International regulatory update

Ewan Sutherland

http://www.3wan.net/

Introduction

- Introduction
- Around the world
- European Union 2006 Review
- A single regulator
- Reding Roaming Regulation
- Conclusions

China

- China Mobile
  - 326.8 million GSM customers (added 5.46 millions in May)
  - of which, 66.9 million are subscription
- China Unicom
  - 150 million customers, of which:
    - 111.4 millions GSM (added 1.13 millions in May)
    - 38.6 millions CDMA subscribers (added 0.451 millions in May)
- China Telecom
  - 224.3 million fixed line subscribers (added 200,000 in May)
  - 31.62 million broadband subscribers (added 510,000 in May)
  - first five months of 2007:
    - added 1.24 millions new fixed lines
    - added 3.3 millions new broadband subscribers
- Ministry of Information Industries (MII) has not issued 3G licences:
  - appears to be allowing UMTS (WCDMA) and TD-SCDMA
  - support national manufacturing industry
  - avoid paying licence fees to foreign patent holders

National roaming

- India and China have both had high fees for national roaming
- These are now being eliminated:
  - in India there is something of a price war
  - certain operators are trying to exploit their larger footprints
- There will soon be seamless national services
- In Hong Kong roaming to China was treated as international call forwarding, with:
  - one SIM card, two numbers
  - three numbers for gamblers

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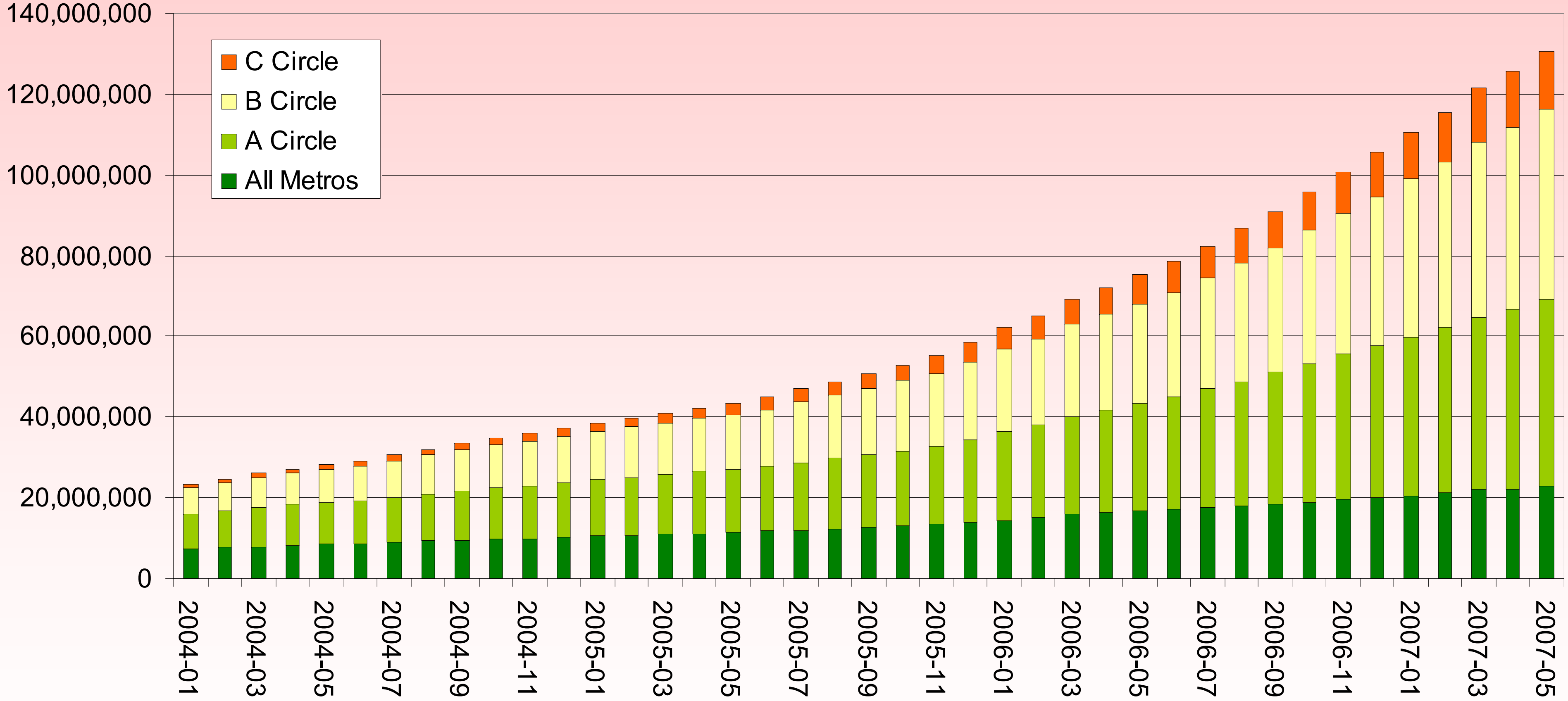
India – growth of wireless



