

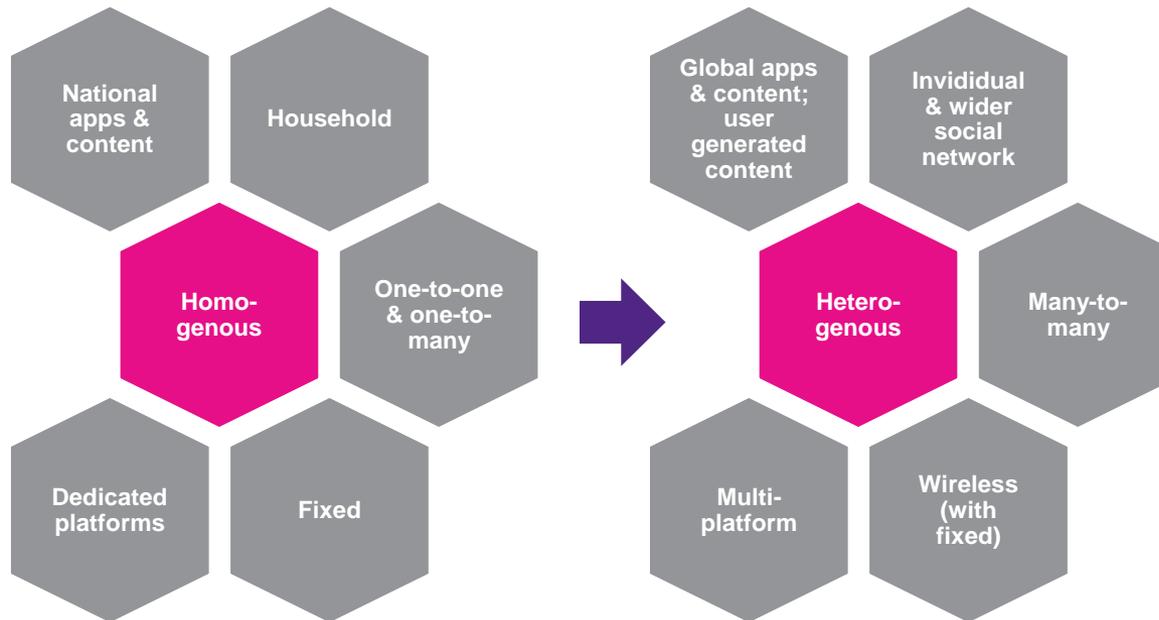


Connectivity metrics for a converged era

Brian Williamson
Thomas Punton

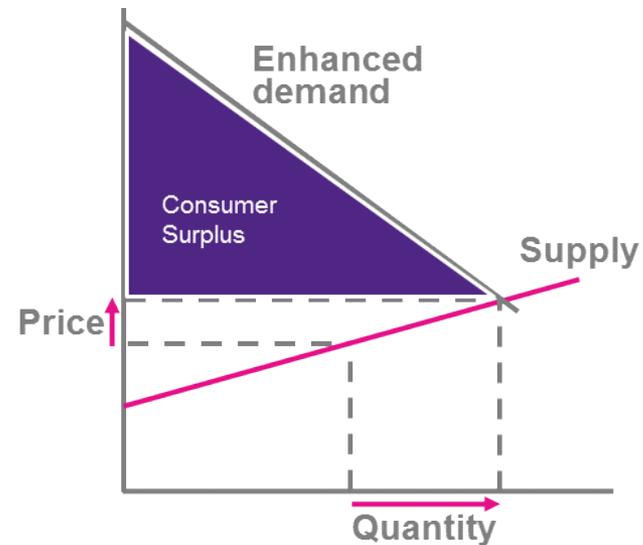
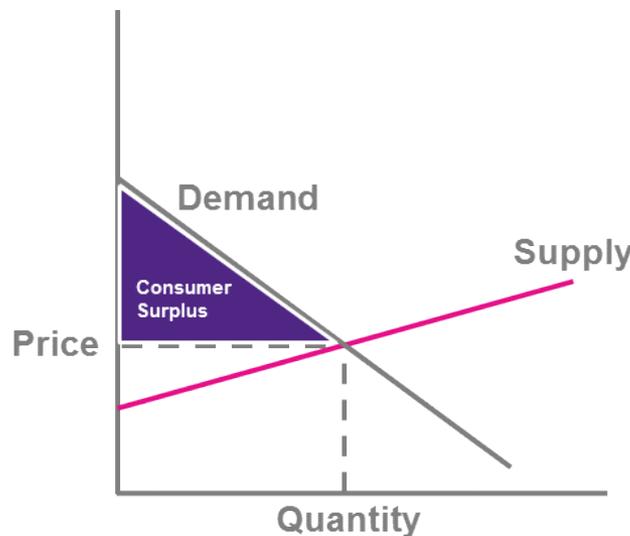
June 2012

