Welcome to the World of Standards

ETSI

World Class Standards

THE ROLE OF STANDARDS IN THE EVOLUTION OF TELECOMMUNICATIONS

Luis Jorge Romero, ETSI Director General for WTC 2012, 4-7 March 2012, Japan

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Social networks…

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… and what about this one?

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Go back in time for a moment

- 1900: 20 000 telephone companies in US
  - Islands of connectivity
- Geographical (national) monopolies for operators
- Operator provided the terminals, matched for his network
- Preferred (national) equipment provider built network to unique national characteristics
- Key characteristic of telephone type approval: impedance matching and switch manufacturer
  - Impedance depended on average line length in each country
  - Average line length depended on geography and urbanisation
- No real standardization inside networks

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Standards existed

- For international interconnection: CCITT / ITU

- Building bridges between the islands

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It really started in the 1980s

- Deregulation, liberalisation, privatisation, open market, competition
- 1982 in US: AT&T split into Baby Bells: deregulation and competition
- Europe: GSM license regime forced competition, new entrants
  - Multiple operators required per country
- 1988: ETSI created to provide standards for open European market
  - Standards for core network equipment market
  - Standards for interconnection
  - Standards for terminal equipment

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Benefits of standards

- Lower development & production costs, enable specialisation and commoditisation
- Allow access to new markets
- Increase competition - good for the customer
- Give improved product confidence and Interop
- Encourage innovative cooperation
- Turn good ideas into commercial success
- …

The Bottom Line

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THE case study

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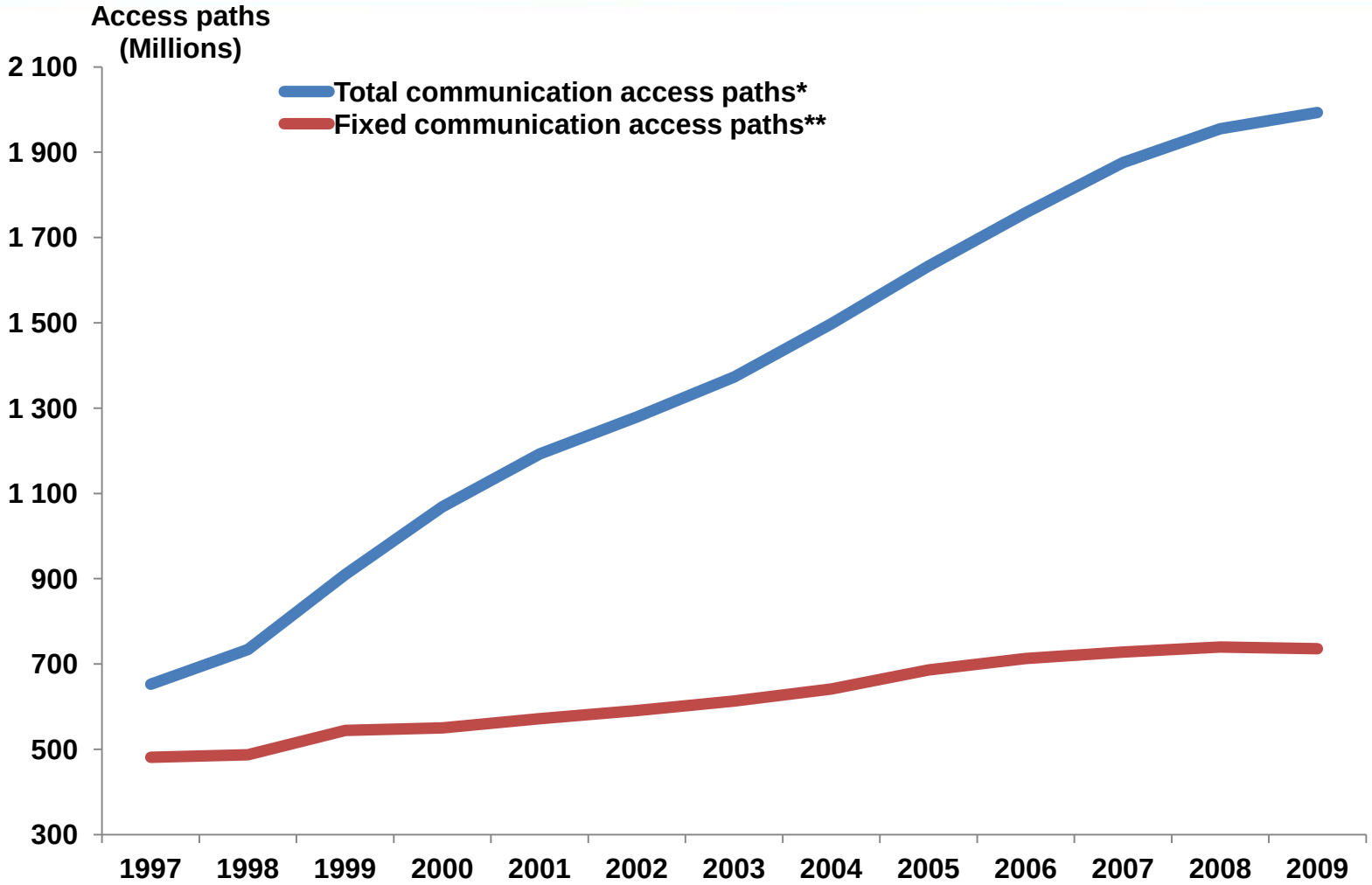
Growth of telecoms access (fixed & mobile)



