

INTUG



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www.INTUG.net

mobile & nomadic broadband beyond 2G cellular voice

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INTUG contents

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- INTUG
- market failures
- industry policy
- the pursuit of content
- confusions over wireless, cellular, mobile, nomadic and ubiquitous
- a purely consumer market?
- conclusions and issues



INTUG what is INTUG?

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



INTUG our aims

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



INTUG priorities

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- open access to global mobile networks
- regulatory best practice
- liberalization
- leased lines
- IP telephony
- digital divide
- universal access
- numbering



INTUG market failures & abuses

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- call origination:
 - freephone
 - joint dominance (Ireland, France and others)
- call termination:
 - excessive pricing
- SMS:
 - excessive pricing & refusal to interconnect
- international mobile roaming:
 - excessive pricing
- wholesale access:
 - refusal to see the benefits
 - resistance to MVNO deals



INTUG France

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- 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 investigating collusion from 1997 to 2003



INTUG MNO core competences

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- finance
- voice and SMS (not data)
- consumers (not business)
- retail (not wholesale)
- lobbying and regulation:
 - 3D deny delay degrade

What do they know about the content business?
What advantage do they have over other
channels?



INTUG cellular generation leaders

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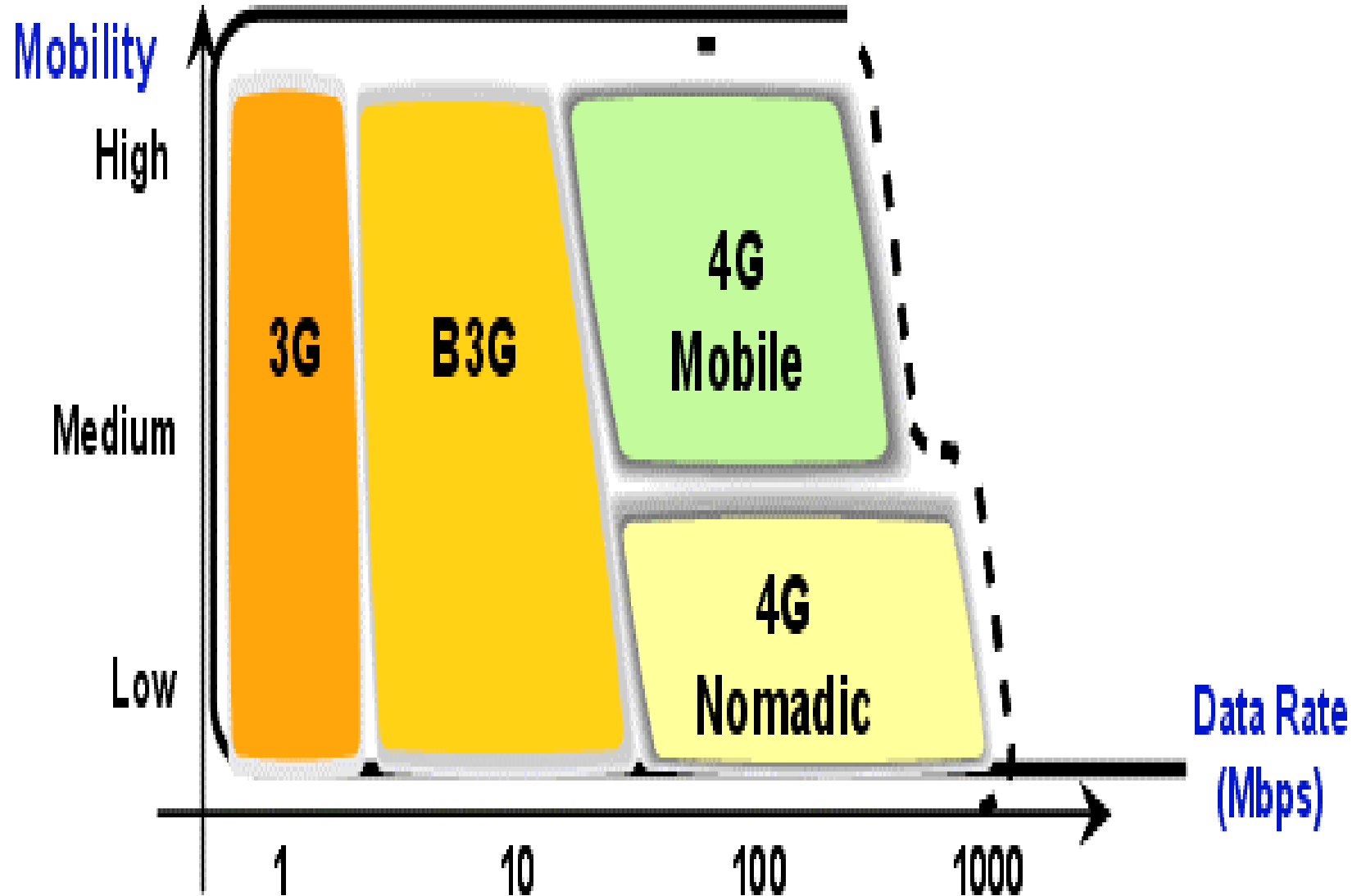
1. United States of America
2. Scandinavia and Western Europe
- 2.5 Japan, Korea and USA
3. Japan and Korea
4. China, Japan and Korea???



