ICT standardization and research
- towards FP7 -

Using ICT research to further standardization

Dr. Walter Weigel, ETSI Director-General

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Standards for Business

About ETSI

- ICT standards organization, private not for profit
- Direct membership (680+ Members , 80% industry)
- Global membership (>20% overseas)
- Worldwide industrial hits (fixed, mobile, broadcast…)
- Global network of partnerships
  - US, China, Japan, Korea, Latin America, MEA
  - Founding partner and home of the 3GPP
- Focus on interoperability (test specs, test suites, interoperability testing)
- Download deliverables free of charge

  http://www.etsi.org

  http://portal.etsi.org

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Standardization in an “extended” value chain

- From research to market success of goods and services
- Exploit research results
- Exploit know-how
- Gain market-relevance through standards
- Ensure interoperability
- Create competition through multi-vendor environment
- Improved technologies through multiple feedback

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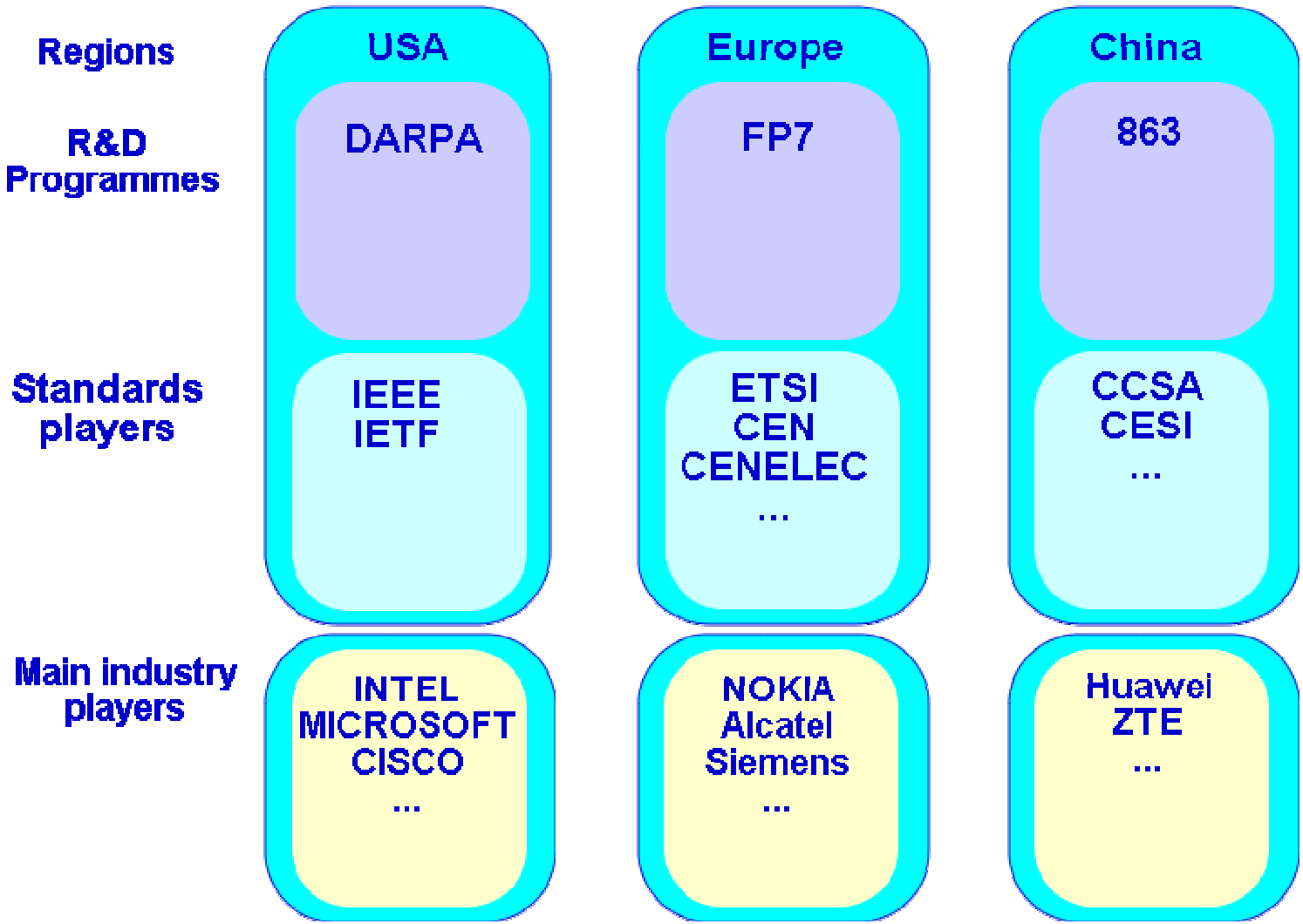
Regional Research Programmes



