

5G A CATALYST FOR DIGITALISATION



5G A CATALYS FOR DIGITALISATION -

How does 5G drive innovation today and how will it impact the future?



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Head of Enterprise

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Professor, Head of
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MODERATOR:

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Global VP, Division
Head of Marketing
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Ian Ross

Head of Enterprise
Ericsson Australia

This is Ericsson

We create connections that make the unimaginable possible.

Employees worldwide

101,300

Granted patents

>60k

Global presence

180

Ericsson in Australia

131 yr

Gartner
Magic Quadrant



The global leader in 5G Network Infrastructure



5G Global Momentum

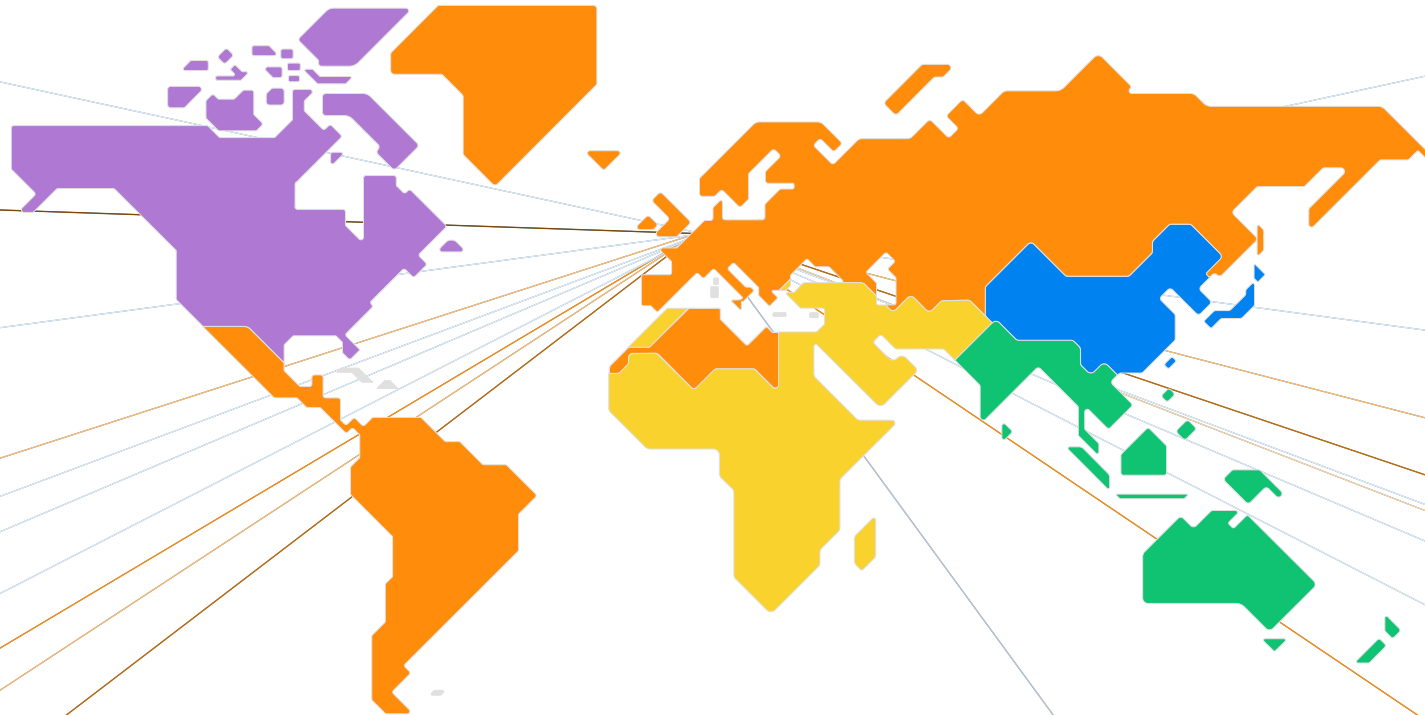


1B
5G Subscribers 2022F
Ericsson Mobility Report
June 2022

218
Live 5G networks
GSA Aug 2022

~40
5G SA networks
end-2022F
Ericsson Mobility Report
June 2022

1,040
Commercially available
5G devices
GSA May 2022



130
Ericsson live 5G networks in
56 countries

3 of 3
Live 5G networks in
Australia

80%
Australian population under
5G coverage

19
World Records from Australia

