

Benchmarks as performance indicators

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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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1. open access to global mobile networks
2. regulatory best practice
3. liberalization
4. leased lines
5. IP telephony
6. digital divide
7. universal access
8. numbering

INTUG performance indicators

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- to assess progress
 - absolute
 - relative
 - national
 - regional
- to inform decision-makers
 - consumers
 - politicians
 - investors
- to name and to shame

INTUG choice of indicators

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- define the purpose
- justify the selection
- use several indicators
- compare
 - over time
 - with other countries
 - different regions of one country
- don't over interpret results

INTUG network development

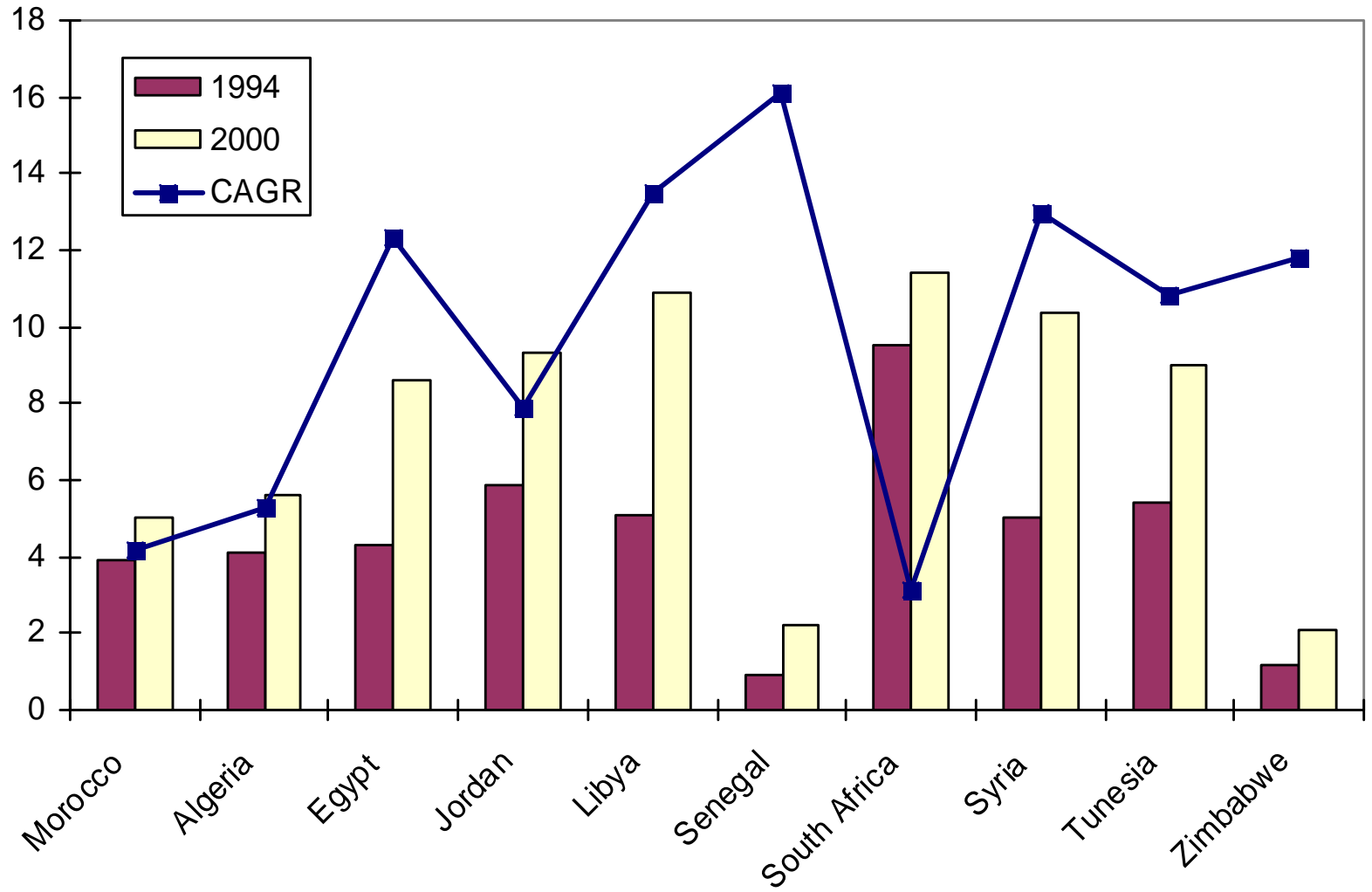
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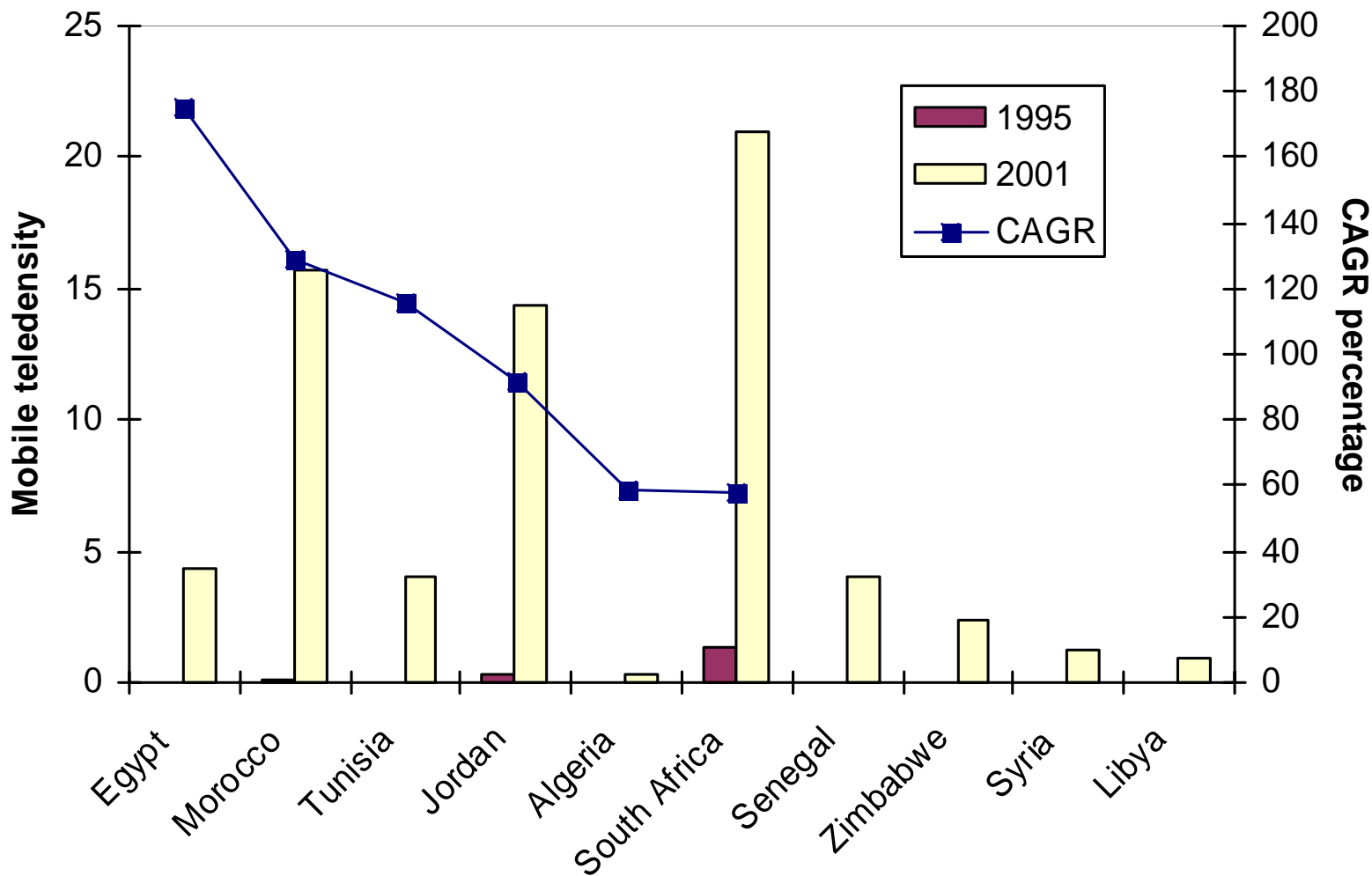
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- main lines (penetration and growth)
- but questions about
 - household composition
 - access to telephones
 - community and commercial telecentres
- mobile subscribers (penetration & growth)
- questions about counting pre-paid subscribers
- total access lines
 - can you add fixed and mobile?
- leased lines
- operators
 - number and market shares
 - churn rates

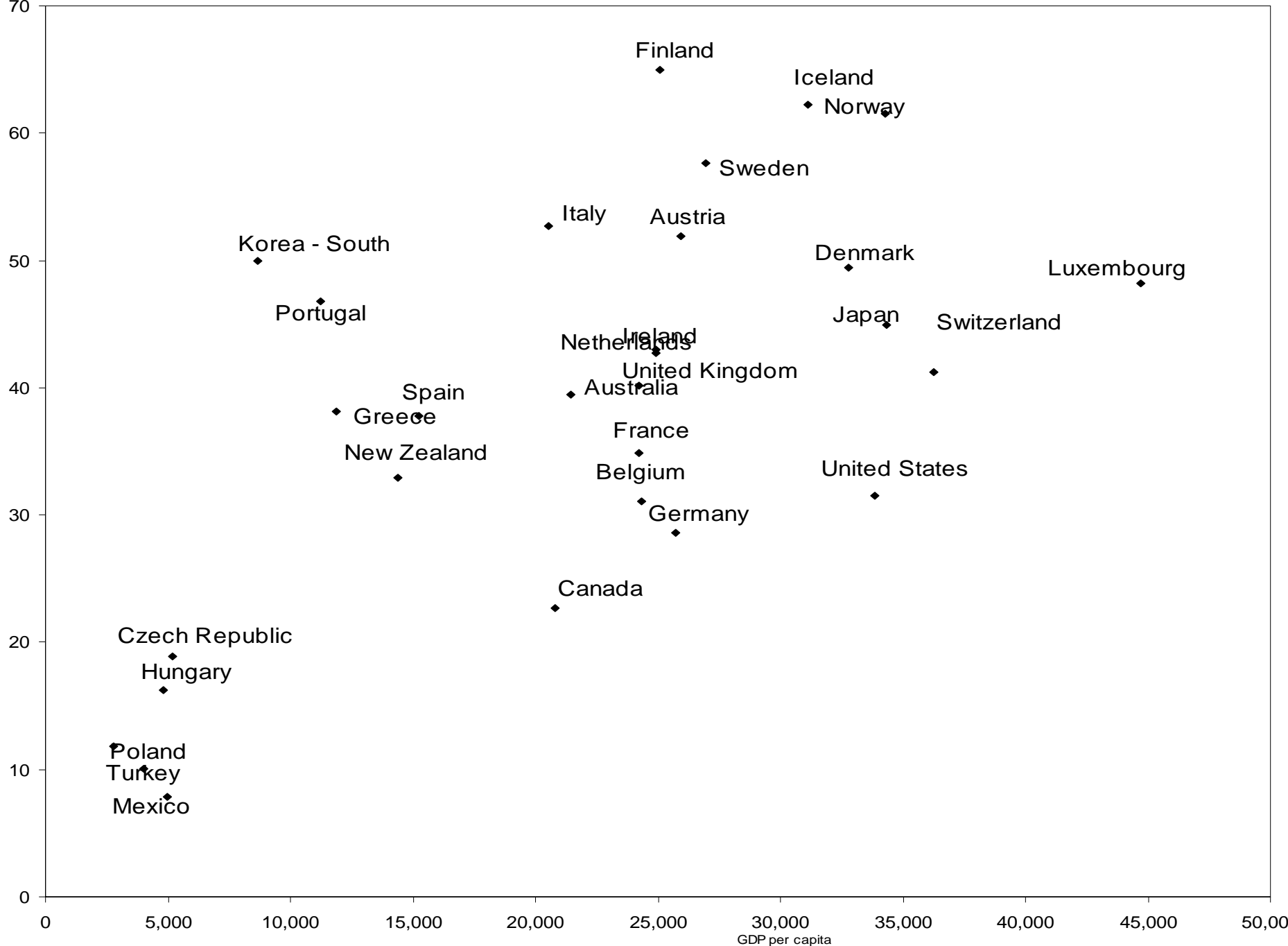
INTUG main lines per 100 inhabitants

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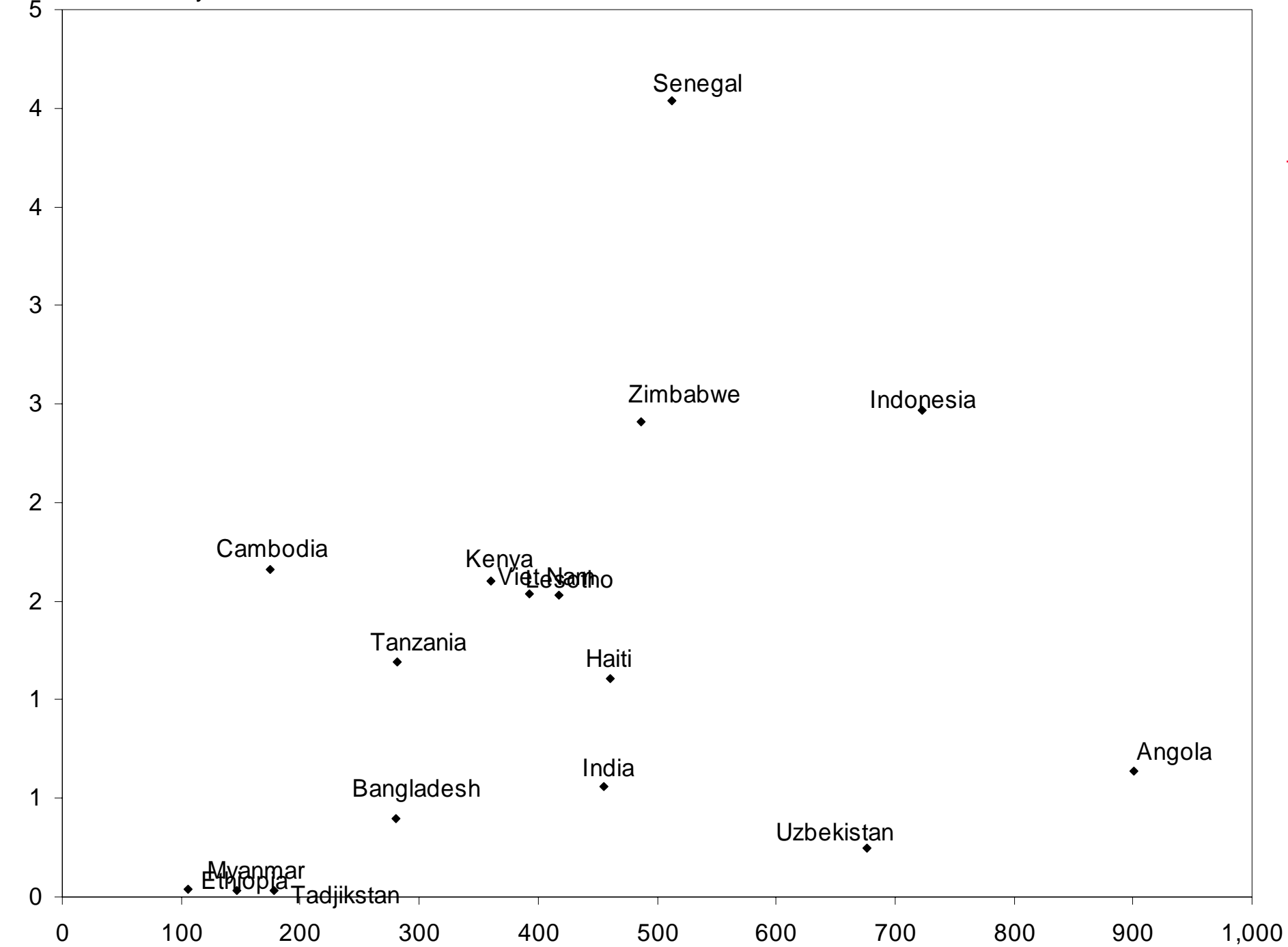




