

JESSE HENSON, DIVISION PRESIDENT NEMA Motors Division



ABB Motion Capital Markets Day Helsinki, Finland

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- Business risks associated with the volatile global economic environment and political conditions
- Costs associated with compliance activities
- Market acceptance of new products and services
- Changes in governmental regulations and currency exchange rates
- General market conditions, and
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### **Our business at a glance** The global market leader

Our market



1 globally

#### Our business

**\$750 - 1,250 mn** 2021 revenues

**3.5k** Employees globally



Our strategic mandate: profitable growth



The broadest offering of motors for industrial applications



Over 1 mn configurations available to our **customers** 



03. Definite Purpose Food & Washdown Air Handling Material Handling

Specialty

EC-Titanium™



**RPMAC** 



**Cooling Tower Direct-Drive** 



## **Driving growth** by being local in other NEMA geographies

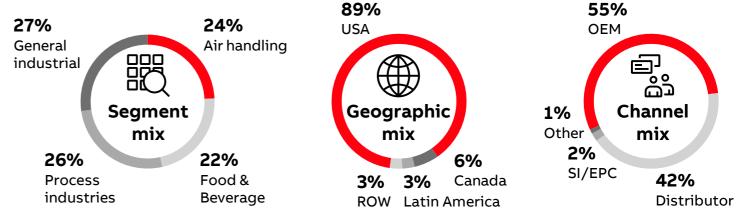


Being close to our customers offers a competitive advantage and increases opportunities

In order to grow in non-US NEMA markets, we need to evaluate the best way to serve those markets:

- 1. Build our own or inorganically
- 2. Provide local management or import leadership
- 3. Provide the right product portfolio for each specific market





## Strengthening our market-leading position While expanding into new markets

#### Where we are positioned today



+ HVAC / Buildings #1









Process Industries #1 \_\_\_\_ Material Handling #1





#### Where we will be growing tomorrow

Continuing our legacy of energy efficiency



Capitalizing on buying trends from in-person to online

Embedding sustainability in all that we do





# **Driving growth** by continuing our legacy of energy efficiency

#### Our history of innovation

A better motor was one that used less electricity	Baldor was     federally     recognized     for progress     in efficiency	The Super-E® motor was 25 years ahead of the minimum standards	<complex-block><complex-block></complex-block></complex-block>
Baldor was founded in <b>1920</b> to make a better motor	In <b>1976</b> the company earned the FEA's Merit Award for leading the way in improving motor efficiencies	In <b>1983</b> the Super-E® line of motors debuted, the most efficient product line in the market	In <b>2001</b> the Energy Guide label was introduced to the industrial motor market

ENERGYGUIDE

**Revolutionizing the motor** 

industry. Again.

The most sustainable solution is the one that doesn't use any energy at all

We can make a difference.

## **Driving growth** across trends in retail and social commerce

Retail shoppers are moving away from brick-and-mortar stores and making considerably more purchases online