Vodafone – Hutchison Essar

http://www.hutch.in/bottom/coverage.asp

- Acquisition finally approved
- US$10.9 billion paid to HTIL
- Will rebrand to Vodafone this year
- Also has an international licence
- Major cities:
  - Chennai (Madras)
  - Delhi
  - Kolkata (Calcutta)
  - Mumbai (Bombay)
- Provinces:
  - Andhra Pradesh
  - Gujarat
  - Haryana
  - Karnataka
  - Kerala
  - Maharashtra & Goa
  - Punjab
  - Rajasthan
  - Tamil Nadu
  - Uttar Pradesh (East & West)
  - West Bengal

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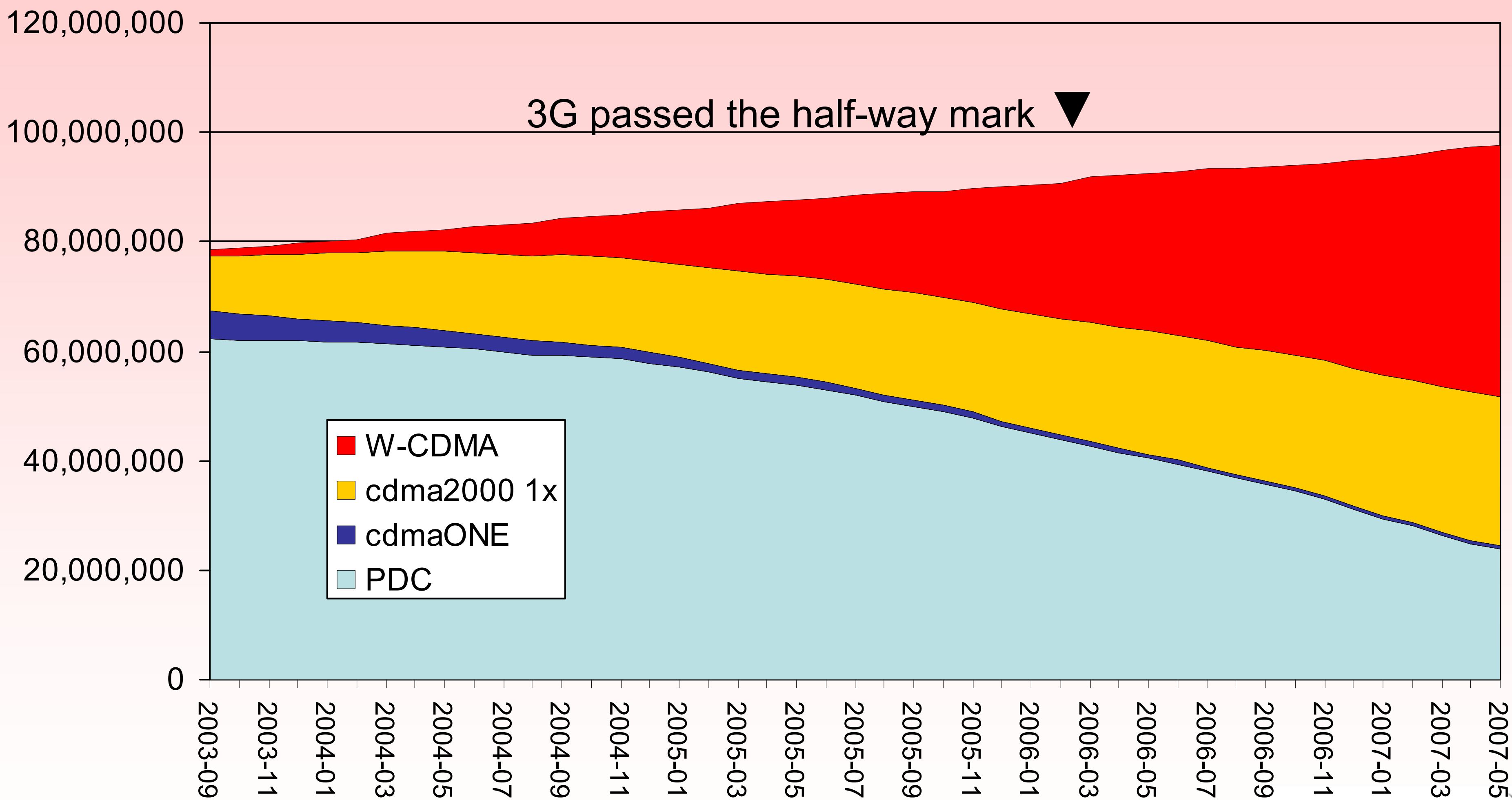
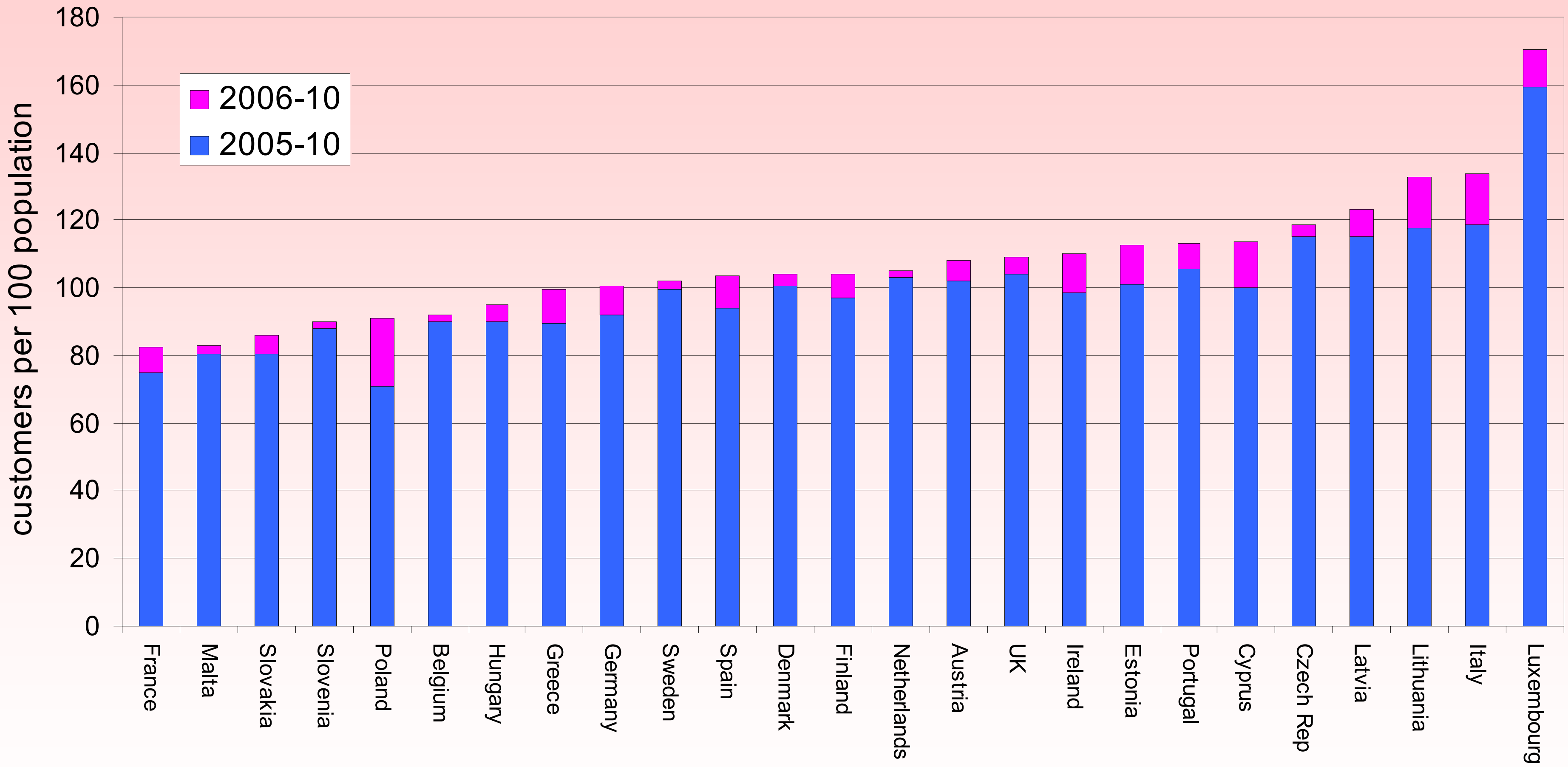
Japan switches to 3G



