



Deployment of NGA in Spain

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Overview

- AIM: Estimation of the basic deployment costs of different types of NGAs - establish some broad limits of market action (extent to which market is willing to invest)
- Very detailed assumptions on demographics and geotypes which help considerably in refining calculations
- Basic aim fulfilled: very good synthesis of the type of changes that may be needed in spectrum policy and EU conditions of state aid to support fixed NGA investment.

Comments

- Paper highlights need for clear labeling i.e. setting goals (coverage, etc.);
- Need more attention to other policy/regulatory tools: spectrum policy/state aid important but need to know more on how to maintain or create competition
- Insufficient attention paid to capacity as a goal and need for upstream capacity: why are governments placing emphasis on digital society and NGNs?
- Paper has tendency to overemphasize role of mobile (fixed wireless gets rather less treatment)
- Some confusion as to role of mobile: complementary infrastructure or competitive

Demand Side (+capacity) Important

- Paper notes (only in conclusions) issue of uncertainty holding back investment in NGAs.
- Government can play a significant role in reducing this uncertainty;
- Implementation of demand-led policies important as stimulus for investment (revenue generation)
- Government role in areas such as: smart health applications, remote education systems, smart transportation and smart electricity grids.
- Network applications in these areas create efficiencies & have a positive economic and social impact

Technologies and policies

- More discussion on how different technologies (and their capex) impact on competition useful;
- Interesting to add FTTH Point-to Point to estimates, in particular for denser urban areas;
- Helpful to look at capital expenditure but revenues also important and sensitivity of revenues to different market shares (OECD 2008)
- Options for competition with different technologies?
- Functional and structural separation
- Multifibre model (Switzerland): Each home in a building connected with four separate fibres, all ending in a standardised plug. At the other side, all fibres of a building end in a manhole close to the building.

VDSL as a solution

- Need to recognise that VDSL , in medium to longer term, only an interim solution;
- Implies that longer term costs could be much higher if/when we have to migrate to GPON
- Ignores cost of maintaining existing copper network – estimate for TELSTRA is A\$1 bn in operating costs to maintain copper network
- Not clear why use of urban passive infrastructure highlighted and not rural

Some questions

- Was satellite examined as infrastructure for remote areas?
- How was profitability determined in less dense zones which have a high capex? There can be significant externalities because of the connection by these users which;
- To what extent is take-up important in investment models? Tasmania model which requires opt-out.)
- Was (follow-up to previous slide) savings from decommissioning copper taken into account?