



## Global Information and Communication Technologies



# International Broadband Benchmarks

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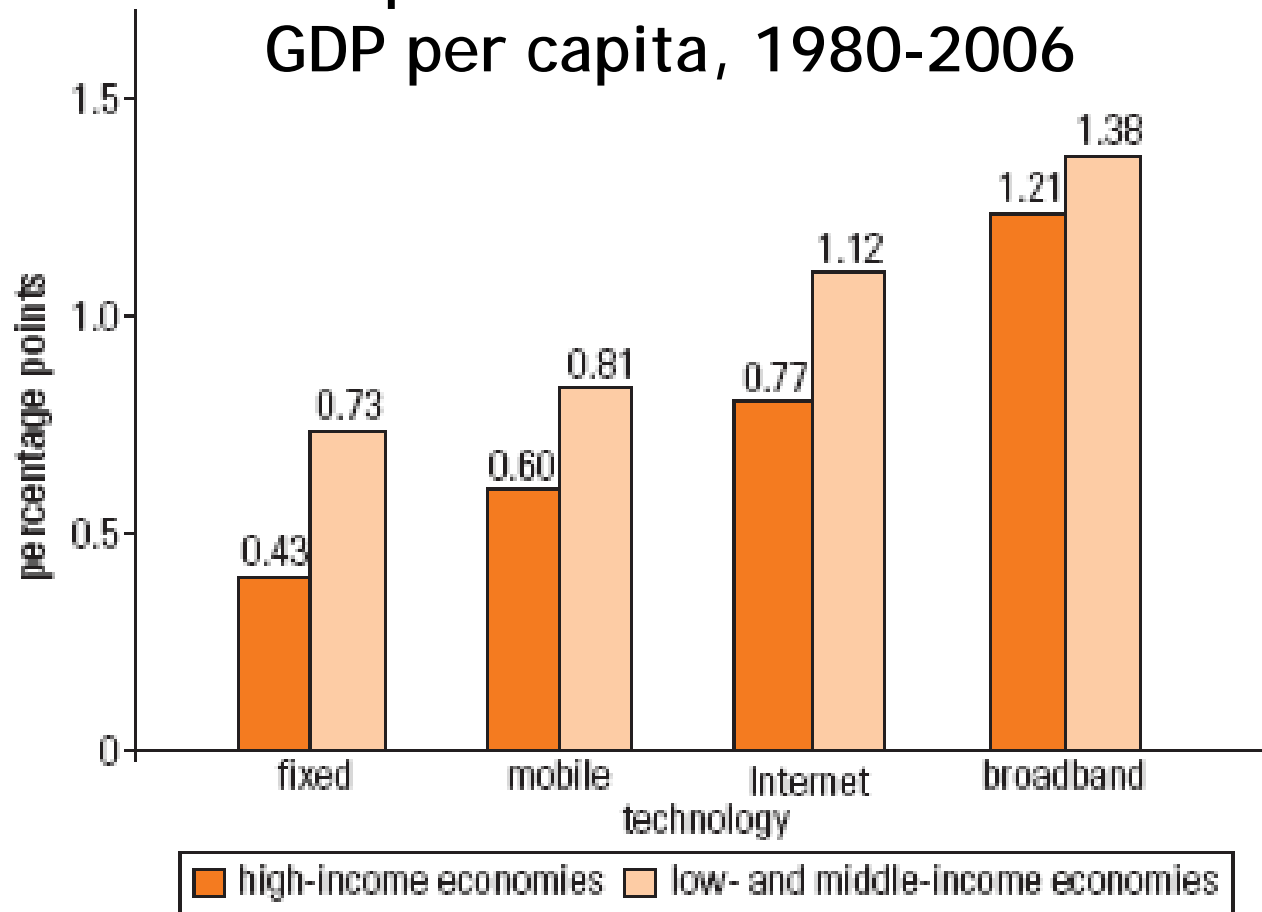
FCC Workshop: International lessons

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## Impact of a 10% increase in the penetration of ICTs on GDP per capita, 1980-2006