(*) Total communication access paths: Analogue lines + ISDN lines + DSL + cable modem + fibre + other + mobile

(**) Fixed communication access paths: Analogue lines + ISDN lines + DSL + cable modem + other + fibre

Source: OECD Communications Outlook 2011 [www.oecd.org/sti/telecom/outlook]

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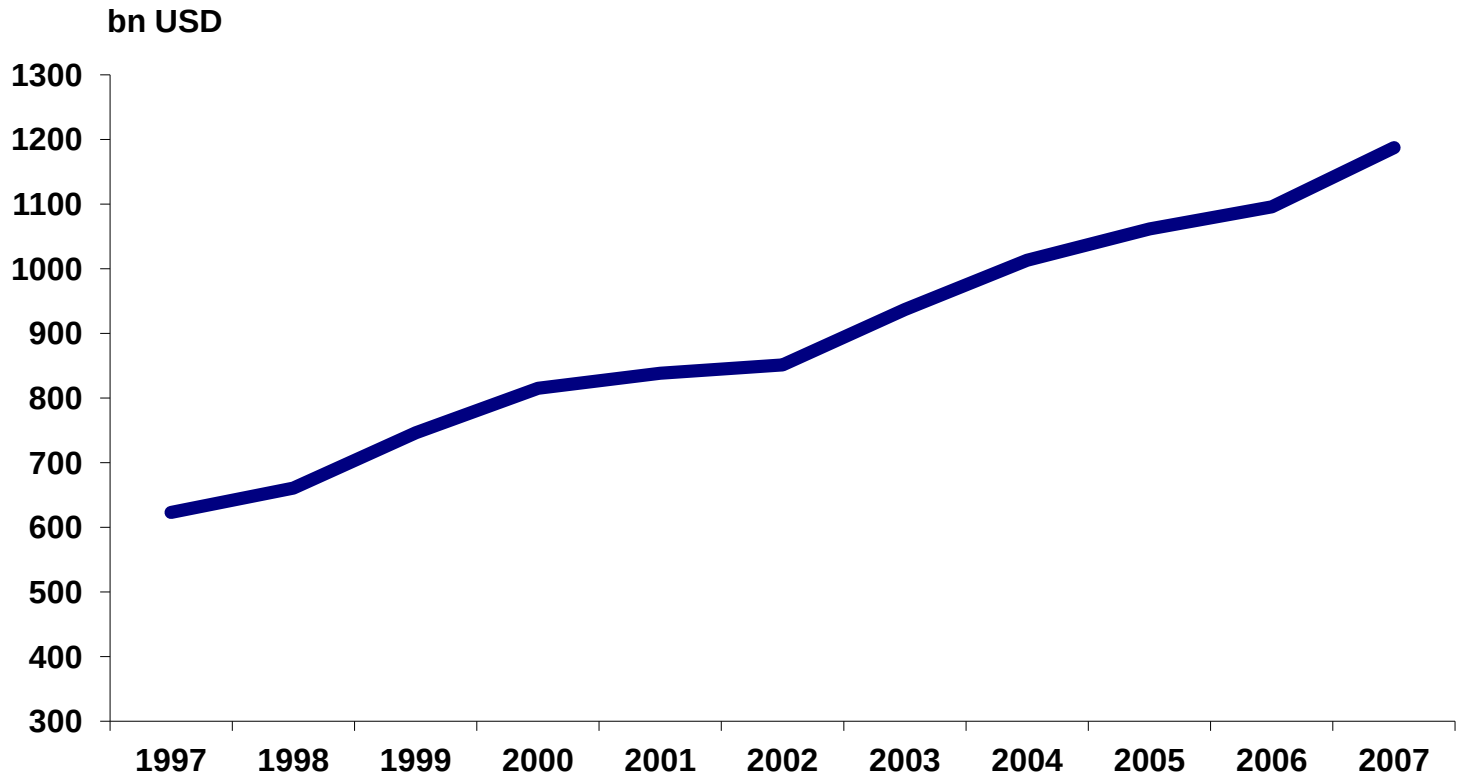
Telecommunications industry revenue



