

POWERING THE
DIGITAL
TRANSFORMATION
2017

Life Is On

Schneider
Electric

DIGITAL is the only solution to efficiency

x1.5
Energy
Consumption

÷2
CO² Emissions

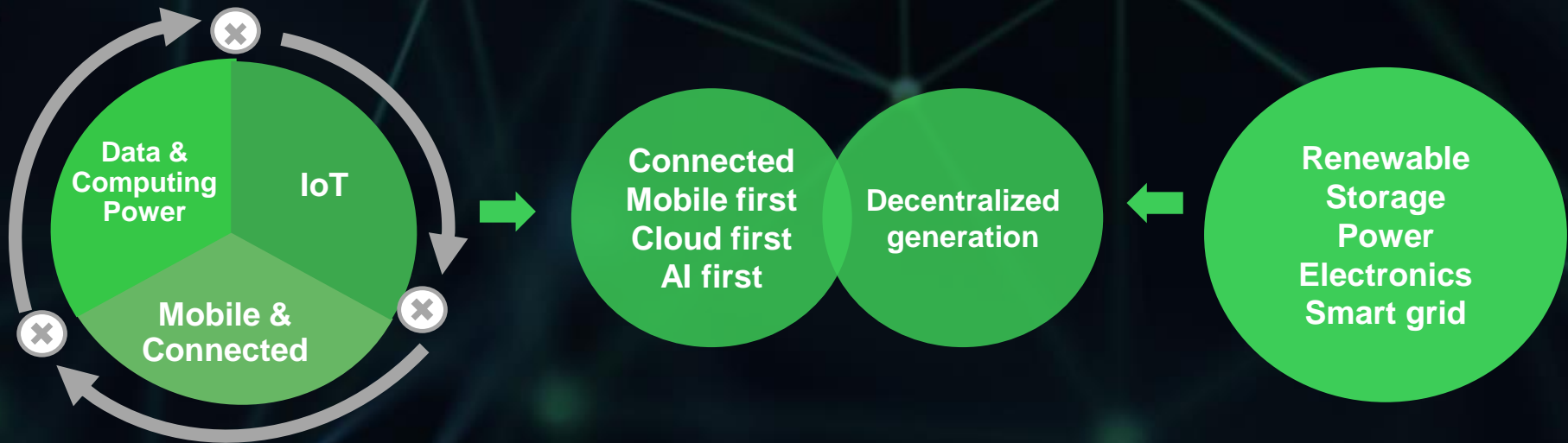
3x
Efficiency

DIGITAL is everywhere and accelerates to “THINGS”

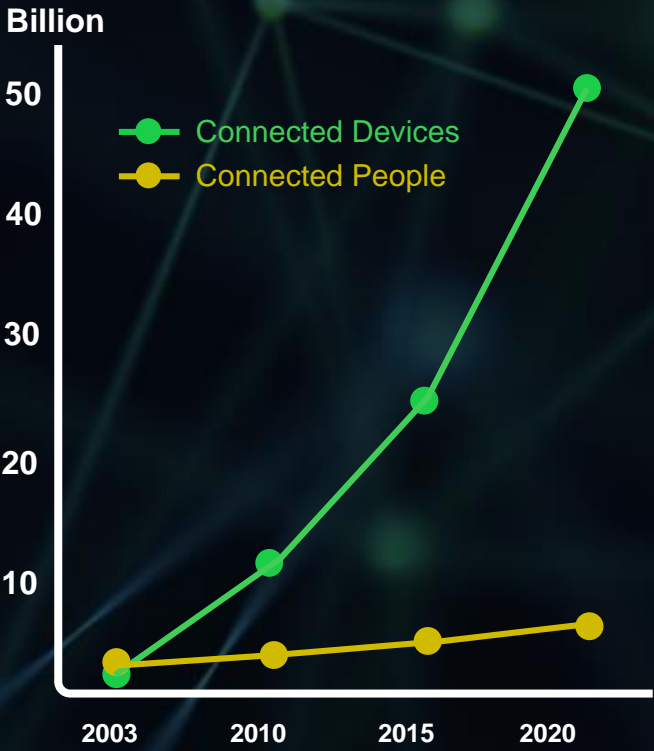


- **~5Bn** people with a mobile phone (out of 5.5bn above 14yr old)
- **2.8Bn** smartphone penetration
- **8 hours** per day on Internet spent by an individual (top 9 countries with highest usage)
- **90%** of data created in last 2 years
- **50Bn** devices connected to the internet by 2020
- **~\$6Tn** will be spent on IoT solutions over the next 5 years
- **~ \$11.1Tn** a year in economic value from IoT
- **~ 4.5Mn** individuals identified as IoT developers

