
Sensing



MAY 18, 2022

ABB Capital Markets Day

Process Automation

Helsinki, Finland

Important notices

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,” “on track,” “framework”, “ambition” or similar expressions.

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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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This presentation contains non-GAAP measures of performance. Definitions of these measures and reconciliations between these measures and their US GAAP counterparts can be found in the “Supplemental Reconciliations and Definitions” section of “Financial Information” under “Quarterly results and annual reports” on our website at www.abb.com/investorrelations. Reconciliations can be found on our website under “Process Automation Capital Markets Day 2022”.

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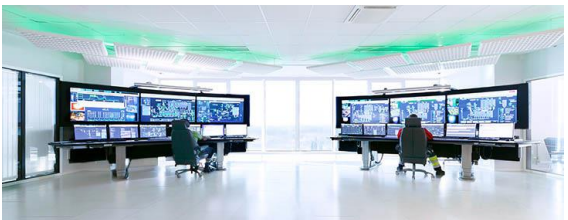
Sensing

INTEGRATED SYSTEMS

4 DIGITAL



3 AUTOMATION



1 SENSING



2 ANCHOR PRODUCTS



ELECTRICAL & MOTION



Sensing

What this session will be about

- 1 **Sensing** business introduction
- 2 **Instrumentation** transformation
- 3 **Analytical** growth strategy
- 4 **Sustainability** and **Digital**



