</sub> reduction needs optimized sensors and actuator solutions, e.g. for engines, BLDC motors and HVAC systems

## Economy

Reduced overall system cost enabled by highly integrated sensors and embedded controllers, e.g. increasing magnet costs can be compensated by higher sensitivity

## Safety

Increased safety demand drive growth for novel, intelligent and redundant products and system solutions

## Comfort and lifestyle

High levels of functionality, low power and small form factor enable new applications and comfort features

# Application fields for Automotive



## Powertrain

High accuracy sensors designed to withstand harsh environments: insensitive to vibrations, temperature drift and dirt



## Chassis and body

Programmable sensor based solutions with integrated communication links provide flexibility



## Safety

Proven history of meeting Automotive's highest quality standards. Expanding portfolio addresses increasing safety requirements



# Application fields for Industrial



## Building and home automation

Intelligent sensor and actuator solutions for smart automation networks to enable increased comfort and lifestyle



## Heavy machines/ factory automation

Highly reliable and robust sensors to meet the demands for long lifetime within harsh environments



## White goods/ home appliances

Wide range of cost-effective sensor solutions for eco-friendly home appliances at minimal size



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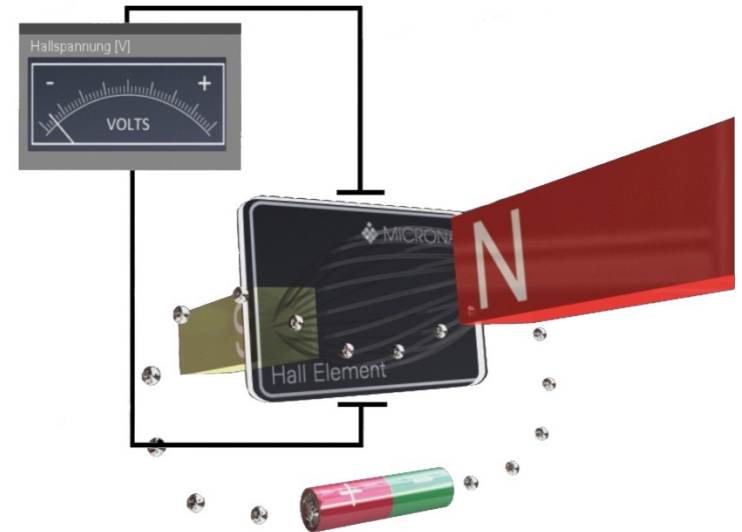
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**Hall-effect sensors are the technology of choice for contact-less sensing. Micronas, the pioneer of CMOS Hall sensors, continues to innovate in this field.**

## Introduction

- ◆ Contact-less sensing improves system reliability, especially in harsh environments
- ◆ CMOS technology is the most cost-effective method to realize Hall sensors
- ◆ High levels of integration enable sensors to configure to a wide range of applications
- ◆ Micronas has a strong track record of supplying sensors that meet the most demanding quality standards



# Hall-effect sensors – applications

Micronas offers the broadest portfolio of Hall sensors for automotive and industrial

## Switches



buckle switch



roller shutter

- ◆ Easy to implement contact-less switch
- ◆ Replacement of micro switches

## Linear

throttle flap



linear position

- ◆ Highly accurate position detection
- ◆ Replacement of conventional potentiometers

## Angular

steering angle



3D HAL uses licenses of Fraunhofer Institute for Integrated Circuits IIS.

- ◆ Precise angle detection with a single sensor
- ◆ Replacement of inductive or optical angle encoders

