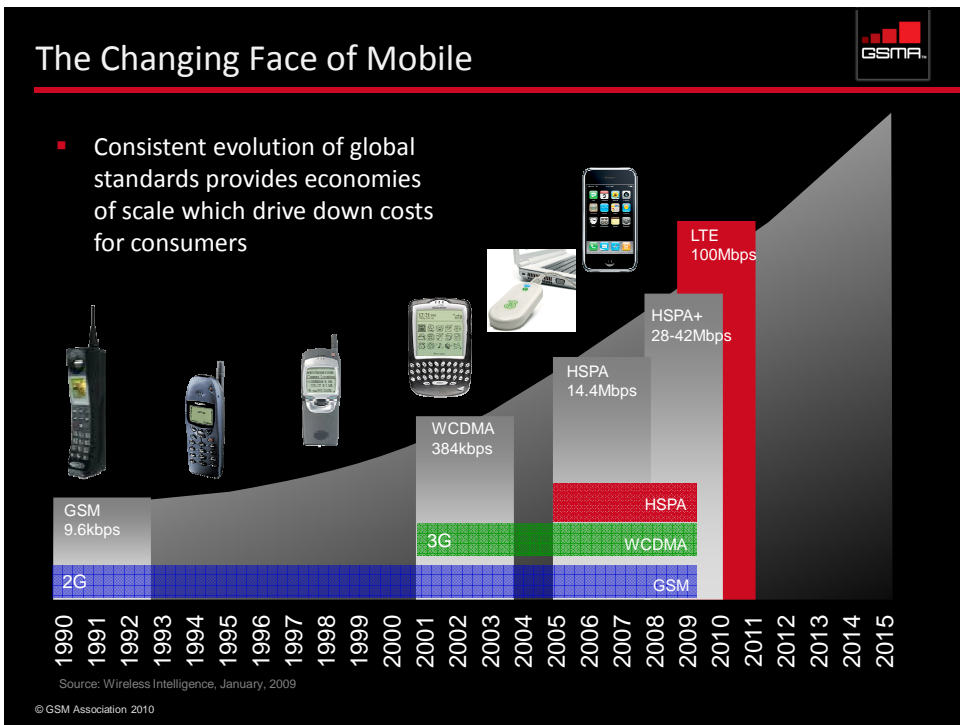
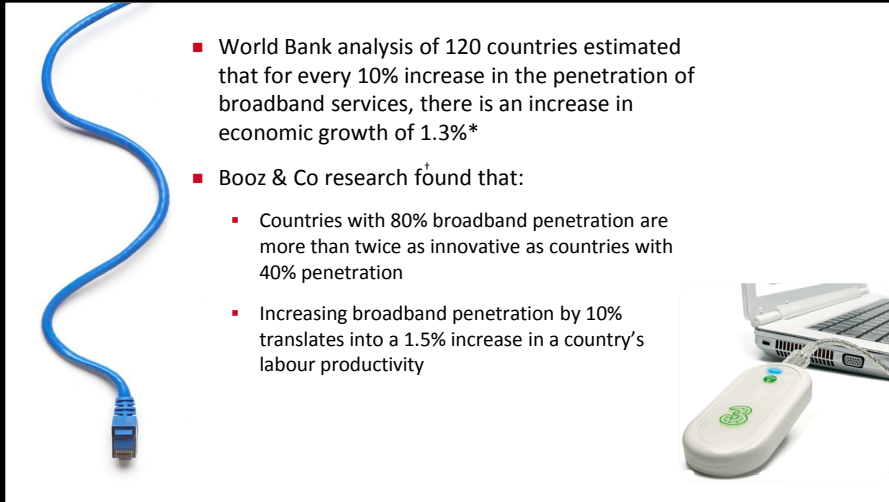


Planning for Mobile Broadband: Connecting All Users
 Cairo, Egypt, 15 December 2010
 Ross Bateson: Special Adviser, Government and Public Policy
 GSM Association



Broadband Drives GDP Growth



- World Bank analysis of 120 countries estimated that for every 10% increase in the penetration of broadband services, there is an increase in economic growth of 1.3%*
- Booz & Co research[†] found that:
 - Countries with 80% broadband penetration are more than twice as innovative as countries with 40% penetration
 - Increasing broadband penetration by 10% translates into a 1.5% increase in a country's labour productivity

Sources: *World Bank, Qiang 2009; † Booz & Company, Enabling Sustainable Digital Highways; Strategies for Next-Generation Broadband

