Welcome
to the World
of Standards

**ETSI**
**World Class Standards**

# RESEARCH INPUT TO STANDARDISATION
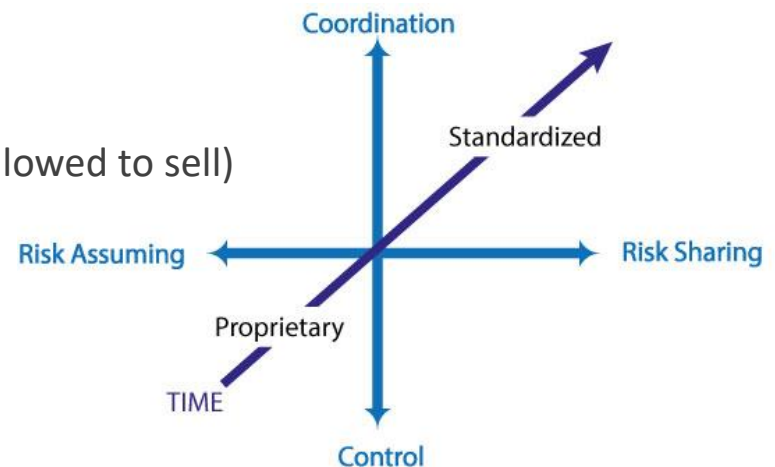## TECHNOLOGY INNOVATION THROUGH STANDARDISATION

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# WHY STANDARDISATION OF ICT ?

# Why standardize ICT?

- All ICT products implement standardized technologies (de-facto, de-jure,) from several Standards Developing Organizations  (SDOs)
- New ICT will result in standardization, however, not all the technology needs to be standardized
  - A good standard allows differentiation and thus competition
- **ICT standardisation is key**
  - To *innovate*
  - To *develop markets*
  - To *be compliant with regulation* (and thus allowed to sell)

Coordination

Standardized

Risk Assuming ← → Risk Sharing

Proprietary

TIME

Control

Source: berkeley.edu
"Collaboration between Firms
in Information Technology

# ICT Innovation through standardisation

- Research transforms money into knowhow - Innovation transforms knowhow into money

  
  Source: Microsoft

- Technologies do not have a value per se - The value of a technology results from a business model

