The Standards People

ETSI Overview
&
SMEs in ETSI

Claire d'Esclercs – Director for Membership Development

Pierpaolo Marchese – ETSI Board Member

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In a nutshell

- Officially recognized by the EU as one of only **3** European Standardization Organizations
  - A brainchild of Europe > EC and EFTA are Counsellors of ETSI
  - Standards in support of EU policies, legislation and DSM
  - Contributes to ICT radio frequency requirements in EU
- Industry driven, Independent, not for profit organization

- Harmonised Standards and Technical Specs (409 deliverables in 2018)
- Focus on **ICT Interoperability, Development, Testing**

- Made in Europe for Global reach (over 120 MoUs worldwide)
- Collaborative working and partnerships, especially **3GPP and oneM2M**
- Nearly **900** member organizations, big & small, from **65** countries

- "All you can eat" membership model, free download of specs
  - More than **45 000** Technical specifications, reports and Standards
- Robust and respected Intellectual Property Rights (IPR) policy (FRAND)

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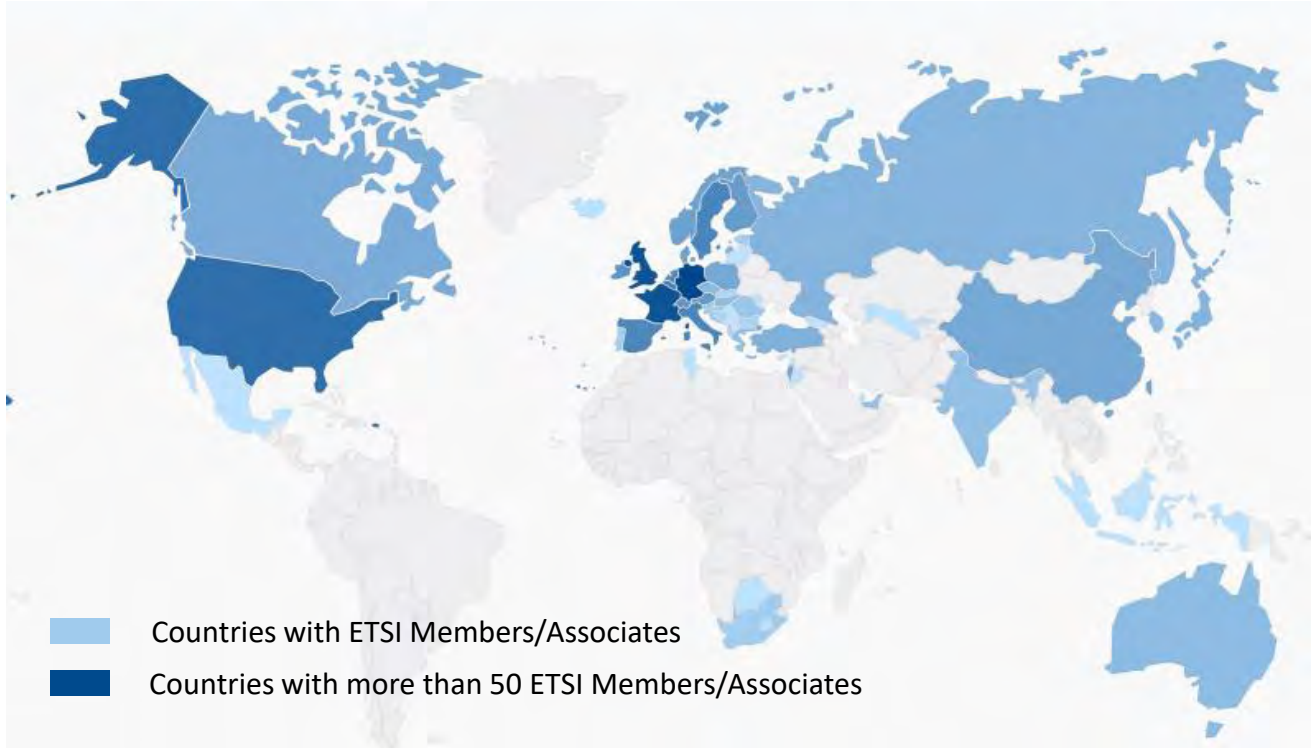
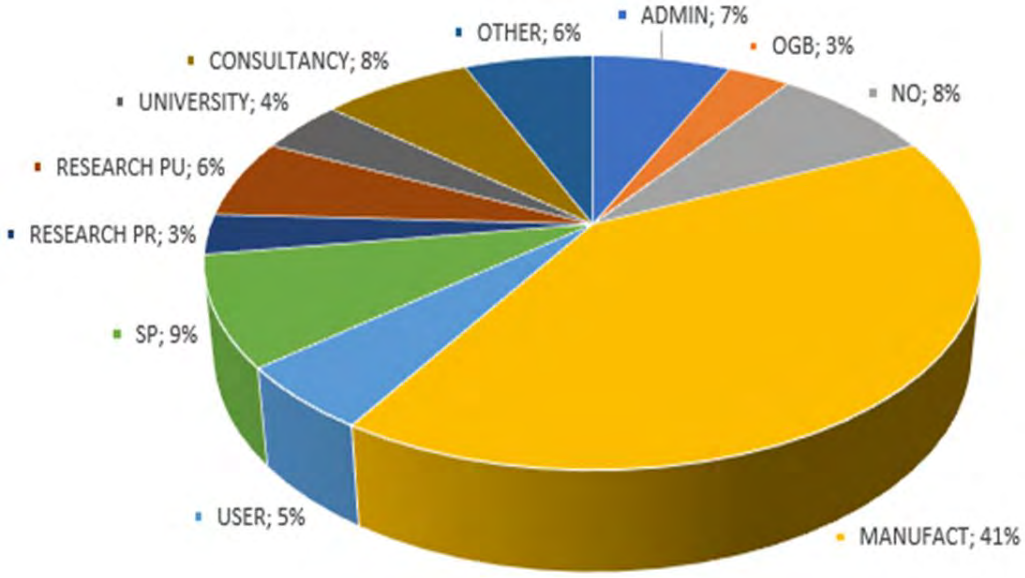
Global Membership