INTUG Samsung view

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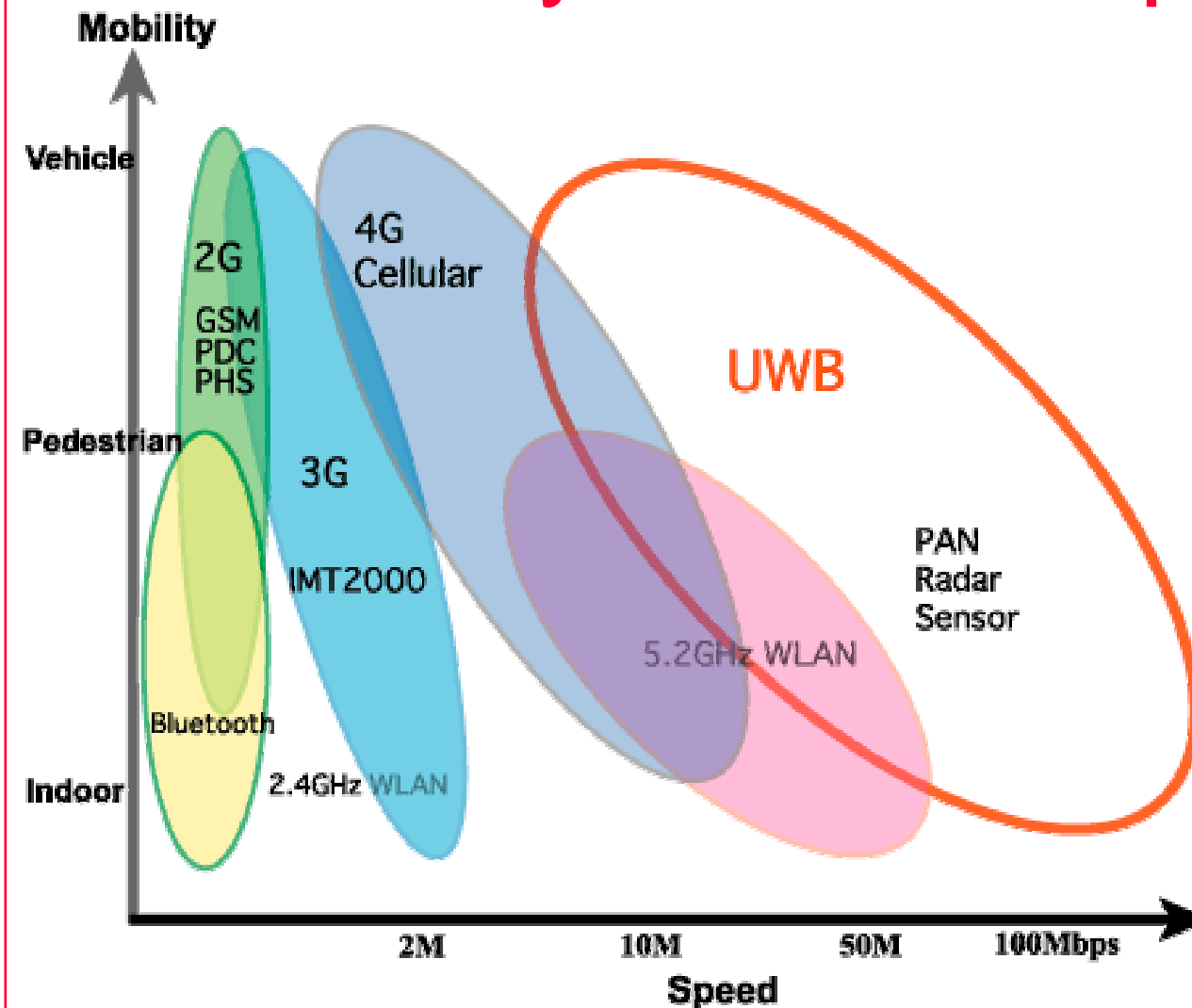
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INTUG mobility and data speed