- Return on Investment
  - Commercialize IPR
  - Bundle technologies into commercial offers (products and services)
  - Build new services on top of standardized platforms (3GPP mobile Networks)
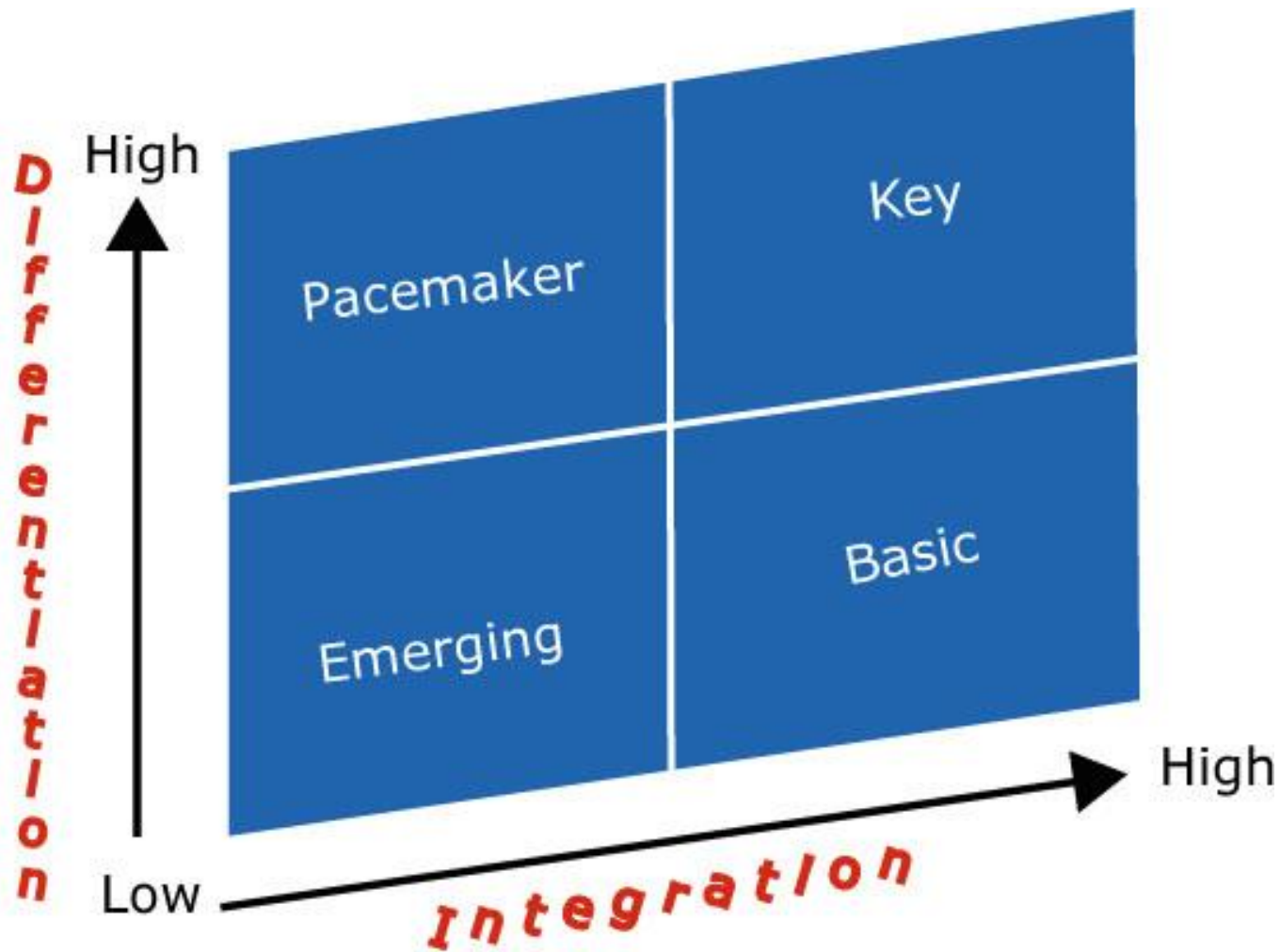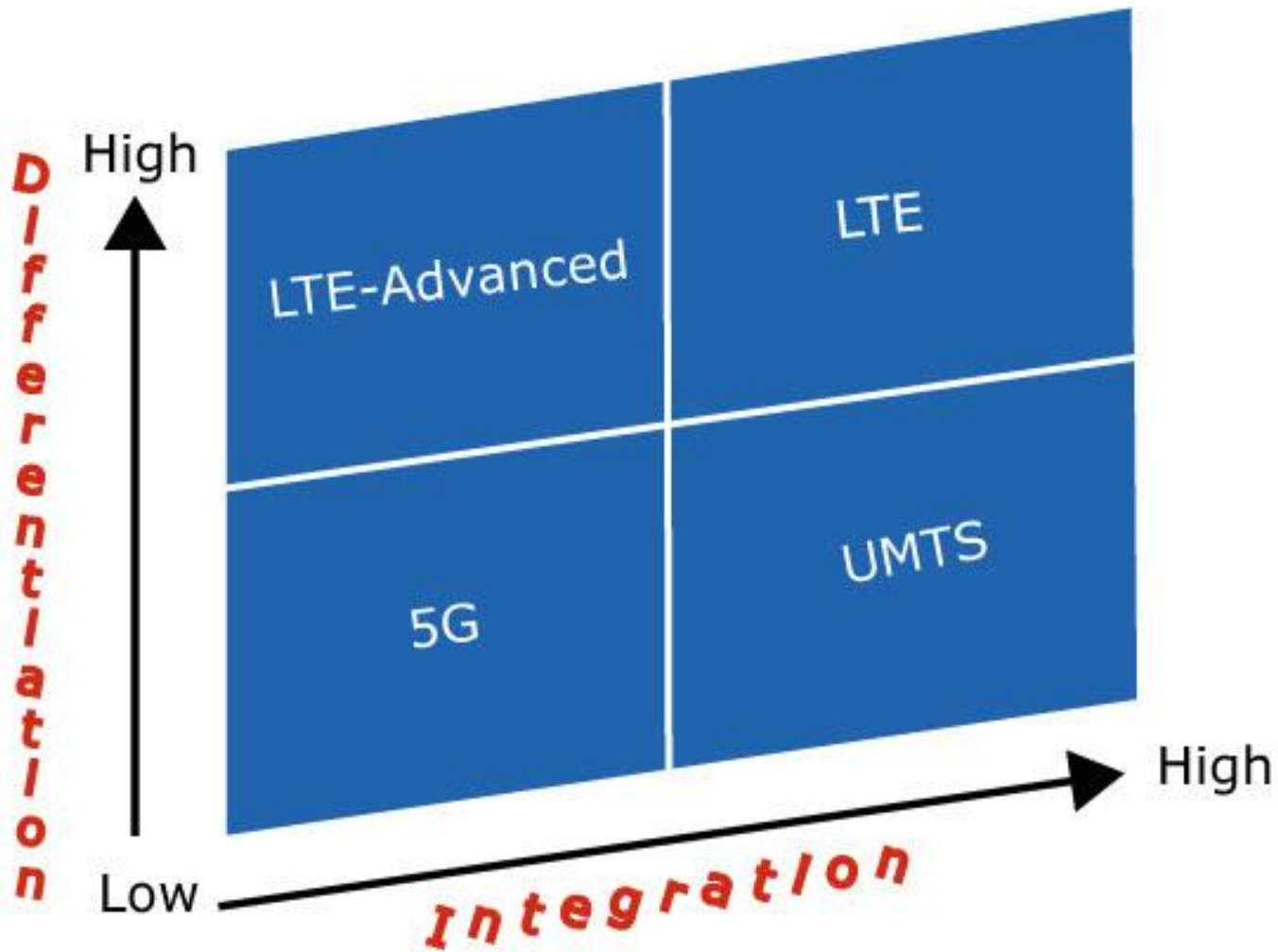
  