- **35 Italian members of which:**
  - 9 SMEs
  - 4 R&D Centres
  - 3 Network Operators
  - 16 Manufacturers
  - 3 Institutions (MISE, AGiD, State Police)



- ✓ Global membership, global footprint of standards implementation
- ✓ Operates in partnership with organisations worldwide (US, China, Japan, Korea, India)
- ✓ Majority stakeholder in

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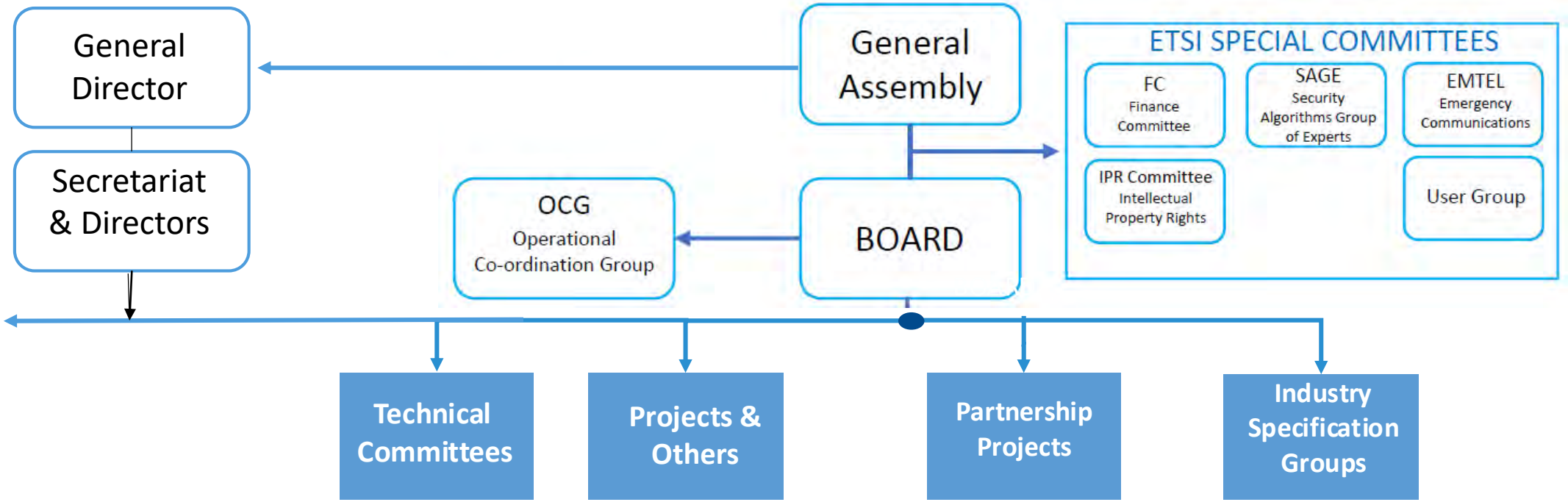
At all levels, consensus is sought



