EDIH

How Standards can help European SMEs Succeed and Scale – Success Stories & Supports

20/06/2024

EDIH | European Digital Innovation Hubs Network

European Commission

Webinar organisation

- **The meeting will be recorded and made available online.**

- **Please keep your microphone muted when not speaking.**

- **Please use the chat for questions.**

Agenda

Time	Topic	Speaker
11:00	Welcome	Gaspard Demur, DG CNECT
11:05	Overview of the benefits of engaging in standardisation for SMEs and the supports available	Paul Killeen, DG CNECT
11:15	Success stories from SMEs on how they engaged successfully in standards development • Idiro • Newen Group • Trialog	Aidan Connolly & Adrian Byrne, Idiro Emilio Posca, Newen Group Antonio Kung, Trialog
11:45	Questions & Answers	Paul Killeen, DG CNECT Marie Bourdon, DTA
11:55	Conclusion	Emilio Dávila Gonzalez, DG CNECT
11:55	Wrap-up and next steps	Gaspard Demur, DG CNECT

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Standardisation System – Local to Global

Standards Development Organisations

Formally recognised

- **International** bodies: ISO, IEC, ITU

- **European** bodies: CEN, Cenelec, ETSI

- **National** bodies: DIN, AFNOR, NSAI,…

Others

- Fora & Consortia:

  IETF, W3C, OASIS,
  OMG, Bluetooth … and others

Community of Experts
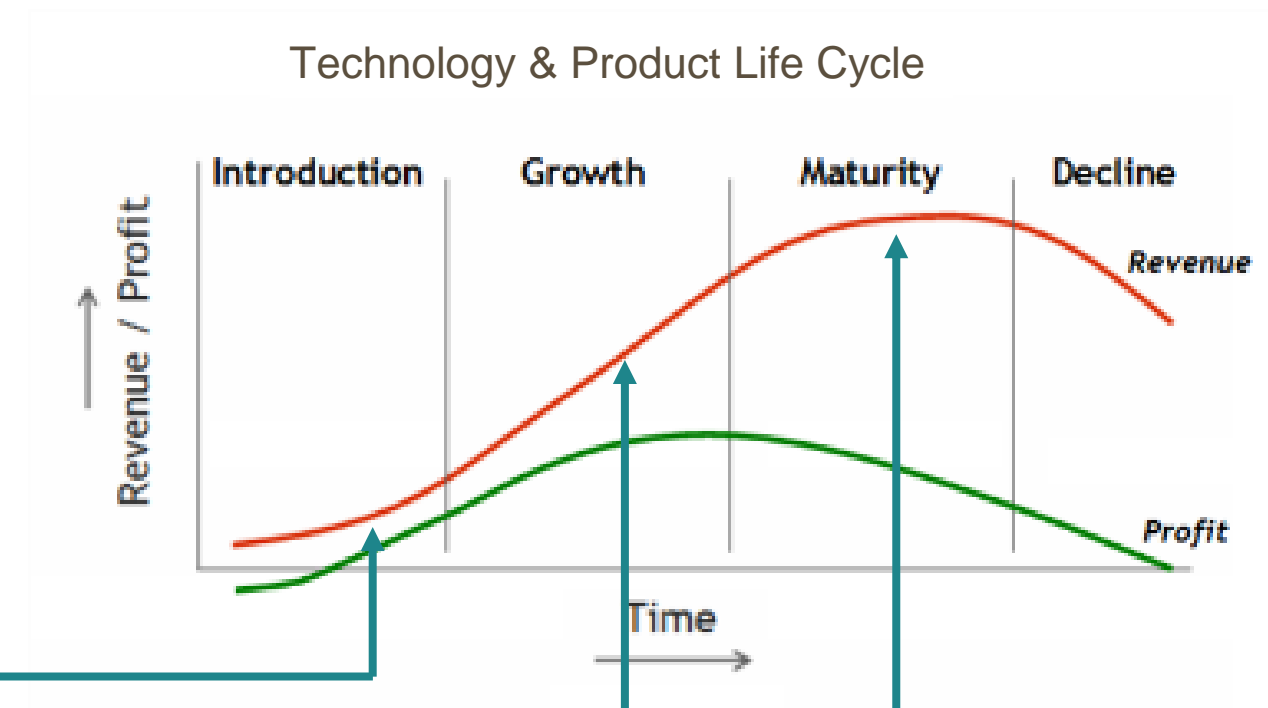
*(open, consensus, voluntary
… local to global)*