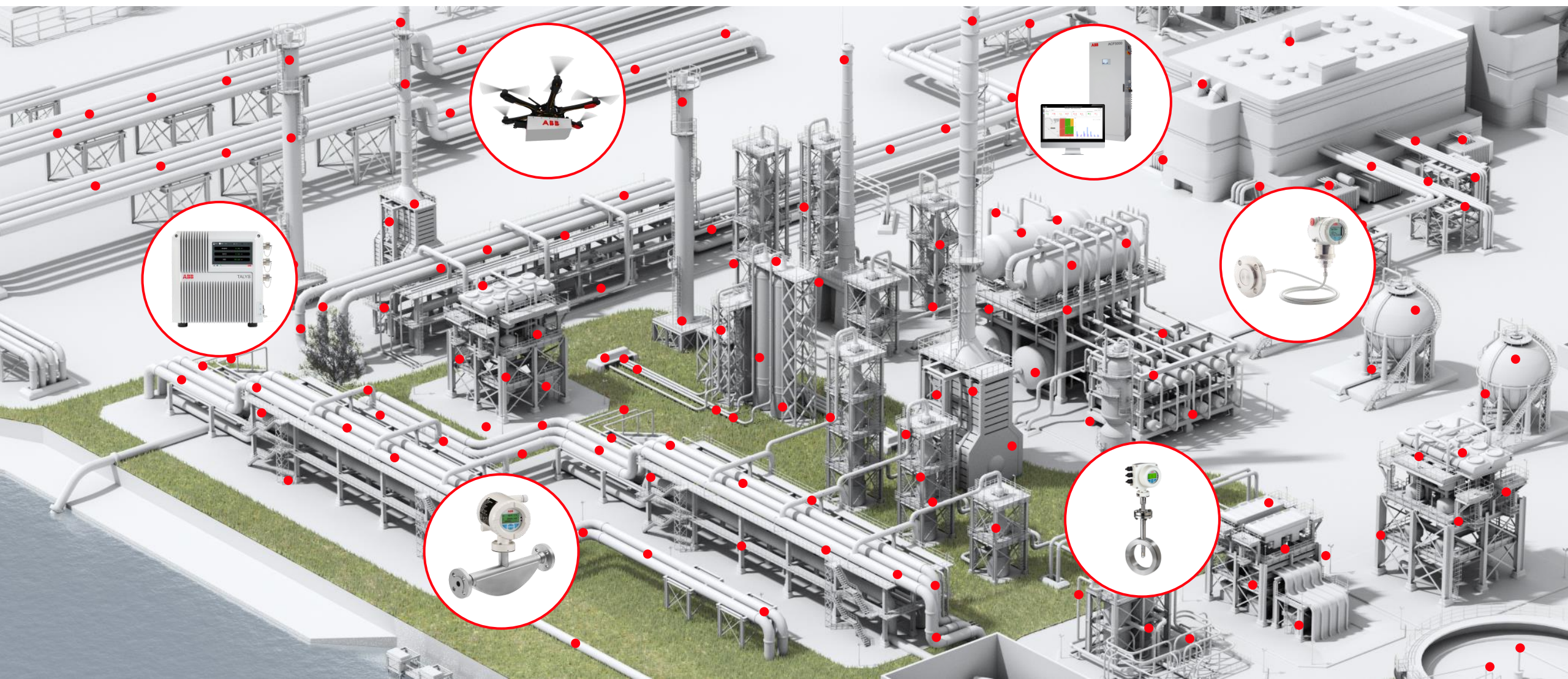
Jacques Mulbert

Division President,
Measurement & Analytics



The role of Sensing in Process Automation

What Sensing is and why it is increasingly important



We are partner of choice for sensing devices

Sensing offering

Instrumentation

1-5

Market position

~\$10B market size

~\$0.5B revenues



Temperature
Pressure
Flow & Flow Computers
Level

Analytical

1-2

Market position

~\$4B market size

~\$0.5B revenues



Continuous Gas Analyzers
Fourier Transform Infrared Spectroscopy
Gas Chromatographs
System Integration

Specialized sensing

1-2

Market position

~\$1B market size

~\$0.2B revenues



Flatness
Roll Force & Strip Tension
Pillow Block Weighing
Quality Management System

