ABB Ability™ Genix Industrial Analytics and AI Suite

Makes operations and asset optimization easier than it looks

A scalable, smart analytics and AI suite that
helps you get more value from your data

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- Increases asset performance and integrity
- Improves maintenance and reliability management
- Optimizes operational and supply chain performance
- Helps achieve safety and sustainability targets

As a world leader in integrated industrial automation with deep domain expertise, ABB is combining these capabilities with advanced analytics to help customers accelerate their operational and business performance.

Introducing the ABB Ability™ Genix Industrial Analytics and AI Suite – a scalable suite consisting of advanced analytics platform, pre-built easy-to-use applications and implementation expertise. The suite connects, collects and contextualises data from operational, IT and engineering systems. It empowers you to unlock value from your data, driving better business results.

It's time to welcome a more productive and profitable future with ABB Ability™ Genix Industrial Analytics and AI Suite.

Unlocking value through ABB's inherent strengths and capabilities
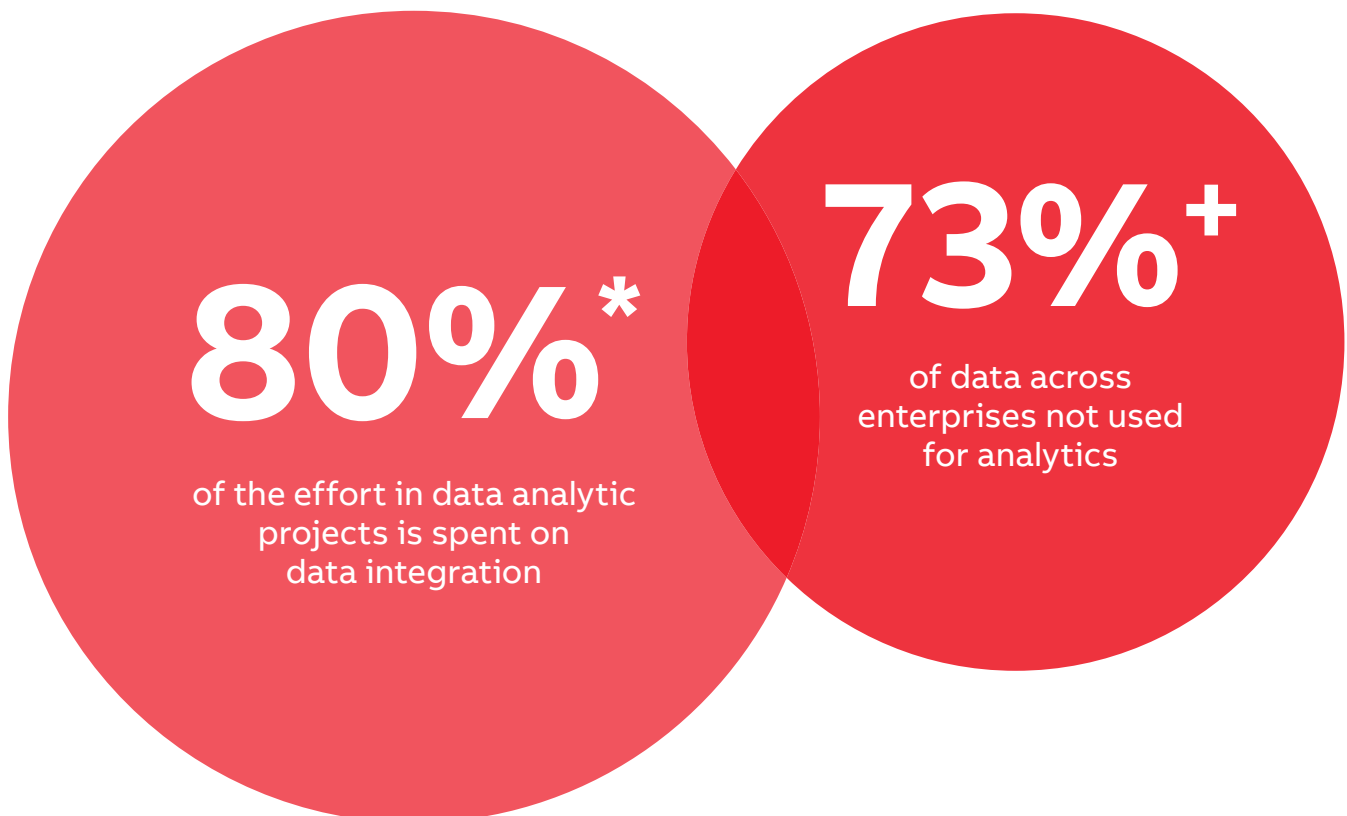
Data

