



MARCH 2019 HONG KONG CONNECTING THE FUTURE

Electrification Products – APAC Distribution Channel

Vincent HUREL & TaiWai LEONG | EP Asia VIP Customer Event HKG 8 – 10 March 2019

ABB

Content

General

ABB Distribution Channel Strategy

Improving Distribution Channel's online presence

EP Value Propositions – Attractive Market Segments

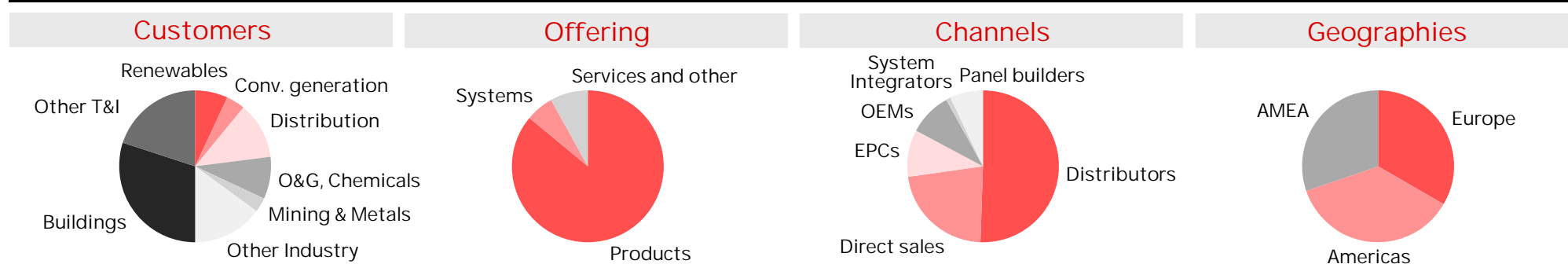
Digital Tool/ABB Connect

Electrification at a glance

Key figures

Global #2				
#1 Medium voltage / #2 Low voltage				
#1 EV fast charging infrastructure				
#2 Installation products				
	\$160 bn	\$13.0 bn ¹	12.8% ¹	~55 k
	2018 market size	2018 revenues	2018 Op. EBITA	Employees worldwide

Business mix (by revenue)



Complete electrification offering from source to socket

Low and medium voltage electrical distribution

Building products and controls

Installation products



Solar inverters

Critical Power

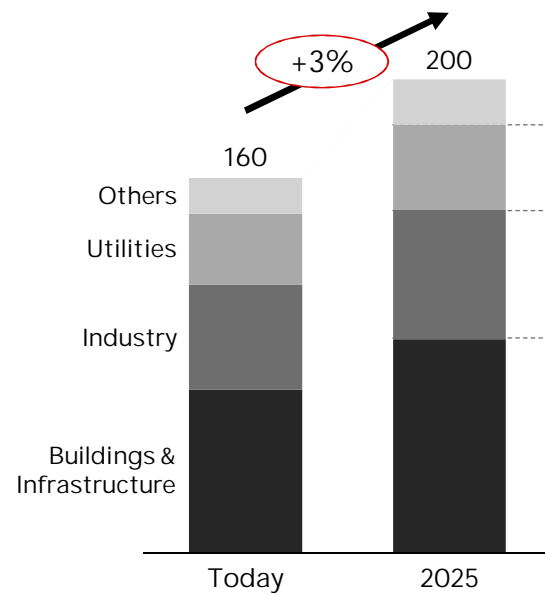
EV charging infrastructure

1.7+ mn products shipped / day

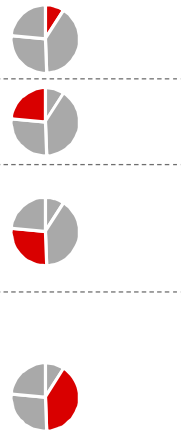
>50% via distributors

Stable market with high growth segments

Global addressable market
in \$ bn



Business exposure
% of revenues



Market growth drivers

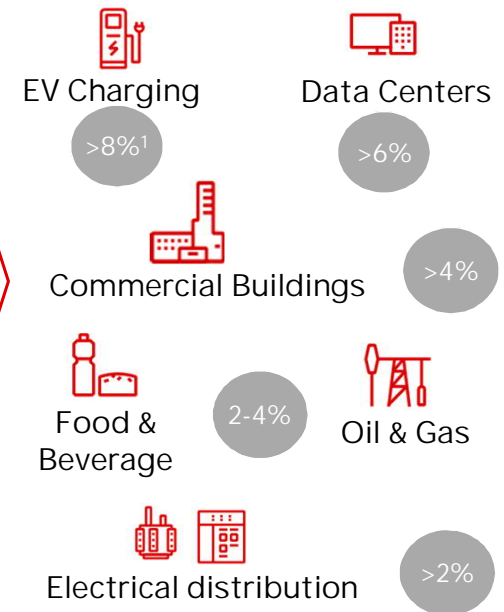
Electricity grows 2x faster than other energy sources

New sources of consumption

Rising importance of distributed generation

Expansion of e-commerce & digitalization

High-growth segments
(examples)



What: value proposition for our customers

Writing the future of safe, smart, and sustainable electrification

Safe



Safe and reliable power for an early life nutrition factory...

increasing **uptime** to **99%** and reducing production losses while saving \$3 mn
<1 year payback

Smart



Smart installation of digital switchgear for a data center...

up to **30%** less space and **90%** less wiring
leads up to **20%** faster installation

Sustainable

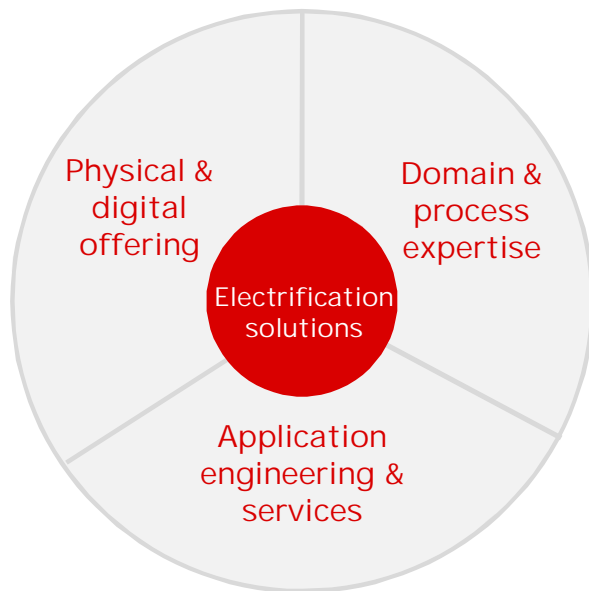


Market leader in fast charging:
200 km in 8 mins...

more sustainable cities with eco-efficient public transport: e-buses charging infrastructure

How: differentiating through solutions business model

Modular, scalable, pre-configured solutions



Application examples

<5% of market



Mid-size data center

MV and LV distribution and secure power for reliability and efficiency

>2MW

10-15% of market



DC fast charging

Fleet, storage and charging infrastructure cloud connected for optimized load management

1-2MW

>80-90% of market



Hotel with 300 rooms

Lighting and temperature controls and smart emergency lighting for comfort and safety