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HSPA Live on Six Continents

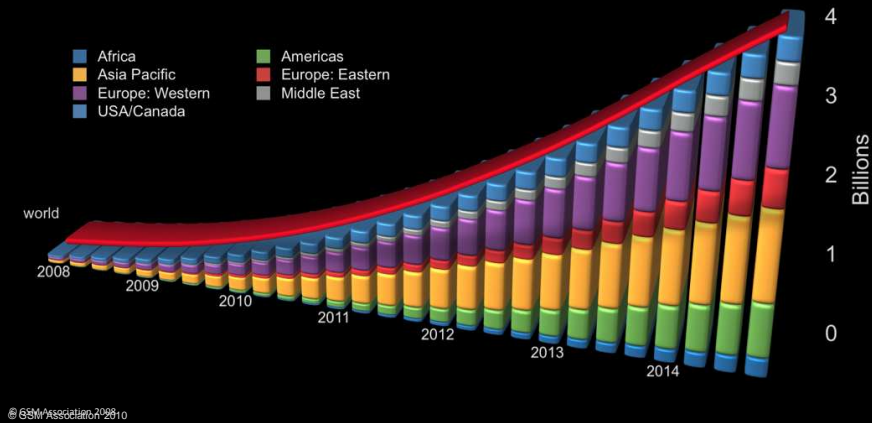


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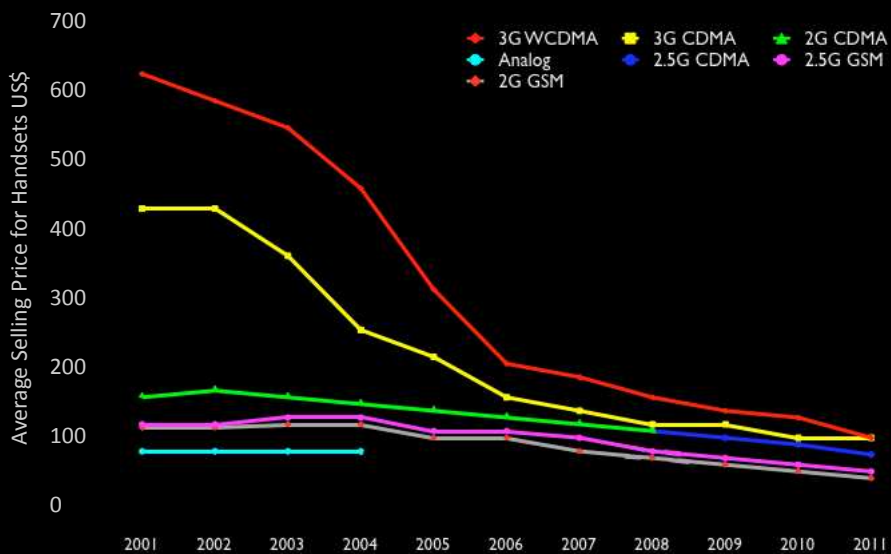
Mobile Broadband growth



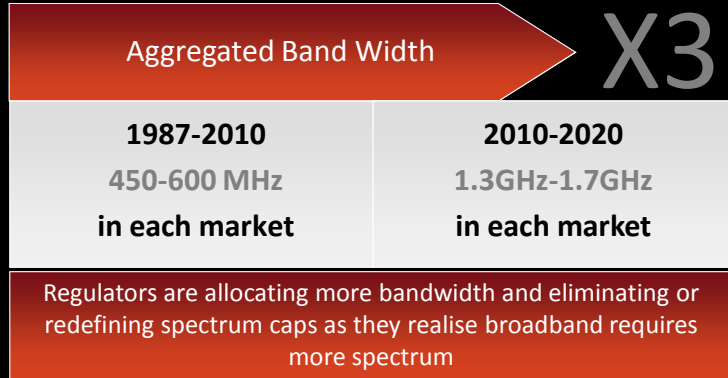
- Great take up but to sustain growth, capacity demands need to be met – requires technical advancement and more spectrum.



Scale Matters.....



Spectrum is Needed for Broadband to Grow



- According to ITU, by the year 2020 mobile services will need:
 - 1.280 GHz for low market demand (rural areas)
 - 1.720 GHz for high market demand (urban areas)

Source: ITU-R Report M.2078

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Rural Connectivity – Key to the Middle East