Domain

Technology

Capabilities
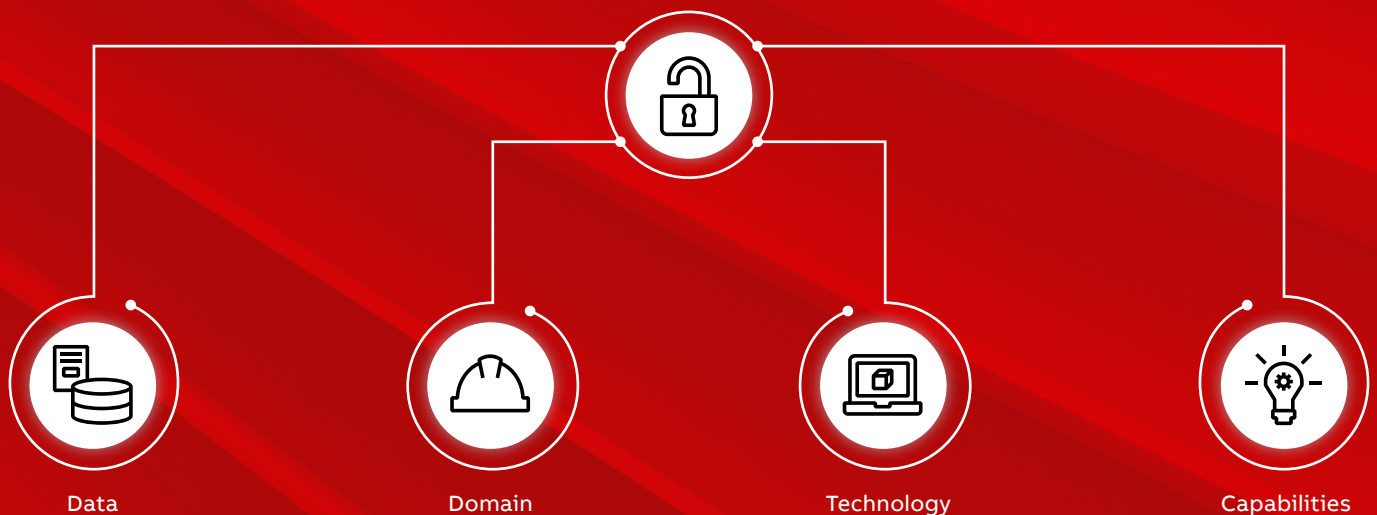
The challenge and opportunity of digitalization

