INTUG

ATUG, Sydney 3-4 March 2004

www.INTUG.net

A scorecard for Australia the broadband ashes

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INTUG agenda

- INTUG
- competitiveness
- leased lines
- fixed telephony
- mobile telephony
- broadband
- conclusions

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 priorities

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

INTUG benchmarking

- Australia against the rest of the world:
  - G7
  - European Union
  - OECD
  - Japan/Korea
- technologies and services:
  - economy
  - broadband
  - mobile
  - prices

INTUG competitiveness

- Davos - World Economic Forum
- 9th in Networked Readiness Index
- 10th in Growth Competitiveness Index
- 11th in Business Competitiveness Index

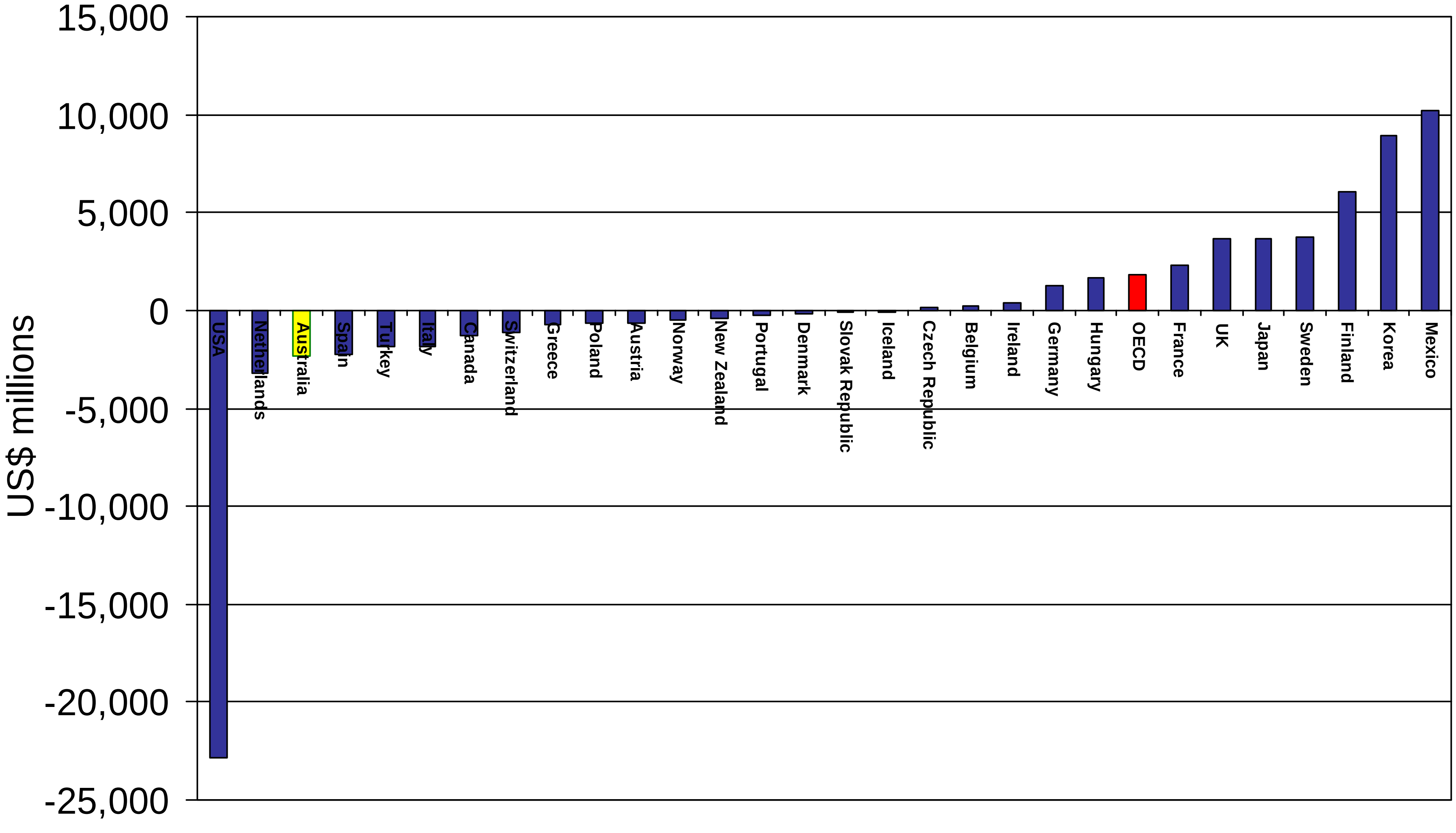
INTUG Growth Competitiveness Index

1. Finland
2. United States
3. Sweden
4. Denmark
5. Taiwan
6. Singapore
7. Switzerland
8. Iceland
9. Norway

10. Australia

11. Japan
12. Netherlands
13. Germany
14. New Zealand
15. United Kingdom
16. Canada
17. Austria
18. Korea
19. Malta
20. Israel
21. Luxembourg