Combination of Digitization and Decentralization disrupts Efficiency



Digitization disrupts Efficiency to a new level



INTERNET OF THINGS

Source : Cisco, Internet World Statistics

Digitization disrupts Efficiency to a new level

IoT

ACCELERATION

Driven by pervasive penetration of
MOBILITY & ANALYTICS

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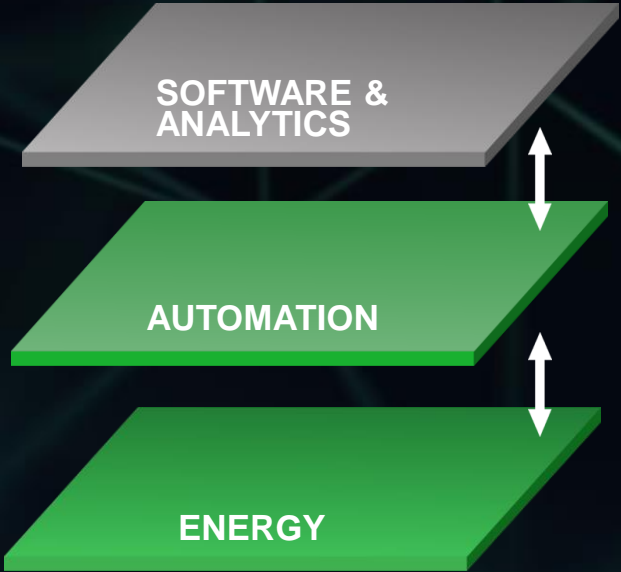
Digitization disrupts Efficiency to a new level

