Policy Initiatives for Broadband

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Disparity In Policy Objectives

<table>
<thead>
<tr>
<th>Country</th>
<th>Announced Plans</th>
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<tbody>
<tr>
<td>Australia</td>
<td>Superfast FTTH - 90% Coverage, 2018, €28bn</td>
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<tr>
<td>Germany</td>
<td>100% coverage with 1 Mbps, 75% coverage with 50Mbps, €150m</td>
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<td>UK</td>
<td>2Mbps to all citizens by 2012, BT plans for Fast broadband covering 40% households by 2012</td>
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<tr>
<td>USA</td>
<td>100 Mn households with 100Mbps by 2020</td>
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- Substantial commitments but opaque objectives, no Cost Benefit Analysis
  - Australia – stimulate economy – create jobs - private participants not coming forward – major spend by Govt. in initial years followed by disinvestment
- Is the disparity due to
  - Local market considerations, or
  - Lack of clear decision making frameworks?
- Issue demands a sound framework
  - exploring trade-offs between different investment approaches
  - quantitative analysis based on geographic segmentation and trade off option
  - prioritizing demand-side measures to justify funding
Suggested Framework

- Investment Trade-Off between Speed, Coverage, Mobility & Demand Take Up
- Geographic segmentation (Geotypes)
  - Major Urban ------ Least Dense (Rural)
- Quantification
  - Producer Cost (PC)
  - Producer Value (PV)
  - Consumer Surplus
- Subsidy support where PV< PC, but net value is positive
- If net value is negative, then intervention required if sufficient externalities exist
- ‘Marginal’ gains & costs relevant for higher speed broadband

Quantitatively modelled point prediction

Source: Ingenious Consulting
Trade-Off Between Coverage & Speed... Findings

National broadband plans – Incremental externalities/month/connected household required to justify proposed investment in remotest region covered

• First Priority should be to roll out standard broadband
• Market forces will provide faster broadband in some parts
• Weak case of subsidy for superfast FTTH or FTTB
• Alternative uses of government funds and potential returns, e.g. demand side stimulus may yield greater value

Source: Ingenious Consulting
Demand-side Policy Measures – Current Situation

• Large number of existing Government measures, but
  – lack of rigorous ex-post analysis of their impacts.
• Limited number of effective programmes:
  – ‘Million Housewives’ in Korea & E-inclusion of younger age group in Portugal
• More target setting on broadband roll out rather than internet adoption.
• Divergent needs, attitudes and adoption process of non-users demand customisation.

Reasons for why households in EU15 without Internet access do not have it – by income quartile, 2008

Source: Plum Consulting, Eurostat
 Demand-side Policy Measures – Suggestions

• Incentivise in a more systematic and rigorous way, with ex-post evaluations.
• Take advantage of current trends which reduce costs and skills needed for Internet
  – mobile broadband and smartphones,
  – Internet access via televisions and e-book readers,
  – move from browsers to applications.
• Refuse funding programmes which fail to consider current trends.
• Higher priority to younger age group.
  – former group will be Internet users for longer
  – Consider critically at importance of education level, and,
  – can potentially support their parents to become Internet users.
• Remove affordability barriers – switch some subsidies from the supply-side to the demand-side
• Promote e-transactions, m-commerce for those without credit or debit cards
Need for a holistic approach

• Demand and Supply Side Approach
  – Recognise the importance of Geotypes (demand and supply side implications)

• What is the Investment Model?
  – Models for passive infrastructure, bandwidth supply and retail services
  – Co-investment
  – Open access
  – Separation
  – Competition Policy

• Universal Service Policy
• Spectrum Policy
• Interconnection Issues

A coherent and integrated policy approach is required