INTUG balance of trade in equipment

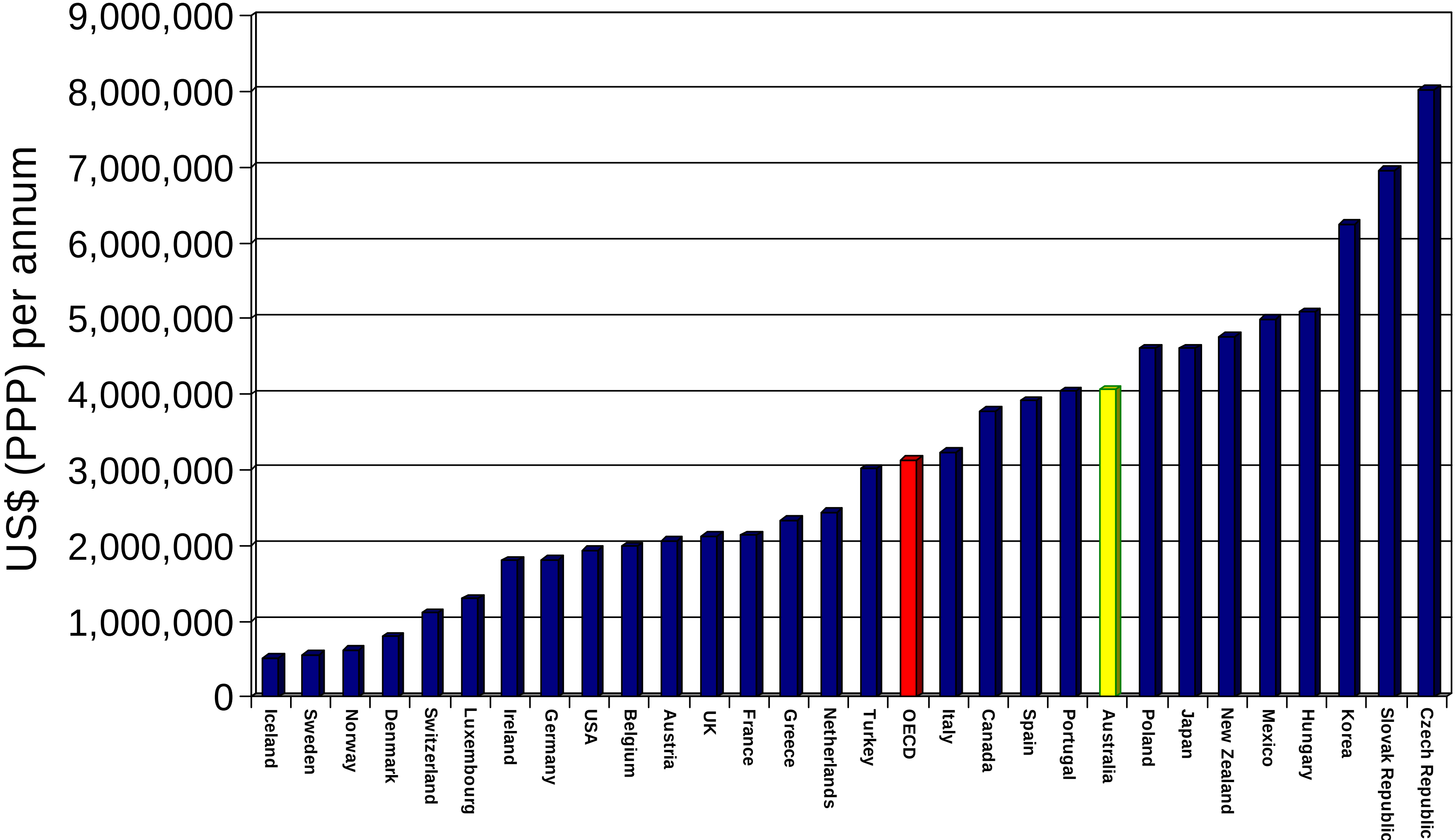


INTUG costs of using telecoms

