The power of standardization – the case of mobile communication

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Standards Academy Webinar: Geopolitics of ICT standardisation

Agenda

Global standards – why it matters

Global standardization system – current challenges

Geopolitical aspects – consequences and conclusions

Why global standards matter – mobile communication

1980+ – many different systems, expensive – "A rich man's toy"

1 Million users

1990+ – European GSM system, ETSI, competitive, mass market

500 Million users

ETSI's IPR policy ensures access to standards and fair reward for contributors

Gained acceptance outside Europe because of standardization

2000+ – Global 3G/ UMTS system, 3GPP, competitive, mobile Internet,

5 Billion users

Partnership project, ETSI largest partner and secretariat, still other competing systems ("3GPP2")

2010+ – Global 4G/ LTE, 3GPP, single global system, used for verticals

2020+ – Global 5G and beyond, 3GPP, satellite integration "critical infrastructure"

Open RAN adds on to 3GPP, but doesn't challenge global nature so far

Global standard: Economies of scale, increased competition, against lock-in, leading-edge ICT technologies, all relevant players

Global Standards for Mobile Communication

7 Organizational Partners (OPs) from Europe, US, China, India, Japan and Korea

🌐 782 Individual Members (IM)

🌐 Fully open and transparent

🌐 Adheres to WTO TBT

🌐 FRAND IPR policy

26 Market representation Partners (MRPs):

Global standardization system – current challenges (1)

- Geopolitical climate drives confrontation rather than collaboration. Some arguments:
  - We need digital sovereignty
  - We need to protect our ethical values
  - We cannot allow undue influence from foreign players
- Governments see standardization as a strategic tool
  - Jan 2018 China Standards 2035 / Jul 2022 China action plan
  - Feb 2022 EU Standardisation Strategy
  - May 2023 US Gov national standards strategy
- Politization of standardization – role of governments in standardization
  - A dominance-oriented top-down approach is against the principles of collaboration, equality, diversity, fairness, inclusiveness and openness
  - Governments forcing their industries to a coordinated approach
  - Government actions against standards which are against their values
    - Often cited examples are new Internet, facial recognition

Global standardization system – current EU challenges

- Europe has set the rules for ISO and IEC, and they served Europe well. China today plays by these rules, but with much more power (financial, participants) than Europe
- The European Commission (EC) sees themselves responsible for Standardization and the content of standards, rather than for the use of standards in support of regulation
  - Imposed changes on the governance of European Standards Organisations
  - Signals that Common Technical Specifications could be used as equivalent to Standards
  - Focusses on European Standards, value of global standards seems not clear
  - Wants to exclude influence of non-EU headquartered companies in some situations
  - Limited dialogue with industry stakeholders
- The EC draft regulation on SEP licensing endangers Europe's leading role in mobile communication
  - Lacks basis, no fact-based impact assessment, strongly criticized by many experts
  - Europe risks losing its current leading role as venue for global licensing disputes
  - European players weakened; Europe might lose its remaining global champions
  - Risk of licensing fragmentation and standards fragmentation

Geopolitical aspects – consequences and conclusions

- Emphasize the value of global standards for economy and society
  - European instead of global standards is against European interests and EU ambitions
  - Protect global standards from political pressure
  - Acknowledge the voluntary, industry-led nature of standardization
  - Support and strengthen stakeholders to actively participate in standard setting

- Re-emphasize better regulation principles
  - Planned review of Regulation 1025/2012
    - Proper impact assessment
    - Need to be based on an open dialogue with all stakeholders, incl. industry and academia, rather than a top-down approach dictated by the EC
  - Draft regulation on SEP licensing
    - Careful assessment of the need for the regulation (licensing market not functioning?)
    - Clear understanding of the effects of the regulation before its implemention

Author: Dirk Weiler

- **Dirk Weiler** is Head of Standards Policy in Nokia, responsible for standardization policy and membership portfolio.

- He is Vice Chair of the German BITKOM Working Group Standardization since its creation in 2010, member of the German DIN Presidential Committee FOKUS.ICT since 2012, the ETSI representative to the European Commission's ICT Standardization Multi-Stakeholder Platform since its creation in 2011 and a participant in ETSI's IPR Special Committee since its creation in 2007.

- Dirk has been an ETSI Board member from 2008-2023 and has chaired the ETSI Board from 2014 – 2023, the ETSI IPR Special Committee from 2008 – 2018 and the ETSI General Assembly from 2010 – 2014.

- He has served as a member of the CEN-CENELEC-ETSI Joint Presidents' Group from 2011 – 2023 and as its Chair in 2013.

- He was part of the integration team creating the Nokia Siemens Networks joint venture and served as Head of Standards Management in 2007.

- From 2004 - 2006 he was Head of Network Technology, Mobile Network in the business unit Mobile Networks of Siemens Communications and a director of the open mobile alliance OMA.

- From 2001 until 2004 he was Vice President Standards and Fora, responsible for all standardization, regulation and fora activities of Siemens Mobile Networks worldwide.

- Until 2001 he has held various management positions in the areas of development, research, intellectual property, standardization and marketing in Siemens. Since 1988 he has been working actively in standardization on technical as well as board level in ETSI, ITU, OMA and various other bodies.

- Dirk joined Siemens in 1985, developing software for the German Mobile Communication System C450, after receiving his M.Sc. Physics (Diplomphysiker) from the University of Cologne and the Institute of Nuclear physics in Jülich, Germany.

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