Sensing in Process Automation

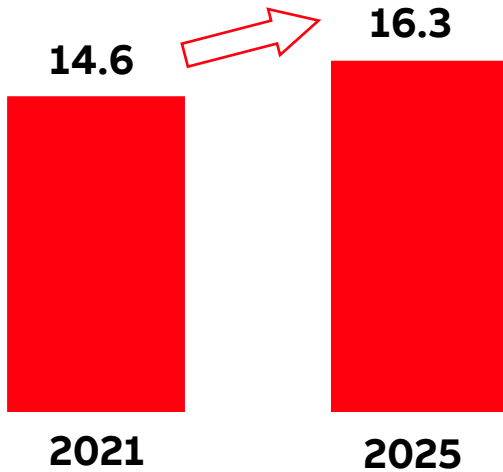
Attractive market

\$15 B



Market size


CAGR: 4-5%



 Chem & Refining

 Water


 Power Gen

 O&G, Midstream

 Metal & Mining

 Cement, P&P

 Semiconductors

 Food & Beverage

 Others

Market dynamics

Production effectiveness



Energy transition



Environmental requirements



Digital growth



Sensing strategy

Instrumentation

Instrumentation



TRANSFORMATION

Analytical



GROWTH

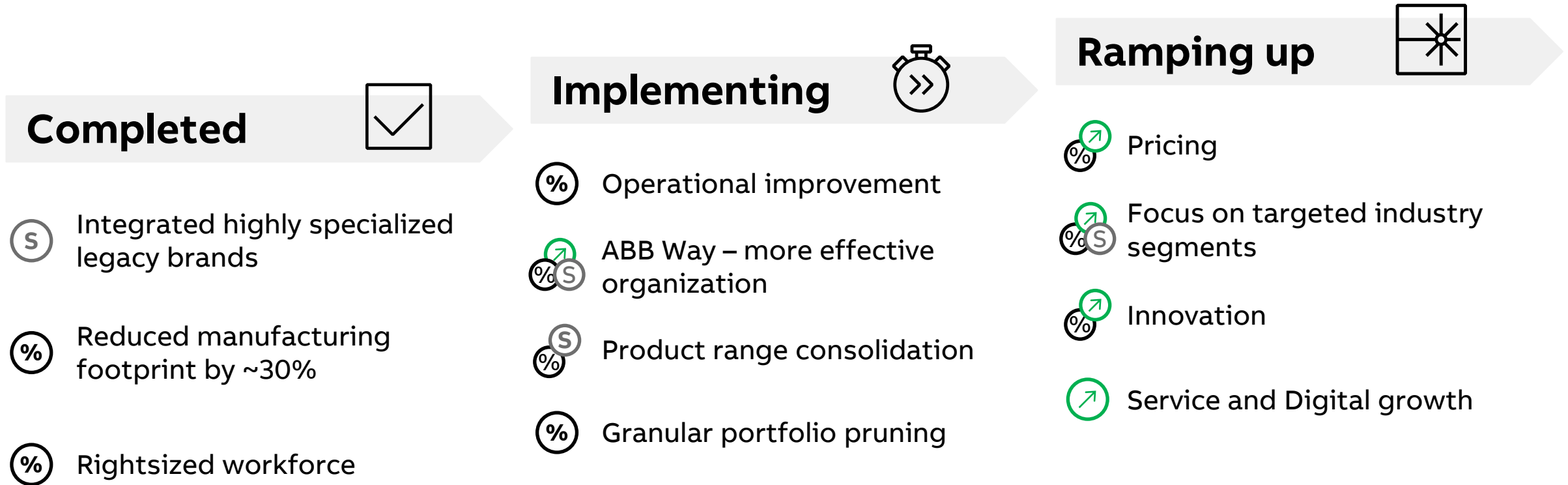
Specialized sensing



GROWTH

Performance improvement journey

Instrumentation transformation



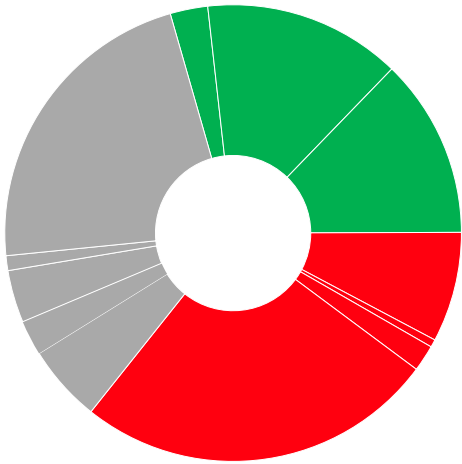
Transform the Business Line by end of 2023



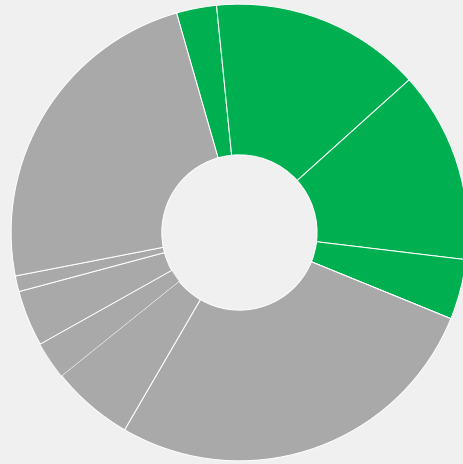
Driving performance through granular portfolio management

Instrumentation

Start 2021



End 2022



2023

Complete transformation

Stability **Profitability** **Growth**

Instrumentation

Focus on targeted industry segments – with unique technology and solutions

• AquaMaster 4



Remote (>100km)
solution to **reduce water losses**

Accurate measurement for billing with low power consumption

#1

• SwirlMaster



Measuring flow to **preserve natural resources**

Unique product in our portfolio for energy measurement (temperature & flow)

#1 – unique

• Non-Invasive Temperature



Safer way of measuring process temperature

“Ease of installation” reduces customer costs without sacrificing measurement quality

#1

• SensyMaster



Measuring H2 in low pressure condition **ensuring green energy**

State of the art digital verification services

#1



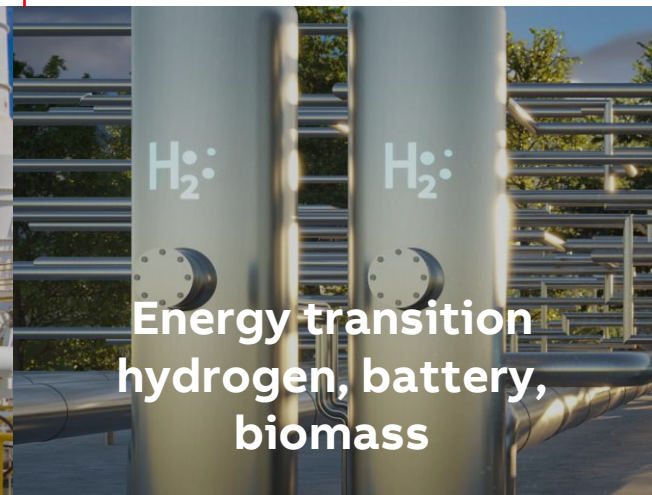
Water & wastewater



Power generation



Chemical, oil & gas



**Energy transition
hydrogen, battery,
biomass**

Europe's largest battery factory

Our solutions help in all stages of the battery production process

ABB solution

- Full Process Automation system offering
- Thereof Sensing:
 - Instrumentation
 - Positioners
 - Water analyzers
 - Digital portfolio with verification software, Field Information Manager

Customer benefit

- Helping Northvolt produce the world's greenest batteries
- Optimized operations and simplified asset management through connectivity and digital