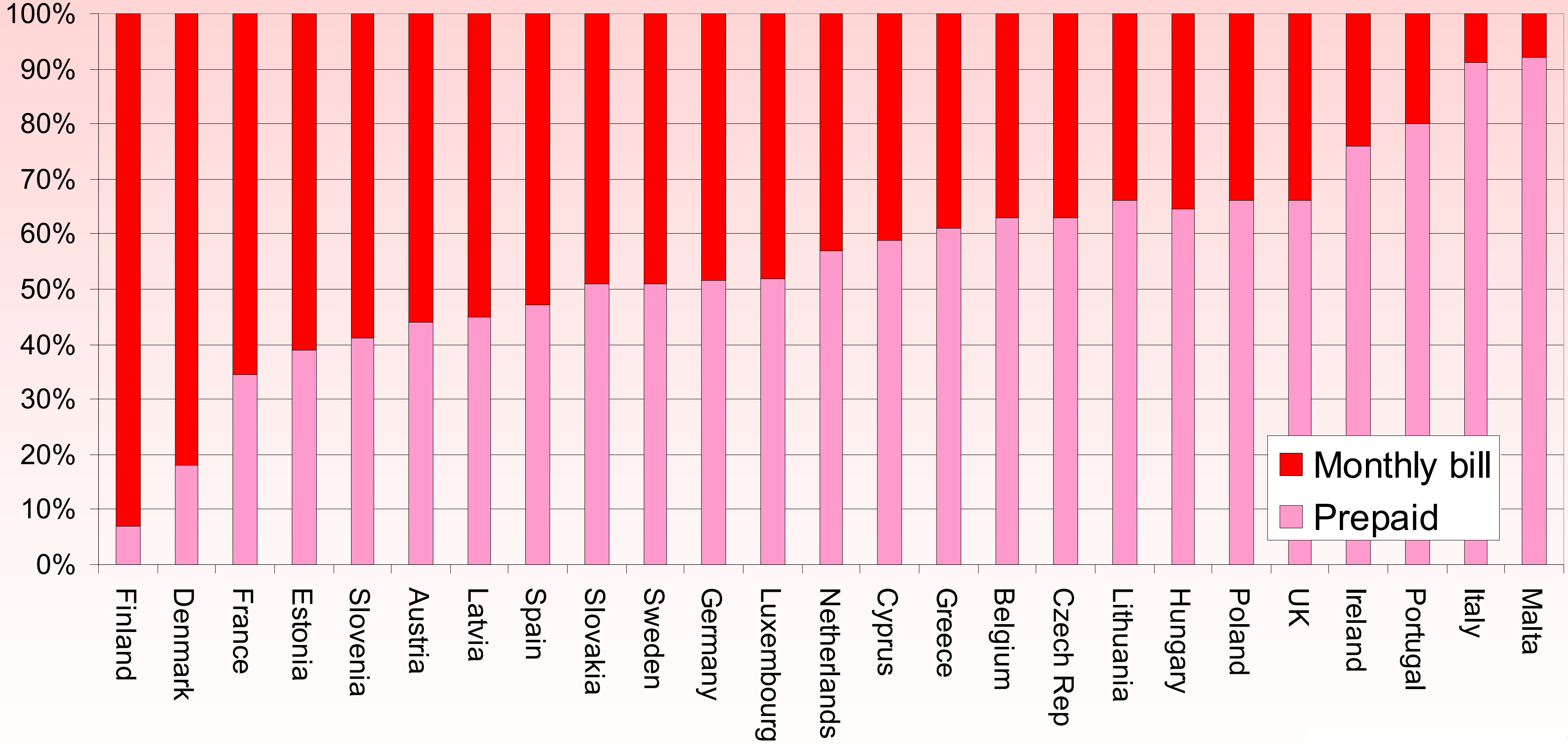
http://www.tca.or.jp/

Mobile teledensities in Europe



Source: European Commission.

Pre-paid and post-paid



Source: European Commission.