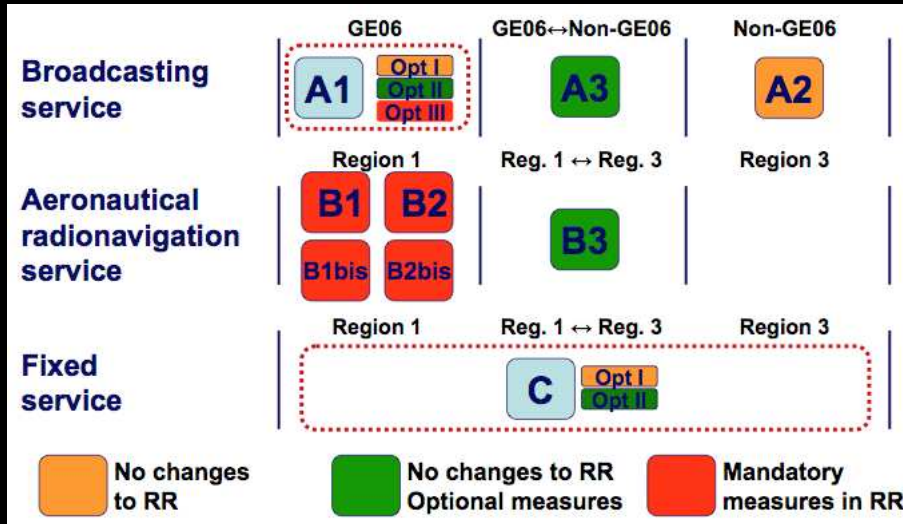
Country	Pop/km2	
Algeria	15	
Egypt	79	40% Rural
Jordan	71	
Lebanon	404	
Oman	9.2	
Qatar	128	39.6% Rural
Saudi Arabia	12	
Syria	118	
UAE	55	
Yemen	45	70.6% Rural
Average	93.62	

Comparison:		
UK	246	
Germany	232	12% Rural
Netherlands	400	

- Low population density of Arab world is ideally suited to Digital Dividend spectrum
- Cost of providing universal access is greatly lowered
- Low-population countries with fewer operators can use wider, cleaner channels to provide higher bandwidth services

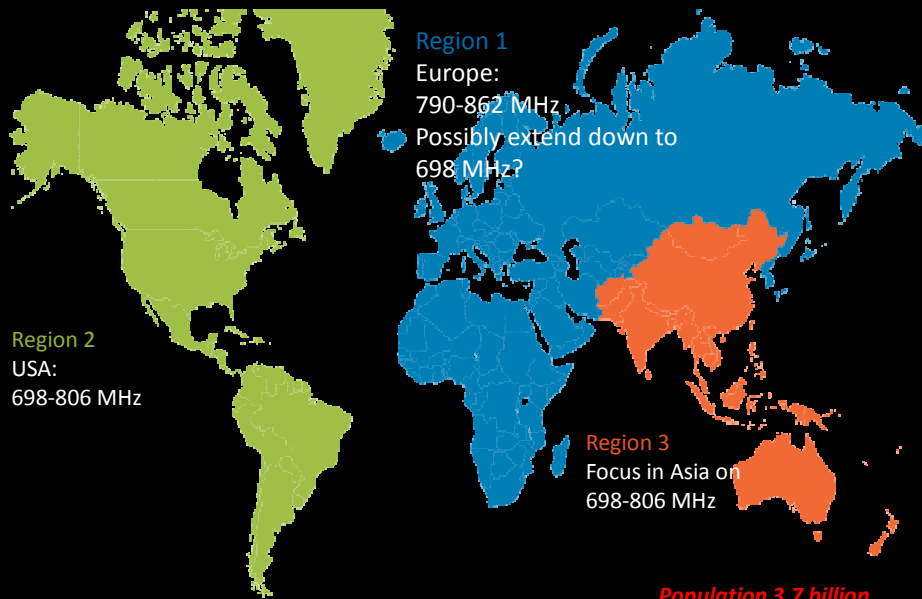
© GSM Association 2010

WRC AI 1.17: Work of JTG 5-6



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Global Digital Dividend Variations

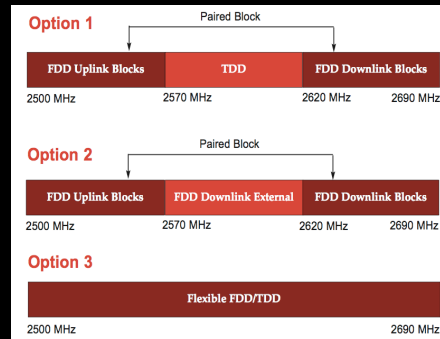


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Space for Urban Networks: 2.5GHz



- 2500-2690MHz band is globally allocated to IMT services
- 2.5GHz represents a rare example of a truly harmonised band
 - Huge economies of scale can be realised if planned properly
- This is the first band being commercially used for LTE
 - TeliaSonera's 4G network opened in Stockholm and Oslo in December 2009
- Regulators must plan carefully to open 2.5GHz to Mobile Operators
 - ITU 'Option 1' far superior to other options in terms of spectrum efficiency, interference, cost and other issues



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WRC-12: Agenda Item for IMT Spectrum