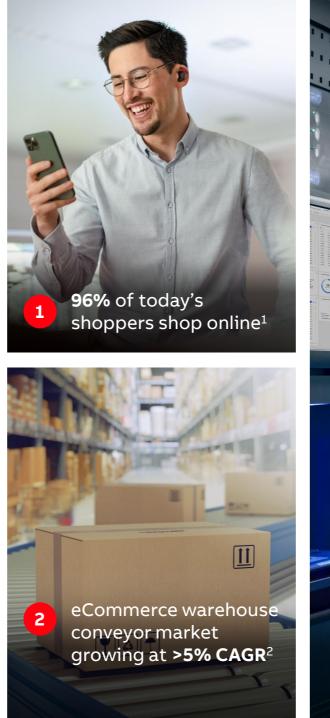
2

This requires global investments in distribution and logistics centers

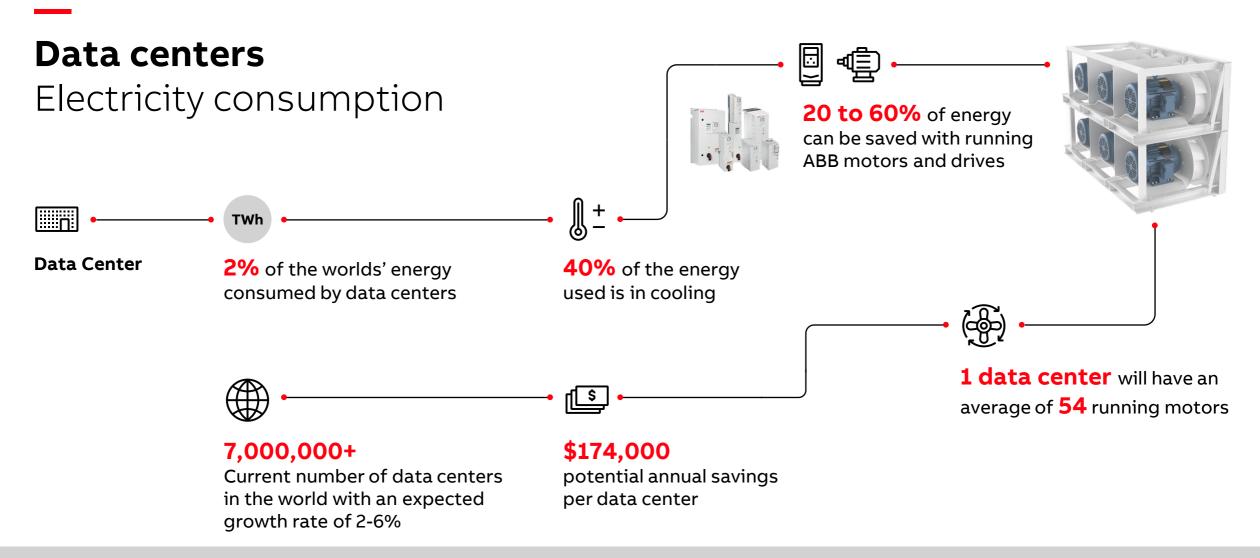
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As well as data centers to support cloud-based commerce

Source: E-commerce Vs. Brick & Mortar – State of Retail, 2021
Source: TechTarget – Data center energy consumption, 2022
Source: DW Business – Big data centers, 2022



Global data center 3 energy demand will increase **8x by 2030**<sup>3</sup> Slide 9



#### Potential savings of \$1.2 tn in data centers alone

## Our strategy

is clear

45%

Global **electricity** used today to power **electric motors** in **buildings** and industrial applications

2040

The year by which **electric motors** are expected to double globally Continuing our legacy of energy efficiency

....



Capitalizing on buying trends from in-person to online

Embedding sustainability in all that we do

Slide 11

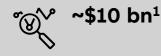


TUOMO HÖYSNIEMI, DIVISION PRESIDENT **Drive Products** 



ABB Motion Capital Markets Day Helsinki, Finland **Our business at a glance** The global market leader

Our market





#### Our business

**\$1,250 mn – 1,750 mn** annual revenues



**2.8 k** employees across major markets Our strategic mandate: profitable growth



### ABB Drives enable a sustainable future

What does an AC drive do?

AC drive regulates power of electric motor to match its speed and torque to all process needs



Why do our customers buy AC drives?

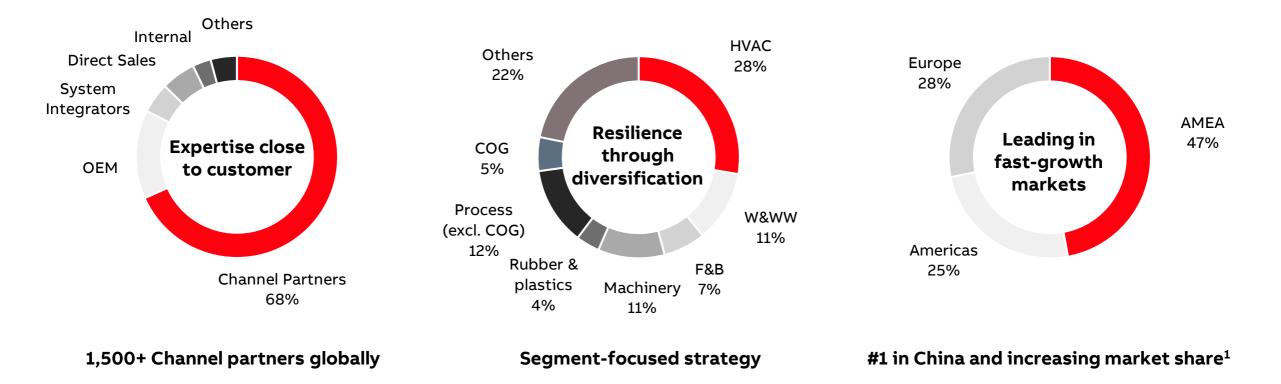
- Saving energy
- Improving process accuracy
- Increase productivity
- Saving resources and costs