■ Global figures

■ Ericsson figures

Unlocking massive global value



New economic value
↑ 5%-13%

Factories and warehouses



Ericsson and ABI Research

New societal value
↑ Workplace safety

Smart mining



World Economic Forum
and Arthur D. Little

New sector value
↑ US\$750 bn

Connected vehicles



McKinsey

New environmental value
↑ Greener planet

Smart pumps



Fredrik Östbye, Group VP and
Head of FutureLab, Grundfos

Cellular connectivity is fundamental to industry digital transformation



Create agility

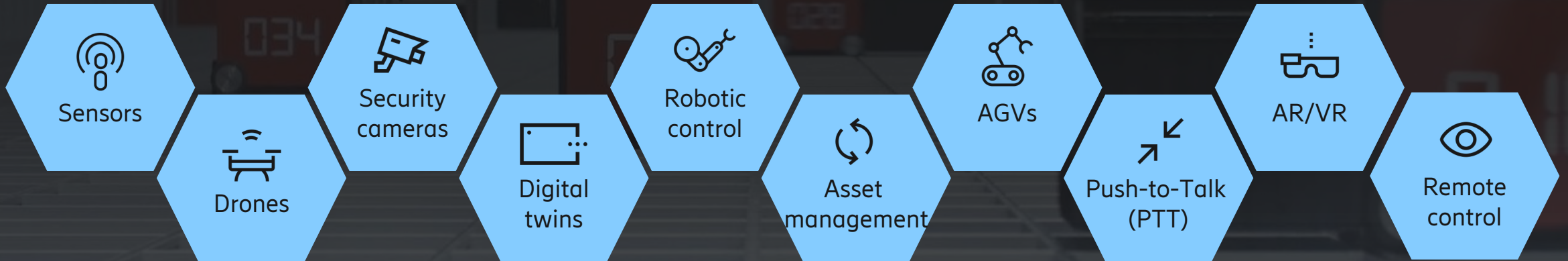
to efficiently adapt and respond to change whenever and wherever you need to.

Advance operations

to gain total visibility and control and take automation to new frontiers.

Unlock Intelligence

to make timely decisions, drive new growth and deliver superior customer experiences.



Existing technologies are challenged

Wi-Fi

At limits in a multi-device, multi-application, access-everywhere world.

LMR

Consumerization setting personal expectations towards richer broadband.

SCADA

Big-data & predictive maintenance driving massive sensor scale.

Fixed

Tethered nature restricts mobility and adaptability. Installation and unplanned expansion cost prohibitive.