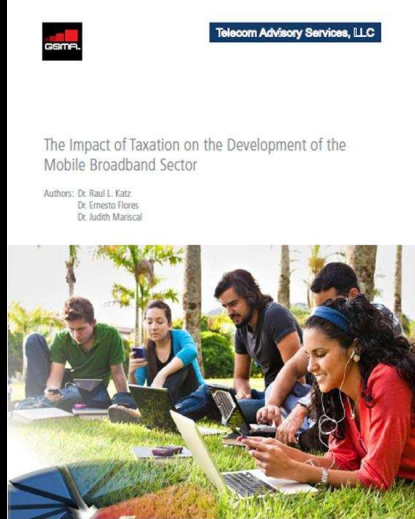
- GSMA proposes that an Agenda item for WRC16 on IMT spectrum:

“To consider the frequency bands identified for IMT with a view to rationalising, consolidating, and expanding these as appropriate, with the objective of achieving internationally harmonised bands, preferably on a global basis.”

- GSMA has submitted [written or verbal] input to CEPT, APG, CITEL and ASMG to ensure support for IMT Agenda Item
- GSMA and industry believe that WRC-12 needs to ensure that there is an Agenda Item discussing IMT spectrum at WRC-16

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Economic Impact of Taxation



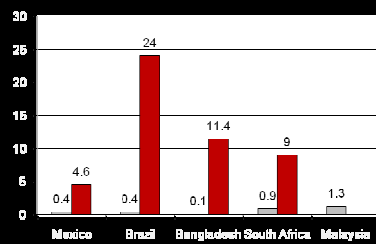
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Impact of Taxation on the Development of the Mobile Broadband Sector in Emerging Countries, GSMA, July 2010

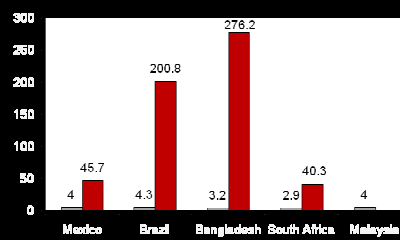
Taxation Structure Impacts Mobile Penetration



Estimated percentage increase in **mobile penetration** resulting from changes in taxation



Estimated percentage increase in **mobile user base** resulting from changes in taxation



- Reduction of 1% of tax on TCO
- Reduction of tax to benchmark rate (6.1%)

- Reduction of 1% of tax on TCO
- Reduction of tax to benchmark rate (6.1%)

Note: Malaysia is considered to be the benchmark at 6.1%

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Source: Impact of Taxation on the Development of the Mobile Broadband Sector in Emerging Countries, GSMA, July 2010

Conclusions



- Internet connectivity via mobile broadband will
 - dramatically enhance people's lives and prospects
 - provide a huge boost to national economies
- Spectrum and taxation policies will affect the pace at which mobile broadband networks can be rolled out
- Decisions made at WRC-12 and WRC-16 can help broadband roll-out in your country



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Your input to us?



Mobile Industry Reputation Index Questionnaire Q3 2010

Thank you for taking the time to give us your views on the mobile industry. We are interested in your personal view, so please answer based on your own perceptions of the industry and not based on how you think others might perceive it. Submitting a completed questionnaire entitles you to a free copy of the most recent *Mobile Intelligence Quarterly World Service Report*.

SECTION 1

1 In your opinion, how much does the mobile industry contribute to the advancement of society in terms of its policies and actions in the following areas?

	Not at all	1	2	3	4	Very significant	Don't know
Social	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Economic	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Environmental	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

2 Compared with one year ago, do you think the mobile industry's overall contribution to society has:

Increased Stayed the same Decreased Don't know

3 How significant do you perceive the mobile industry's role to be in:

	Not at all	1	2	3	4	Very significant	Don't know
Job creation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Tax revenues	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Broadband penetration	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovation	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Development of a low carbon economy	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

4 To what extent do you agree that the mobile industry offers:

	Not at all	1	2	3	4	Strongly agree	Don't know
High quality products	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Reliable services	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
A good quality-price ratio	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Innovative solutions (eg mobile health, mobile payments)	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

5 To what degree do you consider the mobile industry is transparent regarding its:

	Not at all	1	2	3	4	Steadily transparent	Don't know
Terms & conditions	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Network management practices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Domestic tariffs and prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>
Roaming prices	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

6 Do you think the mobile industry is more or less transparent than one year ago?

More transparent Stayed the same Less transparent Don't know

7 How well do you think mobile operators protect their customers' personal data and privacy?

	Not at all	1	2	3	4	Very well	Don't know
	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>	<input type="radio"/>

Surveyed by the GSM Association

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Nobel Laureate in Economics, Paul Krugman:
"Productivity isn't everything, but in the long run, it is almost everything. A country's ability to improve its standard of living over time depends almost entirely on its ability to raise its output per worker."

THANK YOU!

rbateson@gsm.org

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