

Ireland's Broadband Performance and Policy Requirements

This presentation provides a summary of the main report.

December 2007

Structure

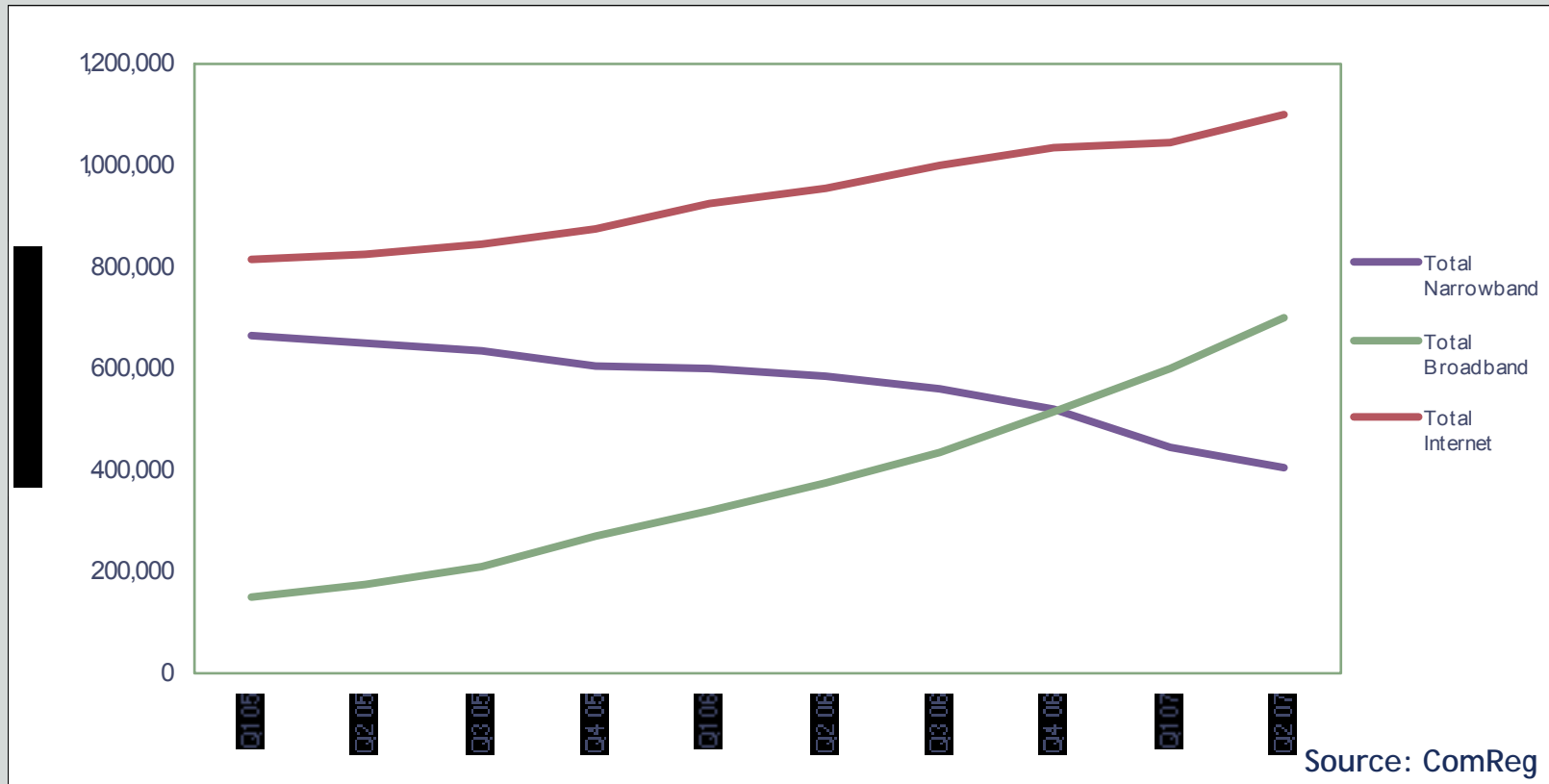
- ▶ Broadband and Enterprise Competitiveness
- ▶ Overview of the Broadband Market in Ireland
- ▶ Ireland's Comparative Performance
- ▶ Conclusions and Policy Requirements

Broadband and Competitiveness

- ▶ Broadband is important to improving productivity growth, facilitating innovation and enhancing social and cultural development. Widespread and affordable broadband access can contribute to productivity growth through applications that promote efficiency, with benefits for business, the public sector, and consumers.
- ▶ Advanced telecommunications services are critical for the attraction of foreign direct investment, for the development of indigenous industry and the promotion of the knowledge economy.
- ▶ The increasing importance of services to the economy, in particular those that are structured around electronic transactions and information flows, makes it essential that Ireland has access to a highly efficient, advanced and reliable communications system.