Benefits for SMEs – Standards Development & Use

- Access International Markets

- Networks & Partnerships

- Customer Trust & Confidence

- Compliance with legislation

- Public procurement

- Best Practices

- Risk reduction

- Interoperability

- **Innovation platform - get ahead of the curve**

European Commission

Engagement in Standardisation - Options for SMEs

Get Ahead of the Curve

Technology & Product Life Cycle

Leaders
Ahead of curve - actively engage in standards development, provide technical contributions
Build support for proposals - get your ideas & IP into the standard & innovate on-top
Leverage active involvement - gain time-to-market advantage

Fast followers
Attend standards meetings, understand work-in-progress & what is coming 'down the tracks'
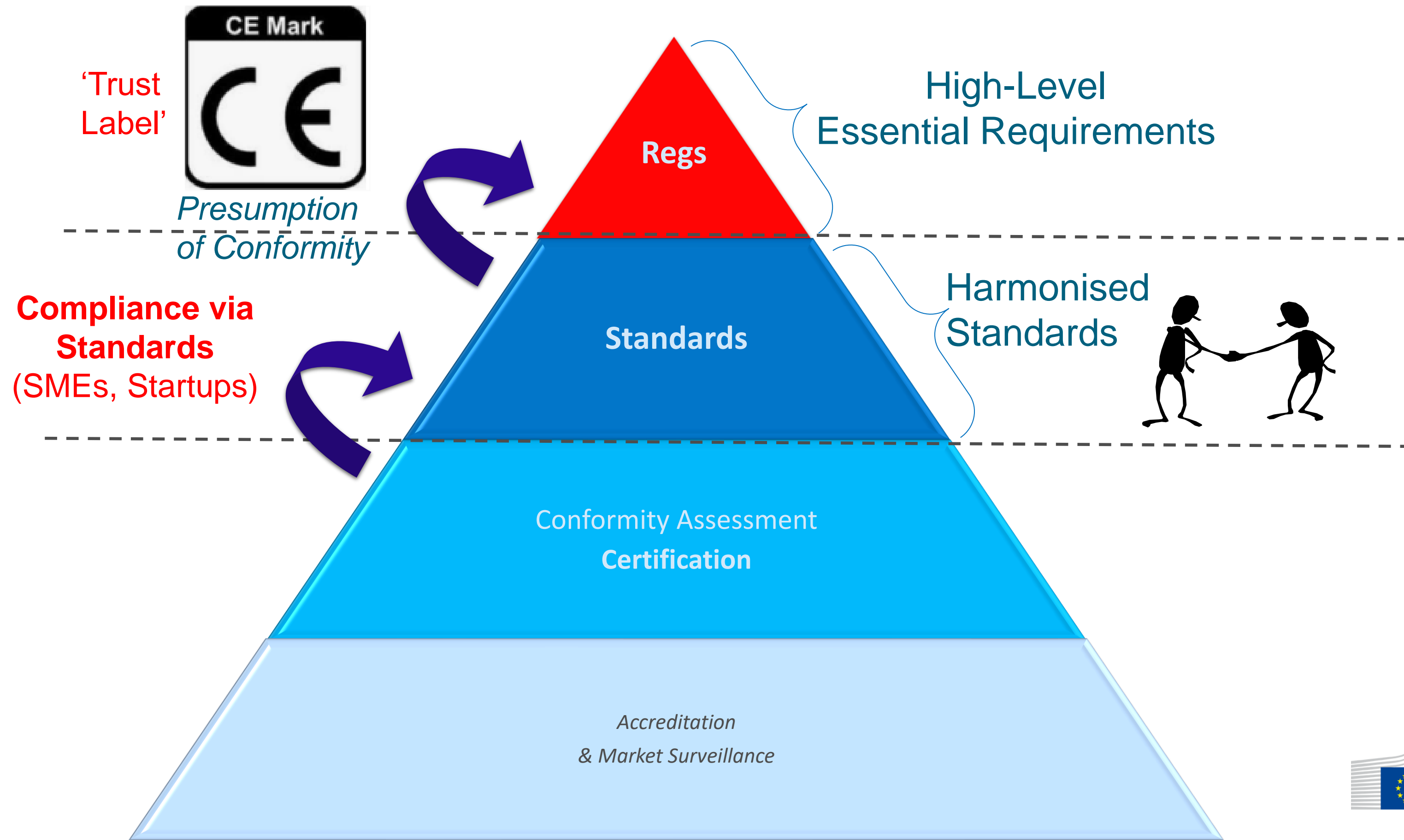Try to launch products closely behind market leaders