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Areas covered

ETSI INDUSTRY SPECIFICATION GROUPS

- **ARF** Augmented Reality Framework
- **CDM** european Common information sharing environment service & Data Model
- **CDP** City Digital Profile
- **CIM** Cross-cutting Context Information Management
- **ENI** Experimental Networked Intelligence
- **IP6** IPv6 Best Practices
- **MEC** Multi-access Edge Computing
- **mWT** millimetre Wave Transmission
- **NFV** Network Functions Virtualisation
- **NGP** Next Generation Protocols
- **OEU** Operational energy Efficiency for Users
- **PDL** Permissioned Distributed Ledger
- **QKD** Quantum Key Distribution
- **ZSM** Zero touch network and Service Management

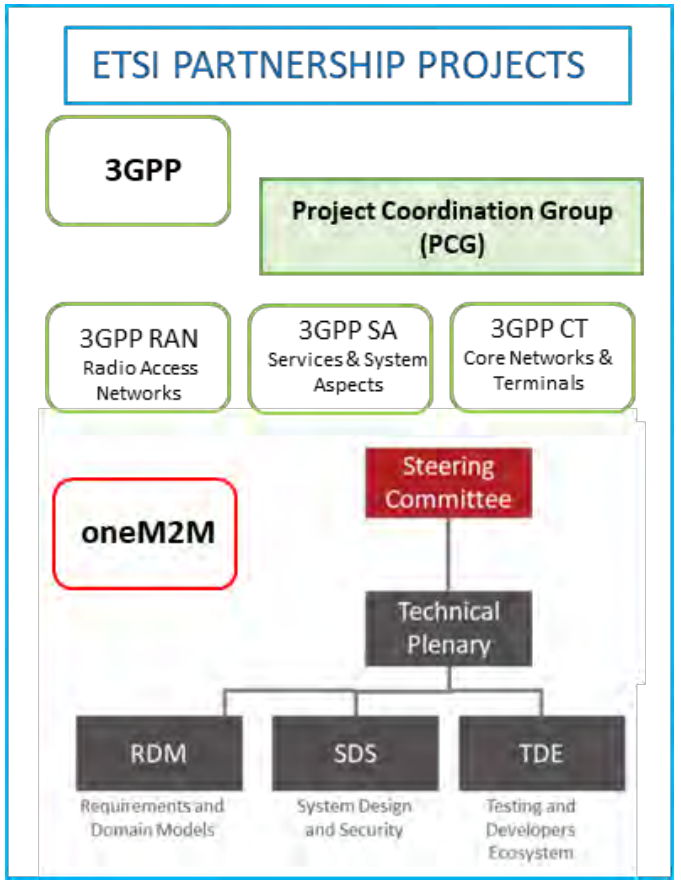
OTHER ETSI GROUPS

- **OSM** Open Source Mano

ETSI TECHNICAL COMMITTEES / ETSI PROJECTS

- **ATTM** Access, Terminals, Transmission and Multiplexing
- **BRAN** Broadband Radio Access Networks
- **BROADCAST** EBU/CENELEC/ETSI on Broadcasting
- **CABLE** Integrated broadband cable telecommunication networks
- **CYBER** Cyber Security
- **DECT** Digital Enhanced Cordless Telecommunications
- **EE** Environmental Engineering
- **eHEALTH** ETSI Project eHEALTH
- **ERM** EMC and Radio Spectrum Matters
- **ESI** Electronic Signatures and Infrastructures
- **HF** Human Factors
- **INT** Core Network and Interoperability Testing
- **ITS** Intelligent Transport Systems