  Sinclair C5

# Technology maturity matrix

# Market development through standardisation

- Most standards are voluntary industry agreements
- Enable **interoperable solutions** allowing for **Network effects**
- Making **markets as large and homogeneous as possible** to allow for **economies of scale**
- Collaborative business development to coordinate technology and market evolution
- The standards makers drive the market

# RESEARCH INPUT TO STANDARDIZATION

**How ETSI helps to transfer project results**

# What is in standardisation for a researcher?

- Meet the industry and understand their technical problems
- Meet the industry to understand the relevance of the research (reality check)

- Disseminate and exploit research results
  - Present and discuss research results
  - Improve existing standardised technologies
  - Propose alternative technologies as solution elements
  - Anchor a patent as essential IPR in a standard
- Reports and specifications included in ETSI deliverables are maintained and exist beyond the lifetime of a research project

**Standardization is easy? Isn't it?**
**What you can see...**

- Delegates of stakeholders meet,
- make written contributions,
- discuss, draft and agree on best solutions,
- make decisions,
- publish;
- all of it according to due process and bylaws
- knowledge that can be taught

voluntary, open, transparent, fair, consensual

**ETSI**

**Standardization isn't easy!**
**What you cannot see!**

# Standardisation isn't easy!

- Its a timing problem (life cycles). There is a window of opportunity.
- Technology convergence and competing standardized technologies
- It's cooperation in order to compete ("co-opetition")
- Consensus may be difficult to achieve (different interests)
- **Related to Soft-skills rather than simply knowledge**

# Interests! Competitive advantage!

"We must clearly understand the fundamental law of standards development which is that <u>standards are never neutral...</u>

They reflect the <u>strengths and innovations of those who offer them to the committees...</u>

Not participating in standards abdicates the <u>decision-making to the competition</u>, whether it be by company or nation".

