

SAMI ATIYA, PRESIDENT, ROBOTICS & DISCRETE AUTOMATION

Capital Markets Day 2023

AI@ABB

Important notices

Today's presentations include 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," "guidance", "plans," "outlook," "on track," "framework" or similar expressions.

There are numerous risks and uncertainties, many of which are beyond our control, that could cause our actual results to differ materially from the forward-looking information and statements made in this presentation and which could affect our ability to achieve any or all of our stated targets.

The important factors that could cause such differences include, among others:

- 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, and
- such other factors as may be discussed from time to time in ABB Ltd's filings with the US Securities and Exchange Commission, including its Annual Reports on Form 20-F.

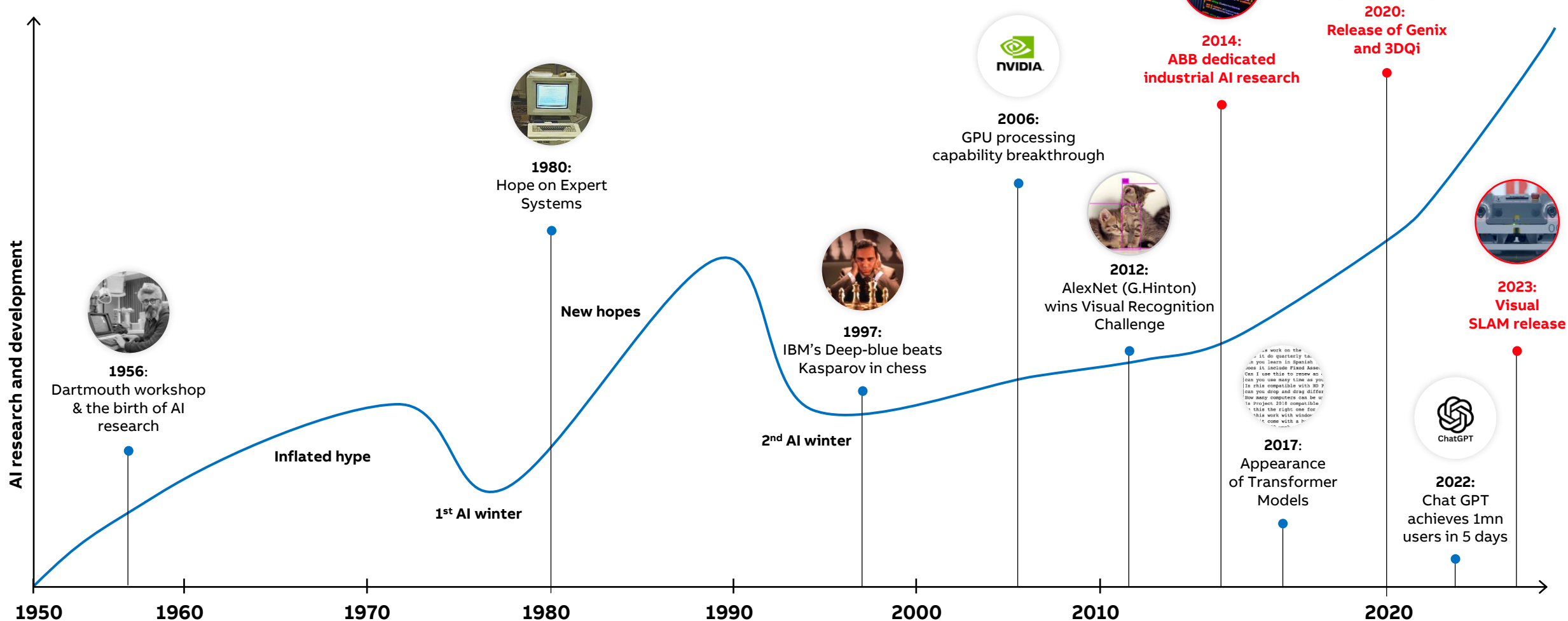
Although ABB Ltd believes that its expectations reflected in any such forward-looking statement are based upon reasonable assumptions, **it can give**

no assurance that those expectations will be achieved.