5G, the biggest innovation platform ever



Use cases in



Enhanced MBB



AR/VR



8K Video



Automotive



Transportation



Energy & Utilities



Construction



Manufacturing



Mining



First responders



Logistics

Platform values



Coverage
& Capacity



Voice, Broadband
& Applications



High speed &
Low latency



Service
orchestration
& exposure



Wireless edge
solutions



Private
networks



Trusted execution
environment



IoT
solutions



Network
slicing

5G digital infrastructure

Radio Access

Core Network

Communication Services

Operations Support Systems

Business Support Systems



Sustainable



Reliable & Resilient



Cloud native

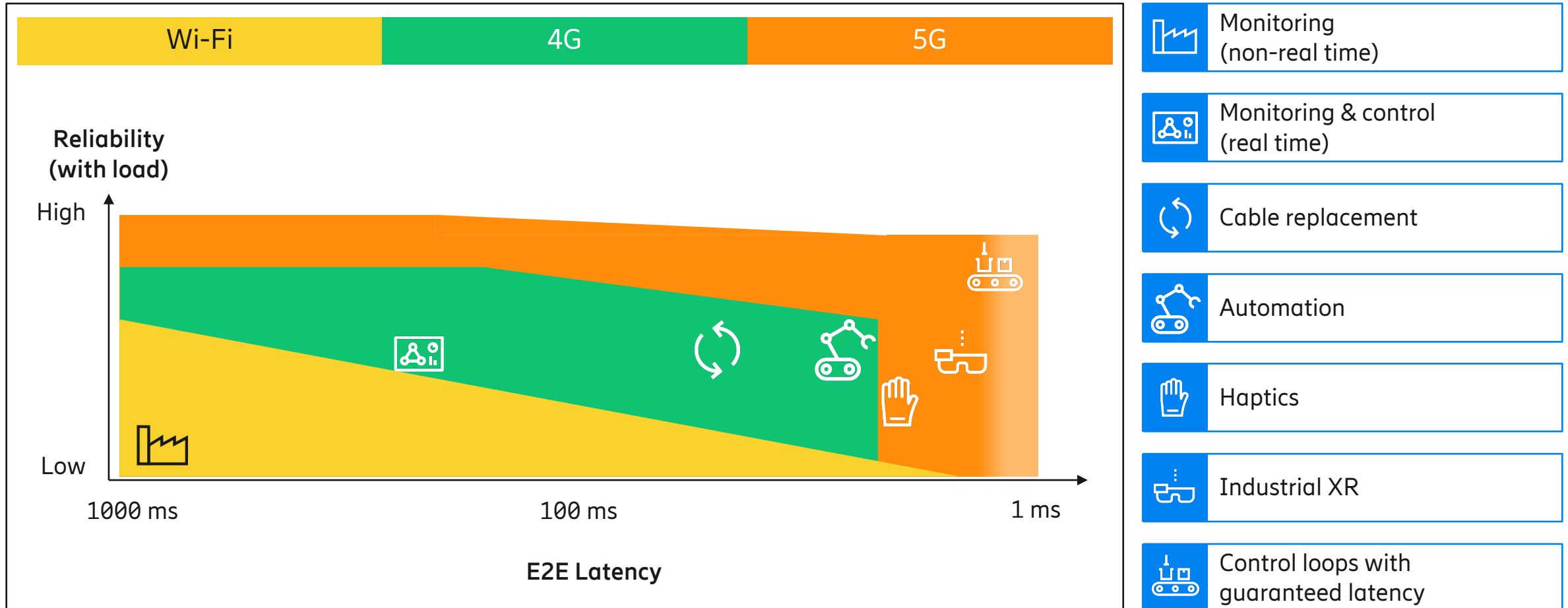


Secure



Data driven

Impact on monitoring and instrumentation



Example industries & benefits



Manufacturing	Oil & Gas	Mining	Utilities	Ports	Airports
					
<p>50%</p> <p>less downtime with AR support</p>	<p>75%</p> <p>reduction of site inspection incidents by using camera equipped drones</p>	<p>30%</p> <p>improve in productivity with autonomous vehicles</p>	<p>50%</p> <p>reduced downtime costs from predictive maintenance</p>	<p>20%</p> <p>cost reduction with optimized vessel berthing</p>	<p>60%</p> <p>increased productivity through connected airport workers</p>

5G as a catalyst for innovation

Success in Australia

- Leveraging Australia's 5G competitive leadership to accelerate industry 4.0.
- Developing the skills for the application of 5G by industry.
- Increasing economy wide comprehension and adoption of 5G.
- A local ecosystem of device, applications and systems to make E2E solutions a reality.
- Bringing together technology, industry solution providers and service providers.



Ericsson-ABB Partnership

A shared vision of wireless industrial automation and unlocking the limitless possibilities of digital transformation.