Mobile teledensity



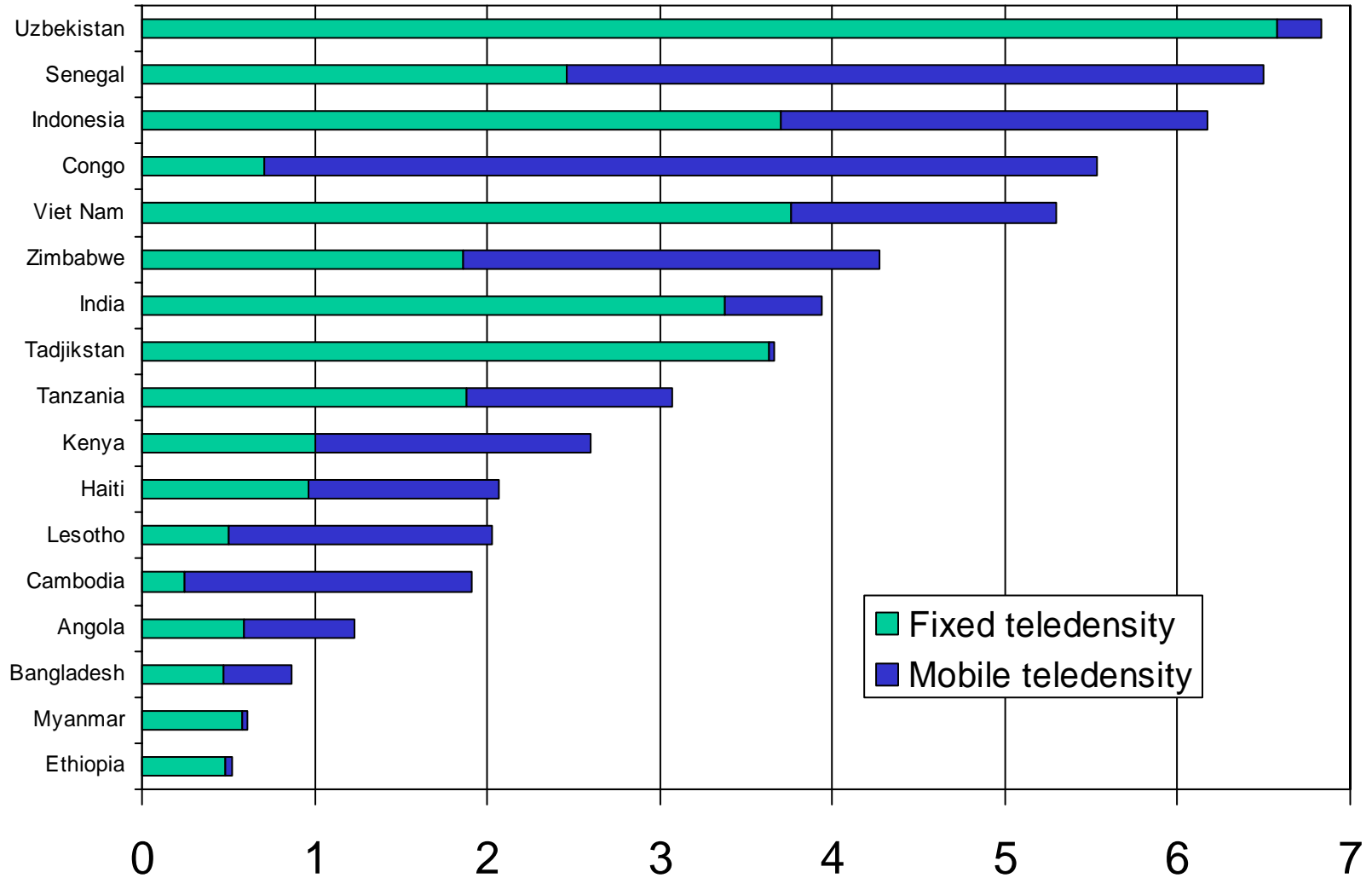
Mobile teledensity



INTUG total teledensity

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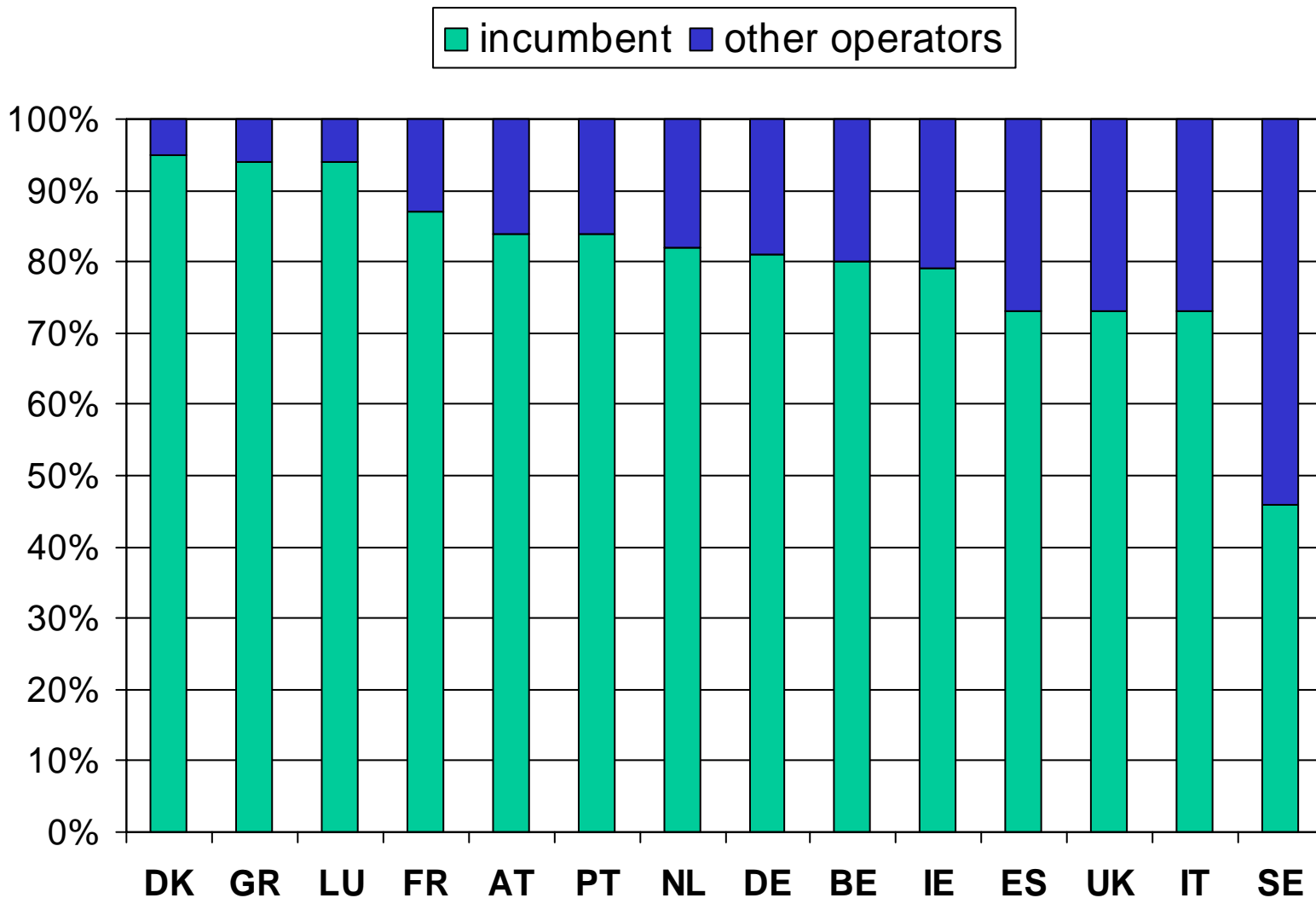


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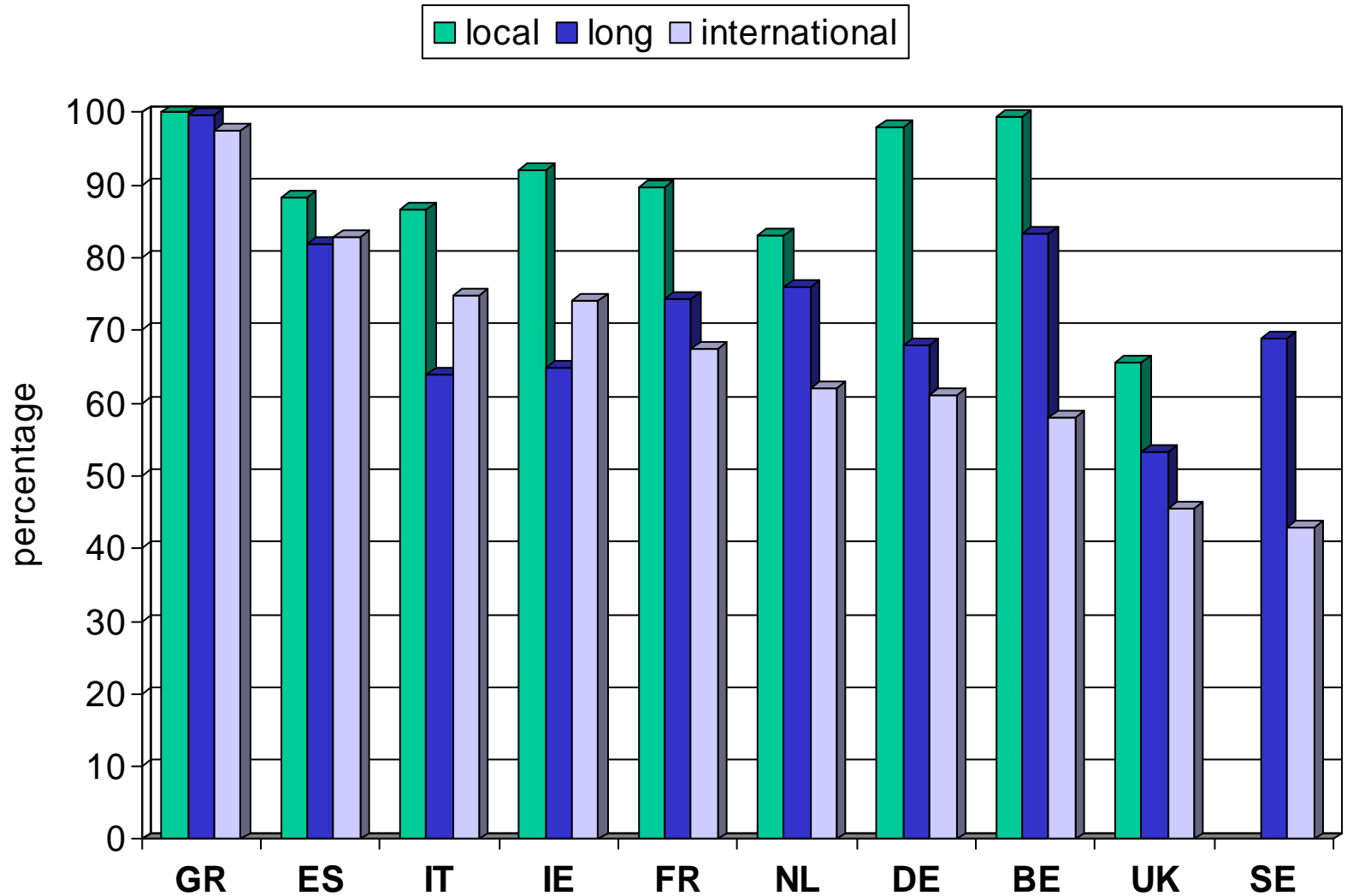
allocation of geographic numbers

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incumbent market shares (retail revenues)