- Broadband delivers a bigger boost to economic growth than other ICTs

- Impact of Broadband Internet is 57 per cent greater than for narrowband Internet



## •Penetration

- Per 100 inhabitants (may be affected by variations in household size)
- Per household (may not reflect business use)
- Percentage of internet subscribers with broadband access (will soon be 100%)
- Future challenge: reflect different composition of usage base (e.g., fixed/mobile; high/low speed; business vs residential use)

## •Price

- Entry level price per month (but big speed variations)
- Typical price per month (but need to reflect bit caps, other usage limits etc)
- Price per Mbit/s per month (most representative, but may only reflect highest speed services which may not be universally available)
- Future challenge: sampling of a wide range of available offerings

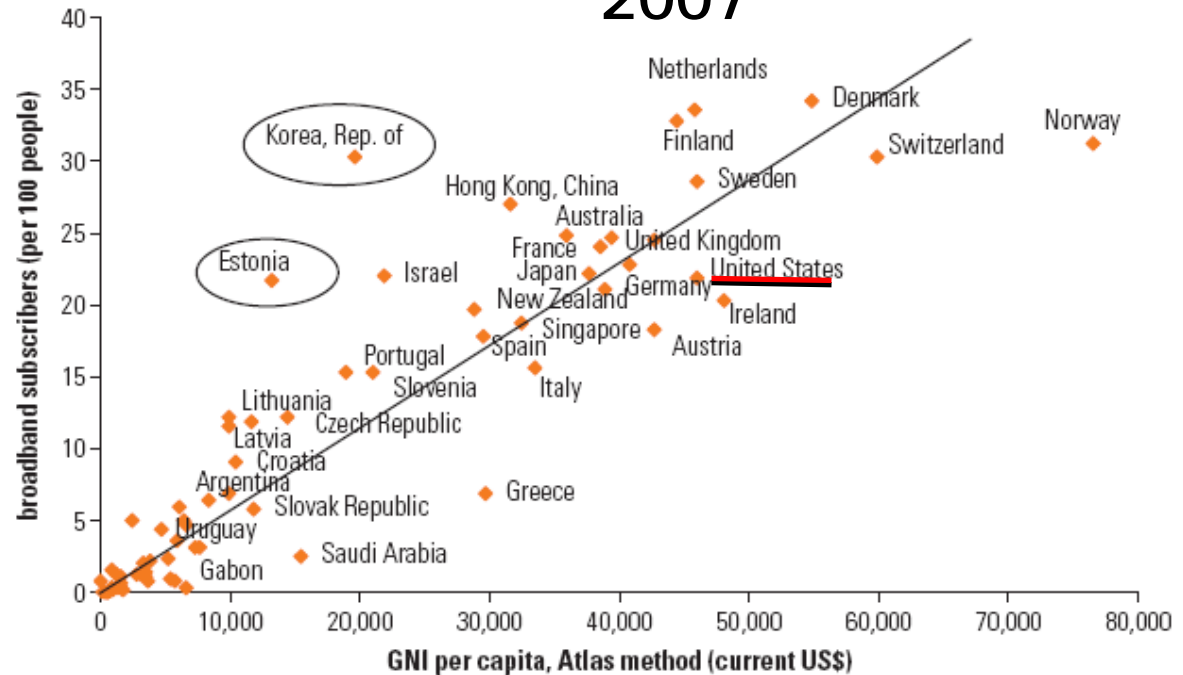
## •Service quality

- Speed (but advertised speed rarely attained)
- Flexibility in service choice (e.g., ease of acquiring and changing service, range of options etc)
- Percentage of population having choice between multiple service offerings
- Future challenge: reflect diversity of options and ability to upgrade to higher speeds

