INTUG

mobility

business user issues

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INTUG mobile 9 November 2005
www.INTUG.net

INTUG contents

- INTUG
- market abuses
- market regulation
- market failures
- the value of mobility
- conclusions and issues

INTUG what is INTUG?

- members:
  - national associations
  - corporations
  - individuals
- activities:
  - ITU and WTO
  - OECD
  - APEC TEL, CITEL and EU

INTUG our aims

- real and effective competition
- genuine choice for users
- lower prices
- higher quality
- more innovative services
- constructive co-operation with:
  - international bodies
  - governments
  - regulators

INTUG market abuses & dominance

- number portability
- call origination
- call termination
- text messaging (SMS)
- international mobile roaming
- wholesale access
- national roaming

INTUG mobile number portability

- arguments largely won for MNP
- successfully introduced in:
  - Republic of Korea
  - United States of America
  - Taiwan
  - Belgium
- will be introduced in:
  - Japan (2006)
  - Canada (2007)
- implementation is often slow and overly bureaucratic

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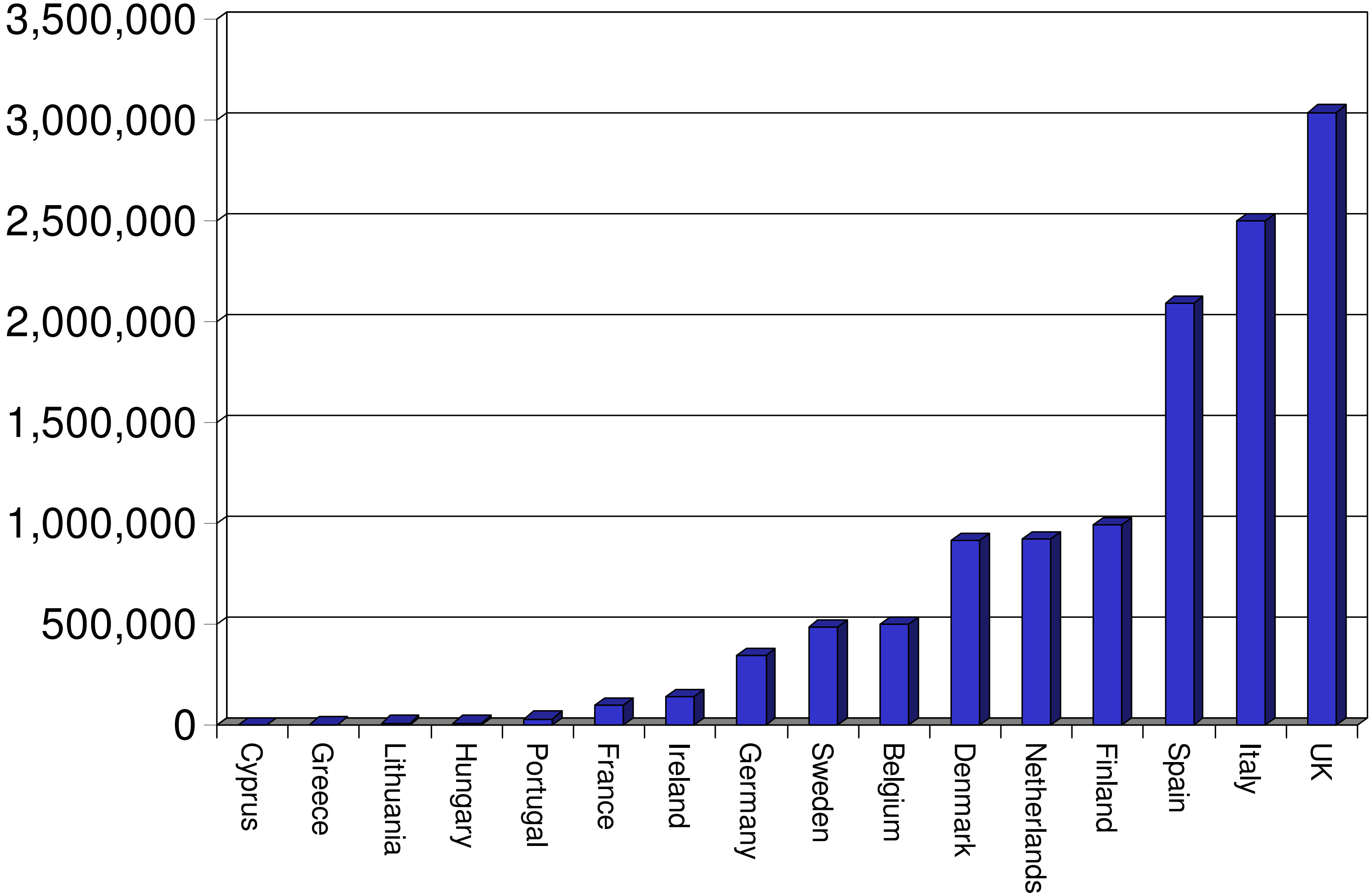
cumulative total of mobile numbers ported to August 2004



Source: EC *10th Implementation Report*, Vol. 2, Fig. 59.