Convergence transforms the market



Need for new metrics and benchmarks – new focus on variety and wireless

Focus on quantities not prices

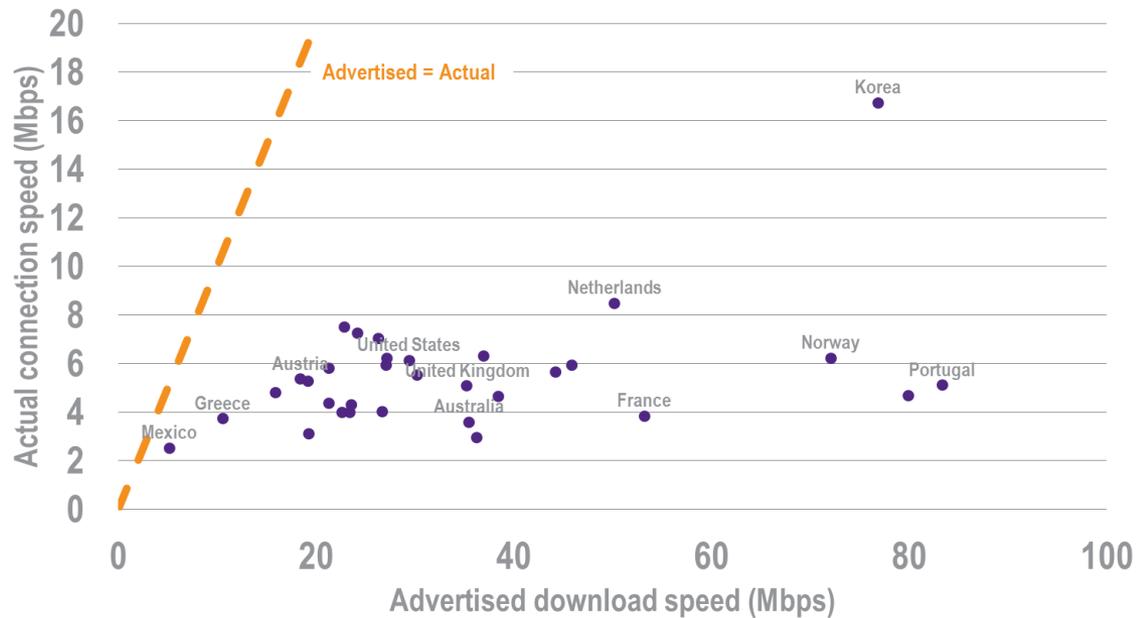


More attention should be paid to demand, less to price, during transformation

Actual measures vs. proxies



Advertised vs. actual speed, Q3 2011



Source: Plum Consulting, OECD, Akamai

Technology specific proxies can also be problematic

Our focus – connectivity and use



Overall measure of connectivity & use

Connectivity

Internet use

Forward looking indicators

Fixed connectivity

Mobile connectivity

Take-up & frequency of use

Intensity & type of use

