

Policy Initiatives for Broadband

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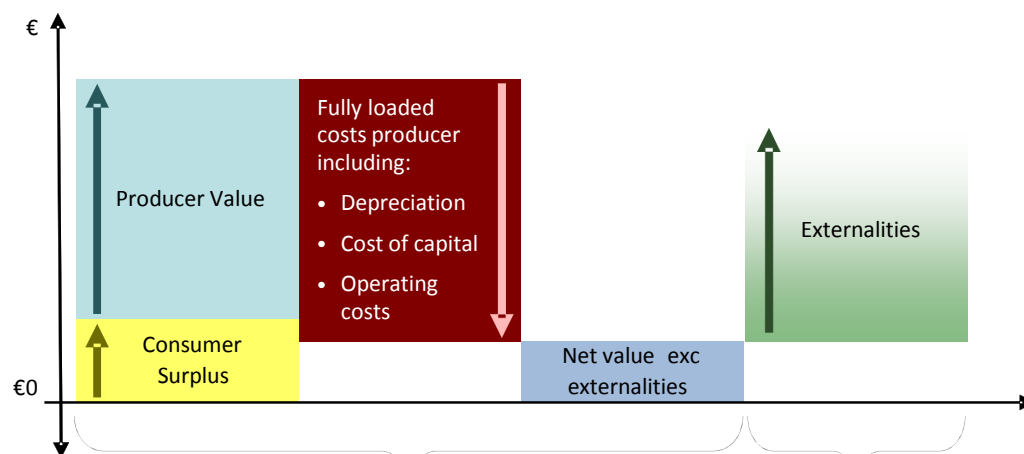
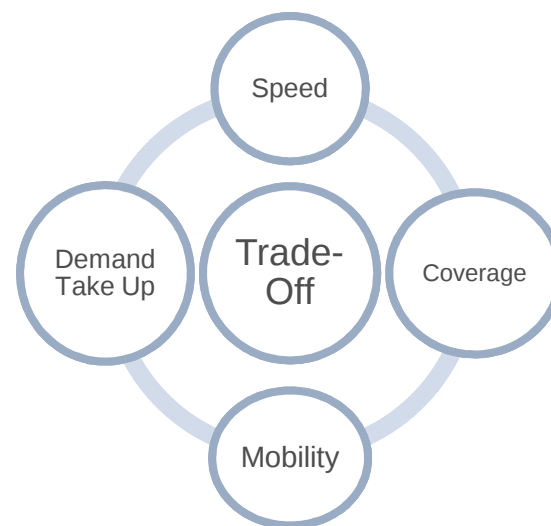
Disparity In Policy Objectives

Country	Announced Plans
Australia	Superfast FTTH - 90% Coverage, 2018, €28bn
Germany	100% coverage with 1 Mbps, 75% coverage with 50Mbps, €150m
UK	2Mbps to all citizens by 2012, BT plans for Fast broadband covering 40% households by 2012
USA	100 Mn households with 100Mbps by 2020