<1MW



Brewery filtration line

Power quality, reliability and energy efficiency

Committed to unlocking value

Accelerating sustainable value creation

Profitable
Growth

P Gain local market share

I Digital, business model, demand creation

E Segments/Portfolio/Channel

Relentless
Execution

Sell the way customers want to buy

Leading operating model

Quality as a differentiator

Business-led
Collaboration

"One ABB" for distributors

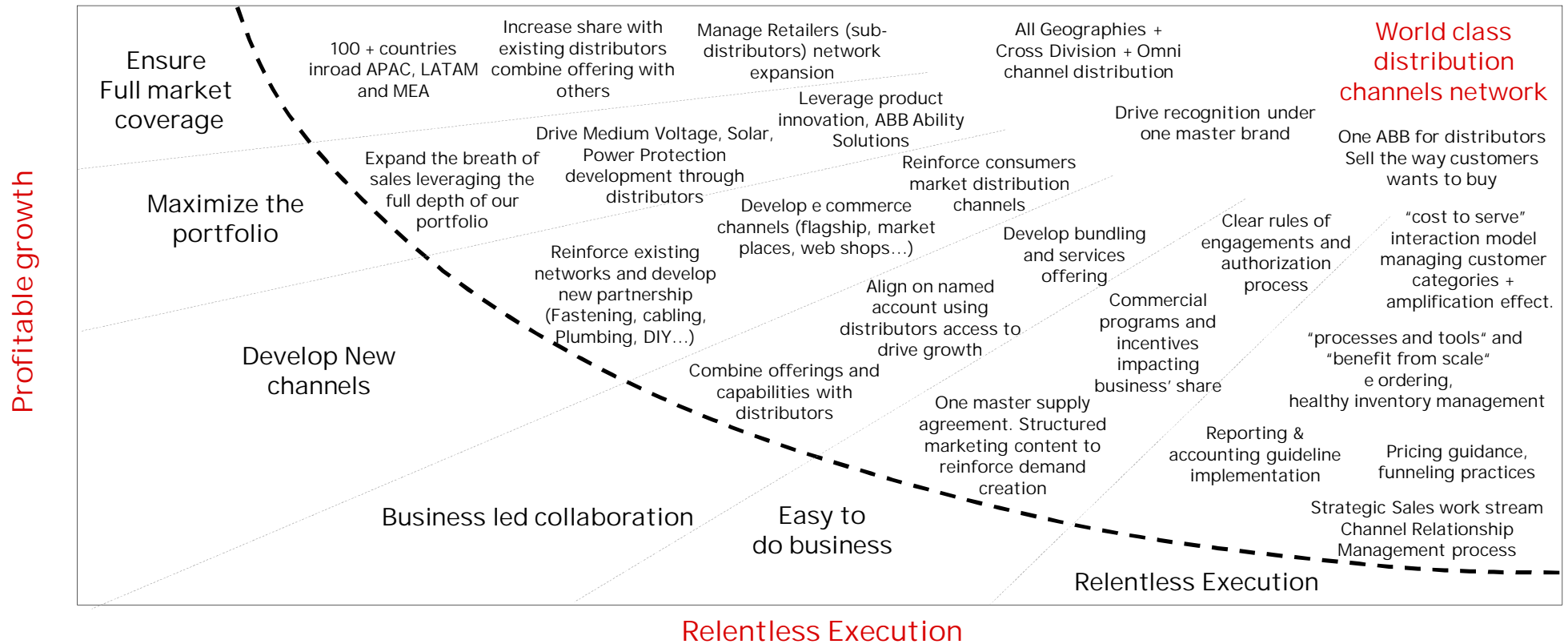
Simplify structure

Partnerships and ventures: technology, manufacturing and services

Ignite passion for customers

Drive partners and customer success to support growth

Distribution Channels - Market driven strategy

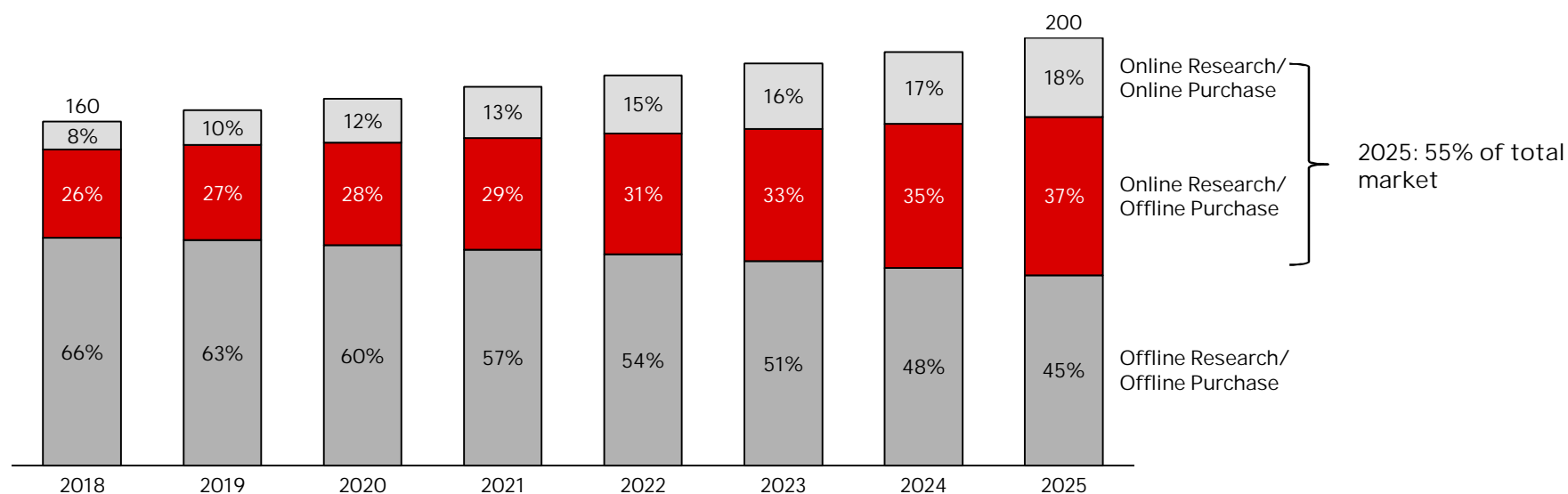


Distribution Channels

Effective Channel Management. Top Action 2019

1. Ensure full market coverage (footprint, supplier line card, sub- distributors network expansion)
2. Maximize portfolio (expand breath of sales leveraging full depth of the portfolio, new products , ABB Ability line card)
3. Develop new channels
 - Online sales. Direct e commerce
 - ICT, Power Transmission, Fasteners, HVACR Plumbing...
4. Manage multi-channel approach
(counter, call center, e-business, web-shop)
5. Develop business led collaboration plans
(combine offering and capabilities, named account alignment, bundling etc.)
6. Ensure clear rules of engagements
(direct vs. indirect sales / supply chain efficiency / amplification effect)
7. GEIS Integration. Combine two highly complementary product portfolios, customers benefit from:
 - Expanded global footprint, sales force and distribution network
 - A more technologically advanced and digitally connected offering
8. Take a more segment- and solutions-oriented approach, with products and services bound together by ABB Ability™
 - Drive growth with products that offer modular, scalable, preconfigured solutions, with ABB Ability™ digital services
 - Support partners who are willing to invest in our mutual growth , digital transformation and omni-channel experience

The structure of the market in terms of volume will consequently adapt with e-Commerce taking higher shares

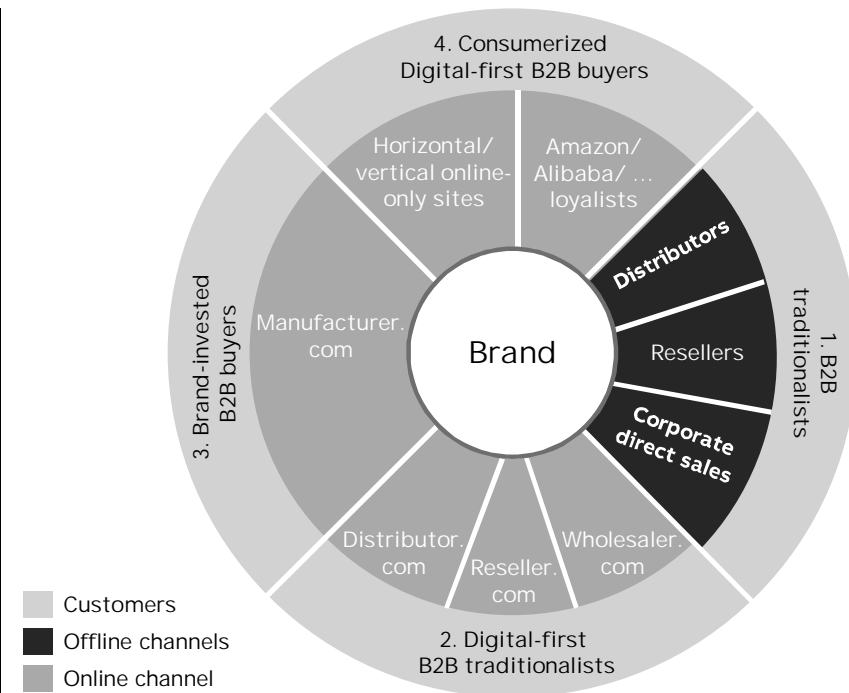


Significant growth online (>55% e-Commerce in 2025) means fast action now!

