



Standardization of the application of cybersecurity standards

**Panel 1 : Cybersecurity Act: value of
standardisation for the new
framework**

David Hanlon

IEC Secretary of the
Conformity Assessment Board

**Cybersecurity Standardization
and the Cybersecurity Act:
Where are we today ?**

Brussels, 2019-01-21



INTERNATIONAL
ELECTROTECHNICAL
COMMISSION

CYBERSECURITY

- Cyber threat is a worldwide phenomenon
- Cybersecurity requires a worldwide approach

SMART GRID

**BANKING
SYSTEMS**



**TRANSPORT
SYSTEMS**

**Identity
Theft**

OIL

CLOUD COMPUTING

DATA THEFT

RAIL

AVIONICS



**HEALTH
SERVICES**

HACKING

ELECTRICITY

**INTERNET
OF THINGS**

CLEAN WATER

**COMMUNICATION
SYSTEMS**

**CRITICAL
INFRASTRUCTURE**

GAS



IEC International Electrotechnical Commission



Standards Development (SD)

- International Standards
- Since 1906

→ 80% of CENELEC standards are adopted from IEC standards

Conformity Assessment (CA)

- Global CA Systems
- Since 1974

→ Cybersecurity certification services since 2017 (to IEC 62443 series)



Consistent Assessment of the application of standards

In the real world standards are not perfect

→ **Consensus based** → sometimes needs *interpretation*

Eg: Assessment relies on “professional judgement”

In the real world there are

- Competent CABs → too strong
- Competent CABs → too weak
- Competent CABs → correct

VARIATION



Doubt in CA results
Lack of trust
Duplication of assessments
Added costs
Trade barriers

- ~~• Incompetent CABs~~
- ~~• Fraudulent CABs~~

ACCREDITATION

Consistent Assessment of the application of standards

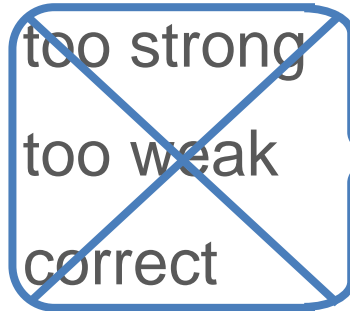
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IEC CA System

common interpretation
common rules
common methodologies
peer assessment

→ **Consistent comparable
CA results, worldwide**

- ~~• Incompetent CABs~~
- ~~• Fraudulent CABs~~

ACCREDITATION

World's Best Practice

→ attested by United Nations



Highest cost-benefit cybersecurity



Optimization formula

Highest cost-benefit cybersecurity

= requirements based on
international standards
+ competent CABs (accreditation)
+ consistent & comparable
CA results worldwide
(IEC CA Systems)



Thank you

<http://www.iec.ch>

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

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