# The US is underperforming on take-up

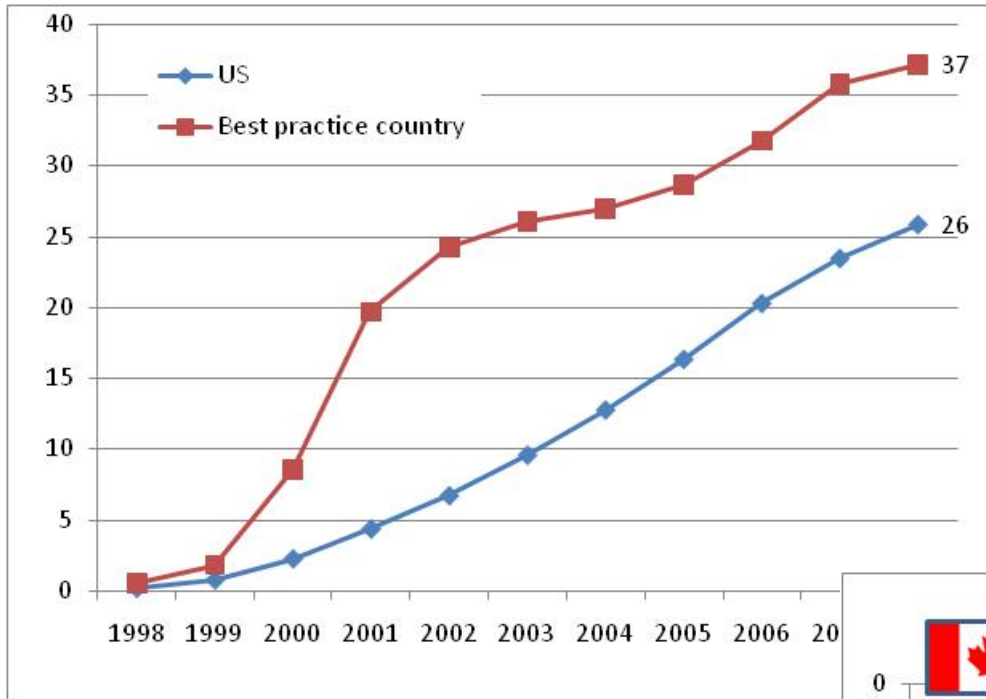
- In Dec 2008, US broadband penetration was 25.8 per 100 inhabitants which is below that which would be predicted by its relative wealth
- US broadband penetration is similar to that of Estonia, but only 70 per cent that of the best practice country (Denmark)

## Broadband and economic growth 2007



Source: World Bank Information and Communication for Development Report 2009

# US is growing, but not best practice

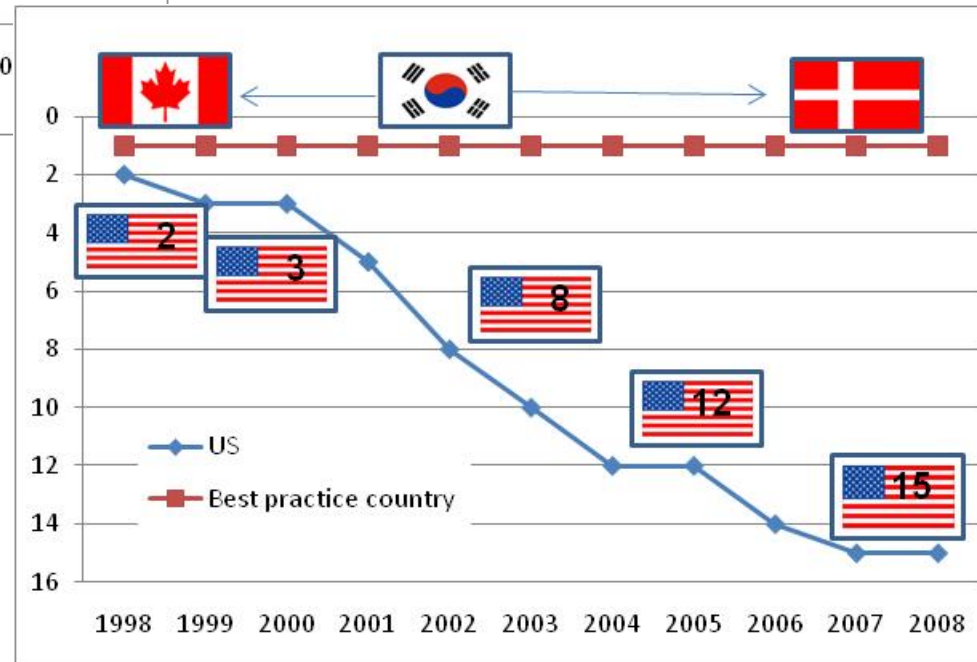


## Broadband penetration per 100 inhabitants

- The US has experienced rapid growth, but slipped behind other countries in the early 2000s