EU – 2006 Review

- Review of the 2002 telecoms directives
- Delayed until after the German Presidency:
  - German law protects Deutsche Telkom VDSL network
  - the EC will have the law overturned by an EU court
- EC will make legislative proposals in the autumn
- These are mostly minor changes
- Most member states still struggling with implementing the existing legislation
- The major processes will carry on at national level
- No sign of a “single market”

A single European regulator

- An idea from the 1980s and 1990s
- Relaunched in 2006 by Commissioner Reding
- Now to be a compromise partnership:
  - European Commission (EC)
  - European Regulators Group (ERG)
- ERG is to be strengthened
- It is notoriously obscure and technocratic in its operations

"… **we have a European telecom regulator already – it is the European Commission, which is a truly independent and supranational European institution**."
Viviane Reding. (01/06/07)

http://erg.eu.int/

EC monitoring neighbours

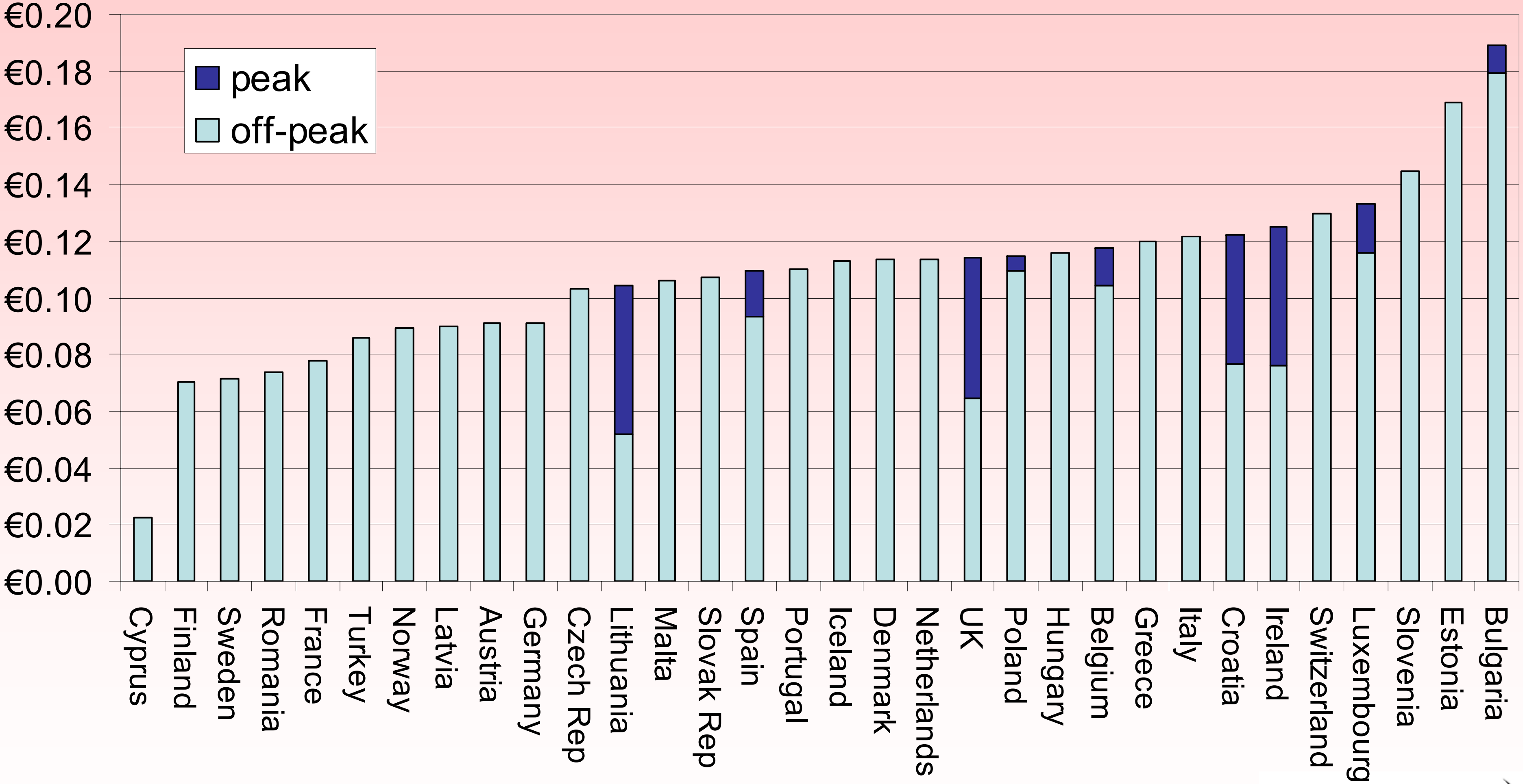
- Recent reports by the EC:
- South-East Europe
- CIS states:
  - Russia, Ukraine, Armenia, Azerbaijan, Belarus, Georgia, Kazakhstan and Moldova
- Mediterranean countries

http://www.cullen-international.com/documents/cullen/cipublic/studies.cfm
http://ec.europa.eu/information_society/activities/internationalrel/index_en.htm

