Commission for
Communications Regulation

Enabling Next Generation Networks Access – A Regulatory Perspective

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TiF Conference, September 21st 2009

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Presentation Outline

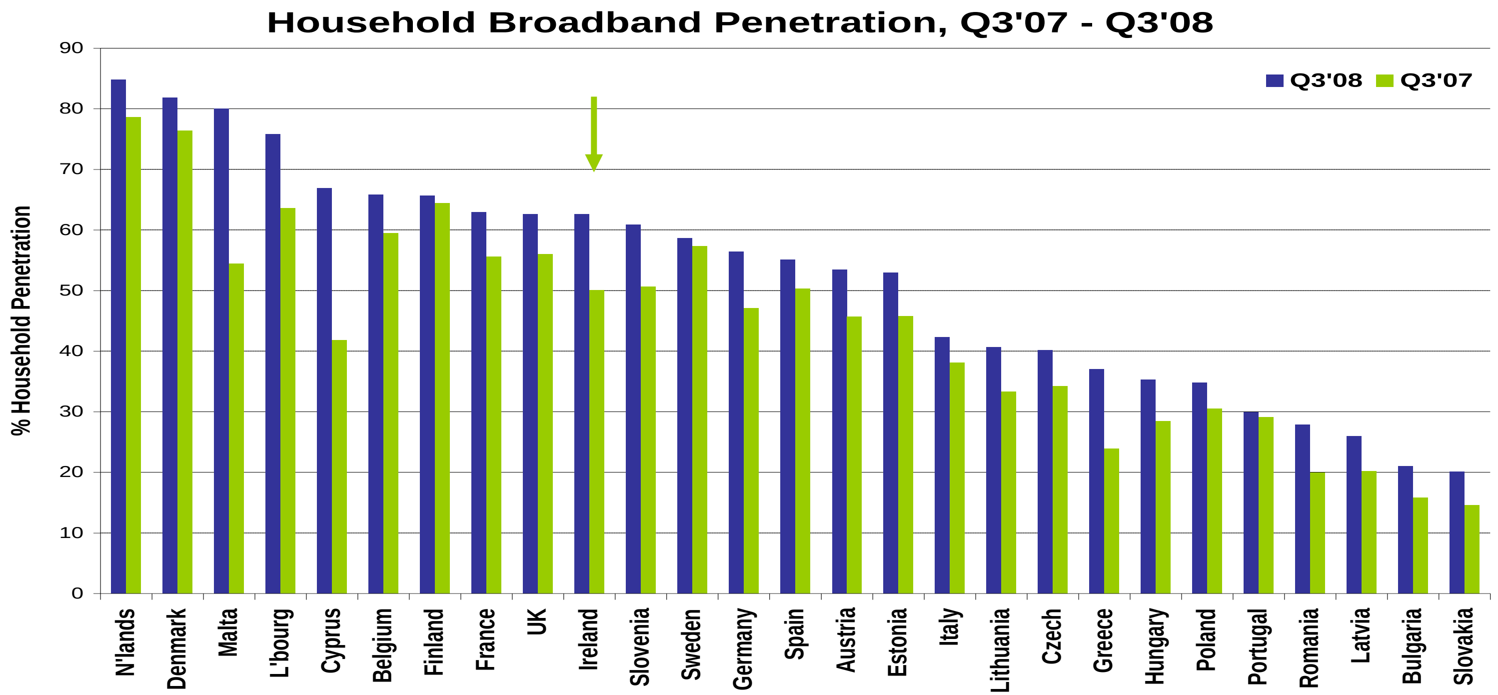
- Broadband developments in Ireland
- EU Framework & its application to NGN
- Emerging NGN policies of NRAs
- ComReg's approach to NGA
- Some thoughts and conclusions

Broadband Developments in Ireland

- Broadband now over 1.3m or 63% of homes
- 54% DSL/Mobile 28%/Wireless 9%/Cable 9%
- Speeds are improving- 2-10 Mgs
- LLU a key driver of innovation-Average 20%- We are on a par with Romania/Hungary
- Trials only on LTE/VDSL/FTTH- No actual commitment or robust plans
- Cable DOCSIS 3- announced 2010 launch but— only 35% homes passed
- Broadly based NGA coverage will require innovative approach