45% of the world's electricity is used to power electric motors in building and industrial applications

An AC drive typically cuts an electric motor's energy consumption by 25% Slide 14

## Value-adding channel partner network is our key competitive advantage



## The most modern platform and advanced offering in the market Leverage benefits of scale to meet all customer needs



Industrial









Gener

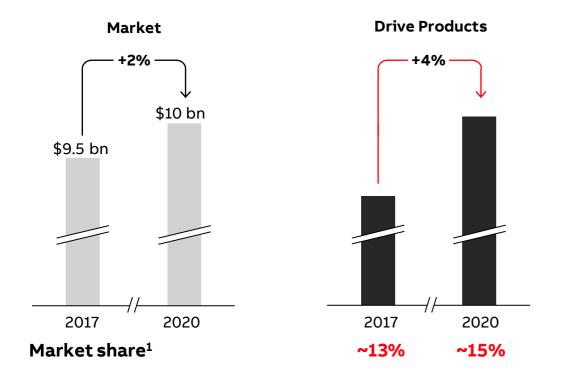
General Purpose

Segment-specific (HVAC, Water) Machinery & Micro

Enabled by digital offering together with Motion Services: customer value beyond products All-compatible Global platforms

## Our ambition is to increase share to 16%+ through segment focus

#### Historical performance vs. market



#### Key growth opportunities

Selected segments and current position



Slide 17

# R&D is the key enabler to continued market leadership

- 30 years as innovation leader in drives
- Industry-leading reliability and quality
- Highly optimized product cost
- Market leader in R&D resources across 6 countries
- Focus future innovation in digital and sustainability
- 60% of R&D resources in software development

Global platforms with differentiated hardware and firmware by region and segment

## How others solve the problem of harmonics<sup>1</sup>



1. Harmonics are a form of electrical pollution which causes reliability and inefficiency problems for customers

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Global platforms with differentiated hardware and firmware by region and segment

1. Harmonics are a form of electrical pollution which causes reliability and inefficiency problems for customers | 2. Pioneering ultra-low harmonic drive is an advanced technology in 4th generation of development | 3. Based on a 75kW drive comparison

## How ABB solves the problem of harmonics<sup>1</sup>



#### ABB ultra-low harmonic drive<sup>2</sup>

- 90% less volume & 80% less weight<sup>3</sup>
- 75% reduction in wiring
- One single compact unit

Providing peace of mind and supporting sustainability through advanced technology

#### Lower Burdekin Water, Australia

- 13 irrigation pumps, >1,000 megaliters/day
- Improved efficiency by ~20%, and complied with regulatory requirement on electric harmonics<sup>1</sup>...
- ... using ABB's leading technology: ACS880 ultra-low harmonic<sup>1</sup> drives

1 Harmonics are a form of electrical pollution which causes reliability and inefficiency problems for customers. Pioneering ultra-low harmonic drive is an advanced technology in 4th generation of development



## **Customer value beyond products** Built-in connectivity with fully digitalized user experience

#### **ABB Access**

- Simplified manual at the user's fingertips in seconds
- Same user experience across ABB Motion products

#### **Drivetune app with Mobile Connect**

- App connects via Bluetooth panel on drive via mobile phone
- Reduced downtime by immediate online access to remote support

#### Connected drive with panel

- 1<sup>st</sup> in market with built-in cellular cloud connection<sup>1</sup>
- Enables recurring revenue streams together with Motion Services



Slide 2

1. NB IoT (Narrowband Internet of Things) cellular connection

Growth in machinery segment example: Building dedicated OEM hubs globally to provide high-value application expertise close to the customers

## OEM hubs in major markets providing regional sales support

- Accelerate ABB sales to serial OEMs
- Offer agile and flexible value-adding customization
- Strengthen application support capability

First three hubs already launched in 2021 despite COVID-19

Worldwide coverage by 2023

### Delivering profitable growth and increasing market share to 16%+

A global technology leader close to customers

Driving growth focused on segments and digitalization

Together with partners, OEMs, and customers

The future of electric motion is now. Together with ABB motors and drives, we make a difference.