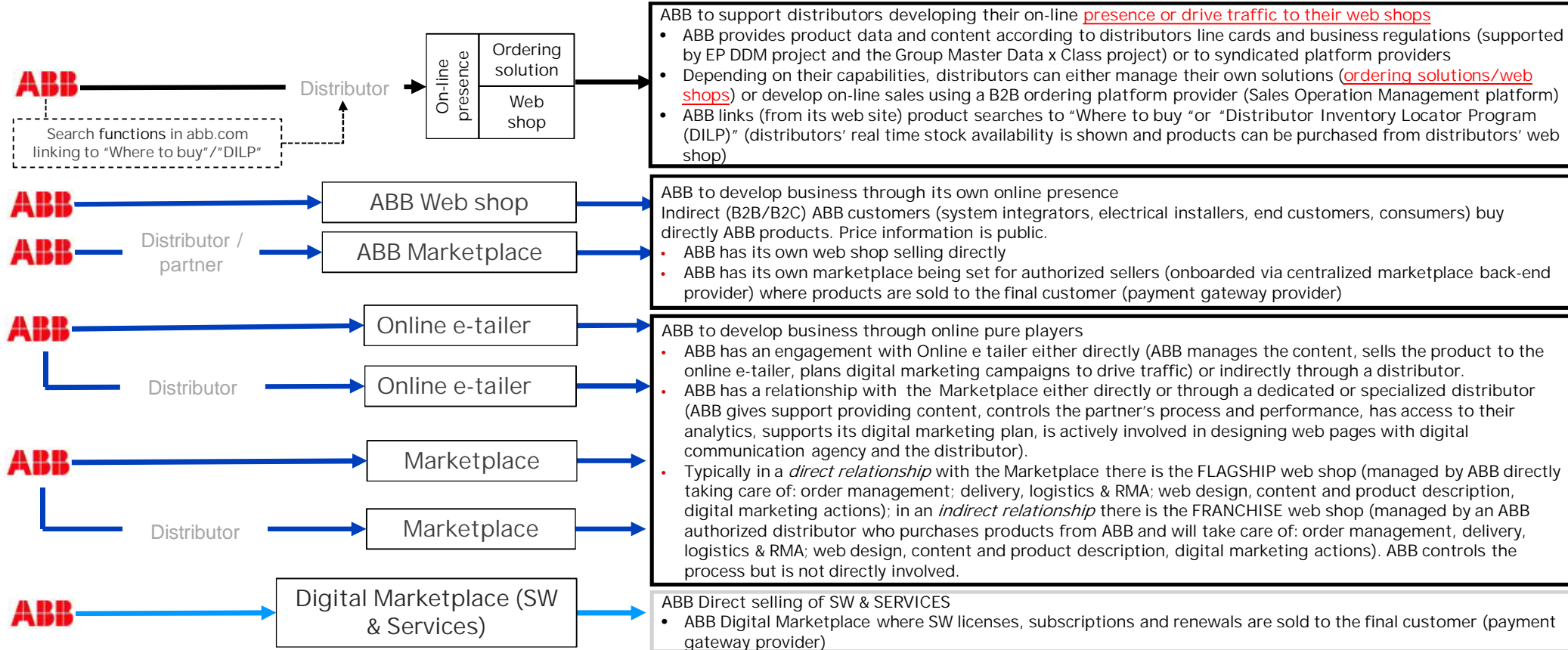
A circular approach to encounter customer's buying behaviour

Brands need to match the Channel Strategy with key B2B buyer segments

1. B2B traditionalists
 - Buying Off line sales through distributors
2. Digital-first B2B traditionalists former traditionalists who shifted a percentage of their offline transaction volume to online (via the distributors websites)
3. Brand-invested B2B buyer
 - Prefer to buy directly from manufacturer via their website or marketplace (wherein distributors handle the fulfillment)
4. Digital-first B2B buyers
 - B2C history of buying consumer items online and are looking for a similar experience for B2B purchases
 - Buying from sites that offer compelling online-only buying experiences (specific B2B verticals or horizontal)
 - Amazon/ Alibaba loyalists who prefer to browse and buy from leading website for B2C and B2B items; expect to have the same high B2C standard for their B2B purchases (broad selection, open pricing, frictionless buying)



Various ways to enter e-commerce arena



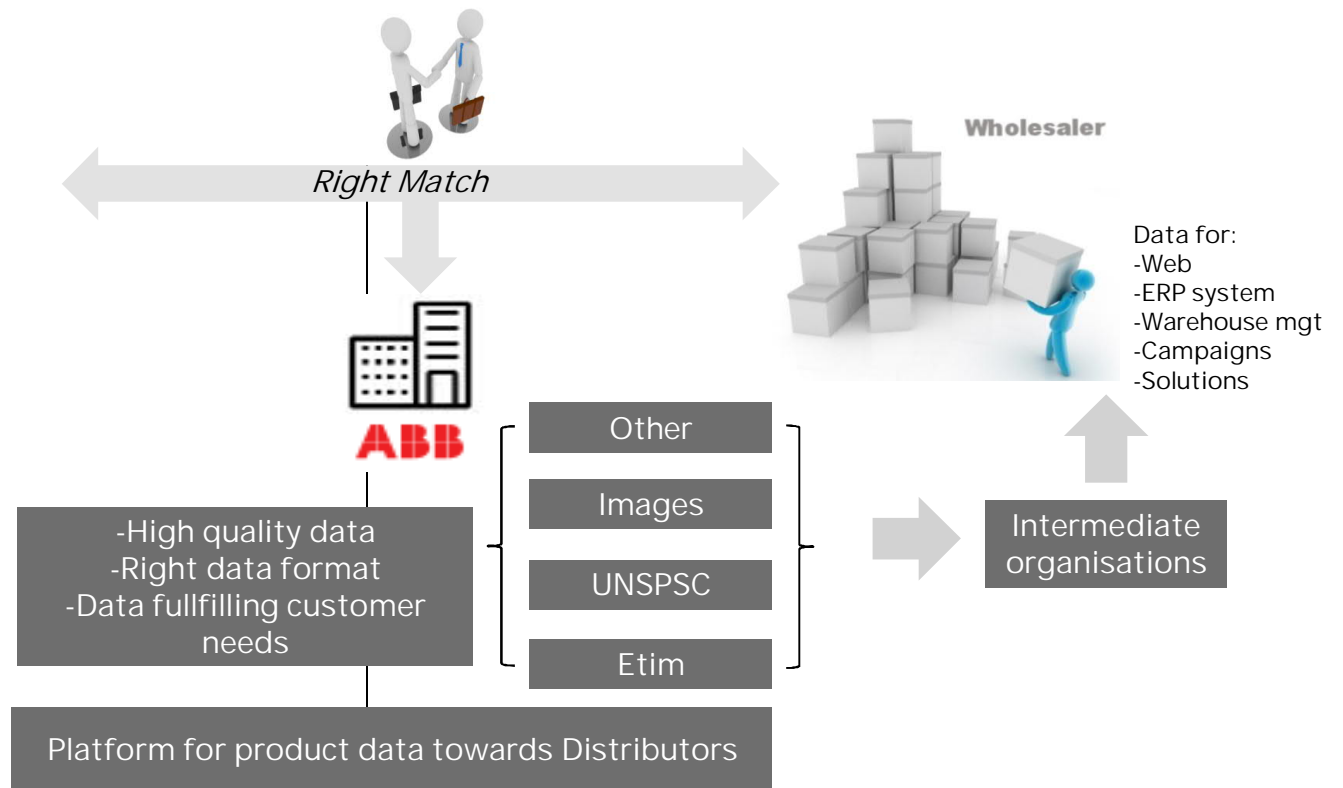
Optimizing digital content

Distributor Data Management: providing content as per distributors webshop needs

- Where can I buy the product?
- Which suppliers can support my need?
- Where do I find relevant product information?
- What product do I need to fit my solution?



Customers



Sales Operation Management platform

A B2B platform enabling digital transformation for the electromechanical industry

Provided by KYKLO, it is an order taking platform for retailers & distributors in the electromechanical Industry

White-label brand store webshop that any distributor can use and personalise

The content of the products is included in the platform

- Front-end (for the customer)
 - State of the art User Interface and User Experience e-commerce storefront
- Back-end (for the distributor)
 - User friendly backend with some B2B specific features
 - Stock level information can be included