## Current



Continental

power management

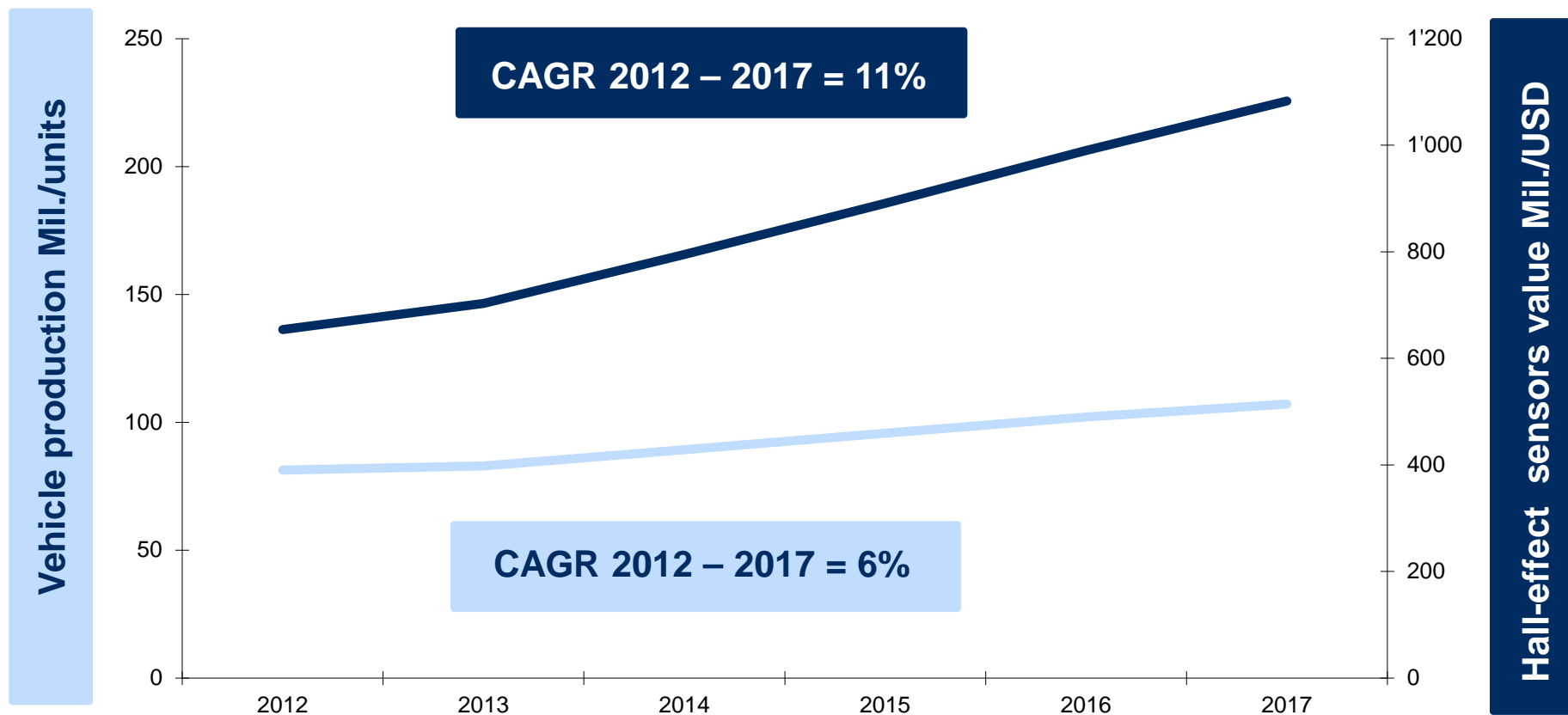
current sensor module



- ◆ Small form factor contact-less current transducer
- ◆ Replacement of shunt based solutions



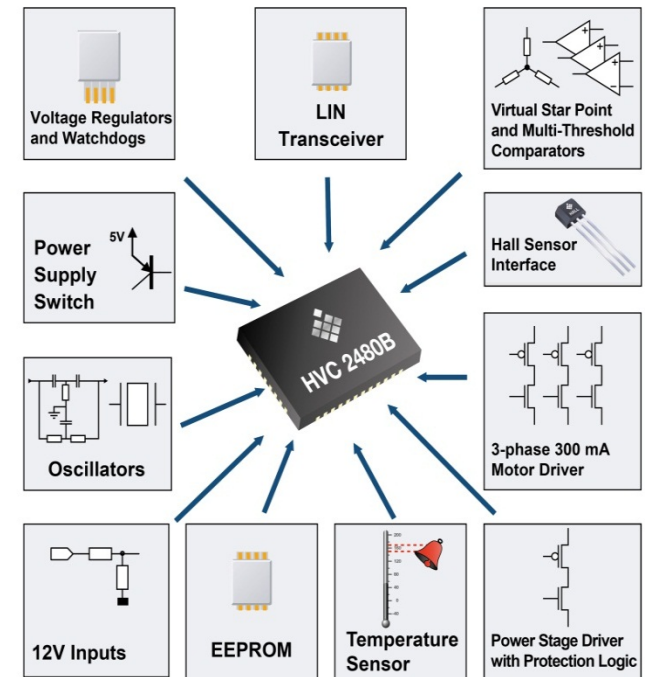
# Automotive and Hall sensor markets



The actuator market is transitioning to BLDC motors. Micronas' highly integrated solutions enable cost-effective system implementation.

