



**IEC international standards &
international certification
services**

**supporting the
EU Cybersecurity ACT**

David Hanlon
IEC Secretary of the
Conformity Assessment Board

Cybersecurity Standardization Conference 2021
Panel 3: Standardisation supporting the Cybersecurity ACT
February 3rd 2021



IEC → international SD (standards development) → international CA (conformity assessment)

IEC overview

20 000 experts

210 TC/SCs

>10 700 standards publications

4 Conformity Assessment Systems

>100 000 certificates / year

5 Regional centres



Scope of the IEC

Underpins global trade in electrical and electronic devices

Safety of people & the environment

Cybersecurity

Infrastructure development

Smart urbanization, transportation

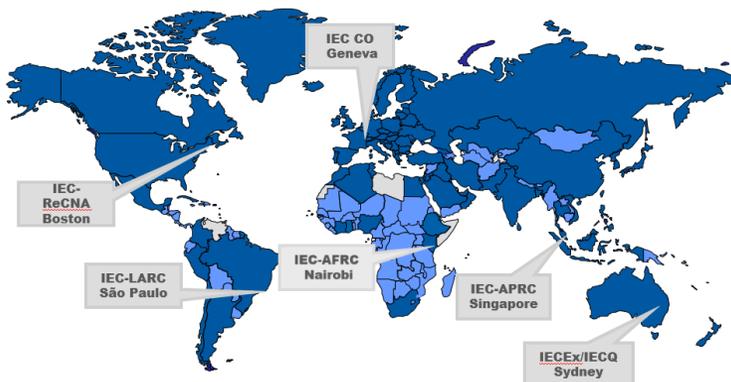
Energy access and efficiency



Global reach: 173 countries

89 Members

84 Affiliates



IT/OT cyberthreats & impacts

IT → Information Technology

Data Threat

Virtual data world

Banking, data theft, identity theft, privacy, customer data, employee data, IP theft, brand damage, financial loss, business loss, IT systems failure, etc...

Personal detriment,
business disruption,
economic adversity.

