sentryo

Cyber Security for the **Industrial Internet**

Situational Awareness + Anomaly Detection + Security Management

Sentryo HQ | 66 Bd Niels Bohr CS 52132 69603 Lyon-Villeurbanne - France
+33 970 469 694 | contact@sentryo.net | www.sentryo.net

Laurent Hausermann - Founder

Thierry Rouquet - Founder

USE CASE 1 **STEEL MILL IN GERMANY**

WIRED – Jan 8th 2015

‘A cyberattack has caused confirmed physical damage’.

According to the German BSI, hackers had struck an unnamed steel mill in Germany.

They did so by manipulating and disrupting control systems to such a degree that a blast furnace could not be properly shut down, **resulting in ‘massive’ damage**.

USE CASE 2 **'BLACK ENERGY' MALWARE**

ICS CERT – Dec 10th 2015

Experts has identified a sophisticated malware campaign that had **compromised numerous industrial control systems (ICSs)** environments. They have found multiple variant of the Black Energy malware.

Analysis indicates that this campaign has been ongoing since **at least 2011.**

Multiple companies have identified the malware on SCADA stations from various vendors including **GE Cimplicity, and Siemens WinCC**.

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Protects

the Industrial Internet against cyber risks

- **Incorporated** in June 2014
- **Headquarter:** Lyon
- Design, develop & sell cybersecurity solutions
- Funded and managed by serial entrepreneurs & cybersecurity veterans

prix de l'innovation des assises 2015

Award winner
Prix de l'innovation des Assises de la sécurité July 2015

Prize Winner
EIT ICT Labs IDEA CHALLENGE

Prize winner
European Institute of Technology Idea Challenge Nov 2014

TREMPLIN ENTREPRISES 2015 SÉNAT

Award winner
Tremplin Entreprise
Sénat / Essec Feb 2015

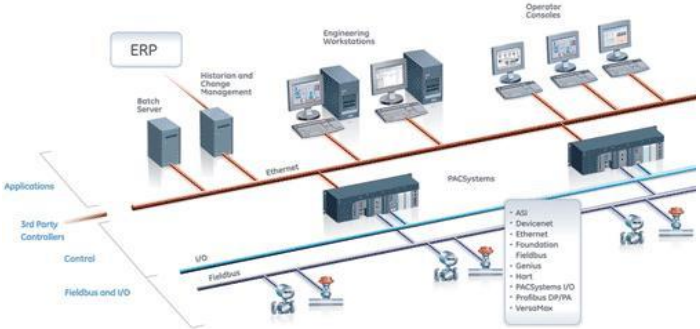
Member: HEXATRUST CYBERSECURITY & DIGITAL TRUST

AFDEL Les éditeurs de logiciels et solutions internet

WHAT IS **THE INDUSTRIAL INTERNET**

Today
Industrial Automation

Industrial Control System (ICS)



Tomorrow
The Industrial Internet Of things

Industrie 4.0, Smart cities, Smart grids, eHealth..

PRODUCT

#Connected Objects
#CloudOriented
#"As A Service"

FACTORY

#Manufacturing
#Exploitation Teams

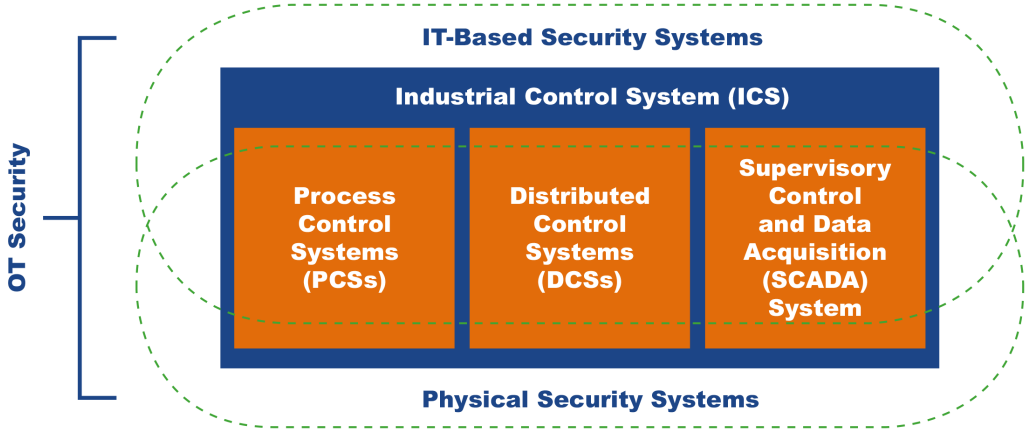
SUPPORT

#CCTV
#HVAC
#SmartBuilding
#SupplyChain
#SubContractors

THE PROBLEM (1)