## Introduction

- ◆ Specialized high voltage, analog and embedded flash CMOS processes uniquely serve the demanding requirements of a BLDC system
- ◆ Single package enables solutions to be realized in space constrained applications
- ◆ Micronas is uniquely positioned to combine two critical aspects of motor commutation – embedded control and Hall sensors – creating solutions that are unmatched in terms of power consumption and physical dimensions



# Embedded controllers – applications



**Adaptive intelligent control of position, motion or speed in Automotive and Industrial applications.**

## Fans



- ◆ HVAC
- ◆ Cooling systems (LED, electrical motor and battery)

## Pumps



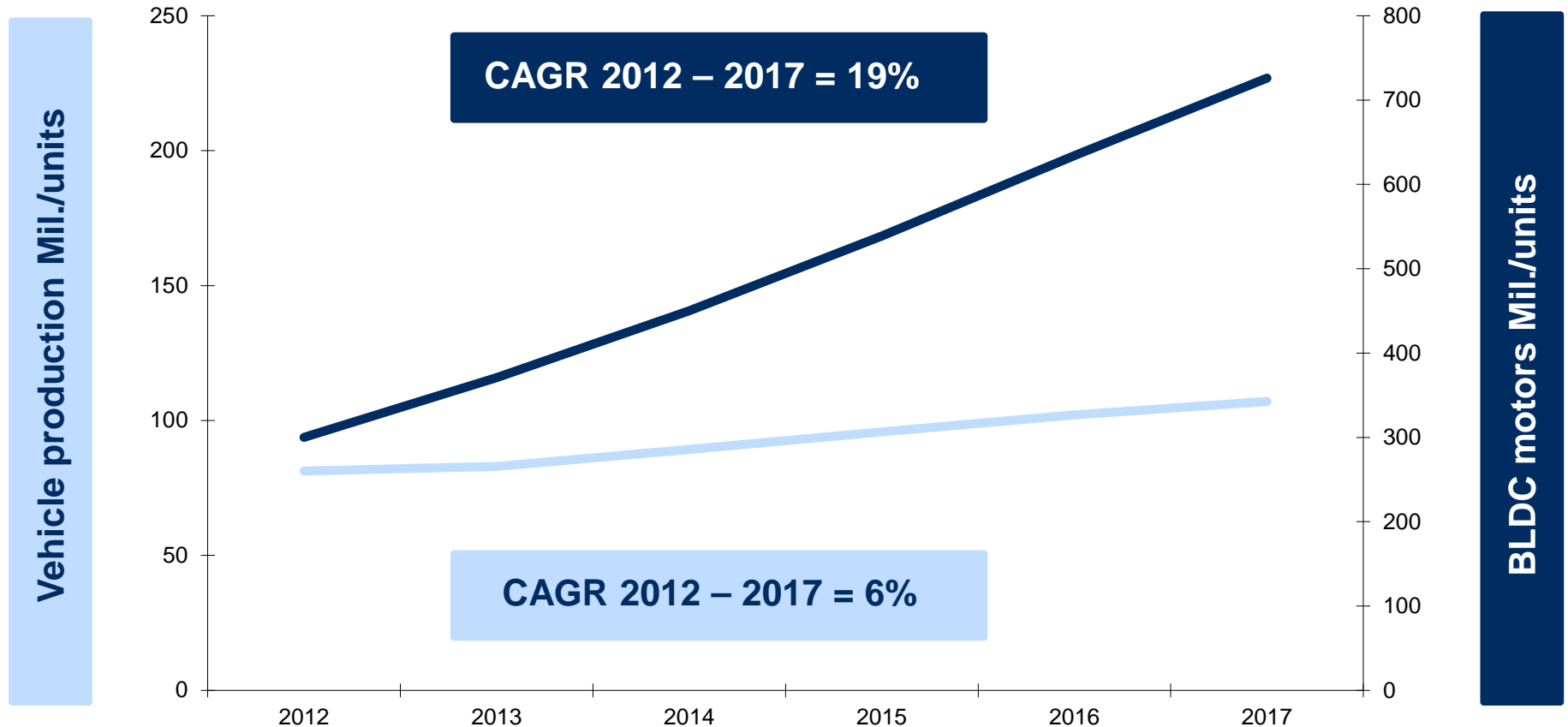
- ◆ Fuel
- ◆ Oil
- ◆ Water (HVAC, coffee)

## Specialized actuators



- ◆ Seat and mirror adjustment
- ◆ Window lifter
- ◆ Head light adjustment
- ◆ Air grill shutter
- ◆ Flaps (HVAC, exhaust)

