



Maintenance modernization through EcoStruxure™

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Schneider Electric provides energy and automation digital solutions for efficiency and sustainability

Key figures for 2020

5% of revenues devoted to R&D

€25.2 billion

2020 revenues

41%

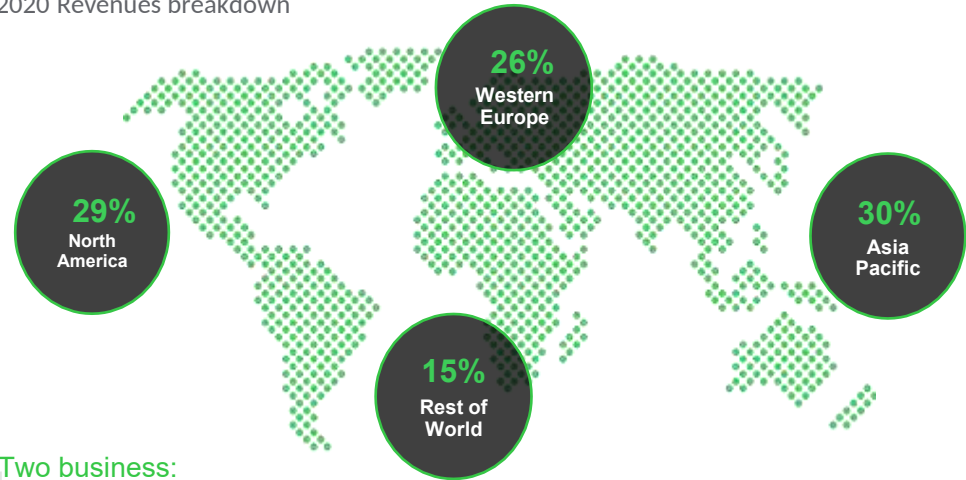
of revenues in new economies

128,500+

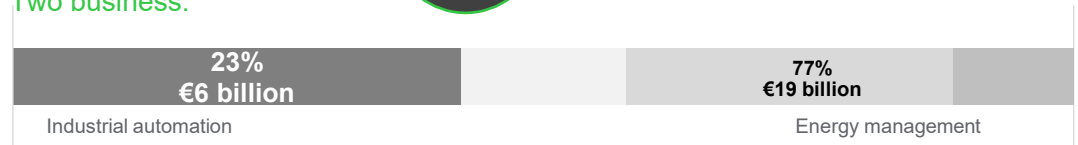
Employees in over 100 countries

A well-balanced global presence

2020 Revenues breakdown



Two business:



Schneider Electric EcoStruxure™ Ecosystem

EcoStruxure™ Architecture



EcoStruxure™ Building

EcoStruxure™ Power

EcoStruxure™ Datacenter

EcoStruxure™ Machine

EcoStruxure™ Plant

EcoStruxure™ Grid

EcoStruxure™ Asset Advisor

EcoStruxure Asset Advisor brings a proactive approach to electrical distribution and critical data center assets, combining IoT and cloud-based technologies with Schneider Electric's experts and services for business continuity. EcoStruxure Asset Advisor services offer the ability to anticipate and address issues before they become critical incidents, mitigating safety risks, avoiding unplanned downtime, operational losses and expensive maintenance interventions.

Main benefits:



Operational performance

1. Fewer unscheduled downtimes
2. Increased asset useful life
3. Optimized maintenance plan



Safety

1. Reduced personal risk
2. Early warning of impending equipment failures
3. Maintenance expertise continuity in high turnover environment



Financial efficiency

1. Lowered total cost of ownership
2. Decreased failure risk
3. Decreased average maintenance cost/asset



Peace of mind

1. New asset ecosystem insights
2. Consistent experience across sites
3. Right people at the right time



Data gathering



Smart analytics, notifications, and reports



Schneider Electric Service Advisors



Maintenance optimization



EcoStruxure™ Asset Advisor

End-to-end service supported by **experts** and a platform that provide **actionable recommendations** and onsite support



End user can view asset health dashboard, reports, and recommendations for maintenance or asset health checks



Proactive maintenance recommendation

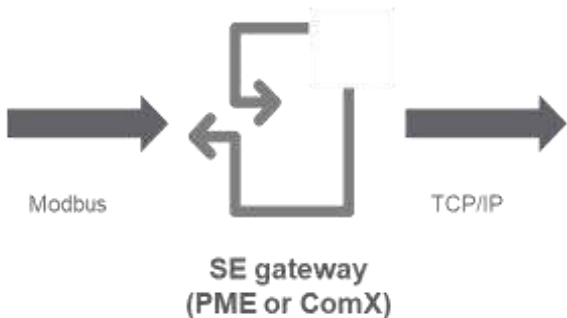
Expert Dashboards



Schneider Electric Service Bureau
Service Bureau representatives recommend & coordinate local Service Teams for on-site support



Microsoft Azure Cloud
Service platform on DSP leveraging Predictive Analytics, Asset Knowledge and SE Expertise



Transformers

MV switchgears

LV switchboard

VSD

Thermal sensors

Environmental

Metering

Electrical devices
(SE and 3rd Party)

EcoStruxure™ Augmented Operator Advisor Introduction

“The Schneider Electric’s solution on tablet, based on Augmented Reality technology, which gives operators the ability to **superimpose real-time data** and **virtual objects** on to the **real plant environment**.”

