

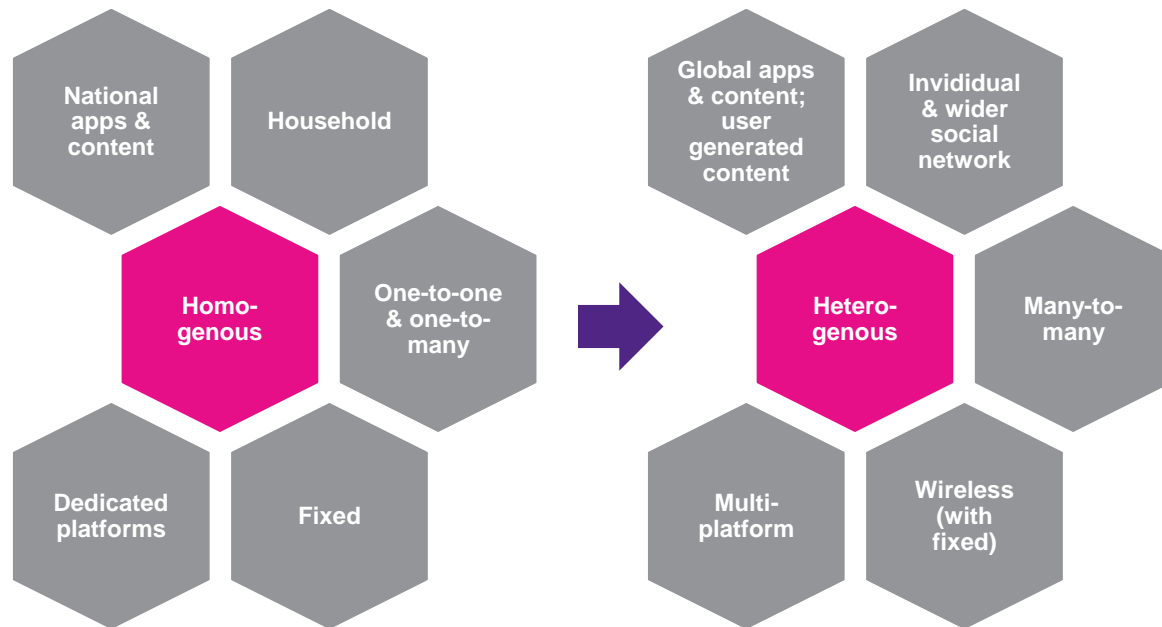


# Connectivity metrics for a converged era

**Brian Williamson**  
**Thomas Punton**

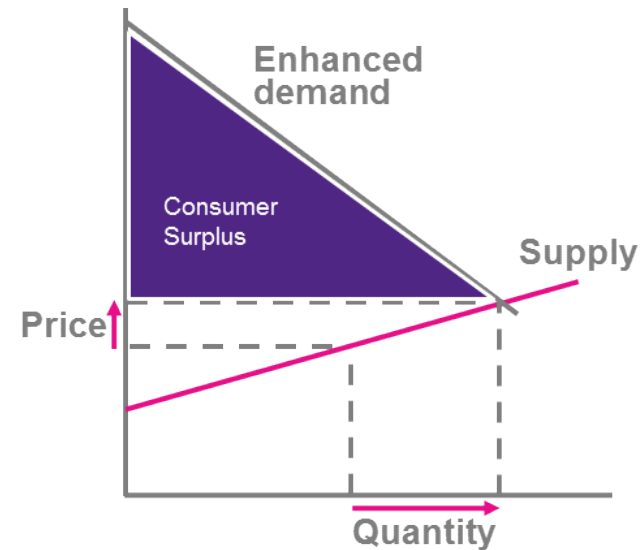
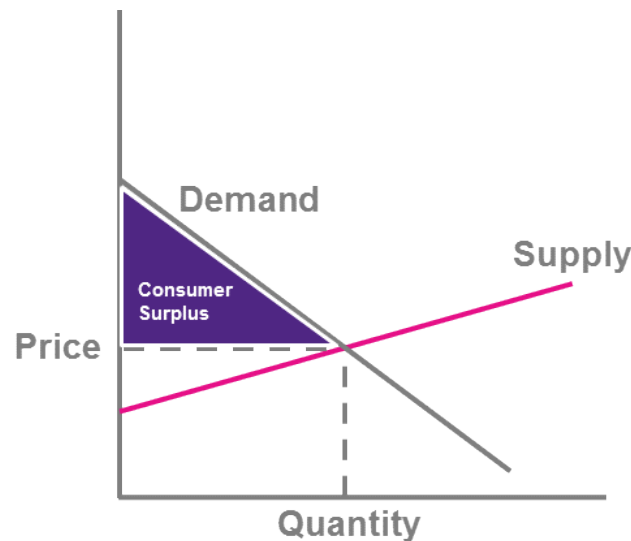
**June 2012**