INTUG call origination

- more expensive than fixed lines
- not competitive for freephone:
  - MNOs want revenue “sharing”
  - splits the numbers for marketing
- joint dominance for calls in many markets with few operators:
  - Ireland
  - France
  - South Africa
  - others?

INTUG France

- two dominant players
- followed Ireland in analysis of mobile call origination market
- operators realised regulation would work, so they made MVNO deals:
  - NRJ, a pop music FM radio station
  - Breizh Mobile in Bretagne
  - Coriolis Telecom for business users
- competition authority is investigating collusion from 1997 to 2003

http://www.arcep.fr/communiques/communiques/2005/index-c05-25.htm

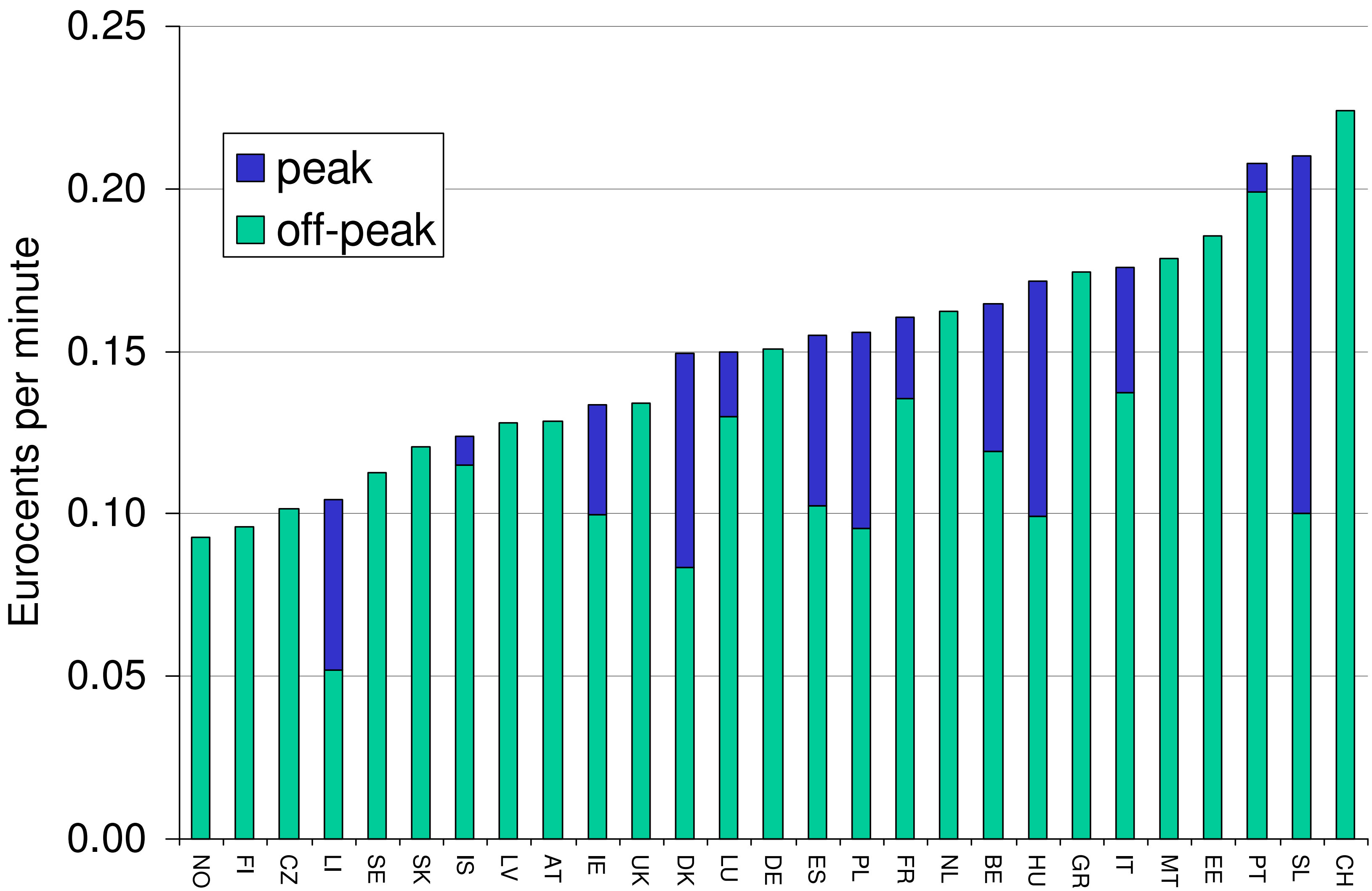
INTUG call termination

- excessive pricing
- dominance by one operator on termination of calls to its network