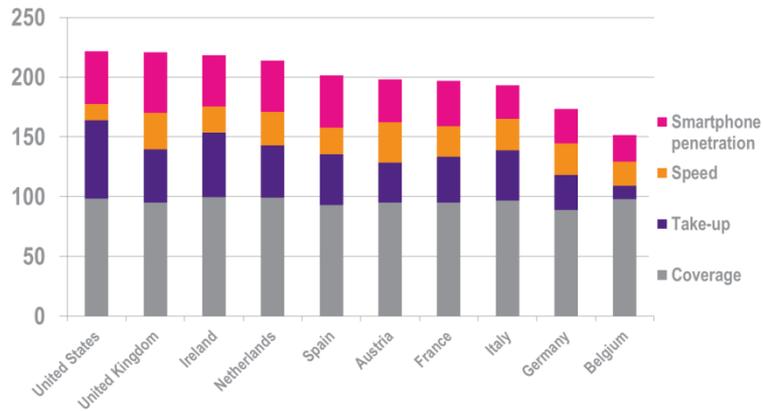
High speed availability

Spectrum availability

Broadband access

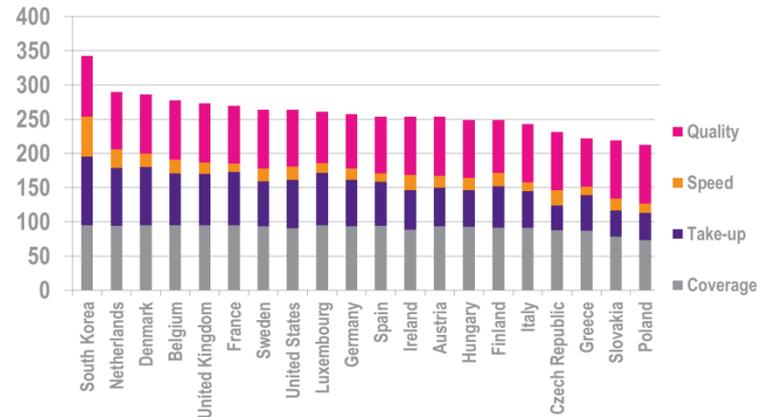


Wireless index



Source: Plum Consulting

Fixed broadband index

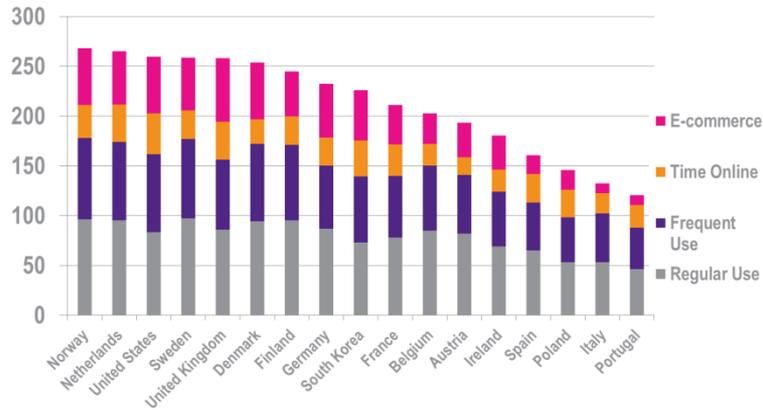


Source: Plum Consulting

Use and forward looking index

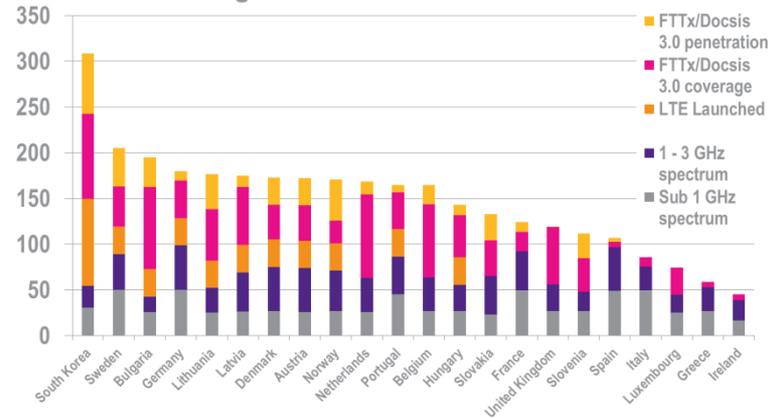


Internet use index



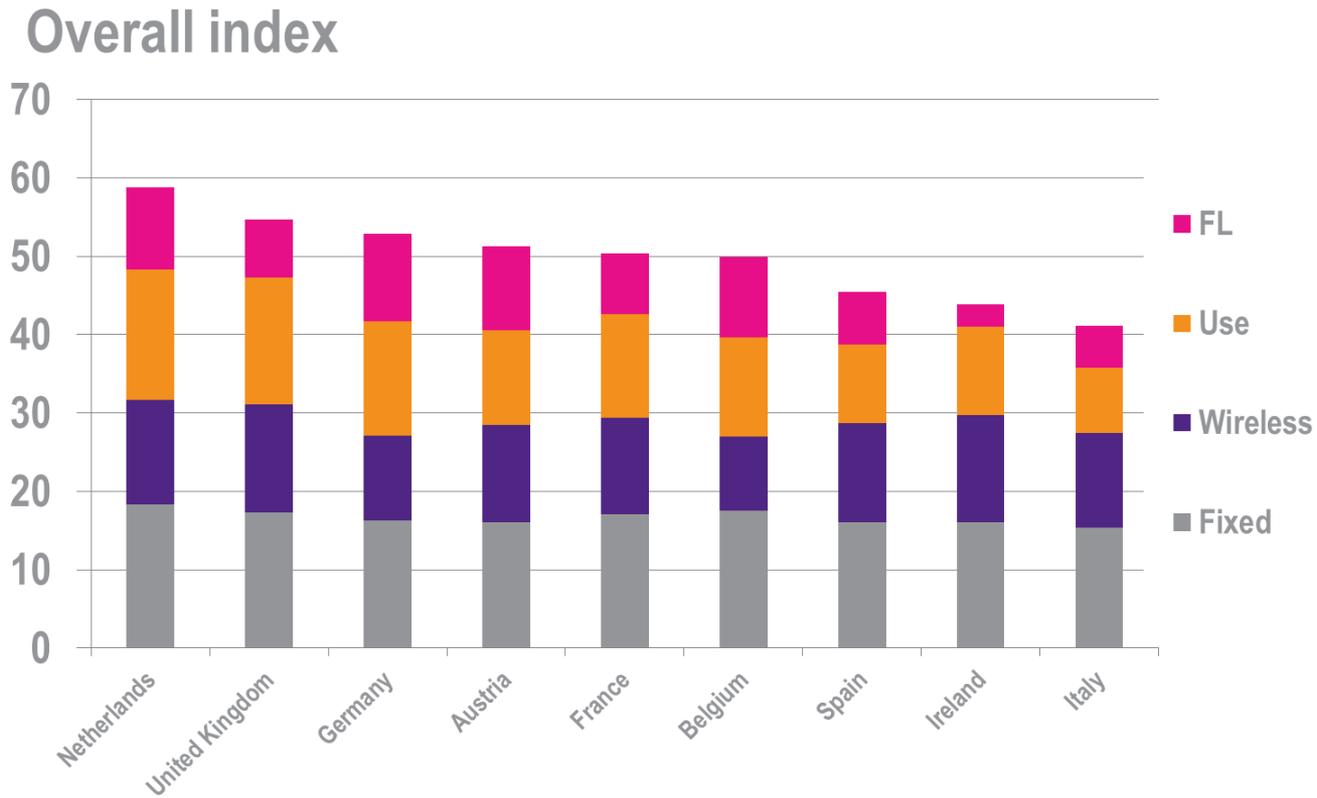
Source: Plum Consulting

Forward looking index



Source: Plum Consulting

Overall index

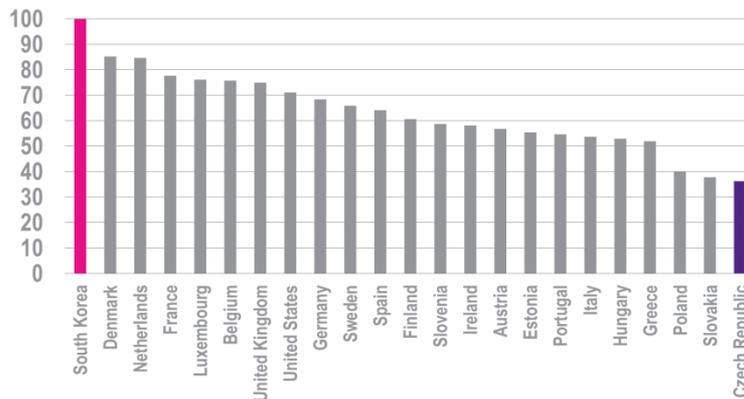


Source: Plum Consulting

Fixed availability \neq internet use