- **LI** Lawful Interception
- **MSG** Mobile Standards Group
- **MTS** Methods for Testing & Specification
- **NTECH** Network Technologies
- **RRS** Reconfigurable Radio Systems
- **RT** Railway telecommunications
- **SAFETY** Electronic communications and systems Safety
- **SCP** Smart Card Platform
- **SES** Satellite Earth Stations & Systems
- **SmartBAN** Smart Body Area Network
- **SmartM2M** Smart Machine-to-Machine communications
- **STQ** Speech and multimedia Transmission Quality
- **TCCE** TETRA and Critical Communications Evolution

ETSI PARTNERSHIP PROJECTS



Why should SMEs be involved in ETSI?

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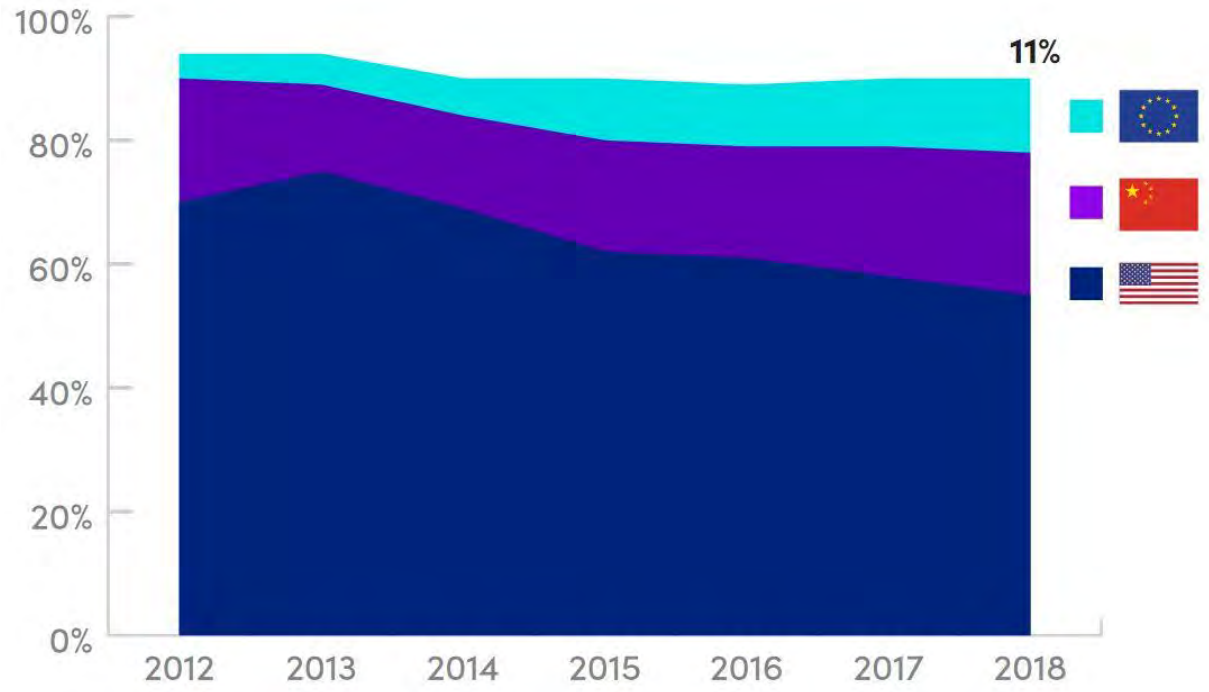
SMEs are key in the European Economy

Europe has only 11% of global business unicorns (6% in UK!), but a long record of SMEs



Source: CB Insights, The complete list of Unicorn Companies , 2018

A strength of European industries is the **high level of collaboration between big and small** companies, as well as across sectors

Important to identify what will influence and shape the future European ecosystem

Small and Medium-sized Enterprises (SMEs) and craft enterprises account for 99.8% of all businesses, 66.5% of all jobs and 57.6% of value added.

A unicorn is a private company with a valuation over $1 billion. As of January 2019, there are more than 300 unicorns around the world.