Your e-commerce shop is already built



Order management pipeline, discount pricing matrix



300K SKU from major manufacturers are available

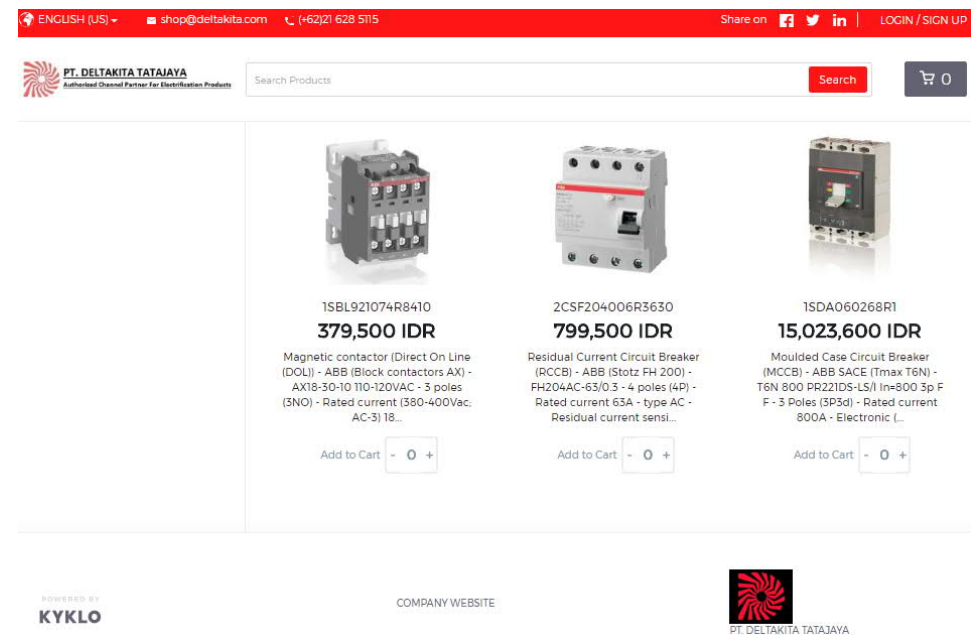


ABB e-Finder Inventory Portal

Enhances ABB Distributors webshops by sending traffic when carrying ABB product

- Generate traffic to distributors web shop from ABB.com product search
- Leverages on the daily hits coming from ABB website
- Provides those distributors with inventory to display on hand quantity, date of inventory update & shopping cart
- User can select any distributor to click through to their respective shopping cart to purchase
- No prices are shown on the ABB website, only when sent to the distributor
- Some distributors do not display on hand qty & or price without log-in

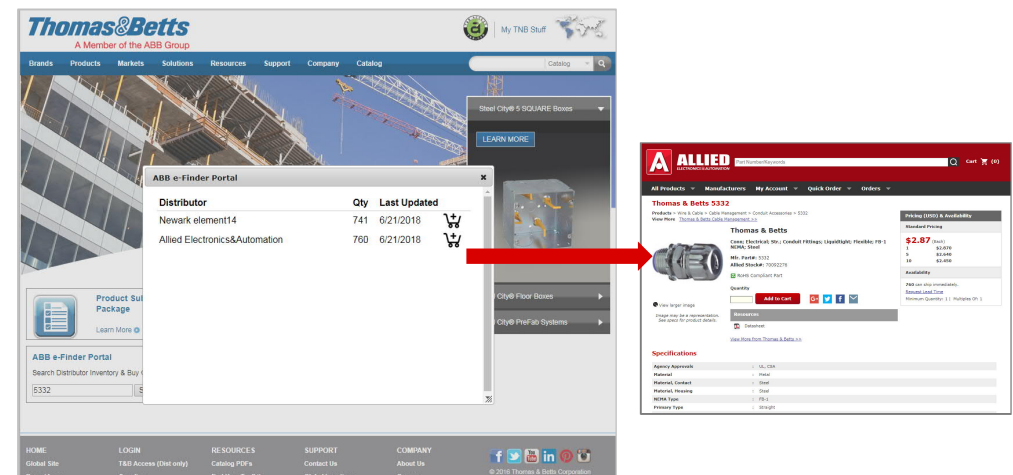


ABB Configurators integrated in Distributor's webshop

Enabling end users to select and configure ABB Products

End user will access to configuration features from the Distributor webshop and from there he will:

- select and configure ABB Products
- have a better purchasing experience

Valid configurations only will be available (0 errors in product selections)

Configurator is seamlessly embedded in distributor's webshop

Solution is based on Elbridge standard (approved by consortium of wholesalers and Product Vendors; ETIM association involved)

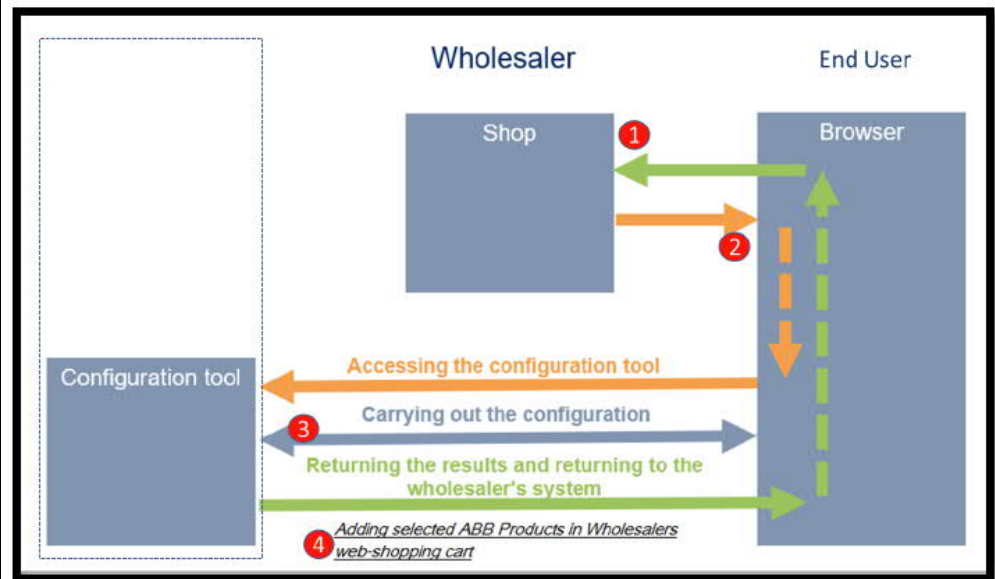


ABB Configurators integration

From product categories selection, configuration output will be sent to distributor's webshop cart

The diagram illustrates the integration of ABB configurators into a distributor's webshop. It consists of three main components:

- Distributor's Webshop:** A screenshot of the distributor's website showing a shopping cart icon and a link to the ABB configurator.
- ABB e-Configure Interface:** A screenshot of the ABB configurator showing a list of product categories on the left and a detailed configuration page for circuit breakers on the right.
- Product Configuration Page:** A detailed view of the circuit breaker configuration page, showing various parameters and a list of items found.

Red arrows indicate the flow of data from the distributor's webshop to the ABB configurator and then to the product configuration page.

Frame size	Breaking Class IEC 415V	Frame size current	Standard	Terminals	Number of poles	Trip Unit
T1	D - Non Automatic	160A	IEC	Front cable terminals	3 poles	Breaking part only
T3	H - 70kA	200A	IEC - 1000/1150V	Front terminals	4 poles	Exip-E-LSIQ
T4	L - 85kA	250A	IEC - 1500V	Rear vertical terminals		Exip M-LRIU
T5	N - 36kA	320A	UL			MA
T6	Photovoltaic - Non Automatic	400A				PR221DS-I

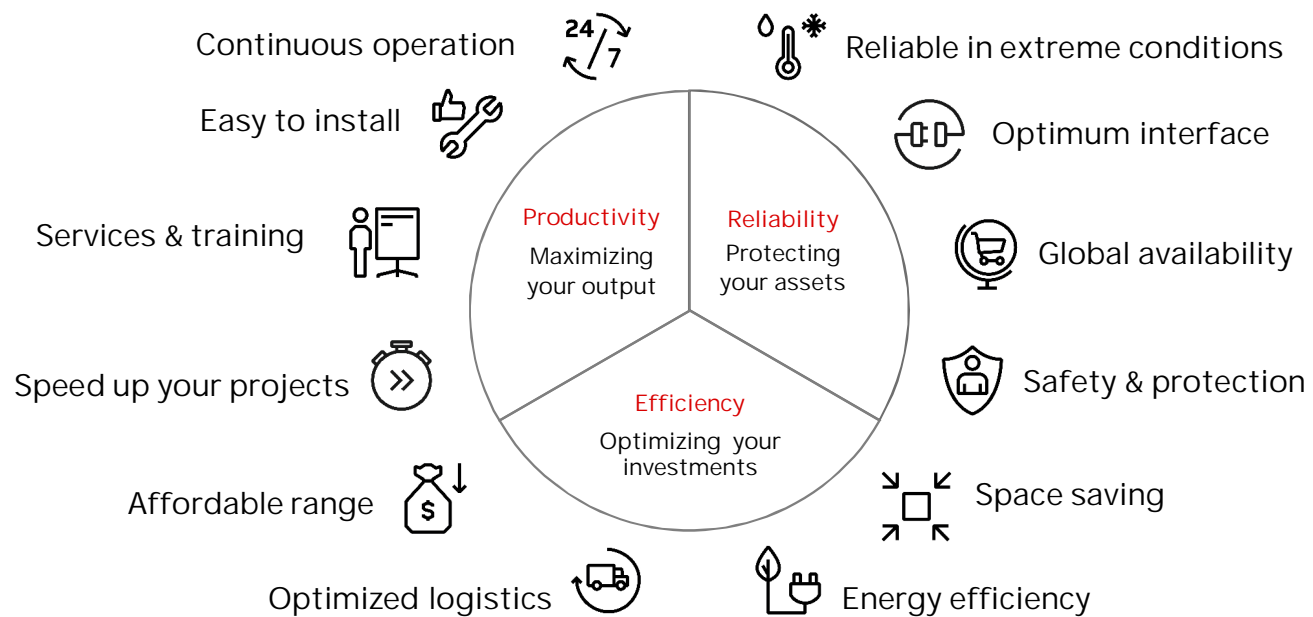
Item	Product Code	Configuration	Quantity	Action
	1SDA053999R1	T4N 250 PR221DS-LS/I In=250 3p F F	1	Add
	1SDA054000R1	T4N 250 PR221DS-I In=300 3p F F	1	Add
	1SDA054001R1	T4N 250 PR221DS-I In=360 3p F F	1	Add

