

Orlando, Florida March 25th, 2013

# Automation and Power World 2013 Investor Event

#### Safe-harbor statement

This presentation includes forward-looking information and statements including statements concerning the outlook for our businesses. These statements are based on current expectations, estimates and projections about the factors that may affect our future performance, including global economic conditions, and the economic conditions of the regions and industries that are major markets for ABB Ltd. These expectations, estimates and projections are generally identifiable by statements containing words such as "expects," "believes," "estimates," "targets," "plans," "outlook" or similar expressions.

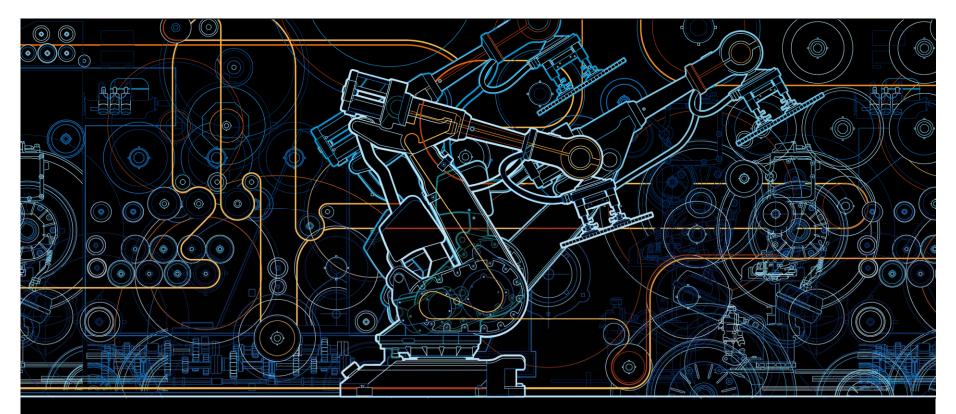
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- business risks associated with the with the volatile global economic environment and political conditions
- costs associated with compliance activities
- raw materials availability and prices
- market acceptance of new products and services
- changes in governmental regulations and currency exchange rates and
- such other factors as may be discussed from time to time in ABB Ltd's filings with the U.S. Securities and Exchange Commission, including its Annual Reports on Form 20-F.

Although ABB Ltd believes that its expectations reflected in any such forward-looking statement are based upon reasonable assumptions, it can give no assurance that those expectations will be achieved.



| Slide 2



Ulrich Spiesshofer, Head of Discrete Automation and Motion Division – Automation and Power World 2013

# ABB in Discrete Automation Driving profitable growth



### ABB: A global leader in power and automation Five divisions – one hundred countries



Power Products

\$10.7 billion 36,000 employees



Power Systems

\$7.9 billion 20,000 employees



Discrete Automation and Motion

\$9.4 billion 29,000 employees



Low Voltage Products

\$6.6 billion 31,000 employees



**Process Automation** 

\$8.2 billion 28,000 employees

#### ABB's portfolio covers:

- Electricals, automation, controls and instrumentation for power generation and industrial processes
- Power transmission
- Distribution solutions
- Low-voltage products

- Motors and drives
- Intelligent building systems
- Robots and robot systems
- Services to improve customers productivity and reliability

2012 revenues



# Discrete Automation and Motion Together, we drive our customers' industrial productivity and energy efficiency



#### Discrete Automation and Motion division Markets served

Discrete manufacturing



Hybrid/batch manufacturing



Process industries



Utilities



Transportation equipment



Infrastructure, buildings



Electric vehicles



Renewable energy





# Discrete Automation and Motion – Business Units<sup>1)</sup> Together, we drive our customer's industrial productivity and energy efficiency



#### **Drives and Controls**

- Low voltage AC drives from 0.12 to 5'600 kW
- DC Drives from 4 kW to 15'000 kW
- Medium voltage drives from 315 kW to more than 100 MW
- PLCs, HMIs, and input/output devices
- Motion control
- Software tools
- Energy saving tools
- Service



#### **Power Conversion**

- Advanced power electronics
- Converter products
- Wind turbine drives
- Solar inverters
- Excitation and synchronizing systems
- High power rectifiers
- Power quality products
- UPS
- Traction converters
- Charging infrastructure for EV
- Service



#### Motors and Generators

- Low voltage motors from 0.25 to 1'000 kW
- High voltage motors and generators up to 70 MW
- High speed motors
- Traction motors
- Wind power generators
- Diesel generators
- Gas and steam turbine generators
- Hydro generators, tidal waves, etc.
- Mechanical power transmission
- Service



#### **Robotics**

- Industrial robots
- Robot controllers and software
- Industrial software products
- Application equipment and accessories
- Robot automation systems for automotive, foundry, packaging, metal, solar, wood, plastics, etc. industries
- Service