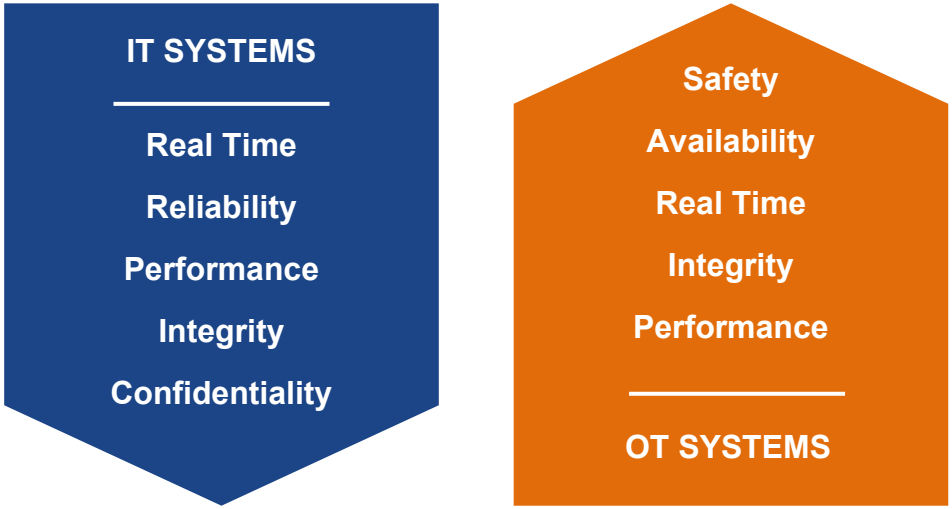
The Industrial Internet is cluttered and vulnerable

- Attack surface of existing and upcoming systems is increasing
- No cyber security culture in industrial (OT) teams
- Upcoming Industrial Internet requirements



THE **PROBLEM** (2)

IT Cybersecurity
solutions do not fit **OT environment requirements**



THE **PROBLEM** (3)

Industrial Protocols are complex

- Proprietary and Standard at the same time.
- Focusing on high level of abstraction and indirection
- Multiplexed, mixing physical, serial bus and network data
- Used in flat, unsegmented networks

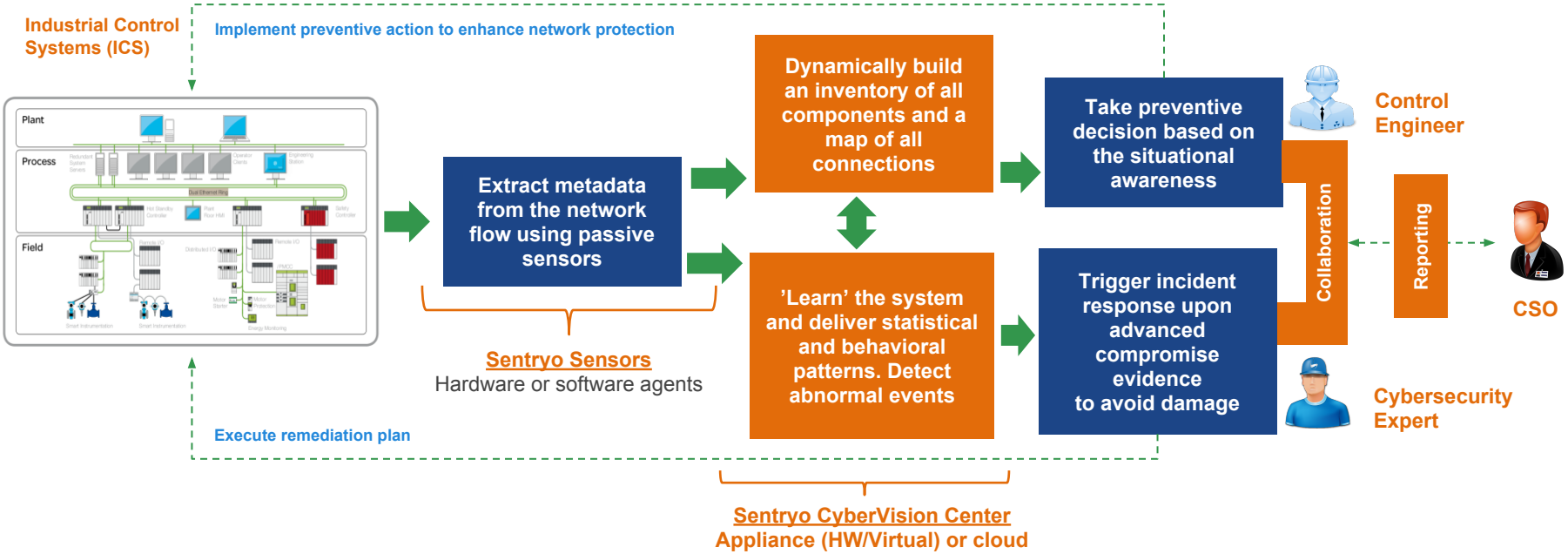
ENTER **SENTRYO ICS CYBERVISION**

Sentryo ICS CyberVision delivers an operational security capacity to prevent, detect and respond to cyber attacks targeting the Industrial Internet.