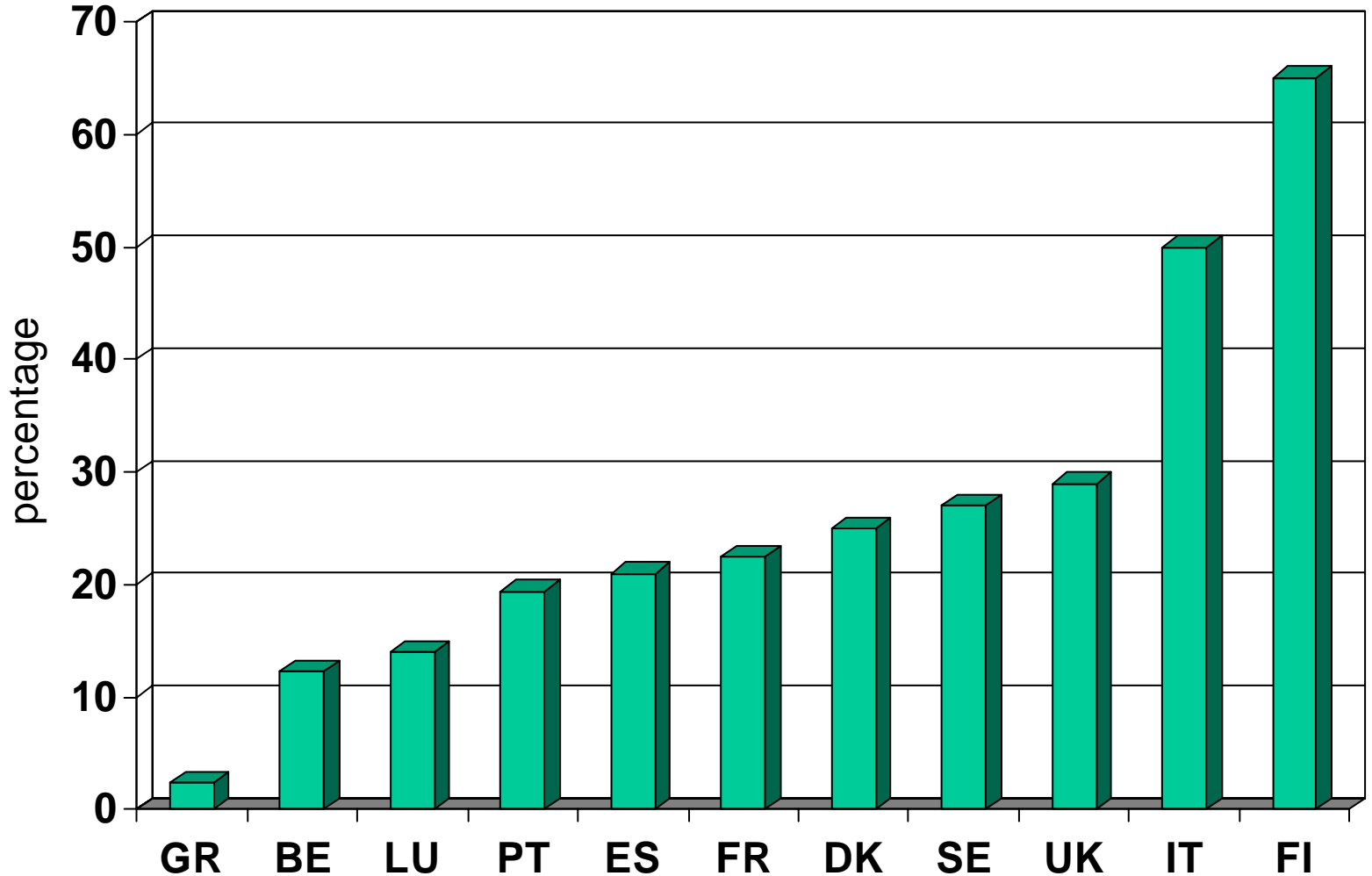


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subscribers actually using an alternative provider for long distance and international

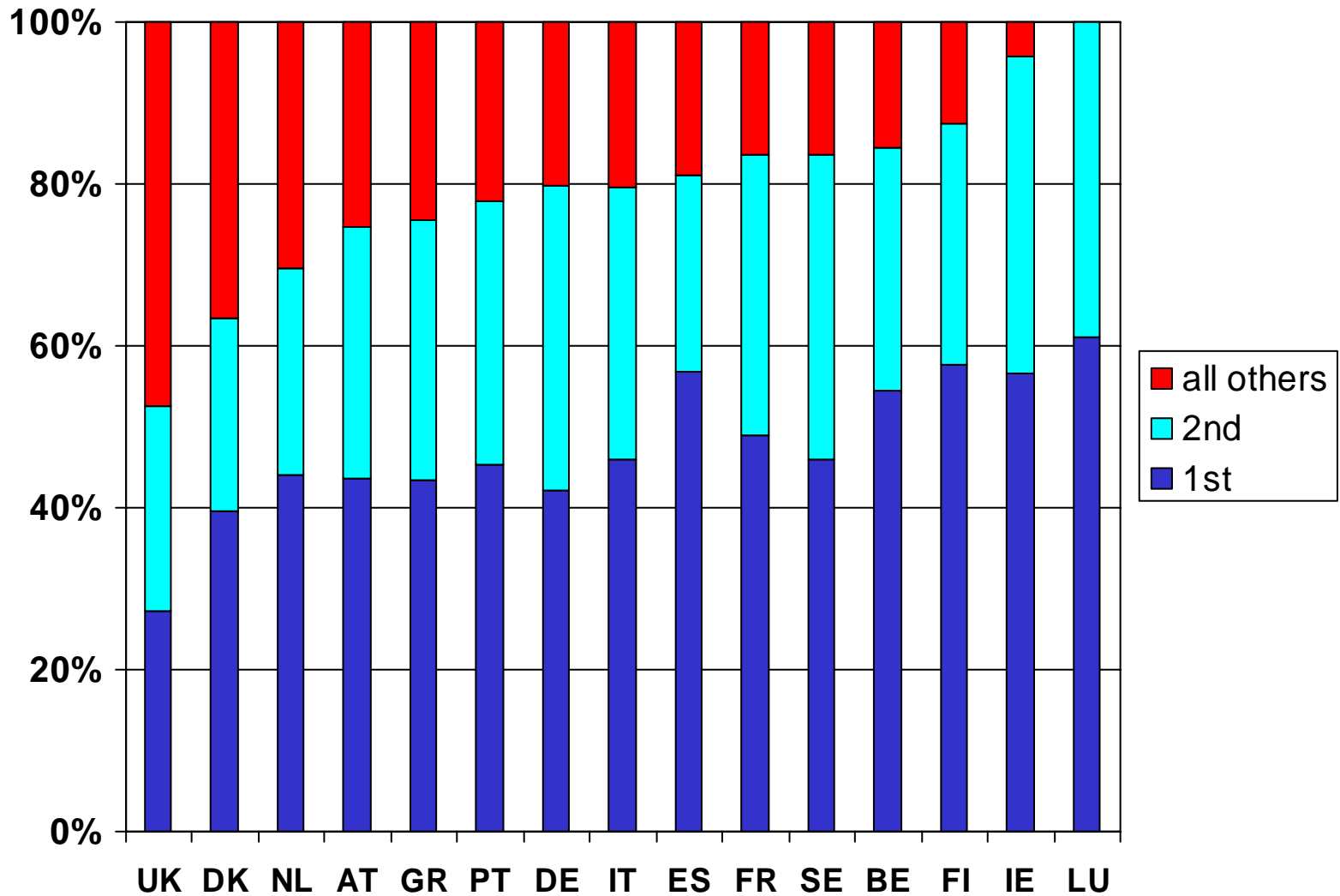
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INTUG mobile operator market shares

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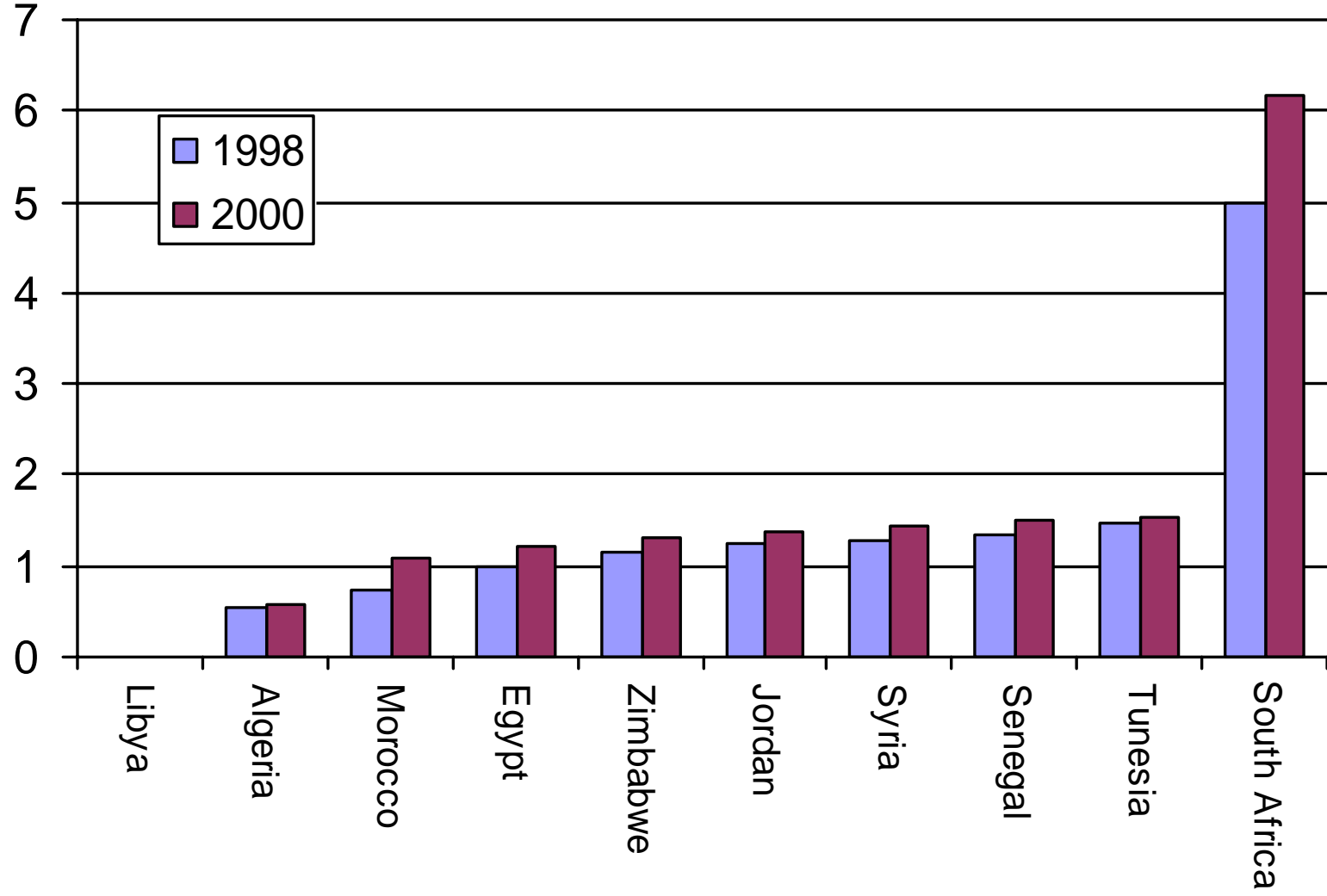


