

# ISD December 2005 EU-US Plenary Session: Focus on Broadband

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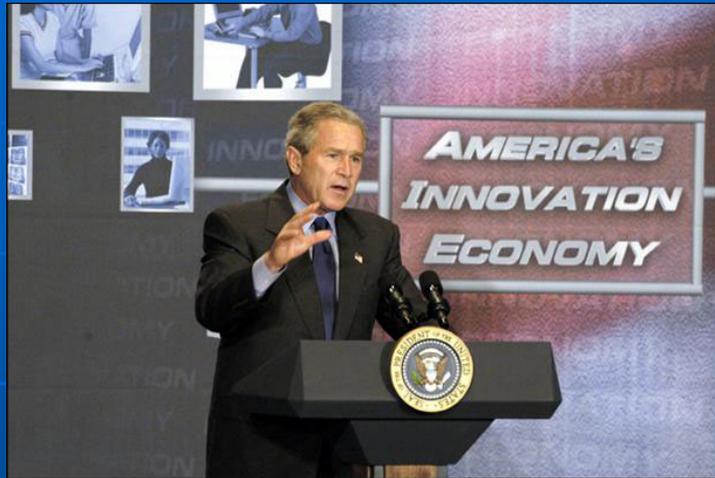


# Overarching Goal: Promoting Economic Growth

Thanks to the President's policies, America's economy is strong:

- GDP grew a strong 4.3% in Q3-2005, and 3.7% during the past 4 quarters, above the averages of each of the past 3 decades. EU25 GDP has grown 1.6% during the past 4 quarters.
- The economy has shown job growth for 30 straight months and added nearly 4.5 million new jobs since May 2003 – more than Canada, France, Germany, Great Britain, and Japan combined.
- Productivity grew 4.7% in Q3-2005 and has grown 3.1% over the past four quarters. From December 2000 to December 2004, productivity grew at its fastest 4-year rate in over 50 years.
- Nearly 2 million jobs have been created over the past 12 months and over 1.8 million since January 2001. Nearly 4.5 million have been added since May 2003 – more than Canada, France, Germany, Great Britain and Japan combined.
- Unemployment rate is 5.0%, down 1.3 percentage points from 6.3% peak in June 2003 and below the averages of the 1970s (6.2%), 1980s (7.3%) & 1990s (5.8%). Euro-zone unemployment: 8.3%; Japan: 4.5%
- Manufacturing activity (ISM index) has been growing for 30 straight months – the longest period of growth in 16 years.
- National homeownership was 68.8% (Q3-2005), near its record high of 69.2% in 4Q04.

# The President's Broadband Vision



President Bush speaking at the U.S. Department of Commerce June 24, 2004

*"This country needs a national goal for broadband technology . . . universal, affordable access for broadband technology by 2007."*