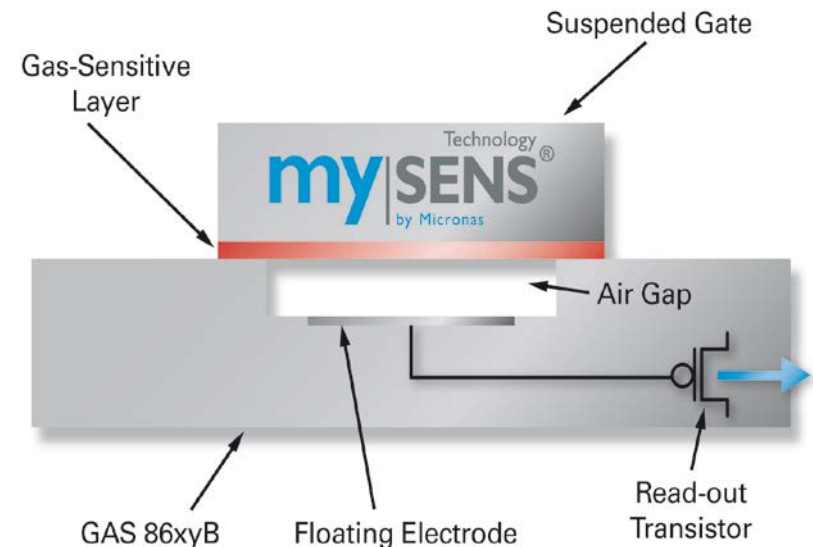
# Automotive and BLDC motor markets



**Gas sensors become digital: Micronas mySENS<sup>®</sup> gas sensing technology to overcome the limitations of existing technologies.**

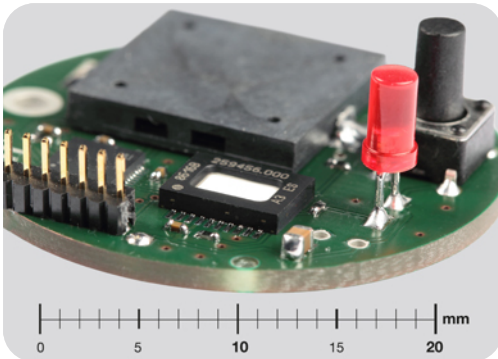
## Introduction

- ◆ Digital ambient sensor platform with:
  - ◆ two independent gas sensors
  - ◆ integrated relative humidity sensor
  - ◆ integrated temperature sensor
- ◆ Target gases: detection of NO<sub>2</sub>, NH<sub>3</sub>, H<sub>2</sub>, VOC, CO, CO<sub>2</sub>
- ◆ CCFET sensor (Capacitive Coupled Field Effect Transistor)
- ◆ Manufactured in-house on Micronas latest CMOS technology and open QFN package



**First digital gas sensor to diversify Micronas' product portfolio and target markets.**

## Fire detection



- ◆ Reduction of system size to almost invisible
- ◆ Improved false alarm security
- ◆ Long lifetime and low power consumption

## HVAC

(Heating, Ventilation and Air Conditioning)



- ◆ Comfort and energy efficiency in building automation
- ◆ Integration of climate control and air quality in a single device

## Leakage



- ◆ High sensitivity to ambient trace gases
- ◆ Broad dynamic range of gas concentration
- ◆ Robust against overdose exposure

# Agenda

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# Customer and distributor base