Mario Macri

Head of Smart Power & Smart Buildings
ABB Australia

ABB

Employees
~105,000

Countries
~100

Revenues
~\$26 bn

Europe
~\$9.6 bn

Americas
~\$7.9 bn

AMEA
~\$8.4 bn

ABB is a leading global technology company that energizes the transformation of society and industry to achieve a more productive, sustainable future.

By connecting software to its **electrification, motion, process automation and robotics & discrete automation** portfolio, ABB pushes the boundaries of technology to drive performance to new levels.

Proudly in Australia since 1906



2020 figures

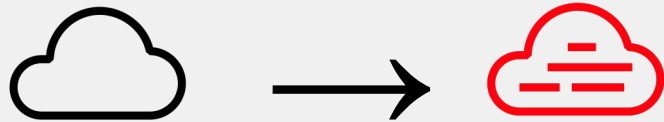
The world is going digital, urban, and electric

The megatrends shaping the future

Data and Digitalization¹

By 2025, 75bn+ internet-connected devices will be used worldwide

Cisco



10%
2018

75%
2022

75%

of the data will be processed outside of the originating core

Urbanisation & Population growth

70% of the world's population will live in cities by 2050¹

UN study



~4 bn
2018

~6 bn
2040

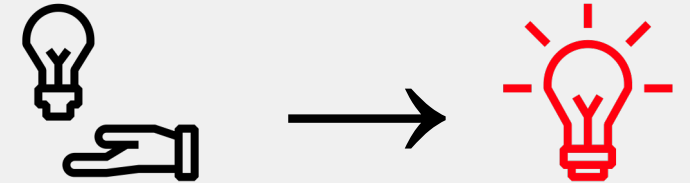
+2 billion

people living in cities

Shift to Electricity³

by 2040, electricity will contribute to more than 30% within the energy mix

International Energy Agency



~23%
2018

>30%
2040

+35%

share of electricity in the energy consumption mix

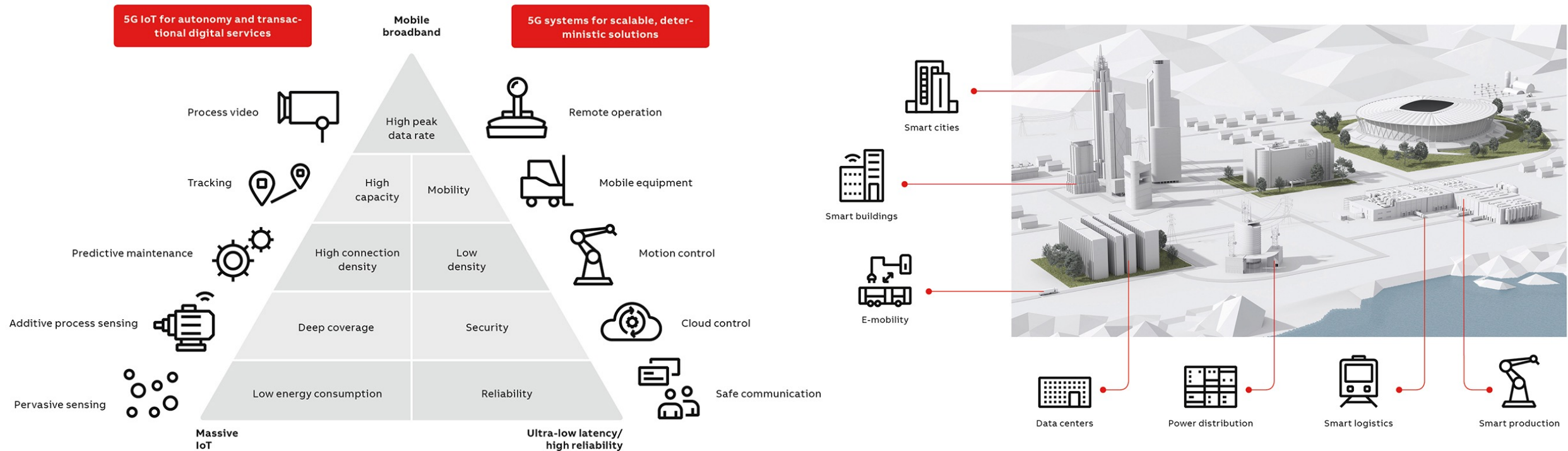
Source: 1. Gartner | 2. UN World Urbanization Prospects (2018 Revision) | 3. IEA, BP Energy Outlook 2018 (electricity as % of total building and industrial energy consumption)

