INTUG

Global System for Mobile a European success?

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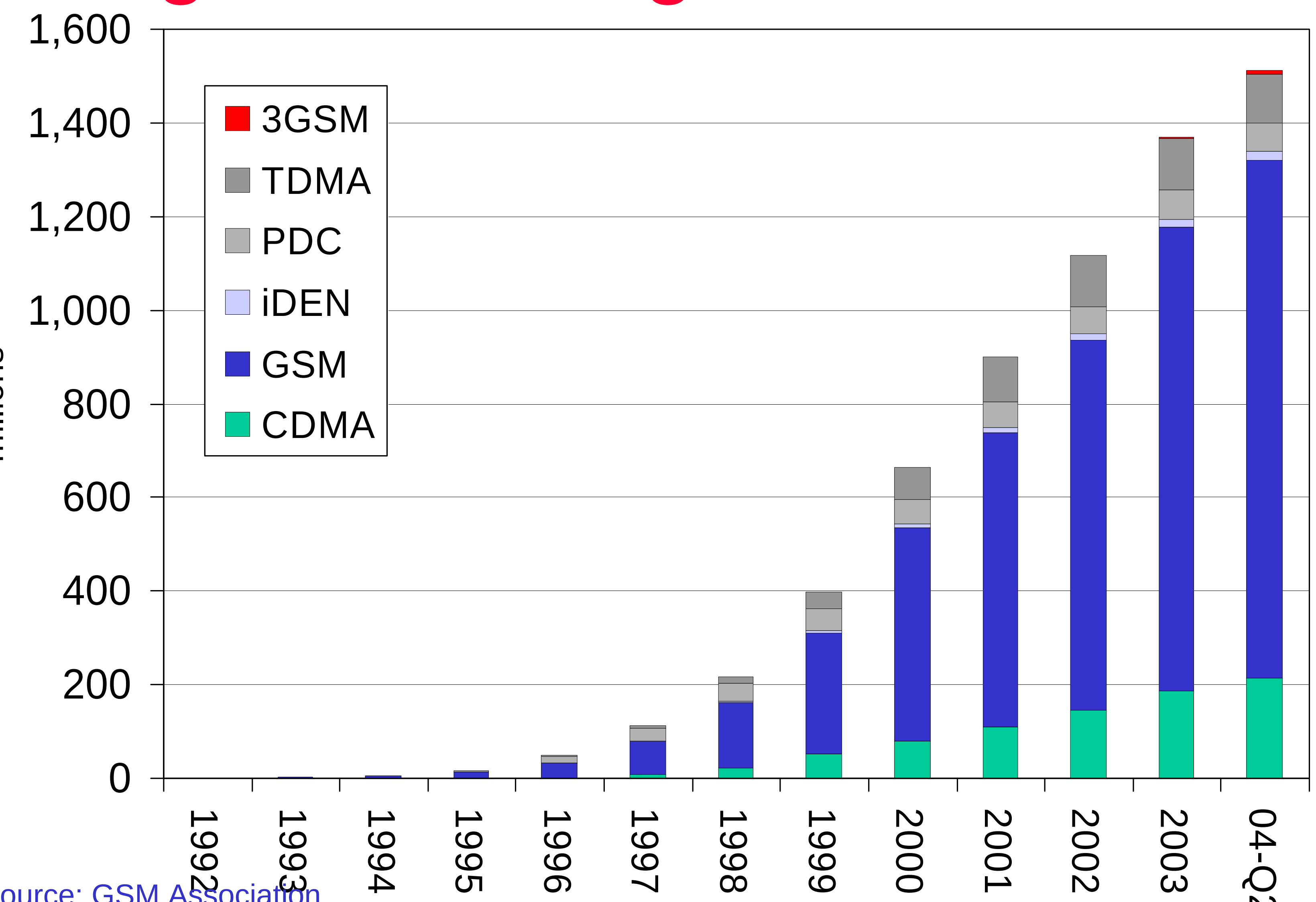
INTUG content

- introduction
- *Groupe Speciale Mobile*
- market failures
- the transition to IMT-2000
- an ecosystem
- what is a success or failure?
- conclusions

INTUG *Groupe Speciale Mobile*

- many years in the making
- development of technical standards and Memorandum of Understanding (MoU)
- enabled:
  - exports beyond Europe
  - economies of scale in manufacturing
  - international roaming
- strong support of European Commission
- the legend of its own success

INTUG growth of digital mobile



Source: GSM Association.