- regulation is the only remedy
- resisted and delayed by operators
- switching to receiving party pays is not practicable
- a major barrier to convergence

Achieving cost orientation is taking far too long!

Source: ERG.

INTUG termination rates - EU/EEA



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INTUG SMS

- carried at low priority in the signalling channel
- problems arise because operators:
  - refuse to interconnect
  - charge excessive prices
- enterprises need SLAs in terms of:
  - guaranteed delivery
  - maximum delay
- French NRA - ARCEP:
  - currently consulting
  - plans to set price ceiling of € 0.025 (against €0.053 at present)

http://www.arcep.fr/communiques/communiques/2005/index-c05-55.htm

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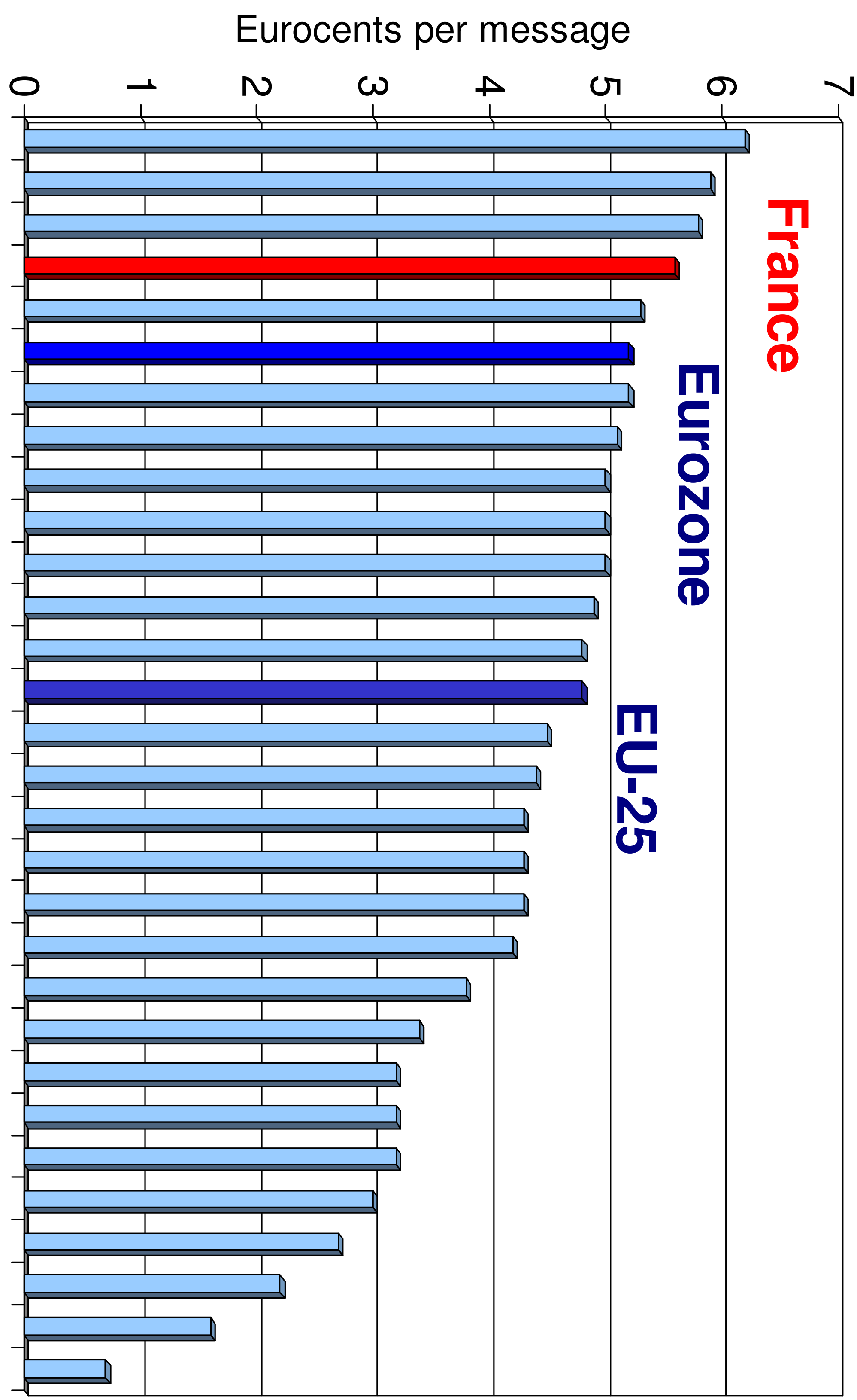
INTUG SMS price comparisons