Today's digital technologies create vast amounts of data. And data is where opportunities for improvement can be found. But much of it goes unused. In fact, the average plant uses only 20% of the data that it generates. The successful companies of the future will be those that can capitalize on this data quickly, efficiently, cost-effectively and cross-enterprise through an effective site, edge, cloud and data analytics strategy.
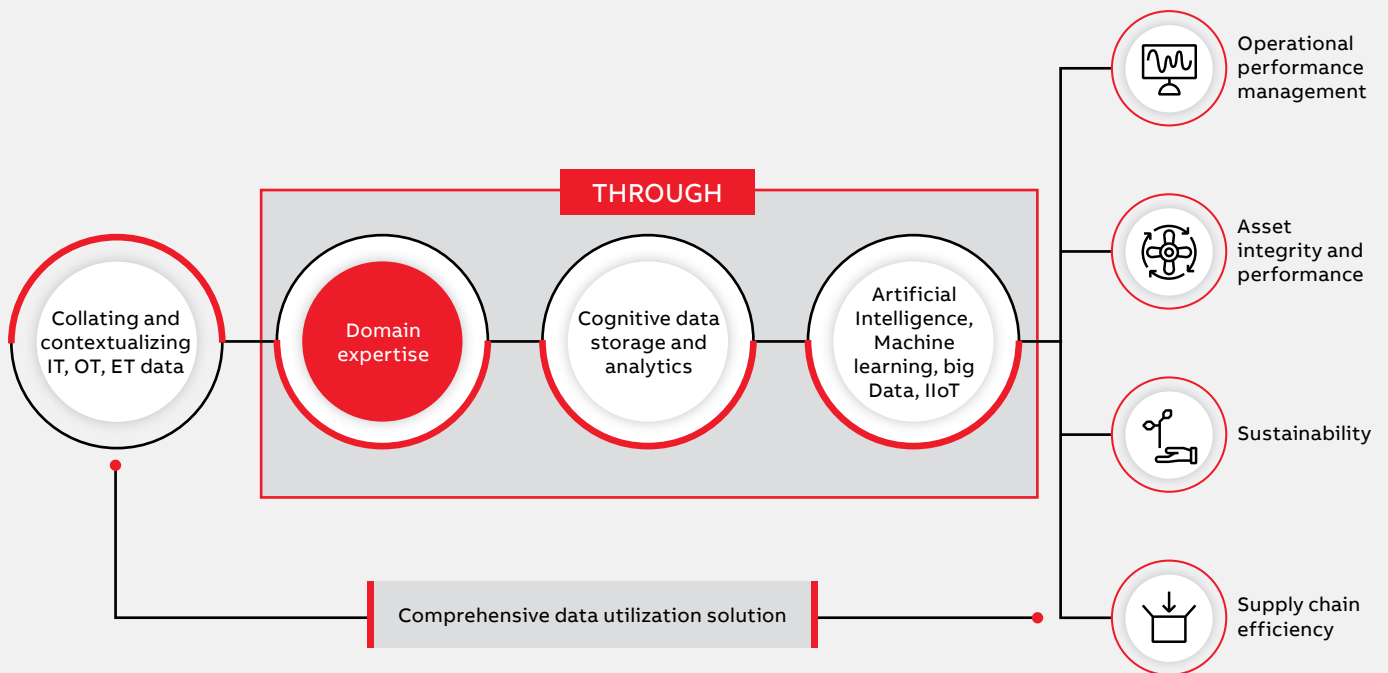
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State of data utilization

80%*

of the effort in data analytic projects is spent on data integration

73%[+]

of data across enterprises not used for analytics

*ARC Advisory Group. +Forrester Research

Transform data into business value

Bringing together data, domain, technology and capabilities for maximum impact

THROUGH

Collating and contextualizing IT, OT, ET data

Domain expertise

Cognitive data storage and analytics

Artificial Intelligence, Machine learning, big Data, IIoT

Comprehensive data utilization solution

Operational performance management

Asset integrity and performance

Sustainability

Supply chain efficiency

Bringing together multiple data inputs to help you make better informed business decisions is easier said than done. The challenge lies in finding a way to manage and analyse huge volumes of data stored within disparate networks that could be either on the premises or in the cloud.

You need to be able to bring together data, technology and digital capability to build rapidly deployable analytics and AI/ML applications to increase your productivity while decreasing your costs. In turn, improving sustainability and safety compliance.

Wouldn't it be great if you could unlock the value of contextualised data through IIoT and Industrial AI?