Sensing strategy

Analytical

Instrumentation



TRANSFORMATION

Analytical



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Specialized sensing



GROWTH

Positioned for growth where industry and society invest most

Enabling the world to improve productivity and sustainability

Improving production efficiency



Emissions monitoring & regulatory compliance

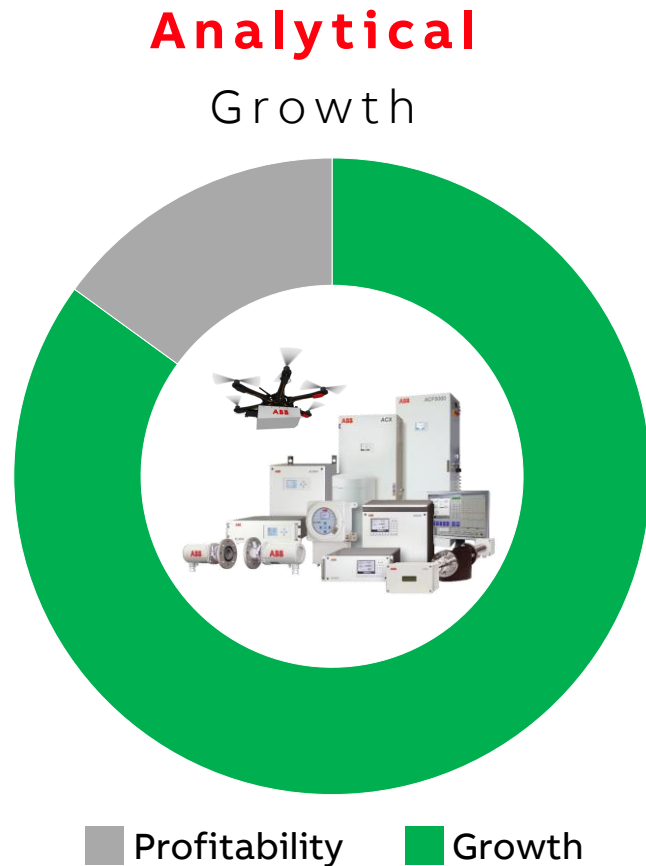


Greenhouse gas reduction & climate change impact



#1 in Analytical globally

Broadest and deepest analyzer portfolio



Analytical strategic priorities



Growth: organic and M&A

Enhance our strong position in environmental segment

Strengthen market leadership position



Innovation

Combine core technologies with innovative digital solutions



Service and digital

Secure long-term revenues through data as a service and alternative finance models

ABB Ability™ Genix Datalyzer for emission monitoring

From preventive to predictive approach for major cement manufacturer

ABB solution

- ABB Ability™ Genix Datalyzer
- Cloud-based, fleetwide overview of installed base

Customer benefit

- Lean operation and cost-effective maintenance through “Fleet remote solutions”
- Moving forward from preventive to predictive approach
- Meet environmental regulations reducing operational and maintenance costs



Specialized sensing

Instrumentation



TRANSFORMATION

Analytical



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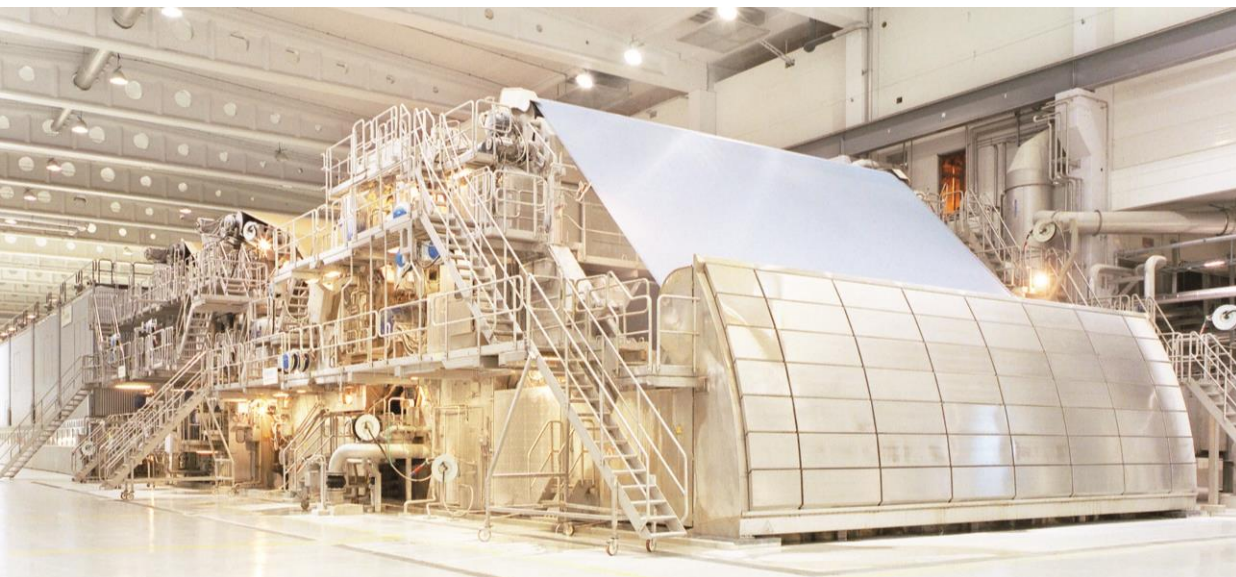
Specialized sensing