5G is a key enabler of digitalisation – game changer!

5G can address the needs of a converged digital ecosystem



Driving digital transformation of industries with 5G connectivity



Digitalise...unlock insight, efficiency and value

ABB Ability – Empowering Insight

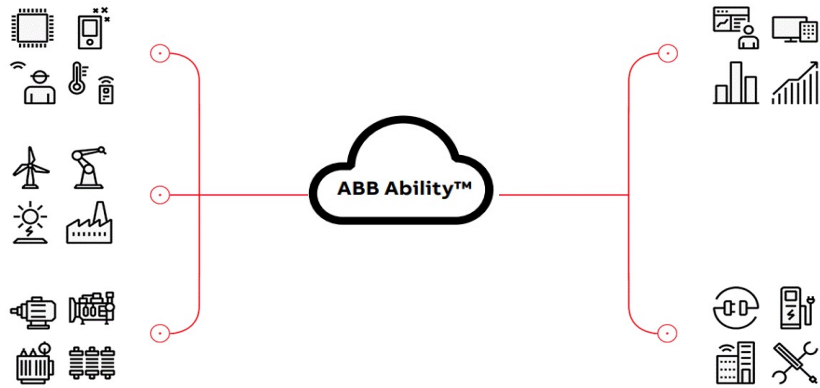


ABB Ability – Our IoT and digitalisation platform

ABB Ability™ solutions combine ABB's deep domain expertise with connectivity and software innovation to empower real-time, data-driven decisions for safer, smarter operations that maximize resource efficiency and contribute to a low-carbon future.

Let's write the future. Together.