Just imagine if you could use a pre-built industry-standards based cognitive data model to provide actionable insights for achieving operational performance, asset integrity, energy efficiency, sustainability and safety.

This would result in improved productivity and the optimum utilization of plants and assets, process improvements and cost savings.

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Introducing ABB Ability™ Genix Industrial Analytics and AI Suite

All this can be done right now with ABB Ability™ Genix Industrial Analytics and AI Suite. **Read on to find out how.**

How we do it

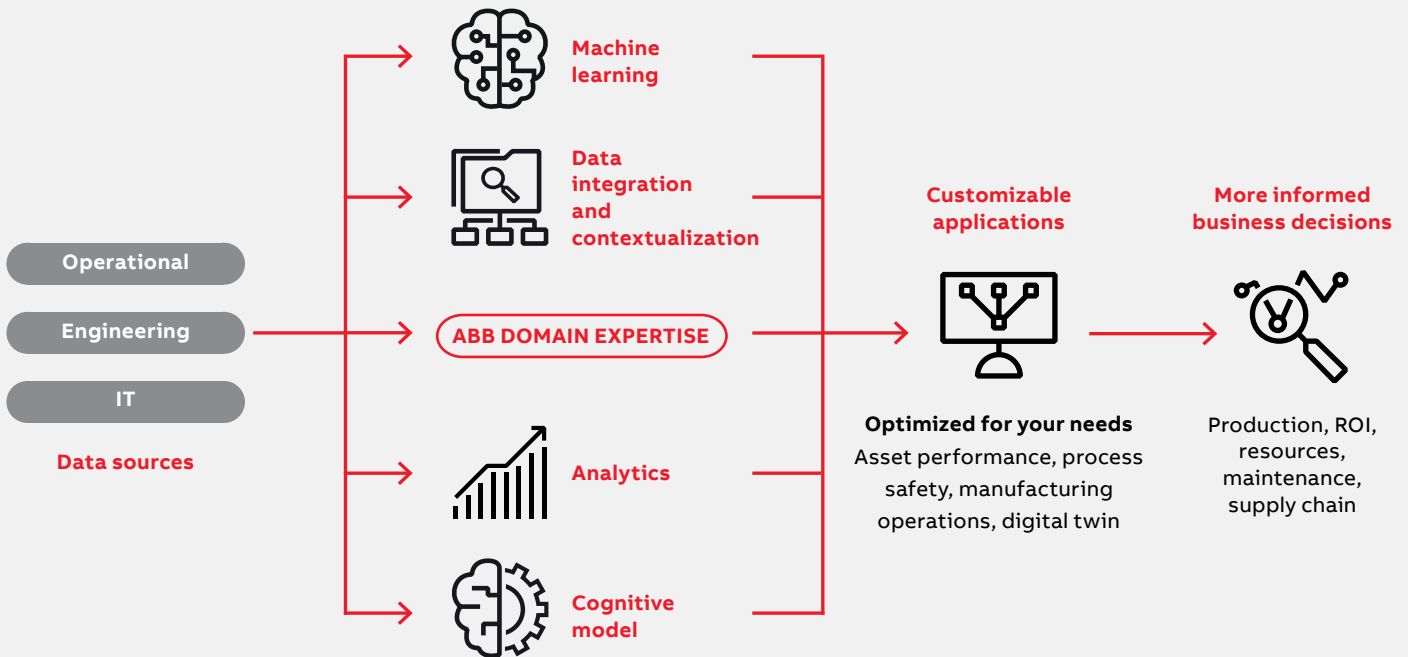## ABB Ability™ Genix Industrial Analytics and AI Suite

How does it work?