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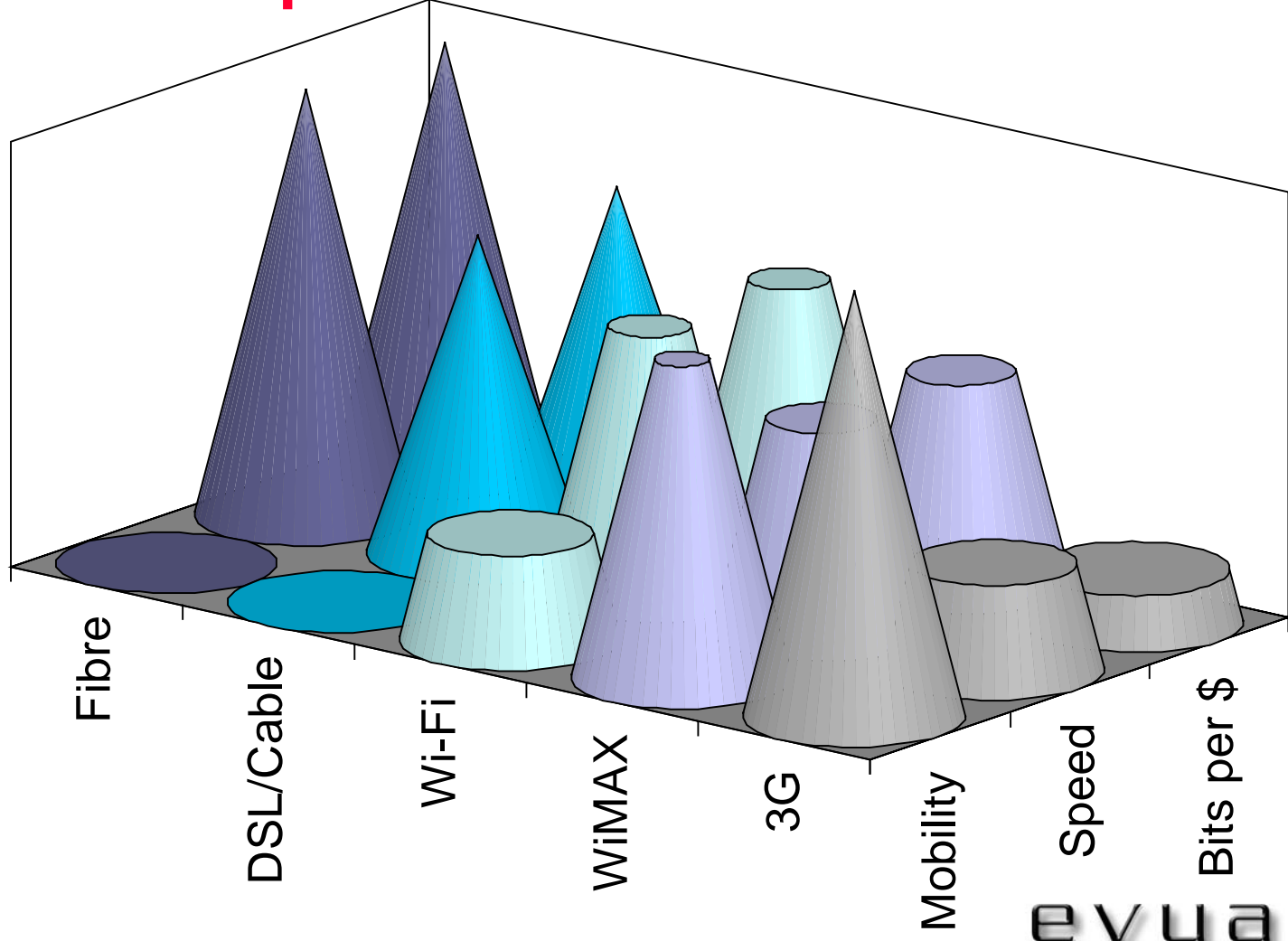


http://www.asahi-net.or.jp/~ny3k-kbys/contents/uwb_technology.html

INTUG comparisons

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INTUG 2.5G Internet access

- GPRS has been a disaster:
 - a firewall to the Internet
 - grossly overpriced, with slow reductions
 - services are not certain to work
 - most handsets never used for GPRS
- cdma2000 1x EV-DO
 - flat rate prices
 - some service level agreements
 - easy upgrade paths



INTUG 3G

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- Japan
- South Korea
- Australia and New Zealand
- Hutchison Whampoa Group