- 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



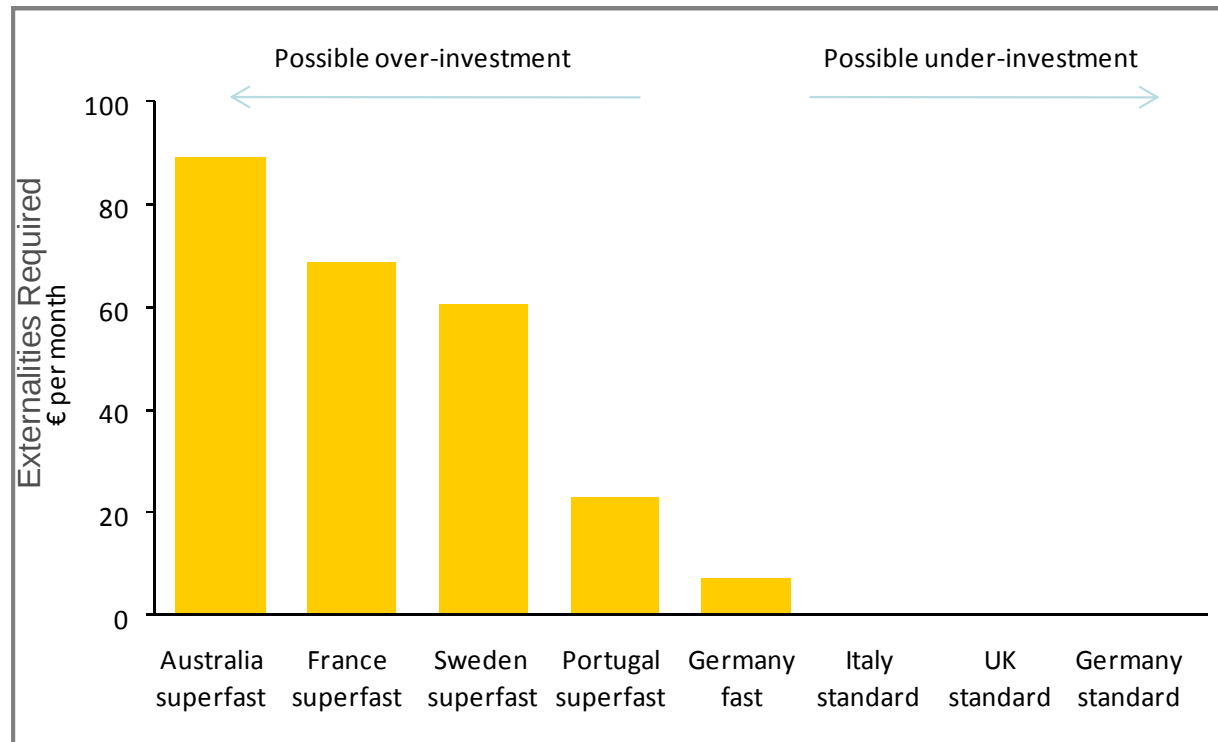
Quantitatively modelled point prediction

Quantitatively tested

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



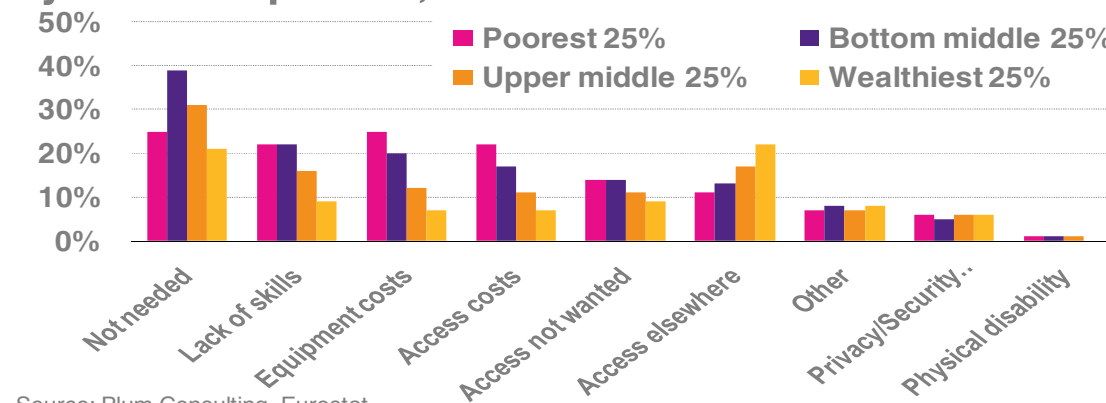
Source: Ingenious Consulting

- 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

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

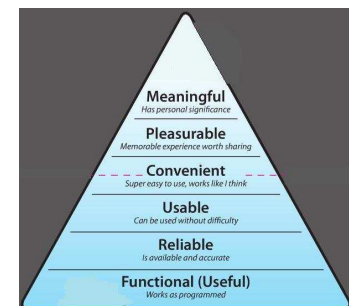
Demand-side Policy Measures – Suggestions

- 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



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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