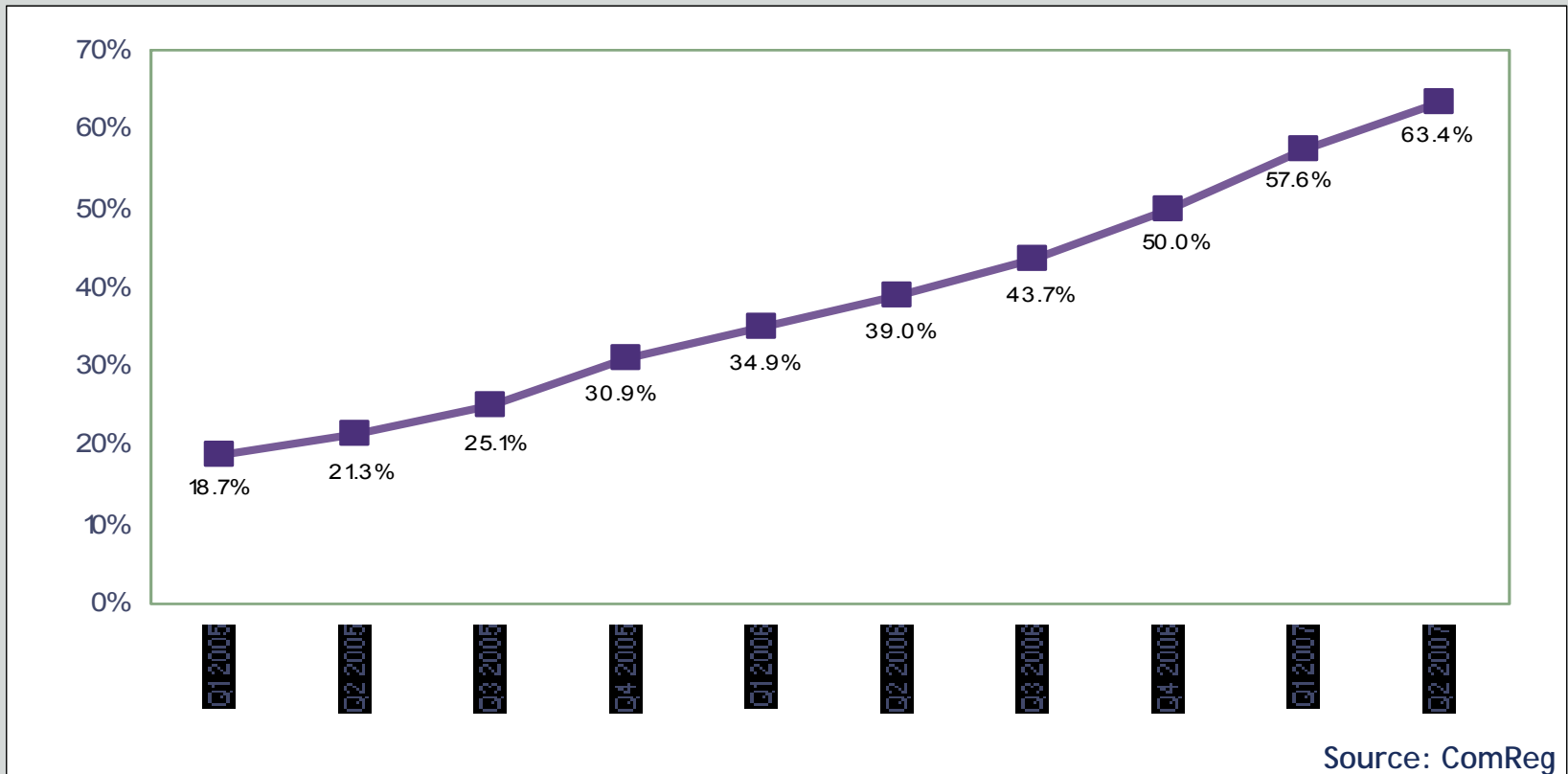
Overview of the Broadband Market in Ireland

Trends in Internet, Narrowband and Broadband Take-up



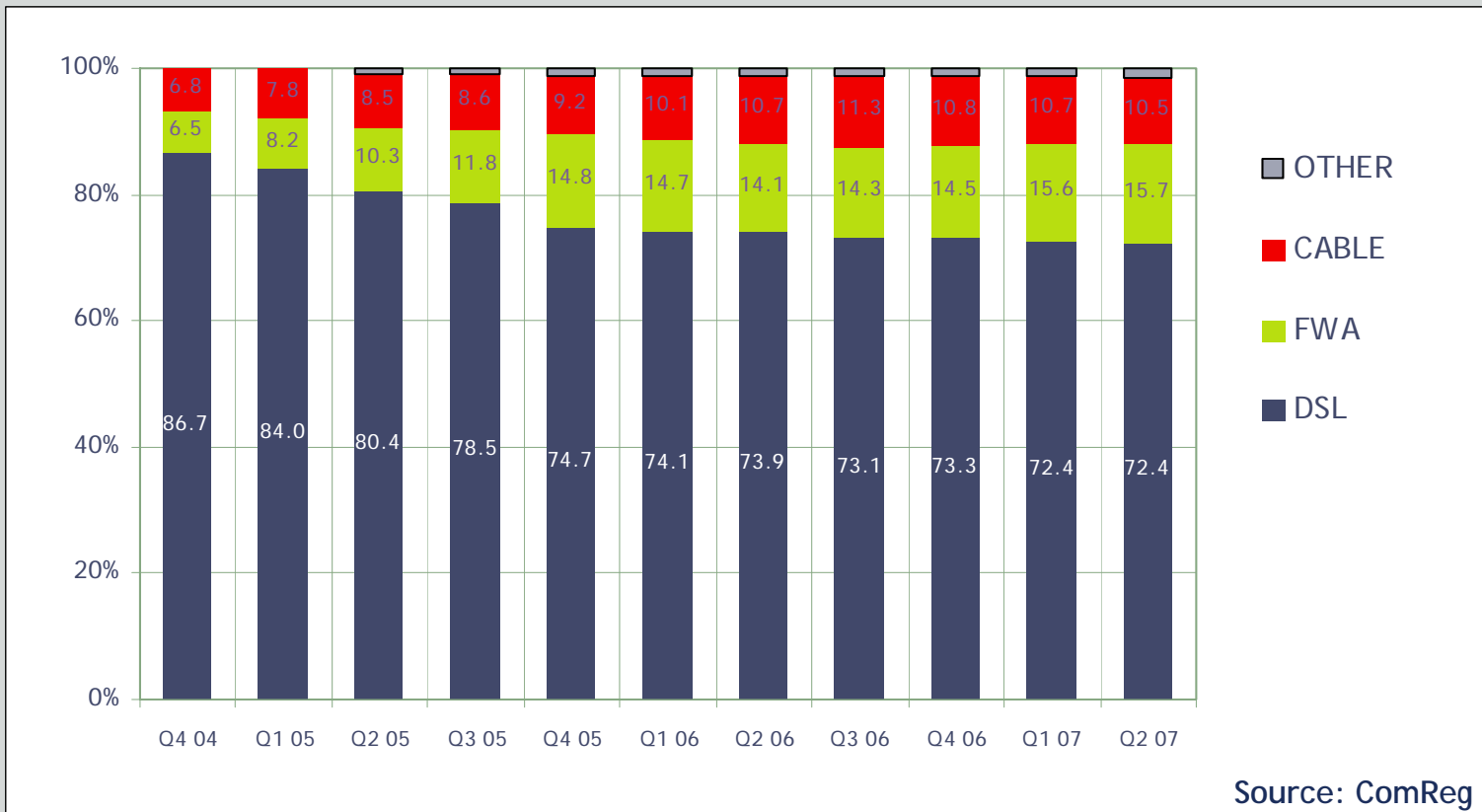
In the past year, the number of broadband subscribers overtook narrowband subscribers for the first time. Internet penetration also continues to increase but at a more modest rate.