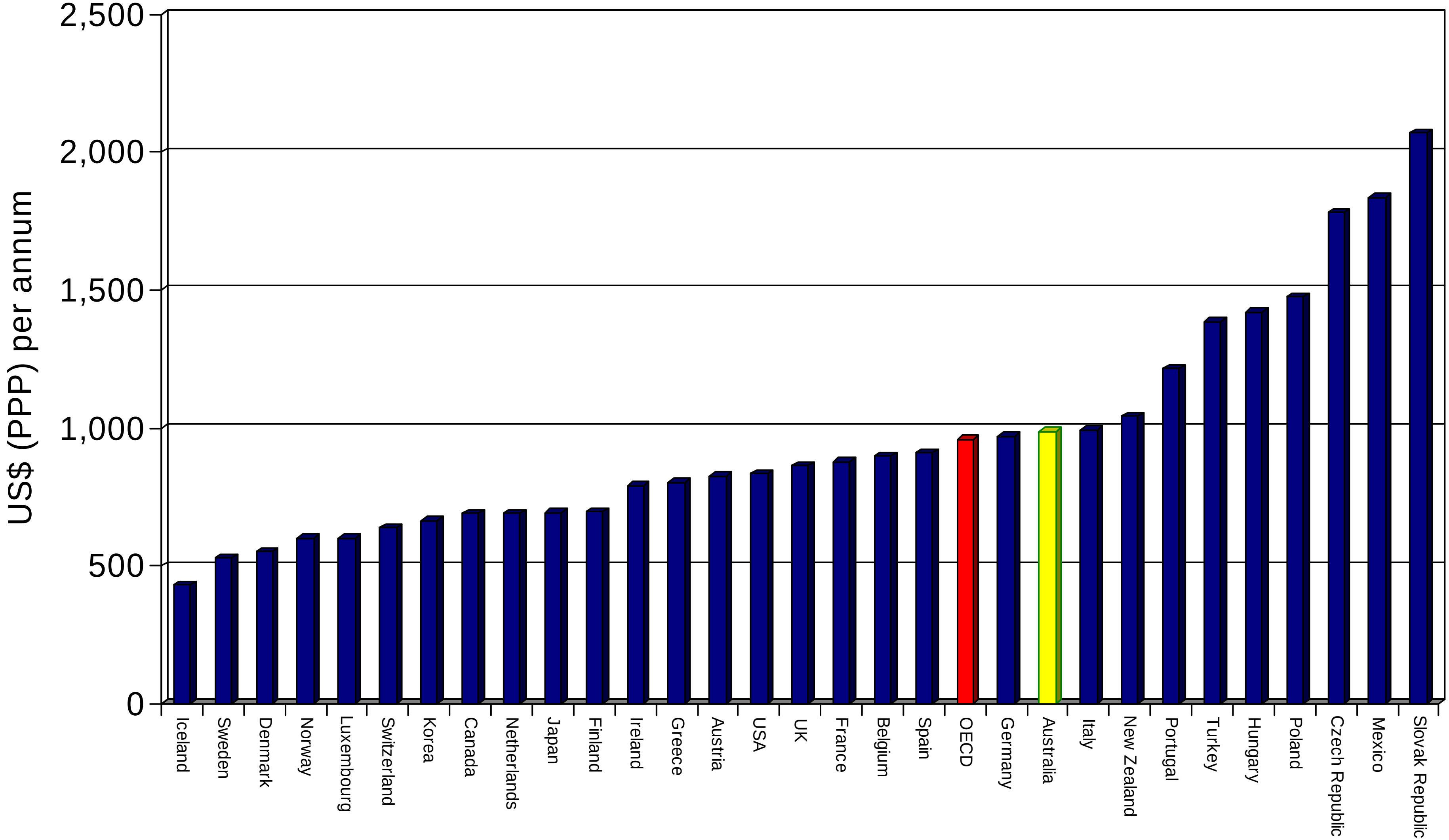
- leased lines
- business basket
- residential basket
- mobile basket