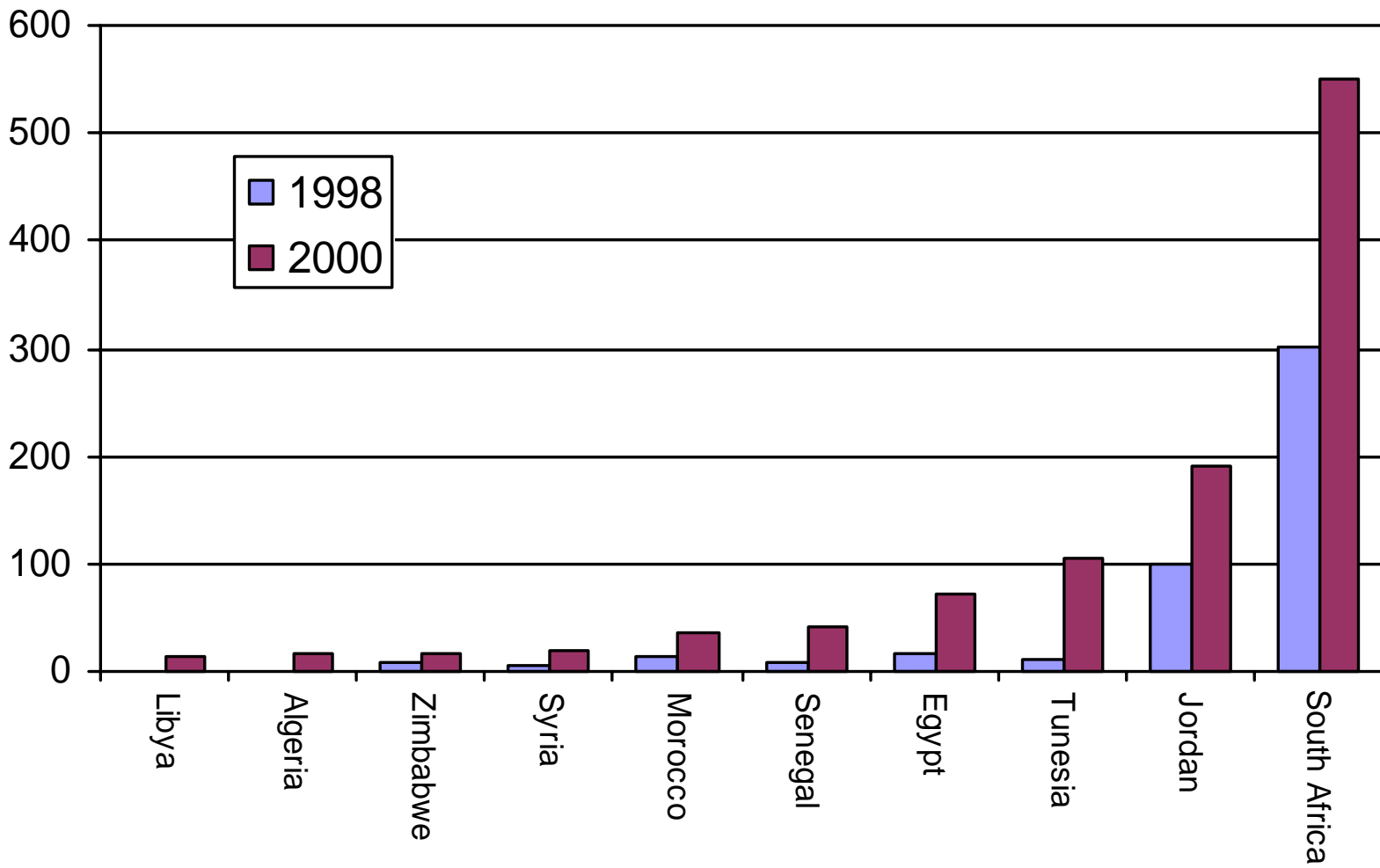
INTUG information infrastructure

- personal computers
- Internet access
- secure servers
- broadband

INTUG PCs per 100 inhabitants

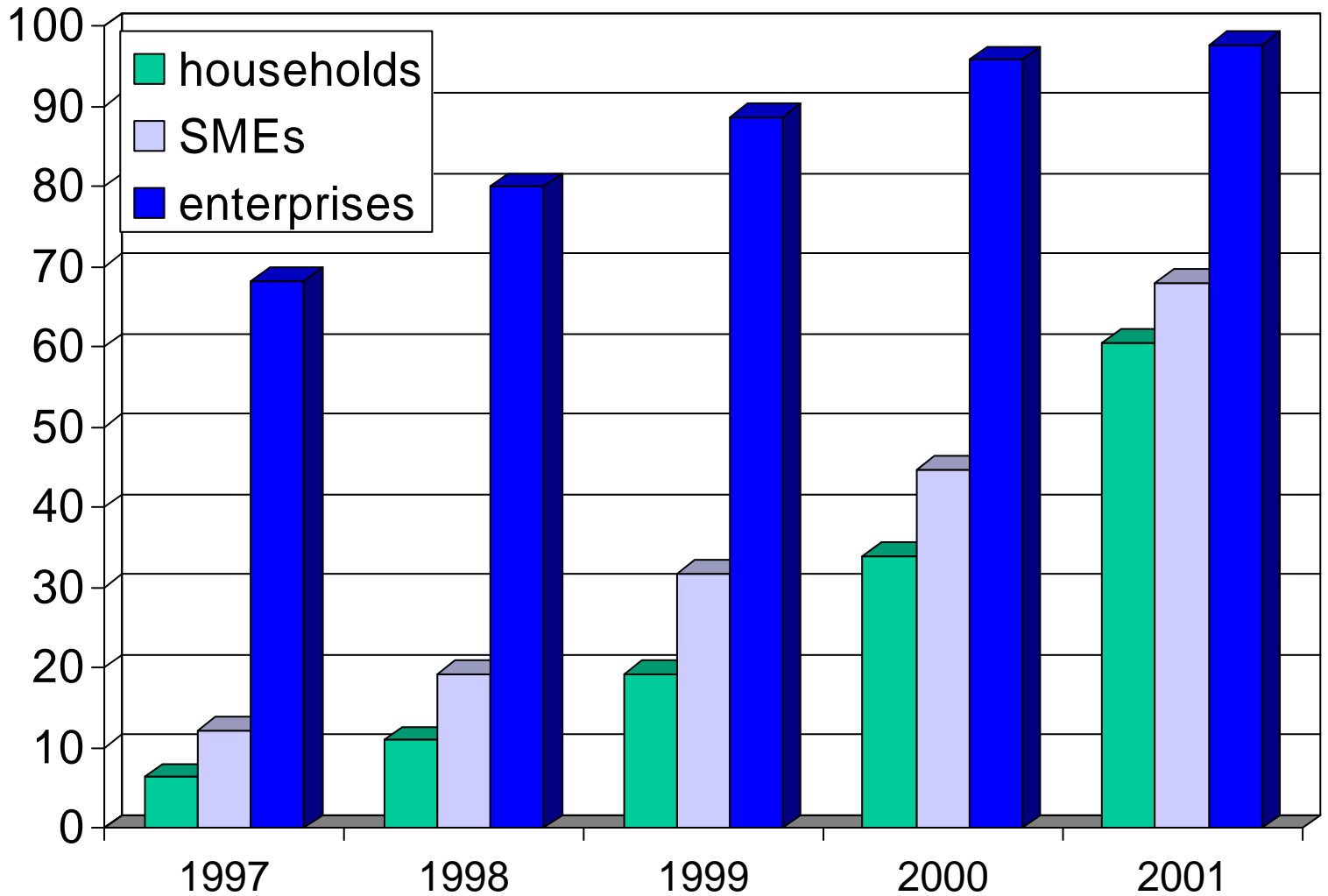
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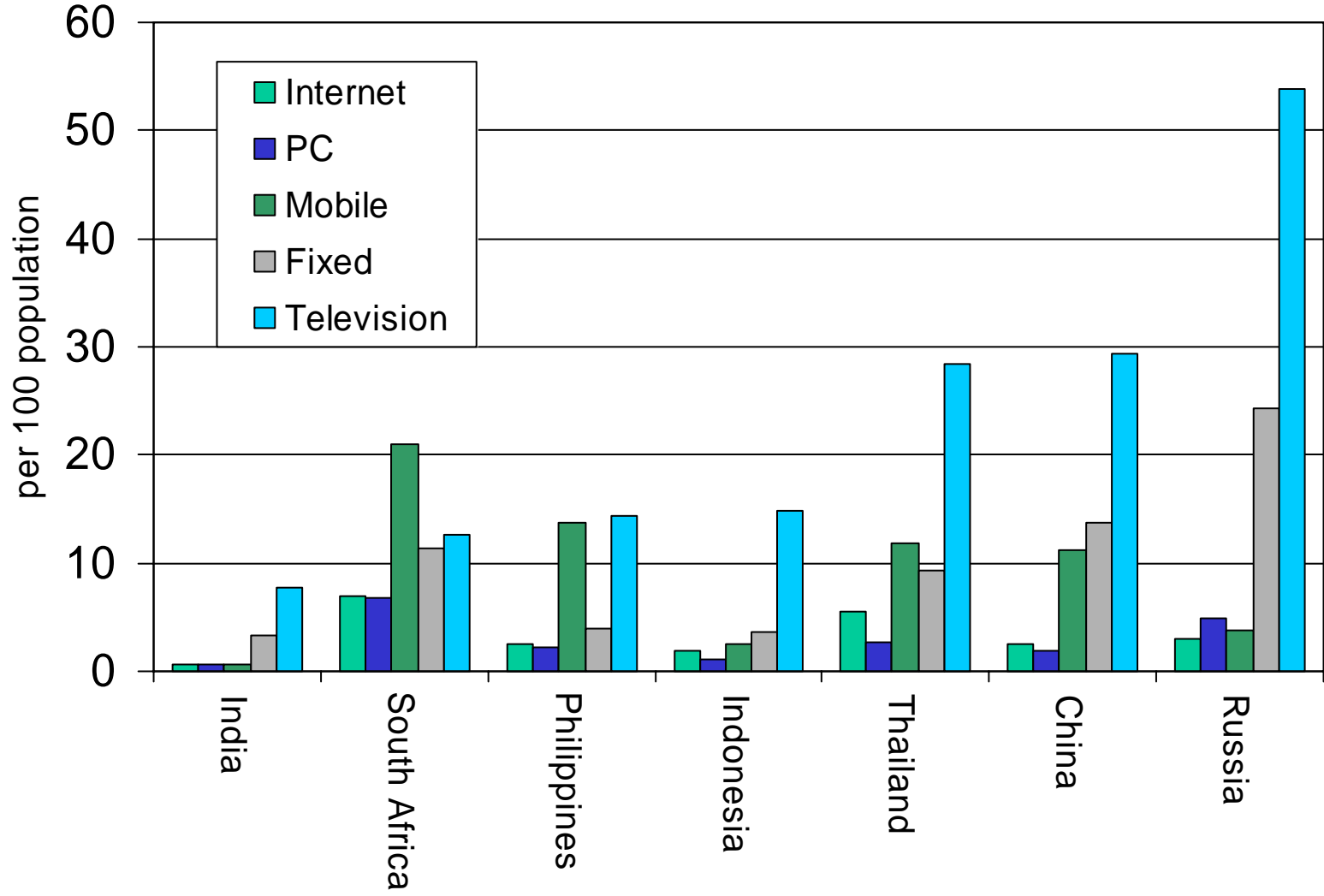
INTUG Internet access in Japan

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INTUG convergence measures

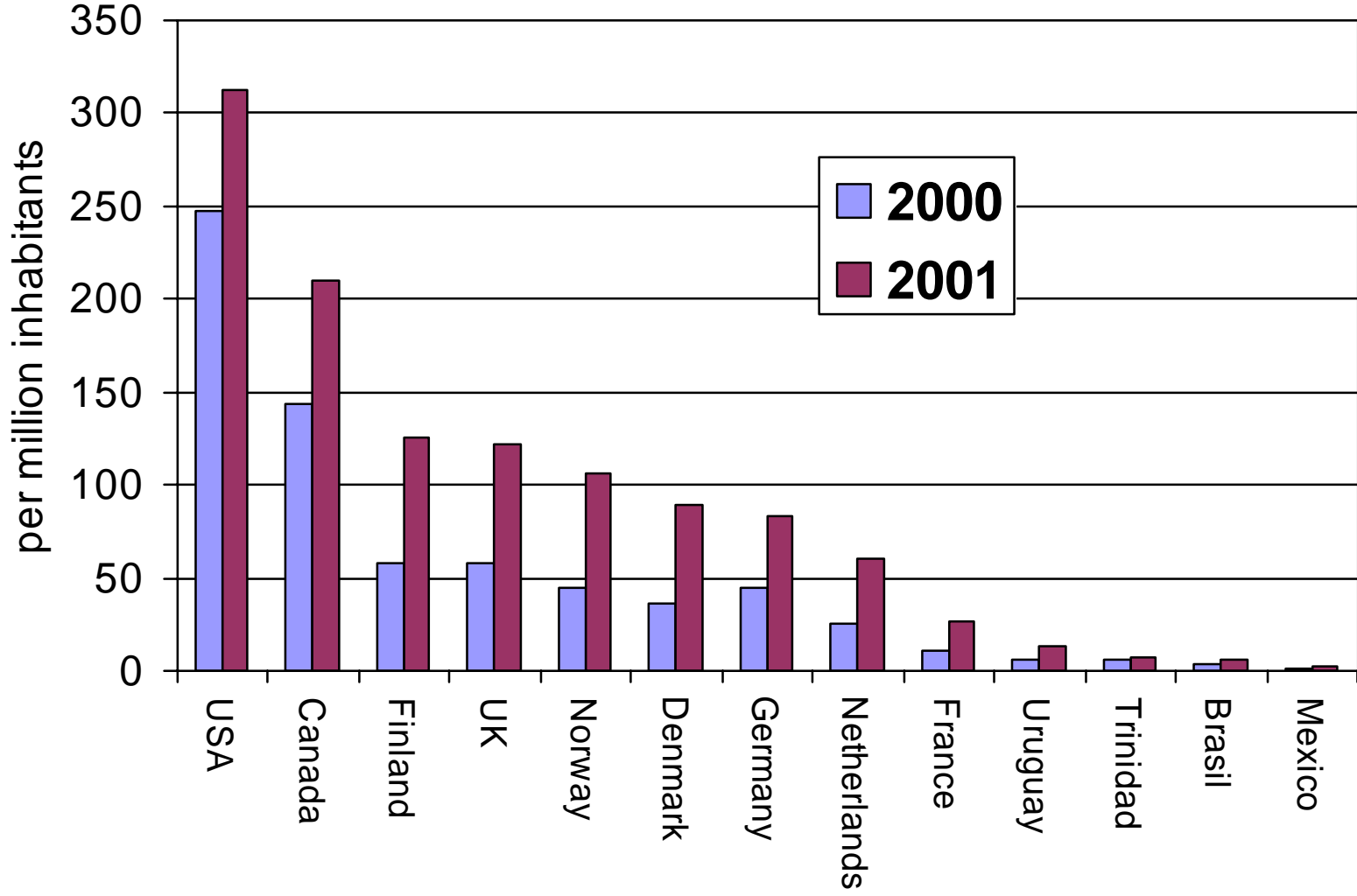
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INTUG secure servers (SSL)

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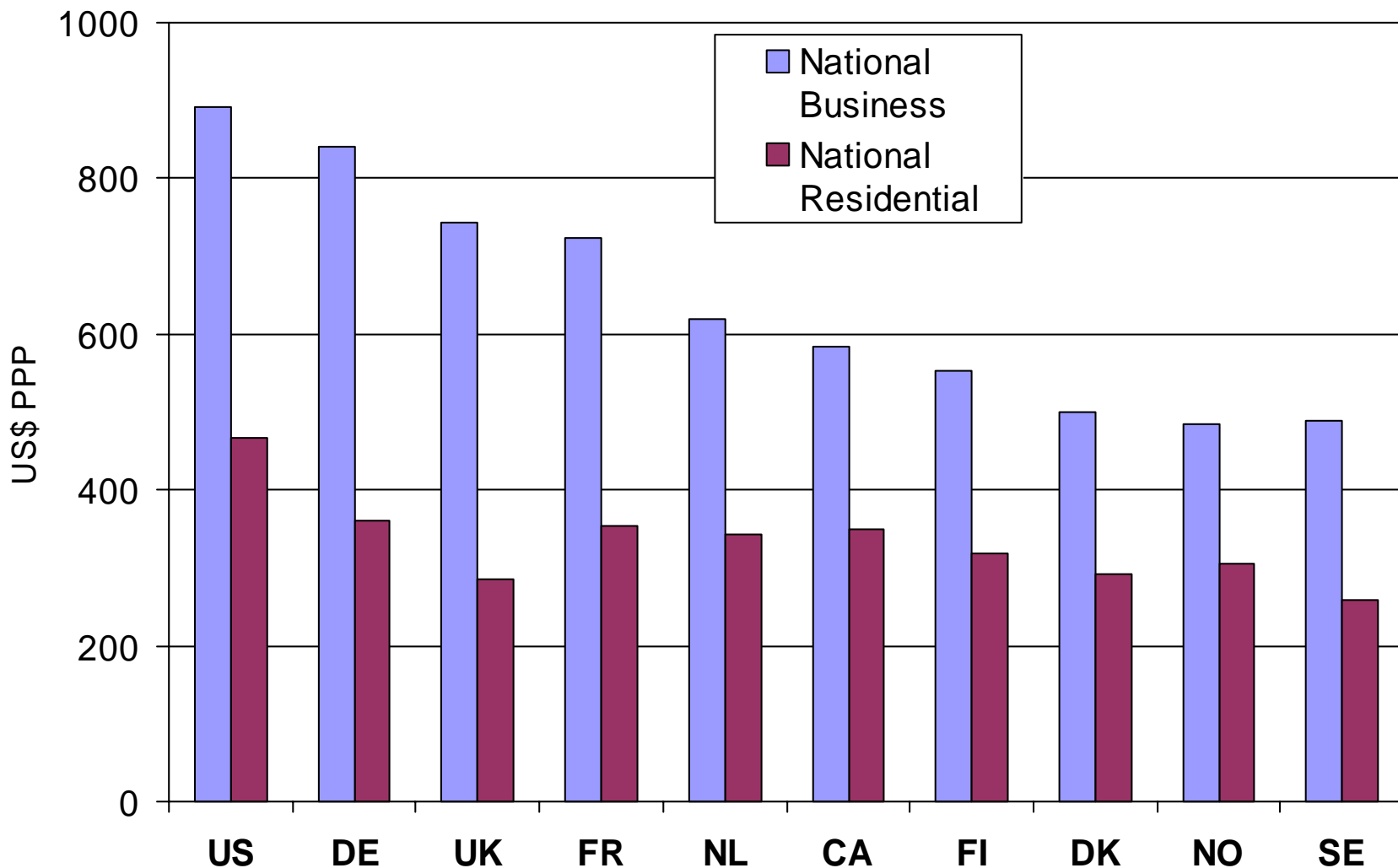
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INTUG prices