EU Broadband Household Penetration Rates

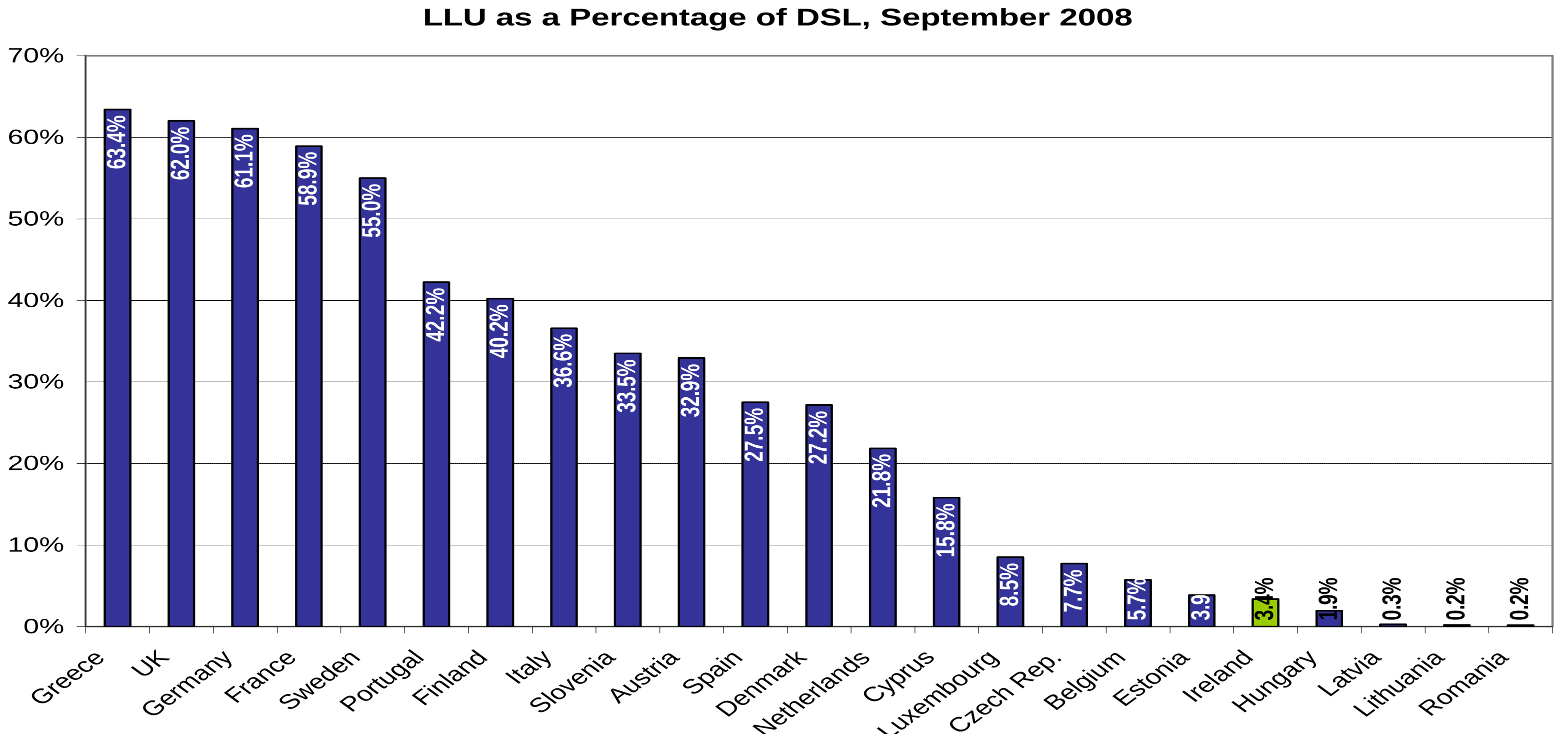
- **Netherlands 85% - Ireland 63% - Slovakia 20%** [Informa]