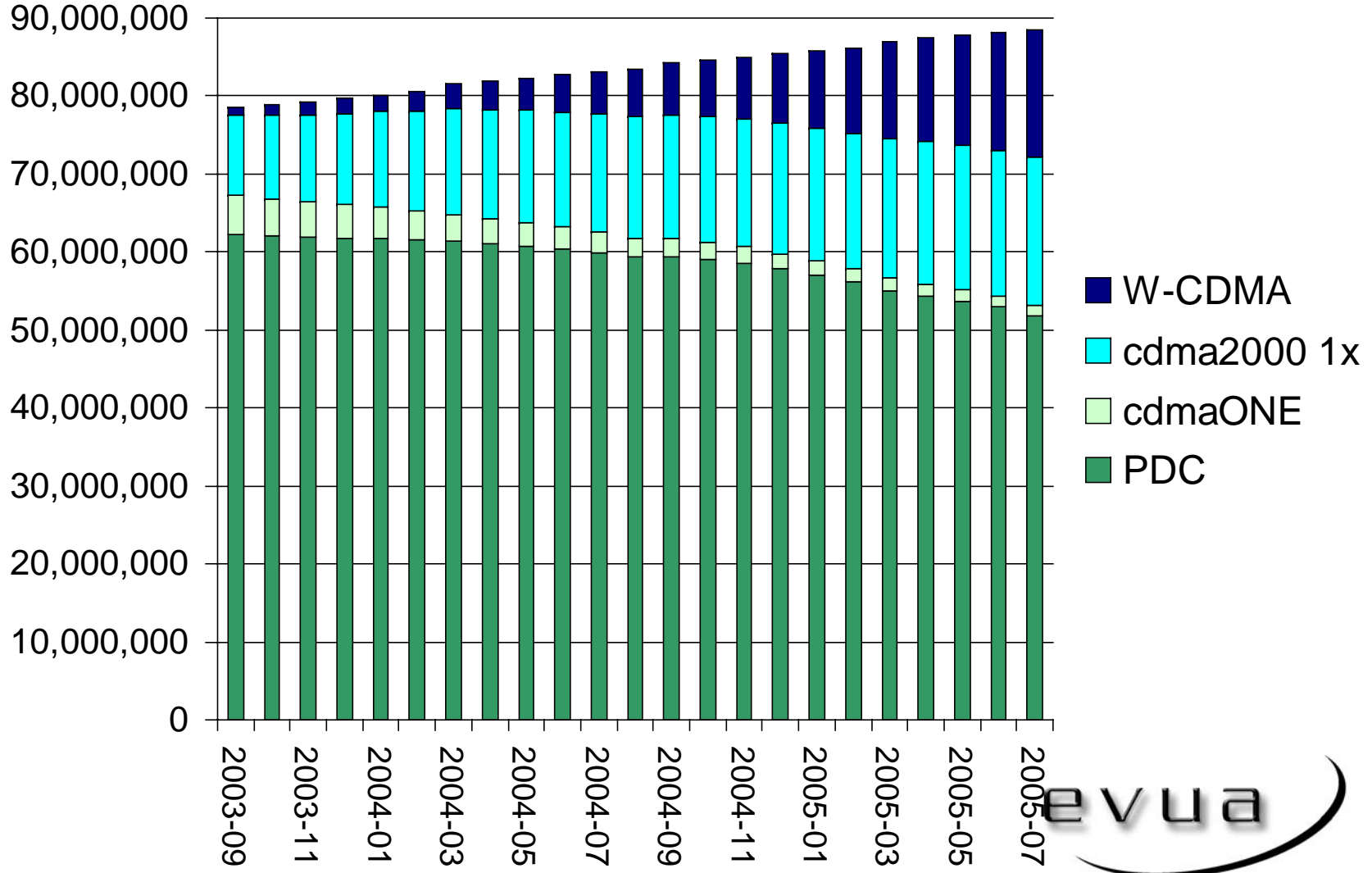
A lot of hype for HSDPA, 3.5G



INTUG 3G in Japan (users)

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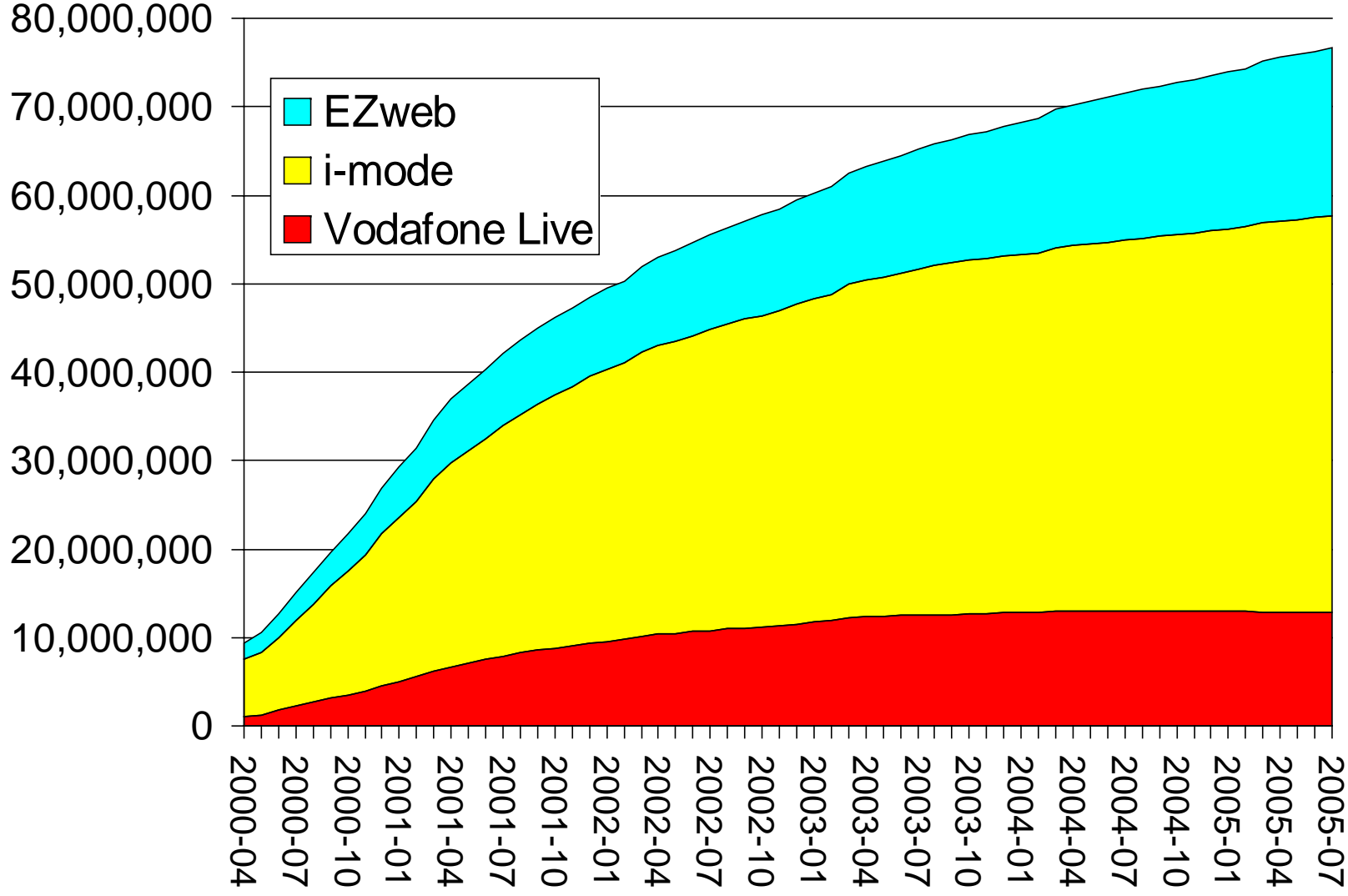
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INTUG mobile Internet in Japan