- comparing like with like
- allowing for purchasing power parity (PPP)

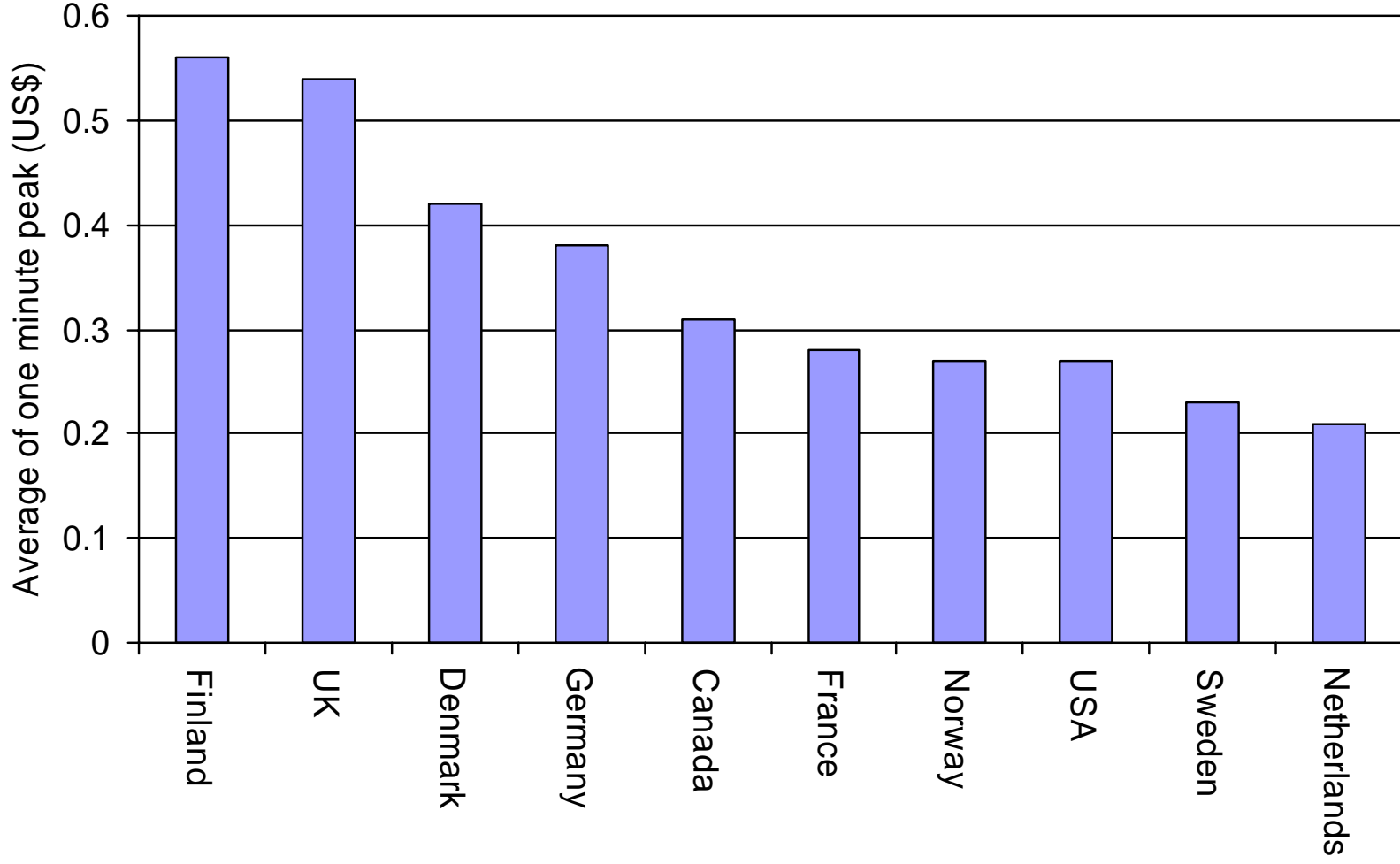
OECD Basket of Total Public Switched Telephone Network Charges

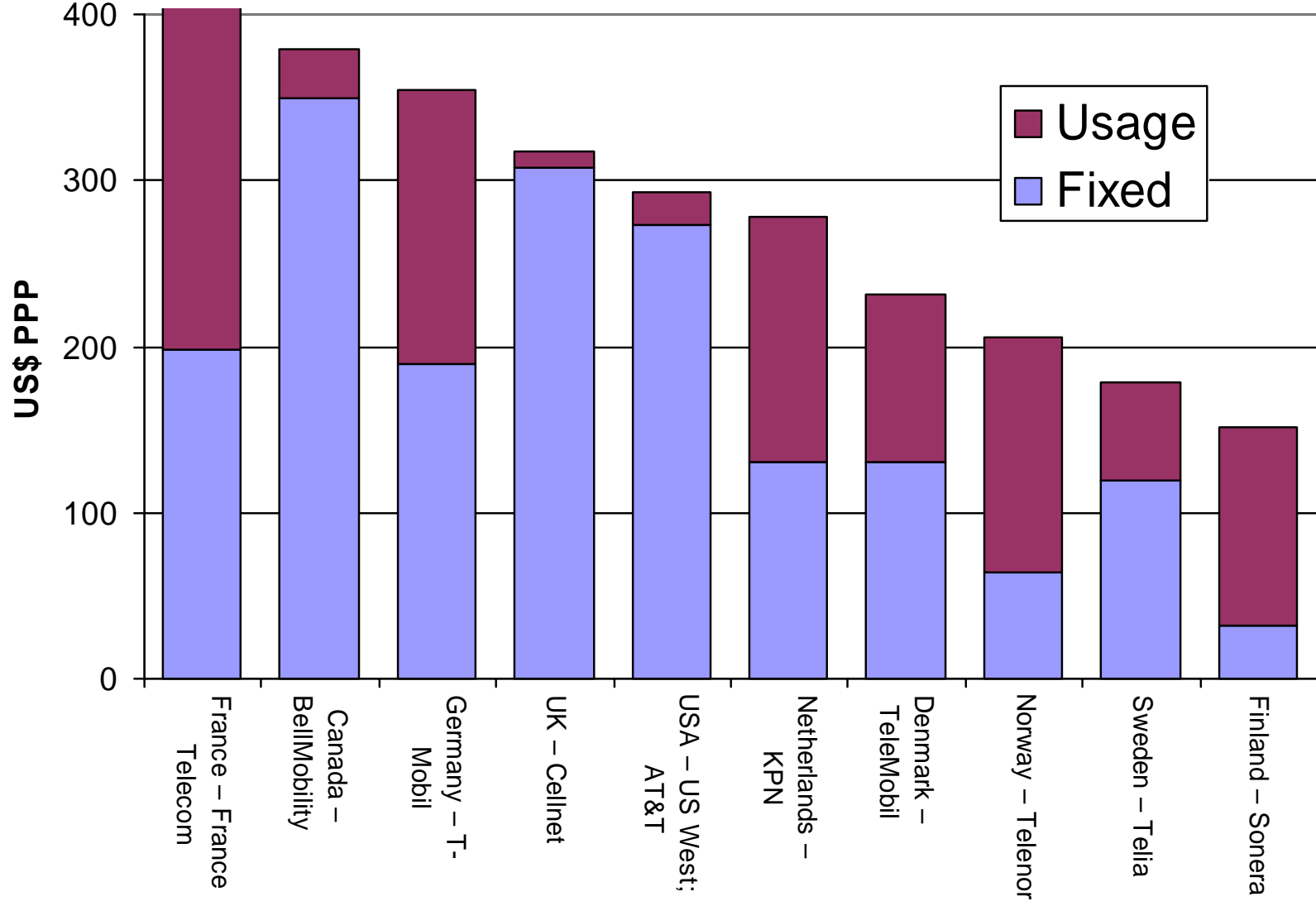


INTUG international call charges

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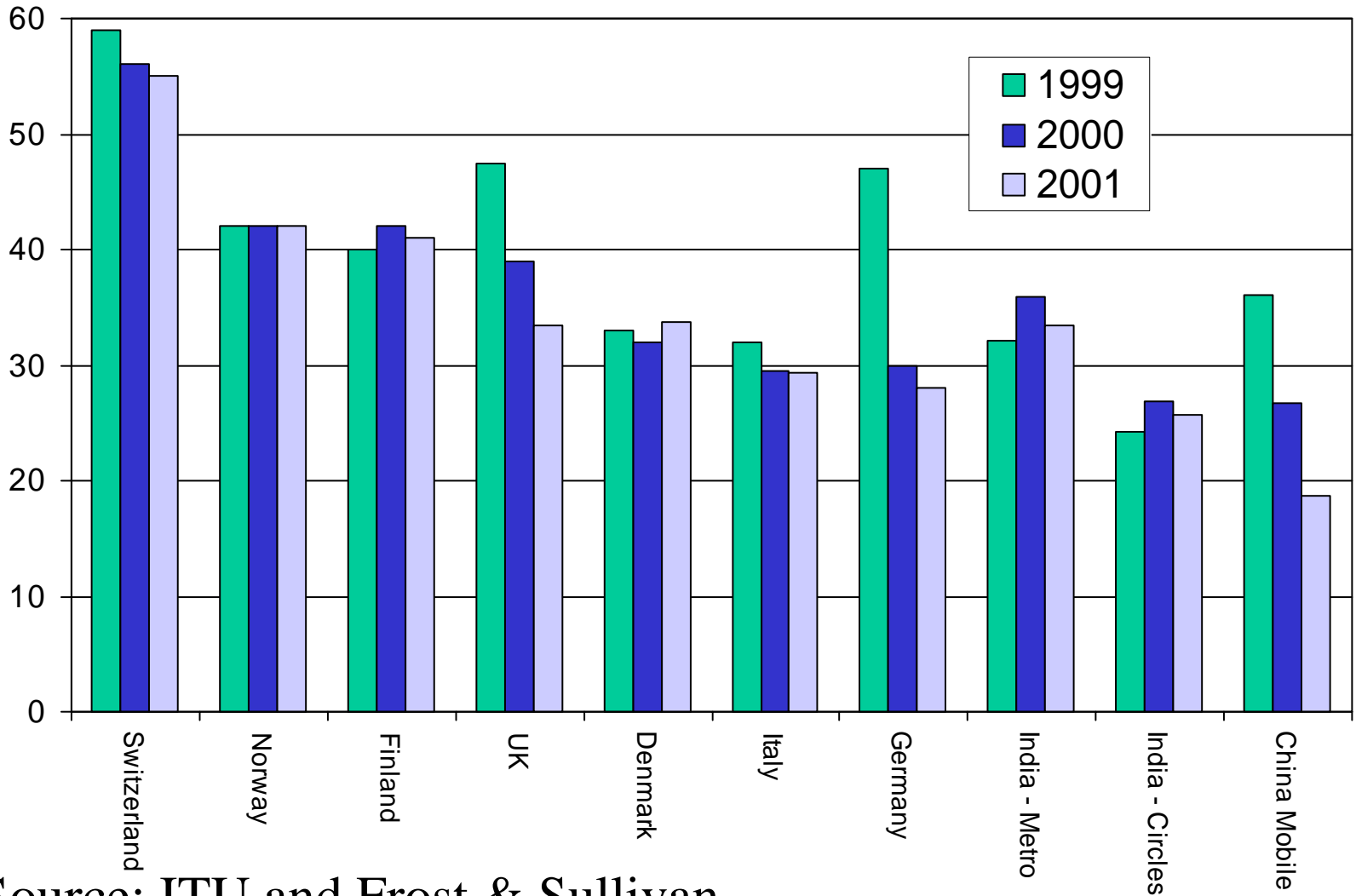
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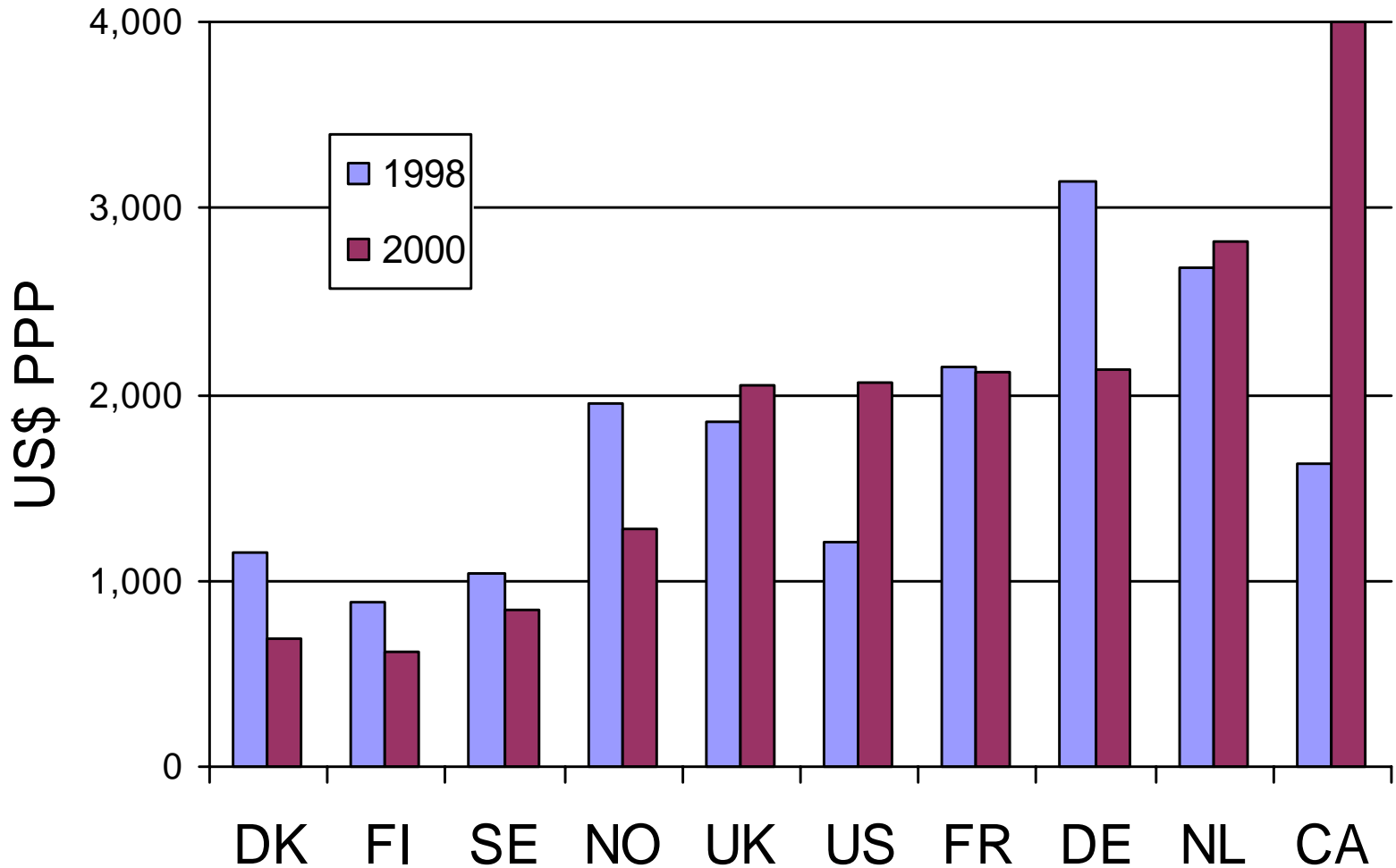
INTUG monthly ARPU (Euros)

