

BDVA Webinar on Standards for SMEs

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Standardization and SMEs

- ❑ What is Standardization?
- ❑ What are examples of standardized technologies, tools or services?
- ❑ What are the benefits of standardization?
- ❑ Who is responsible for developing standards?
- ❑ What is the process?
- ❑ BDVA and Standards!
- ❑ What are examples of SMEs and Startups that have been at the forefront of standardization ?
- ❑ Wrap Up.

Ray Walshe
(BDVA Standards Lead)

What is Standardization?

DEFINITION

a "**standard**" is "a **widely agreed** way of doing something".

"designing a product", "building a process", "implementing a procedure", or "delivering a service"



What are examples of standardized technologies, tools or services?



What are the benefits of standardization?

Benefits to Innovation

promoting the interoperability of products, services and processes

reducing development time, costs and risks, by steering designers' activity, which facilitates the uptake of innovation in the marketplace

Benefits the environment by

- Enhancing the safety of products
- Supporting environmental sustainability

Benefits the economy by

- Incentivizing investments, as standards ensure the stability of the technology in a reasonable time frame
- Enabling economy of scale
- Encouraging larger and fairer competition
- Facilitating trade thanks to common approaches among Countries

+ Innovation

+ Trade and competition

+ Safety and sustainability



Ease new developments
(- risk, - investment,
+ opportunities)

Enlarge potential market

Fairer competition and less risks of non-compliance
(widespread and shared basic requirements)



+ Innovation

+ Trade and competition

+ Safety and sustainability



Satisfaction of tangible and intangible needs

Best value for money

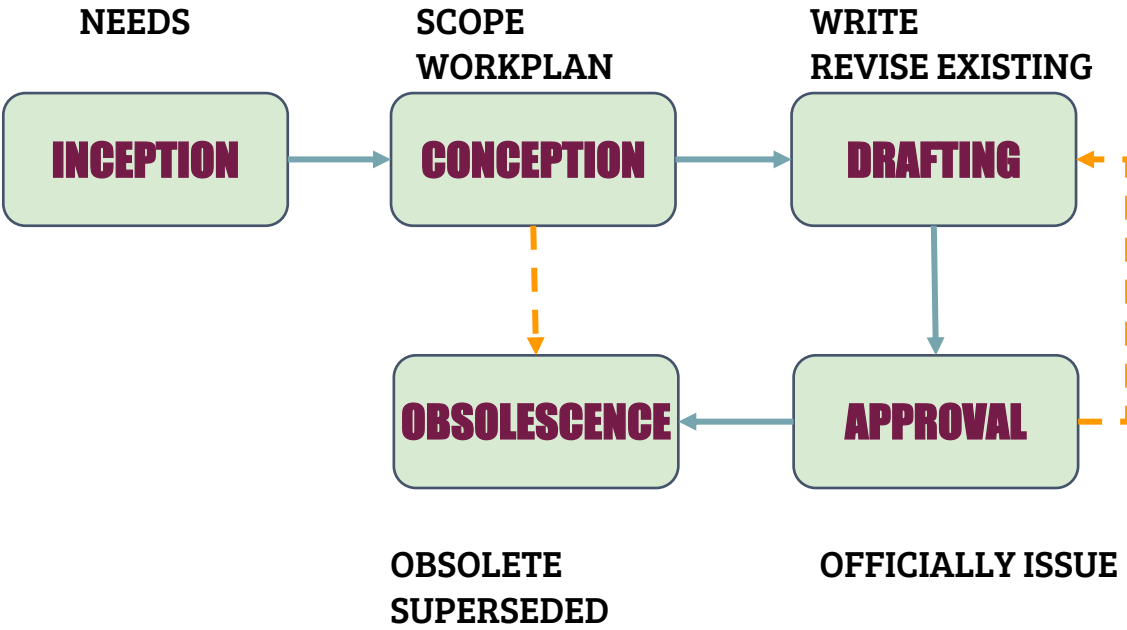
Safer environment












Who is responsible for developing standards?



What is the process?