Broadband Subscribers as a Percentage of Total Internet Subscribers, Q1 2005-Q2 2007



Broadband's share of the total Internet base has seen strong growth in the last year. In Q2 2007, almost two out of three Internet subscribers were accessing the Internet via a broadband connection.

Broadband Take-up by Platform



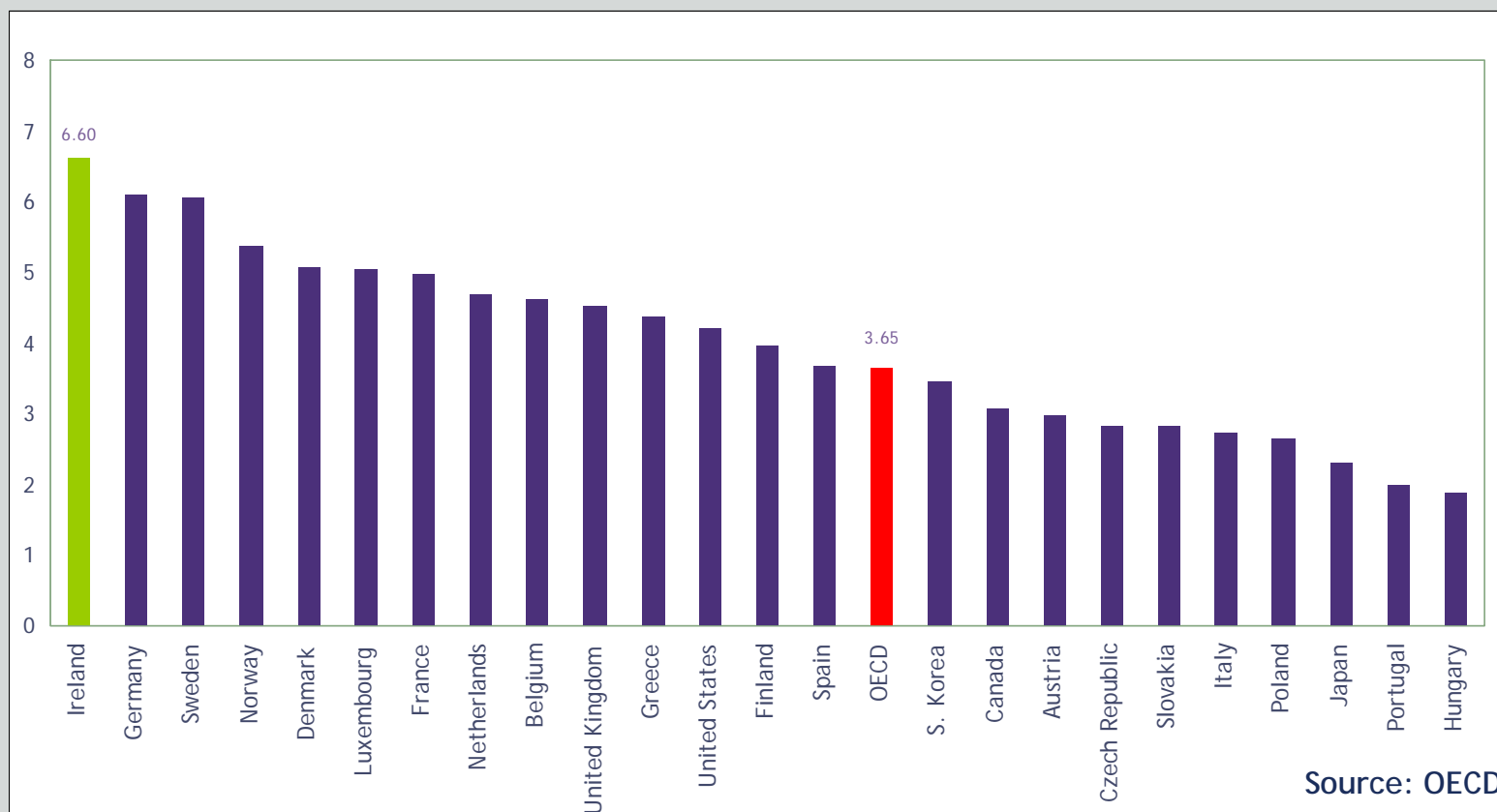
There has been little change in broadband take-up by platform in the past year. DSL (broadband over telephone lines) continues to be the main means of access. However, when mobile broadband subscribers were included in Q2 2007, DSL's share declined to two in every three subscribers in Ireland.