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Source: ITU and Frost & Sullivan

OECD Basket of National Leased Line Charges (1.5/2Mbits)

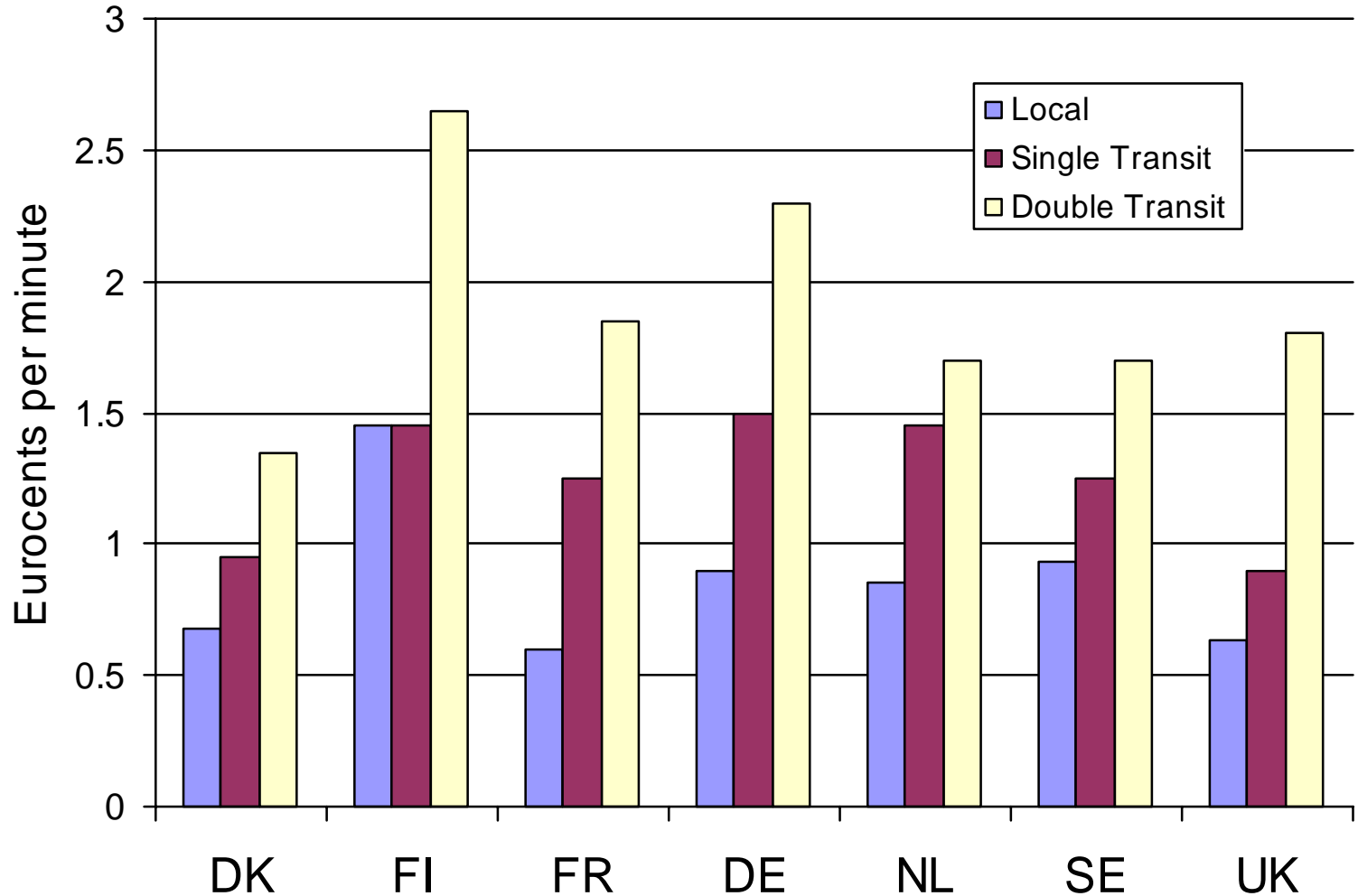


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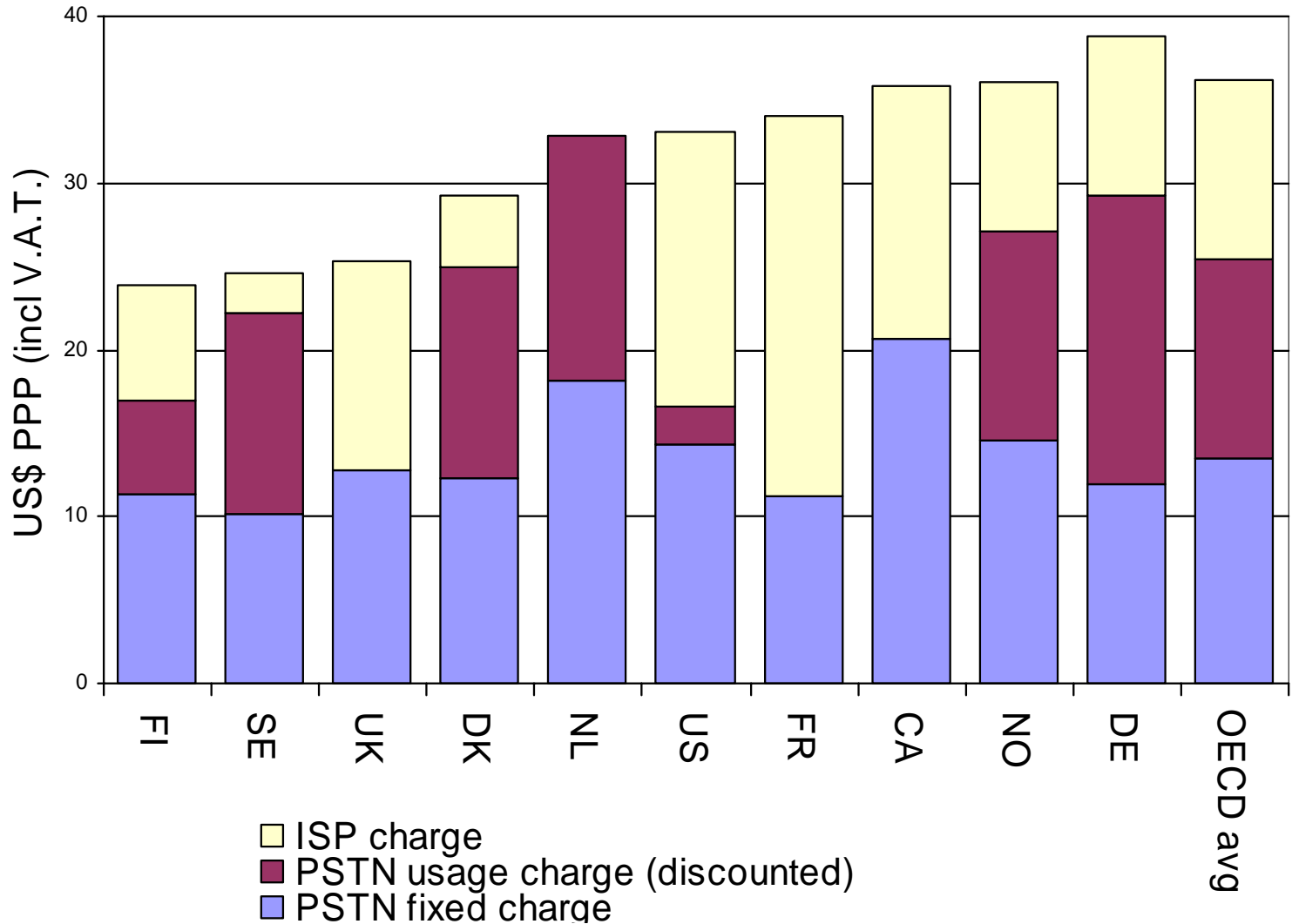
interconnection fixed-to-fixed voice

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OECD Internet Access Basket for 20 hours at off-peak times using discounted PSTN rates