Adopters
Wait for the market to develop before engaging - standards users / takers

Laggards
Ignore standards & 'hope for the best' …

Participation of more European SME experts

?

European Commission

Standards & EU Regulation

New Legislative Framework e.g. Medical devices ... AI Act, Cyber Resilience Act, Data Act etc

'Trust Label'

Presumption of Conformity

Compliance via Standards (SMEs, Startups)

Regs

Standards

Conformity Assessment **Certification**

Accreditation & Market Surveillance

High-Level Essential Requirements

Harmonised Standards

European Commission

Support for SMEs - EU Standardisation

EU funded projects

[scoping study](#) examples of **best practices**

Mentoring via standards experts

Funding to participate in ICT standards
& 'existing **standards' landscape reports**
& Academy / **training** materials
& SME Mentoring programme

Interaction with SDOs / National Standards Bodies

Intermediate Associations

EU digital policy objectives
& ICT standardisation needs

Rolling Plan 2024 | Joinup (europa.eu)

CEN and CENELEC supporting tools for Small and Medium Enterprises (SMEs)

GET INVOLVED

▶ CEN & CENELEC **close partnerships with Small Business Standards** (SBS) → Tailored rights in CEN and CENELEC technical & strategic activities, complementing SMEs' national involvement

▶ **CEN-CENELEC SME-Working Group** → Dedicated high-level advisory body to the CEN and CENELEC Boards on SME-related matters

▶ National SME Helpdesks → Your national dedicated contact points for SMEs

▶ SME toolbox of Solutions → An online journey through the world of standardization that provides you with the knowledge you need to participate at the touch of a button

▶ CEN-CENELEC Guide 17 → **SME Standardization Guide** for standards-writers to take into account SMEs' interests in standard-drafting *(Available in 27 Languages)*

▶ **LinkedIn** 'SMEs and Standards' → A public community for European SMEs to exchange and learn more on Standards for their business

▶ **Video** Standards, business tools for SMEs →Making the business case for the use of standards & participation of SMEs in the standardization work