## Broadband ranking among OECD nations

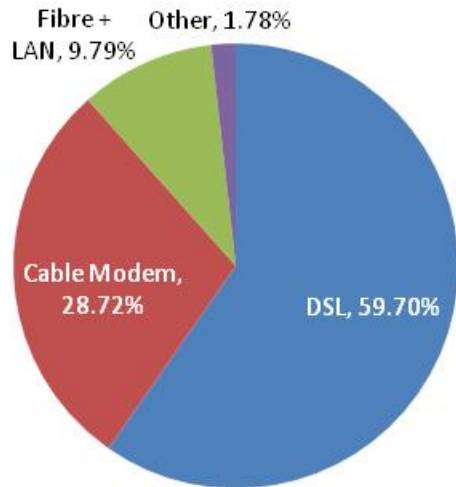
- The US was ranked second in the world among OECD nations in 1998 but had slipped to 15<sup>th</sup> a decade later





# A different route to broadband

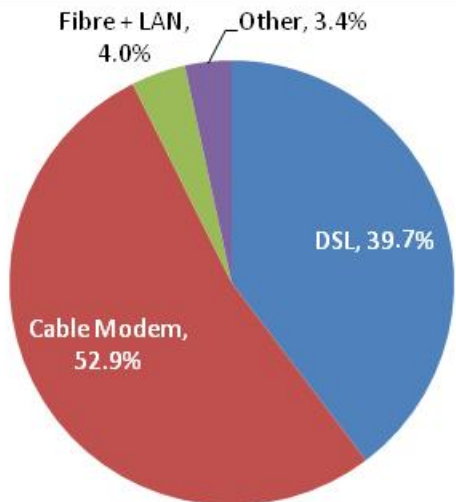
**Worldwide,**  
Dec 2008,  
405.8 m  
subscribers



## Broadband subscribers by technology, worldwide 2008

- Worldwide, DSL technologies account for the majority of broadband subscribers with fibre the fastest growing segment