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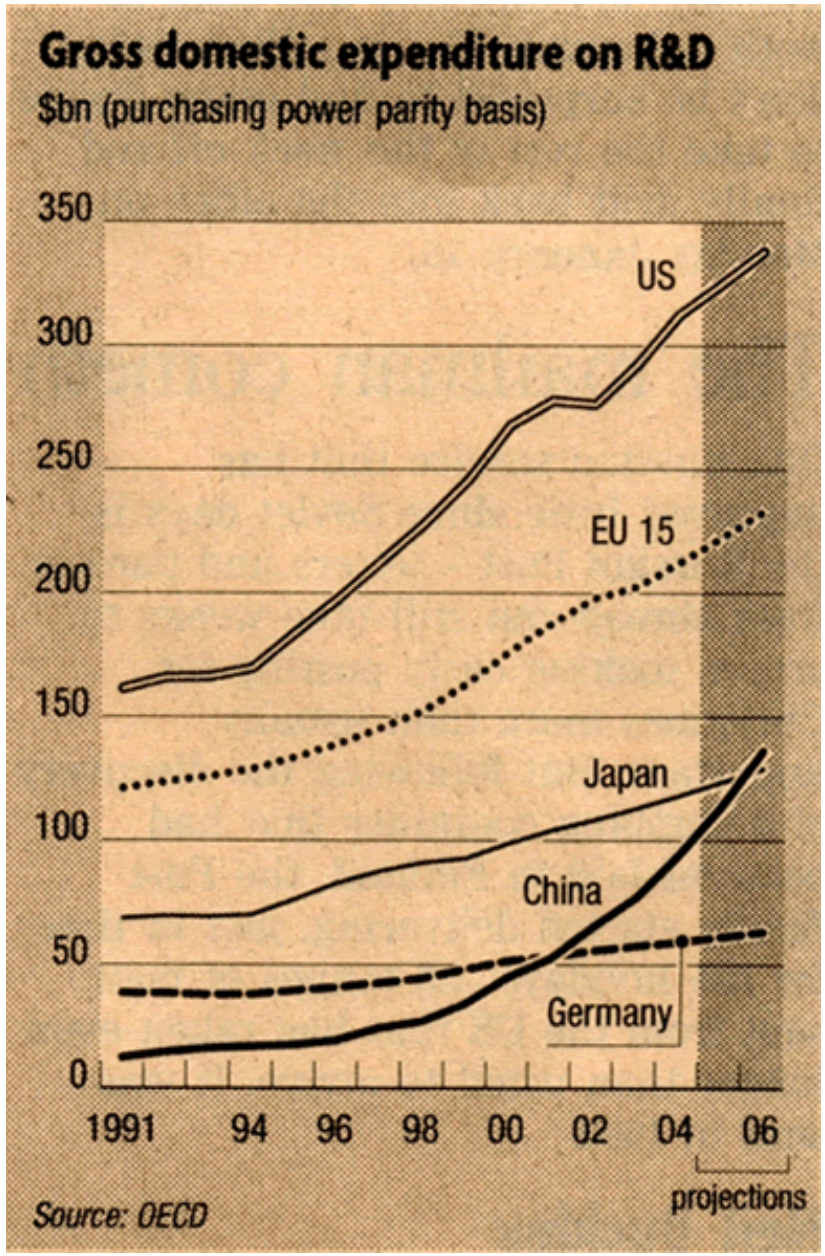
Financial efforts