# Convergence transforms the market **plum**



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

# Focus on quantities not prices

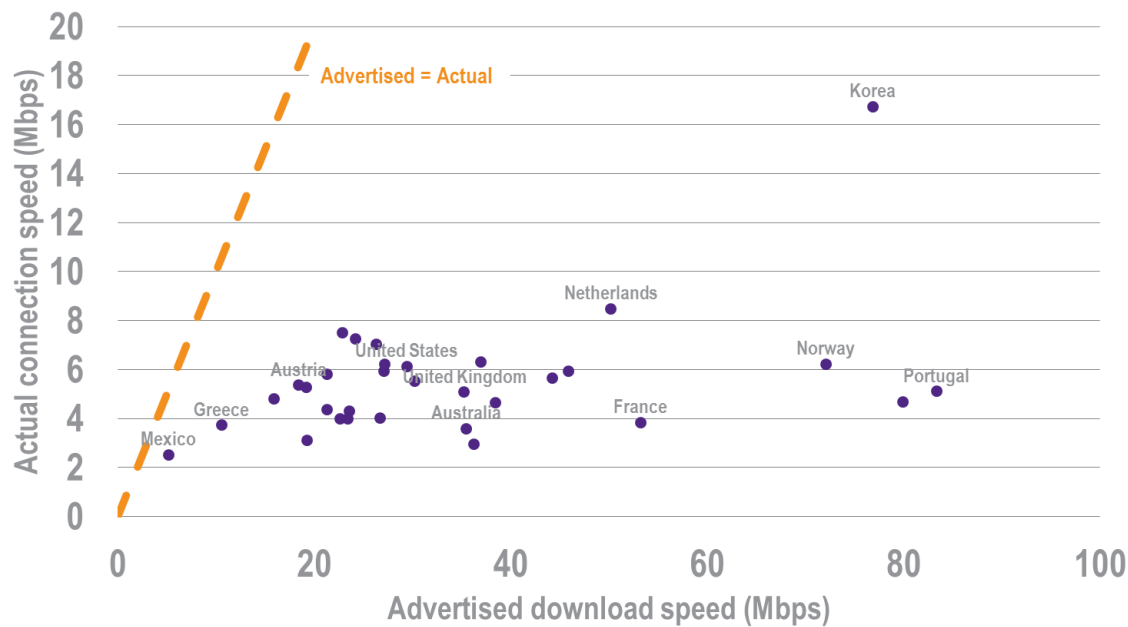


More attention should be paid to demand, less to price, during transformation

# 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

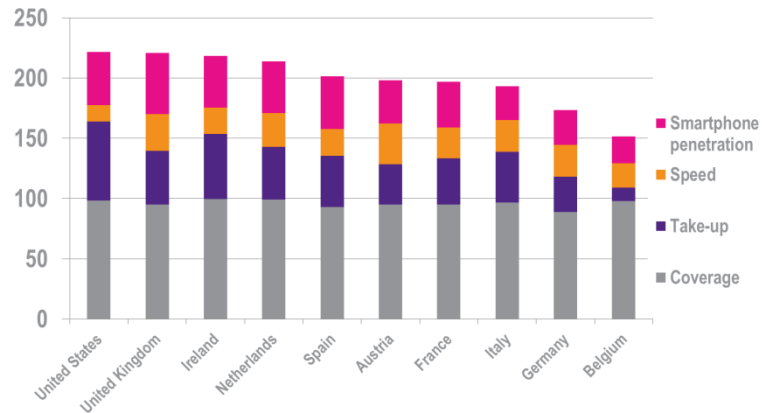
High speed  
availability

Spectrum  
availability