Source: OECD Communications Outlook 2009 [www.oecd.org/sti/telecom/outlook]

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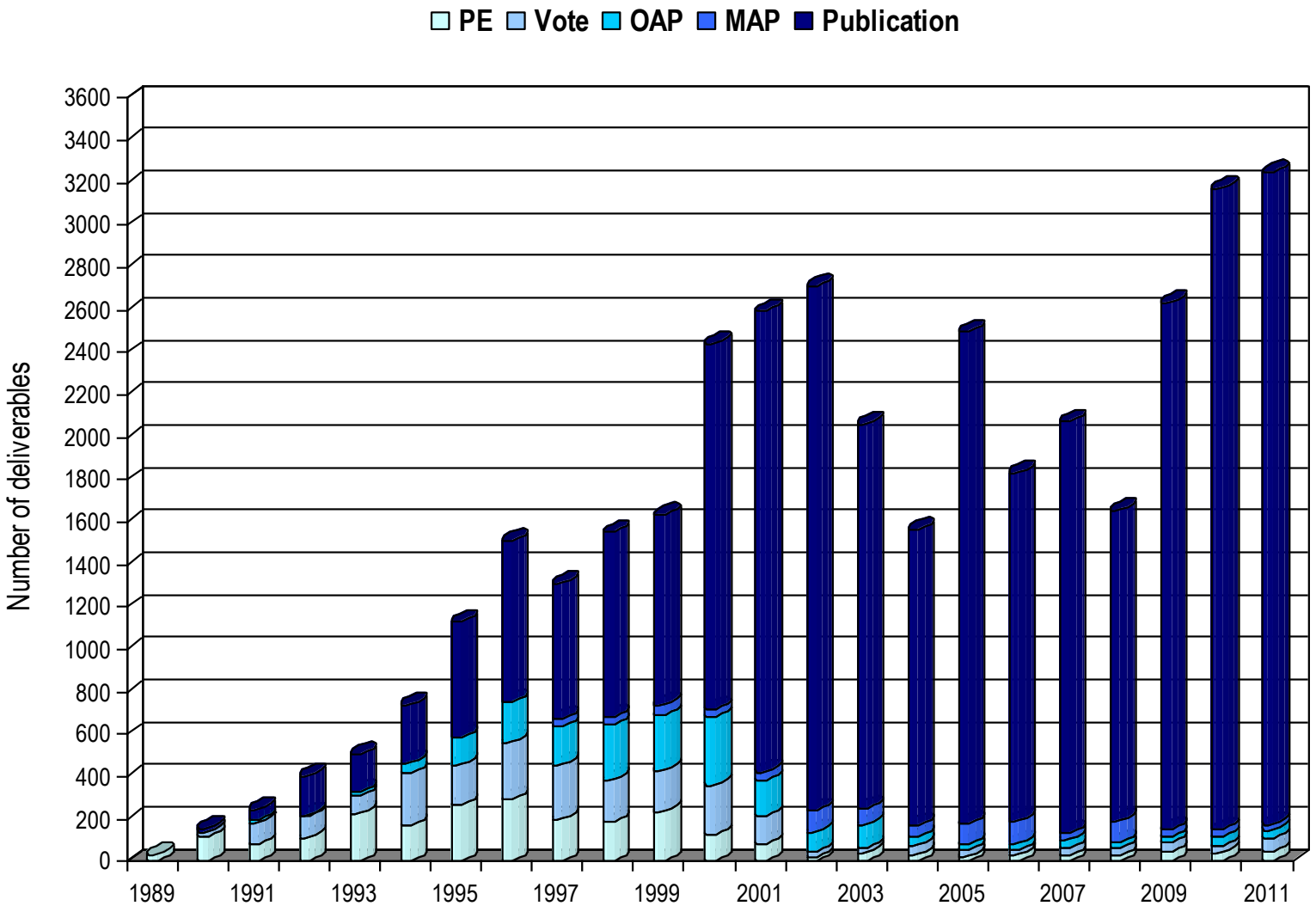
Growth of ETSI & 3GPP standards