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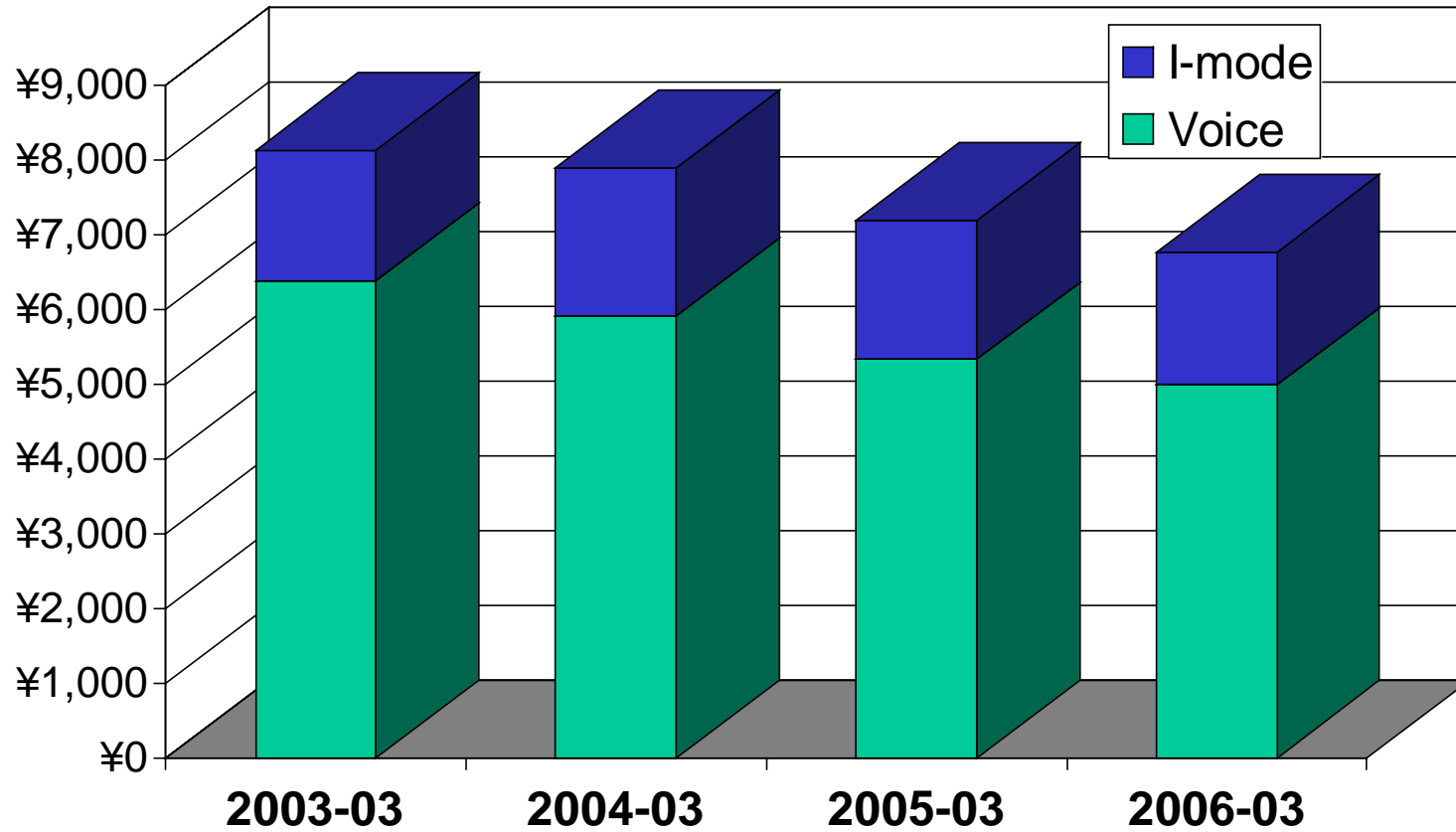
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INTUG Japan - DoCoMo ARPU