ITU SPU, Geneva 27.i.2004

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INTUG the “success” of GSM

- customer base built up over years
- vastly more than expected
- significant share of increased consumer spending on communications
- pre-paid cards widened the market
- text messaging popular with youth
- increased share price (spin off from fixed)
- benefits for value chain
  - manufacturers
  - operators
  - retailers

INTUG handsets

- highly personal device
- strong growth and competitive market
- European operators:
  - cross-subsidies from other revenues
  - weaker brands than handsets with belated response of own/dual label devices
- Japan-Korea operators:
  - close coupling with manufacturers
  - essential for success of value-added services and Internet access

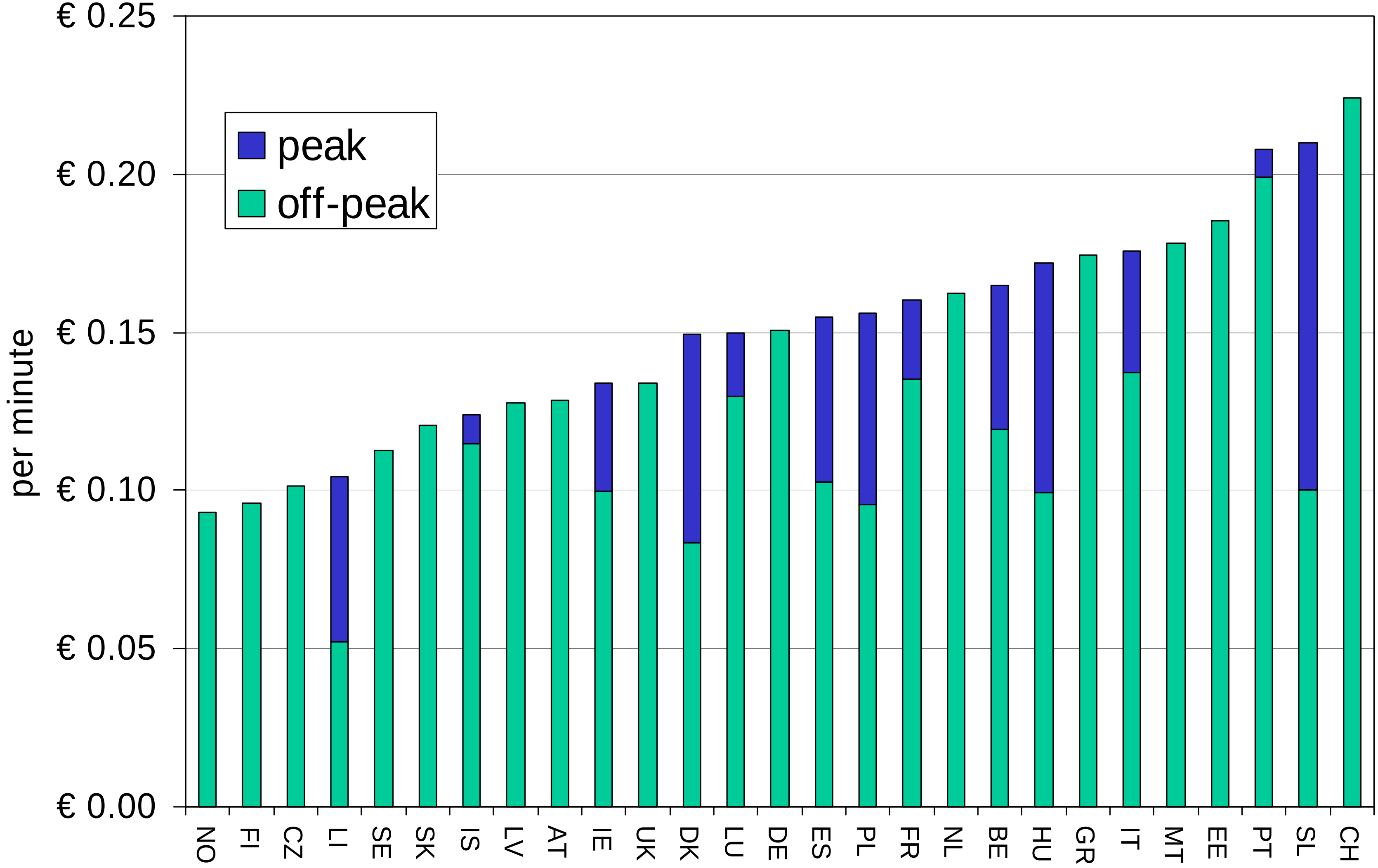
INTUG n operators

- two 900 MHz:
  - fixed incumbent encouraged
- two 1800 MHz:
  - only one in some countries
  - some opportunists entered, then sold out
- n+1 for UMTS:
  - licences still left unassigned
  - some licences returned