Source: Informa UK Ltd. World Broadband Information Service, all rights reserved

LLU as a Percentage of DSL

- UK, Germany, France > 58%
- Ireland, Hungary, Romania < 3.5% [ECTA]



Source: ECTA Broadband Scorecard, September 2008

EU Framework Application to NGN – the good points

The Framework is flexible

- Technology neutrality embedded
- Periodic market reviews keep regulation up-to-date
- Ladder of investment envisages OAOs 'trading up'
- Access to bottleneck assets – wherever they emerge
- Pricing can reflect risks & provide incentives
- Promotes *maximum achievable* level of competition
- NRA discretion to tailor remedies to national context

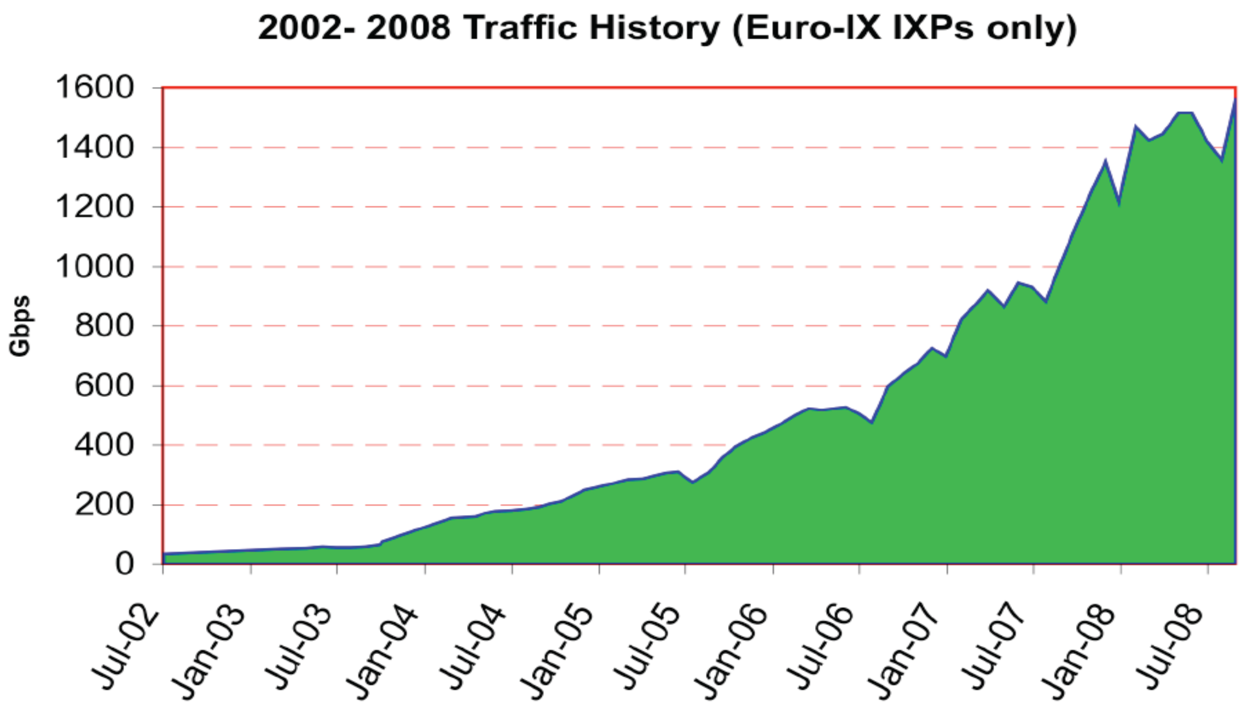
EU Framework application to NGN – some challenges

- Big disparities in infrastructure provision across EU
- Economics of SLU may be less favourable than LLU
- EC 2 NGA drafts have 'varied' significantly-passive/active/competition- now not likely until Q1 2010
- Absent strong infrastructure competition, are incentives adequate for incumbent NGA investment?
- Will NGN expand well-served vs. under-served divide?
- Focus has mostly been on fixed NGN, not wireless and yet both will be necessary-
- Contrast of 3 yr market reviews vs. 15-25 NGA investment cycle
- Economic crisis brings broader dimension to national NGA schemes – fresh inputs, but risks of 1-size fits-all