IoT

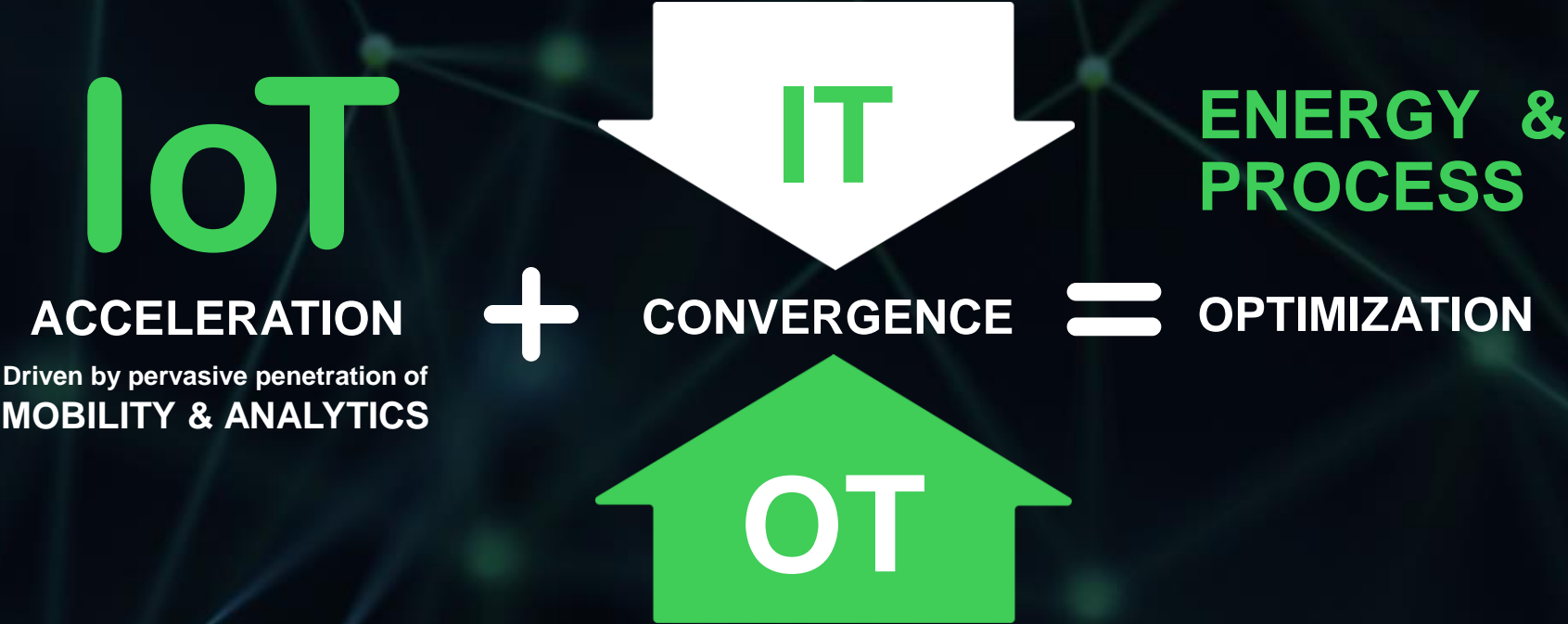
ACCELERATION

Driven by pervasive penetration of
MOBILITY & ANALYTICS

+



Digitization disrupts Efficiency to a new level



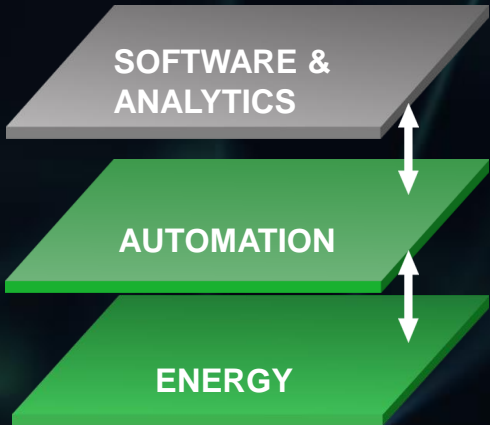
Digitization disrupts Efficiency to a new level



Schneider Electric

Serves

70% world energy consumption

Massive Untapped Efficiency Potential



>30%	 Building & Residential	>82% Buildings
~2%	 Data Centers & Networks	
>30%	 Industry	~58% Industry
	 Infrastructure	~79% Infrastructure

Source: World Energy Outlook 2012, OECD / IEA, Internal analysis



Digitizing energy and automation economy

More ELECTRIC

2X faster growth of electricity demand compared to energy demand by 2040

Source : IEA WEO 2014

More DIGITIZED

20X more incremental connected devices than connected people by 2020

More DECARBONIZED

82% of the economic potential of energy efficiency in buildings and more than half in industry, remains untapped

Source : World Energy Outlook 2012, Internal Analysis

More DECENTRALIZED

70% of new capacity additions will be in Renewables by 2040

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Return On Investment disrupted due to Digitization

BUILDING

30%

energy cost reduction minimum

4x

shorter payback with active energy
management

DATA CENTER

Up to **50%**

reduced project integration costs

INDUSTRY

Up to **30%**

operational efficiency improvements



Our technologies ensure that
everywhere, for everyone and at every moment.

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Life Is when life is...

ENERGIZED

- **+50%** energy consumption by 2050 due to urbanization, industrialization, digitization
- **Electricity** to grow twice faster than energy consumption
- **2.3Bn** people do not have either access or reliable access to electricity

EFFICIENT

- **3x** efficiency needed to solve climate change
- **82%** of untapped energy efficiency in buildings
- **50%** of untapped energy efficiency in industry

CONNECTED

- **10x** more incremental connected devices that incremental connected people by 2020
- **30Bn** connected things by 2020
- **Software** runs everything

Schneider Electric, the leader in digital transformation of energy management and automation