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 on our website at global.abb/group/en/investors

AI development in waves

Timeline of AI development



How we structure the world of AI

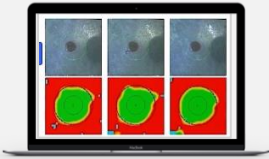
AI technology



Analytical AI

Anomaly detection

Process analytics



Generative AI

Text-to-video

Image-to-text



AI usage

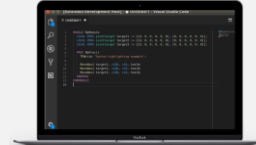


Internal

Efficiency improvements

AI assistant

Code generation

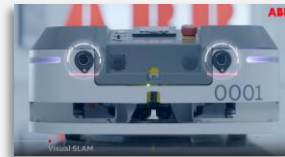


External

Product innovation

3D VSLAM

Energy forecasting



AI status



Implemented

Already in internal use or sold to customers



Under development

Concrete development projects or pilots

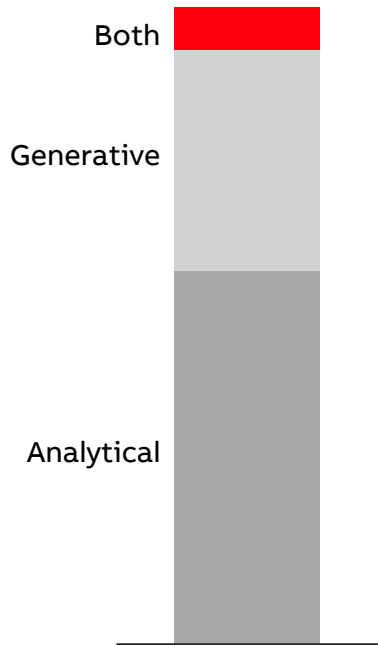


Planned and ideas

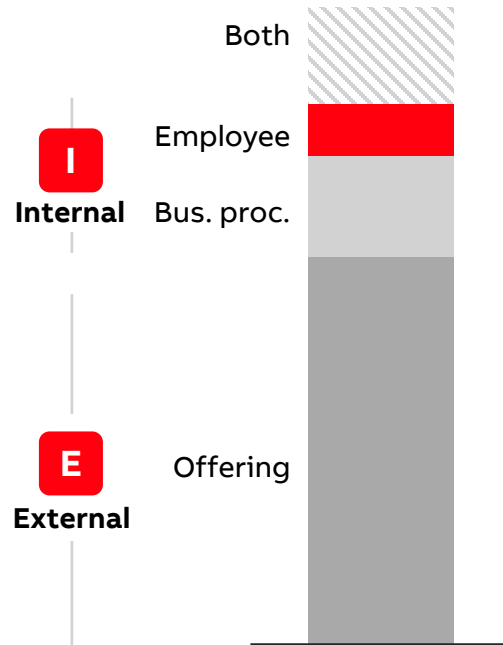
Plans and ideas for future projects

More than 100 AI projects across ABB

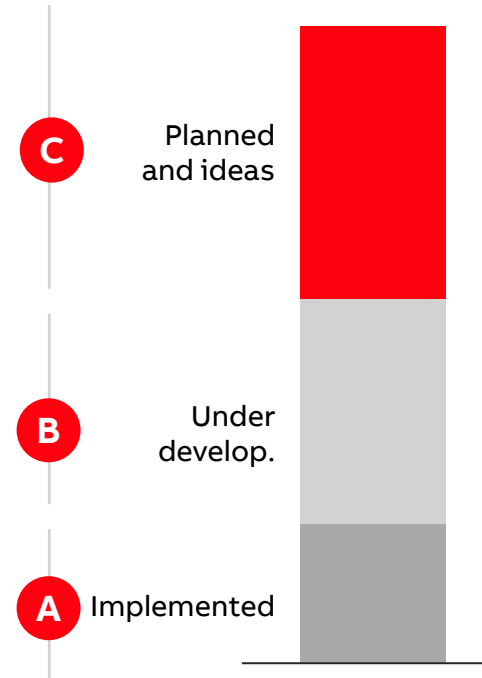
By technology type



By usage



By status



By ABB area

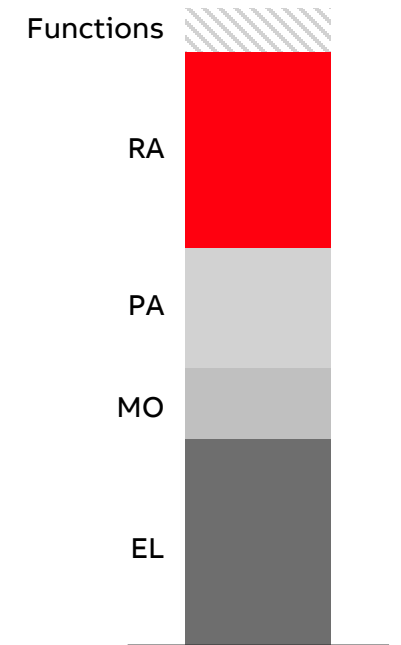
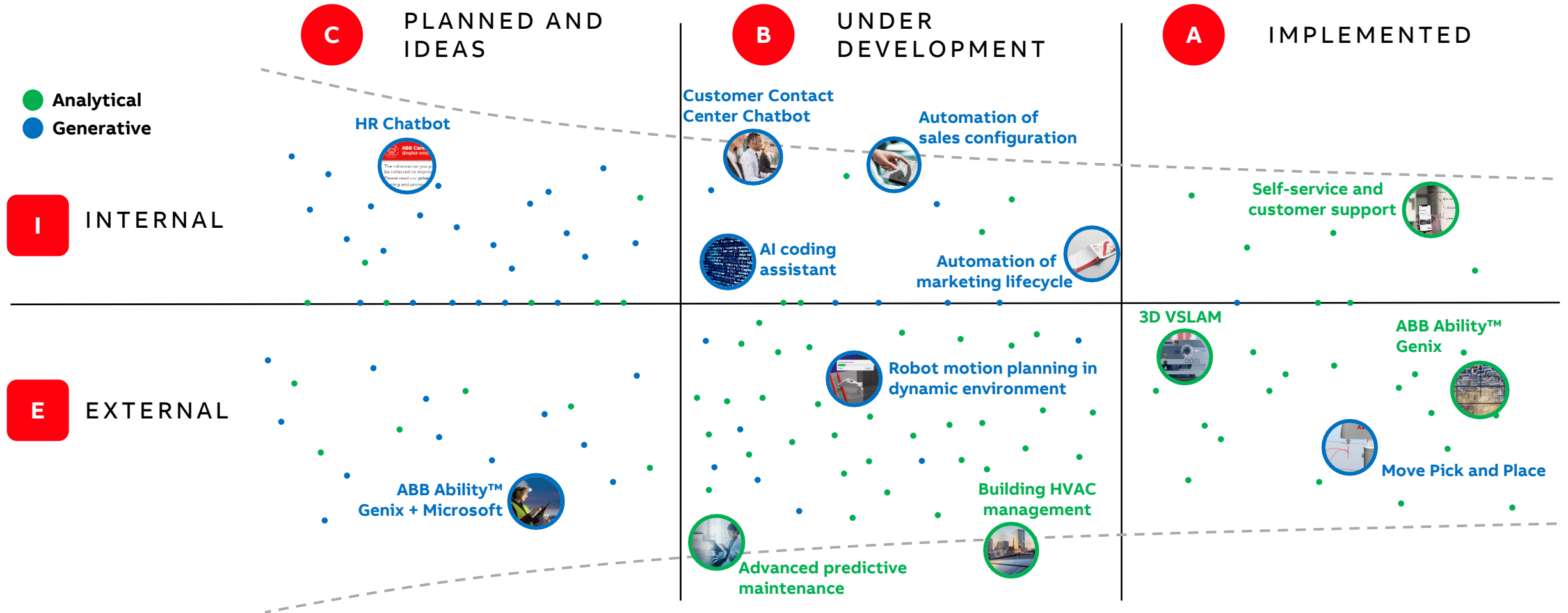


ABB AI project pipeline



Note: each point represents a concrete application; random position within each field