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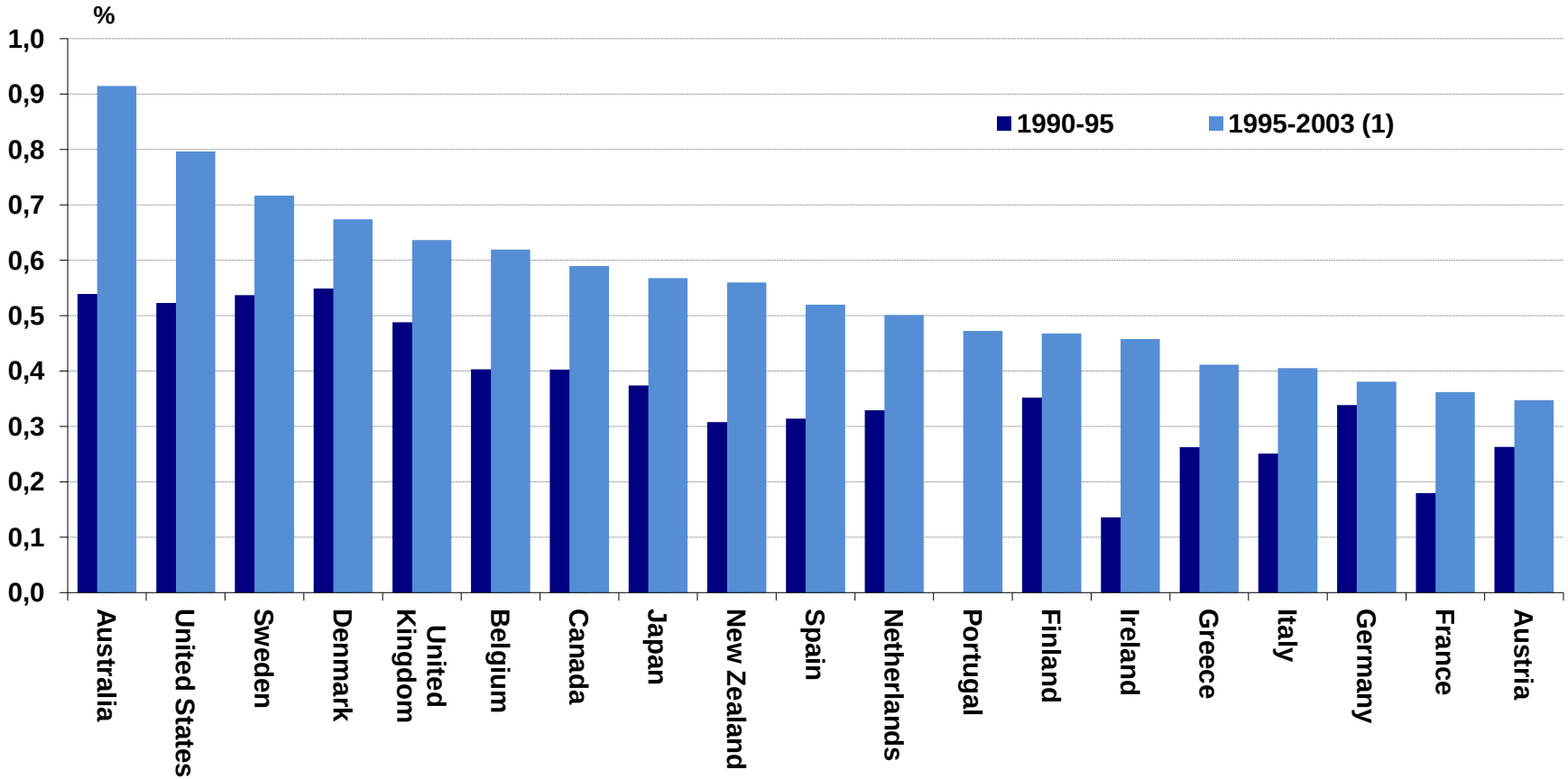
Importance of ICT to country wealth



- Contributions of ICT investment to GDP growth, 1990-95 and 1995-2003, in percentage points

(1) 1995-2002 for Australia, France, Japan, New Zealand and Spain.

Source: OECD Productivity Database, September 2005, [www.oecd.org/statistics/productivity]

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3G Standardization: Large-scale industrial project

- 3GPP: Third Generation Partnership Project
  - Japan, Korea, China, US & Europe
  - 6 standards bodies, c. 400 companies
- 17 working groups, 4 Plenary groups
- Meeting 4-8 times/year across the globe, 1 week meetings
  - some delegates spend >3 months/year sitting in meetings!
- Up to 300 delegates, 1 000 documents for EACH meeting
- Average 4 000 delegate days per month in meetings
- 14 delegate centuries since creation of 3GPP in 1998
- Approx 2 000 specifications published each year

- And still growing...

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AND there are ALSO other cases…

- Some tested and developed (and huge success stories)
  - DECT
  - TETRA
  - Ethernet
  - TCP/IP
  - IEEE 802.11x, 16x families
  - …
- And some more to come…