William J. Hudson, President Amp Inc. World Standards Day, 1995
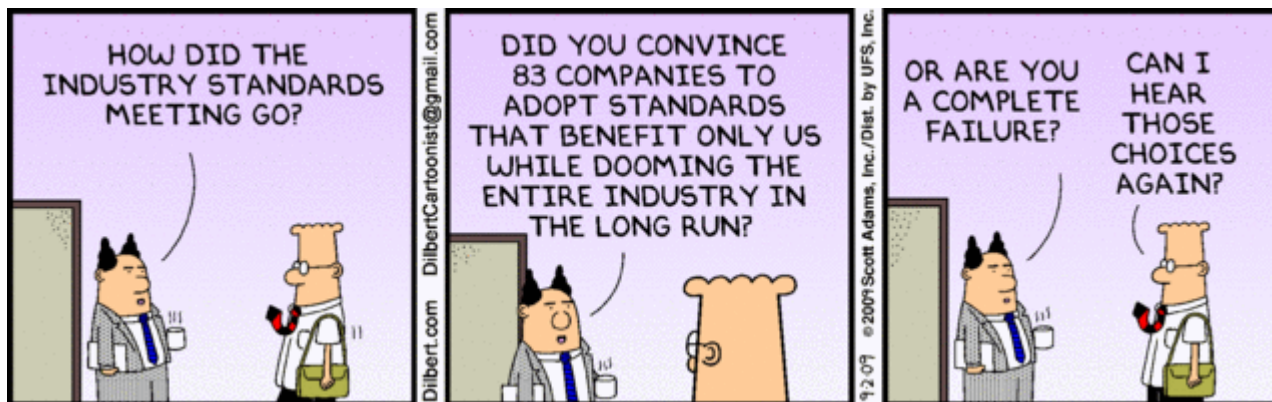
- All ICT products implement standardised technologies

- Exploitation of research results (not only dissemination) must result in contributions to standardisation

- Research input is needed especially;
  - to go beyond the limitations of existing standardised technologies
  - to assess the technical feasibility of alternative solutions

- Research input in pre-standardisation phase is crucial to standardise the 'best' solution

- ETSI supports funded projects to disseminate and exploit results through standardisation

- ETSI has all tools to meet the standardisation needs of diverse stakeholder groups

# Thank you for your attention!

# More information! Contact us!

- ETSI website *(http://www.etsi.org)*
  - General public information
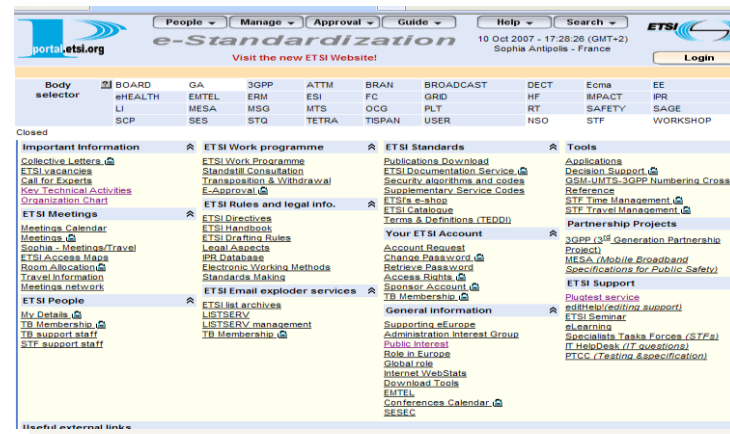  - Free standards download
- ETSI portal *(http://portal.etsi.org)*
  - Easy access to data for each technical body
  - Working documents
  - ETSI applications and databases
- Work Programme

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# ANNEX

# ETSI 'Integrated Standards Engineering'

- ETSI follows **a life-cycle based approach to standardisation** throughout all phases of commercial products/services, from conception  to market introduction

- 'Standards engineering' in the ETSI sense is a pragmatic and results-oriented process. It covers:

  - Linking to **research** in order to anticipate and identify standardisation needs

  - Support of **early consensus** and community building by converting research communities into **pre-standardization** communities

  - **Setting standards**  in a proper type of organizational setup (based on an e2e system view)

  - And last but not least, hands on **verification of interoperable implementations** of standards (not only from ETSI)

# How ETSI works - different lines of production

- ETSI branded – **TCs/EPs** and **ISGs**

| | ISGs | TCs/EPs |
|---|---|---|
| **Decision power** | DG | Board |
| **Participation** | Members have to sign an agreement, contracted non-ETSI member participants (bound to IPR Policy) | Members only (Guests on a temporary and exceptional basis without the right to make technical contributions because they are not bound to IPR policy) |
| **Voting** | Project specific (usually one member one vote) | Weighted voting |
| **Fees** | Participation fee per meeting for non-member participants | Annual membership fee |
| **IPR Policy** | FRAND | FRAND |