Emerging NRA policies – high-level common ground

- Increasing demand requires NGB deployment-slides
- NRA can encourage deployment by providing clarity
- But -NRA can't pick technological or commercial winners
- Approach to pricing must reconcile incentives to invest with need to promote competition
- NRA must preserve competition gains to date – protect stranded assets through overlay/migration
- Open access, non-discrimination, transparency & pricing all key for future competition
- Market review process will match remedies to national circumstances

Growing bandwidth consumption an international trend



Source: Euro-IX

Internet traffic has grown substantially over time. The Yankee Group projects that by 2011, the average consumer will be consuming 20 GB per month or about 400 times the 500 MB per month the average consumer uses today.

Emerging NRA policies – different emphases

- Countries with high cable penetration (e.g. N'lds) rely on this competitive force to drive incumbent to NGA
- Countries with good duct access (e.g. France) promote passive access – e.g. mandatory duct-sharing
- Varying commitment to symmetry of regulated access
- Debate over duration to run legacy network in tandem 3-5yrs
- Mixed views on wireless NGN- timing/capacity
- Risk-sharing/infrastructure – efficient vs. anti-competitive

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Regulatory responses for open access [Yankee Group 09]

Regulatory Approach	Likely Outcome	Eg.
Opening Services	• richer service environment • plethoric SP ecosystem (100s)	• Sweden
Opening Lit Fibre	• richer choice for customers (on paper) • numerous SP ecosystem (10s) • economy of bitstream?	• UK • N'lds
Opening Dark Fibre	• the « new » unbundling • oligopoly everywhere the network goes • one network or patchwork network?	• N'lds
Opening Ducts	• oligopoly in major cities / dense areas • monopoly in tier 2 cities • patchwork network	• Spain • France

ComReg Regulatory approach- Key principals

- Providing a clear and predictable regulatory environment within which service providers contemplating NGB can operate
- Technologically neutral approach
- While taking account of collaborative approaches- promoting effective competition at network/service level through application of appropriate remedies
- Recognising the uncertainty faced by all service providers in making efficient NGB investment and taking care of such risks

ComReg approach to NGN

- Provide clarity in regulatory approach – NGN principles published in 2007 (e.g. Notice Periods up to 5 years)
- Regulator/industry Working Groups on NGN Core & NGN Access worked through the detail & produced SORs etc
- Fixed NGA regulation determined in market review process: preliminary proposals for WPNIA (market 4) published, WBA (market 5) to follow Q4
- WACC: open to project-specific risk/CapEx triggers
- Adapting spectrum policy to maximise potential for next-generation wireless services- Spectrum Liberalisation/LTE/DD
- Chairing ERG Open- NGA/Access Group works-stream
- Committed to active participation on range of Government initiatives, Stakeholder Group,
- Discussion paper on –promoting timely and efficient deployment of high speed broadband infrastructure

Early feed back from Discussion document

- Good response 20+ Thanks
- All thought it was timely
- Significant majority believed that any initiative should be market led
- Significant majority thought it was important to safeguard competition
- Significant majority supported 'Open-Access'
- Significant majority agreed that collaboration would be useful- differing views on the form
- Full update within the next few weeks