Ireland's Comparative Performance

Key Findings

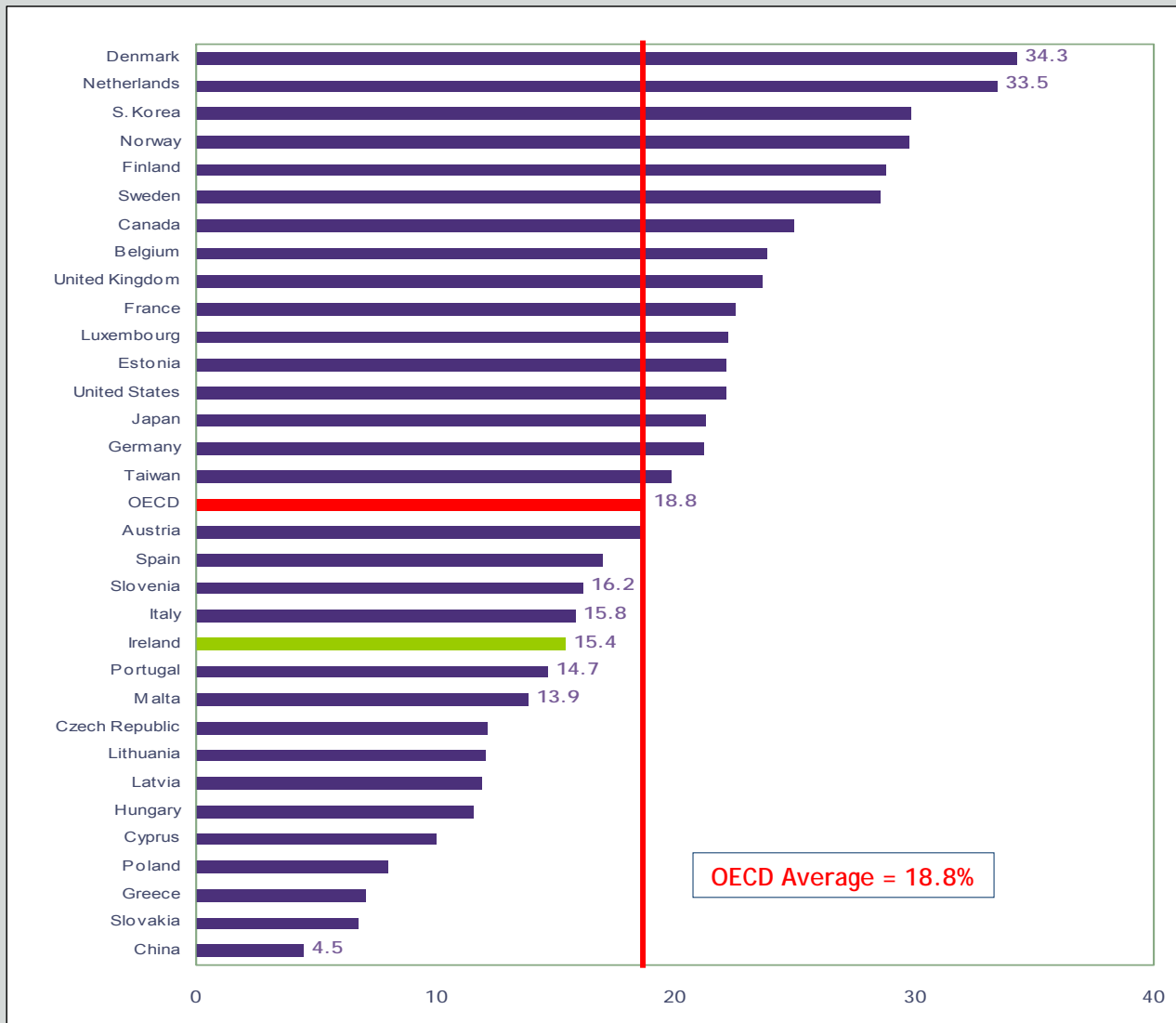
- ▶ Broadband take-up continues to grow strongly. Ireland added 6.6 new broadband connections per 100 inhabitants in the year to June 2007, the highest growth of all OECD countries. As a result, Ireland's ranking improved to 21st out of the 32 benchmarked countries in June 2007, compared to ranking 24th in June 2006. However, the broadband penetration rate in Ireland at 15.4 % still lags the OECD average of 18.8 %.
- ▶ Ireland compares well on prices for 34 Mbit/s leased lines and entry level residential services but is relatively expensive for other broadband speeds.
- ▶ The key issue from an business development perspective is the limited range and speed of broadband services available and their comparatively higher cost. The fastest speed that is widely available in Ireland (6 Mbit/s), costs four to five times more than considerably higher speed services in countries such as France, Germany and Hungary.

Number of New Broadband Connections per 100 Inhabitants from June 2006 to June 2007



Ireland recorded the highest number of new broadband connections per 100 inhabitants of the OECD countries in the 12 months to June 2007. The rate of increase in Ireland was 6.6 new connections per 100 inhabitants compared to the OECD average of 3.65 new connections.