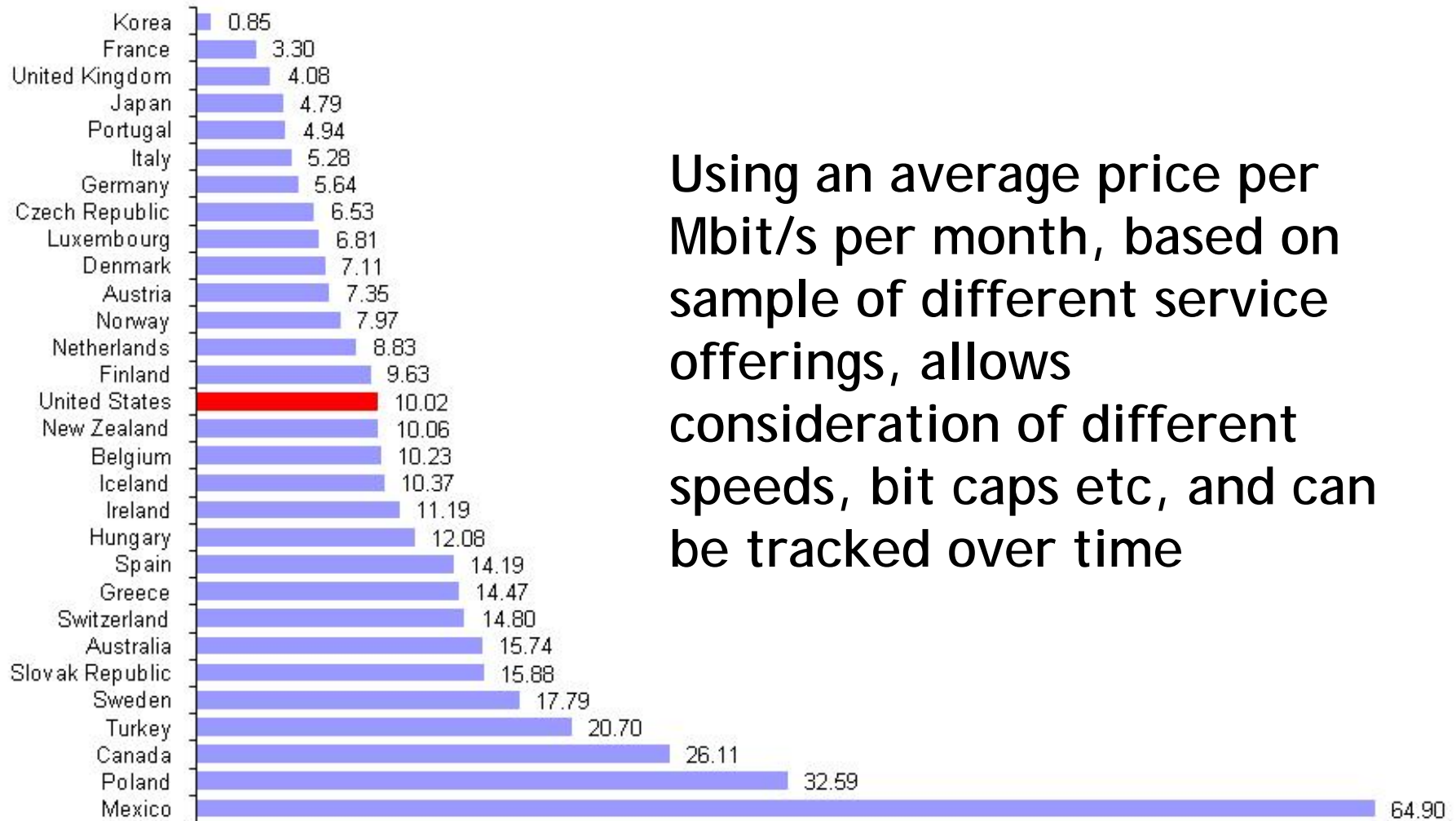
**USA,**  
Dec 2008,  
77.4 m  
subscribers



## Broadband subscribers by technology, USA 2008

- In the US, cable modem subscribers are in the majority and fibre is less than half the OECD average