€24.7Bn

FY 2016 revenues

~ 5%

of revenues devoted to R&D

~150K

people in 100+ countries

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Machine

brings benefits throughout the machine life cycle

Design & Engineering



Smart Design

- Reduce time-to-market using simulation technologies

Smart Engineering

- Increase quality and efficiency by automating routine tasks

30% Reduced time-to-market

Commissioning & Operation



Smart Commissioning

- Easy commissioning through web visualization and mobile devices

Smart Operation

- Seamless integration of machines to IT using open standards

40% Faster machine integration

Maintenance & Services




Smart Maintenance

- Enhance maintenance efficiency with faster information tracking

Smart Services

- Use digital cloud services to track and monitor your machine worldwide

50% Time savings for corrective actions



Which plant, building, machine will not be
CONNECTED
in the next five years?

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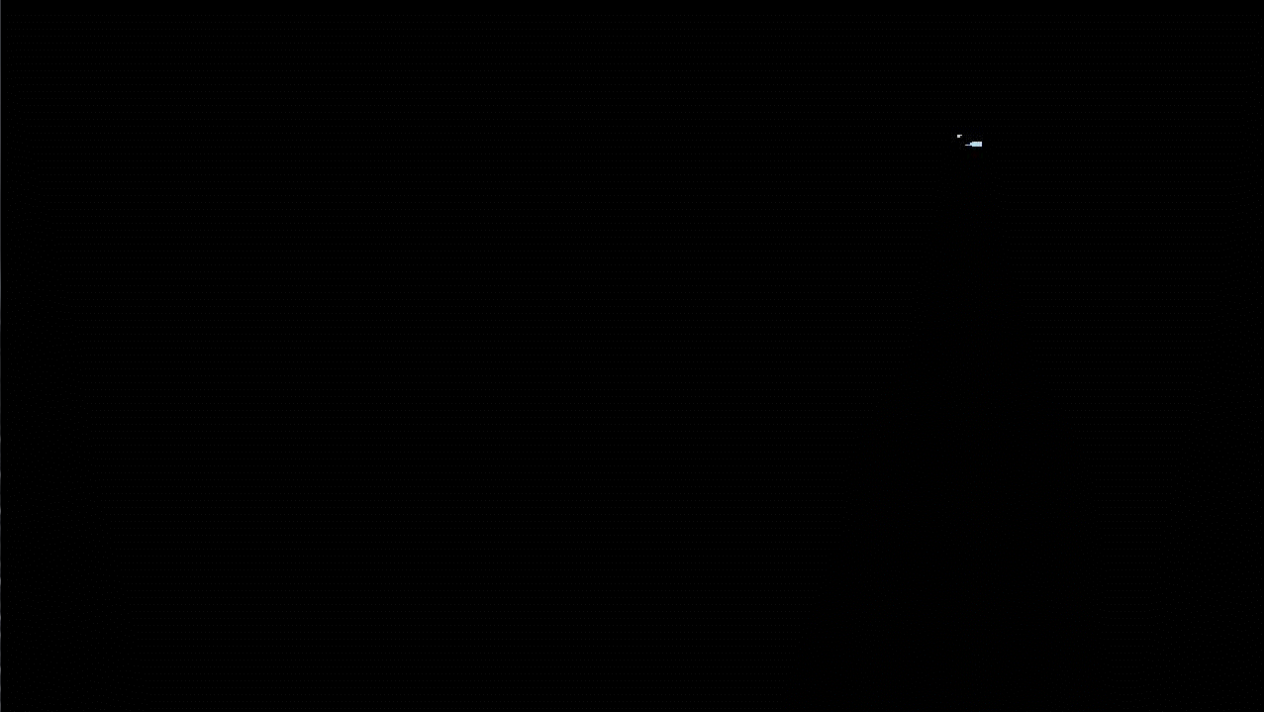
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Augmented Operation – Augmented Reality



- Open the electrical cabinet doors virtually
- Fast diagnostics
- Extended diagnostics
 - : Device status check
 - : Values of variables
 - : Access to documents