INTUG market failures

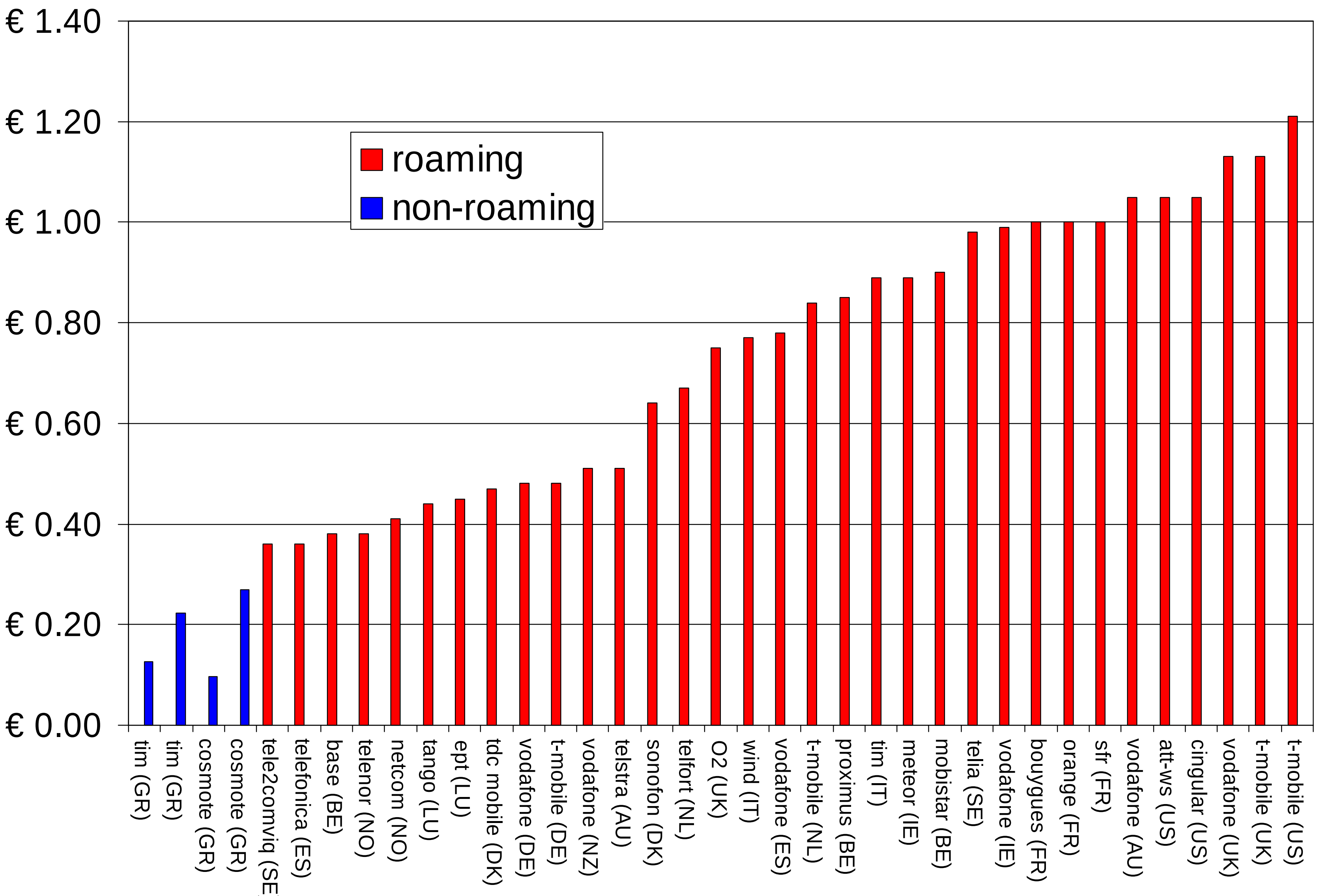
- mobile termination markets:
  - excessive pricing
  - discrimination in favour of on-net calls
- international mobile roaming markets:
  - collusion
  - excessive pricing (voice, SMS and data)
- SMS markets:
  - excessive pricing
  - discriminatory allocation of golden numbers
- call origination and access:
  - number portability
  - blocking or charging for 800 and +800 calls
  - Irish joint dominance case

INTUG mobile termination rates



Source: ERG, July 2004.