international mobile roaming

- excessive pricing
- unresolved for many years
- extension to:
  - pre-paid customers
  - mobile data access
  - digital broadcasting
- European Commission:
  - sector inquiry
    - cases against operators in UK and Germany
  - designation of the wholesale market
    - consultation by Ficora
  - publication of prices on europa web site

http://europa.eu.int/information_society/roaming

INTUG necessary actions for EC

- revoke the letters of comfort to GSMA
- use merger reviews to eliminate abuses that allow excessive prices
- review the apparent failure of the designation of the wholesale market for roaming

http://www.intug.net/submissions/EC_comp_roaming.html

INTUG wholesale access

- mobile operators refuse to see the benefits for themselves
- they resist MVNO deals
- they want all the revenues
- they force service providers to find other routes to customers:
  - Internet
  - wi-fi hotspots
  - digital broadcasting

INTUG national roaming

- a remedy to poor network coverage in rural and remote areas
- essential for access in countries like:
  - Australia
  - Colombia
  - Sweden
- resisted by operators

INTUG fragmented mobile market(s)

- by geography :
  - different offerings in different continents
  - different patterns of cross-border travel
- by technology:
  - 3GSM *versus* cdma
  - cellular versus hot spot (Wi-Fi and WiMAX)
- by economics:
  - origination
  - termination
  - roaming

INTUG failures in europe

- concentration on consumers rather than businesses
- tried and failed to sell technologies:
  - HSCSD and WAP
  - GPRS and EDGE
- did not build the network capacity to support GPRS data access
- already hype for HSDPA and HSUPA
- whatever happened to services?
  - the very modest success of I-mode in Europe compared with Japan