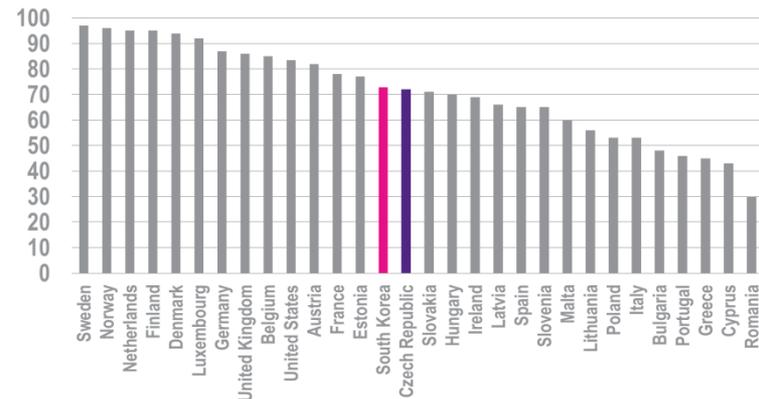


Fixed take-up



Source: Plum Consulting, OECD

Use - Regular Use (45-54 year olds)

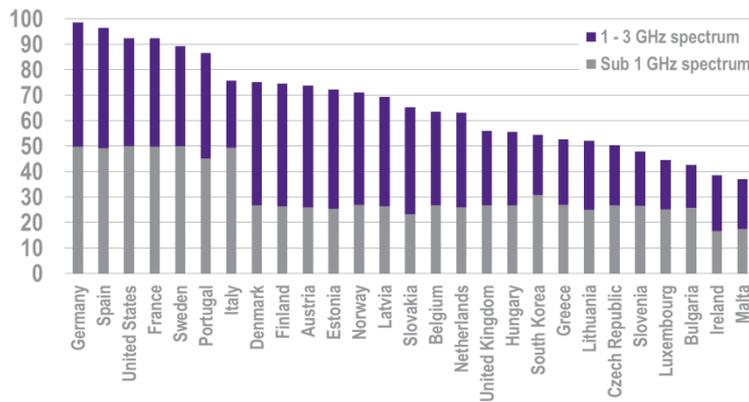


Source: Plum Consulting, Eurostat

Spectrum deserves more emphasis



Spectrum availability index



Source: Plum Consulting, ECO

- Inherent role for policy
- Spectrum inherently scarce
- Spectrum availability
 - Unit cost↓
 - Coverage (sub 1 GHz) ↑
 - Speed↑
 - Competition↑

In future metrics should be...



Transparent & well
defined

Technology neutral or
frequently updated to
reflect change

Based on actual
measures

Adjusted over time to
reflect consumers'
changing valuation

Variety of methods required...



Surveys of individuals

Analysis of big data
(granular application &
network data)

Crowd sourced data e.g.
speed test apps

Estimation & weighting
by consumer valuation

Specific changes might include...



OECD broadband scorecard

- Fixed on household basis
- Fibre measure with VDSL

Broadband availability

- Wireless where valued
- Fixed availability not DSL exchange enablement

Connection quality

- Actual connection speeds
- Other quality measures

More metrics for mobile

- Mobile only households
- Mobile data quantity

Delivery of targets should be assessed on a technology neutral basis