**DENSO**

**Continental**

**BOSCH**

**Valeo**

**KOLBENSCHMIDT  
PIERBURG**

**Nidec**  
All for dreams

**D&R** Technology LLC

**DELPHI**

**EPIQ**  
group

**electricfil**  
automotive

**BorgWarner**

**AISIN**  
Geared up for the future

**CTS**

**KOSTAL**

**pretema**

**B/S/H/**

**brose**  
Technik für Automobile

**LEM**

**Autoliv**

**TOKAI RIKA**

**LG Innotek**

**YAZAKI**



**MARQUARDT**

**ebm papst**

**Efi**  
AUTOMOTIVE

**TE**  
connectivity

**TRW**  
Automotive

**Johnson  
Controls**

**Owell**  
FINE RELATIONS FOR NEXT



**2Ks**

**TOMEN  
ELECTRONICS**

**endrich**  
components of life

**GLYN**

**RUTRONIK**  
EUROPE

**SYMMETRY**  
ELECTRONICS CORPORATION

**Phoenix**  
The Future of Distribution

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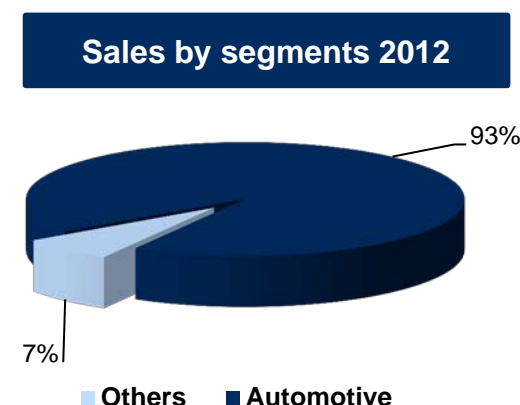
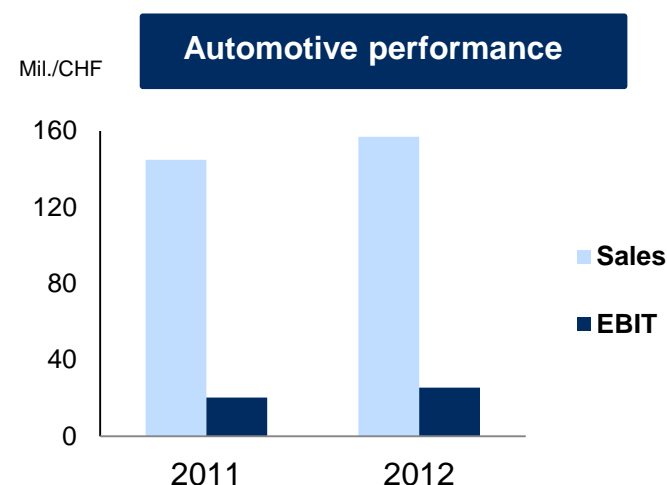
Backup

# Micronas Group – segment information



Mil./CHF	31.12.2012	31.12.2011
<b>Automotive</b>		
<b>Net sales</b>	<b>157.0</b>	144.8
<b>Gross margin</b>	<b>65.0</b>	55.7
in % of sales	41.4%	38.5%
<b>Operating profit (EBIT)</b>	<b>25.5</b>	20.4
in % of sales	16.3%	14.1%

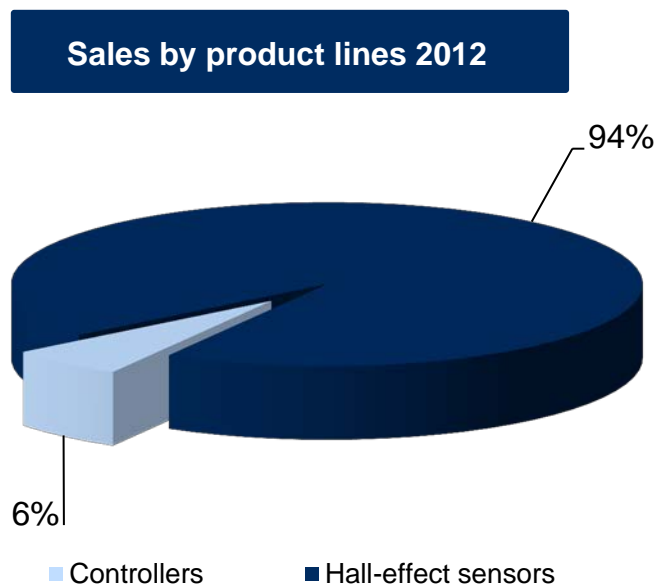
Mil./CHF	31.12.2012	31.12.2011
<b>Other segments</b>		
<b>Net sales</b>	<b>11.5</b>	14.0
<b>Gross margin</b>	<b>2.5</b>	3.5
in % of sales	21.5%	24.8%
<b>Operating profit (EBIT)</b>	<b>-1.3</b>	0.3
in % of sales	-11.3%	1.9%