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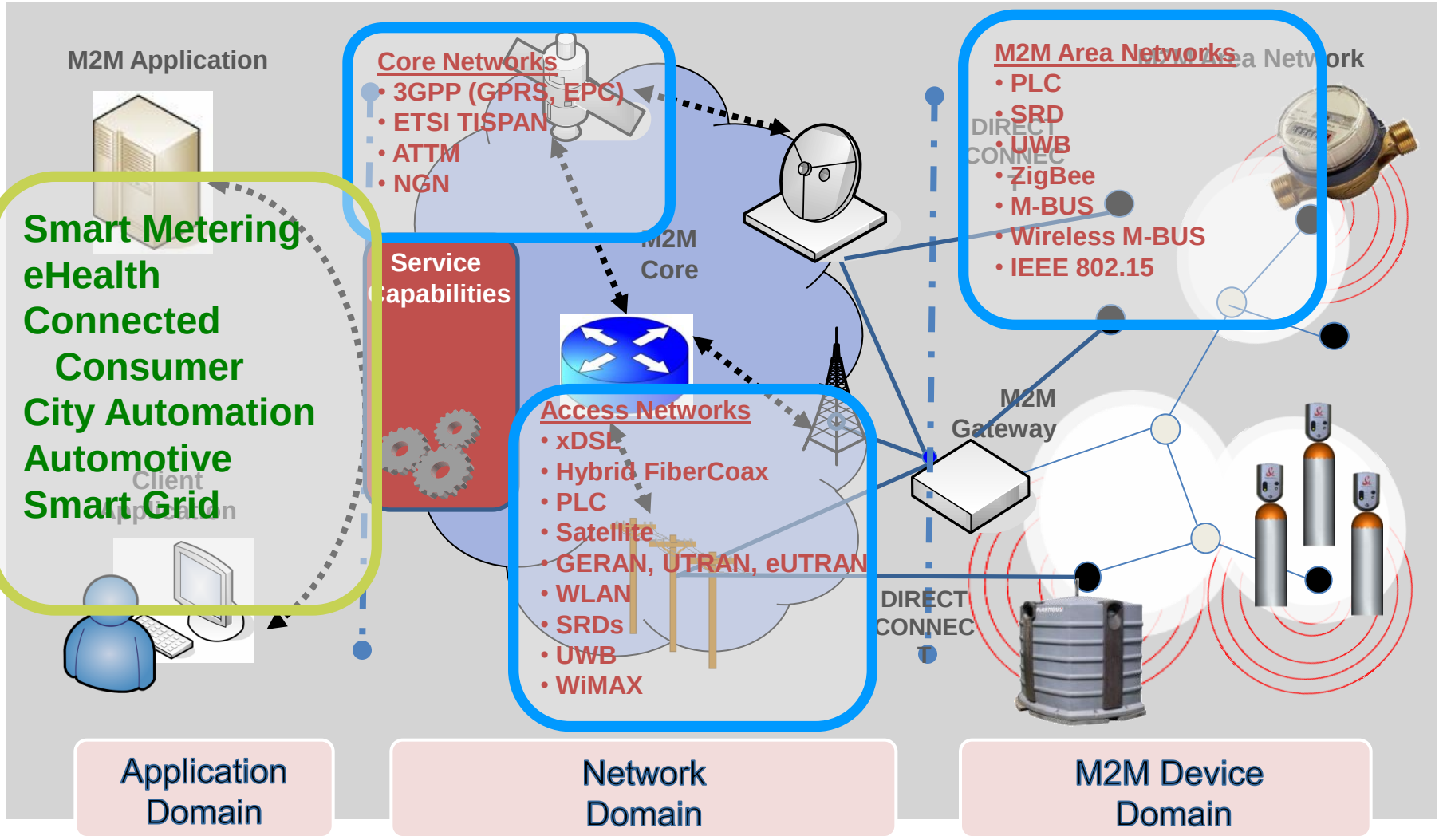
M2M “concept”



