



Spectrum Reform: tools to promote broadband deployment

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Global Public Policy

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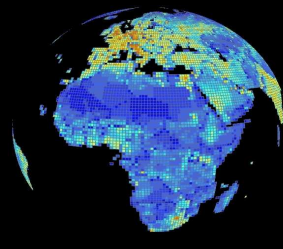
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“50% of productivity growth in the EU is a direct result of the use and production of ICTs”.

Margaret Hodge, MBE MP UK Minister of State for Industry & the Regions, June 2006. Riga

Economist Intelligence Unit – Reaping the benefits of ICT: Europe’s productivity challenge, April 2004

Government Stimulus on Broadband & IT – a must



- Government stimulus policies on BB & IT can help countries emerge faster and stronger from recession
 - More jobs, better trained, 21st century skills
- Economic leaders are investing –we must too
- Stimulus infrastructure spending on roads, rail, power should include broadband – easily done at same time

How to foster ICT?

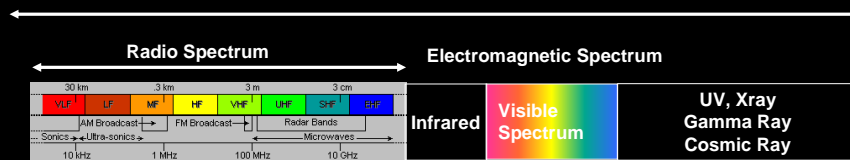
- Capital markets are global
- Good government 101
 - Rule of law
 - Property rights
 - Open, competitive markets
 - Light regulation
 - Sensible taxes
- Targeted, competitively neutral subsidies justified



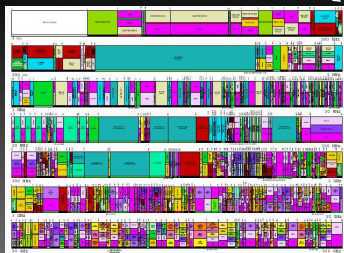
Role of Government

- Support and **enable the ICT industry**: not lead
 - Encourage ubiquity
- Embrace **new technologies** and role model their uses
- Invest in the **Digital Economy**
- Invest in **Education**: focused on 21st Century Skills.
 - Curriculums which are relevant to the challenges of today and tomorrow
- Invest in **research and development**: produces smart ideas.
- Create the right **environment** in which smart people can develop smart ideas.
 - Empower and incentivise businesses and enable them to succeed
 - Ensure **access to Internet for all**

Spectrum Scarcity?



FCC Spectrum Allocations (3KHz – 300GHz)



Or inefficient distribution?

- Too much in low valued uses
- Too little in high valued uses

Spectrum Reform in a convergence era

- Spectrum is artificially scarce
- Rigid “Command and Control” regime since 30’s
- Technical innovation is the engine for disruption
- Countries will face this major challenge in the years to come
- Fully embrace tech neutrality
- Flexibility
- Consumers will benefit enormously

Promote market-oriented mechanisms

Broadband Spectrum Policy

- **Technology Neutrality:**
 - Flexibility in regulations to encourage technology growth and adoption
- **Flexibility:** to allow licensee to choose any appropriate broadband wireless technology
 - Duplexing arrangements: allow TDD in Paired bands
 - Channel arrangements: allow licensee to choose
 - Large block aggregates: (ex: 30 MHz or more)
 - Support secondary markets (spectrum trading)
 - Allow nomadic use in a fixed band (stationary when in use)
 - Support for indoor modems and notebooks

Tech Neutrality

- License holders should be able to deploy the best solution for their market needs
- Regulations should be as technology neutral as possible
 - Does not mean getting rid of fixed/ mobile allocations
 - Different services have different interference requirements
 - But convergence is happening and so should requirements

Flexibility in Use of Spectrum

- Convergence requires flexibility in the use of spectrum
- Services
 - Strive for as many services as possible over as many transports as possible
 - Allows for rapid rollout of competitive services

Legal certainty

- A transparent process benefits all
- Protect licensee rights
 - Clearly delineate rights and obligations
 - Secondary trading

Conclusions

- Three messages from this presentation:
 - Broadband is about productivity and raising standards of living
 - Wireless technologies will improve competition and penetration
 - Spectrum management reform is a opportunity to foster innovation, promotes competition and benefit consumers