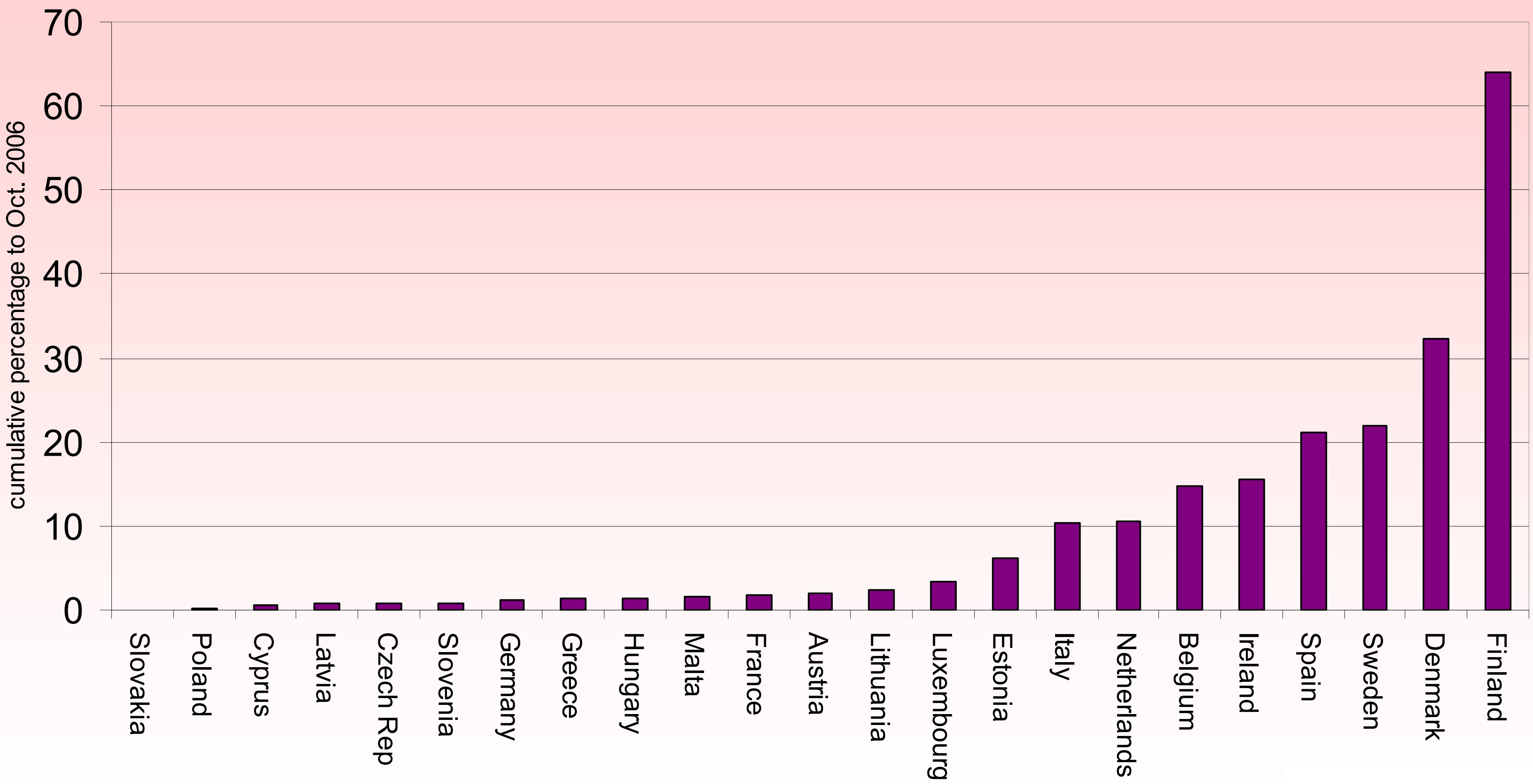
Mobile Termination Rates

- A well established market abuse
- Costs are being determined by regulators
- Wholesale prices are gradually being lowered, but very slow progress
- Operators provide complex economic arguments:
  - two-sided markets
  - water-bed effect

MTRs at 1 January 2007



Mobile number portability



Source: European Commission.

When has a policy failed?

