Evolution of regulatory policies for industrial spectrum and for gigabit economy

CEPT workshop on new spectrum solutions for industry sectors
Scandic Hotel, Copenhagen, 2-3 May 2019

Christoph Legutko
Growth, Markets and Trade – Connectivity Policy Europe
christoph.legutko@intel.com
1. Spectrum access policy for industrial use cases
2. Evolution of regulation for gigabit networks
Spectrum access policy for industrial use cases

Different solutions based on industrial requirements and market situation

- MNO spectrum (network slicing or local leasing to industrial user)
- Dedicated local licensing directly to industrial user
- Unlicensed spectrum

Balanced approach to satisfy MNOs’ and local/regional industrial usage

- Consider main global 5G tuning ranges (e.g. 3.3-4.2 GHz) to facilitate economies of scale also for local industrial usage → allow locally flexible adaption of the tuning ranges
- Enable spectrum access → within the same timeframe for both nationwide MNOs’ and local industrial usage
- Provide light and efficient regulatory process for dedicated spectrum for industrial usage based on locally specific requirements of those users → no complex and lengthy award/auction processes
Towards the Gigabit Economy

With all-IP, the fixed and mobile networks converged to
→ one, giant computer network called the INTERNET

Radio became just a wireless extension of fixed networks
→ 5G is coming

Meanwhile the bandwidth demand is higher than offer
→ optical fiber everywhere is urgent

Ultrafast broadband in the last mile is the key
→ how to attract investors and avoid subsidies?

What could be the next step of the EECC reforms?
1998 reform objective

- Transformation of state owned telecommunication companies into private entrepreneurs
- De-monopolisation – enabling of competition on the existing telephone (twisted pair) and TV (coax cable) copper networks, therefore
- LLU obligation invented (Local Loop Unbundling)

Pre-2018 EU telecoms framework

- Successful in bringing competition to the market
- Less successful in promoting investments in ultrafast broadband infrastructures

Applications

- Voice, Video, Audio, Data, etc.
- Platforms
  - DOCSIS 3.x
  - Wi-Fi
  - VDSL
  - 3G
  - FTTH
  - 4G
  - Satellite
  - 5G
  - Anything else

Next step: Business Reporting Evolution

- Copper Coax Optical Fibre

Pre-2025 Gigabit Society

Applications & Services

- Depreciation ~1 year
- Transparent financing interfaces

Active Infrastructure

- Depreciation ~5 years
- Transparent financing interfaces

Passive Infrastructure

- Depreciation ~20 years

Allianz bid for optical fibre network of Altice (Nov’18)

Evolution of Investors

Governmental <1998
Analogue

Incumbent telcos ~2010
Digital

Specialised investors >2025
Internet

Bankers’ paradise: Clear commercial & ownership rules

Bankers’ nightmare: Monolithic financial appearance

Potholes

Applications & Services
- Transparent financing interfaces
- Active Infrastructure
- Passive Infrastructure

Bankers’ dream:
- Reform business reporting
- No LLU, contracts instead

Source of the “FCC Vision of (De-)Regulation”:
FCC presentation at CEPT Conference in ~2001
Conclusions

Gigabit economy of 21st century need new rules:

1. Enable easy access to local spectrum to address industrial requirements

2. Continue improving the EECC to encourage investors financing the gigabit network infrastructures → foster financial transparency and preference of contractual not regulatory obligations

Automobile industry 1886 – first motor car

Telecommunication 1844 – first telegraph line
Many thanks!

Q&A