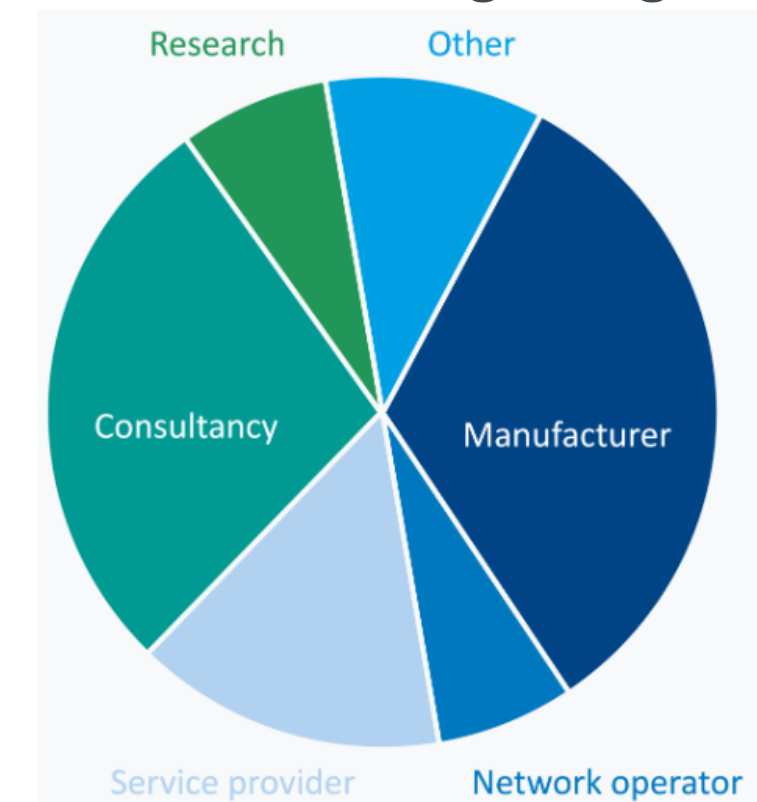# Small and Medium Enterprises (SMEs) - Grow with ETSI

SME Member Benefits in ETSI

Whatever their size, all our members have the same level of access.
They can participate directly in our standards-making activities in a consensus-based environment. Benefits for SMEs include:-

Networking	• Meet the leading players in the field, and our community of innovative experts from around the globe
Knowledge	• Keep up to date with the latest European standards and gain insight into European Regulations
A place to form partnerships	• Meet with your customers and competitors in a neutral and informal environment and create new relations
Enhanced competitivity	• Develop products in parallel to the standards development, ensure technical compatibility and gain a competitive edge
Shaping the work	• Impact standards development by contributing your requirements and bringing them into technical specifications
Best practices	• Increase knowledge of European and international best practices
Interoperability testing	• Ensure technical interoperability of products and services
Visibility	• Increase company visibility and enhance your reputation

https://www.etsi.org/membership/sme

SMEs in ETSI

- **35** Nationalities
- **27%** of our members are SMEs and MEs
- Over **50%** of official positions in our technical groups are held by SMEs
- Our SMEs fall into the following categories:

Pie chart categories: Research, Other, Manufacturer, Network operator, Service provider, Consultancy

How to join?
Simply fill in the online application form

Who can I contact?
For any questions, please contact **sme**@etsi.org.

Thank you

CONTACT: paul.killeen@ec.europa.eu

Idiro,
Aidan Connolly & Adrian Byrne

European Commission

Idiro Analytics – leveraging standards to drive growth

Aidan Connolly

CEO – Idiro Analytics

Idiro Analytics – we specialise in the development and deployment of AI and ML solutions. Projects delivered in over 40 countries.

Why get involved?

1. **Market Access and Scaling**

   - Enable SMEs to access larger markets and scale their products internationally.

   - They provide a framework for ensuring product quality and safety, which is crucial for gaining consumer trust and entering new markets.

2. **Innovation and Competitive Advantage**

   - Engaging in standards development allows SMEs to stay ahead of the curve by contributing to and shaping industry standards

3. **Trust and Reputation**

   - Standards contribute to building trust with customers and partners by demonstrating a commitment to best practices.

Idiro Analytics – current involvement in standards

National Standards Authority of Ireland (NSAI)

[Member of International Organization for Standardization & European Organisation for Technical Approvals]

Standards for the development and deployment of ethical AI

- **AI transparency**

- **Bias mitigation**

- **Functional safety**

- **etc**

How Standards can help European SMEs Succeed and Scale

Marie Skłodowska-Curie Career-FIT PLUS Fellow, CeADAR UCD and Lead Researcher; AI Ethics Centre, Idiro Analytics
Dr Adrian Byrne

How Standards can help European SMEs Succeed and Scale

Motivation for/Advantages of joining a NSB

Opportunity to appreciate what standards (both existing and under development) are relevant to your area of research/expertise