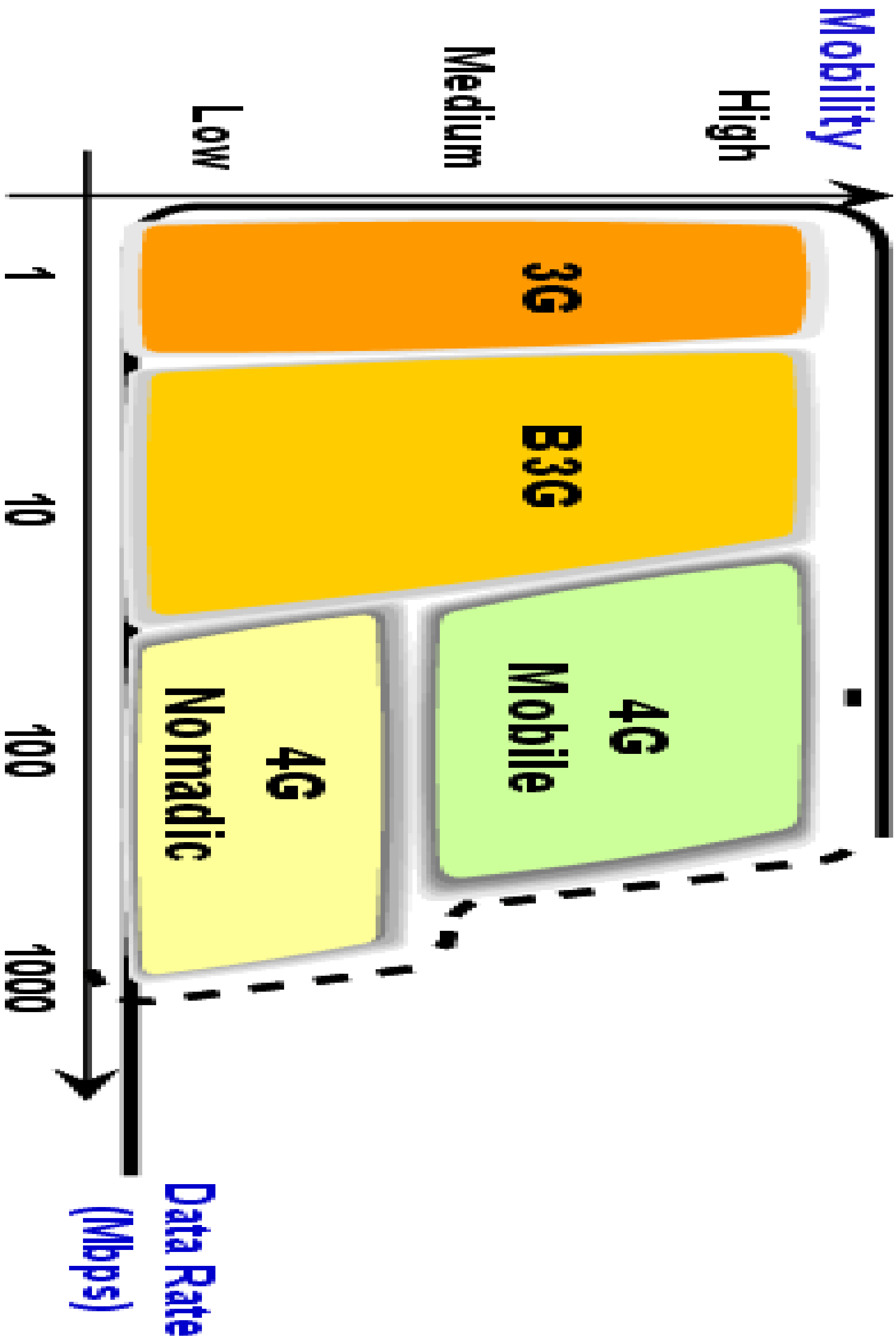
INTUG 2.5G Internet access

- a firewalled garden with NAT to the Internet
- its own gTLD .gprs
- grossly overpriced, with glacially slow price reductions
- services were/are uncertain to work
- most GPRS handsets never use the service
- very little revenue for operators
- independent providers not offering services
- where is EDGE? (few countries, few users)
- waiting for 3G/UMTS then 3.5G/HSDPA

INTUG 2.5G cdma succeeded

- easy upgrade path:
  - cdma2000 1x
  - cdma2000 1x EV-DO
  - cdma2000 1x EV-DV
- flat rate prices (e.g., US$ 70 per month)
- some Service Level Agreements (SLAs)
- extensively deployed on cdma networks, including international roaming
- successfully competing with GSM:
  - USA and New Zealand