ABB configurator is within the distributor's webshop:

- Prices and stock availability information will be collected directly from distributor's webshop; ABB will not influence pricing
- The "add-to-cart" feature will fill in directly distributor's shopping cart
- End user will purchase via distributor's webshop

Value Proposition

ABB + Distribution Channel delivering compelling Values to Customers



Content map with possibility to modify and evolve

Value Proposition

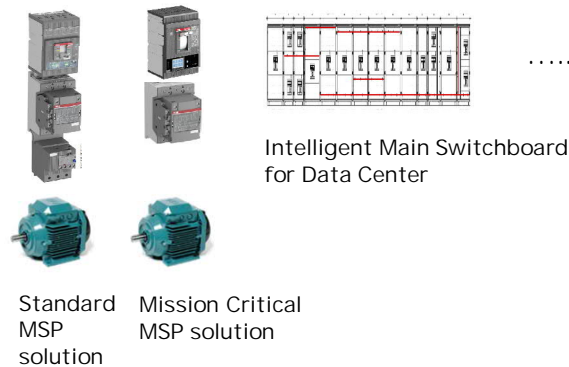
Different levels to be considered

- Value proposition of stand alone products
- Value proposition of a complete solution (a combination of products to build one solution)
- Value proposition of a wide and integrated offering

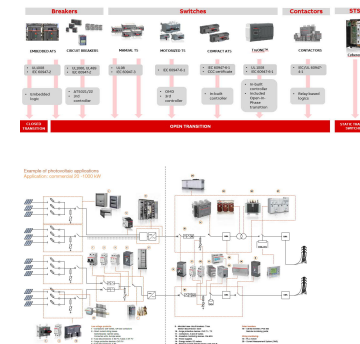
Stand alone products



Complete Solutions



Wide/Integrated portfolio



ATS offering

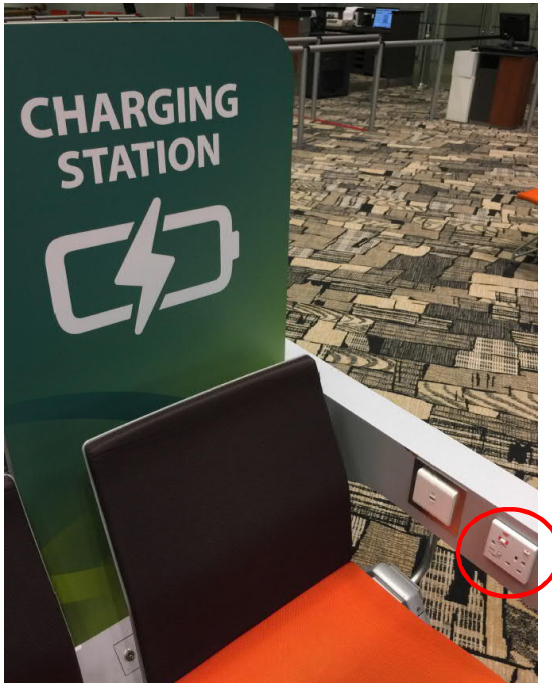
Integrated package for Solar (sun to socket)

Market & Customer Needs

Market trend insights, substantiated by facts and stats – Specific customer needs – Differentiated by stakeholders

Standalone Product

Socket outlet with 10 mA/30 mA Residual Current Device (RCD/RCCB) or earth leakage protection



Electrical Distribution – Medium Voltage Products

Smart Distribution with Secondary Gas Insulated Switchgear – SafeRing/SafePlus

Features include:

- Standard and flexible switchgear configurations
- Insensitivity to installation site and environmental conditions
- Easy retrofit of accessories for future requirements
- Compact dimensions and footprint with minimized storage space
- Dry Air insulation as eco-efficient alternative for networks up to 12kV
- Minimized installation and maintenance on site
- Internal arc classification IAC AFL(R) and ensured safety
- Smart grid enabled: Available with sensor technology and digital communication options





Types and Ratings:

- 12/17 kV up to 1250 A / 25 kA
- 24 kV up to 1250 A / 20 kA
- 40,5 kV up to 630 A / 25 kA



EV Charging – Public and commercial car charging

Charging service should match charging application and demand

Public and commercial EV Charging			
AC destination	DC destination	DC Fast	DC High Power
3-22 kW	20-25 kW	50 kW	150 to 350 kW+
4-16 hours	1-3 hours	20-90 min	10-20 min
			
<ul style="list-style-type: none">• Office, workplace• Multi family housing• Hotel and hospitality• Overnight fleet• Supplement at DC charging sites for PHEVs	<ul style="list-style-type: none">• Office, workplace• Multi family housing• Hotel and hospitality• Parking structures• Dealerships• Urban fleets• Public or private campus• Sensitive grid applications	<ul style="list-style-type: none">• Retail, grocery, mall, big box, restaurant• High turnover parking• Convenience fueling stations• Highway truck stops and travel plazas• OEM R&D	<ul style="list-style-type: none">• Highway corridor travel• Metro 'charge and go'• Highway rest stops• Petrol station area's• City ring service stations• OEM R&D

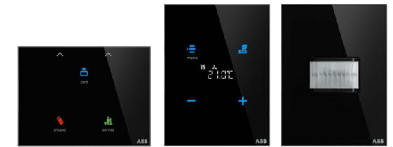
Smarter Building

Innovative product highlights



ABB-tacteo KNX sensor

- Adjustable and configurable to personal needs
- Complements modern architecture and existing portfolio
- Frameless and extra-flat (9.5 mm)
- Control of multiple functions



ClimaECO

- Holistic solution for HVAC applications in modern buildings
- Improves energy efficiency by up to 30%



Fulfilling requirements
for class A EU standard EN15232

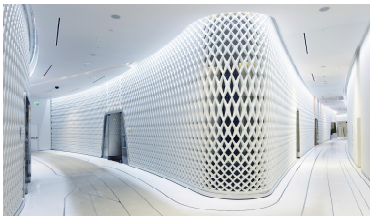


ABB i-bus KNX IP Router Secure

- Reduced risk of an attack over IP network
- Encrypts all communication across a building's IP backbone



Based on Encryption Standard
ISO/IEC 18033-3 AES 128



Smarter Building

Innovative product highlights



EQmatic

- Compact solution for storing, visualizing and analyzing energy consumption data
- Cost reduction and increased energy savings by up to 20%
- Allows comparison of time periods and consumption in different buildings



S-ARC1

By early detecting arc faults and disconnecting the affected circuit the AFDD with integrated MCB offers reliable and complete protection in any type of building.

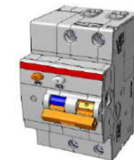
- Easy and fast wiring operation
- Family feeling in the System pro M compact® range
- Compatible with System pro M compact® accessories and busbars
- Easy troubleshooting of the network thanks to the LED indication after a tripping



DS-ARC1

1P+N Arc Fault Detection Devices (AFDD) integrated with RCBO for IEC markets.