- Mobile termination rates:
  - – slow decline in prices
  - – obscure technocratic debates
  - – enormous transfer of wealth from consumers to mobile network operators
- Mobile number portability:
  - – unjustifiable national variations
  - – almost no countries have made this work
  - – lamentable failure

Revised list of markets

1. Access to the public telephone network at a fixed location.
2. Call termination on individual public telephone networks provided at a fixed location.
3. Call origination on the public telephone network provided at a fixed location.
4. Transit services in the fixed public telephone network
5. Wholesale unbundled access to metallic loops and sub-loops for the purpose of providing broadband and voice services
6. Wholesale broadband access
7. Wholesale terminating segments of leased lines
8. Wholesale trunk segments of leased lines
9. Voice call and SMS termination on individual mobile networks
10. Access and call origination on public mobile telephone networks
11. Wholesale national market for international roaming on public mobile networks
12. Broadcasting transmission services, to deliver broadcast content to end users

One retail and 11 wholesale markets

Competition in mobile networks

- The EC is removing retail markets to concentrate on wholesale markets
- Old Market 15:
  - Mobile Access and Call Origination (MACO)
- Generally seen as “not uncompetitive”:
  - France has demonstrated operator collusion
  - Spain found joint dominance
  - Ireland found and withdrew joint dominance
- Analysis can no longer be justified
- Easier to open markets to additional operators
- Not a way to enforce access for MVNOs
- A regulator could still analyse this market

Spectrum issues

- 3GSM operators are still trying to block alternative technologies and business models
- IMT-2000 (i.e. 3G) now includes:
  - UMTS (W-CDMA)
  - cdma2000
  - TD-SCDMA
  - WiMAX (but only a subset)
- 2G spectrum can be re-assigned for 3G (i.e. UMTS on 900 and 1800 MHz)
- 3GSM operators trying to get hold of spectrum for DVB-H
- Little sign of agreement of a standard for mobile digital television

http://www.itu.int/newsroom/press_releases/2007/12.html

Reding Roaming Regulation

- For *voice only*:
  - wholesale price limit
  - consumer protection ceiling prices
- Allows operators room to be creative:
  - they can go lower!
- Not just EU, but European Economic Area
- Customers are automatically transferred within two months
- Those already on special roaming tariffs are **not** transferred, they must ask, for example:
  - Vodafone Passport
  - T-Mobile Worldclass
  - O2 MyEurope
- Operators must provide tariff information, free of charge:
  - to all customers when they roam
  - to subscribers when operators change charges

Large corporations

- Can negotiate roaming prices below the consumer protection "ceiling" prices:
  - €0.24 inbound and €0.49 outbound
  - will fall by 6 per cent in mid-2008 & mid-2009
- We now know the wholesale price is €0.30 for an outbound roaming call within EU/EEA
- Must consider whether to transfer employees to the EC ceiling rates
- Consider whether to lobby for SMS and mobile Internet roaming rates

2008 Review – roaming

- The Regulation ends in June 2010
- The EC must report to Parliament and Council by December 2008
- NRAs and the EC will gather data
- The EC can propose:
  - the Regulation be renewed for another 3 years
  - modification (e.g., just transparency)
  - inclusion of SMS, MMS and Internet
- Important to record and to be able to report experiences in a systematic and thorough way

African footprints

- **MTN**: Benin, Cameroon, Côte d'Ivoire, Congo, Ghana, Guinea, Guinea-Bissau, Liberia, Nigeria, Rwanda, South Africa, Swaziland, Sudan, Uganda
- **Vodafone/Vodacom**: DR Congo, Egypt, Kenya, Lesotho, Mozambique, Mauritius, South Africa, Tanzania
- **Orascom**: Algeria, Egypt, Tunisia, Zimbabwe
- **MTC/Celtel**: Burkina Faso, Chad, Congo, DR Congo, Gabon, Kenya, Niger, Nigeria, Madagascar, Malawi, Sierra Leone, Sudan, Tanzania, Uganda, Zambia
- **Orange**: Botswana, Cameroon, Côte d'Ivoire, Egypt, Equatorial Guinea, Madagascar, Mali, Mauritius, Réunion, Senegal
- **Millicom**: Chad, DR Congo, Ghana, Mauritius, Senegal, Sierra Leone, Tanzania
- **Etisalat**: Benin, Burkina Faso, Central African Republic, Côte d'Ivoire, Gabon, Niger, Sudan, Tanzania, Togo
- **Econet**: Botswana, Burundi, Lesotho, Nigeria, Zimbabwe

Celtel – one nation

- Part of the MTC Group (Kuwait)
- September 2006 abolished charges in:
  - Kenya
  - Uganda
  - Tanzania
- June 2007 extended to:
  - Gabon
  - Democratic Republic of Congo (Kinshasa)
  - Republic of Congo (Brazaville)
- Will be extended to a further 9 countries
- With no prior registration or fee
  post-paid and pre-paid customers can:
  - make calls at local rates
  - receive incoming calls free of charge
  - top-up pre-paid phones with locally-bought airtime
- Forced rivals to collaborate in order to compete

South Africa – a problem?