Australia is either close to average of the OECD 30 or a little worse.

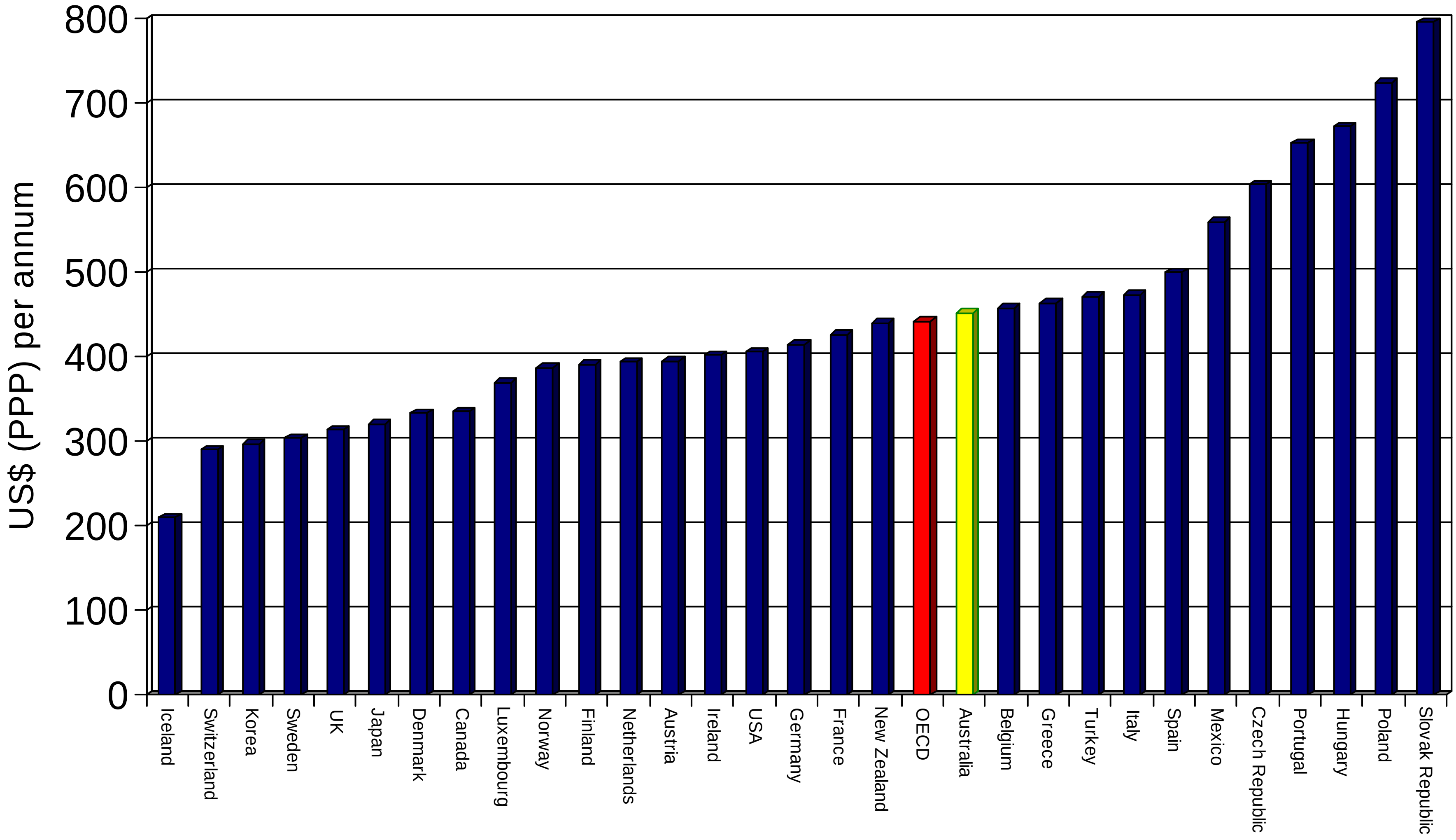
INTUG leased line charges (2Mbps)