1) New BUs structure starting January 1st, 2013



Number 1 or 2 in all markets where we operate

#### A solid track record of value creation Combining organic and inorganic growth

US\$ millions	2009	2010	2011	2012	CAGR 2009-12
Orders	4,702	5,862	9,566	9,625	25% <sup>1</sup>
Revenues	5,405	5,617	8,806	9,405	19%1
Operational EBITDA	773	1,026	1,664	1,735	31%
Operational EBITDA %	14.4%	18.3%	18.9%	18.4%	+4.0% pts
Cash from operations	745	573	1,086	1,287	20%
Net Promoter Score	16%	22%	31%	38%	

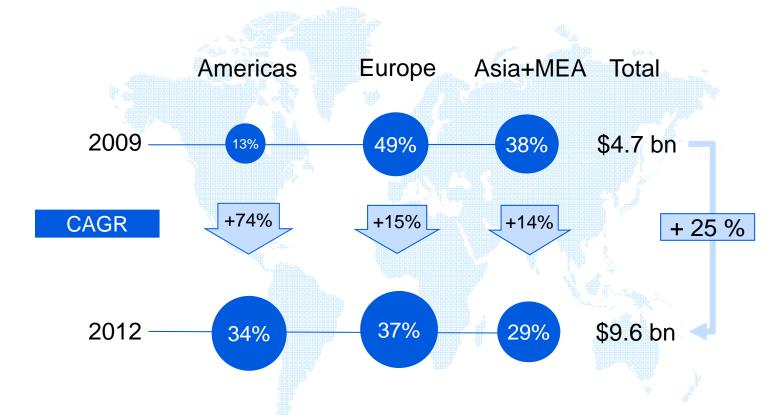
<sup>&</sup>lt;sup>1</sup> Change in local currencies



## Globally balanced business Geographical focus on profitable growth

#### Discrete Automation and Motion orders received by region

Change in local currencies



Note: Bubble size reflects orders received volume



# ABB in the discrete automation sector Integrated offering, open architecture



# World-class operations

Life-cycle services

and solutions

Product packages

#### Discrete Automation and Motion division Five strategic planks addressing customer needs

Discrete automation (\$72 bn)<sup>1</sup>



Products and integrated automation solutions, incl. PLC, robots, drives and motors for discrete automation in industry, and infrastructure

Industrial motion (\$53 bn)<sup>1</sup>



Movement and control in industrial applications. Motors, drives, generators, and mechanical power transmission for industry, utilities, infrastructure and transport

Renewables (\$14 bn)<sup>1</sup>



Generators, converters, inverters, drives, motors, controls, packages, and applications for renewable power generation

Power control and quality (\$12 bn)<sup>1</sup>



Control of power supply and ensuring power quality for industrial, utility, and infrastructure applications

Transport (\$8 bn)<sup>1</sup>



Fast charging of electric vehicles, components for rail rolling stock and rail infrastructure, drives and motors for heavy electric vehicles

1: Estimate size of the automation market in 2015



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#### ABB strong in both process and discrete automation

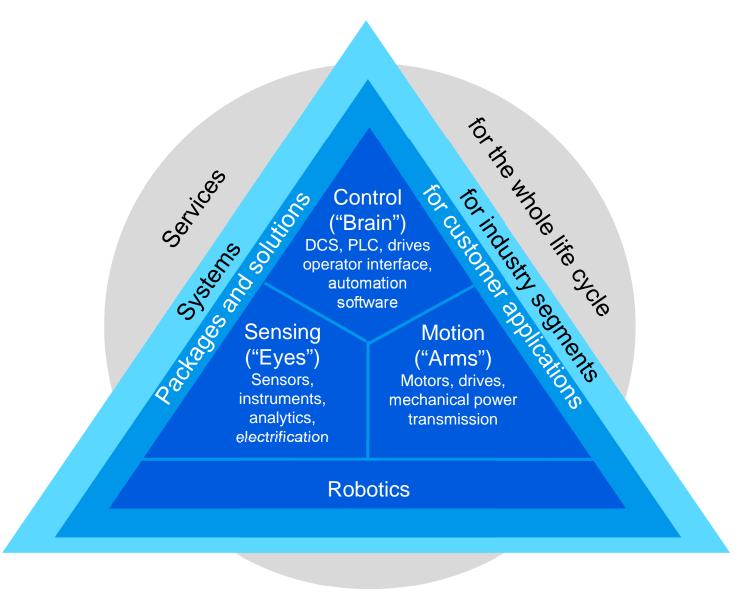
#### **Discrete Automation**

#### **Process Automation**

Description	Manufacture & assemble parts, components to finished product	Continued process converting raw materials to finished products
Typical industries	Automotive, general mfg, consumer electronics	Oil & gas, chemicals, pulp & paper, mining, metals
Supplier offering	Programmable logic controllers (PLC), drives, robots, motors, sensors, HMI, software/engineering	Process controllers (DCS), measurement, actuators (e.g., motors, drives, valves), sensors, electrification, software/engineering
Industry penetration	Low-to-moderate: More diverse markets & applications, customers with less expertise and investment capacity	High: Long history, maximize return on large capex
Channels	A mix of direct, distributors, OEMs and system integrators	Mainly direct sales or through EPCs and system integrators
Competitive landscape	Global and local/regional	Dominated by global players
Service potential	High	High