INTUG roaming calls within greece



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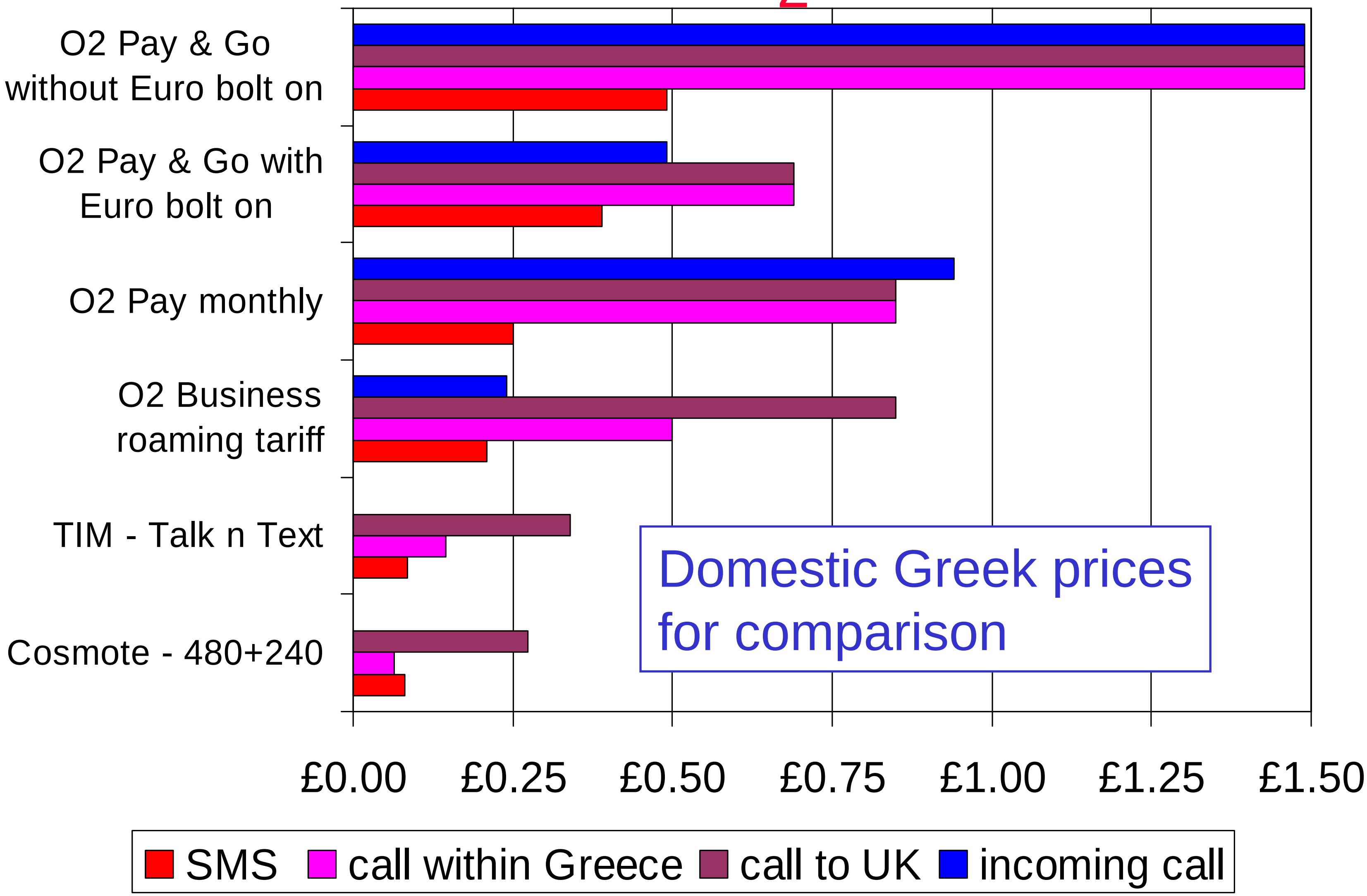
INTUG roamers from 0_2 UK in Greece



