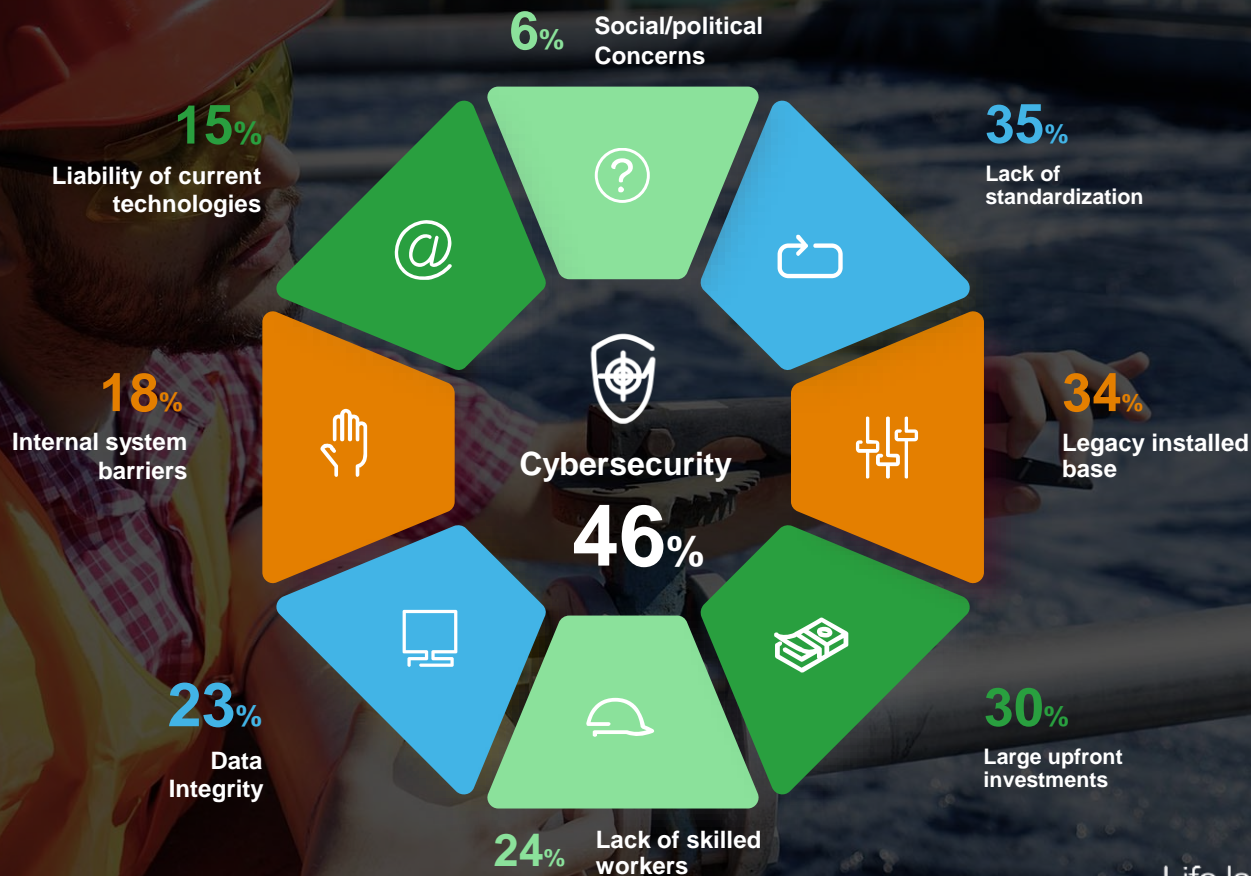


# Cybersecurity

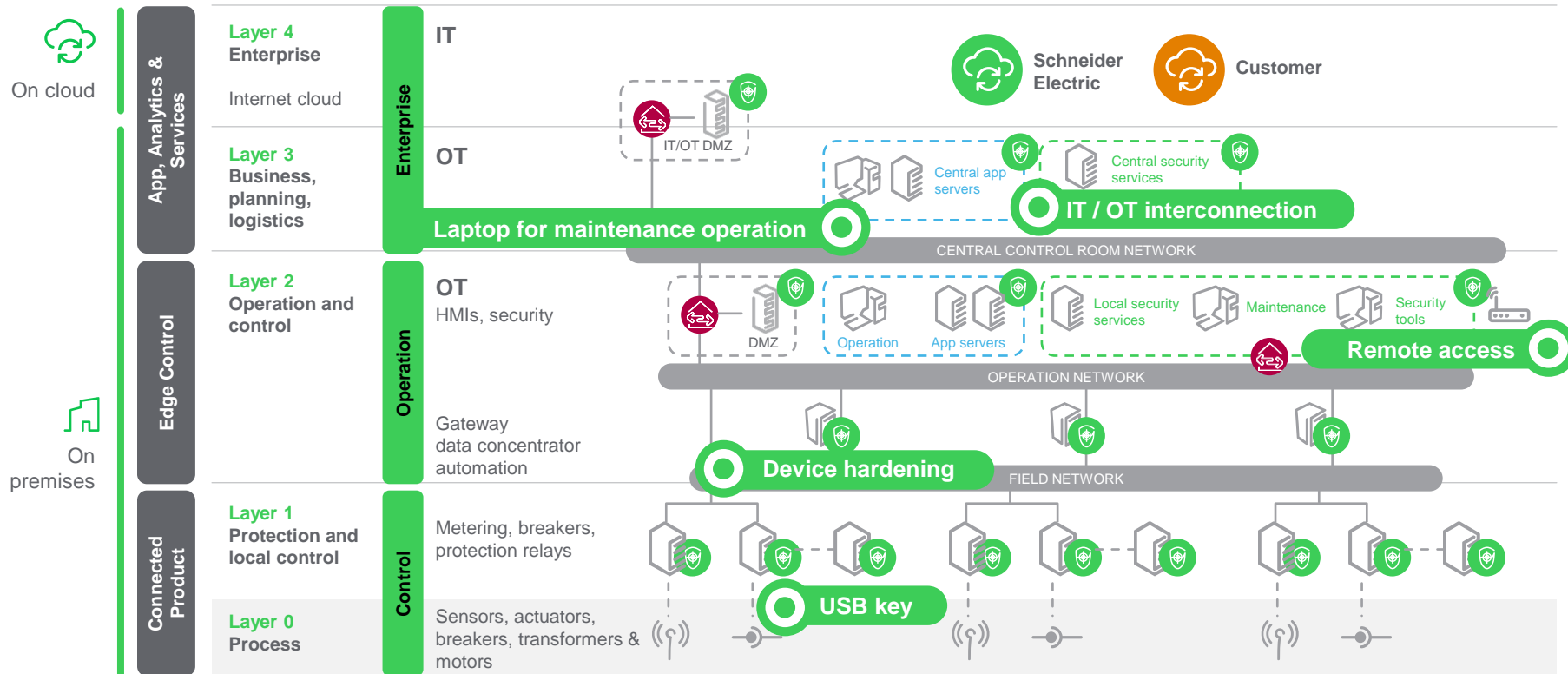
Schneider Electric

Mathieu Salles

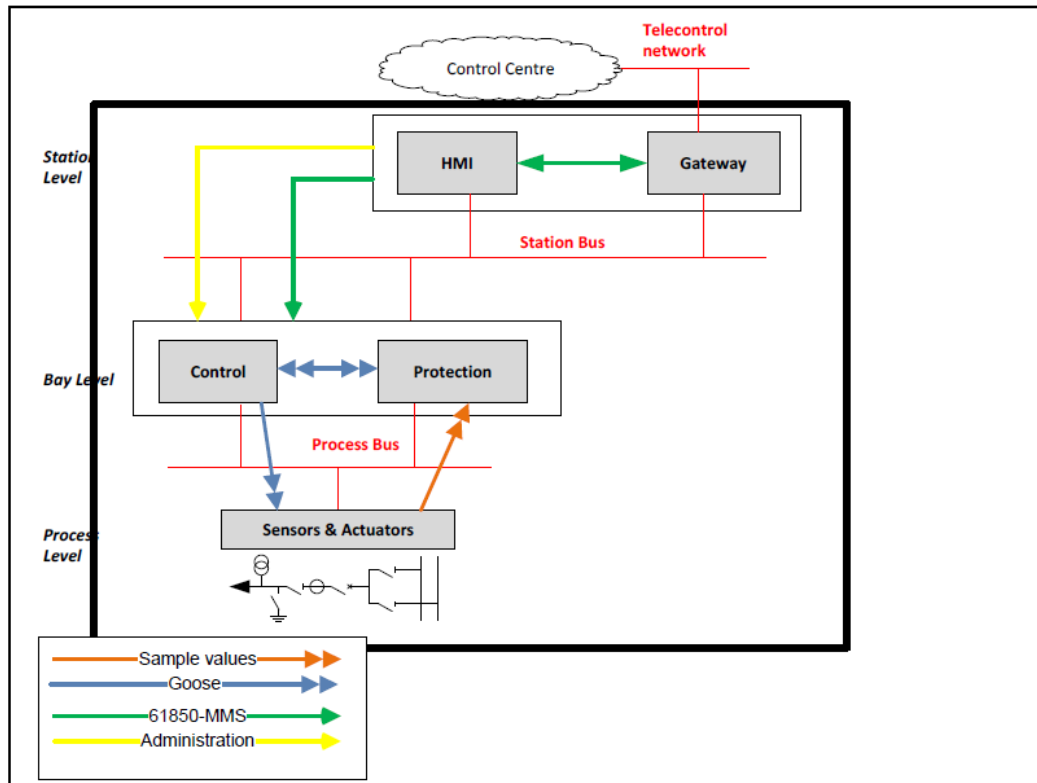
# Challenges to digitization



# Main CS risks in OT