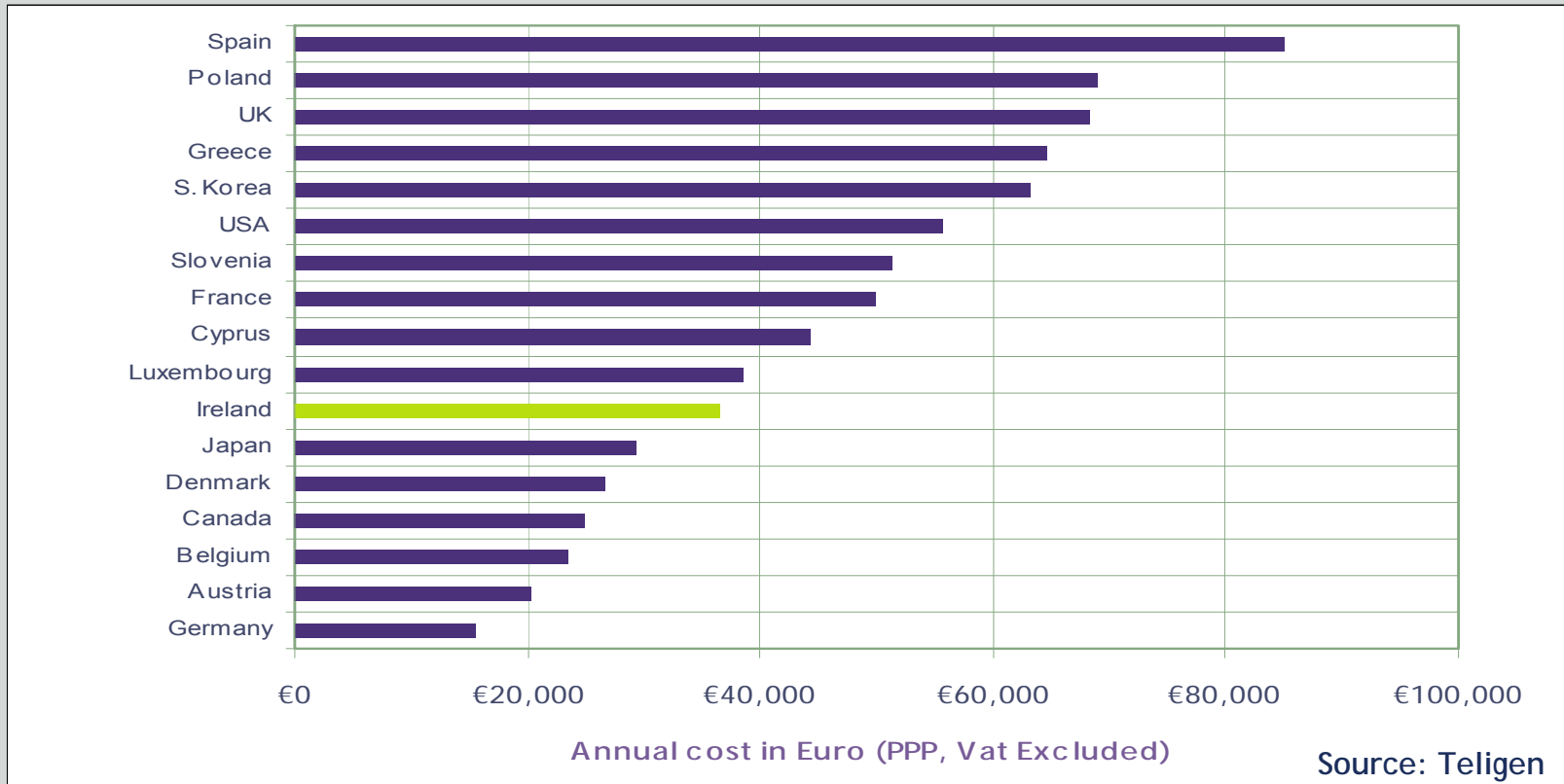
Broadband Take-up per 100 of Population June 2007



As a result of the very strong growth in new broadband connections during the past year, Ireland's ranking has improved to 21st of the 32 benchmark countries in June 2007 from 24th position in June 2006.