# Broadband access

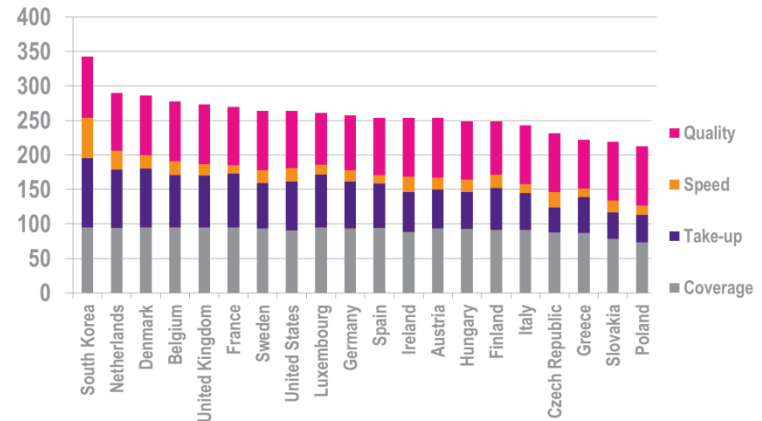


Wireless index



Source: Plum Consulting

Fixed broadband index

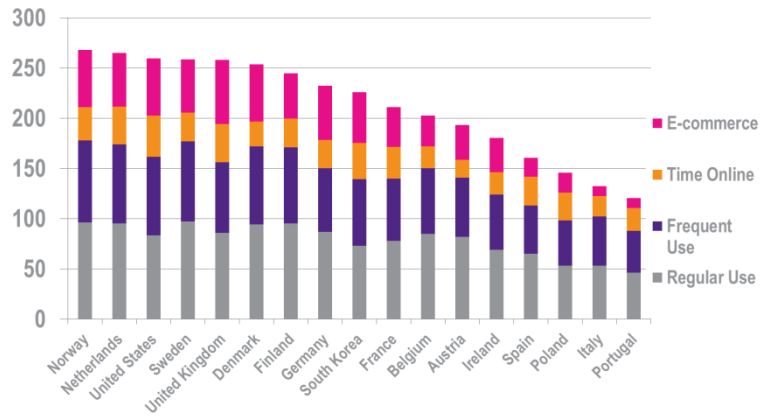


Source: Plum Consulting

# Use and forward looking index

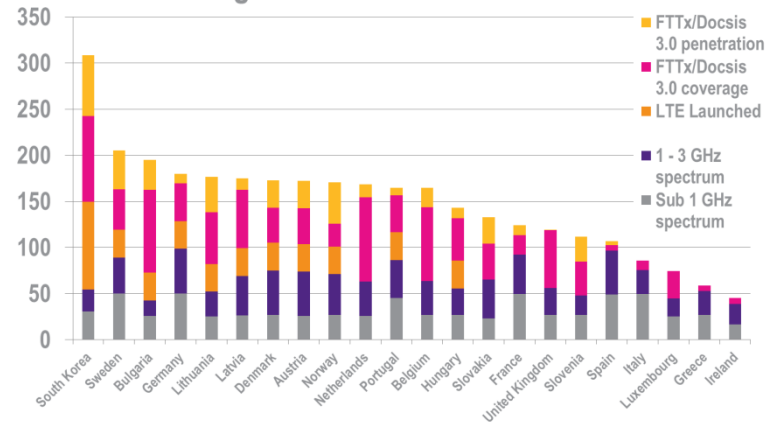


Internet use index



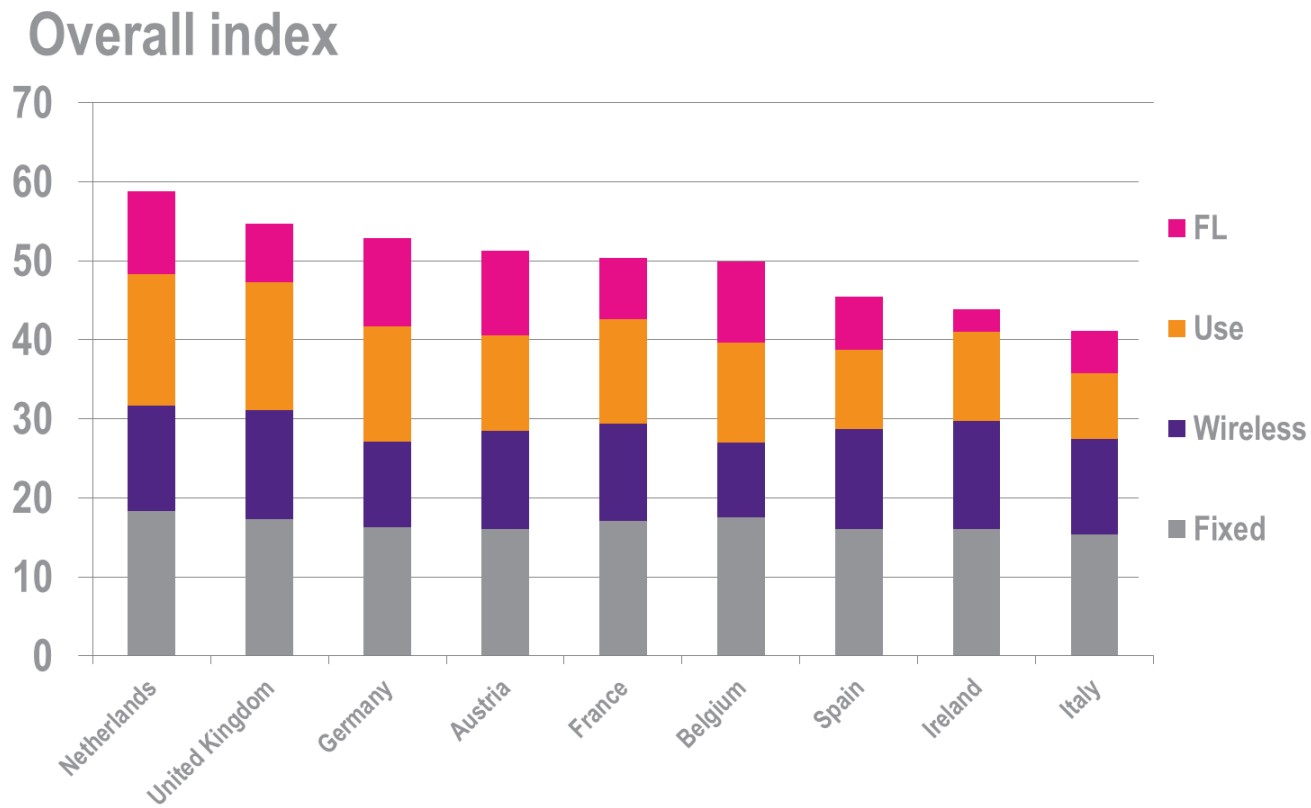
Source: Plum Consulting

Forward looking index



Source: Plum Consulting