# Segment Automotive – product lines



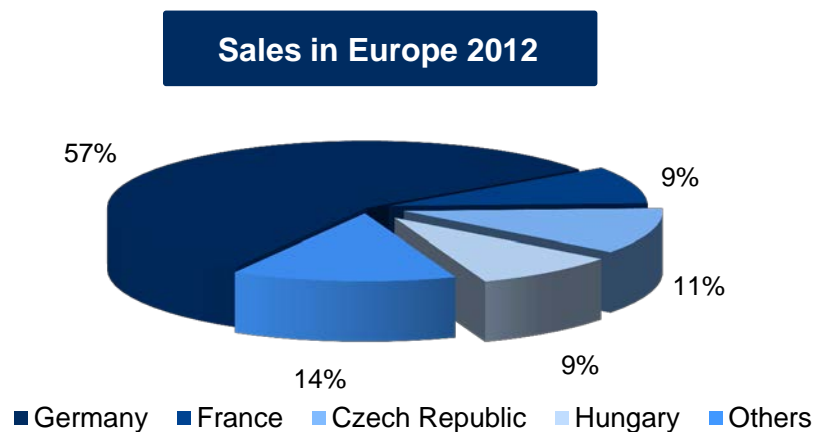
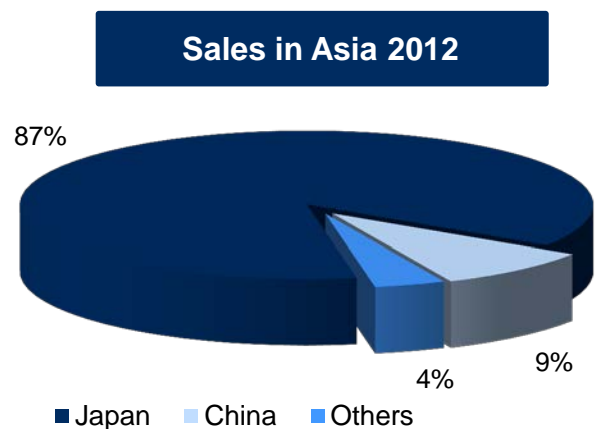
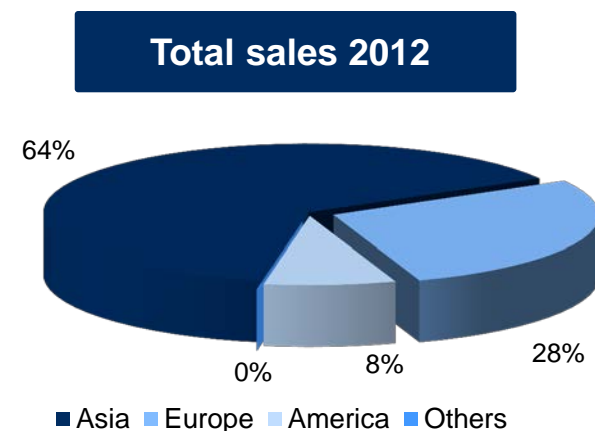
Mil./CHF	31.12.2012	31.12.2011	Change in % based in CHF	Change in % based in EUR
Hall-effect sensors	148.1	132.9	11%	14%
Controllers	8.9	11.9	-25%	-23%
<b>Total sales</b>	<b>157.0</b>	144.8	8%	11%



# Micronas Group – regional information



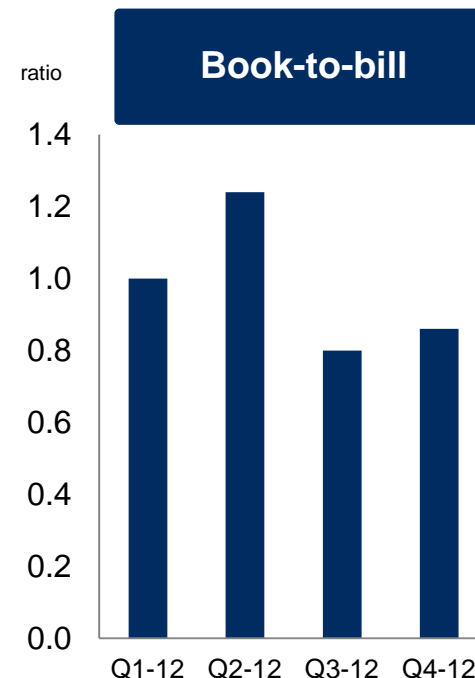
Mil./CHF	31.12.2012	31.12.2011	Change in % based in CHF	Change in % based in EUR
Europe	46.5	53.0	-12%	-10%
Asia	107.7	90.8	19%	22%
America	14.2	14.8	-4%	-2%
Others	0.1	0.2	-50%	-41%
<b>Total sales</b>	<b>168.5</b>	<b>158.8</b>	<b>6%</b>	<b>9%</b>



# Micronas Group – order book



Mil./CHF	31.12.2012	31.12.2011
<b>Orders on hand, beginning of period</b>	<b>47.5</b>	62.7
Net sales	168.5	158.8
Order intake	164.7	144.8
Translation adjustments	-0.3	-1.2
<b>Orders on hand, end of period</b>	<b>43.4</b>	47.5
<b>Book-to-bill</b>	<b>0.98</b>	0.91



**Second half 2012 order intake impacted by the beginning slow-down of the worldwide automotive business – orders on hand CHF 43 million at year-end**

# Micronas Group – income statement



	31.12.2012		31.12.2011	
	Mil./CHF	in % of net sales	Mil./CHF	in % of net sales
<b>Net sales</b>	<b>168.5</b>		158.8	
<b>Gross margin</b>	<b>67.5</b>	<b>40.1%</b>	59.2	37.3%
Research and development expenses	-28.9	17.2%	-28.4	17.9%
Marketing and sales expenses	-10.3	6.1%	-8.5	5.3%
Administrative and general expenses	-6.2	3.7%	-6.5	4.1%
Other operating income/expenses	2.2	1.3%	1.0	0.6%
<b>Operating profit before restructuring</b>	<b>24.2</b>	<b>14.4%</b>	16.9	10.6%
Restructuring	0.0		3.8	
<b>Operating profit (EBIT)</b>	<b>24.2</b>	<b>14.4%</b>	20.6	13.0%
Financial income/expenses/FX net.	-11.1		-17.6	
<b>Pretax profit</b>	<b>13.1</b>	<b>7.8%</b>	3.0	1.9%
Income taxes	6.2		8.5	
<b>Profit for the period</b>	<b>19.3</b>	<b>11.5%</b>	11.5	7.2%
<b>EBITDA</b>	<b>35.5</b>	<b>21.1%</b>	35.3	22.2%
<b>Earnings per share in CHF</b>	<b>0.66</b>		0.39	