OT → Operational Technology

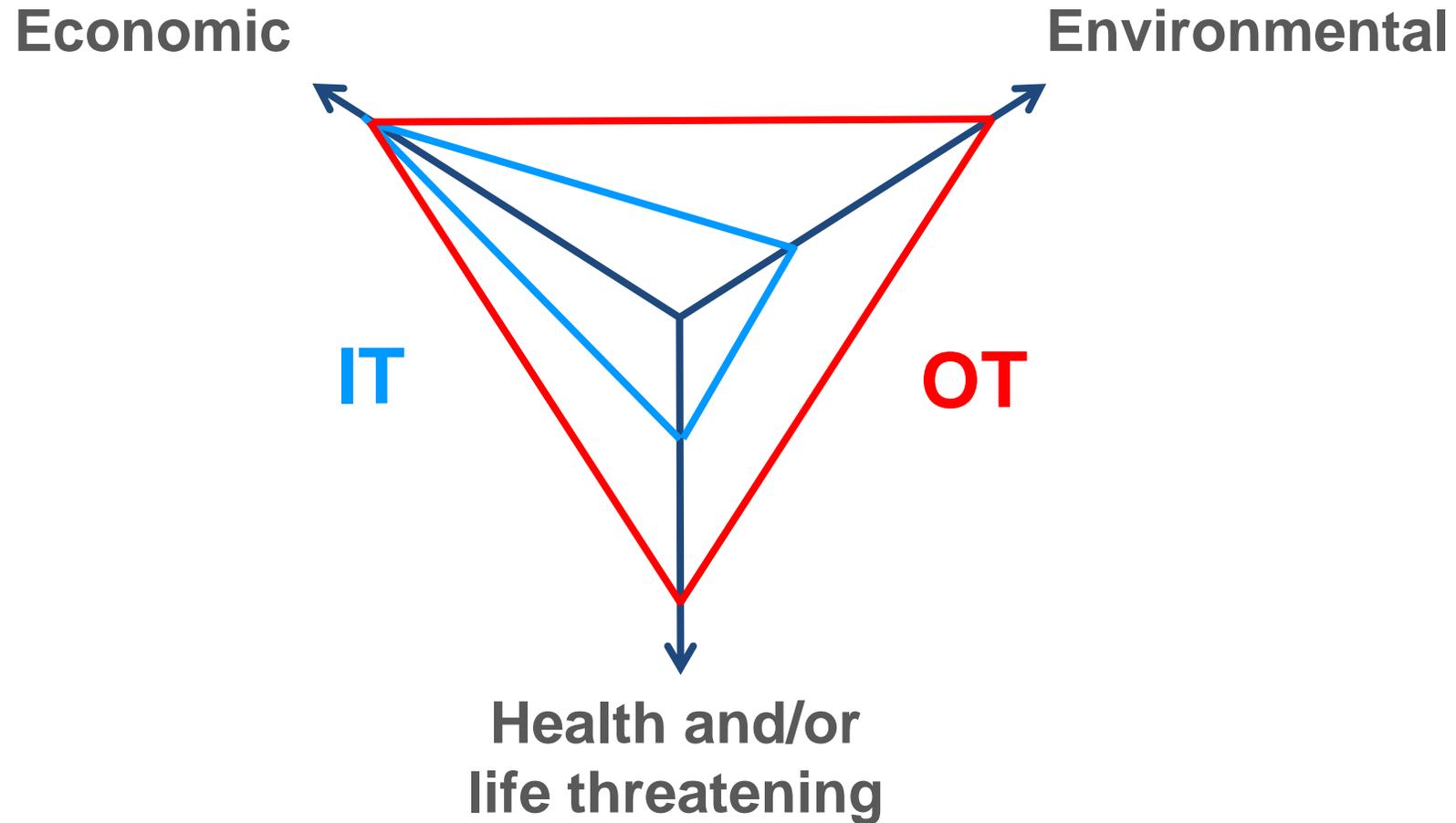
Critical Infrastructure Threat

Real physical world

Electrical power loss → everything stops
Dam water release → flooding & damage
Drinking water pollution → sickness & death
Poisonous gas release → sickness & death
etc...

Sickness, injury & death,
environmental catastrophe,
economic catastrophe.

IT/OT cyberattack impacts



IT/OT cybersecurity (CS) solutions

**Global worldwide sourcing of
systems components & services**

+

Global worldwide CS threat vectors



Global CS solutions approach

Global = local, regional & international

EU Cybersecurity Act (CSA)

Is a regional initiative



Best CSA Implementation

= regional actions

+ international actions

→ use international standards

✓ 80% CENELEC stds = IEC stds

**→ use global international
cybersecurity CA schemes**

EU Cybersecurity Act (CSA) Implementation

IT based
international
standards

ISO/IEC 27000 series

General IT CS stds

ISO/IEC 19086

Cloud computing CS stds

ISO/IEC 15408

Common Criteria CS stds

OT based
international
standards

IEC 62443 series

Industrial Control CS stds

IEC 62351 series

Electrical utilities CS stds

IEC 80002

Smart cities CS stds

and many more

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EU Cybersecurity Act (CSA) Implementation