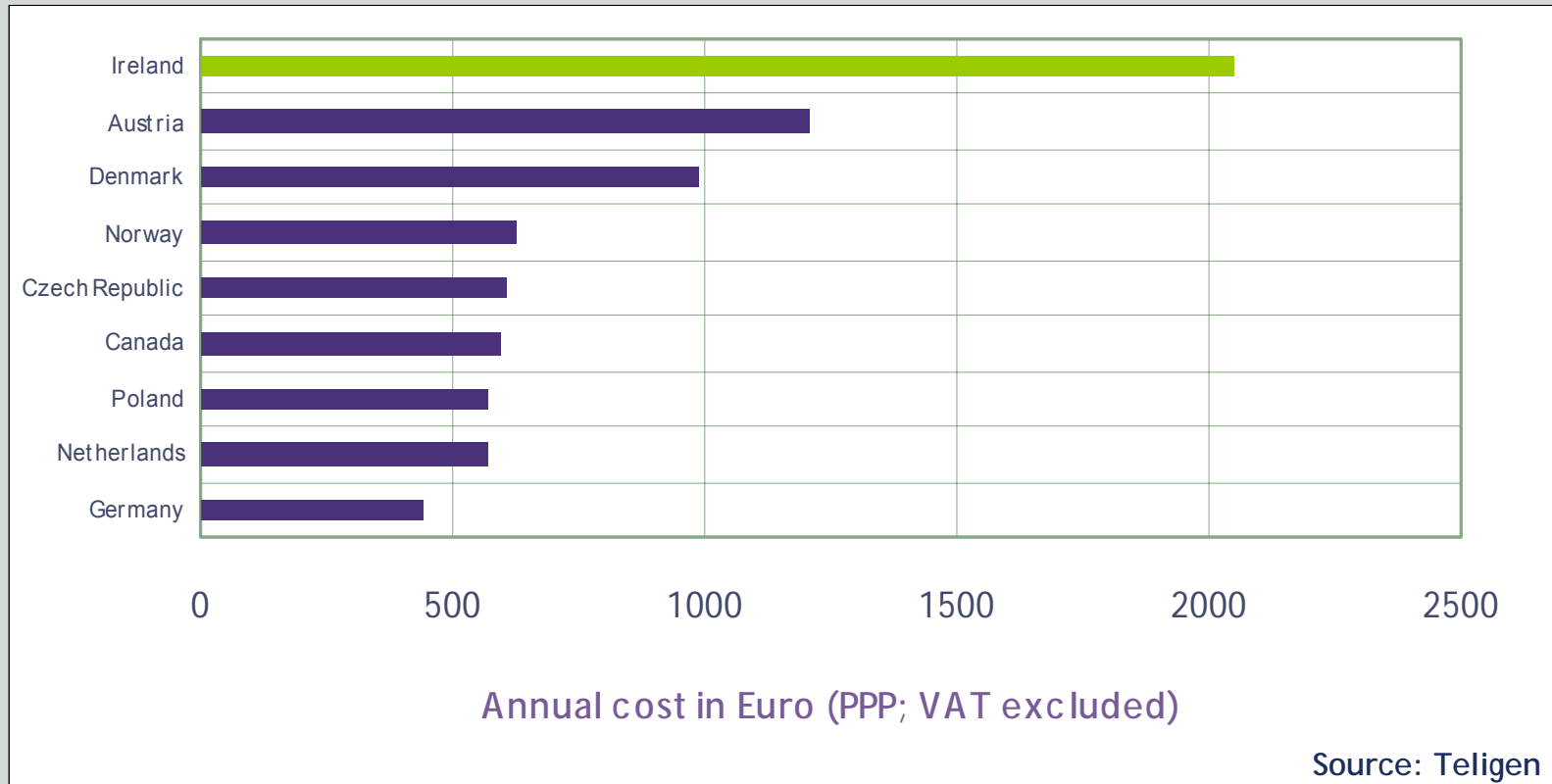
However, the broadband penetration rate in Ireland at 15.4% in June 2007 still lags the OECD average of 18.8%.

Annual Cost of 34 Mbit/s Leased Lines (PPP; VAT excluded), October 2007



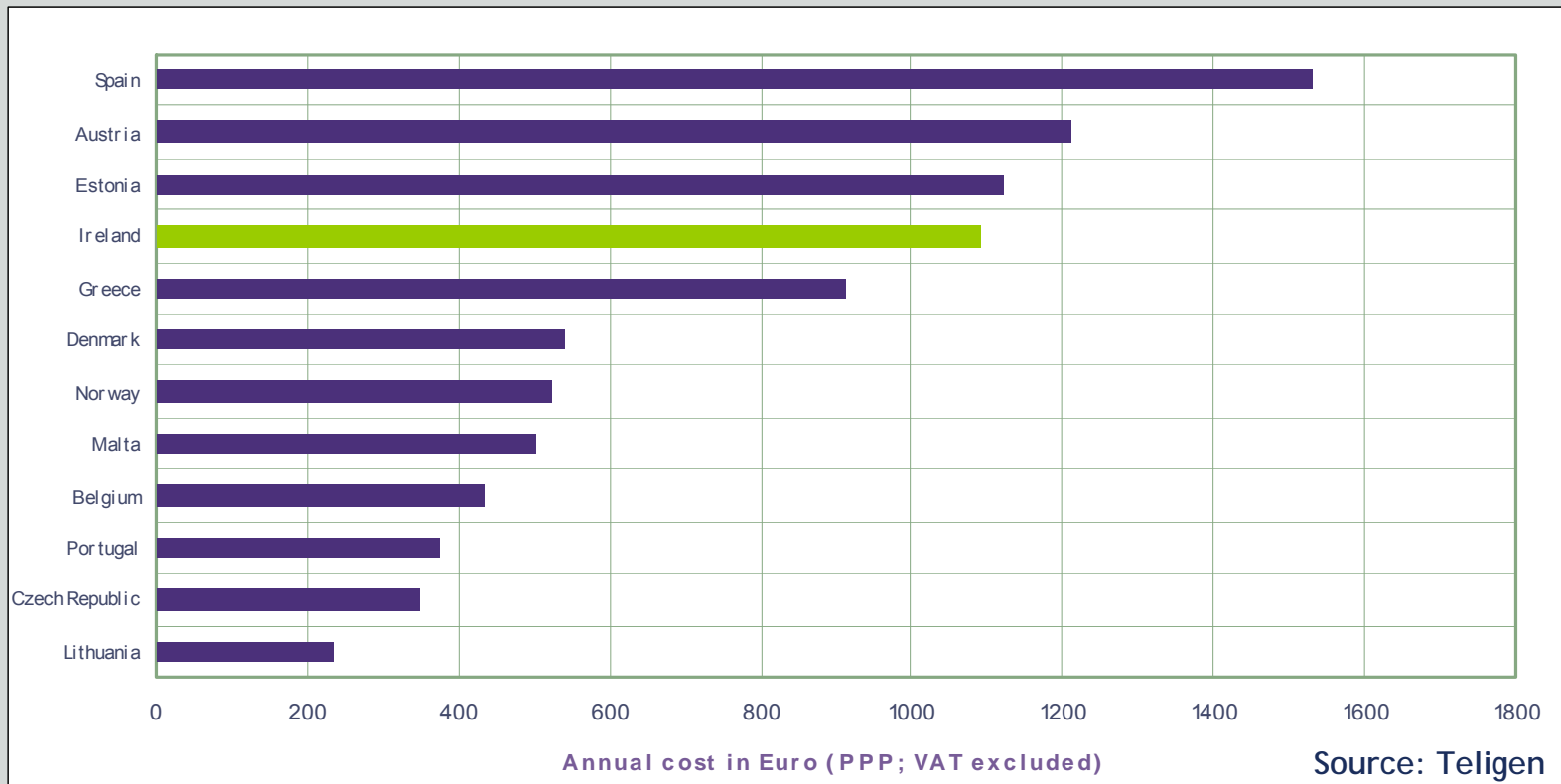
With respect to 34 Mbit/s leased lines costs, Ireland performs relatively well. Ireland is the 11th most expensive of the 17 benchmarked countries for which data is available. Large corporates are the main users of the leased line services while SMEs tend to use ADSL and SDSL services.