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INTUG content

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- sport
- news
- music (downloads and streaming)
- television (broadcasts and “mobisodes”)
- banking and transactions
 - contactless RFID tags
- the content nobody talks about

Is it one device or many?
iPod or handset?



INTUG alternative radio technologies

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- digital broadcasting: DAB, DVB and DMB
- 450 MHz: FLASH-OFDM and CDMA
- Wi-Fi
- WiMAX and Korea BCN
- bluetooth
- ultra wide-band
- high-speed infrared



INTUG other networks

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- office and campus Wi-Fi
- residential Wi-Fi
 - e.g, Intel Viiv
- automobile networks:
 - GPS
 - satellite radio
- Personal Area Networks (PANs)
 - e.g., Motorola-Oakley Razrwire



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 Skype

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- viral marketing
- 3 million concurrent users
- 50 million names
- Skype In, Out and call forwarding
- plug-ins and add-ons
- now Google and Microsoft will compete



INTUG Voice over IP

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- secondary numbers at distant locations
- nomadic access over broadband
- access over Wi-Fi and WiMAX
- cheap flat rate pricing models
- younger customers prefer:
 - chat and instant messaging
 - avatars
 - access for games consoles



INTUG business adoption

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- needs to deliver:
 - lower costs and better service
 - return on investment
 - strategic advantage
- rejection of camera-phones and MP3
- painfully slow adoption of GPRS

Business also has a role as a content provider and advertiser, but with a choice of many channels to customers



INTUG suppliers to business

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

Whatever happened to fixed mobile convergence?

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INTUG what is the value of?

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

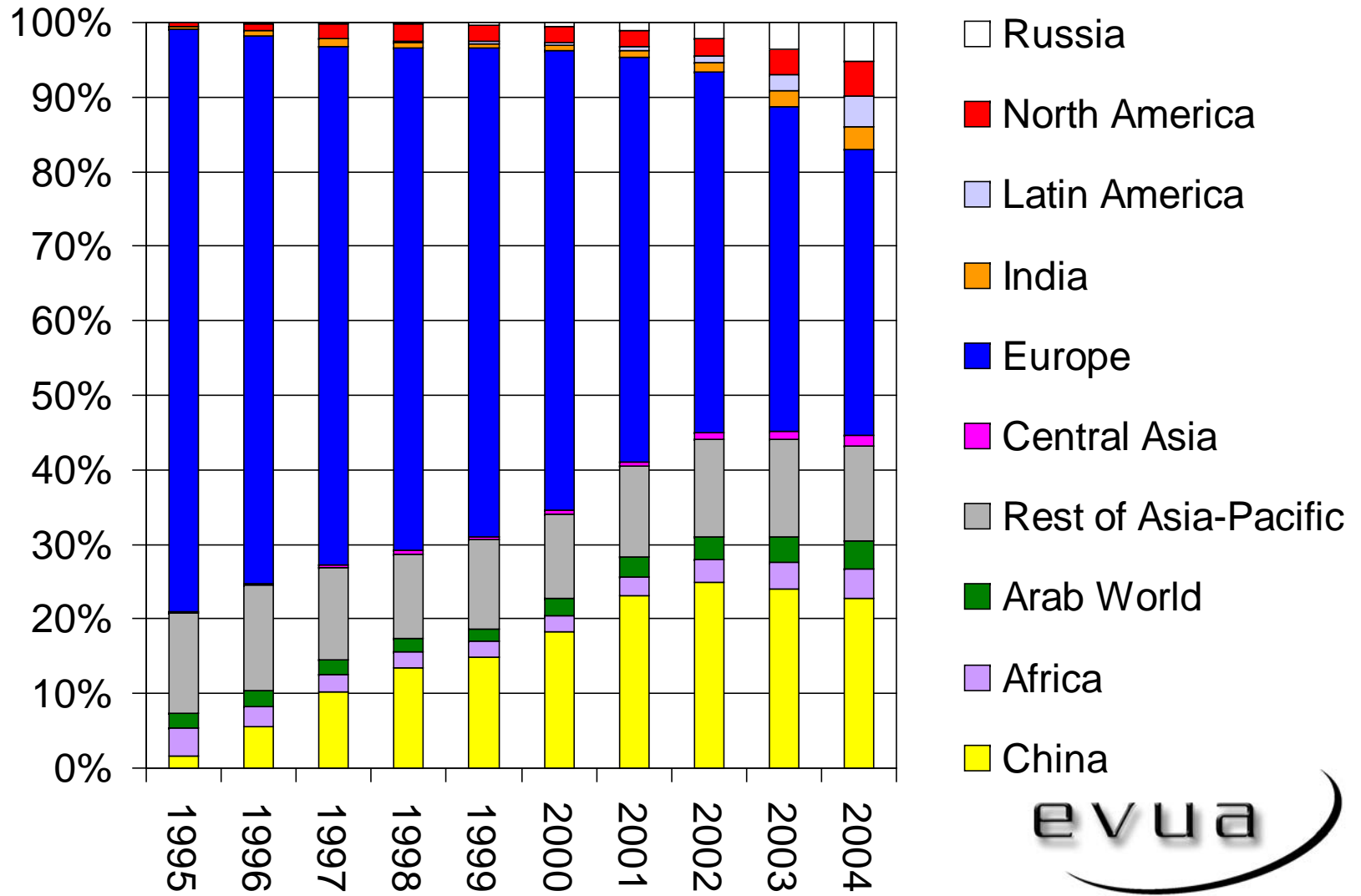
Operators do not know what their value proposition is.