- Easy to install: double slots for connection with cables and busbars
- Continuous operation: LED and earth fault indicator for an easy troubleshooting, CPI to know the status of the contacts independently on the toggle position
- Space saving: suitable also for retrofitting and space constraint applications



Smarter Building

Innovative product highlights



Mistral65H

Suitable for outdoor, PV installations, heavy duty environments

- Robustness: strong product for heavy duty applications
- Completeness: the Mistral family enriches with an outstanding product range
- Specific tests witness the high product performances: - salinity test – corrosion test - UV rays - dust test



UK600

- Wide variety of installations, series of flush-mounted consumer units
- Increased wiring capacity
- 10% saving on assembly time
- Choice of doors and designs to complement interior home styles



New combiner

- Completeness: wide range of configured products available-benefit from a standardized solution acc. IEC 61439
- Plug & play: install ready to use system at side-save costs, effort & time
- Packaging: get all out of one hand, combiner+inverter systems & other equipment



Smarter Building - *Santa Claus Village in Rovaniemi, Finland*

Success stories



+30% energy savings



Easy operation and control
of the functions via a central screen at
the reception



Individual control
of temperature, ventilation
and glass heating operation



Increased safety
via direct alerts to reception and
maintenance personnel

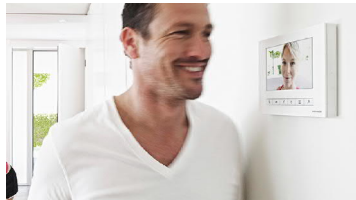
Smarter Home

Innovative product highlights



ABB-secure@home

- Wireless intrusion and alarm system
- Easy to commission and control, even remotely
- Increasing safety through effective infrared detection (outside and inside the home)
- Seamless integration in existing ABB-free@home system



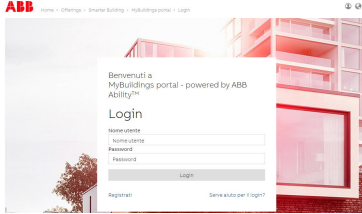
Welcome IP

- Automatic unlock with up to 2-time ranges
- HD video quality
- No call is missed thanks to picture in picture
- Unwanted calls from other apartments can be prevented



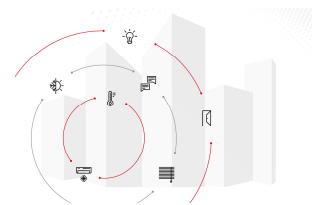
Smarter Home

Innovative product highlights



MyBuildings Portal

- Brings together ABB Ability™ smarter home and building solutions
- Easy and remote products' control and management
- Access to ABB i-bus® KNX, ABB-free@home®, ABB-tacteo KNX sensor and ABB-Welcome in one secure location



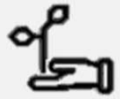
Busch-VoiceControl KNX

- Voice activated KNX control system
- First compatible with Amazon, Google and Apple
- Control multiple functions
- User updates recurrent status of room temperature, light intensity and humidity



Smarter Home – *World's first energy self-sufficient multifamily house, Switzerland*

Success stories



100% energy self
sufficient family homes



Easy energy monitoring,
maximum comfort and
easy operation



26 ABB solar inverters
meet all energy needs with the
help of batteries and a huge
thermal store



Reduced energy
consumption
thanks to pre-defined scenes
within ABB-free@home e.g.
everything-off function



Increased safety
Sensors (indoors and outdoors)
respond automatically to external
conditions

Buildings/Commercial/Healthcare Infra ... – Emergency Lighting Solution

Nexus RF- Self contained Wireless system

Nexus® RF wireless system

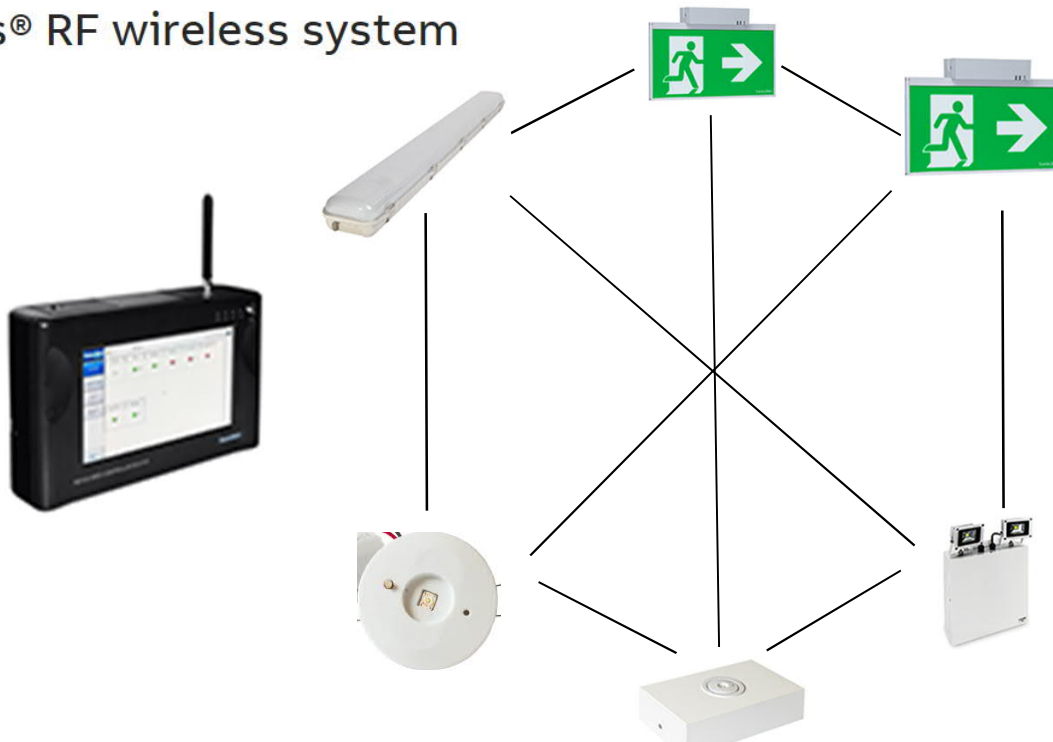


ABB wireless monitoring systems via Nexus RF

Enables effective monitoring, control & storage of status reports, and displays the health of the emergency lighting system all wirelessly

Connects to all luminaires in a building via a mesh network

Endless applications

- Turning existing building from non-monitored to monitored
- OS independent, Remote monitoring

Mesh networks are self healing

AU Electrical Engineer Case Study – Logan Hospital

2,000 Emergency/Exit Light Fittings



Challenges:

- Existing system (non ABB) became unreliable and expensive to maintain

Solution:

- AECOM awarded works to rectify EML situation
- Presented Nexus RF and Platinum product as a solution to AECOM
- Routers able to plug & play on LAN resulted in minimal cabling
- Able to install Nexus RF fittings with existing wiring
- Nexus RF became the preferred solution for AECOM
- Assisted AECOM in jointly writing their specifications and luminaire schedule
- Result: 350 KUSD order + ongoing works as extensions and refurbishments happen
- Site did not consider/use non ABB EML solutions since then
- Awarded contractors in all subsequent tenders use Nexus RF, and benefited from ease of installation

Product Group Launch Card

Smart Power Solutions for Data Centers

CONTINUOUS OPERATION

ATS Solutions



- TruOne
- Embedded ATS

Static Transfer Switch



- SuperSwitch4 product variants

All in One Innovation



- Ekip G
- Synchro
- Load Shedding
- Dual Setting

SPACE SAVING

System Pro E Power



- Rear Busbar System
- New Kits
- New Drawings

MODULARITY

PDU



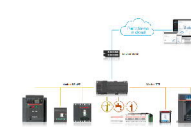
UPS



- DPA 250 S4 50 – 1500 kW
- DPA 120 UL 60kW frame version (NAM market)
- PowerValue, PowerScale, PowerWave
- PCS120 MV UPS

ENERGY EFFICIENCY

EDCS



- Vertical solution for data centers

New Ekip Trip Units



- Class 1 Energy measurements
- All in One Innovation

REFERENCE DESIGNS

Enterprise

Telco

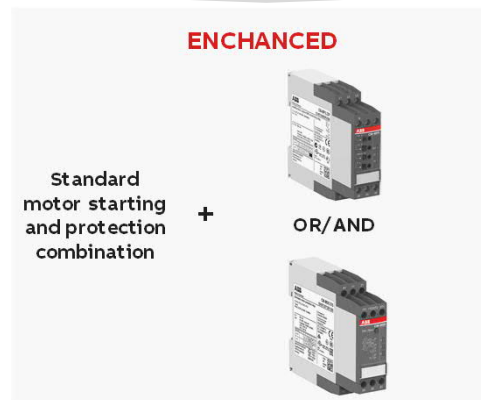
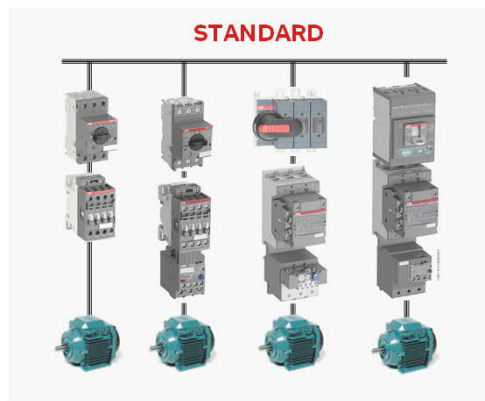
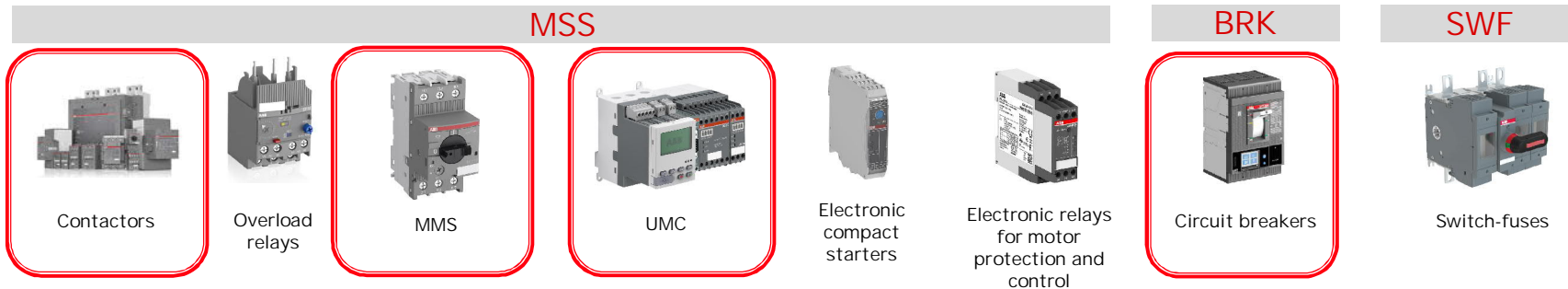
Cloud

