

Collaboration for Market Relevant IoT Standards

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International
Electrotechnical
Commission

About the IEC

World's leading provider of International Standards and Conformity Assessment Systems in Electrotechnology

171 Countries

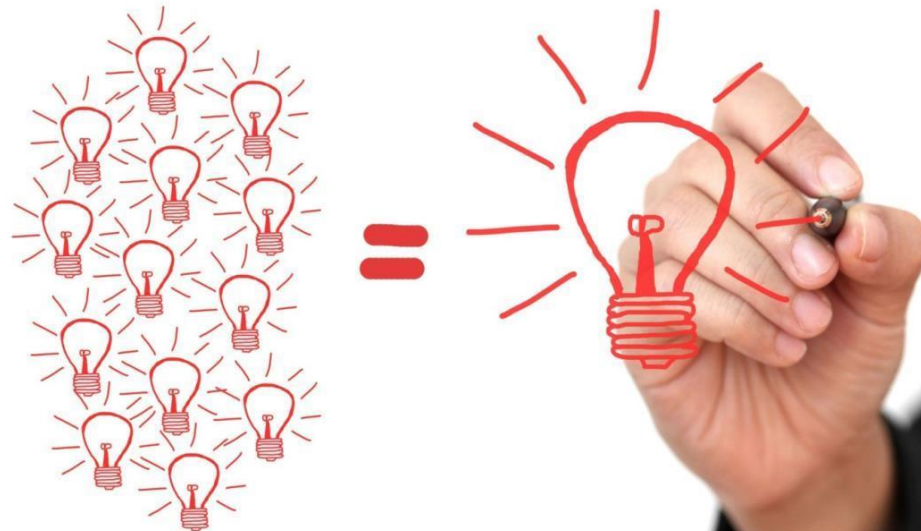
204 Committees

20 000 Experts

10 000 International Standards

4 Conformity Assessment Systems

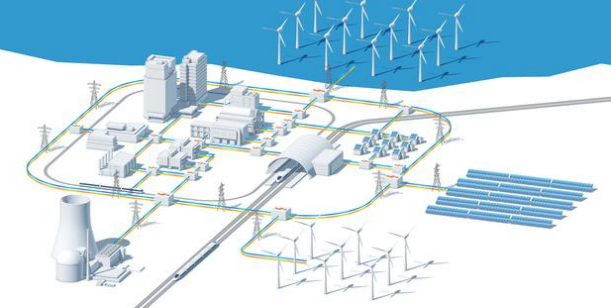
1 million Certificates



IoT @ IEC is an old story



Digitization and connectivity of devices and equipment in industrial automation, power systems and buildings



What is changing today

- Massive use of mobile devices
- + Ubiquitous and cheap sensors
- + Sophisticated AI algorithms
- + Huge amounts of data



Do we need IoT standards?

Too few or too many standards?

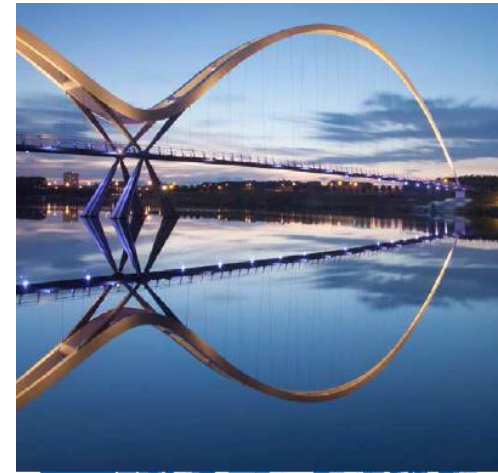
One size does not fit all

Don't dream about convergence,
multiple protocols will coexist

Don't reinvent the wheel, look at
successful consortia (e.g. Bluetooth)