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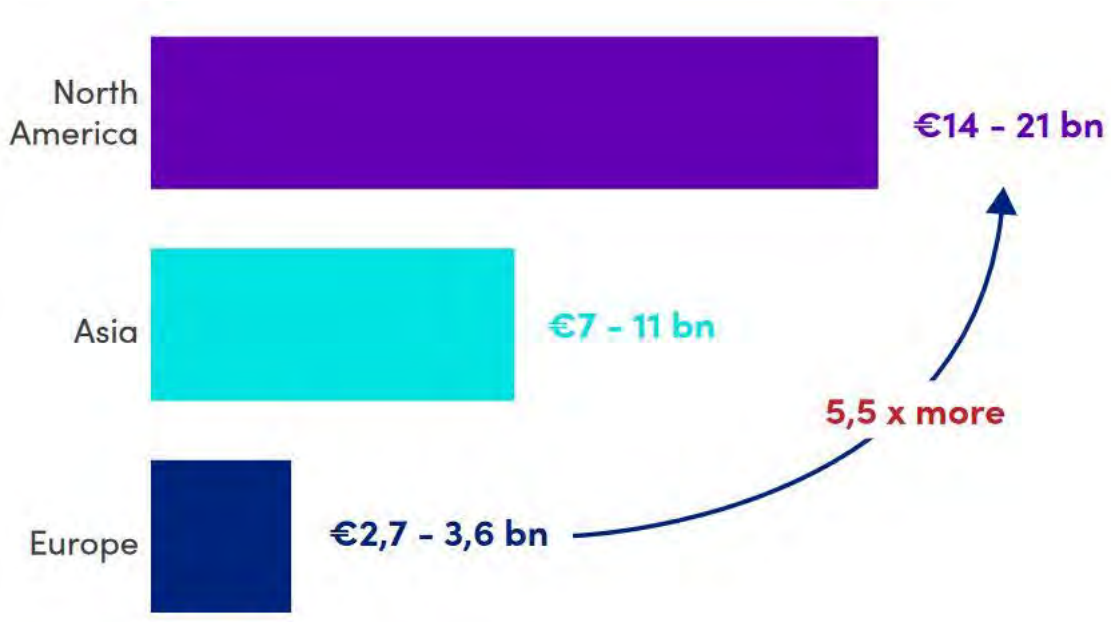
Investing in key technologies- the AI example

"A general feeling that AI/ML will be crucial to many ETSI activities" *(ETSI Board #123 Strategy Workshop)*

Private investments in AI, 2016



Source: McKinsey, Artificial intelligence: The next digital frontier?, 2016

Artificial Intelligence will be a defining technology throughout society

Not only networks but, also, Industry4.0, eHealth, Caring, nextGen IoT, Energy,… will be shaped by AI/ML

Europe cannot afford to fall behind other regions (US & China)

One organization cannot do it alone – partnering is key to accelerate

ETSI is more and more engaged in AI in almost all of its TCs/ISGs

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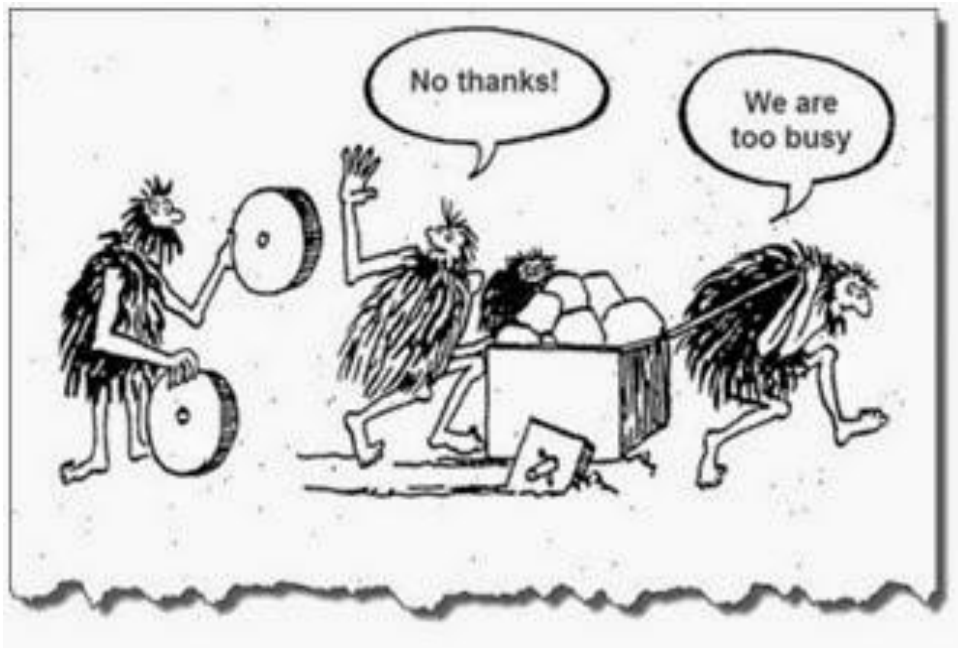
Why standards matter?