# Micronas Group – balance sheet



Mil./CHF	31.12.2012	31.12.2011
Total non-current assets	82.4	81.0
Net cash	169.9	156.2
Other current assets	42.4	43.8
<b>Total assets</b>	<b>294.7</b>	281.0
Total shareholders' equity	152.0	129.2
<b>in % of total assets</b>	<b>51.6%</b>	46.0%
Total long-term liabilities	118.5	123.1
Total current liabilities	24.2	28.7
<b>Total liabilities</b>	<b>142.7</b>	151.8
<b>Total shareholders' equity and liabilities</b>	<b>294.7</b>	281.0
Exchange rate EUR/CHF	1.2083	1.2162

**Solid financial basis with net cash of CHF 170 million and shareholders' equity of CHF 152 million or 52 percent**

# Micronas Group – working capital trade MICRONAS

Mil./CHF	31.12.2012	31.12.2011
Inventories	26.2	24.5
Accounts receivable	11.2	15.7
Accounts payable	9.2	9.4
<b>Trade net working capital</b>	<b>28.2</b>	30.8
Exchange rate EUR/CHF	1.2083	1.2162

**Trade net working capital represents 17 percent of net sales**

# Micronas Group – cash flow statement



Mil./CHF	31.12.2012	31.12.2011
<b>Net cash at the beginning of the period</b>	<b>156.2</b>	165.4
Cash flow from operating activities	23.6	19.9 <sup>1</sup>
Cash flow from investing activities	-7.6	-26.9
Cash flow from financing activities	-1.5	0.0
Exchange effect on cash	-0.8	-2.2
Change in net cash	13.7	-9.2
<b>Net cash at the end of the period</b>	<b>169.9</b>	156.2
Exchange rate EUR/CHF	1.2083	1.2162

<sup>1</sup>Reclassification of payments to pensioners.

**Positive cash flow of CHF 14 million results in net cash of CHF 170 million**

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- ◆ Long-term trend toward increased efficiency and environmental protection continues, leading to rising demand for Micronas sensors and embedded controllers
- ◆ The business is currently influenced by two major factors:
  - ▶ Weak Japanese yen against euro has considerable influence on sales, margin and operating profit
  - ▶ Gloomier outlook for the automotive industry continues in first half-year 2013
- ◆ With a yen-euro FX rate of between 120 and 125:
  - ▶ Sales of ca. CHF 70 million are expected for first half 2013
  - ▶ EBIT-margin is expected to be in the lower single-digit percentage range: reduced by the weakness of the yen by 6 to 8 percentage points



# Outlook, cont.

- ◆ Micronas started already in 2012 to invoice to Japanese customers in euro and this trend will intensify over the course of the current year
- ◆ Micronas responds with a cost saving program:
  - ▶ Short-time work in some parts of the Freiburg manufacturing plant started on February 4
  - ▶ Temporary suspension of operations in Scotland in ww 7
  - ▶ Expenses for external services have been reduced by focusing on strategically important development projects
  - ▶ Investments have been trimmed down to those required to ensure ongoing manufacturing and new product ramps



# Summary

- ◆ The Company's positive development continued during the 2012 financial year
- ◆ Micronas offers its customers new and innovative solutions for ever more demanding applications within the automotive market
- ◆ Micronas handles all the different stages from development to production under one roof which brings great customer advantages
- ◆ Micronas already supplied more than 2.5 billion hall sensors to the market and offers the world's largest hall sensor portfolio for the automotive and industrial market
- ◆ Thanks to a rigorous commitment to quality and reliable delivery and an excellent product portfolio, Micronas continues to be in a leading worldwide position