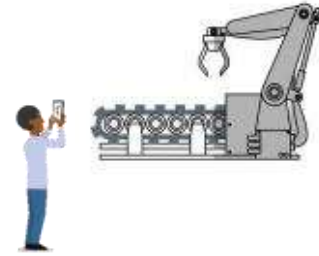
- **Find information faster** with immediate, relevant access in the field (user manuals, instructions, diagrams, etc.)
- **Avoid unnecessary downtime** open electrical cabinet doors virtually, connect with off-site remote experts to complete tasks efficiently
- **Reduce operator errors** during operations and maintenance by locating the right equipment and guiding operators step-by-step to complete the procedures

Empowered workforce

Speed-up maintenance

Standardise expertise

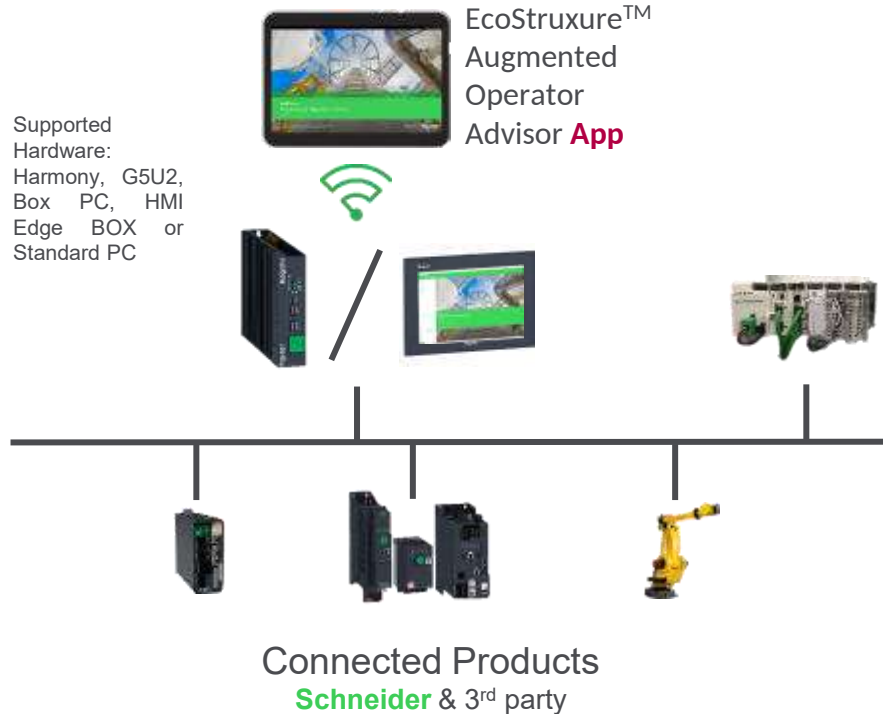
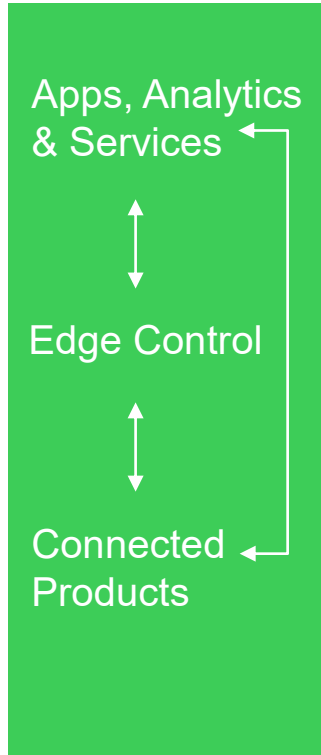
“50% of time spent on maintenance involves finding information, with the remaining 50% devoted to actual intervention on the equipment”



*Easy to
deploy*

EcoStruxure™ Augmented Operator Advisor Runtime

“Configure data sources, devices, user management”



Contextual use of data: drive action through real-time information and business logic