Colocation providers

Hyperscale

Group Launch Card

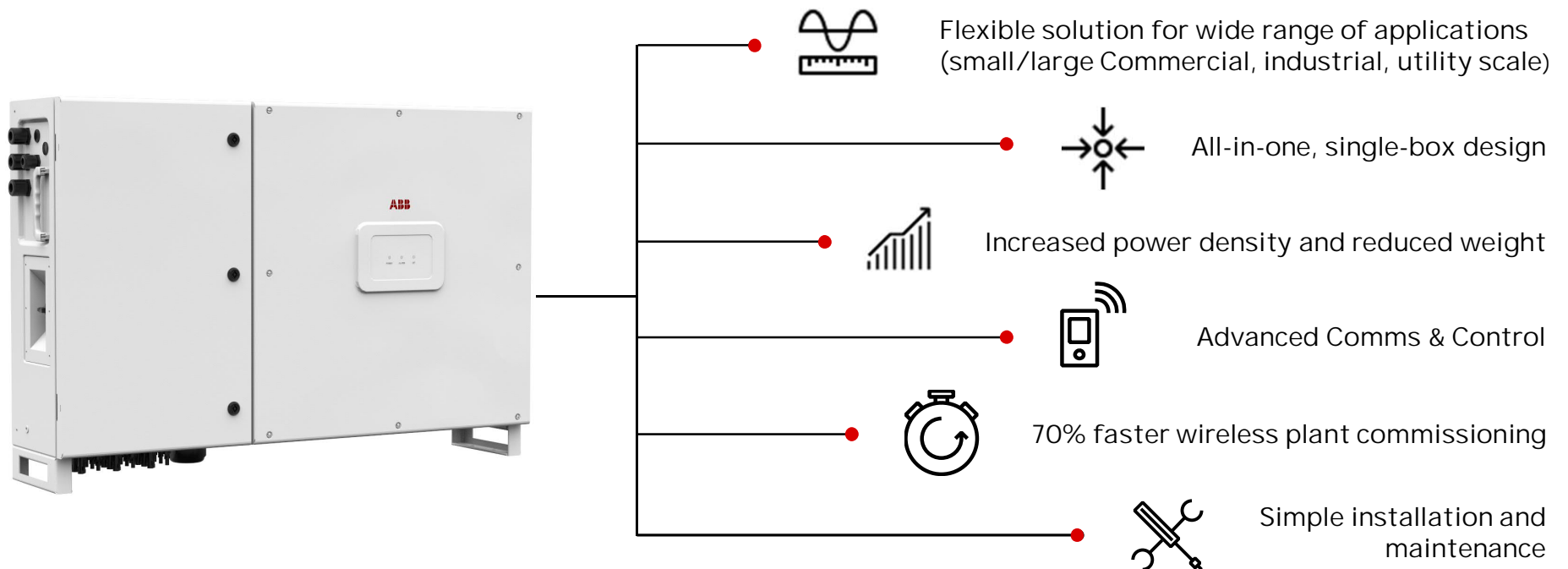
Motor starting and protection solutions for different application needs – F&B, O&G ... Segments



- Packaged solutions differentiated by application:
- Standard (i.e. compressors in HVAC, ...)
 - Enhanced (i.e. pumps in F&B, ...)
 - Critical (i.e. O&G applications, ...)

Solar – PVS-50/60-TL

Three phase string inverter for commercial applications



Reliable power enabled from solar rooftop plant at Bangkok Glass

Bangkok Glass has drawn on the support of ABB to further expand its alternative energy supplies

- Opening of a 5 megawatts solar rooftop facility at Bangkok Glass factory in Ayutthaya province, Thailand
- Lowering electricity costs while improving business competitiveness with 80 units of ABB's TRIO 50.0-TL string inverters, including supervision for installation and commissioning through its EPC – Gunkul Engineering PCL.
- In operation since February 2018



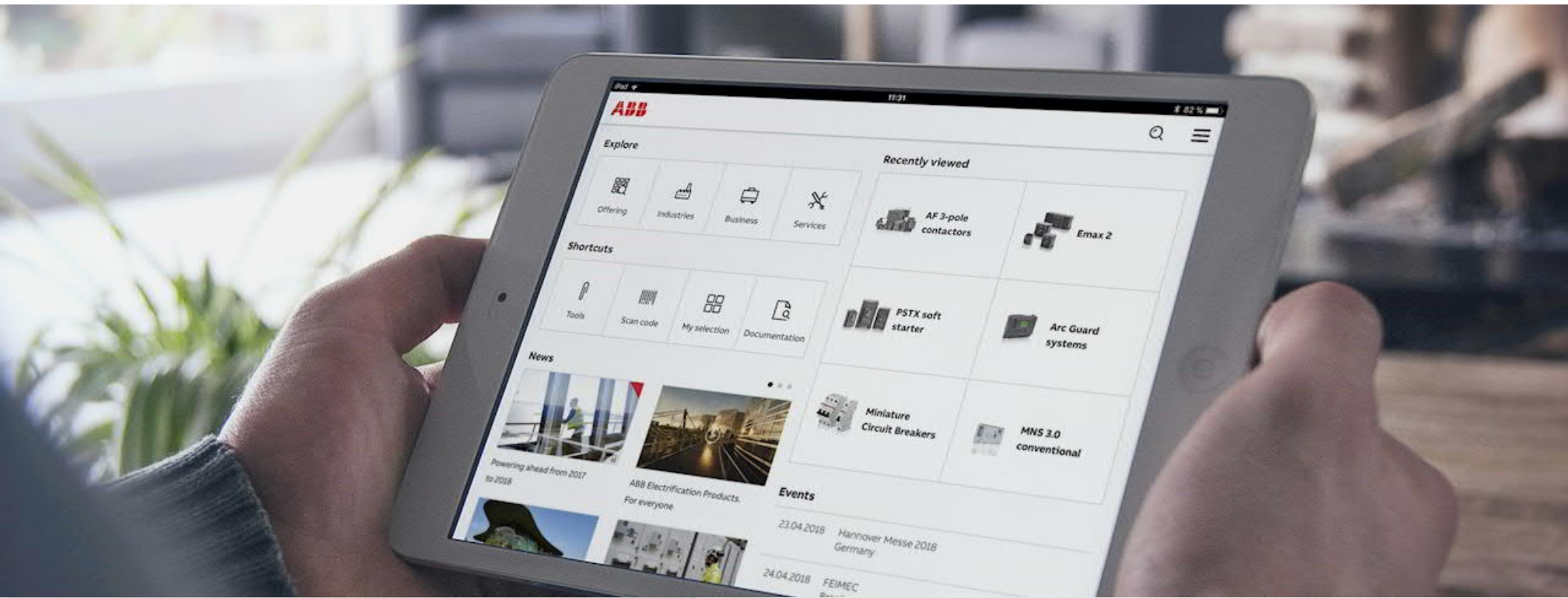


ABB Connect

Update March 2019



Introduction

What is ABB Connect?

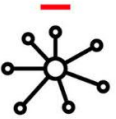


ABB Connect ...