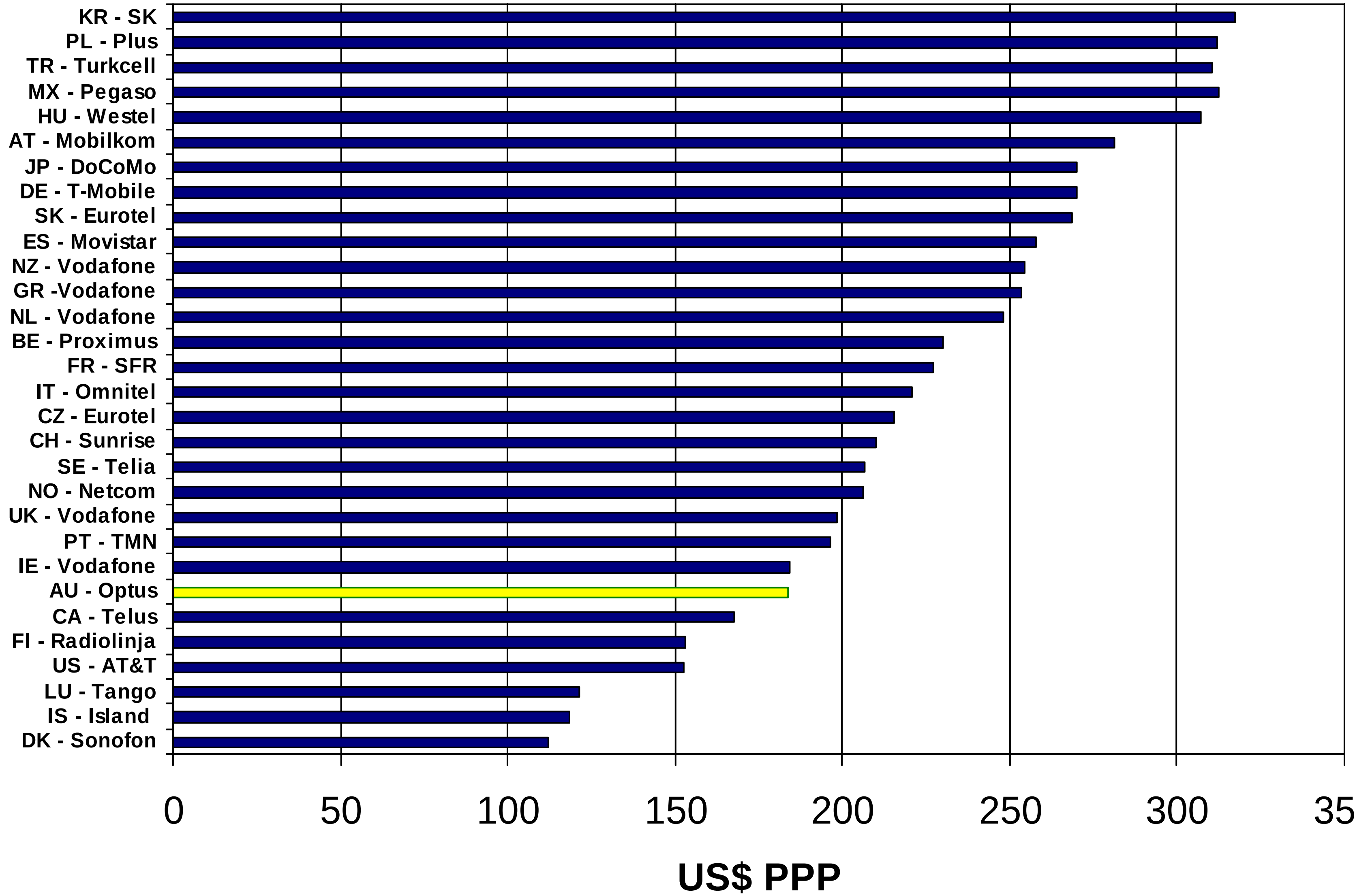
INTUG basket of business charges



INTUG basket of