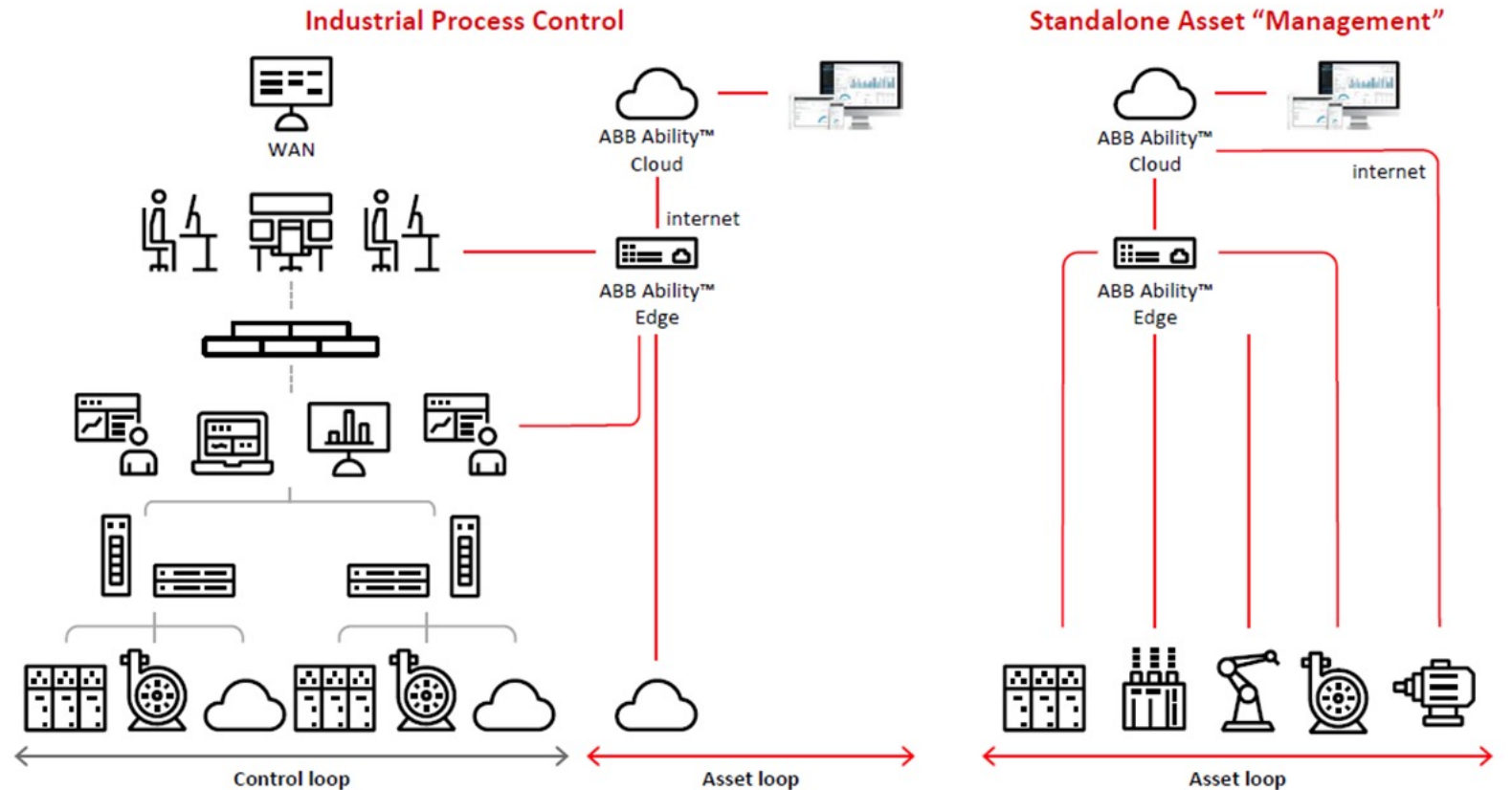


ABB helps power the Burj Khalifa

Successful completion of a pilot project with ABB Ability™

United Arab Emirates

CHALLENGE

Reduce routine time based maintenance costs and move towards predictive maintenance.

SOLUTION

ABB solution gives the Burj Khalifa's existing air circuit breakers a digital upgrade with ABB Ekip UP plug & play devices. These units connect the upgraded breakers directly to the ABB Ability™ Electrical Distribution Control System, providing managers and service teams with real time data to achieve exceptional reliability and truly intelligent energy management strategies.

OUTCOME

The maintenance service installed at the Burj Khalifa can reduce operational costs by up to 30 percent by using real-time sensor data and condition monitoring, replacing routine maintenance work. However, the main benefit is the knowledge that everything is monitored in real-time by ABB Ability™.



CHALLENGE

Electrify bus traffic to become an energy-efficient, climate-smart and completely fossil-free municipality by 2030.

SOLUTION

450 kW pantograph charger, where the buses are loaded via automatic roof connection.

OUTCOME

The chargers, included in the ABB Ability™ portfolio, allow remote monitoring and configuration of charging points and proactively maintain the equipment to ensure maximum uptime.