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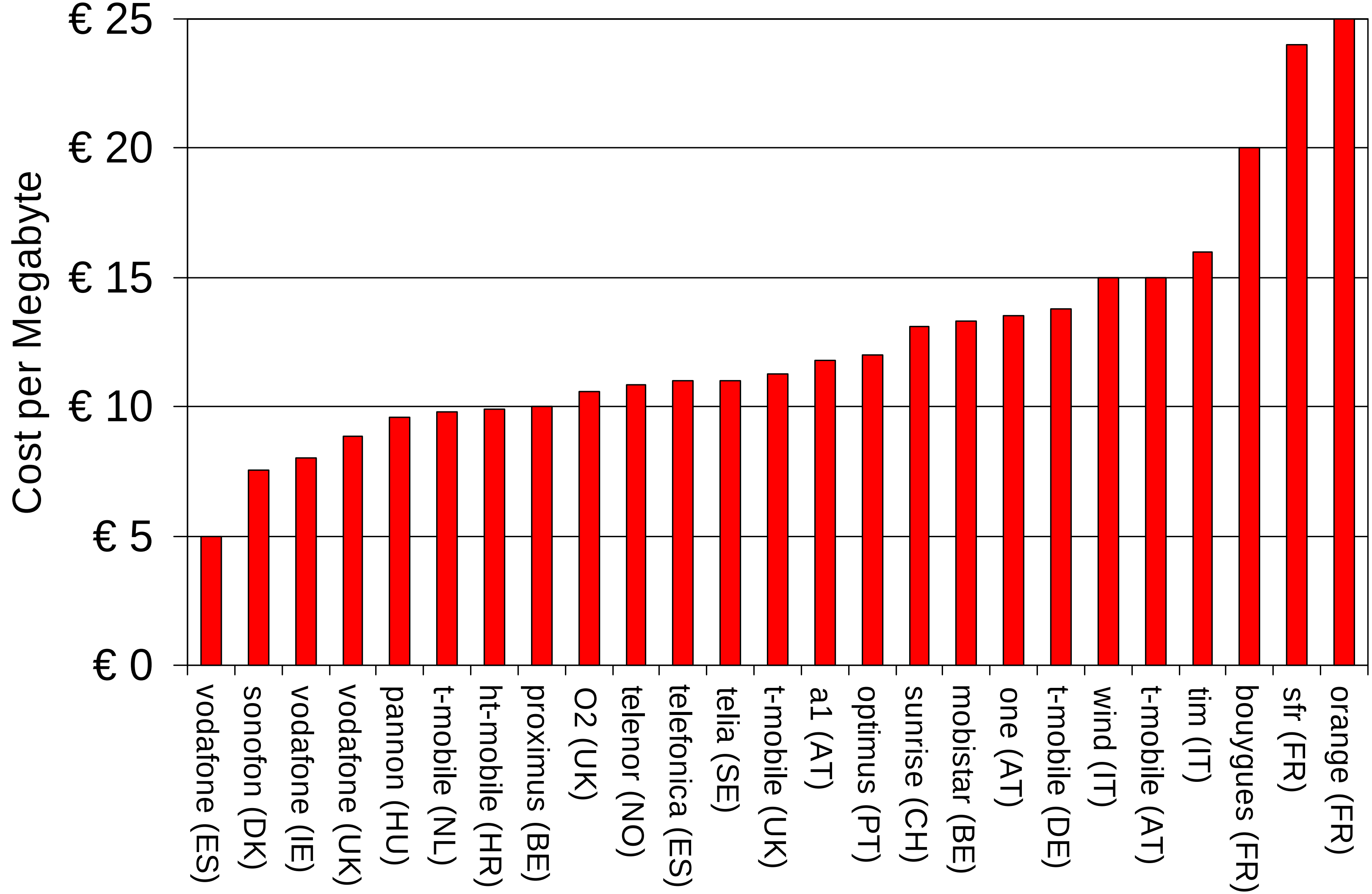
INTUG GPRS roaming in Greece