GROWTH

Specialized sensing

Critical offering for Pulp & Paper and Metals industries



1

Quality Measurement System in Paper



1

PillowBlock in Paper



1

Stressometer in Metals

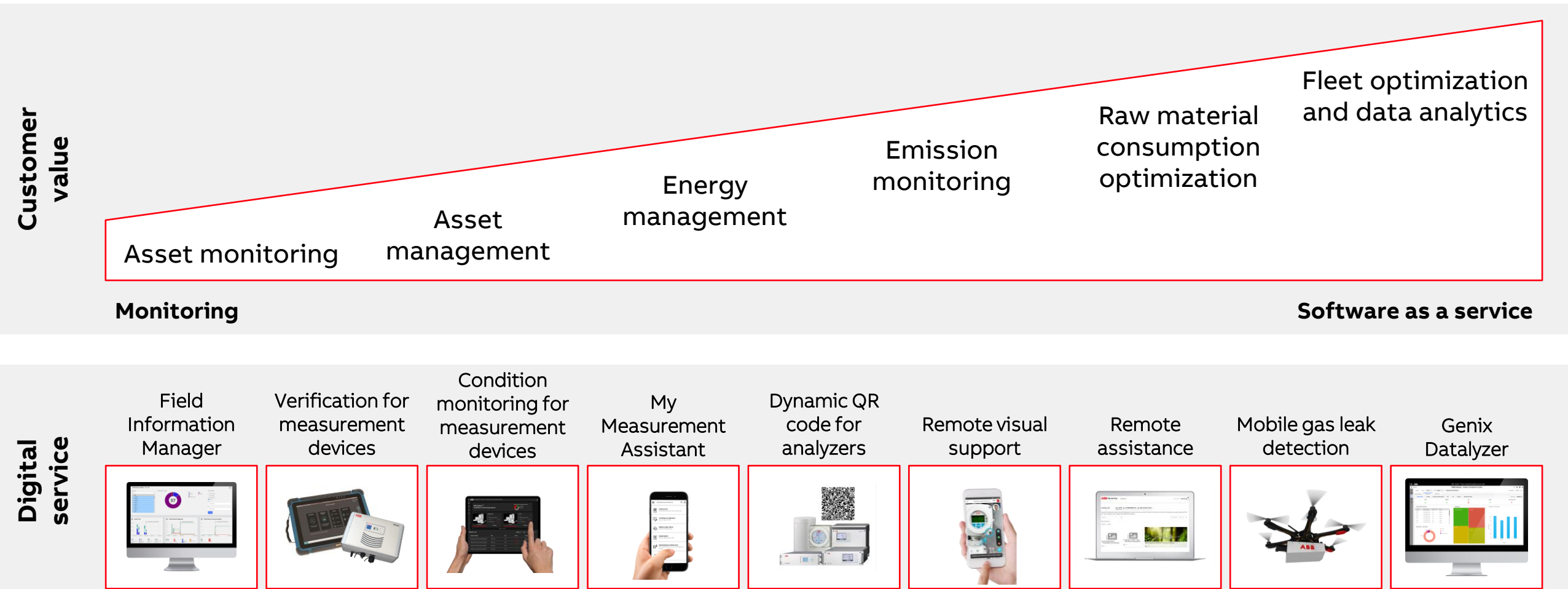


2

Roll Force in Metals

We are much more than great sensors

Positioned at the intersection of sustainability and digital



Driving sensing towards sustainable performance

1 Sensing
At the intersection of sustainability and digital

2 Instrumentation
Transform the business

3 Analytical
Grow organically and through M&A



ABB