#### Unique customer value through broad automation offering





### ABB's position in the discrete automation sector Solutions created around customer needs



#### Leading robotics player – turn-around completed, strong base

- Comprehensive portfolio
- Product, package, system and service offering
- Good market access
- On-going fast growth after successful turn-around



#### Broad portfolio – integrating with robotics into growth platform

- Drives + motors + control/PLCs + robotics = unique offering
- Grown organically, complemented by Baldor motion control
- Single-source opportunity, integrated packages and solutions for our customers
- Strong service capabilities and innovative service concepts



#### Further developing an integrated offering – easy to use, open architecture

- Expanding packages and solutions
- Common engineering platform
- Open connectivity and communication



#### A unique offering for a ~\$72B market1

1: Estimate for total relevant discrete automation market in 2015

ABI

#### ABB solutions combining PLC and robot offering

#### **Attractive integration opportunity**

#### Pick-and-place

Cooperation of PLC-controlled actuators and robots



#### **Material handling**

 PLC-controlled activation of assembly mechanisms synchronized with robot positioning



#### **Palletizing**

 PLC-robot cooperation for immediate exchange of pallets after filling



#### **Machine tending**

 Reduced cycle-time from optimal synchronization of tending and machine operation





#### We provide complete packages and solutions Significant growth opportunities in attractive markets



specific customer needs Food and beverage



Computing, Communication, and Consumer Electronics (3C)

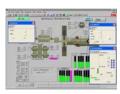
#### Packages and solutions for fast growing markets Key differentiator for ABB

#### Furniture industry, e.g. Swedwood IKEA



Motors





**ABB HMI** 



Robots



Drives





Safety equipment

- Manufacturing and handling self-assembled furniture components
- Highly specialized application knowledge needed
- Complete engineering to deliver self-contained package solution
- High service potential on growing installed base



Low voltage

products

#### Standard kits provide fast, flexible solutions Example: Food & Beverage - Procter & Gamble

- Standardized production equipment for fast introduction in new markets
- Material handling standard picker cell
- ABB chosen because of our application know-how, global footprint and local service
- 1st order for 12 standard kits, potential for up to 100 kits over the next 3-5 years
- ABB scope covers frame, robots, motors, drives, LV components







# Food & beverage among the biggest opportunities ABB upside: Leading emerging market presence

- MengNiu is a large dairy company and 3<sup>rd</sup> biggest ice cream producer in China, with multiple production sites
- Standard solution needed for case packing of ice cream products
- Consistent packing quality, improved employee safety, lower production costs
- ABB delivers robot, safety components, frame, grippers, conveyors, servomotors and drives





Food & beverage capex growing 2x automotive over next 5 years



# Integrated and open offering Optimum value and flexibility for our customers





## Significant growth opportunities in discrete automation ABB with the right product and geographic scope

#### Examples of growth drivers

- Industrialization in China: Product and process quality, energy and resource efficiency, wage inflation, changing attitudes to quality and nature of work
- "Re-industrialization" in US, Europe and other traditional economies: Upgrade and greenfield industry automation for global competitiveness
- Speed and flexibility: Fast-moving customers, mass customization, short lead times and life cycles, low inventories
- Energy efficiency: Cutting industrial electricity consumption to continue in all markets
- Food safety: Increasing demands around quality & safety, processing, packaging
- Elevating the nature of work replace hazardous and "unhealthy" jobs
- Automotive: More platforms to produce traditional and electric vehicles



## Summary: Building our position in the large, growing discrete automation market

- ABB has one of the broadest industrial automation offerings
- Deep local presence and value chain in all geographies
- Discrete Automation and Motion has a track record of profitable growth based on focused investments in Sales, R&D and filling portfolio gaps
- Well positioned to continue long term profitable growth in attractive markets
- Right products, solutions and service to meet rapidly growing customer needs in discrete automation
- Our competitive advantage: Ability to deliver tailored, fully-engineered solutions based on deep application know-how and competitive products

Our broad offering allows us to serve the end markets with the most attractive growth and profitability - together



# Power and productivity for a better world™