Opportunity to contribute to the development of standards within your area of research/expertise

Opportunity to network with other experts within your area of research/expertise

Opportunity to learn what topics are being lined up for standards development

How Standards can help European SMEs Succeed and Scale

Facilitators/barriers to successful engagement with a NSB

Relationship with NSB liaison officer key for successfully navigating the world of standards development

Early engagement in the standardisation process is required for maximal influence and participation

Continual engagement is required as standards development can take a few years from first proposal to final publication

Newen Group, Emilio Posca

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Our mission is to develop innovative products, presenting solutions that starting from emerging technologies lead to technically advanced solutions not present on the various markets

This requires a deep knowledge of the markets on which we operate and a continuous updating in technologies evolution, with a particular focus on energy storage.

... and these are the characteristics that distinguish NEWEN

BUSINESS UNIT

INDUSTRY

TELCO POWER SOLUTION

E-BIKE

To do this we have entered into European Standardization Bodies where we can contribute to define future products.

Active presence in

ETSI
World Class Standards

Appointed by

Small Business Standards

to represent European SME's in ETSI TC Environmental Engineering

Founder member of

Italian DIGITAL SME Alliance

Addressing the global market represents a high commitment for an SME both in terms of human and economic resources

There is a need to be «time to market» and make this compatible with the long time required for the definition/ implementation of projects

Not possible to create products that can meet the demands of individual customers

It is necessary to identify a common basis from which to start.

Starting from a standard means to have covered good part of the design

Market trends and guidelines emerging in standardization Working Groups make it possible to identify the future products needed by future networks

It is possible to start developing projects on the basis of specifications not yet consolidated. It's a great advantage to have access to all the documents that are not yet public.

Comparison with other manufacturers allows to identify the free spaces of markets or the sectors with the greatest chance of success

Standard drives development

Declaring the SME a member of European Standard Body represents an objective advantage, in terms of competence and reliability

Declaring that its products comply with regulations, facilitates the opening of international markets

Adopting standard makes easier market approach

How we utilize the standard

We start a product design utilizing draft standard version

To influence the standard according to

   SME characteristics, avoiding complicated rules and unsustainable
   expenses
   Our experience during the development of the related product

Insert in the standard the positive result of the realized product

Supercapacitor devices

Product covering main grid microinteruption to be inserted in street cabinet with severe environment

Target to avoid the restart of equipment, increasing the down service up to minutes.