Average broadband monthly price per advertised Mbit/s, Oct 2008, USD PPP

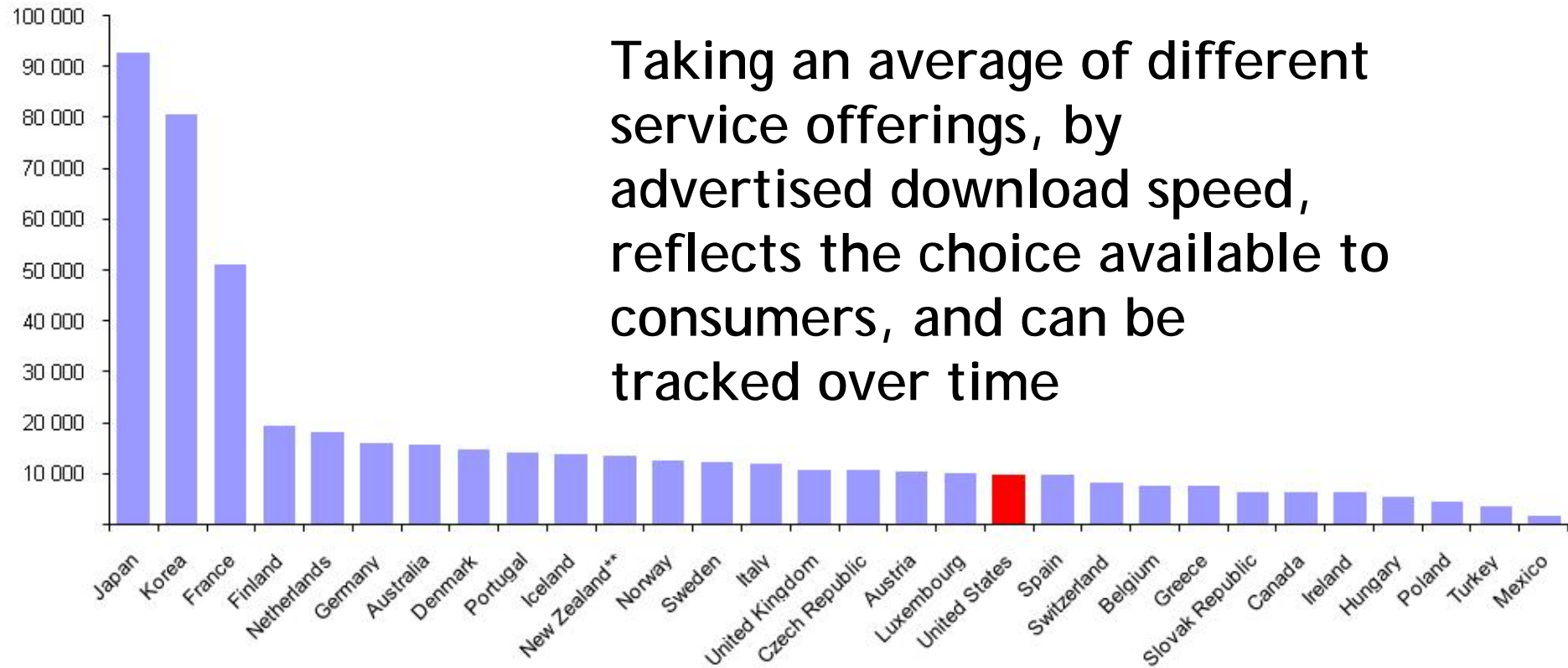


Using an average price per Mbit/s per month, based on sample of different service offerings, allows consideration of different speeds, bit caps etc, and can be tracked over time