Data standards will be driven by AI

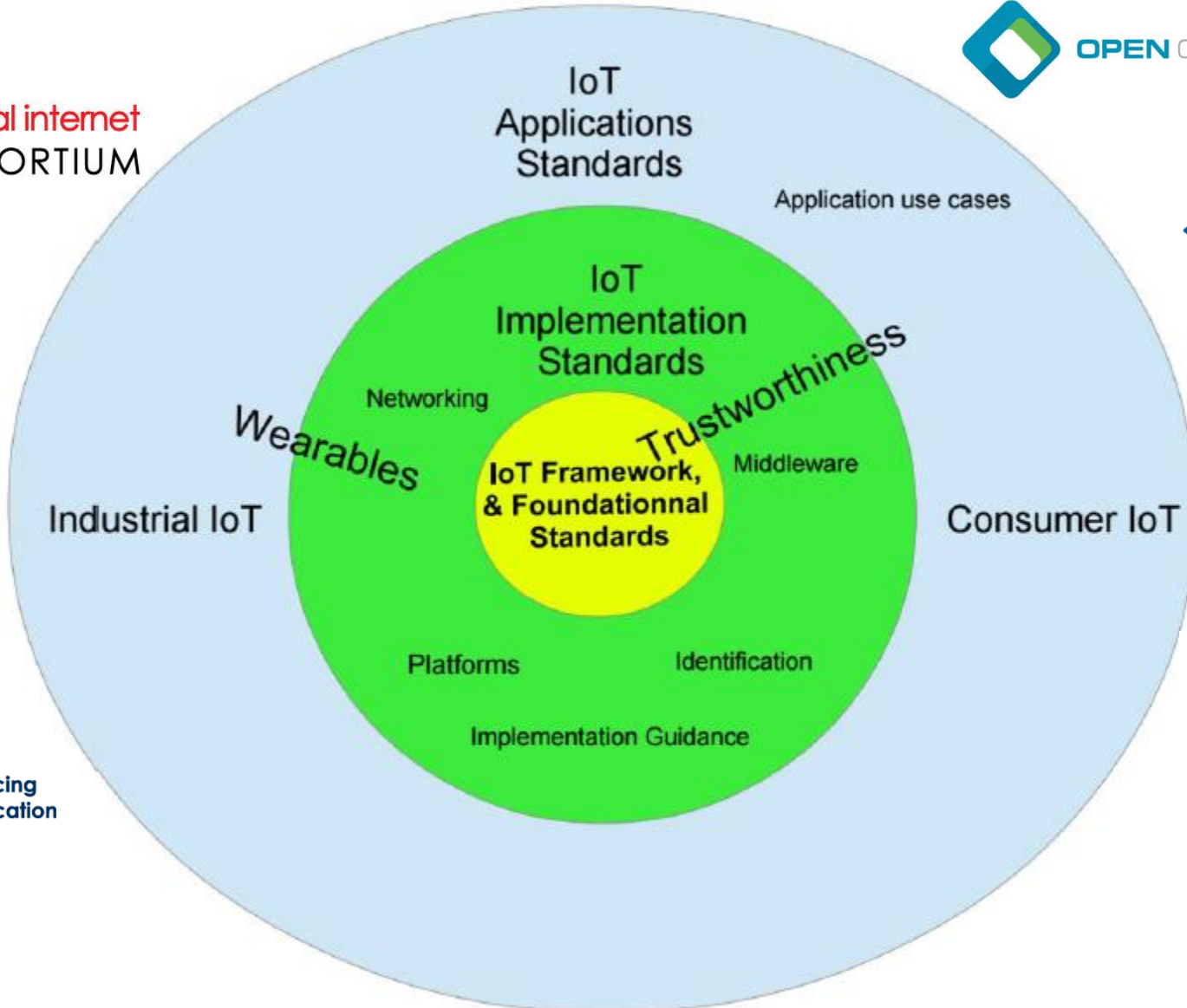
Focus on critical issues (e.g. security)



The IEC and consortia:
a win-win partnership



ISO/IEC JTC 1/SC 41 (IoT)



Collaboration for IoT standards

Definitions and vocabulary

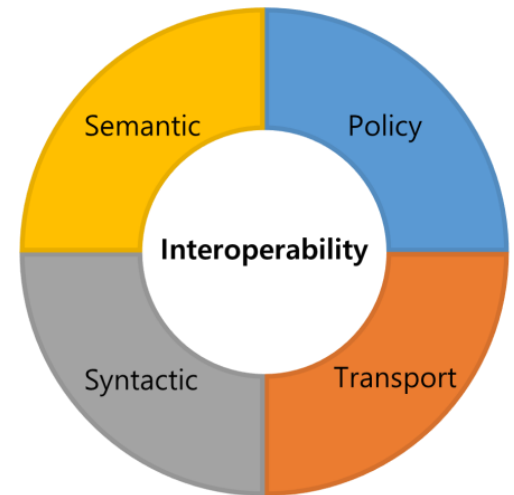
Reference architectures

Use cases | IEC 62559 methodology

Semantic interoperability

Data related issues for machine learning
(data quality & reliability, bias in training data ...)

Trustworthiness & ethical challenges



Takeaways

SDOs need to reinvent themselves and become more flexible, agile and open

Coherence helps drive market adoption

SDOs should not replicate what consortia have successfully developed, but partner with them

Data standardization and trustworthiness are critical topics for successful IoT/AI integration



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

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