- ... is the Electrification business mobile application presenting our offering using different entry points, e.g. industry, classic product navigation or country.
- ... is integrated into key ABB platforms such as:
 - ABB Library for documentation
 - ABB Products to find the right product ID for a customer
 - Salesforce.com, Newsbank, Events, MyABB, MyLearning, eConfigure and many more
- ... comes from a background of supporting the ABB sales teams with features such as presentation creation, offline mode and local news and updates.
- ... has a dedicated team continues to evolve and develop ABB Connect with continued release updates throughout the year

Main achievements 2018 compared to 2017

- 33% ▲ new content (including EPIS, EV Charging, ABB Ability)
- Users growth of 992% ▲ . Total of 71,000 users in 2018
- Country coverage of 159 different countries (32% ▲)

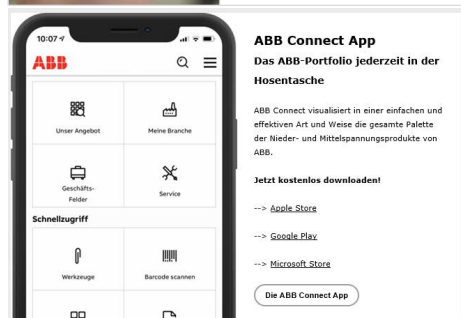
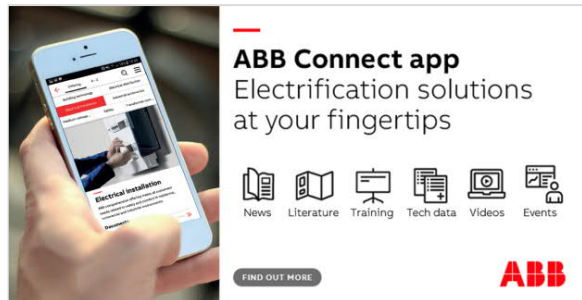
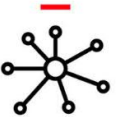
Forecast for 2019

- Distribution and channel support (e.g. White label version)
- cBOL/OMS pricing quotation
- Salesforce.com enhancements

Transition from digital marketing tool to a key driver in ABB Electrification business

Support for local markets

Deliverables – examples



Online advertising
Email marketing
Content marketing
Social Media
Events





ABB Connect
Din digitale hjelper for informasjon om Electrification Products



LAST MED

ABB

A quick guide to everything electrical



21 Nov 2018
Paul Warfield

Share to:  

I used to be 'a catalogue person through and through', so, when I joined ABB as a sales specialist in Electrification Products division, I asked for the manuals and brochures on every product I was looking after to be delivered to my home office.

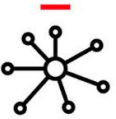
Shortly afterwards, a lorry turned up at my house and I took delivery of several pallet-loads of paper, which I lovingly filed and have carefully updated, annotated and tabulated ever since.

These days, however, all that information can be downloaded in around 15 seconds from Google Play or the Apple iStore, in the form of a digital pallet called ABB Connect, "the digital assistant for your electrification needs."

Since downloading the App, my life's been transformed. I now use the app to make the sales process easier and more effective. Now days, using the app and an iPad, my time with the customer is far

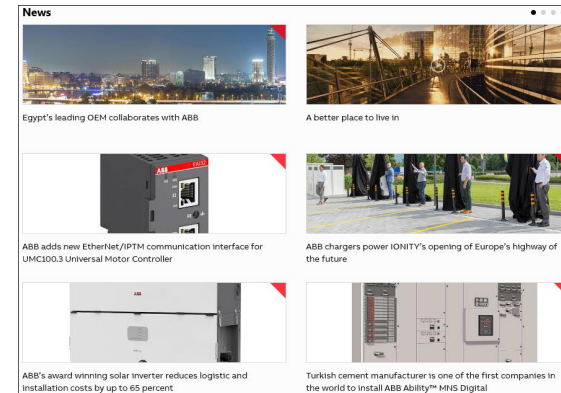
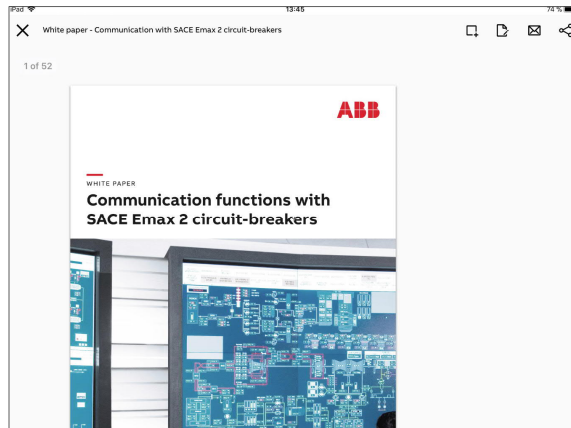
Functionalities and Integrations

Key business use cases of ABB Connect




Sharing information such as ...

- ... price lists, catalogs, data for our assortment
- ... customized presentations using the content of ABB Connect
- ... events, news and training courses




- Finding the right product for your specific application (e.g. Rail, Solar, Electrical Distribution, Building Automation)
- Filtering a product range for the single product a customers needs
- Configuration of products using the eConfigure logic




EV charging


DC public charging




Terra S3 C3




Terra S3 C3 UL




Terra S3 C3-AUS




Terra S3 C3G 22kW AC




Terra S3 C3G 4&W AC




Terra S3 C3G AUS



Terra S3 C3T



Terra S3 CT



Terra S3 Z

Terra S3 C3

DC fast-charging stations that support the needs of each customer

Your challenge / Our solution

Meeting all fast charging standards

ABB's DC fast-charging stations have a multi-protocol design that supports all DC fast-charging standards, including CCS, CHAdeMO and fast AC.

Reliability

The modular power system ensures redundancy and continuous charging.

Uptime


With internet-based connected services, our chargers can be remotely monitored for more efficient charger operation.

SHOW KEY FEATURES

Configure the product

Add to my selection

Share



Configure 1SDA070691R1

E1.2N 250 Ekip D1p L1 3p F F F

Characteristics

General

Search Accessories

1/2 KIT UPPER TERMINALS

1/2 kit lower terminals

Shunt opening release

Shunt closing release

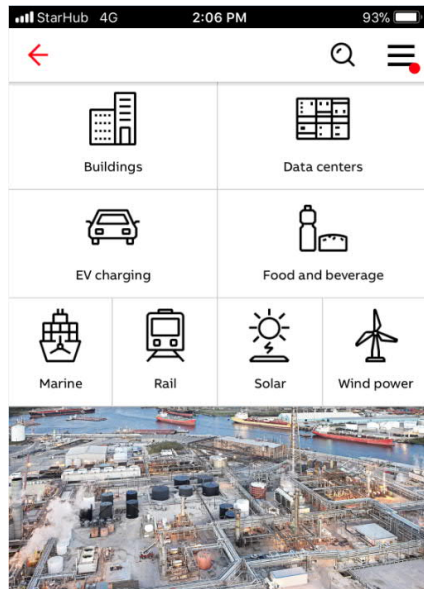
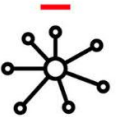
Undervoltage release

Motor operator for charging springs

Accessories

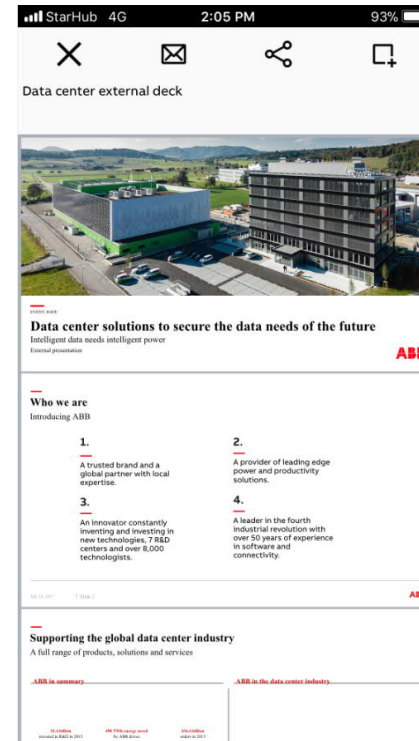
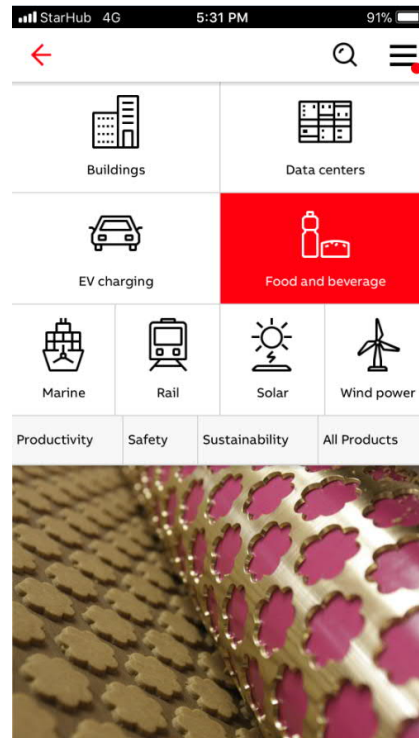
Electrification Products

ABB Connect – Specialist Solutions for Attractive Market Segments



Industries

We offer specialist solutions across a range of industries.



ABB