Annual Cost of 6 Mbit/s Business ADSL Services Offered by the Incumbent, October 2007



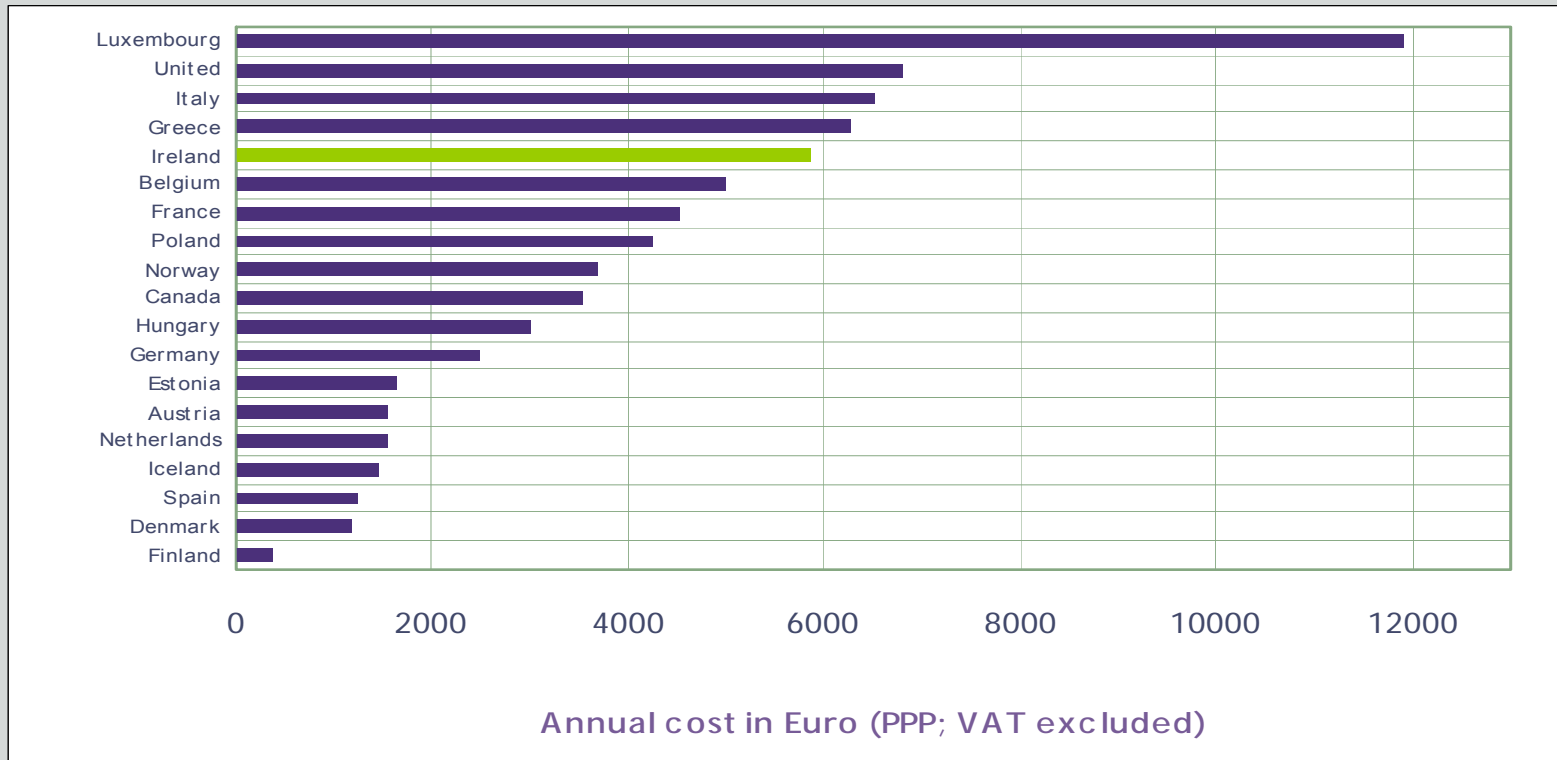
For 6 Mbit/s business Asymmetric DSL (ADSL) services, the fastest business service offered by eircom, Ireland is the most expensive of nine benchmarked countries for which data is available. The annual cost in Ireland is nearly double that of the next most expensive country, Austria.

Annual Cost of 4 Mbit/s Business ADSL Services Offered by the Incumbent, October 2007



Ireland is the 4th most expensive of 12 countries benchmarked for 4 Mbit/s business ADSL services.