We realized the product according to EN 302 099 draft specification and the result obtained with our devices on field are reported in the final version
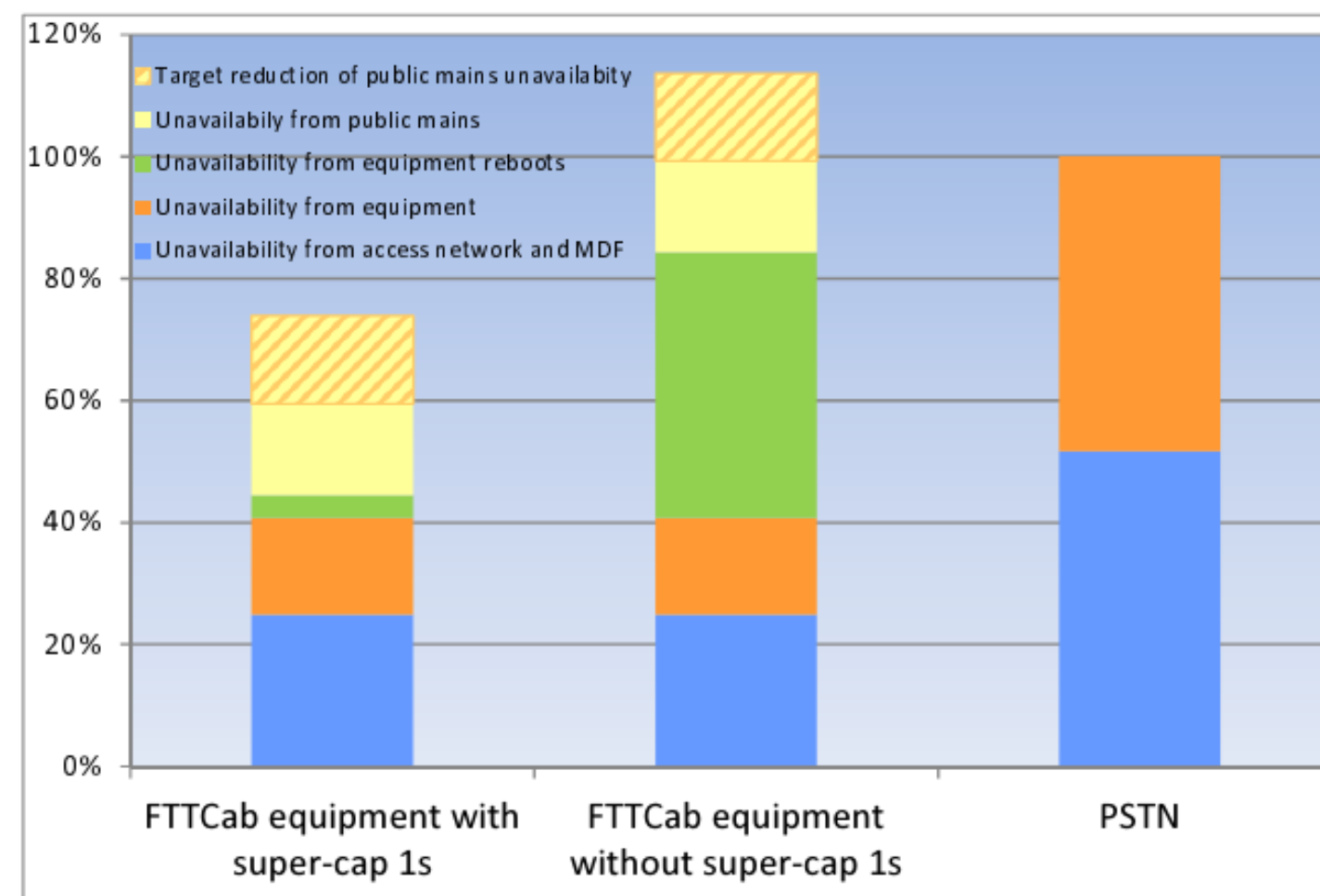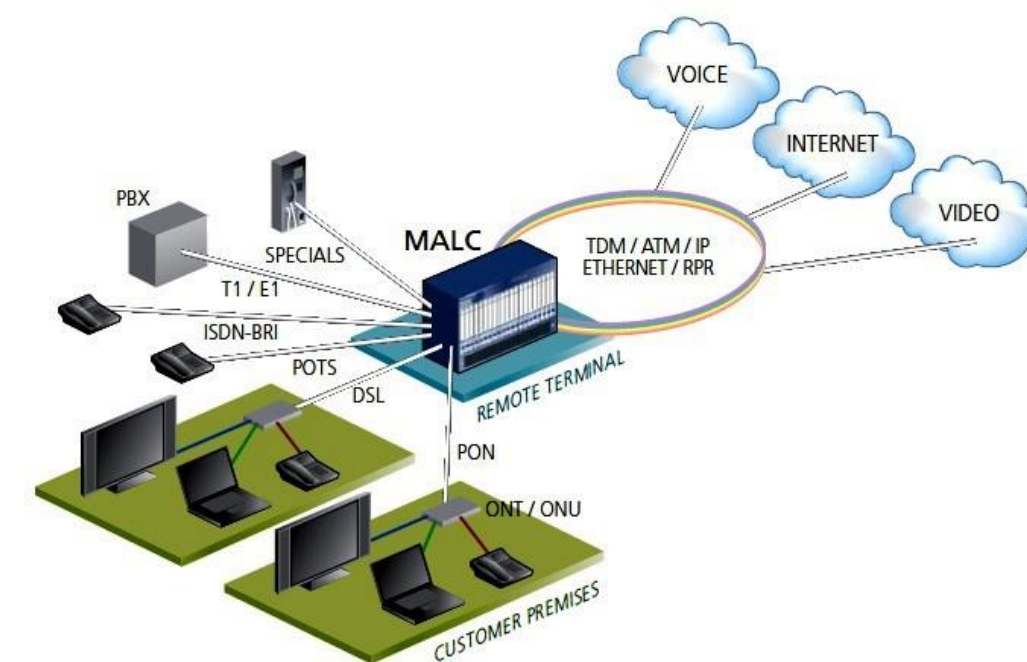