Source: FT 05/01/2007

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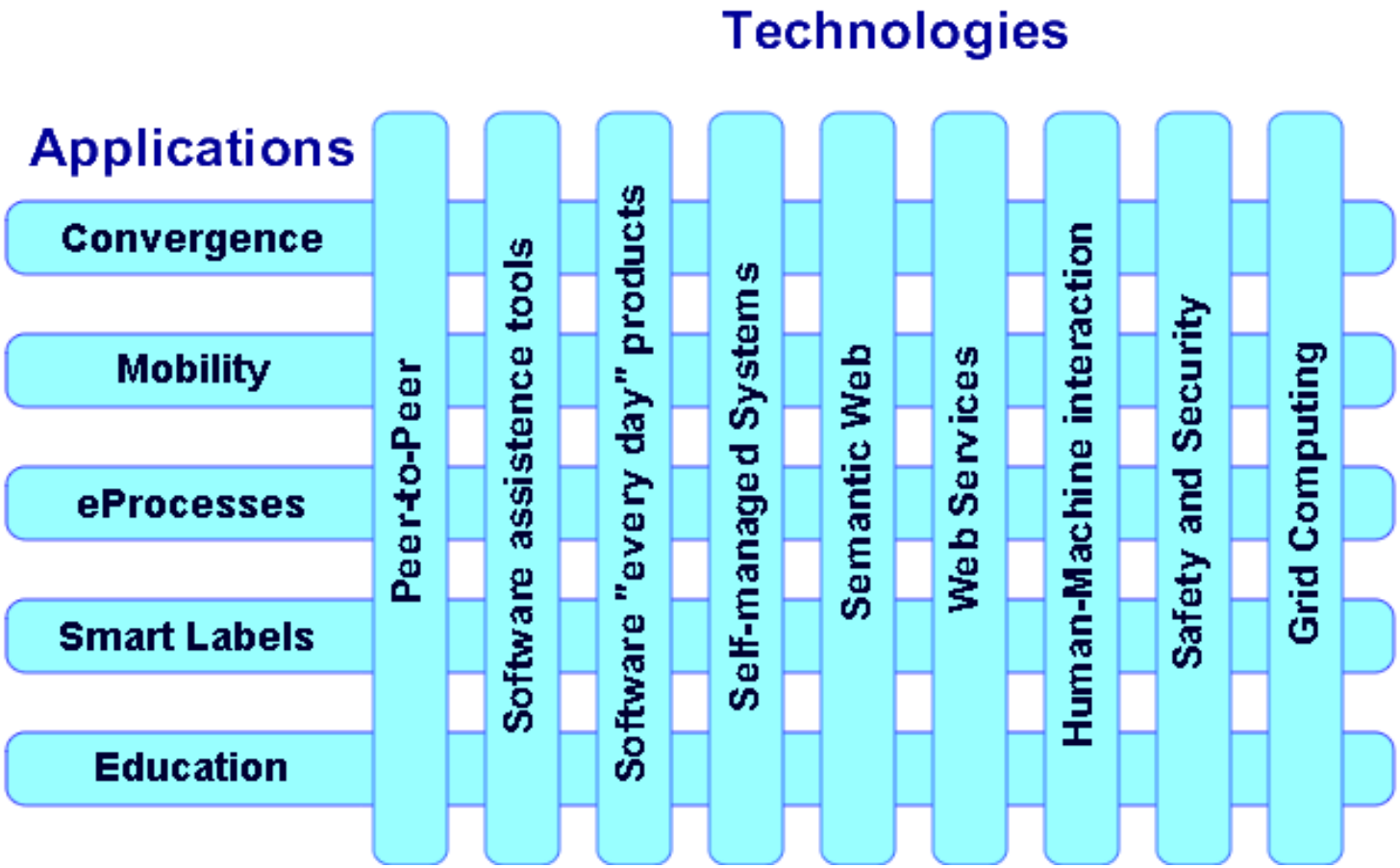
Application and Technology trends from the Internet to the "Internet of Things"