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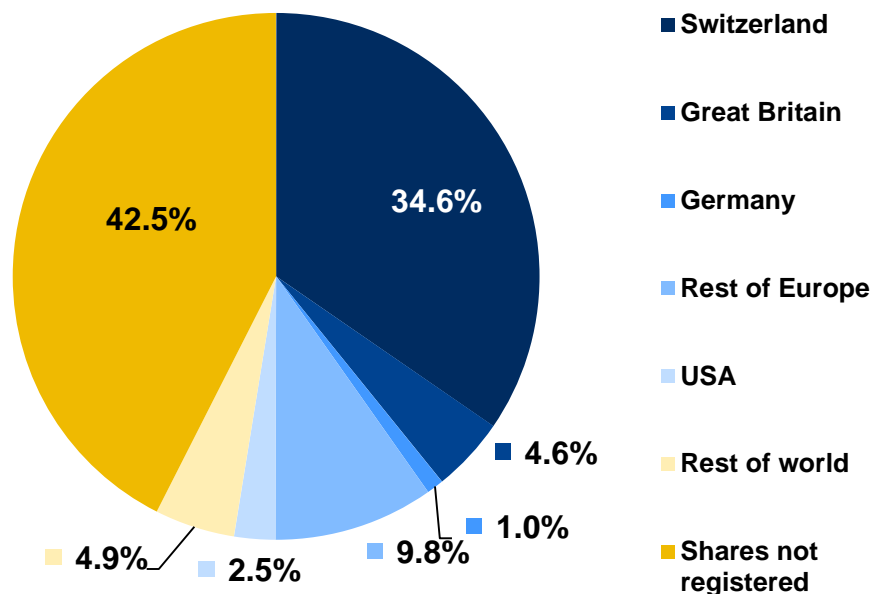
**Backup**

# Shareholder structure Dec. 31, 2012

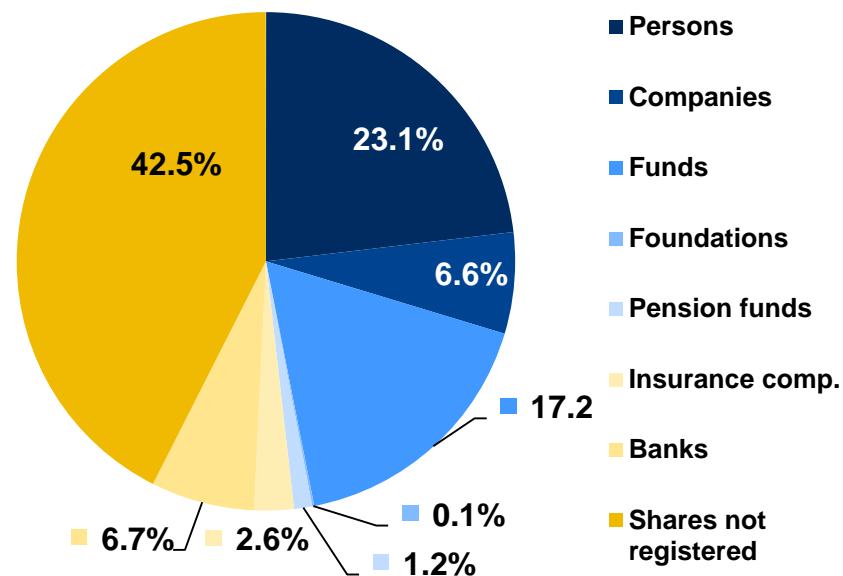


**Total shares outstanding: 29 676 680** (share capital including options exercised)

Shares by country



Shares by shareholders category



# Major shareholders



As at February 1, 2013, the Company is aware of the following shareholders holding 3 percent or more of the capital and/or voting rights of the Company:

Shareholder	Registered office	Number of shares	Percentage
Sparinvest Holdings SE <sup>1</sup>	Luxembourg	1 588 436	5.35
RBC Dexia Investor Services Trust <sup>2</sup>	London, Great Britain	1 256 164	4.23
FIL Limited <sup>1</sup>	Hamilton, Bermuda	1 206 786	4.07
Black Creek Investment Management Inc <sup>1</sup>	Toronto, Canada	952 173	3.21
UBS Fund Management (Switzerland) AG <sup>1</sup>	Basel, Switzerland	944 795	3.18

<sup>1</sup> The above figures (number of shares and percentages) conform to the figures contained in the respective notifications to the Company and the Disclosure Office of the SIX Swiss Exchange; they may not be accurate as at February 1, 2013.

<sup>2</sup> RBC Dexia is acting in its capacity as nominee for other investors. The above figures (number of shares and percentages) conform to the figures as at December 31, 2012.

# IR calendar



- 
- |                     |   |
|---------------------|---|
| ◆ March 20, 2013    | Ordinary Shareholders' Meeting<br>10 a.m., Technopark, Zurich |
| ◆ April 23, 2013    | Quarterly key figures Q1-2013                                 |
| ◆ July 23, 2013     | First half-year results 2013                                  |
| ◆ October 22, 2013  | Quarterly key figures Q3-2013                                 |
| ◆ February 20, 2014 | Year-end results 2013   |
| ◆ March 21, 2014    | Ordinary Shareholders' Meeting<br>10 a.m., Technopark, Zurich |

## IR contact

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for further information, please check: [www.micronas.com](http://www.micronas.com) / Investor