Figure A.6: Unavailability of new NGA network (FTTCab) vs. classic PSTN

Lithium battery device

Backup module covering main grid interruption to be inserted in street cabinet with severe environment

Target to guarantee the continuity of service for emergency call, video surveillance and connectivity in general

A data log tracking of events and environmental parameters have been inserted the product according to standard ES 202 336-11.

ES 202 336-11 is now in revision and we our proposal based on our implementation has been accepted

Power supply with integrated backup

A product to guarantee continuation of services in home premises has been developed according standard relevant to Customer Premises Equipment.

According to the indication for Ecodesign requirements from European Commission and the standard EN 301 575 (draft version under revision), we realized the product and now we are adapting to the new requirement.

Trialog, Antonio Kung

Standards
An SME perspective

Antonio Kung – CEO Trialog

Trialog is a SME

- Creation date: 1987
- Size
  - 1987: 30 engineers
  - 2024: 40 engineers
- Business: support the industry to integrate innovation
  - Automotive (1987)
    - Integrating multiplexing
  - IoT systems (1993)
    - Integrating home networks
  - Energy (1993)
    - Integrating smart meters
  - Mobility (2007)
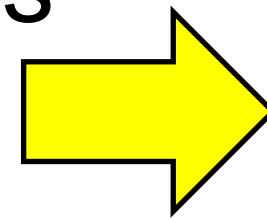   - Integrating Interoperability in EV charging stations

Trialog

Why get involved?

- **Trialog business is based on three pillars**
  - Research and innovation
  - Standards
  - Resulting business

- **Current standards involvement**
  - Using standards
    - Since 1987
    - All engineers (40)
  - Monitoring and contributing to standards
    - Since 1995
    - 15 engineers out of 40
  - Monitoring and driving standards
    - Since 2014
    - 3-5 engineers out of 40

⟹ **Will allow Trialog to scale**

Trialog

Speaker

- **CEO Trialog**

- **Standardisation topics**
  - Architecture
  - IoT, Digital twin
  - Security and Privacy
  - AI

- **Liaison officer and representative**
  - ISO/IEC JTC1/SC27 to OECD
  - ISO/IEC JTC1/SC42 to UNESCO
  - ISO/IEC JTC1/SC27 to ENISA Stakeholder Cybersecurity certification group

- **Impact of regulation**
  - GRPR, AI Act, Cyber Resilience Act
  - EU harmonised standards

- **ISO/IEC JTC1/AG8 - Meta Reference Architecture**
  - Best practices and guidance for reference architectures
- **ISO/IEC JTC1/SC27 – ISO PC317 - Security and privacy**
  - 27091 AI systems - Privacy protection
  - 27115 Cybersecurity evaluation of complex systems
  - 27116 Customized and multipurpose evaluation
  - 27550 Privacy engineering
  - 27556 Privacy preference management
  - 27561 POMME – Privacy operationalisation
  - 27563 Security and privacy in AI use cases
  - 27568 Security and privacy of digital twins
  - 27570 Privacy guidelines for smart cities
  - 31700 Privacy-by-design for consumer goods and services
- **ISO/IEC JTC1/SC41 - Internet of things, digital twins**
  - 21823-3 Semantic Interoperability
  - 21823-5 Behavioral and policy interoperability
  - 30141 IoT reference architecture
  - 30149 IoT trustworthiness principles
  - 30151 Extraction of data products
  - 30152 Connection of IoT and digital twins to data spaces
  - 30194 Guidance for use case projects
  - 30188 Digital twin reference architecture
- **ISO/IEC JTC1/ SC42 - CEN-CENELEC JTC21 - AI**
  - 5392 Knowledge engineering reference architecture
  - **AI Trustworthiness framework**
- **ISO TC215 Health informatics**
  - Application of AI Technologies in Health Informatics (Ahg2 report)
- **ISO TC22 Automotive**
  - 8475 Cybersecurity assurance level and Target attack feasibility
  - 21434 Road vehicle cybersecurity engineering