Adopted from Siemens AG

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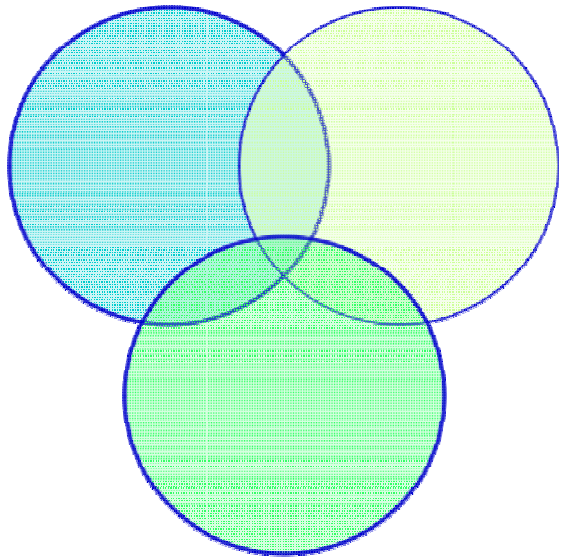
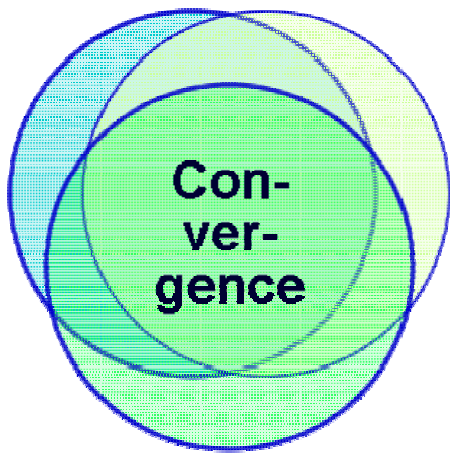
Trend:
Internet as platform for Media convergence

- IP converges network technologies (IT and telecommunications)
- Convergence by applications: (Infotainment, entertainment, communications)
- Convergence of business models and markets (Telco-carriers, Internet Service Provider, Application Provider)





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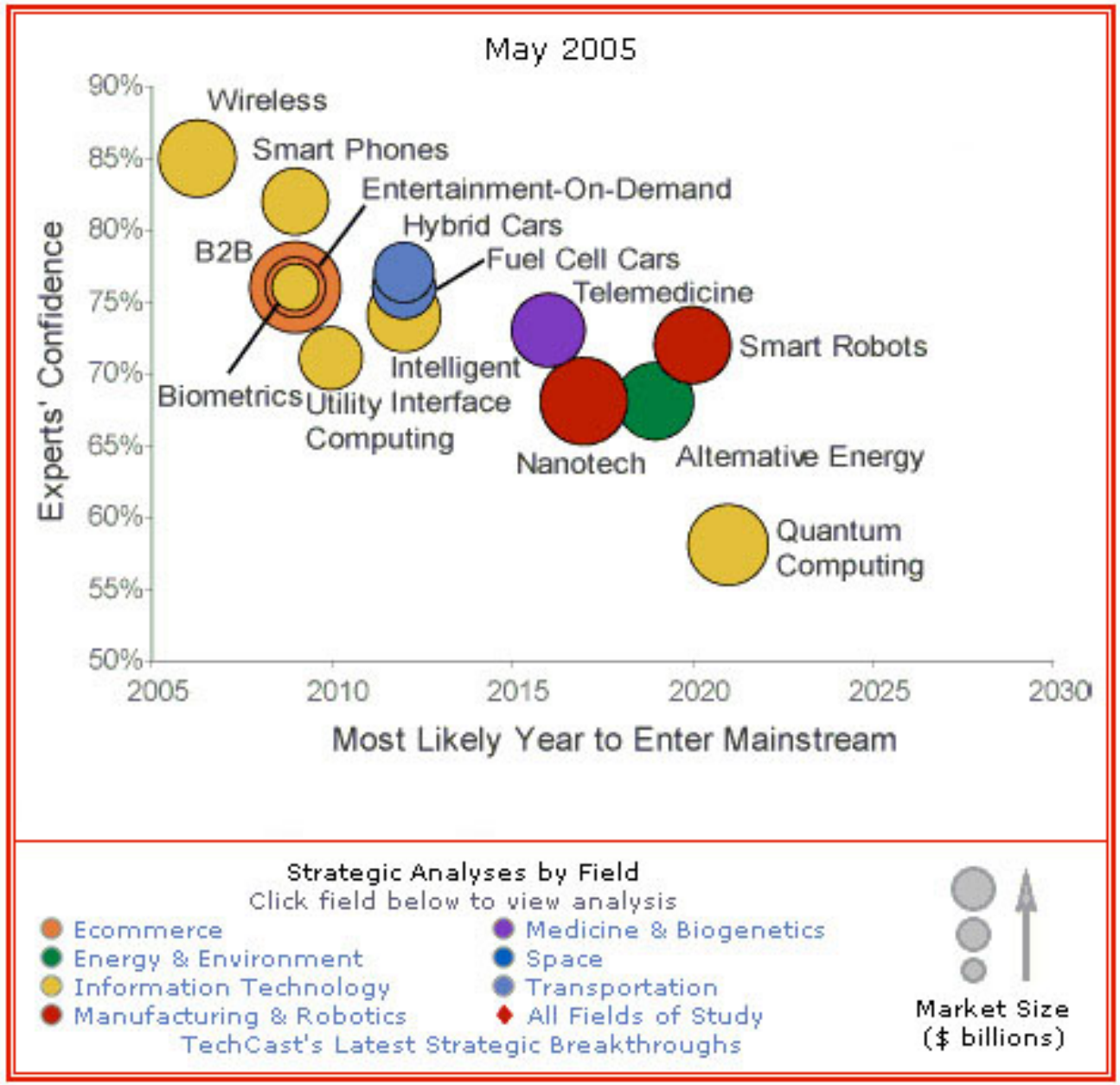
Forecasts on the Future of Technology