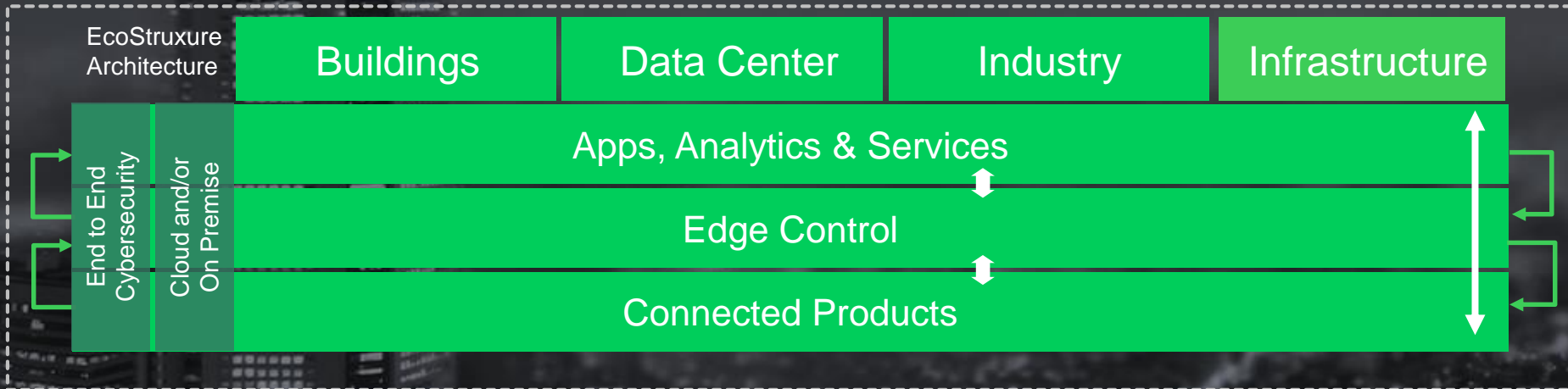
OTS (Operator Training System) – Virtual Reality Software



- Enhanced Virtual Reality
- Situational Awareness
- Emergency situation handling process



One EcoStruxure Architecture, serving 4 End Markets, with 6 Domains of Expertise



EcoStruxure Building

EcoStruxure Power

EcoStruxure IT

EcoStruxure Machine

EcoStruxure Plant

EcoStruxure Grid

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Which plant will not be

gradually

and

SELF
AUTONOMOUS
LEARNING?

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“With Schneider Electric’s expertise in energy management and automation, the 1580 hot rolling wise workshop will see significant improvement in engineering control, efficient operation, safety and reliability, and intelligence operation. When the project is completed, it will become the first truly unmanned hot rolling workshop in China.”