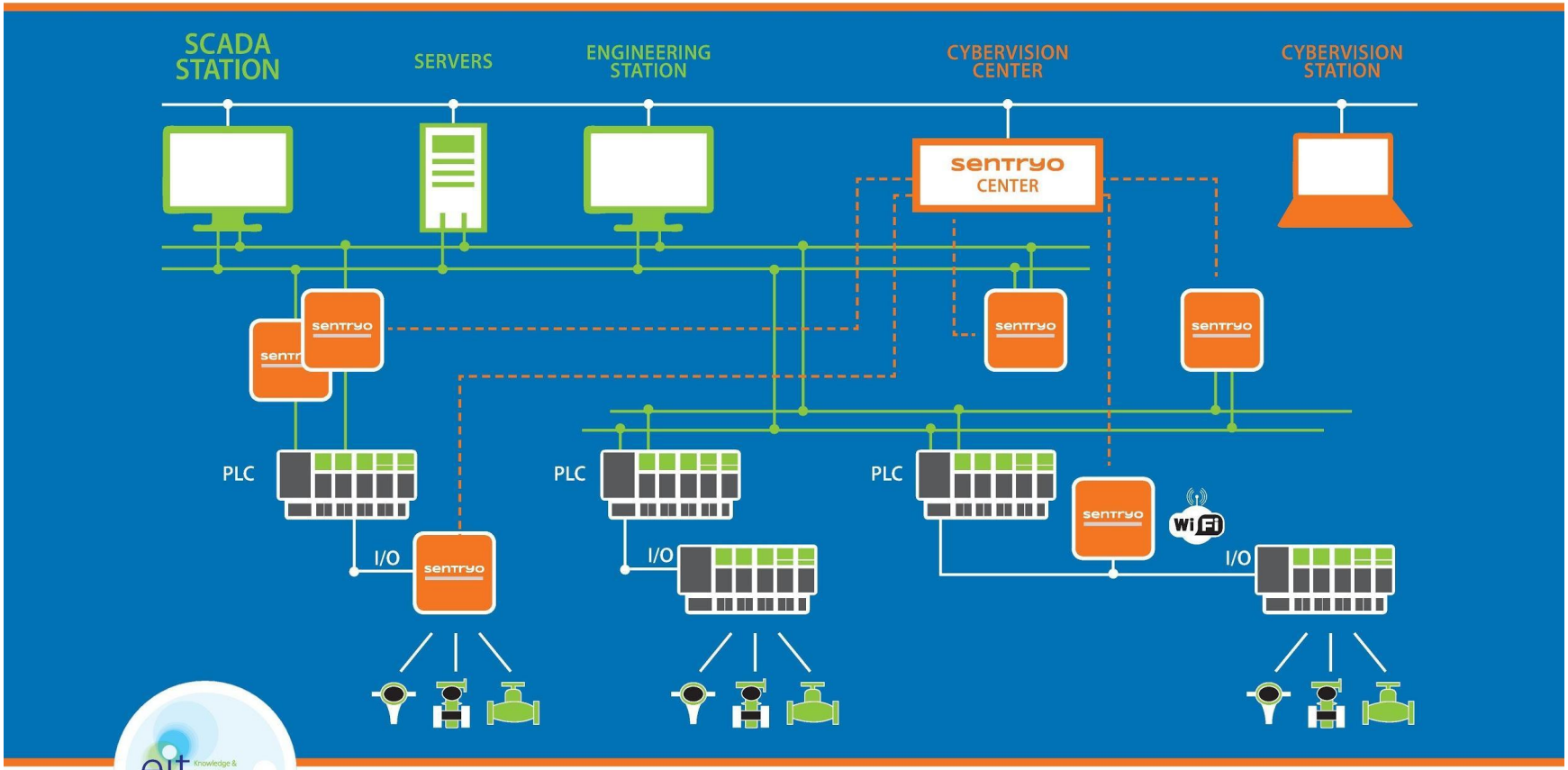
- **Prevent :** Enable **Control Engineers** reduce the attack surface
- **Detect :** Detect malicious behaviors and **weak signal** of cyber attacks..
- **Respond :** Facilitate incident response by gathering all the informations required by **Cybersecurity Expert**
- **Report & Comply :** Provide reports to the **Security Officer**
- **Streamline OT and IT collaboration :** Offer a common language and **collaboration tool** centered on risk management

ICS CYBERVISION **KEY FEATURES**

The Sentryo ICS CyberVision workbench



PIGGYBACK DEPLOYMENT



eit Knowledge & Innovation Community
EIT ICT Labs

Sentryo HQ | 16 Chemin du Siroux 69260 Charbonnières FRANCE
Sentryo German Office | EIT ICT Labs Guerickestraße 25 80805 München Germany

+33 970 469 694
contact@sentryo.net | www.sentryo.net

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