Source: INTUG, August 2004

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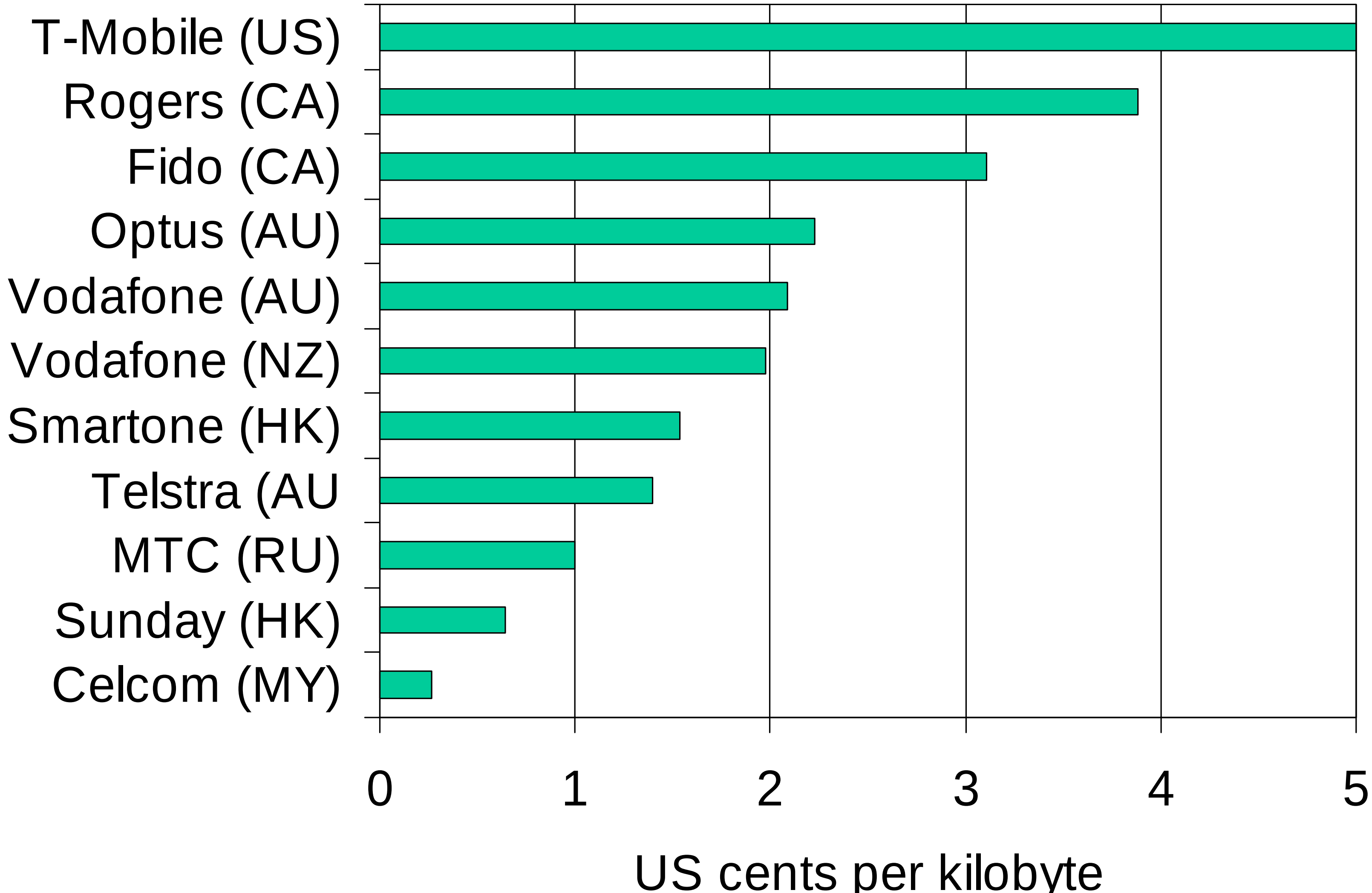
INTUG roaming in Singapore