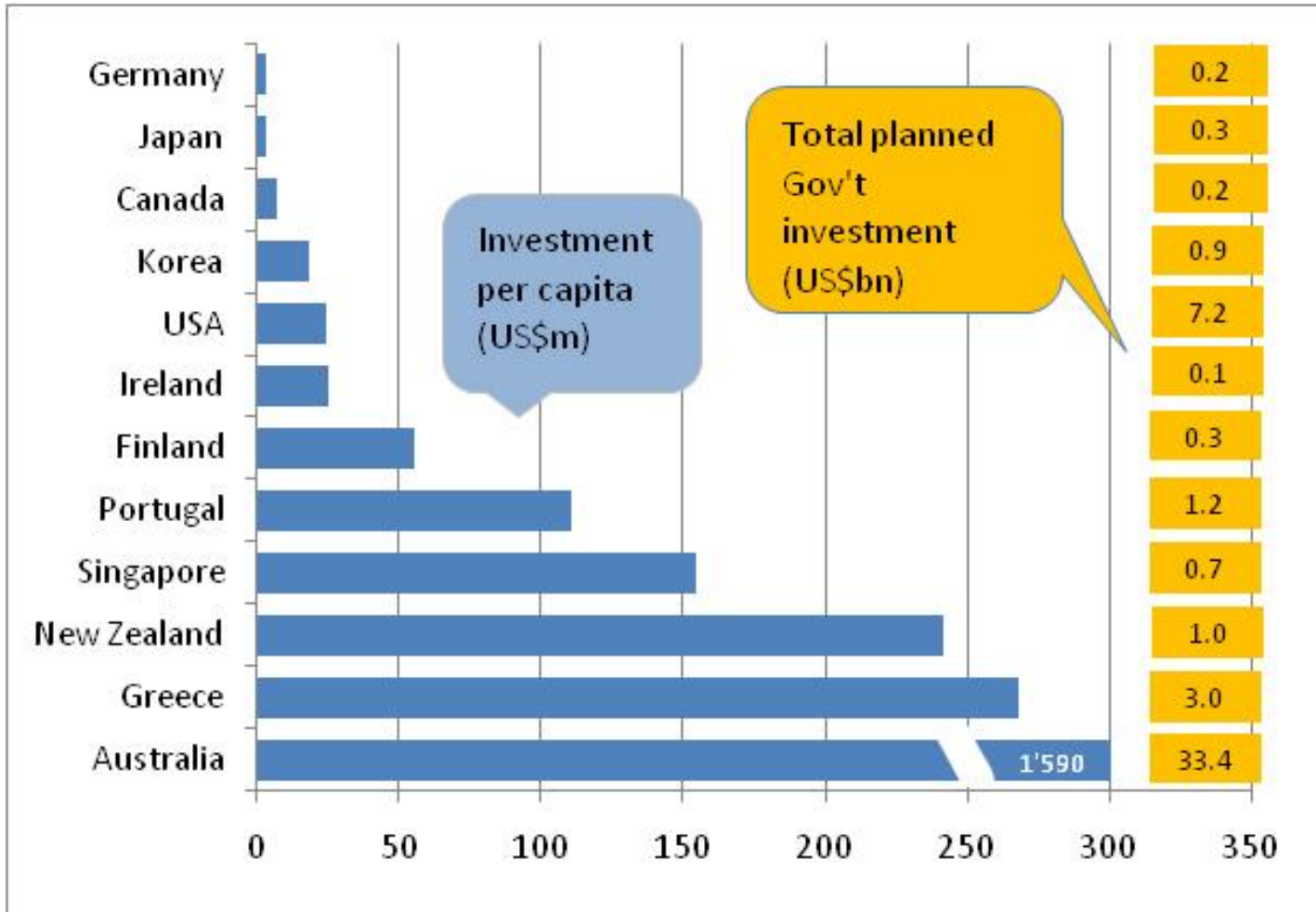
Taking an average of different service offerings, by advertised download speed, reflects the choice available to consumers, and can be tracked over time

Average advertised broadband download speed, by country, kbit/s, September 2008





# Broadband in national stimulus

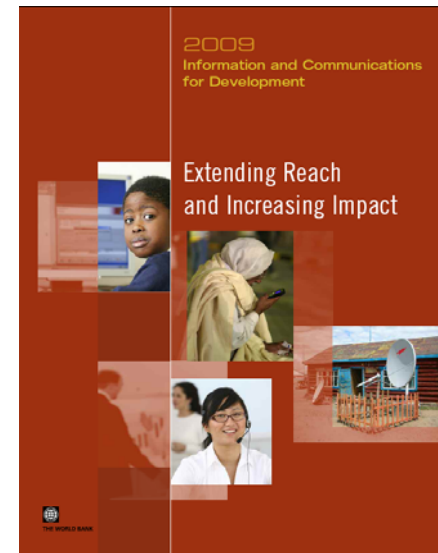


US broadband commitment as part of stimulus:

- Modest by international standards
- Less than a quarter that planned by Australia
- Korea is targeting 1Gbit/s by 2012



- Research on the impact of broadband on economic growth
  - Published in 2009 edition of Information and Communication for Development Report: Extending Reach and Increasing Impact
  - Joint work between *infoDev* and OECD
- Broadband infrastructure Investment in stimulus packages: Relevance for developing countries
  - Research paper, published May 2009
- Case study of broadband development in Republic of Korea and other broadband pioneers
  - Due to be published in late 2009
  - Six mini case-studies
- Technical assistance programmes and benchmarking
  - In Egypt, Armenia and elsewhere
- Broadband toolkit
  - Broadband Handbook to be published in 2010
  - Full toolkit to cover strategies and policies, regulation and implementation
  - Core funding from Korea Trust Fund. Other partners welcome





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Thank You

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