environment



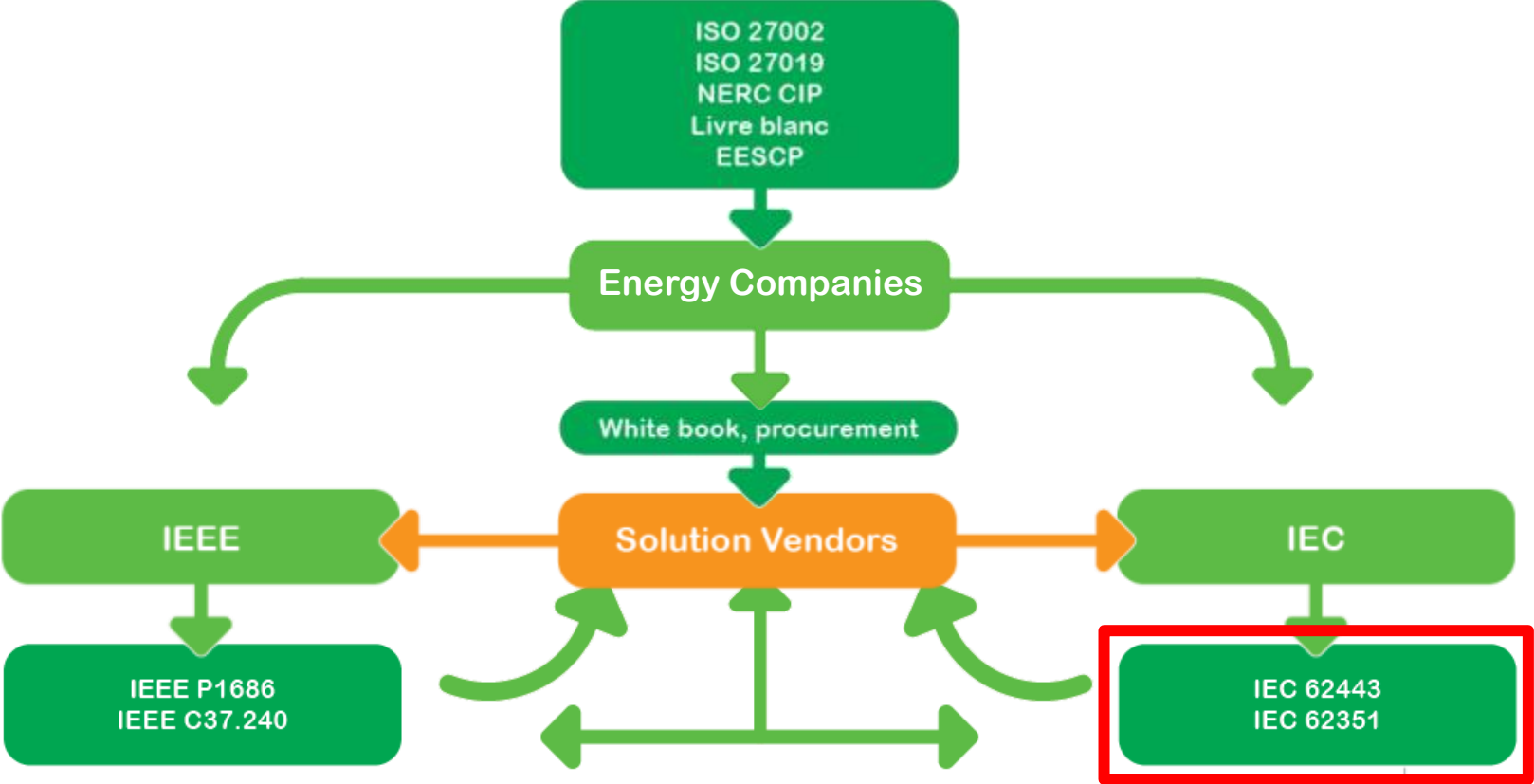
# Typical dataflow in Substation Today



## Main Challenges :

- Interoperability between multiple suppliers
- Security by default to ease operation and maintenance