- Lower development & production costs
- Give improved product confidence and Interoperability
- Increase competition (good for the market/customer)
- Create and gain access to new markets
- Encourage innovative cooperation
- Turn good ideas in to commercial success
- Baseline for Certification

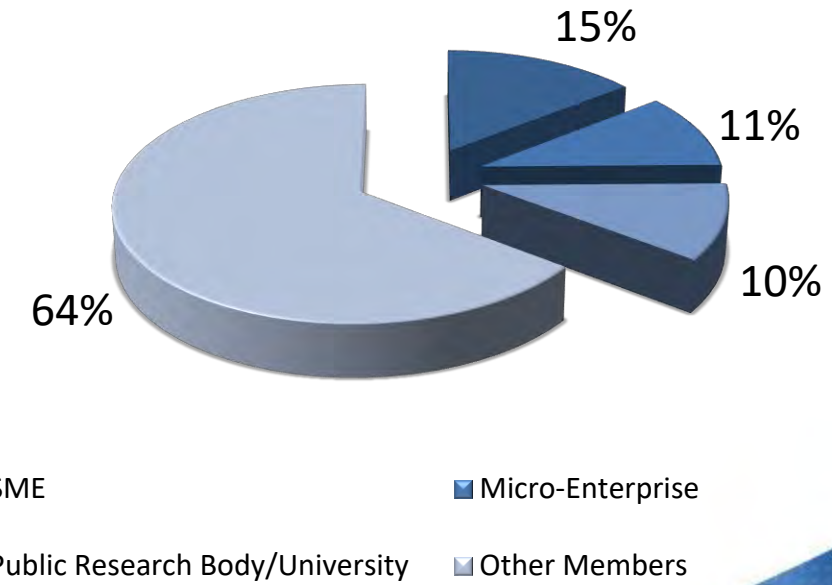
Not getting involved:



In its report "The future of European Standardisation", the EU Parliament stresses that SMEs, although an essential part of the EU market, are not adequately involved in standardisation and cannot, therefore, exploit entirely the benefits derived from standardisation.
*The main problems are **lack of information on new standards**, little knowledge of standards to be applied, proper understanding and applying of standards, obtaining **certificates of compliance with standards** and inability to take part in drafting new standards.*

SMEs as ETSI Members

SMEs make up 26 % of ETSI's membership	• Micro Enterprises (<10 staff): 11%
Reduced annual Membership fees for SMEs	• SMEs: 6 000 € ; Micro Enterprises: 3 000 € • Non-SME Members: 9 380 € - 154 000 €
80 % of SME members are active participants	• ETSI has direct member participation & consensus based decision making
24 % of ETSI chair positions are held by SMEs, 37% SMEs provide rapporteurs	
One ETSI Board seat reserved for an SME representative	



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Standardization for SMEs...