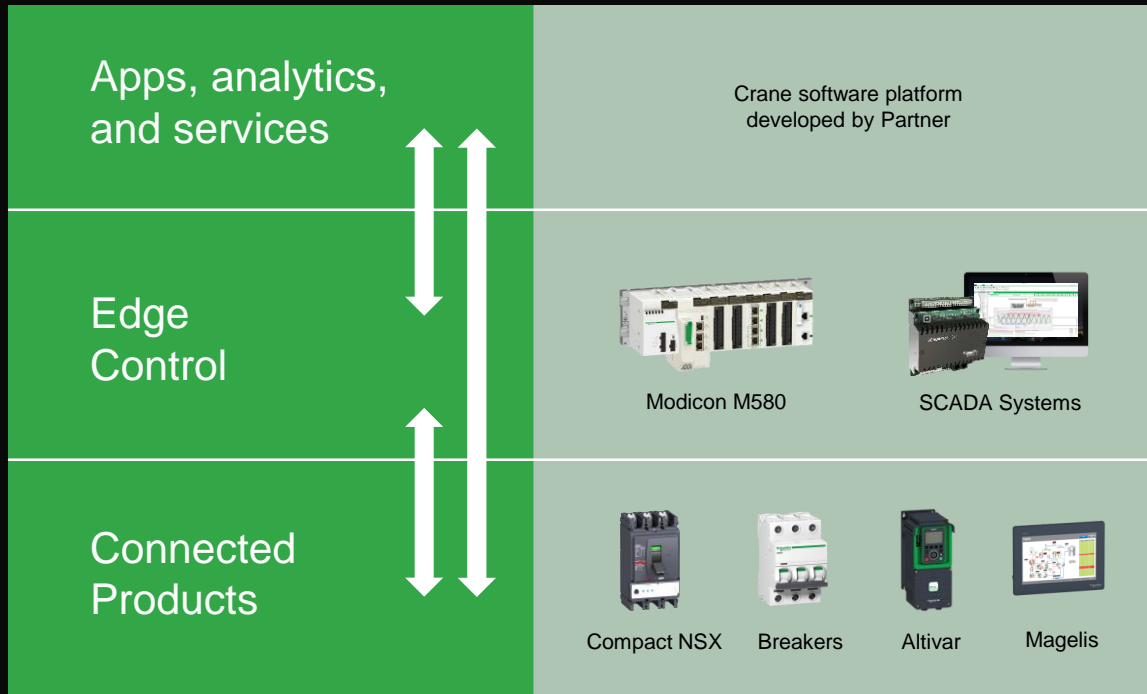
BaoSteel representative

The Results: Life is On with...

Daily capacity will increase to 10,500 tons,
up to **30%** improvement on productivity.

Life Is On





The Edge (Deloitte)

The world's most sustainable office building



- Leverage single IP backbone for all building ecosystems
- Improve occupant control room comfort via smartphone
- Access building data via simple dashboards

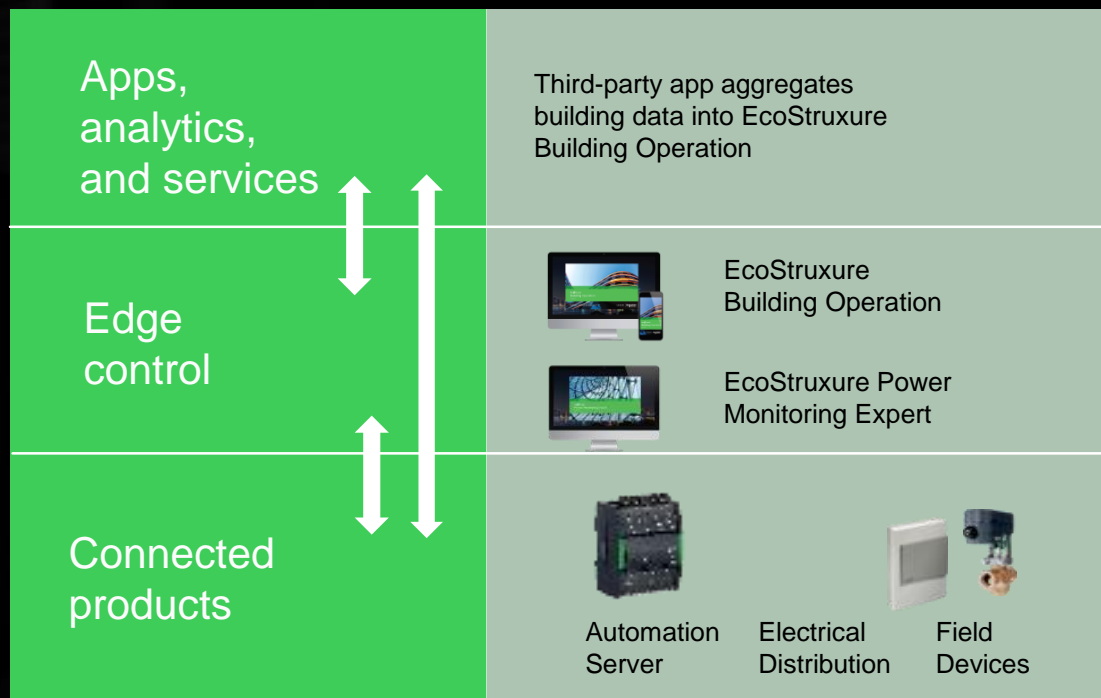
The Results: Life is On with...