- President George W. Bush, Albuquerque, NM, March 26, 2004

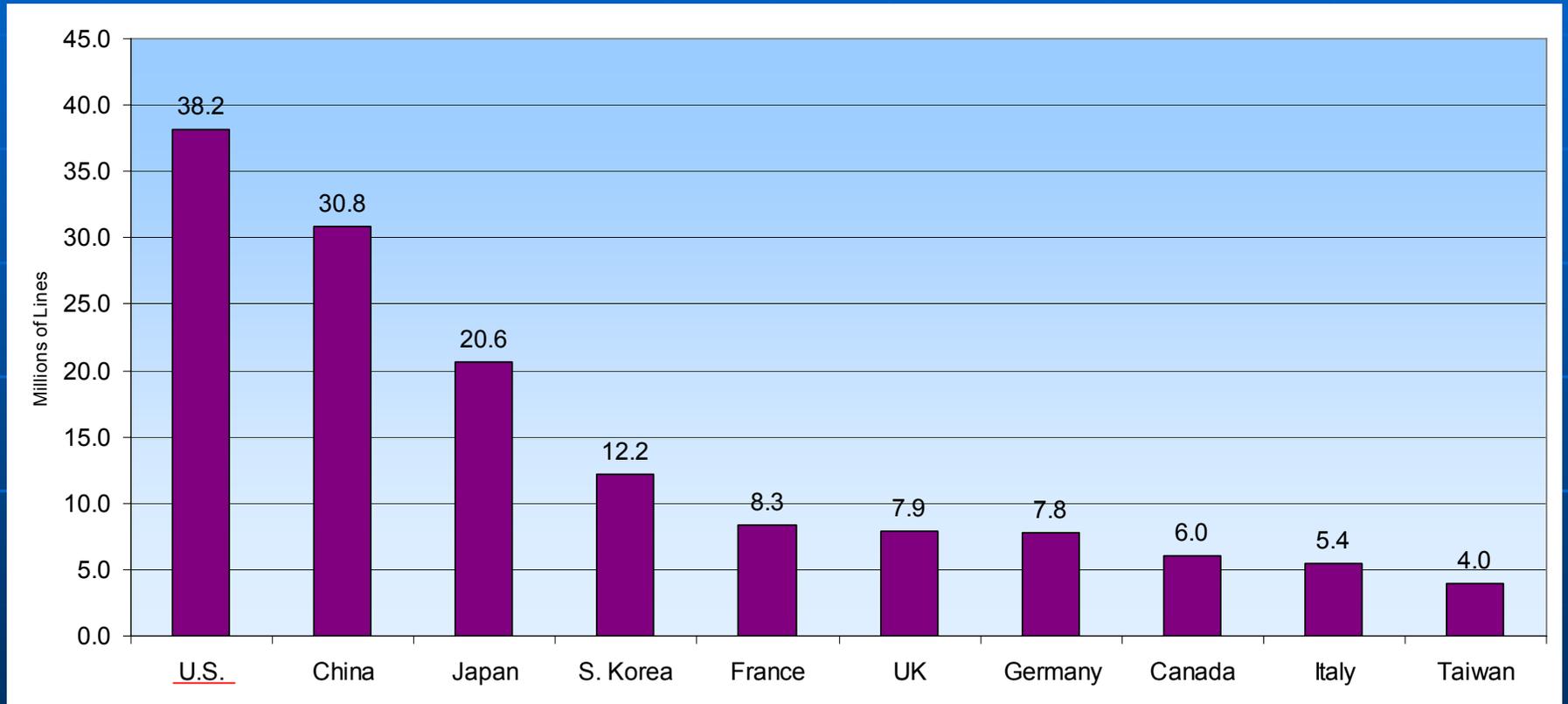
## Government's Role

*"The role of government is not to create wealth; the role of our government is to create an environment in which the entrepreneur can flourish, in which minds can expand, in which technologies can reach new frontiers."*

- President George W. Bush, Technology Agenda, November, 2002

# Largest Broadband Markets in the World

## Top Ten by Number of Broadband Lines



# Removing the Regulatory Underbrush

- The Administration supports the FCC's order freeing newly deployed broadband infrastructure from legacy regulation.
- As a result → the number of communities with fiber build outs has increased 83% from 217 communities to 398 communities in 43 states. The number of homes passed by fiber grew from 970,000 in October '04 to 1.6 million in April '05. Many of the communities are outside the "big cities". (Source: FOCUS, FTTH Council and TIA, 5/10/05)

## Improving Access to Rights-of-Way:

*"[B]roadband providers have trouble getting across federal lands...that's why I signed an order to reduce the regulatory red tape for laying fiberoptic cables and putting up transmission towers on federal lands."*

– President George W. Bush, U.S. Department of Commerce, June 24, 2004

- On April 26, 2004, the President signed an executive memorandum directing federal agencies to implement recommendations set out by the Federal Rights-of-Way Working Group. They called for improvements in: 1) Information Access and Collection, 2) Timely Processing, 3) Fees and Other Charges, and 4) Compliance.

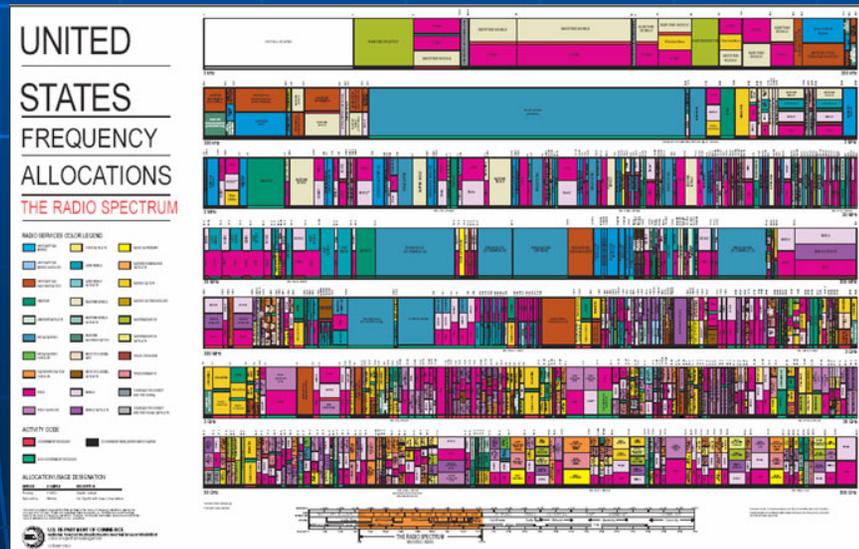
# Moore Meets Marconi: Wireless Broadband and New Technologies