Areas of industrial AI applications

HUMAN-MACHINE INTERACTION

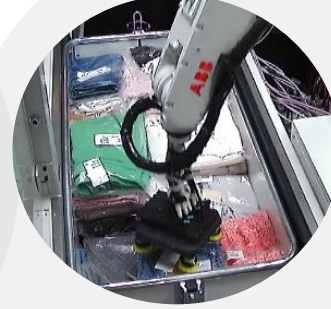


Learning from observation

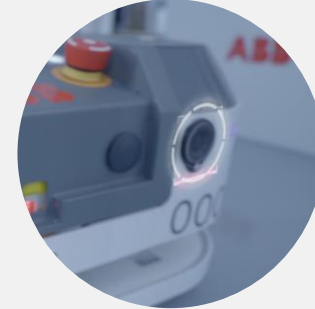


Natural language instruction

NEW SKILLS



Item picking



AMRs

Predictive maintenance



Customer chatbot



Genix



Energy management



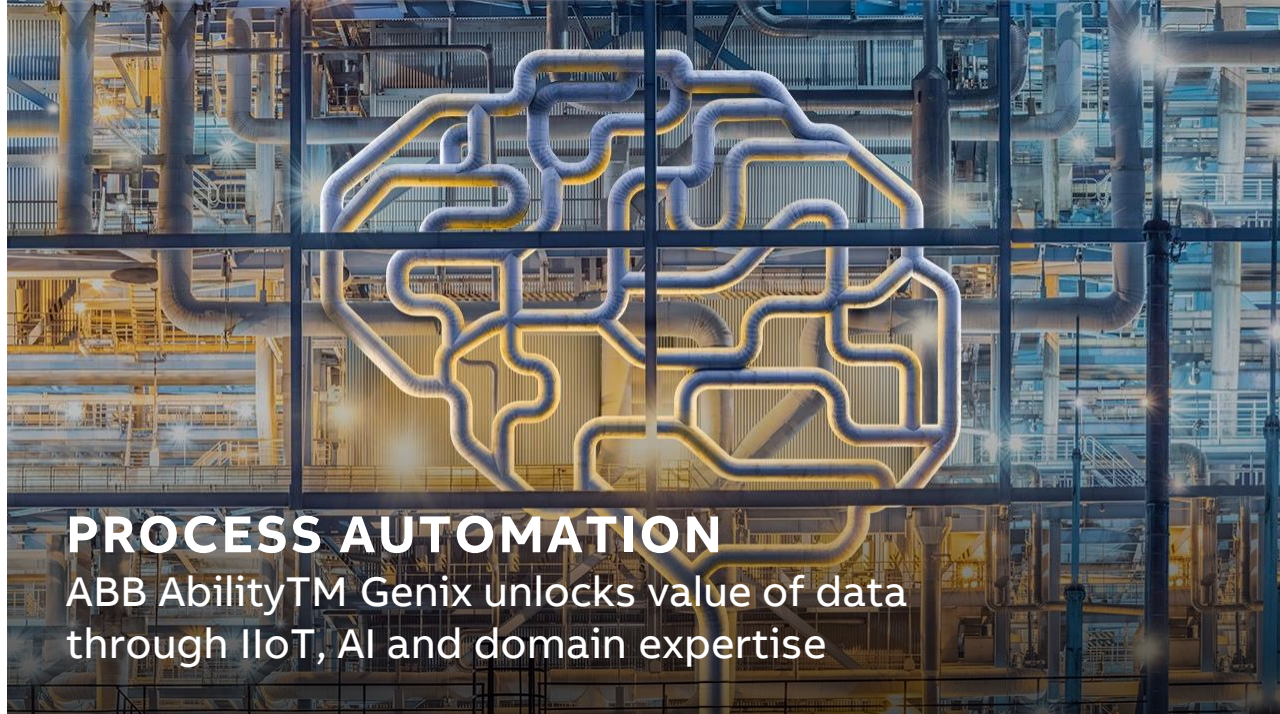
INSIGHT GENERATION

OPTIMIZATION



ELECTRIFICATION

AI-enhanced energy management for buildings



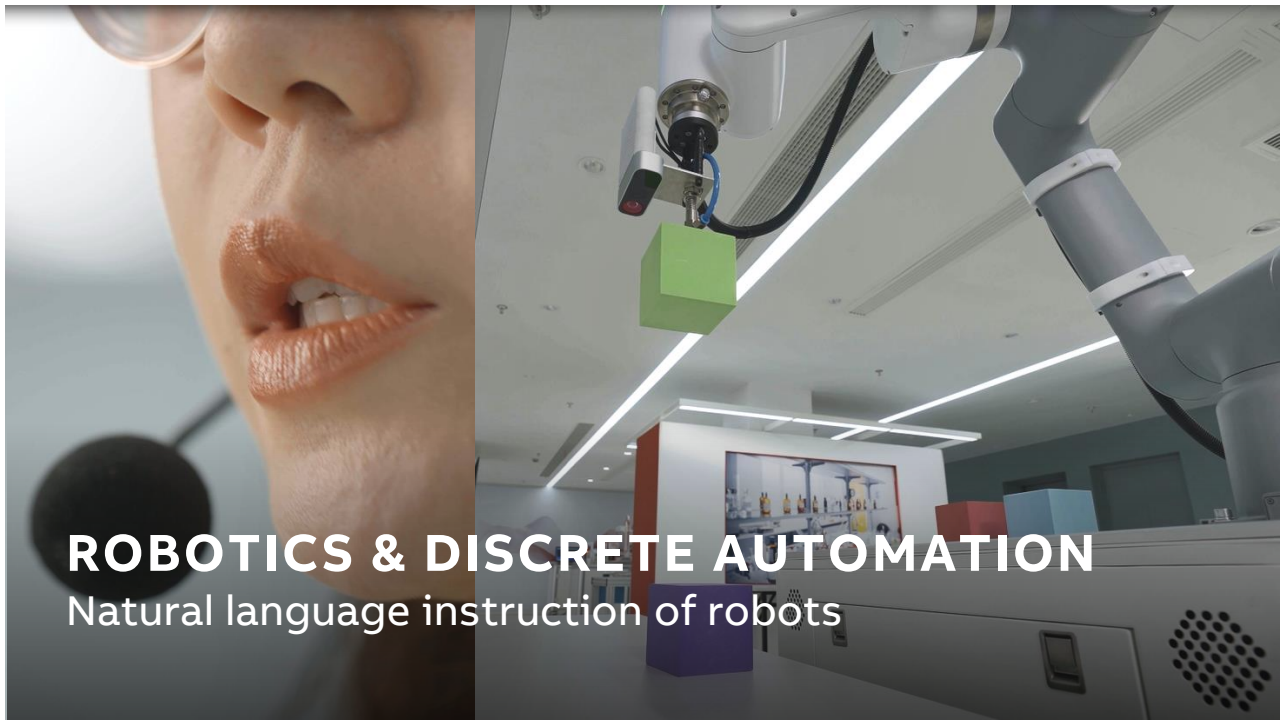
PROCESS AUTOMATION

ABB Ability™ Genix unlocks value of data through IIoT, AI and domain expertise



MOTION

AI-based anomaly detection for motors



ROBOTICS & DISCRETE AUTOMATION

Natural language instruction of robots

Human-robot interaction

AI enables robots to learn human skills



Realizing AI applications

Developing solutions in an ecosystem

- Make
- Partner
- Buy

I Internal efficiency

E External innovation

Employees

Functions

Offering



Application examples

E-mail processing, meeting scheduling, augmented search

Code generation, HR processes, marketing material generation

Autonomous navigation, quality inspection, predictive mainten.

Hybrid

Mainly buy

Mainly make

Technology examples

Copilots
Cloud platforms

ERP, HR systems
Customer Relationship Management

Foundation and specific models
Hosted on cloud, edge, device
APIs, events, streaming

Driving AI@ABB today

OFFERING DEVELOPMENT

Divisions



INTERNAL DEVELOPMENT

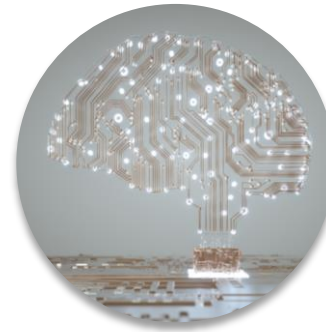
Functions



Develop employee use-cases, best practices and guidelines

RESEARCH AND EXPERIMENTATION

Research Centers



Experiment AI use-cases
Hackathons

KNOWLEDGE SHARING



ABB communities



AI education

AI Council
Coordinating

AI embedded in ABB's business

Driving internal efficiencies



Innovating for our customers



Over 100 projects

ABB