Is a Business Process	• Supporting research, product development, marketing and promotion processes
Is an opportunity to meet customers and build bridges	• And demonstrate your willingness to invest in defending your technology
Is a place to form partnerships	• Encounter future partners
Is a source of competitive intelligence	• Not just coffee-break discussions, but also analysing contributions from others
Is a path to putting IPR into standards	• Return on R&D investment, or securing your investment
Allows leveraging other (larger) companies marketing budget!	• Common marketing of a standardized technology
Allows SMEs to show credibility and be visible	• Technical competence is what counts, not company size or votes

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ETSI Foundations… for the next decade

At the heart of Digital

- *5G, Virtualization, Edge Computing, AI, Cybersecurity, Quantum, Blockchain, IoT, Industry4.0..*
- *Responding to EC requests: Data Protection, Electronic Signatures, Cybersecurity, Intelligent Transport Systems, Radio Equipment Directive*

Global

- *Exporting standards*
- *Increasing Partnerships*

Versatile

- *Open Source, Hackatons,…*
- *Testing*

Inclusive

- *Sustainability Program (3SI)*
- *SMEs, Academies, Cities*
- *Verticals (Transport, Energy, Railways)*

Enabler of Standards

- *Process Improvement*
- *Education about Standardization*

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Grazie

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More information:

- https://portal.etsi.org/
- https://www.etsi.org/
- https://www.etsi.org/seminars/latest-seminar-slides
- http://www.onem2m.org/

SMEs and ETSI testimonial

- https://youtu.be/1CGEtgayGmg

https://youtu.be/1rYj1Ap9jBA

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Backup

The value of a network

International

+ UPU, ICAO, UN-ECE…

Inter-regional

Regional

European

FORA & CONSORTIA, e.g.

- GSMA
- BBF
- CONTINUA Alliance
- ESMIG
- Global Platform
- IPV6 Forum
- NFC Forum
- NGMN
- OGF
- SAE International
- Linux Foundation

+/- 120 partnerships

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.. And tech modules being developed in hundreds of Orgs !

ETSI *already* has 2 Partnerships and 124 MoUs (see list)