Annual Cost of 2 Mbit/s Business SDSL Services Offered by the Incumbent, October 2007



Source: Teligen, Forfás Research

Ireland is also less competitive with respect to 2 Mbit/s business symmetrical DSL (SDSL) services, ranking 5th most expensive of 19 countries benchmarked.

Note: Symmetrical DSL (SDSL) services have the same upload speed as download speed.

Range of Speeds and Costs of 4-10 Mbit/s Business ADSL Services by the Incumbent, October 2007

Country	ADSL Speeds Available				Costs (PPP, VAT Excluded)	
	4 Mbit/s	6 Mbit/s	8 Mbit/s	10 Mbit/s	Minimum	Maximum
Austria	x	x	x		€898	€2,598
Belgium	x				€435	€586
Canada		x	x		€594	€1,010
Czech Republic	x	x	x		€261	€785
Denmark	x	x	x	x	€542	€1,039
Estonia	x		x		€1,123	€3,468
Finland			x		€476	€476
France			x		€330	€480
Germany		x			€438	€468
Greece	x		x		€561	€1,411
Hungary			x		€338	€338
Iceland			x		€680	€680
Ireland	x	x			€1,093	€2,053
Japan			x		€357	€357
Latvia	x	x			€542	€2,572
Lithuania	x				€233	€233
Luxembourg			x		€533	€533
Malta	x				€505	€744
Netherlands		x	x		€567	€915
Norway	x	x	x		€525	€1,407
Poland		x			€572	€798
Portugal	x		x		€374	€667
Spain	x		x		€1,531	€2,047
Sweden			x		€522	€1,026
United Kingdom			x		€237	€775
USA			x		€1,537	€1,537

In terms of the range of business ADSL services offered by incumbent operators in the 25 benchmark countries for which data is available, Ireland was one of only six countries where an 8 Mbit/s service was not offered by the incumbent operator.

Furthermore, the 6 Mbit/s service in Ireland was more expensive than the 8 Mbit/s service offered in all but two countries, Austria and Estonia.

Range of Speeds and Costs of 10+ Mbit/s Business ADSL Services by the Incumbent, October 2007

	Offerings	Price Range (PPP, VAT Excluded)	
		Low	High
Austria	12Mbit	€2,558	€3,038
Denmark	15Mbit; 20Mbit	€1,039	€1,039
France	18Mbit	€530	€530
Germany	16Mbit	€475	€534
Hungary	16Mbit	€419	€419
Luxembourg	15Mbit	€867	€867
Netherlands	12Mbit; 20Mbit	€915	€1,117
Portugal	24Mbit	€609	€667
Sweden	24Mbit	€1,158	€1,158
Japan	12Mbit; 40Mbit; 47Mbit	€365	€379

Business ADSL services of speeds faster than 10 Mbit/s are available in a number of Ireland's main competitor countries.

The fastest ADSL speeds available to businesses range from 12 Mbit/s in Austria to 20 Mbit/s in Denmark and the Netherlands and 24 Mbit/s in Portugal and Sweden.

Source: Teligen



Conclusions and Policy Requirements

Improving competition and the availability of advanced service offerings

- ▶ Competition between and within platforms has been a key driver of product and price innovation internationally. The availability of a fit-for-purpose Local Loop Unbundling (LLU) product since September is a positive development as is the increasing take-up of other broadband platforms, such as cable, fixed wireless and mobile.
- ▶ The take-up of LLU needs to continue to be monitored by ComReg and a periodic review of progress should be undertaken to ensure that any issues impeding LLU take-up are dealt with promptly. In particular, compliance with the enhanced SLA commitments for business customers needs be monitored and reviewed on at least a six monthly basis.

Addressing the regional differences in broadband performance

- ▶ Advanced and competitive telecommunications infrastructure is critical to support regional development and to enhance the attractiveness of the gateways and their regions to enterprise development and investment. Critical to the success of the Metropolitan Area Networks (MANs) and their role in supporting regional development is the availability and pricing of backhaul.
- ▶ One possible option to extend Ireland's backhaul network is to make mandatory the installation of telecommunications ducting on an open access basis on all national road upgrades. Ducting could also be mandated in all new residential, commercial and public building developments. Accelerating the rollout of the National Broadband Scheme is also important.

Future-proofing Ireland's telecommunications infrastructure

- ▶ Trends in broadband technology, regulation, market dynamics and applications all point to the importance of next generation networks (NGN) in terms of ensuring Ireland's future economic growth. A number of other countries have recognised this trend and investment is underway in NGNs that can cater for the services and industries of the future.
- ▶ Further action is required in Ireland if it is to be in a position to take advantage of future global broadband trends and the opportunities associated with those trends. The challenge will be to encourage high levels of investment in the next generation of broadband infrastructures and services in Ireland, which will require a partnership approach between the public and private sector.

Continuing to enhance demand-side initiatives for business, e-Government and education

- ▶ As well as addressing the aforementioned supply side issues, further actions are also needed to stimulate demand for broadband take-up, in particular, initiatives to promote more sophisticated use of ICT by SMEs, enhanced e-Government services and a more integrated approach to ICT education. Take-up of the Department of Enterprise Trade and Employment's Tech Check programme aimed at SMEs has been strong and potential exists to expand the scheme.
- ▶ The review of Ireland's knowledge society strategy provides an opportunity to reinvigorate the implementation of key e-Government projects. Although it is essential that the ICT Strategy for schools is driven by pedagogical considerations, the levels of ICT equipment and broadband access made available to schools must keep pace with technological advances.