now

IECEE CA Schemes

Cybersecurity certification
for critical infrastructure

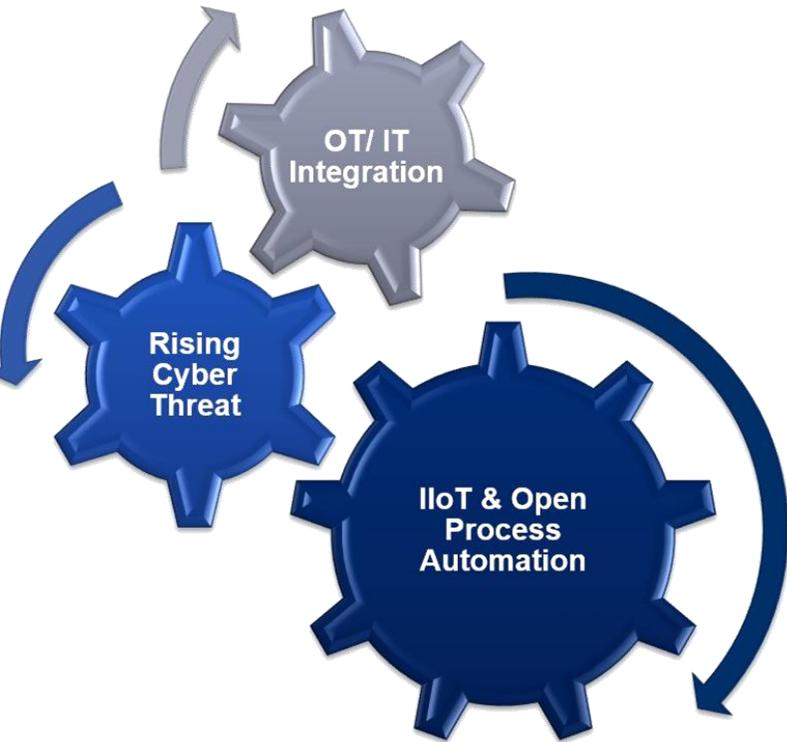
based on IEC 62443 series

soon

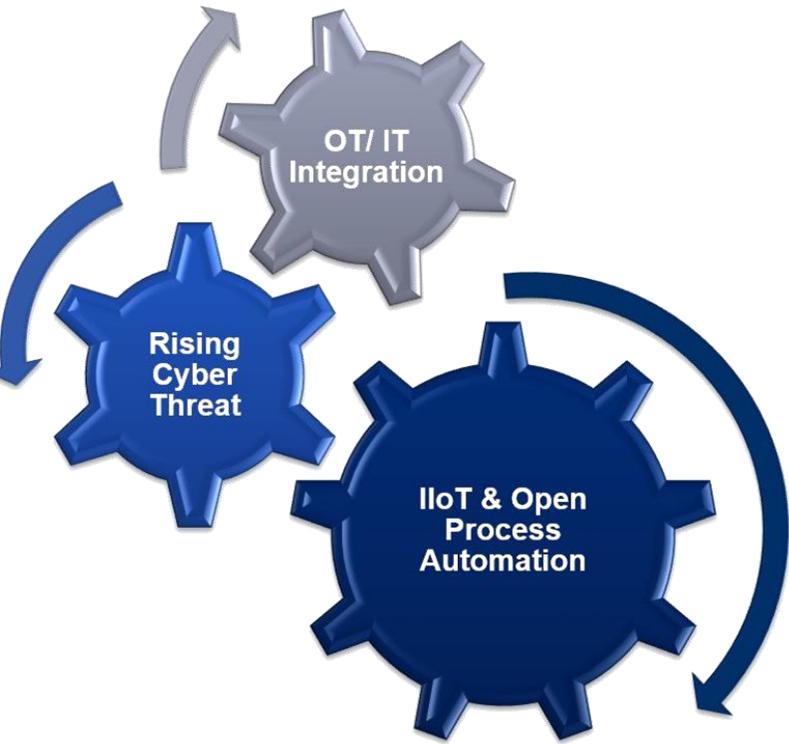
IECQ CA Schemes

Cybersecurity certification
for supply-chain

based on ISO 9001 & ISO/IEC 27000 series



Global cybersecurity (CS) solution



**International standards
adopted regionally and locally
+ regional standards to fill any gaps**

**International certification schemes
recognized regionally and locally
+ regional CA schemes to fill any gaps**



Thank you

<http://www.iec.ch>

<http://www.iec.ch/cybersecurity/>

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