Awarded highest score ever by Building Research

Establishment (BRE) **98.36%**

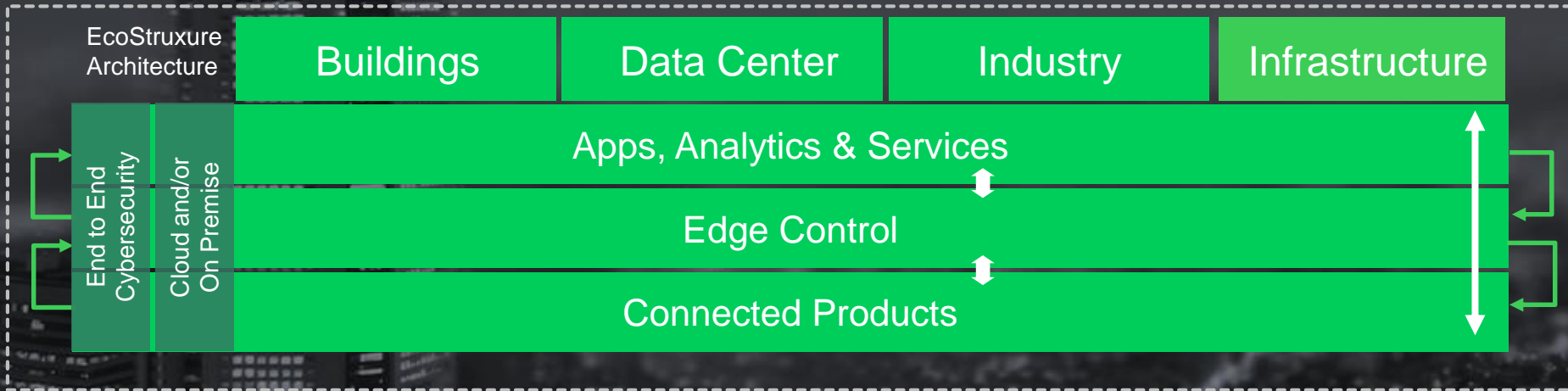
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Powering the **DIGITAL** economy with one IoT-enabled architecture



EcoStruxure Building

EcoStruxure Power

EcoStruxure IT

EcoStruxure Machine

EcoStruxure Plant

EcoStruxure Grid

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Connect the connected to access a new wealth of capabilities



Total Asset Management



Total Energy Management



Augmented Operator



Planning and Scheduling



Benchmarking & MES



Supply and Selection



Simulation



Power Control



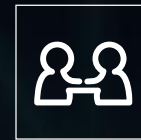
Building Control



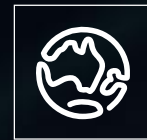
IT Control



Machine Control



Plant Control



Grid Control



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Open ecosystem of Standards and Technology partners



Growing Together with Business partners

Technology Alliances



- Open and scalable platform
- A plug and play architecture
- Deep domain knowledge
- A set of digital services

Network of Industry consortiums



22,000 System Integrators and Developers

Start Ups



450,000 EcoStruxure systems deployed with 22,000 system integrators and developers



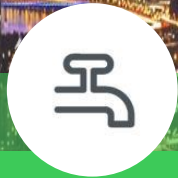
20 of the largest **Oil and Gas** companies



9 of the 10 largest **Mining, Metals and Minerals**



11 of the top brands within **Food & Beverage**



100+ **water and wastewater** plants



1 million+ **Buildings** including 3 of top 5 **hotel chains** and approx. 40% of the world's **hospitals**



10 of the world's top **electric utilities**



3 of the top 4 biggest **hyper scale cloud providers**



8 the top 10 **packaging machine builders**

Awarded CSV Porter Prize due to **Schneider Electric's sustainability** activities



Sustainability
&
Inclusivity



Cool Solution /
Energy
Efficiency



Energy
Storage &
Efficiency



Integrated
Urban Energy
Systems

History

- In 2016, awarded 3rd Porter Prize, part of domestic local corporate of international companies in the process sector in terms of supporting energy to make sure enjoy life for remote villages
- In 2017, won 4rd Porter Prize, part of domestic local corporate of international companies in the process sector regarding Go Green in the city 2017

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