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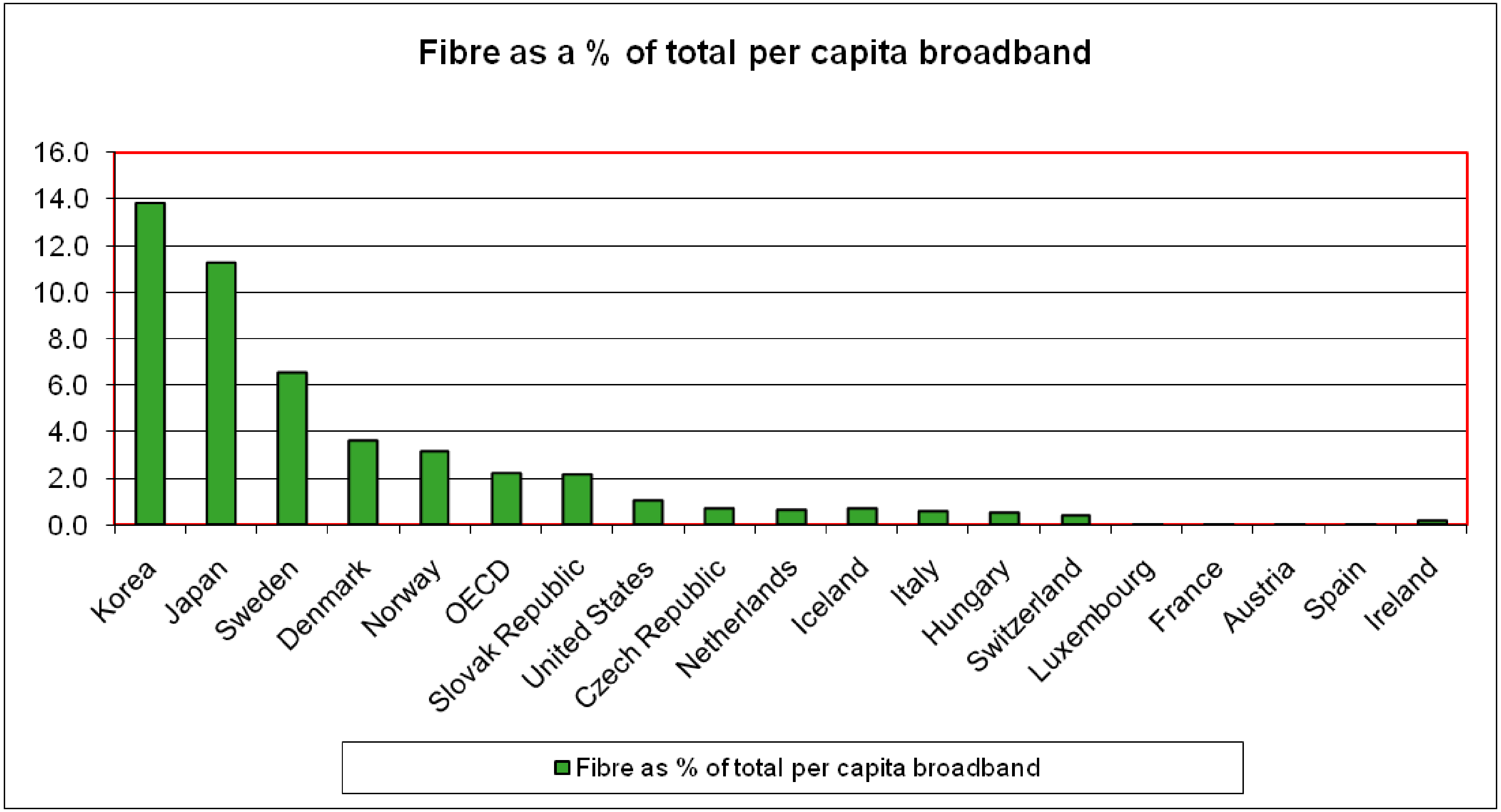
NGN networks- still in their infancy



Note: Only countries with at least 0.1% fibre penetration have been charted

Conclusions

- Knowledge Economy needs competitive and efficient Smart Networks
- Need for market led, cross-platform investment in NGAs –Competition is key
- Lets engage early- we are ready -Design out/minimise 'bottlenecks' –why replicate the mistakes of the past
- Regulation will be predictable and proportionate to-competitive landscape
- Collaborative options look worth exploring- great signal- speed of roll-out, win-win outcomes possible- we do however know the challenges----
- Alternative approach- Open Access Fibre Utility?- Challenging but what everyone is looking for---
- Whether collaborative /Single /Utility- Open-Access is critical
- We will continue to drive our pro-active Spectrum Policies to support NGB deployments and provide predictability
- Copper will also be with us for many years yet- Network needs appropriate investment/LLU can help drive NGA- time to move on
- Implementation of measures on joined up approach to ducts, co-ordinated planning, etc can assist NGA deployment

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Thanks for your attention