Source: INTUG, September 2004

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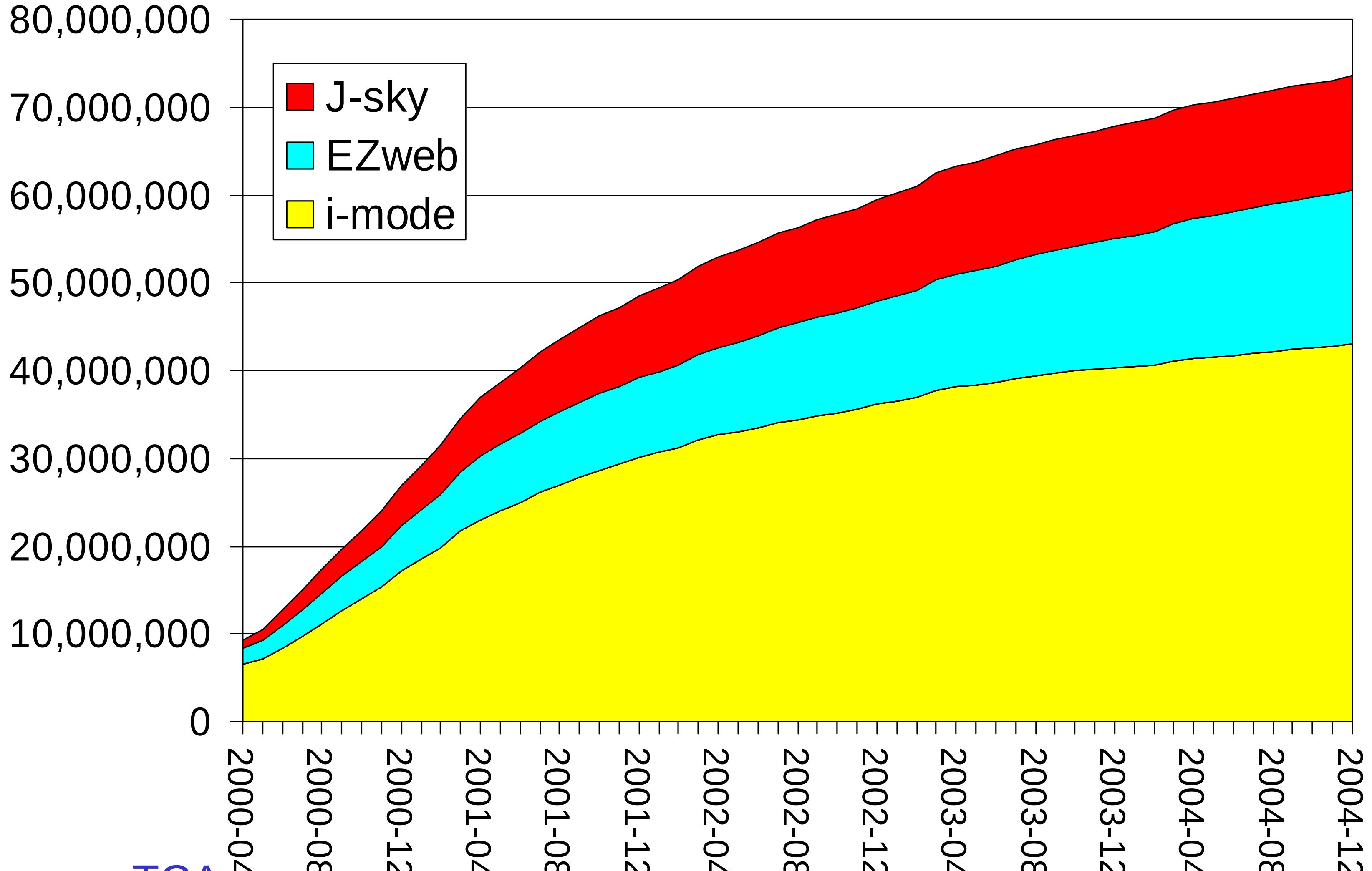
INTUG operator resistance to