- Deployment of Cybersecurity Controls for system ( inventory, Remote access, Authentication, monitoring )

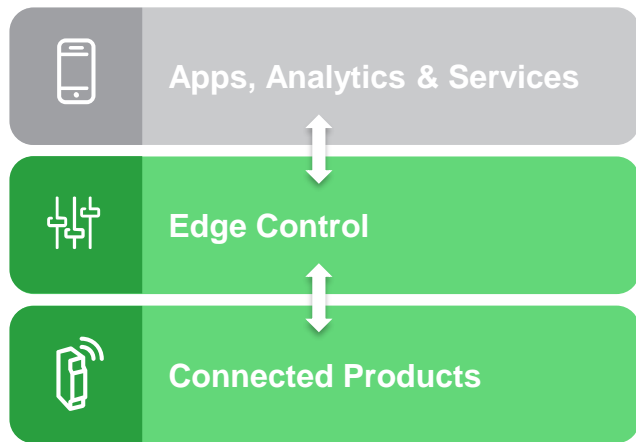
# Cyber Security Landscape:



# OT cybersecurity standards for products and solutions

## IEC 62443: Security for industrial automation and control systems

### EcoStruxure™ layers



Schneider Electric selected the IEC 62443 as its core cybersecurity standard at **OT system and product level as well as IEC62351 for Power Management solution**