- Legislation presently before Parliament
- For national security
- Would require registration of all SIM Cards
  - on arrival at airports
  - when crossing a land border
  - purchase of pre-paid cards at supermarkets
    - would you risk giving identity to sales assistants?

Voice over Internet Protocol

- Some operators resisting access to VoIP
- The same issues as blocking VoIP on a corporate network:
  - neither impossible nor perfect
- In part, it is a debate about flat rate prices
- Operators lack alternative revenues, but being pushed in triple play and quadruple play and home-zone packages
- Operators have done nothing, so far, to block Spam over Internet Telephony (SPIT)

Mobile VoIP

- Blocking VoIP is about discrimination and protecting an obsolete business model
- Access and Interconnection Directive:
  – should end-to-end connectivity
- Competition law:
  – non-discrimination
  – case law for airline reservation systems and electronic programme guides

Network neutrality

- A policy debate in the USA:
  - set out in several bills in the Congress
  - none is yet adopted as law
  - the debate goes on and on
- Used by the FCC in merger cases:
  - for fixed networks
  - **not** for mobile networks
- A lot of seminars and papers
- No obvious end point

USA spectrum auctions

- Advanced Wireless Service (AWS)
  - 90 MHz at 1710-1755 and 2110-2155 MHz
  - 161 rounds of bidding August/September 2006
  - Operators paid a total of US$ 13,879,110,200
  - T-Mobile USA:
    - doubled its spectrum for US$ 4.1 Bn
    - 120 licences including NYC, LA and Chicago
- Debate on the next auction:
  - should it require “net neutrality”

http://wireless.fcc.gov/auctions/default.htm?job=auction_summary&id=66

Apple iPhone

- Only being sold at Apple and AT&T outlets
- Works exclusively on AT&T EDGE network in the USA
- Apple servers on the EDGE network
- Being launched on 29 June 2007:
  - USD 499 for 4GB
  - USD 599 for 8GB

The Gulf

- Growing competition in mobile:
  - cross-border market entry
  - entry into Africa
- Strengthened regulatory authorities
- United Arab Emirates (UAE):
  - du, the second fixed and mobile operator (February 2007)
- Saudi Arabia:
  - Mobily (Etisalat) second mobile licence in 2004
  - MTC third mobile licence in June 2007
- Bahrain:
  - Third licence decision delayed
  - Awaiting completion of the “strategic review” of the market

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Arab League – roaming

- Extensive survey of prices in late 2005
- Regulators have identified the need for regulation of prices
- They have proposed this to the Council of ICT Ministers of the League of Nations
- Very likely to propose something similar to the EU regulation

http://www.aregnet.net/

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Cellular Competition Index

- Jordan 78.1%
- Iraq 75.8%
- Algeria 69.0%
- Palestine 67.8%
- Saudi Arabia 67.3%
- Egypt 60.0%
- Morocco 56.5%
- Sudan 56.3%
- Mauritania 53.4%
- Bahrain 51.8%
- Yemen 47.8%
- UAE 45.9%
- Tunisia 45.6%
- Kuwait 40.7%
- Lebanon 35.1%
- Syria 34.3%
- Libya 30.9%
- Oman 28.7%
- Qatar 26.1%

http://www.arabadvisors.com/

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Fixed mobile convergence

- Different, asymmetric and incompatible regulatory regimes:
  - fixed is still a regulated monopoly
  - mobile is 3 or 4 “competitors”
- Growth of residential triple and quadruple play
- Limited evidence of FMC for corporates

Conclusions

- Regulation remains national
- Regulatory initiatives are generally very slow
- Markets remain national
- Operators becoming more international
- Mobile network operators focus on:
  - consumers
  - emerging and developing markets
  - expansion into television and entertainment
  - expansion into banking
- We have seen the beginning of the end of high roaming charges

Thank you

Ewan Sutherland

http://3wan.net/

3wan [@] 3wan.net

+44 141 416 0666

skype://sutherla