- regulatory interventions
- Mobile Virtual Network Operators (MVNOs)
- alternative technologies:
  - Wireless Local Loop (WLL)
  - cdma450
  - WiMAX

INTUG growth is in Asia

- developed country markets saturated:
  - replacement handsets
  - operator churn
- developing and emerging markets:
  - China 5 millions a month
  - India 2 millions a month
- competition with:
  - WLL and limited mobility
  - multi-mode handsets

INTUG Japanese mobile Internet

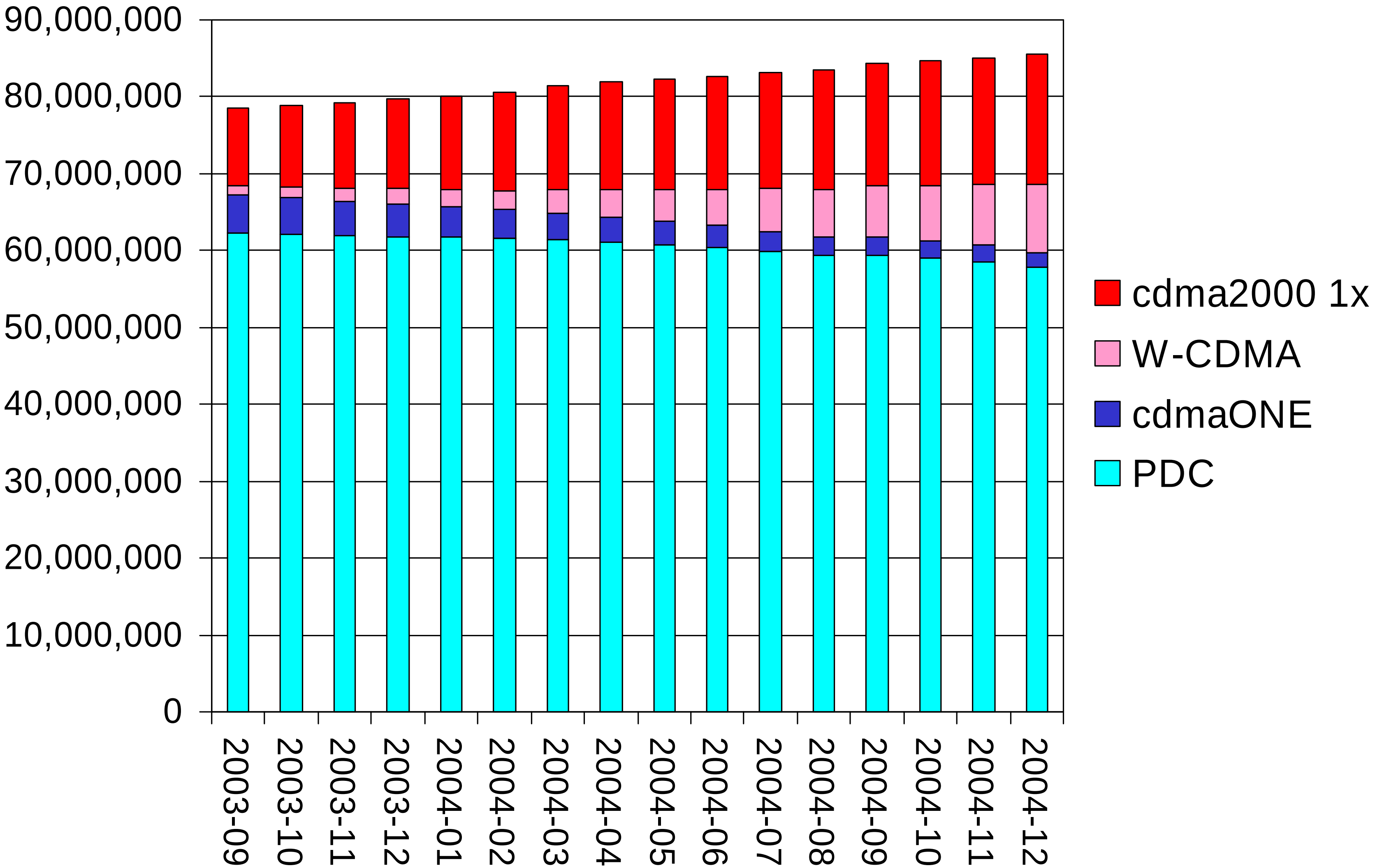


Source: TCA.

INTUG europe mobile Internet

- millions of GPRS handsets
- but no evidence of operator revenues
- money comes from:
  - SMS
  - ring tones
- operators have failed:
  - to move customers to new services
  - to engage service providers

INTUG transition to 3G in Japan



INTUG transition to IMT-2000

- largely irrelevant for customers:
  - cheaper voice?
  - expensive new handset?
  - but handset choice depends on features (MP3, camera, PDA function, etc)
- real transition is to new services:
  - GPRS or cdma2000 is *adequate* for users
- vital for operators and manufacturers:
  - CDMA upgrade seems to work
  - GSM to UMTS route still not proven

INTUG content delivery alternatives

- satellite broadcasting:
  - Digital Multimedia Broadcasting (DMB)
- terrestrial transmissions:
  - Digital Audio Broadcasting (DAB)
  - Digital Video Broadcasting (DVB)
- terrestrial broadband plus:
  - Wi-Fi hot spots
  - FWA, Wi-Max, Flash-OFMD, etc.

e.g., MP3 ringtones direct from broadband

INTUG ubiquitous networks

- shared vision:
  - Japan and South Korea
  - government and industry
  - fits with *Keiretsu/Chaebol* model
- built on today's reality:
  - 10-100 Mbps to the home
  - 0.5 to 2 Mbps to the handset
  - Wi-Fi at home and in public places
  - DMB
  - wireless broadband (WiBRO)

INTUG an ecosystem

- term borrowed from biology, but not well understood in mobile business
- 3GSM is only one part of a bigger system
- it is not immune from VoIP:
  - Free.fr EUR 23.90 per month for ADSL and fixed national calls
- can content providers make better arrangements through other channels?
- complex value chain

INTUG beyond 3G

- seemingly inevitable hype about:
  - High Speed Downlink Packet Access (HSDPA)
  - NGN, 4G, 5G, 6G, etc
  - convergence
- putative policy framework:
  - ensuring competition
  - assigning new spectrum
  - business models
  - moving customers (without pain)

INTUG what is a failure?

- enduring abuses of market power
- wealthy operators exercising influence at:
  - political level
  - regulatory level
- incentives distorted from market demand
- failure to contribute to economic growth:
  - directly in manufacturing and services
  - downstream in the rest of the economy
- loss of social benefits
- loss of national "leadership"

INTUG what is a success?

- telecommunications sector:
  - increased competition
  - productivity gains
  - new revenue streams
- downstream economic benefits:
  - productivity benefits in business
  - new services and markets
- upstream economic benefits:
  - design and manufacturing jobs
  - value-added services and content jobs
- social benefits:
  - affordability

INTUG conclusions

- GSM crowd became overconfident
- the European model is deeply flawed:
  - serious and enduring market failures
  - power confined to a few
  - long-term planning and standardisation
  - despite the absence of robust business models
- 3GSM/UMTS plan is failing:
  - slow rollout
  - low revenues
  - little competition
  - increasing threat from other networks
  - still selling technologies

INTUG thank you

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