### IEC 62443

Asset owner  
operator

*Sections 2-1, 2-3, 2-4*

System Integrator

*Sections 2-4, 3-2, 3-3*

Product / solution  
provider

*Sections 3-3, 4-1, 4-2*

# IEC 62351 Parts 3-6, 11 – Security Standards for IEC TC57 Communication Standards

	62351-3:2014 Profiles Including TCP/IP	62351-4 Profiles Including MMS	62351-5 Security for IEC 60870-5 and Derivatives (i.e. DNP 3.0)	62351-6 Security for IEC 61850 Peer-to- Peer Profiles
IEC 60870-6 (TASE.2 / ICCP)	Yes	Yes	No	No
IEC 60870-5	Part 104	No	60870-5-7 (security details for IEC 60870-5-101 and 104)	No
IEEE 1815 (DNP 3)	Over TCP/IP	Yes	Yes	Yes
IEC 61850	Over TCP/IP	8-1 using the MMS profile of data objects 8-2 using XML XSDs mapped from MMS data objects	No	IEC 61850 that do not run over TCP/IP – GOOSE and SV

# Cybersecurity challenges at multiple layers



Permit



Protect



Detect



Respond

## Cybersecurity services for the complete lifecycle

Consulting, integration and managed security services

## Cybersecurity integrated in System

Delivery with security controls and practices during project

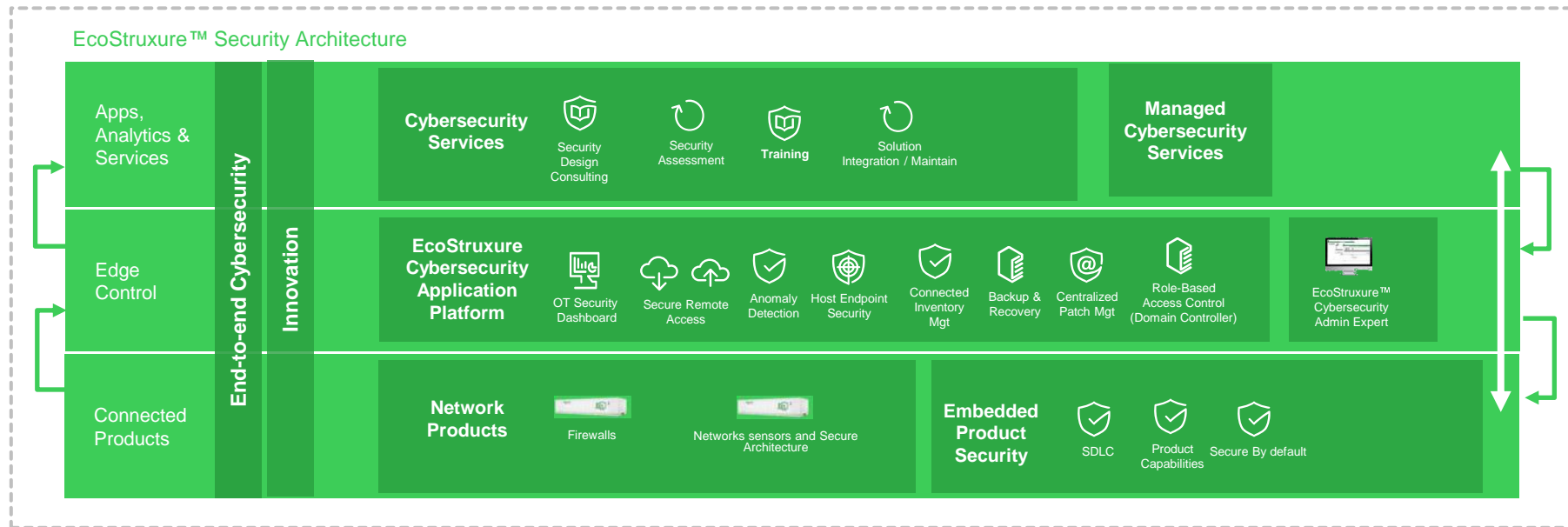
End-to-End  
Cybersecurity

## Cybersecurity by « Design »

products, solutions, software



# EcoStruxure™ Cybersecurity offers in scope





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