Data sources
- Operational
- Engineering
- IT

→ **Machine learning**

→ **Data integration and contextualization**

→ **ABB DOMAIN EXPERTISE**

→ **Analytics**

→ **Cognitive model**

Customizable applications

Optimized for your needs
Asset performance, process safety, manufacturing operations, digital twin

More informed business decisions

Production, ROI, resources, maintenance, supply chain

ABB Ability™ Genix Industrial Analytics and AI Suite helps you best utilize your data to boost productivity, reduce costs and improve sustainability and safety compliance. The suite helps to make timely, accurate, insight-driven decisions to achieve a high degree of optimization and control.

Using IIoT and Industrial AI, ABB Ability™ Genix Industrial Analytics and AI Suite contextualizes and integrates data from operations, IT and Engineering systems across units, plants and the entire enterprise. Actionable insights and analytical applications unlock the value of your data, straight out of the box.

ABB Ability™ Genix Industrial Analytics and AI Suite's modular nature means it can be structured to your needs, protecting existing investments while supporting seamless integration. You can scale from edge, fleet, plant, on-premise, hybrid, cloud and multi-cloud based on your deployment roadmap.

We also offer an impressive range of business value applications that include system anomaly detection, anomaly detection, opportunity loss manager and machine performance analytics.

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Use cases

Optimize performance of critical equipment

Monitor in real time and forecast performance for predictive maintenance strategy.

Up to 20% increase in availability | 25-30% reduction in O&M cost.

Objective:
Increase production and reliability of plant by reducing unavailability of critical equipment like heat exchangers, pumps and blowers by using a predictive maintenance strategy.

Challenges:
Issues occur due to varying feed compositions and impurities, reducing asset performance and plant capacity.

Solution:
Data was collected from multiple source systems such as operation, quality, dosing and asset management to identify critical influential parameters through sensitivity analysis. From there, we predicted the remaining operating life of the heat exchanger and pumps through advanced ML techniques.

Increase availability of assets and avoid process upset condition

Avoid system failures by analyzing system operational patterns.

Unscheduled trip reduced by up to 50%.

Objective:
To reduce unscheduled trip while increasing plant availability and operator response time.

Challenges:
Only 18% of assets have age related failure pattern. 82% of asset failures occur randomly due to the impact of related assets (ARC data).

Solution:
We extracted data from IT (SAP), OT (OSI-PI) and ET (SPF) data sources with effective streaming of real time telemetry data and automated contextualization, before adding system schematics to provide visual integration of the digital twin. We were then able to detect anomalies based on dynamic operating limits using an industry AI model.

What are the benefits

The ABB Ability™ Genix Industrial Analytics and AI Suite can deliver value by applying analytics across multiple processes and sites.

Smart
Single source of intelligence with built-in AI/ML, pre-built industry insights and applications.

Speed
Self-service analytics for faster decision making and ROI. Faster development and deployment of analytics applications.

Secure
Adherence to cyber security standards to prevent unauthorized access while ensuring data integrity.

Scalable
Modular for customizability and flexible deployment. Application development functionality for extendibility and future applications.

Simple
Effortless data integration, open standard, interoperability. User-friendly KPI visualization, self-service applications.

Our engagement process

1 Executive Briefing Presentation
We'll give you an overview of ABB Ability™ Genix Industrial Analytics and AI Suite and its features, including out-of-the-box adapters, AI capabilities, and ready-made business value applications.

2 Demonstration
One of our experts will provide a live demo focused on industry-specific use cases.

3 Landscape Assessment
We'll assess your business, IT and functional context with ABB Ability™ Genix Industrial Analytics and AI Suite.

4 Value Discovery Workshop
We work with your organization's stakeholders to understand its business and process improvement needs and prioritize the areas which would have maximum impact.

5 Pilot Implementation
Identify a critical business scenario and work with ABB Ability™ Genix Industrial Analytics and AI Suite experts to generate maximum value.

6 Enterprise-wide development
ABB will help in rapid deployment of ABB Ability™ Genix at business or enterprise level.

Are you ready to take the next step towards easier optimization? If so, please get in touch and we'll start the process for you.

ABB

**You can find the address of your local
sales organization on the ABB homepage**

abb.com