	National level e.g. Germany	Regional level e.g. Europe	International
General			
Electrotechnology			
Telecommunications			

BDVA and Standards

TF6.SG6 ->SC42, AG9



BDVA and ISO/IEC JTC1 SC42



SC42 ARTIFICIAL INTELLIGENCE

Official Category A Liaison

Liaison Officers: Ana Garcia Robles, Ray Walshe

□ Current Projects

Standards and projects under SC 42
Published

- ISO/IEC 20546:2019
Big data — Overview and vocabulary
- ISO/IEC TR 20547-2:2018
Big data reference architecture — Part 2: Use cases and derived requirements
- ISO/IEC TR 20547-5:2018
Big data reference architecture — Part 5: Standards roadmap
- ISO/IEC 20547-1:2020 (To Be Published)
Big data reference architecture — Part 1: Framework and application process
- ISO/IEC 20547-3:2020
Big data reference architecture — Part 3: Reference architecture

BDVA and ISO/IEC JTC1 SC42



Under Development

- ISO/IEC 24668: Artificial Intelligence — **Process management framework** for Big data analytics:: Status: Working draft
- ISO/IEC 22989: **Artificial Intelligence Concepts and Terminology**:: Status: CD Ballot
- ISO/IEC 23053: Framework for Artificial Intelligence (AI) **Systems Using Machine Learning (ML)**:: Status: CD Ballot
- ISO/IEC 24027: Artificial Intelligence (AI) — **Bias in AI systems** and AI aided decision making :: Status: Working draft
- ISO/IEC 24028: Artificial Intelligence (AI) — Overview of **trustworthiness** in Artificial Intelligence:: Status: CRM (Successful DTR Ballot)
- ISO/IEC TR 24029-1: Artificial Intelligence (AI) — Assessment of the **robustness of neural networks** — Part 1: Overview:: Status: DTR Ballot
- ISO/IEC TR 24030: Artificial Intelligence (AI) — **Use cases**:: Status: DTR Ballot
- ISO/IEC 38507: **Governance of IT** — Governance implications of the use of **artificial intelligence** by organizations:: Status: Working draft
- ISO/IEC 23894: Artificial Intelligence — **Risk Management**:: Status: Working draft
- ISO/IEC TR 24372: Artificial Intelligence — Overview of **computational approaches for AI systems**:: Status: Working draft
- ISO/IEC TR 24368: Artificial Intelligence (AI) — Overview of **ethical and societal concerns**:: Status: Working draft

JTC1 Data Usage Advisory Group

- Liaison Officers: Ray Walshe
 - Current Projects

- ISO/IEC 20546:2019
 - Big data — Overview and vocabulary**
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- ISO/IEC TR 20547-5:2018
 - Big data reference architecture — Part 5: Standards roadmap**
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Startups and SMEs

EXEMPLARS





Decawave Is Now **QORVO**.



The IEEE 802.15.4a is an international standard defining the IR-UWB physical layer. This standard was designed to deliver very high accuracy location while providing simultaneous two-way communication – up to 27Mbps – to collect sensor data and control actuators. This standard was initiated in 2005 and ratified in 2007 before being fully integrated in 2011. In 2018 the standard was re-opened in the form of [802.15.4z](#) to add further security to the physical layer as UWB is now expected to be used as a secure transaction wireless technology by the automotive and mobile industries.

Decawave CTO and co-founder Michael McLaughlin was part of the team of engineers who created the standard. This early team had the vision to make every connected object “location aware,” as they believed that “answering the where” would add huge value to the success of applications like the Internet of Things (IoT).

Founded in 2007 by Mr Connell and Mr McLaughlin, the Dublin-headquartered company offers ultra-wideband (UWB) wireless technology via a low-power chip that can identify the specific location of any object indoors to within a few centimetres.



Openet is a world leading Digital BSS company that provides charging, policy and data management solutions. Its products process more than 20 billion events and transactions every day across more than 330 million subscribers for more than 75 clients worldwide including T-Mobile, BT, Sprint, Eir and Vodafone.

“The problem I saw was that all the major telecoms network equipment suppliers had their own interpretation of standards and there was no consistency” Joe Hogan CEO Openet



TAOGLAS provides a comprehensive range of external, embedded and base station antenna solutions. Taoglas is the **world's leading provider of Next-Generation IoT solutions**, combining the latest in high-performance RF antenna with advanced positioning, imaging, audio and artificial intelligence technologies for companies with unique IoT challenges.

Narrowband IoT (NB-IoT) is a Low Power Wide Area Network (LPWAN) radio technology standard developed to meet the emerging demands and challenges of IoT devices and services.



VALUE ADDED



Staff at Irish computer chipmaker **Decawave** are expected to share a €54.4 million payout following the **sale of the company to US-based Apple supplier Qorvo earlier this week for €436 million** (The Irish Times Fri, Jan 31, 2020)

Taoglas' international patent portfolio includes over 250 patent applications and over 90 issued patents worldwide.

Turnover rose by 29 per cent to **€44.6 million** in the year with operating **profit increasing by 7.7 per cent** to just under €4.4 million.

OPENET, which is Ireland's largest privately owned software firm, has **raised more than €53 million** since it was established. **Valuation: 100 Million.**