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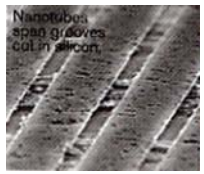
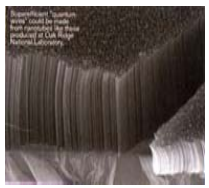
"Emerging Technologies that will change your world"

Standards required for any success

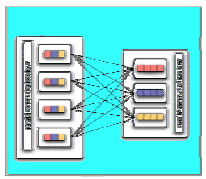
Airborne Networks



Universal Memory



Quantum Wires



Grid Computing

Silicon Photonics

Smart Labels

Nanoelectronics

Cell Phone Viruses

Bioinformatics

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Technology trends change over time

- 2002
  - Security
  - Mobility
  - Agents
  - Semantic Web
  - Convergence
  - Human-Machine Interface
  - eProcesses
  - Education and Training

- 2006
  - Peer-to-Peer Networking
  - Web Services
  - Grid Computing
  - Networked Smart Labels
  - Self-managed systems
  - Software Defined Radio

… and standardization trend is to start earlier

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Success stories
(in terms of market success)

- **Market success could come as a surprise**
  - GSM in the early days not prognosticated for such a success
  - SMS not at all prognosticated so successful
- **Some took a bit longer but were eventually a success**
  - DECT
  - TETRA
  - UMTS
- **Some are less visible to the customers**
  - ISDN
- **Some need a specific migration concept**
  - DVB-T (from analogue to digital with new equipment)
- **… and now the Internet**
  - A converging technology
  - High speed with ADSL in the local loop
- **What do success stories have in common ?**
  - Innovative ideas (from research to a product)
  - Realistic technology
  - Market demand
  - Right timing
  - Strong partners
  - Affordable price

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Less good examples

- **Smart Cards**
  - Proliferation of incompatible applications (e.g. health cards)
- **Road tolling systems**
  - Standards came too late
  - Standards did not cover existing infrastructures
- **Digital Rights Management**
  - Different proprietary solutions
- **DVD**
  - Competing new formats
- **IP-TV**
  - Many solutions

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Effectiveness of research projects

- Collaboration with standardization
  - Focus on possible market demand
  - Reasonable size
  - Partners
    - Researchers, developers, implementers
    - Standardizers
    - Operators, service providers
  - Acknowledgements
    - Conferences, publications, credits
  - Reasonable IPR policy
- "Tools" for co-operation and collaboration
  - FP7
  - European Technology Platforms (ETP)
  - Strategic Research Agenda from ETP
  - Clustering
  - Standardization

Conclusion

Innovation = research + standardization + implementation

OECD definition of Innovation:
"An innovation is the implementation of a new
or significantly improved product (good or service),
or process, a new marketing method,
or a new organisational method
in business practices, workplace organisation or external relations."

From the WTO TBT Agreement:
"Recognizing the important contribution that international standards and conformity assessment systems can make in this regard by improving efficiency of production and facilitating the conduct of international trade."

i.e. Standards reduce technical barriers to trade

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Thank you for your attention

Dr. Walter Weigel
ETSI Director-General

walter.weigel@etsi.org
http://www.etsi.org

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