INTUG the geography of GSM

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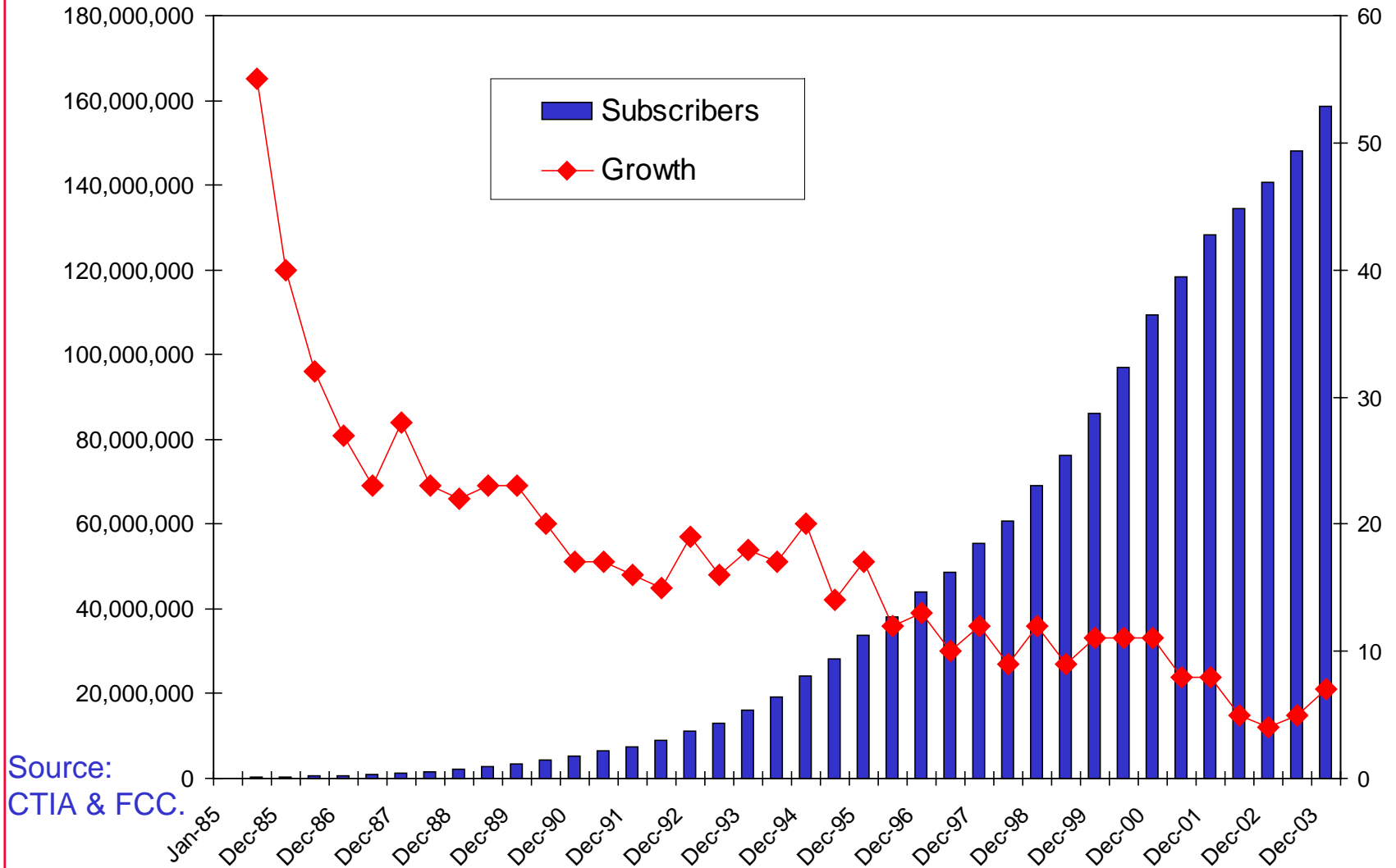
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INTUG USA - declining growth