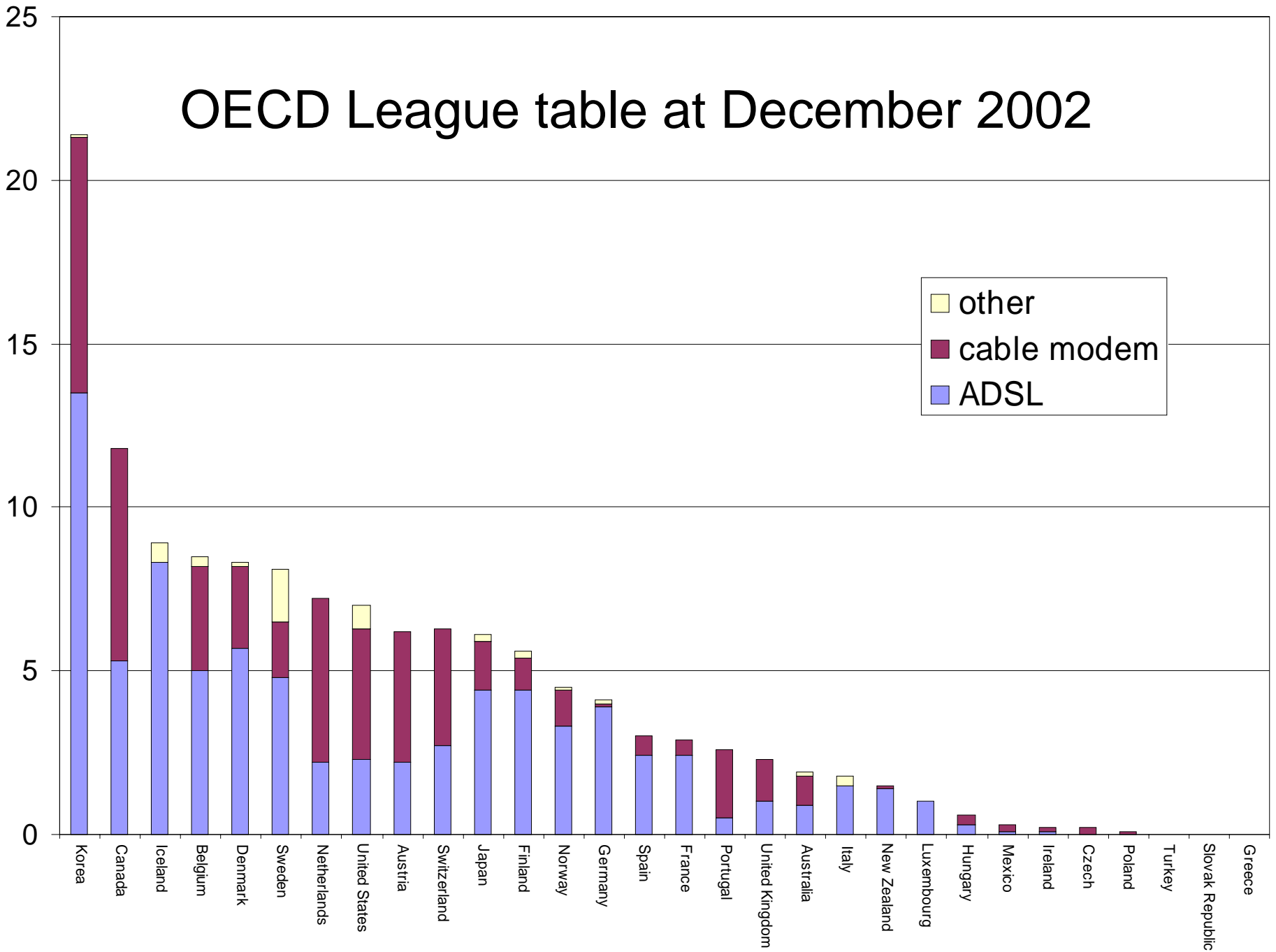
INTUG broadband Internet access

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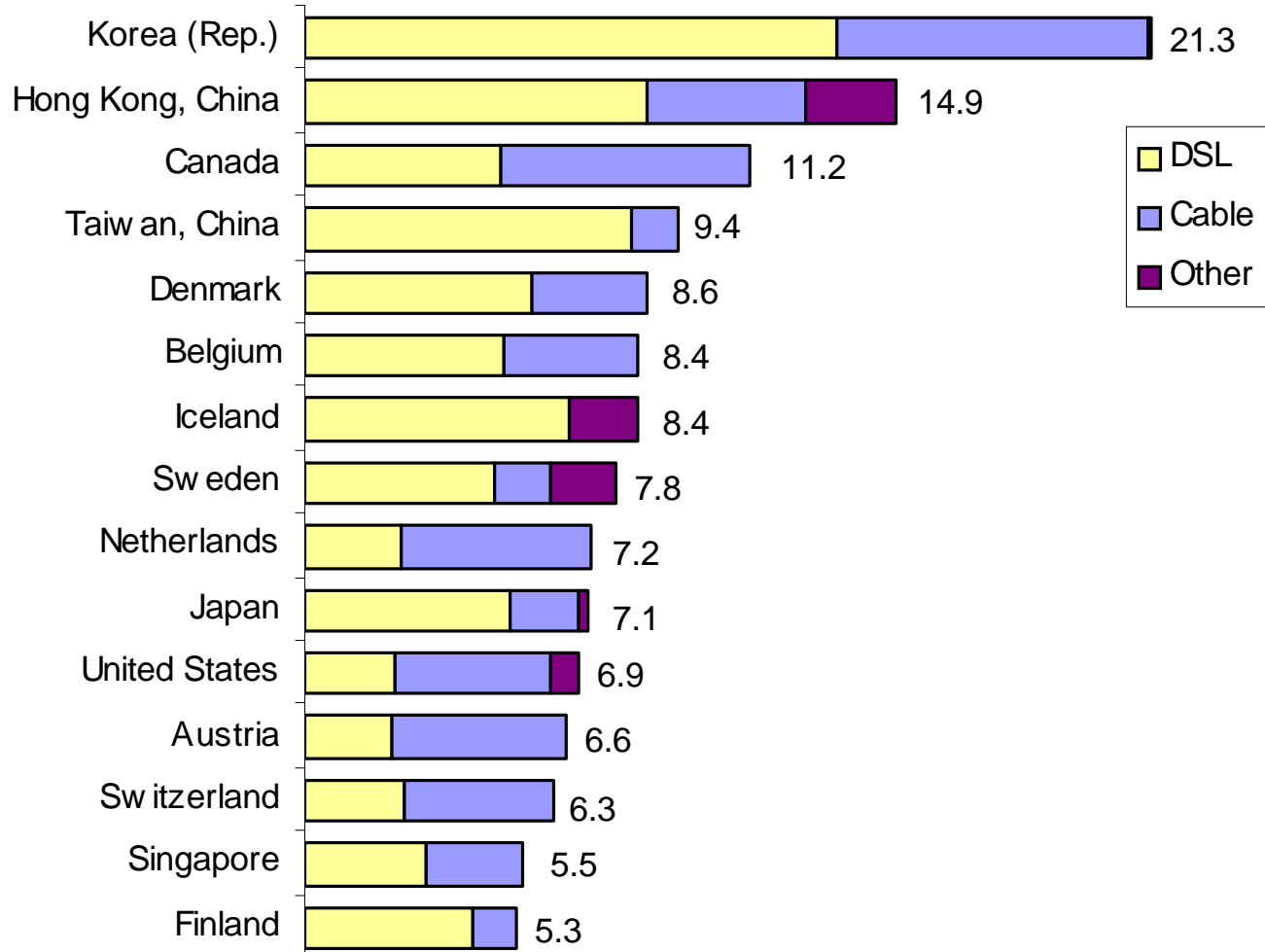
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- a new “hot” topic
- many factors at work
- no pre-determined outcome
- strong pressure from incumbent operators against unbundling
- many potential new technologies and market players
- indicators still emerging

OECD League table at December 2002



Broadband penetration, subs per 100 inhabitants, by technology, 2002



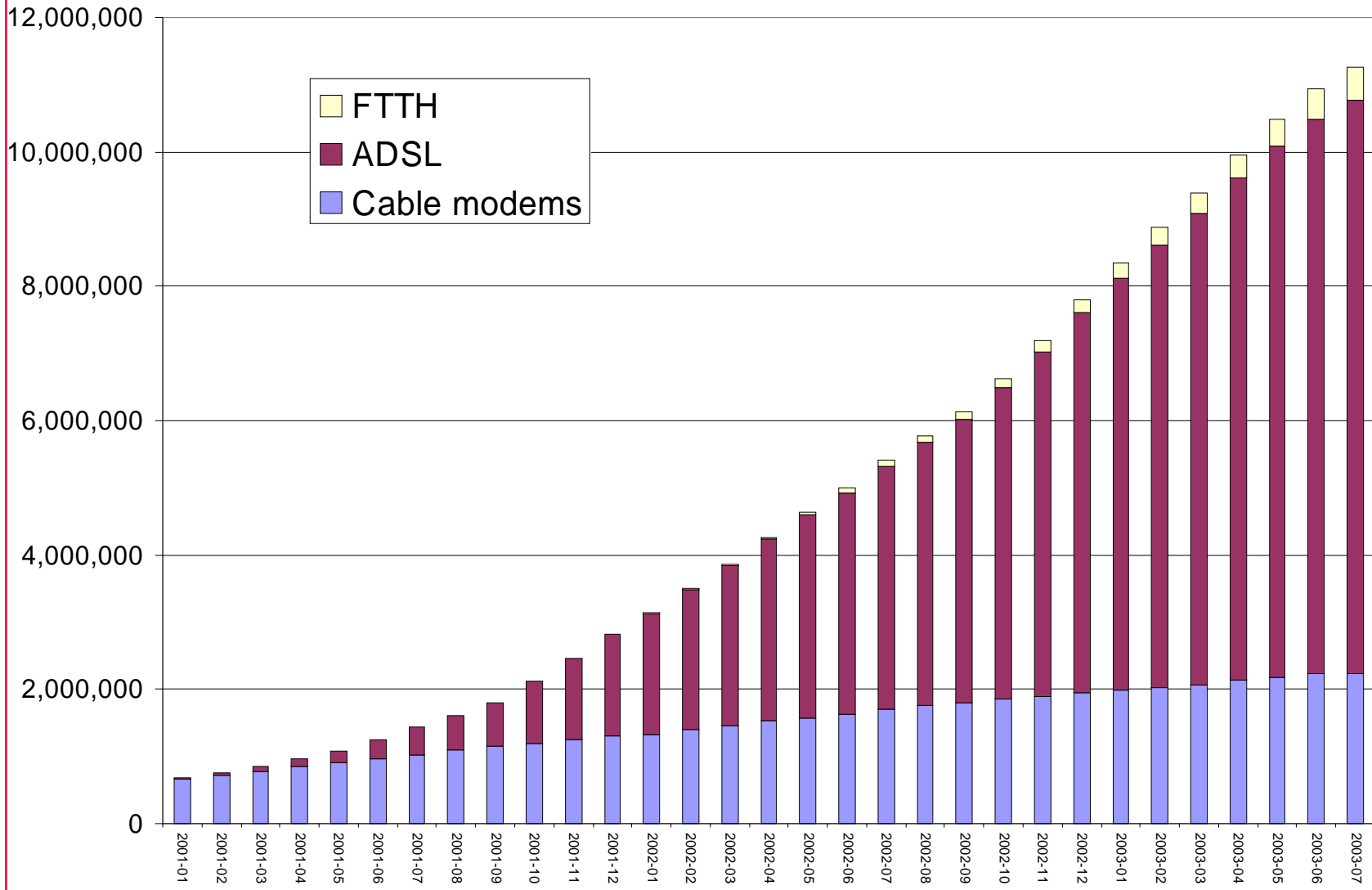
Source: ITU World Telecommunication Indicators Database

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growth of Japanese broadband

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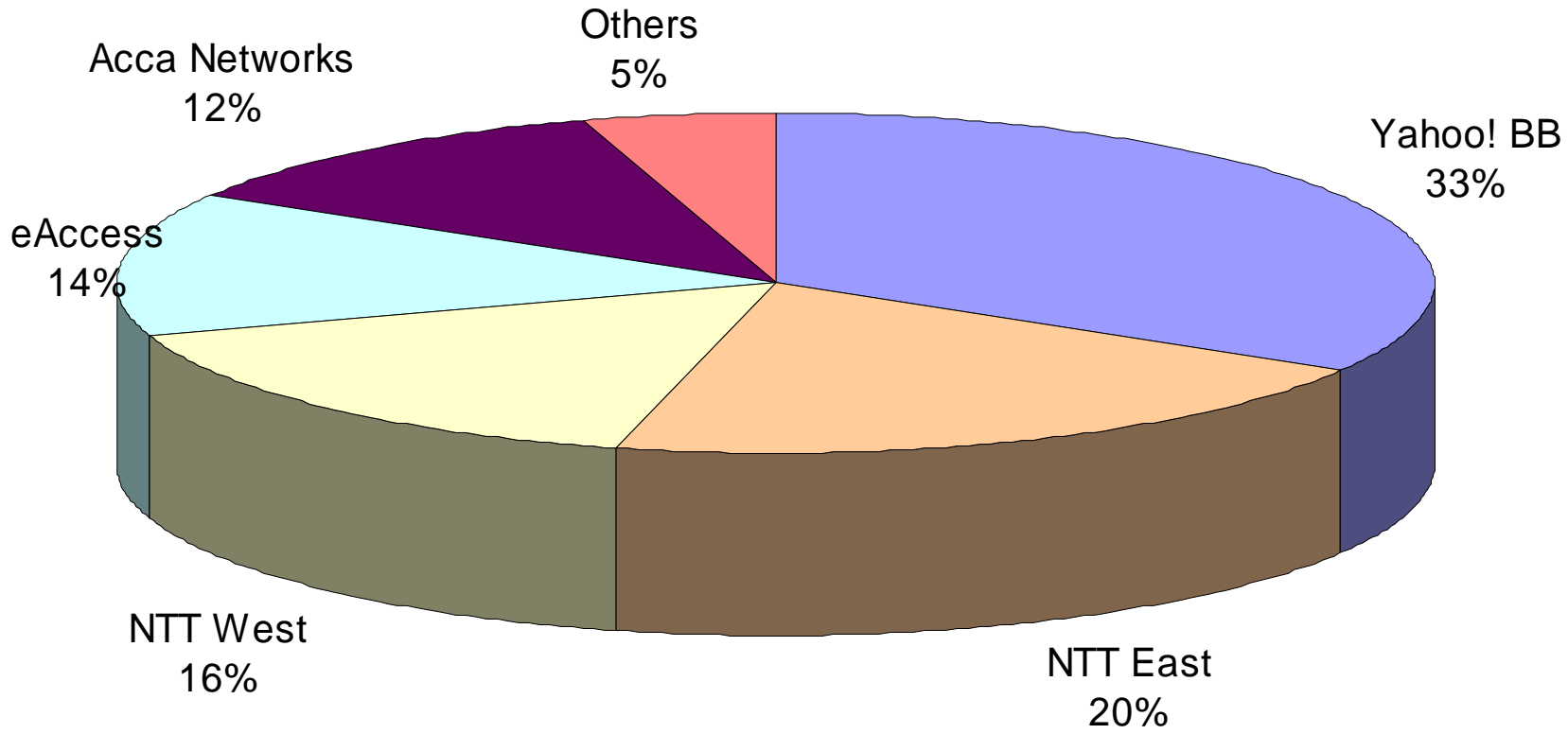
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INTUG ADSL market shares

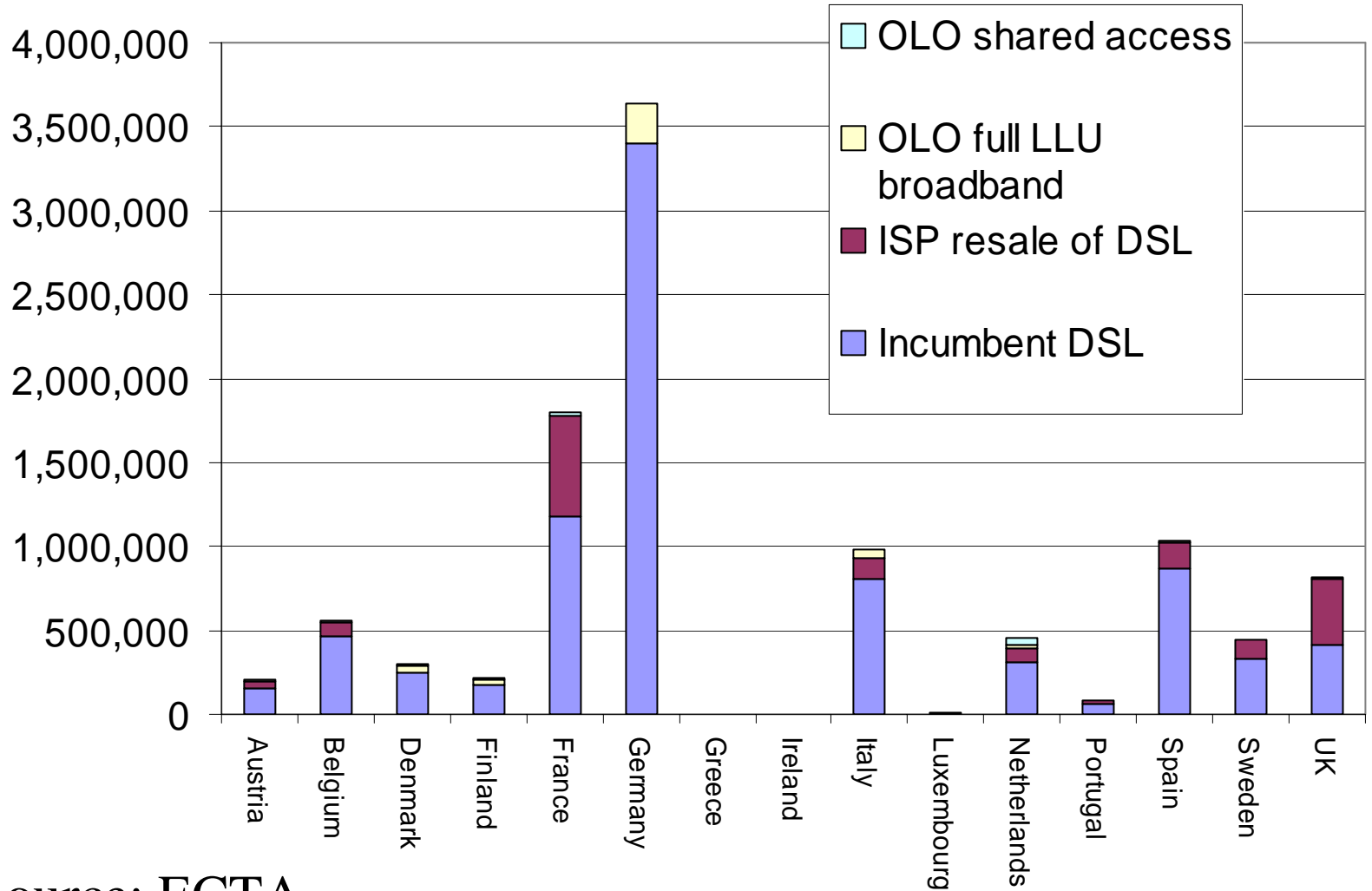
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INTUG unbundling in the EU