# Overall index



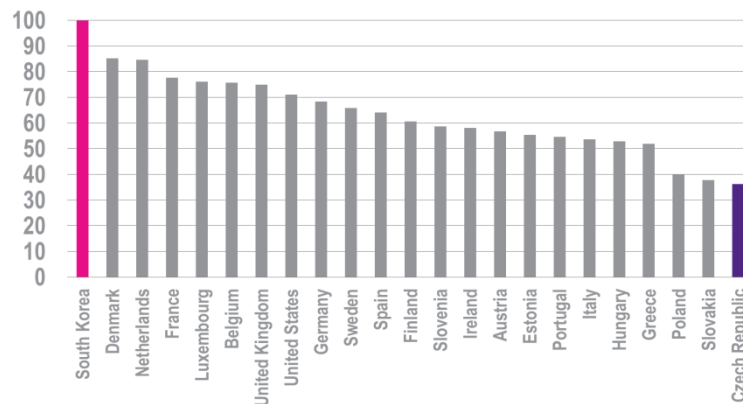
Source: Plum Consulting



# Fixed availability $\neq$ internet use

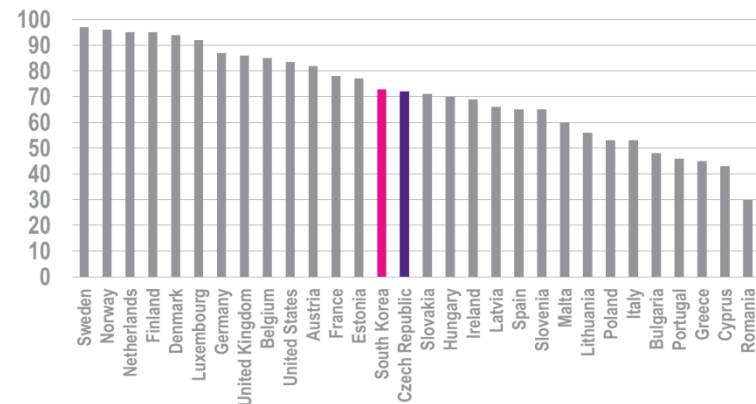


Fixed take-up



Source: Plum Consulting, OECD

Use - Regular Use (45-54 year olds)

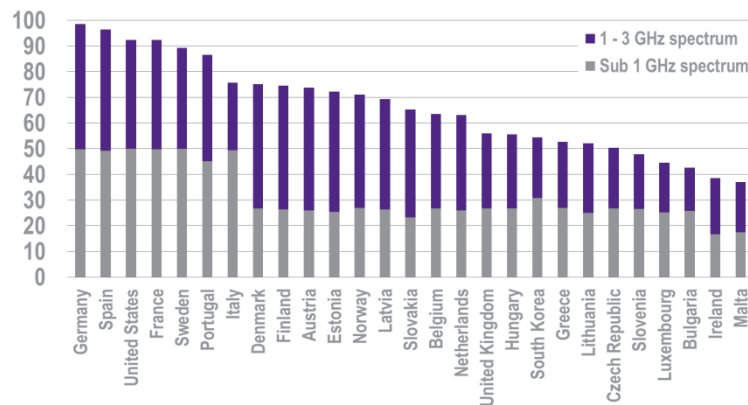


Source: Plum Consulting, Eurostat

# 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**