Collect critical data from multi source and centralize them in Edge control

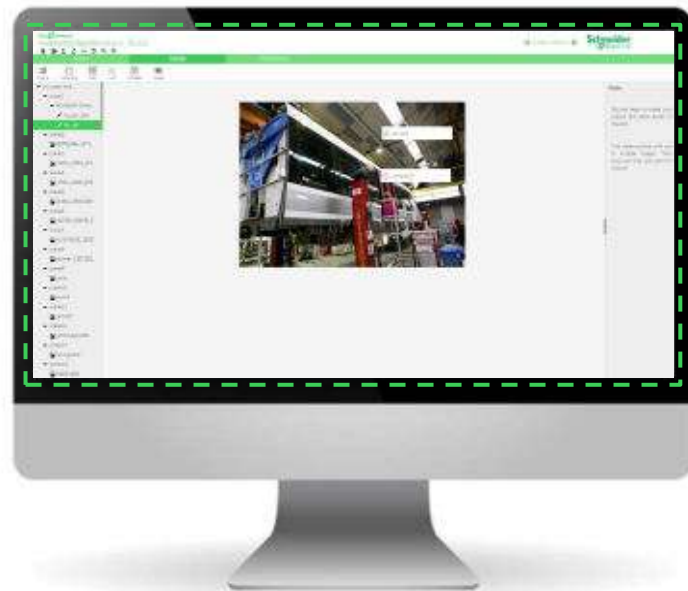
Connected products which allow to collect data from shop floor to top floor

EcoStruxure™ Augmented Operator Advisor Builder

“3 images is all you need to create an AR project”

Area: set of several scenes to cover a production line or a machine

Scene: set of images to ensure recognition in all industrial situations and operator positions



Procedure: design step-by-step instructions to perform tasks



Available in **8 languages**

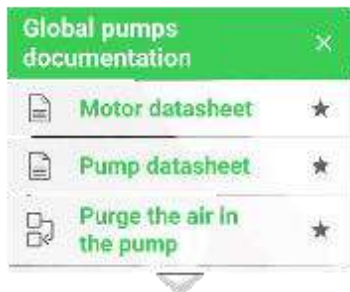
Project: set of several areas to cover a part of, or a complete factory

EcoStruxure™ Augmented Operator Advisor

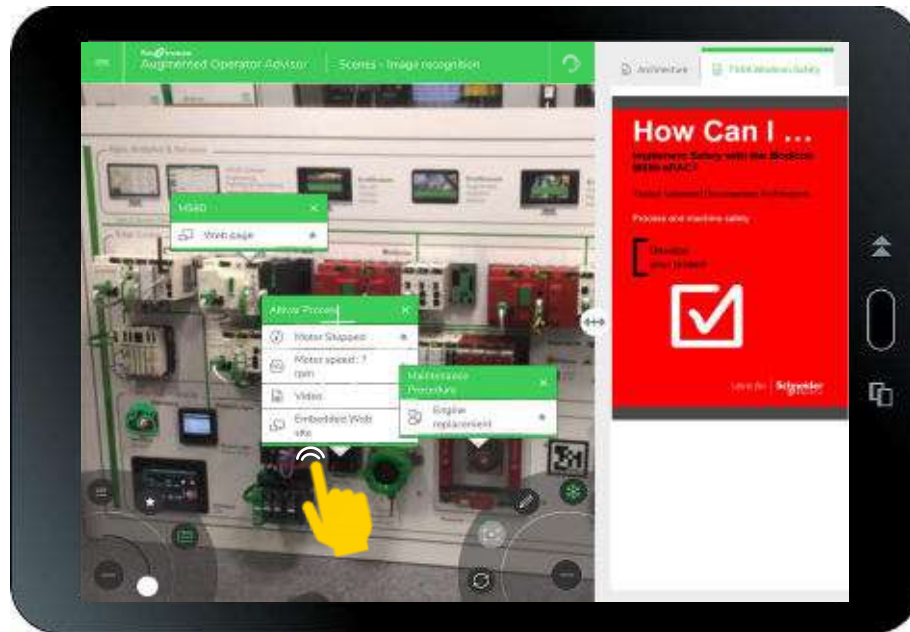
App

Point of interest (POI)*

* POI possibilities: label, images, process variable, data from a SQL database, documents (electrical diagrams, web pages, videos)



Point of interest List
(up to 5 information)



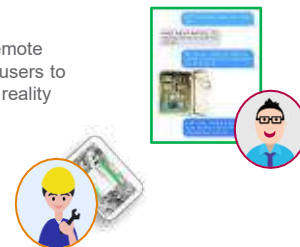
Available in
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Shortcut
menus

Remote Experts

Using a tested and validated solution of Microsoft Remote Assist & Teams, simply add shortcuts to the App for users to call Remote Expertise and exchange via augmented reality annotations and video/chat



Embedded Browser

Allows you to see contextually documents with augmented reality information, interface improved. For example, you can link to interactions with IT systems such as :



THANK YOU.



For more information please see:

www.schneider-electric.com/ecostruxure-augmented-operator-advisor