- 3GPP
- 5GAA
- ADCO R&TTE
- AHCIET
- AMN
- APT
- ARIB
- ATIS
- BIF
- Broadband Forum
- CAB Forum
- CCC
- CCSA
- CEN
- CENELEC
- CEPT
- CEPT COM-ITU
- CIRM
- CIS
- CITEL
- COAI
- COIT
- Communications Alliance LTD
- Continua Health Alliance
- COPANT
- CRIP
- DECT Forum
- Digital Europe
- DMR Association
- DVB
- EA
- EASA
- EASC
- EBU
- ECC
- Ecma International
- ECSO
- EDA
- EFTA Secretariat
- EIT ICT Labs IVZW
- EMSA
- EMVCo
- ENISA
- ERA
- ERCIM
- ERTICO
- ESMIG
- ETNO
- EURAMET
- EUROCAE
- European Commission
- European Patent Organisation
- Eurosmart
- FIEEC
- GCF
- GISFI
- GlobalPlatform
- GSM Association
- GSO
- ICANN
- ICAO
- IEC
- IEEE
- IMEA
- IMS Forum
- IPSO Alliance
- IPT
- IPv6 Forum
- ISACC
- ISO
- ISO/IEC JTC 1 Secretariat
- ISOC/IETF
- ITU
- Linux Foundation
- MEF
- NFC Forum
- NGMN e.V.
- NIST
- NSA
- OASIS
- OGF
- oneM2M
- OMA
- ONF
- Open Edge Computing Initiative
- OpenFog
- OpenPEPPOL
- OPNFV
- OST-R
- PRETA
- Quest Forum
- RTCM
- SAE International
- SAFE-BioPharma
- SCTE
- SESAR Joint Undertaking
- SIMalliance
- Small Cell Forum
- TAICS
- TCCA
- TCG
- TDIA
- TIA
- TISA
- TM Forum
- TSDSI
- TTA
- TTC
- ULE Alliance
- UNECE
- UPU
- VRARA
- WInnForum
- WIPO
- WWRF
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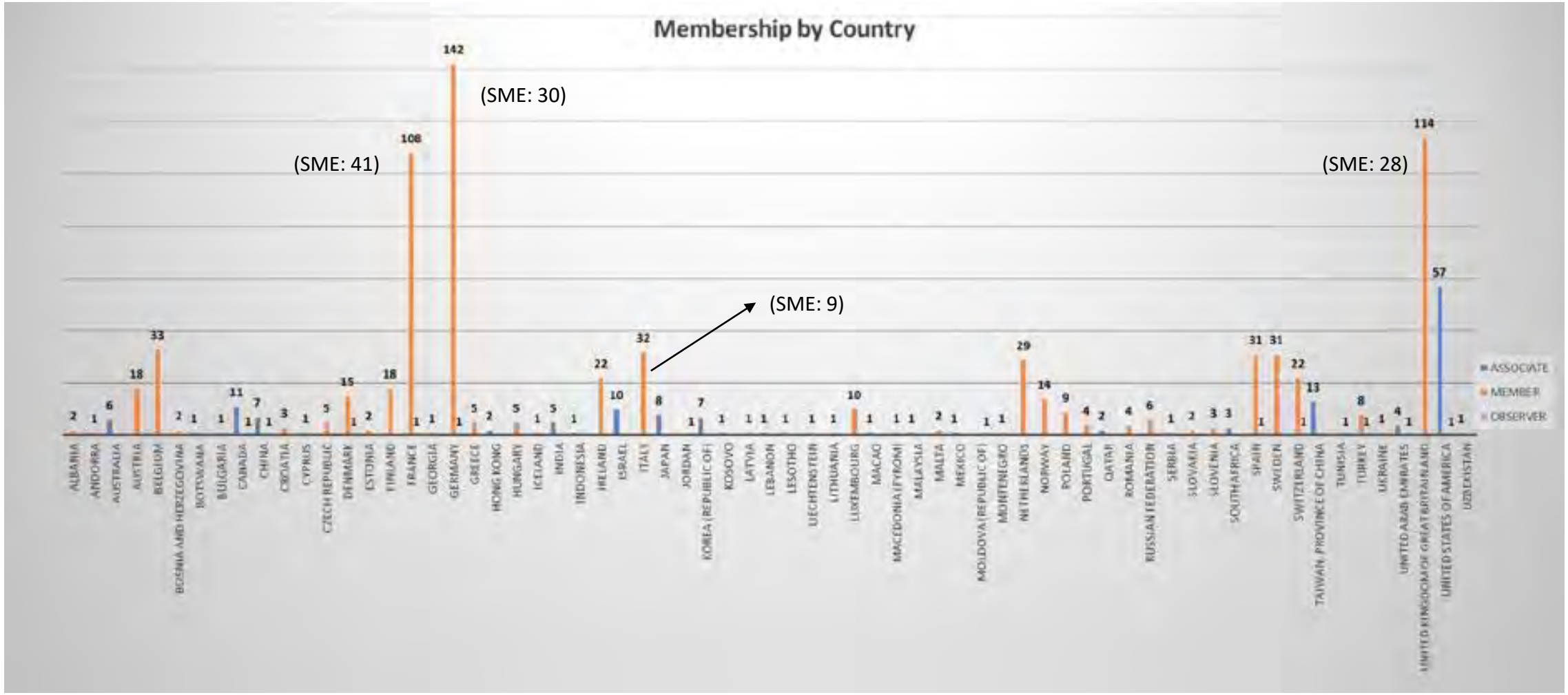
ETSI Membership Regional Distribution



ETSI IPR Policy

3.1 It is ETSI's objective to create STANDARDS and TECHNICAL SPECIFICATIONS that are based on solutions which best meet the technical objectives of the European telecommunications sector, as defined by the General Assembly. In order to further this objective the ETSI IPR POLICY seeks to reduce the risk to ETSI, MEMBERS, and others applying ETSI STANDARDS and TECHNICAL SPECIFICATIONS, that investment in the preparation, adoption and application of STANDARDS could be wasted as a result of an ESSENTIAL IPR for a STANDARD or TECHNICAL SPECIFICATION being unavailable. In achieving this objective, the ETSI IPR POLICY seeks a balance between the needs of standardization for public use in the field of telecommunications and the rights of the owners of IPRs.

3.2 IPR holders whether members of ETSI and their AFFILIATES or third parties, should be adequately and fairly rewarded for the use of their IPRs in the implementation of STANDARDS and TECHNICAL SPECIFICATIONS.

3.3 ETSI shall take reasonable measures to ensure, as far as possible, that its activities which relate to the preparation, adoption and application of STANDARDS and TECHNICAL SPECIFICATIONS, enable STANDARDS and TECHNICAL SPECIFICATIONS to be available to potential users in accordance with the general principles of standardization.