ABB loads more electric buses in Östersund

Östersund municipality continues its efforts to electrify public transport

Sweden



Robots making robots

Shanghai, China



ABB' robotics factory will be the most advanced, automated and flexible factory in the robotics industry worldwide. Currently being constructed

Highly automated, fully flexible production line – greater flexibility, greater customization



Humans working collaboratively side-by-side with robots

Entire factory modeled as a digital twin overlaid with machine learning analytics



Intuitively tailored dashboards for management, engineers, operators and maintenance

Real-time health and performance analytics of ABB robots in the factory to ensure early identification of potential anomalies

ABB links with University of Western Australia to progress Industry 4.0 standards for the future digital mine

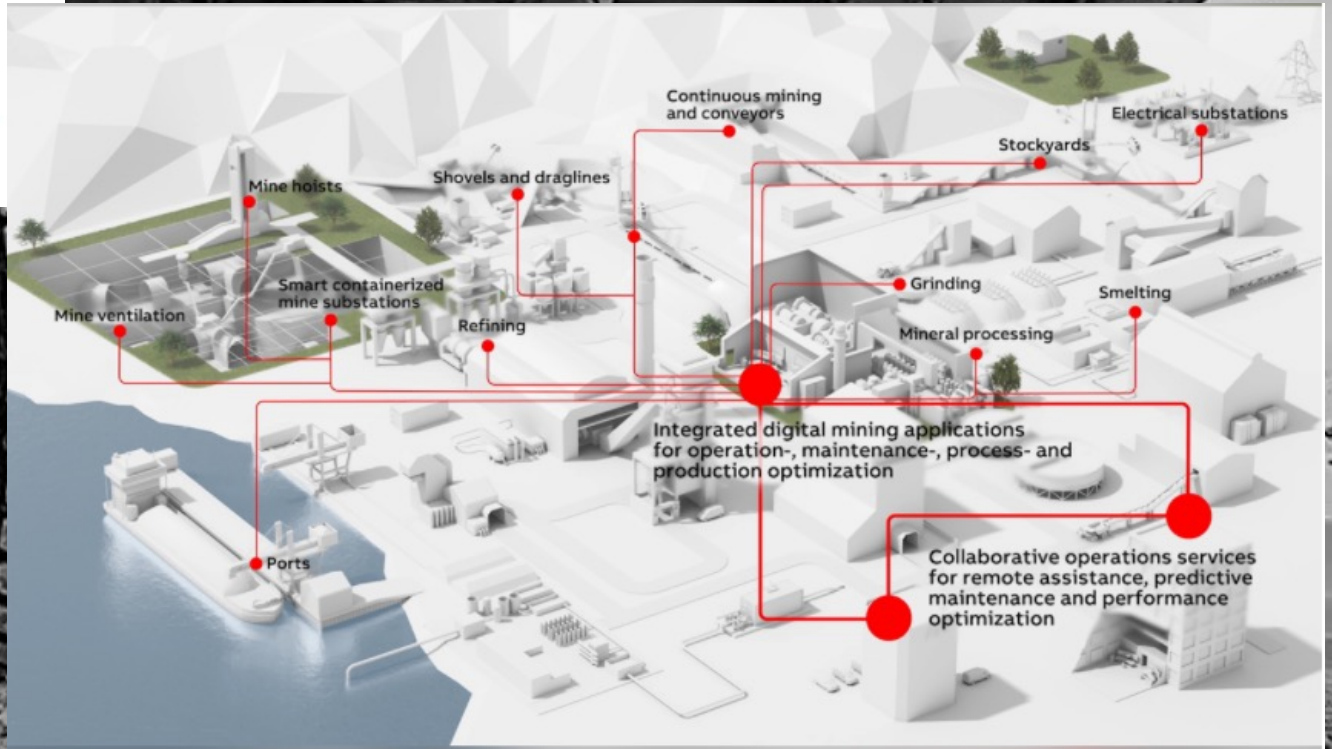
Press release | Zurich, Switzerland | 2020-09-24

ABB collaboration will enhance interoperability for mining operations management while a process automation test project brings enhanced information exchange to Gold Fields Australia Granny Smith gold mine

OUTCOME

This will reduce carbon emissions and boost productivity at Boliden's Aitik mine, paving the way for sustainable mining.

's electric transformation
Company Boliden is utilizing ABB's groundbreaking
re for electric mine trucks.



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THANK YOU

