The transition to Digital Terrestrial TV and utilisation of the digital dividend in Europe

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* Disclaimer: the views expressed are those of the author and cannot be regarded as stating an official position of the European Commission.
Switch-off of analogue terrestrial TV in the EU

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Switch-off of analogue terrestrial TV in the EU

FI
AT
CZ
PT: no decision yet
SI
HU
UK
DE: major areas
SE
NL
LU
DK
MT
EE
DE
BE
ES
LT
RO 2015
PL
CZ
UK
IE
PT
FR
SI
IT
CY
BG
HU
LV
EL
HR

SUMMARY

27 EU countries already switched-off
- RO in 2015

Legend
- Switched off
- Switch-off 17 June 2015
• Commission **Communication** in 2002
  – EU Member States asked to define their digital transition plans by end 2003 (part of the eEurope Action Plan)

• Commission **Communication** on switchover (May 2005)
  – Key proposal: Deadline of 1 January 2012 for switch-off of analogue terrestrial TV in the European Union
Success factors for Switchover in Europe

- Process should be driven by market demand
- Clear benefits (Digital TV and Digital Dividend) and strategy for their achievement
- Clear timetable of stages
- Spectrum planning
- Cross-border spectrum coordination
- Consumer awareness campaign
What consumers should know

- Switch on / switch off dates
- Fixed / portable / mobile reception
- Antenna requirements (none/room/roof)
- Geographical dimension of the above
- Channelling tables
- Pay TV information
- Additional services (wide-screen/HDTV, interactive TV)
- Available programming information for recording
- List of capable reception equipment with indicative prices
- Accessibility services: e.g. subtitles, sign language, EPG
- Information on all transmission networks: e.g. terrestrial, cable, satellite, DSL
Financing the Upgrade

• Careful analysis of all costs and benefits required

• Multi-platform approach to coverage may reflect market dynamics and contribute to transmission cost savings

• Funding examples in Europe:
  – EU structural funds were used to increase coverage
  – Subsidies examined case by case under EU competition and state aid rules. In certain cases Set Top Boxes were subsidised.
Switchover has created the digital dividend (DD): spectrum freed by the transition to digital terrestrial television (DTT)

(size of spectrum needs not to scale....)
Implementing the DD strategy:
Basic political decisions on the DD

• EU Recommendation on the DD:
  – 2009 Recommendation European Commission:
    > Completion of SWO by 2012 recommended
    > Member States to support regulatory efforts towards harmonised usage conditions for the 790-862 MHz sub band

• Outlining the roadmap:
  – 2009 Communication by the European Commission:
    > start harmonisation of usage conditions of 800MHz band
    > proposes future measure to cease using the 800 MHz band for high-power broadcasting services
    > calls for efficient spectrum use (investigating benefits of TV compression techniques, the use of DVB-T2, SFN; promoting better receiver interference immunity performance)
    > need to ensure spectrum availability for PMSE equipment
Implementing the DD strategy: Making the DD available

- **Defining common usage parameters for the 800 MHz:**
  - 2010: *Harmonisation Decision for the 800 MHz*:
    > based on mandated CEPT technical study and report
    > *binding usage conditions* once **800 MHz band is made available** for Wireless Broadband (WBB) at national level:
      * prevents fragmentation, while preserving "phase-in" approach
      * coexistence broadcasting/WBB across borders in EU: need for coordination
    > timing of **opening of the 800 MHz band not mandatory**

- **Setting the timeframe:**
  - 2012 *Radio Spectrum Policy Programme (EU Decision), art. 6(4)*
    > **deadline 1/1/2013**: Member States shall carry out the **800 MHz band authorisation processes**.
    > **derogation possible until end 2015** when encountering "exceptional national or local circumstances" or when cross-border coordination prevents the availability of the band.
    > after 2015, annual derogation may be granted if coordination problems persist
    > derogations are granted by Commission Decision (procedure specified in the Radio Spectrum Decision specifying harmonisation procedures)
Lessons learned

- Early agreement on a reference timeframe for Switchover is key
  > realistic compromise, acceptable for early movers and latecomers

- Countries supporting the DD strategy should be given the option of "gradually gearing in":
  > clear announcement of commitments / timetable
  > safeguard / derogation procedures (no opt out option, clear rules)

- DD debate should not be dominated by interests of specific sector
  > process should involve all relevant sectors on the basis of common objectives:
    look for win-win situation, equitable repartition of financing changes, etc.

- Careful choice of spectrum planning frame amongst supporting countries:
  > coordination mechanisms amongst involved countries needed
  > coordination with third countries or at regional level to be taken into account

- Derogation mechanism is unsatisfactory: substantial delays in assignments in the 800 MHz band
The transition process

Record of SWO: devices in use

• **Set-top boxes**
  played a role in early consumer transition, loosing importance as analogue TV receivers were naturally replaced. Price: typically 20-50 €

• **Integrated TV receivers**
  new TV sets now offer integrated DTT receivers (DVB-T2 (and HEVC) increasingly important).

• **Digital recorders**
  "successor" generation to STBs or included in TV set → HD + software to support recording twin tuners (watching / recording)

• **Integrated OTT modems**
  supporting combined DTT / OTT reception with EPG, catch-up TV etc.
The outlook

**DTT technology and service evolution**

- **Improvement of service under DTT: (U)HD, HEVC and DVB-T2**
  Important to decide early on number of channels vs. broadband capacity, what technology to use and give clear signals to consumers and industry.

- **DTT services vs. WBB service evolution**
  Changing content consumption mode (non-linear, Internet content), but only slowly.

- **Convergence**
  Convergence of services is happening. Broadcasting (DTT/Sat/cable) is complemented in the same device by broadband connectivity. Convergence of distribution networks less certain.
Thank you for your attention!

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