INTUG Samsung view



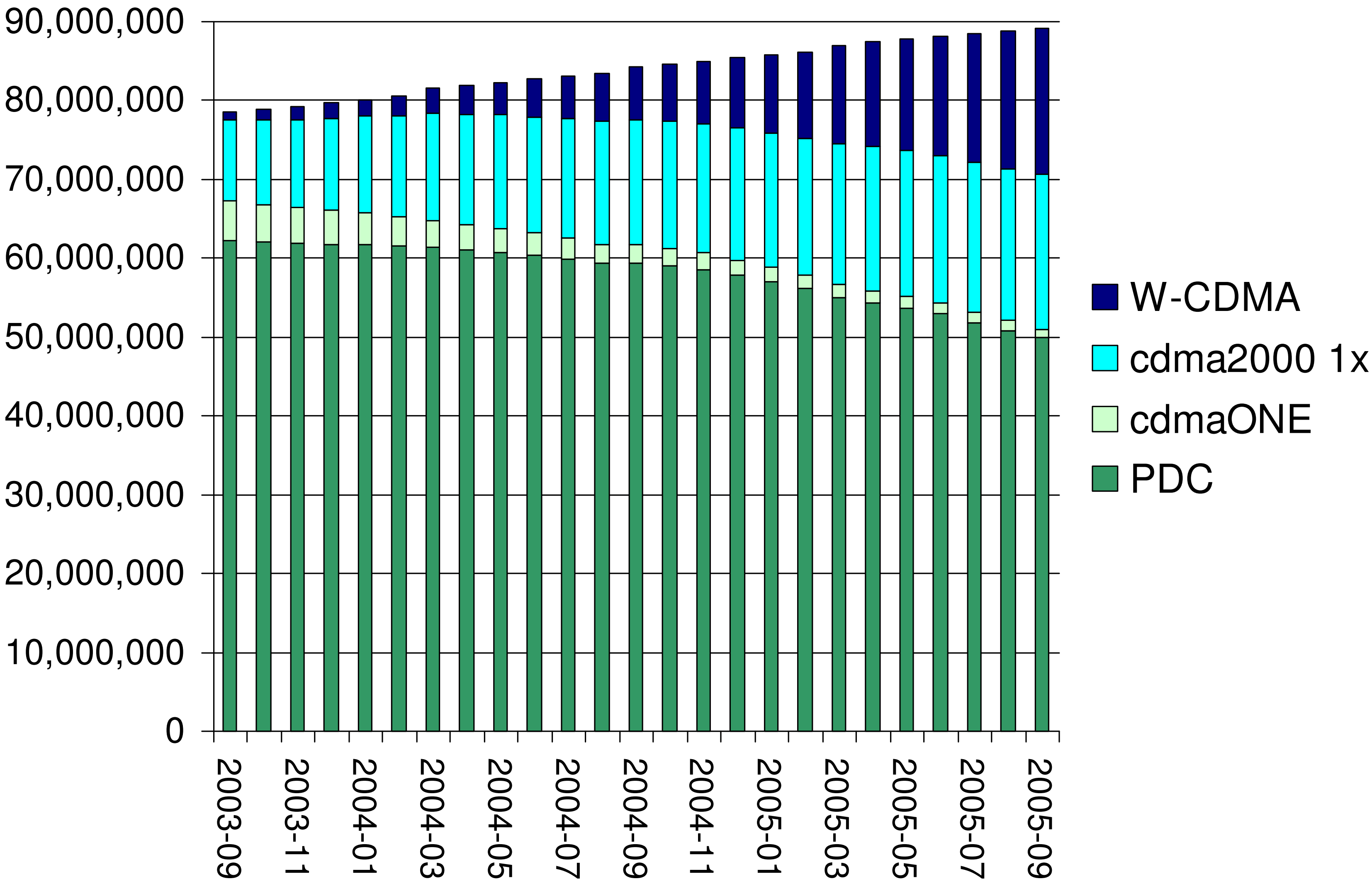
INTUG "horses for courses"

- fixed broadband
  (with wireless hotspots at the edges)
- wireless hotspots
  (802.11 b, g, etc.)
- fixed wireless access
  (WLL, WiBro, WiMAX, etc.)
- digital broadcast
  (DAB, DMB, DVB)
- cellular
  (GSM, W-CDMA, cdma2000, etc.)
- stored data
  (MP3, DVD, etc.)

INTUG 3G

- no current business case for adoption of 3G:
  - no productivity gains
  - no returns on investment
- immature service:
  - patchy coverage (in buildings and suburban)
  - uncertain data speeds
- outside Japan and South Korea, still in trials
- waiting for something faster and more mature

INTUG 3G in Japan (users)



INTUG Voice over IP

- cheap flat rate pricing models challenges pre-paid model for consumers
- secondary numbers at distant locations
- nomadic access over:
  - fixed broadband
  - Wi-Fi and (soon) WiMAX

Vodafone maintains the technology is three years away from their networks.

INTUG suppliers to business

- too fragmented geographically
- too complex tariffs
- too expensive
- too obviously uncaring
- too technologically focused, yet also too risky

INTUG what happened to FMC?

- Fixed Mobile Convergence (FMC) has been promised for years
- MNOs try to get all the traffic on the mobile network
- fixed network operators have little or no access to cellular networks
- financial markets see money in winners, not in convergence
- enterprises do not see the ROI

INTUG what is the business value of?

- wireless
- mobile
- cellular
- broadcast
- nomadicity
- ubiquity

INTUG conclusions

- confusion about the value to users of cellular versus nomadic services
- one network will not suffice:
  - cellular cannot match fixed broadband
  - Wi-Fi is well established
  - WiMAX looks promising
- abuses and failures take forever to resolve
- need much more competition, especially market entry

INTUG issues

- in a consumer-focused market what does the business user do?
- can third parties get wholesale wireless services in order to tailor business services?
- how should businesses communicate with their consumers?
  - cheaply
  - reliably

INTUG thank you

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