Trialog

How Standards can help European SMEs Succeed and Scale: Example 1

- **From research**
  - 1993: Home network technology based on powerline (EHS)
    - EHS: European Home System

- **To making standard**
  - 1995: Creation of Konnex, with KNX technology (integrating EHS)
  - 1997: CECED of white goods profiles (based on EHS)

- **To building technology products**
  - 1999: Biggest business activity
    - Products on the market (Miele, BSH, Liebherr, V-Zug)

From standards to business products

How Standards can help European SMEs Succeed and Scale: Example 2

- **From research**
  - 1996: Contract with Renault on first Hybrid Vehicule

- **To standards**
  - 2007: Contract to follow a standard on vehicle charging (ISO 15118)

- **To making technology products**
  - 2018: Multi-standard test products
  - 2020: Golden member open charge alliance (OCPP)
  - 2024: Biggest business activity today of Trialog

From standards to business products

Trialog

How Standards can help European SMEs Succeed and Scale: Example 3

- **From privacy problem**
  - 2006: Sevecom (security of vehicular communication)
  - 2012: Preciosa (privacy ot ITS)

- **To privacy regulation (GDPR)**
  - 2014: PRIPARE (privacy-by-design support action)

- **To privacy standard know-how**
  - 2015: ISO/IEC 27550 privacy engineering for lifecyle process
  - 2017: ISO/IEC 27570 privacy guidelines for smart cities
  - 2018: ISO/IEC 31700-1, 2 privacy-by-design for consumer goods and services
  - 2018: ISO/IEC 27561 Privacy Operationalisation Model and Method for engineers (POMME)
  - 2022: AI trustworthiness framework (AI act)
  - 2023: ISO/IEC 27091 AI privacy protection

- **To engineering**
  - Engineering contracts on security and privacy

From standards to engineering business

Trialog

Business value to SMEs

- ## Legitimacy
  - SMEs and big enterprises have the same voice, and the same recognition

- ## Business advantage
  - Core SME business can be based on key standards
  - Core SME business can be compliant with other aspects (e.g. privacy compliance)

- ## Potential for engineering business
  - Support on the use and application of standards
    - Example: compliance on security, AI, data

Participation to Standards: Strength and Weaknesses of SMEs

- **Strength**
  - Working on standards is a sum of small tasks
    - **SMEs are efficient**
      - Motivated people
      - Many efficient informal processes
  - Adoption of a standard in an SME is easier to achieve
    - **SMEs have a common culture**
      - Internal communication and rapid decisions

- **Weakness**
  - Unknown territory for SMEs
  - Allocating of resources (is it a priority?, can it be part-time?)
  - Cost of participation
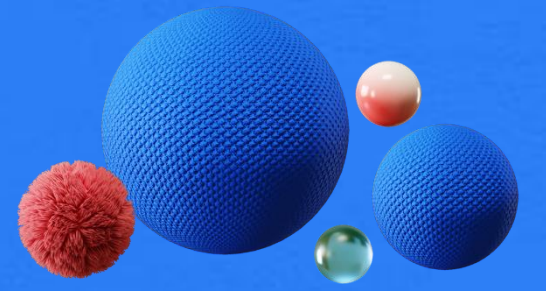   - **But special conditions in some countries**
    - **But remote meetings**

Trialog

Thanks

Any question?

Wrap-up,
Gaspard Demur

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Thank you!

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