- Non-ETSI branded (own identity)
  - Partnership Projects **(PPs)**
    - Joint membership of organizational partners
    - Joint technical work (drafting and adoption of specifications)
    - Coordinated adoption by organizational partners in EU, US, Japan, South Korea, China
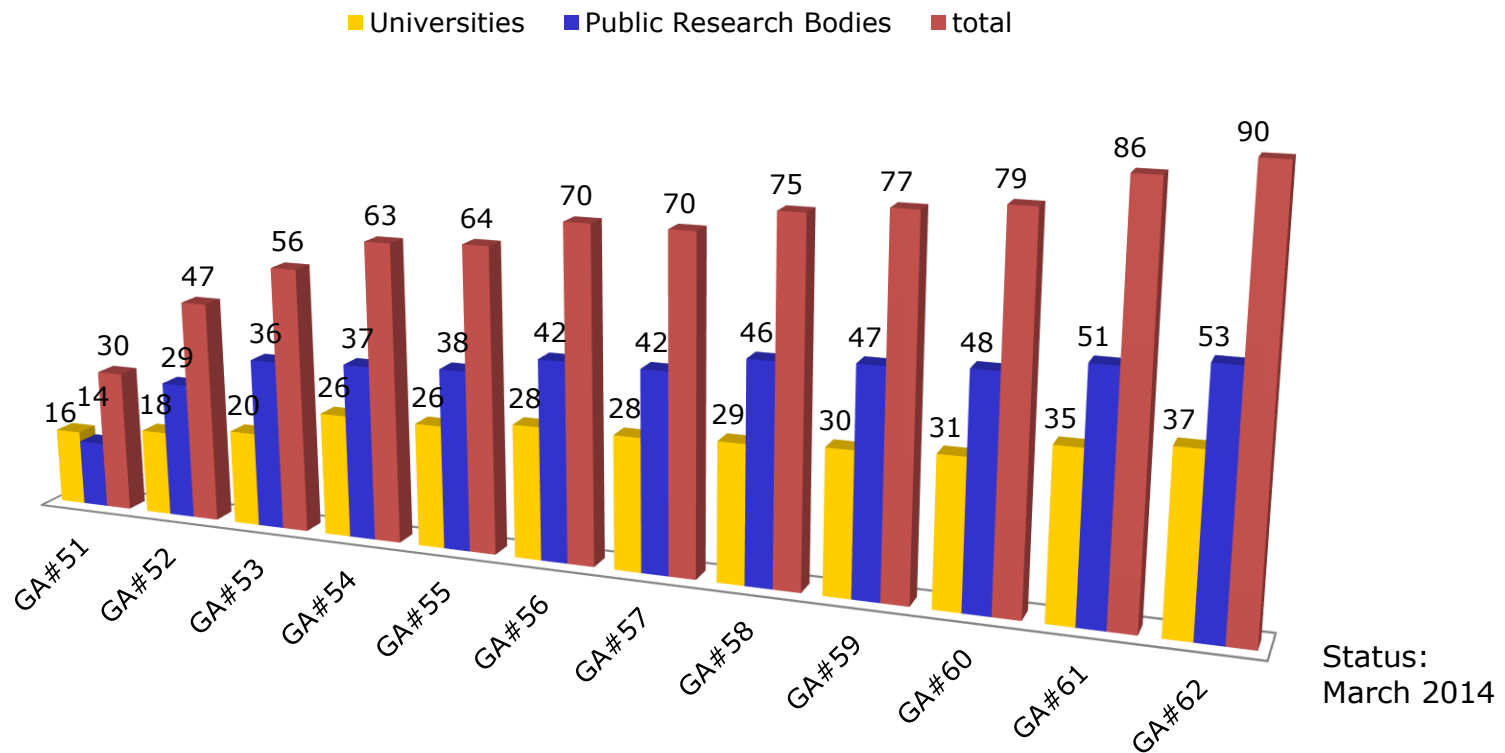  - Forapolis services for fora/consortia (ETSI inside), e.g.
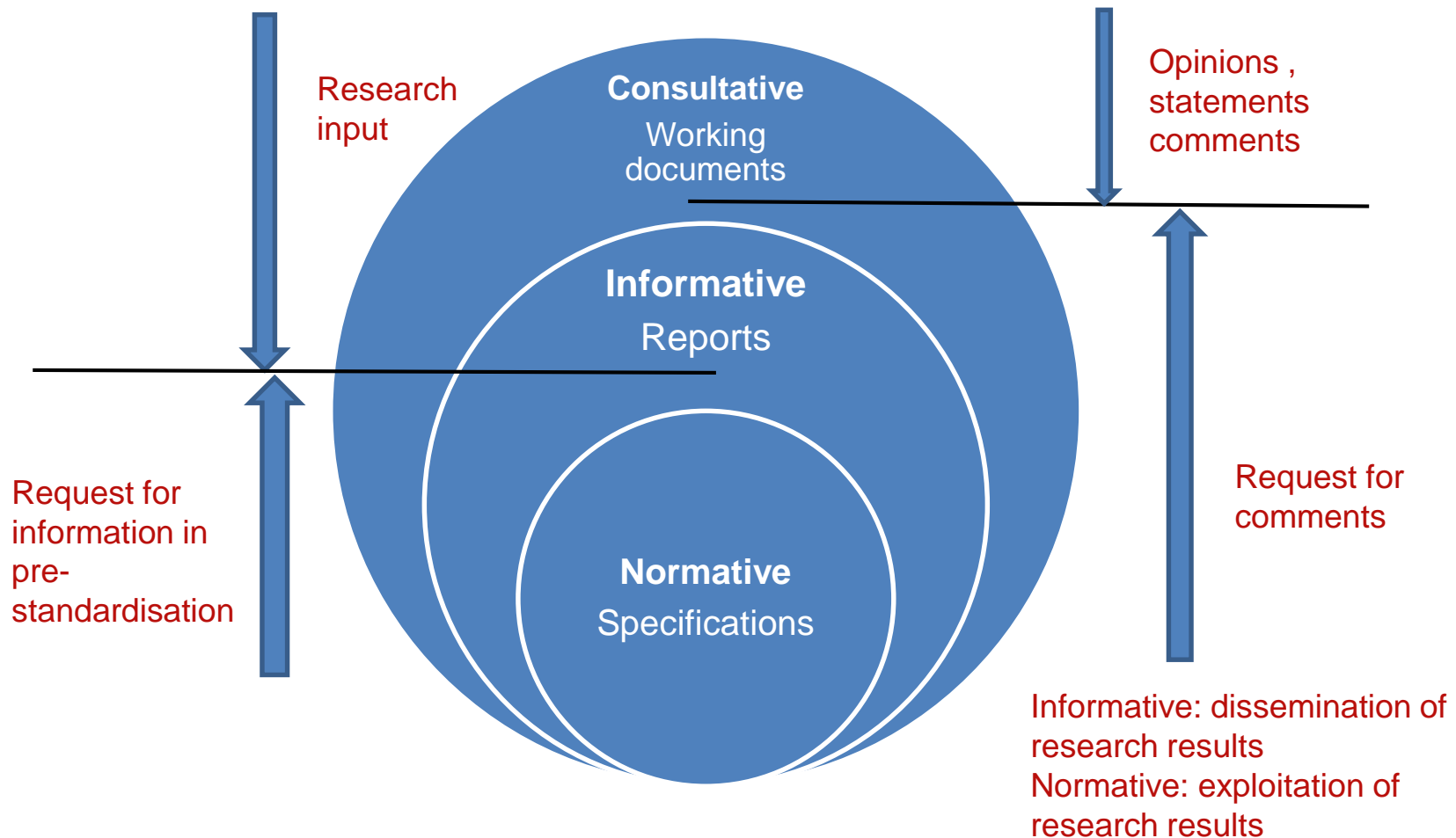
# ETSI approach: open up to academia and work with academic members



## Growth of Academia
## 2008 - 2013

Legend: ■ Universities ■ Public Research Bodies ■ total

| GA | Universities | Public Research Bodies | total |
|-----|-----|-----|-----|
| GA#51 | 16 | 14 | 30 |
| GA#52 | 18 | 29 | 47 |
| GA#53 | 20 | 36 | 56 |
| GA#54 | 26 | 37 | 63 |
| GA#55 | 26 | 38 | 64 |
| GA#56 | 28 | 42 | 70 |
| GA#57 | 28 | 42 | 70 |
| GA#58 | 29 | 46 | 75 |
| GA#59 | 30 | 47 | 77 |
| GA#60 | 31 | 48 | 79 |
| GA#61 | 35 | 51 | 86 |
| GA#62 | 37 | 53 | 90 |

Status: March 2014

🌐 **ETSI has 777 members, from 62 countries, and 5 continents**