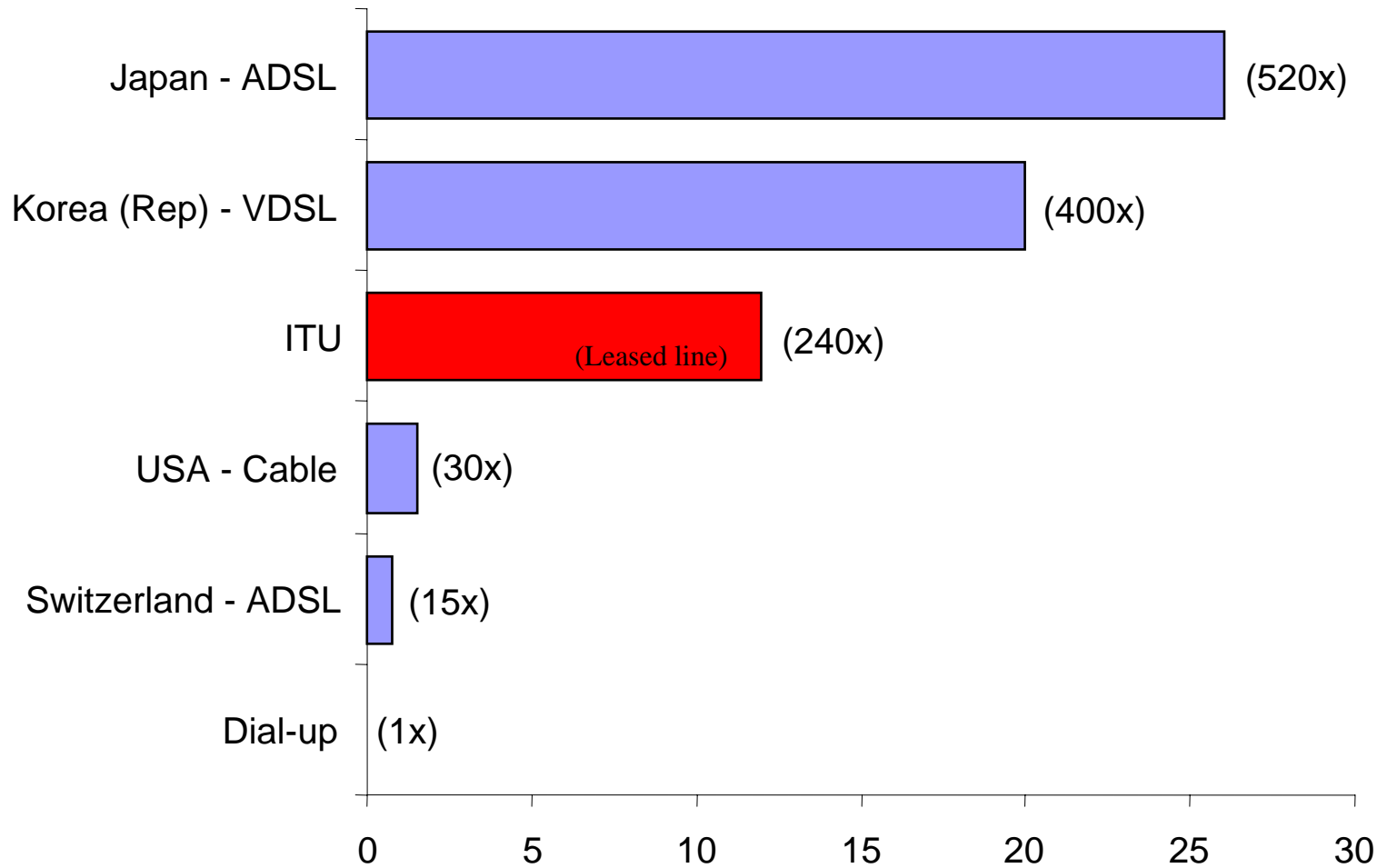
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Source: ECTA.

INTUG relative broadband speeds

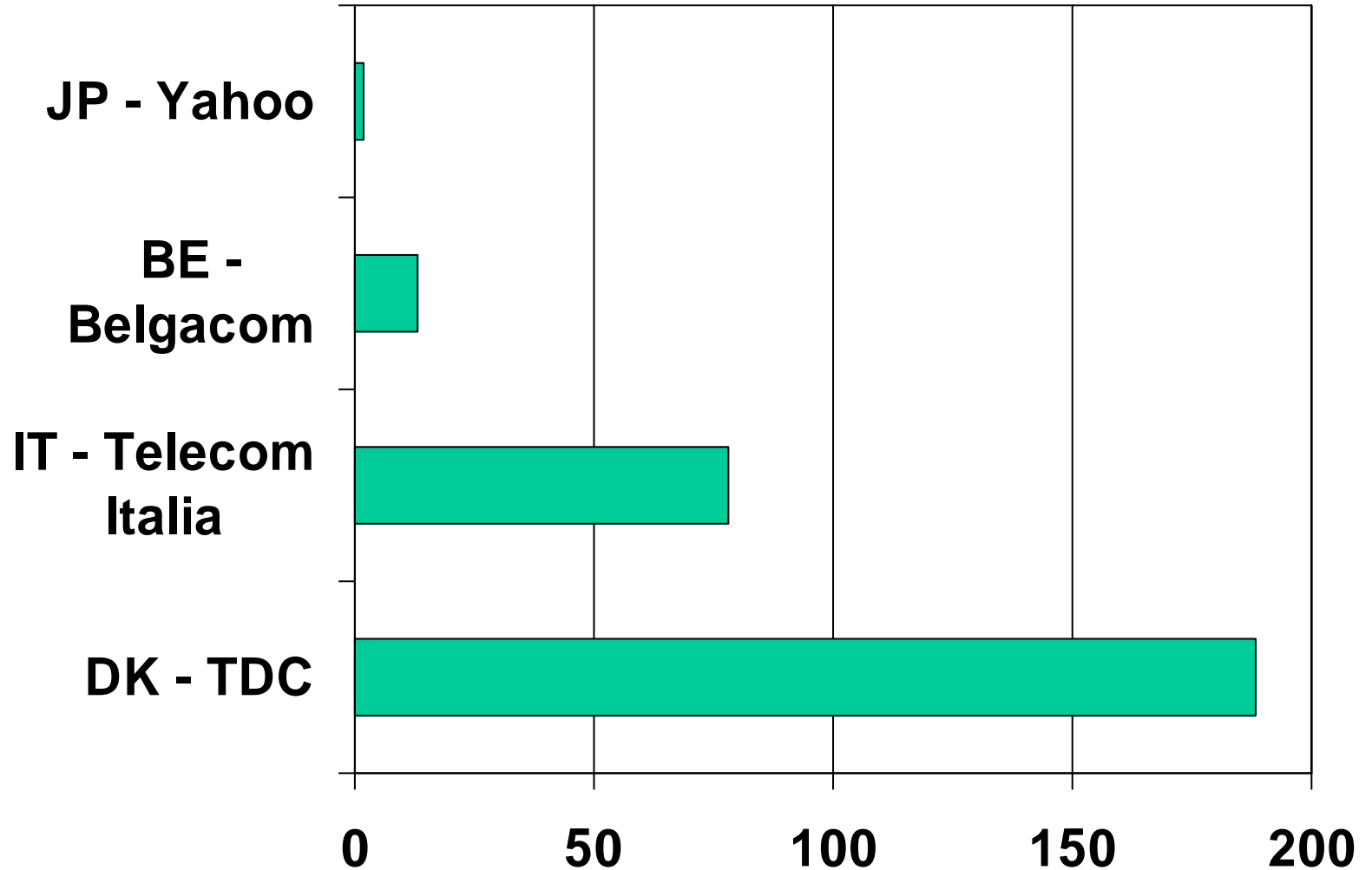
Broadband speed comparisons, Mbit/s, July 2003



Source: ITU research

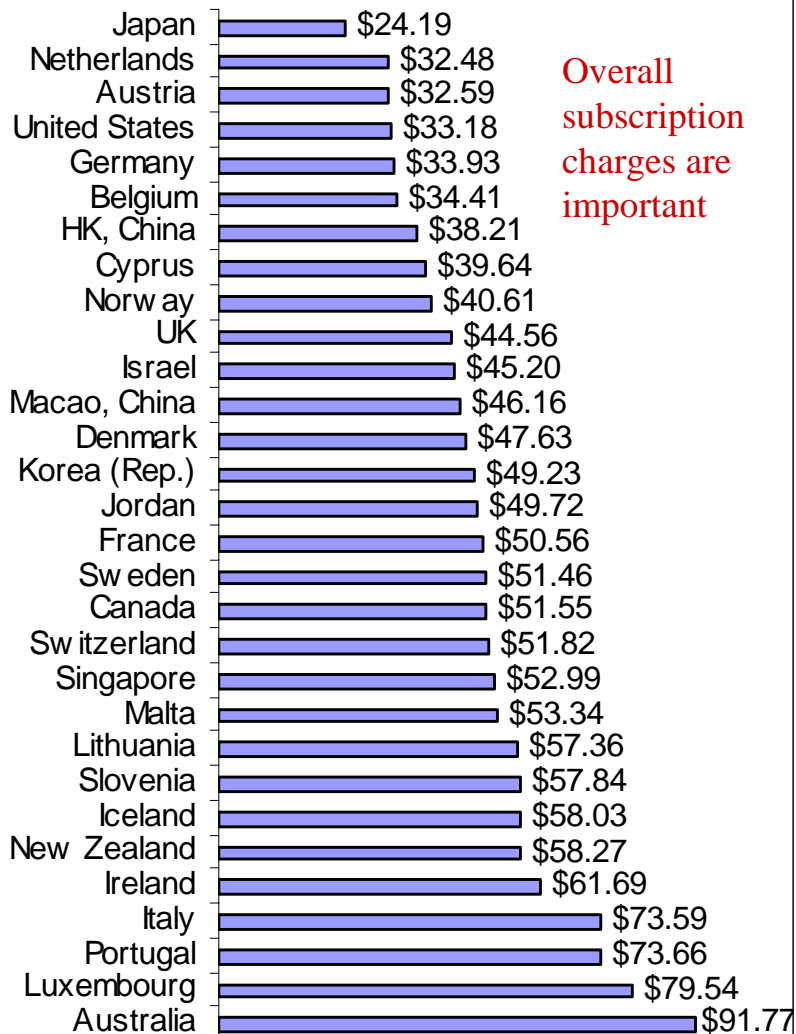
INTUG 1 Mbit/sec/month (EUR)

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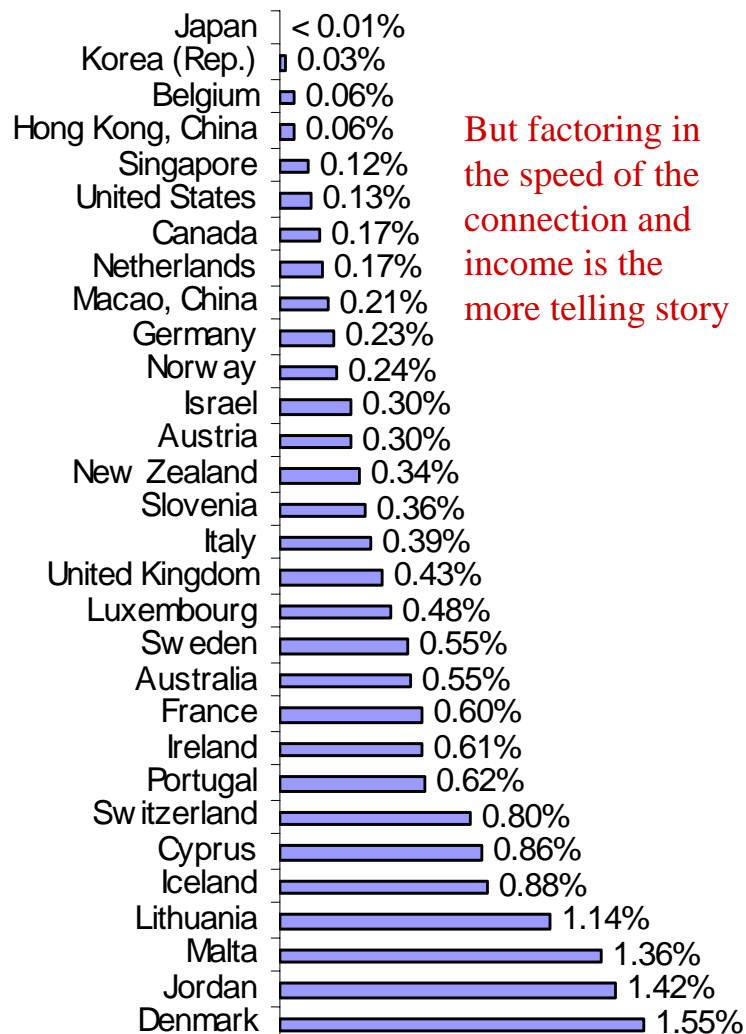
broband prices

Broadband subscription charges, July 2003, US\$



Overall
subscription
charges are
important

Cost of 100 kbit/s as % of monthly income



But factoring in
the speed of the
connection and
income is the
more telling story

Source: ITU research

INTUG measuring the market

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- teledensity:
 - international ranking
 - variations within a country
- competition in markets
- need to compare offers
 - price
 - download speed
 - advertised
 - real
 - contention ratio
 - upload speed
 - transfer limits (if any)
- advanced services e.g., SDSL and VDSL
- comparisons with other countries

INTUG conclusions

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- statistics are essential to understand
 - the nature of the problem
 - possible solutions
- monitor
 - market developments
 - effectiveness of policy implementation
- publish
 - national comparisons
 - international comparisons

INTUG sources

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- OECD Communications Outlook
http://www.oecd.org/document/32/0,2340,en_2649_33703_2514080_1_1_1_1,00.html
- EC annual implementation reports
http://europa.eu.int/information_society/topics/telecoms/implementation/annual_report/index_en.htm
- ITU indicators
<http://www.itu.int/ITU-D/ict/>
- ITU Birth of broadband
<http://www.itu.int/birthofbroadband>
- InfoDev
<http://www.infodev.org/projects/internet/375pyramid/index.htm>
- Japan DSL statistics
http://www.soumu.go.jp/joho_tsusin/whatsnew/dsl/index.htm
- ECTA quarterly European LLU data
<http://www.ectaportal.com/>

INTUG thank you

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