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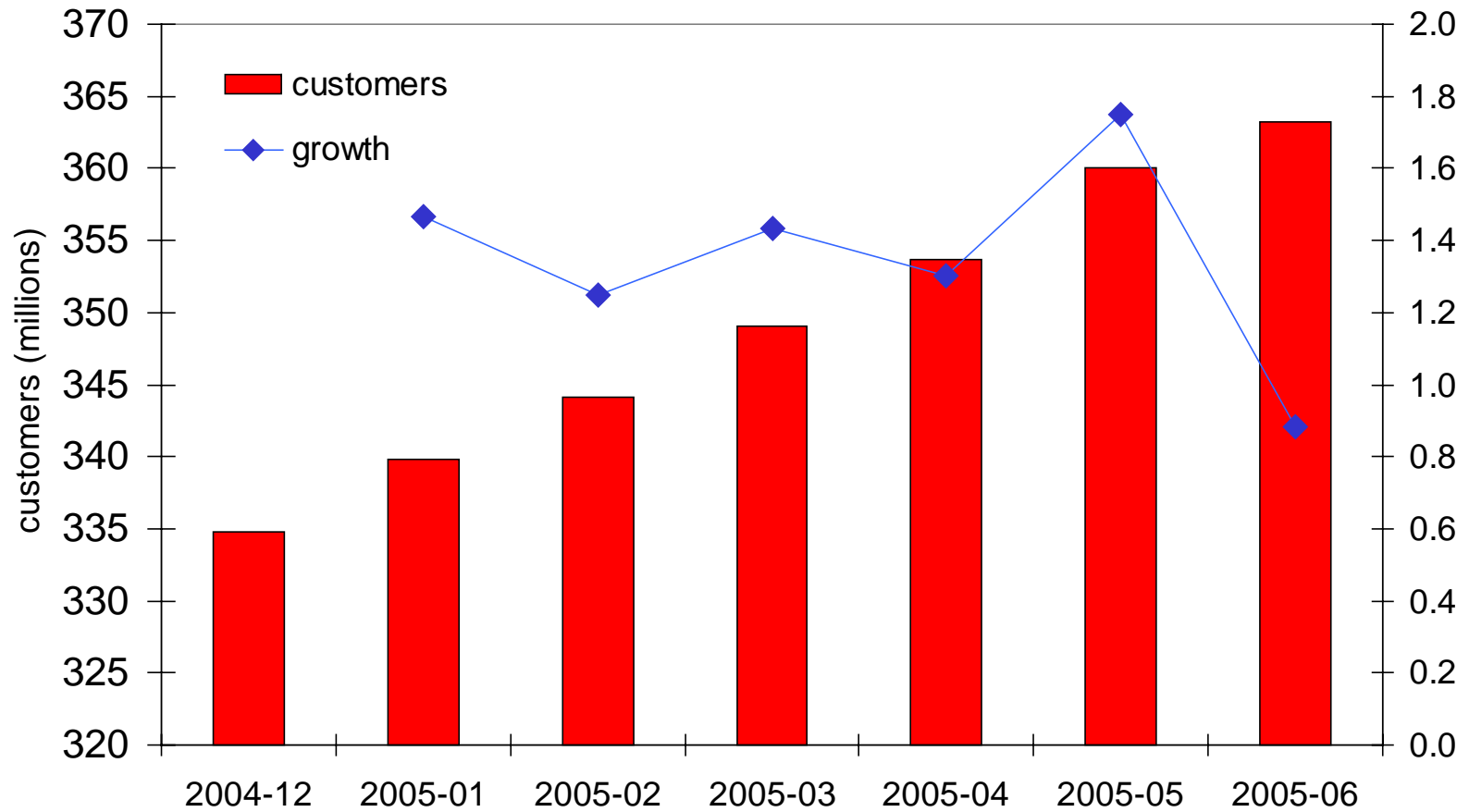
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INTUG China - mobile growth

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INTUG ubiquitous network societies

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- Japanese-Korean public policy
- multiple networks combined to allow:
 - person-to-person
 - machine-to-machine
 - object-to-machine/person
- no operator can be omnipresent
- unclear what access and interconnection would mean



INTUG ubiquitous threats

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- spam, spim, pop-up ads, etc
- viruses, trojan horses, worms, etc
- hacking, phishing and pharming
- identity theft
- portable devices:
 - physical loss/theft
 - address book, photos, videos, other files

devices are weak, but so are people.



INTUG the question of liability

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- multiplicity of networks, devices and sensors
- absence of clarity on:
 - control
 - management
 - security
 - misuse
- who can offer contracts?
- who pays?
- who goes to gaol?



INTUG conclusions

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- confusion about the value to users of mobile versus nomadic service
- one network will not suffice
- ubiquitous network society is a very valuable concept
- need to rethink access rules and contracts



INTUG issues

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- in a consumer driven market what does the business user do?
- can third parties get wholesale services to tailor business services?
- how should business communicate with its consumers?



INTUG thank you

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