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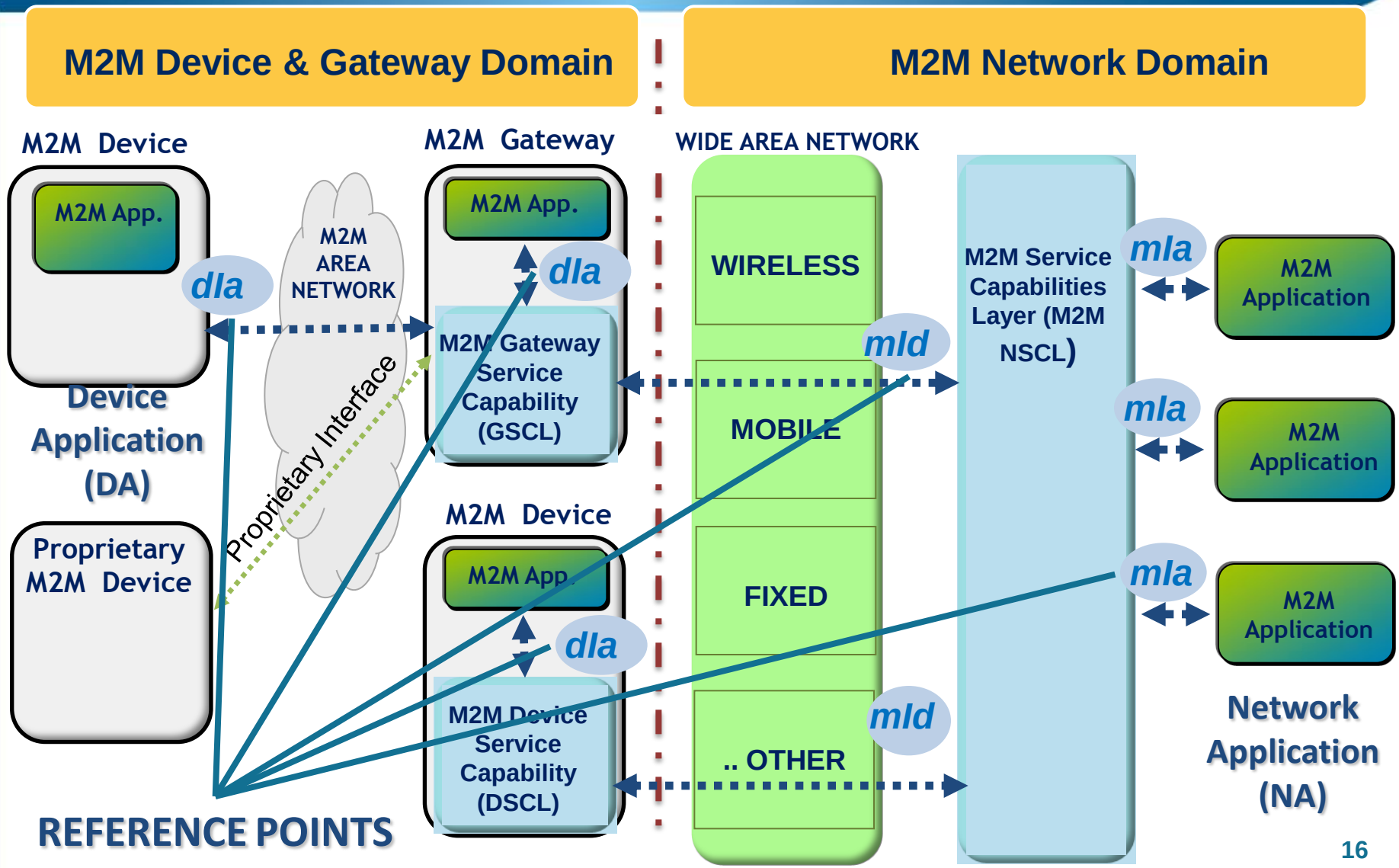
M2M standard arch. Rel. 1



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16

STANDARDS IN THE CLOUD?

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Telecoms networks as social networks?

- Hot news from Barcelona

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However, what if...

...we didn't have open standards?

- 1 network – 1 user/network interface specification
- 1 network – 1 preferred terminal vendor

- App stores?
- Chipset price and miniaturisation?
- Handset size and price?
- Handset brand competition?
  - No Sony, no Samsung, no HTC, no iPhone in Europe!

- Colour displays?

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THANK YOU!

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