*“The other promising new broadband technology is wireless. The spectrum that allows for wireless technology is a limited resource . . . [a]nd a wise use of that spectrum is to help our economy grow, and help with the quality of life of our people.”*

-- President George W. Bush, June 24, 2004

The Administration has made more radio spectrum available for wireless broadband technologies:

- Advanced Wireless Services (“3G”)
- Ultra-wideband
- 5 GHz Spectrum
- 70/80/90 GHz



# Wireless Applications Expanding Competition

- **Wi-Fi:** Airgo Networks announced plans to sell Wi-Fi chips with data rates up to 240 Mbps by 4Q05 – almost 4x the speed of current Wi-Fi chips. Rural Oregon is home to the world's largest Wi-Fi hotspot → 700 miles<sup>2</sup>.
- **WiMax:** Intel plans to build WiMax into its Centrino chip platforms, which power 80% of all PCs, by 2006. InStat/MDR estimates that a company could reach 97.2% of the U.S. population with a \$3.7 billion investment in WiMax.
- **Unlicensed Mesh Networking:** Mesh architecture extends wireless coverage to areas without wire infrastructure, and can link diverse devices or networks.
- **HSDPA:** Faster version of GSM AWS (1.8 Mbps, over time can be boosted to 7.2 Mbps), expected to reach the mass market in 2006 → launching first in the U.S, followed by Japan, then Europe.
- **CDMA2000 1xEV-DO Revision A:** Increases the efficiency, capacity and data speeds (3.1 Mbps forward link/1.8 Mbps reverse link) of existing EV-DO networks → commercially available in 2006.

# Broadband Over Power Lines: The Third Wire

*“We need to get broadband to more Americans . . . one great opportunity is to spread broadband throughout America via our power lines.”*

— President George W. Bush, US Department of Commerce, June 24, 2004

- The FCC began a BPL rulemaking on February 12, 2004.
- Principal concern was the risk that BPL systems might interfere with radio communications.
- NTIA submitted to the FCC a Phase 1 study that defined interference risks and potential mitigations (April 2004).
- Based on additional analyses, NTIA recommended several supplements to the FCC proposed BPL rules to reduce risk of BPL interference (June 2004)
- The FCC adopted rules incorporating most NTIA recommendations on October 14, 2004.
- Today, many utilities, hotel operators and others are deploying experimental and operational BPL systems.



**HomePlug Modem**  
can turn an electrical  
outlet into an  
Internet connection.

# U.S. Investment in Information Technology

- From 1Q03-1Q05, major segments of IT investment spending grew between 22% and 48%.
- IT producing industries have contributed to real economic growth: IT contributed 8.0% in 2003 and 12.0% in 2004 to the rise in GDP.
- In 1Q05 businesses invested in information processing equipment and software at an annual rate of \$521.5 billion.
- Private fixed investment reached over \$2 trillion in 1Q05—a 13.1% increase over 1Q04.
- ICT investment has been a driver of growth around the world, not just in the U.S.:
  - In OECD countries, ICT investment typically accounted for between .3 and .8% growth in GDP during 1995-2001.
  - During the period 1995-2003, US average labor productivity (ALP) increased at an average annual growth rate of 3.06% - more than double that of the previous 22 years (1973-1995). Nearly half (47%) of ALP growth was due to IT contributions to capital deepening and total factor productivity (TFP).

# Conclusion

- President Bush has a vision for making advanced technologies available to all Americans by creating the economic and regulatory environment to enhance competition and promote innovation.
- The President's goal will ensure that all Americans have the personal and economic benefits of high-speed Internet applications and services.
- The telecom sector is growing dynamically, and many new technologies show great potential for expanding broadband deployment.