residential charges



INTUG basket of mobile charges



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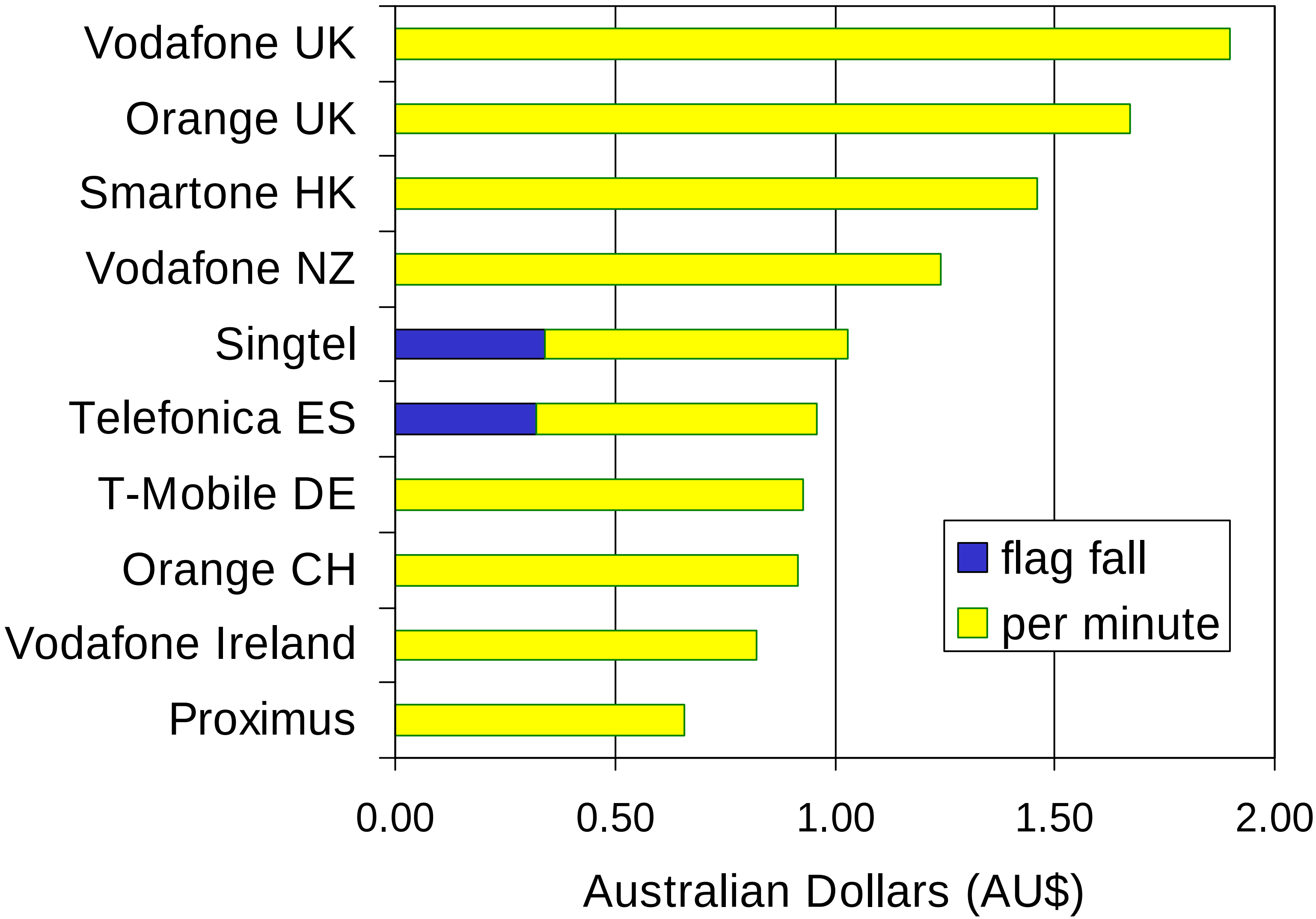
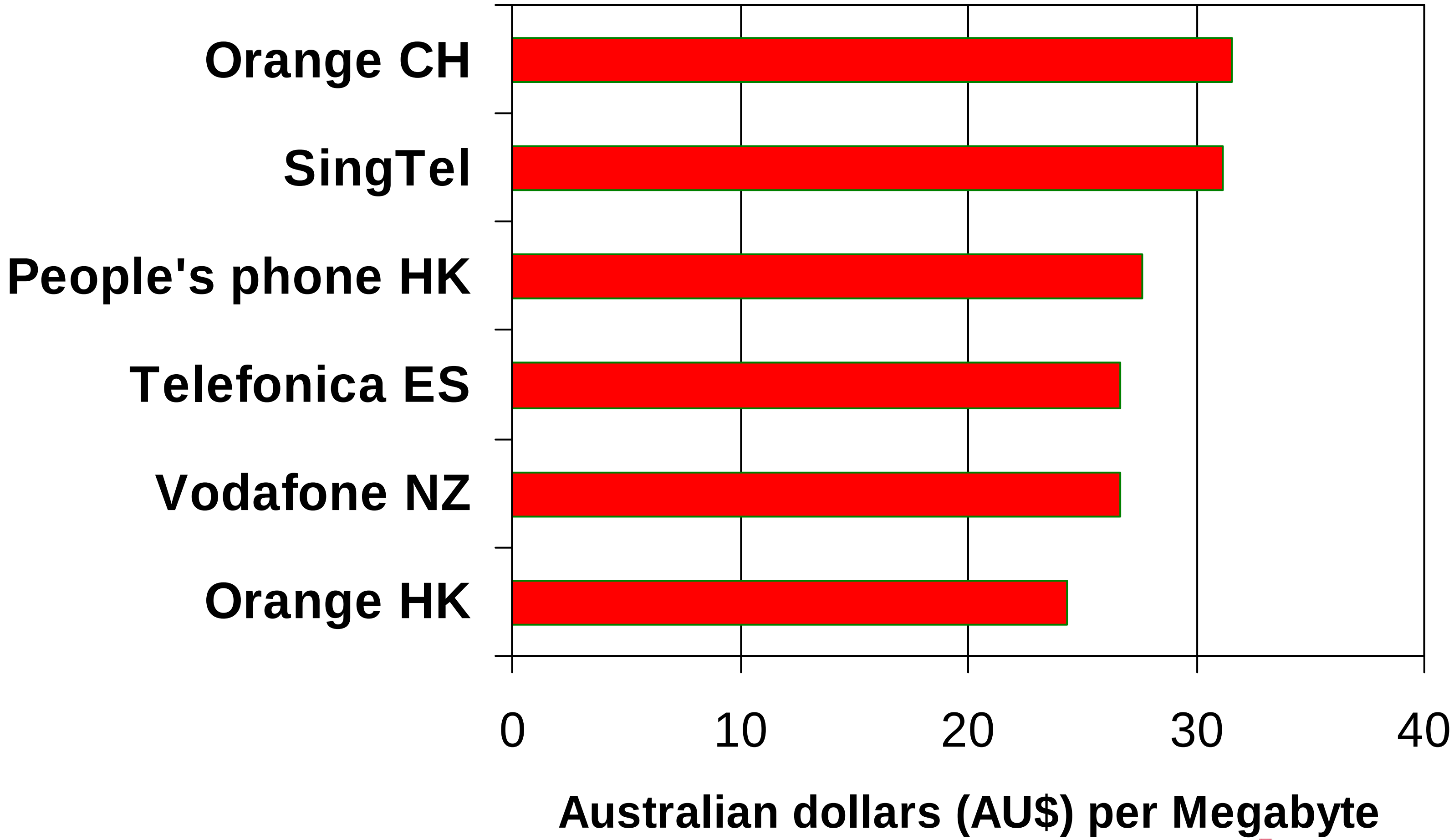
INTUG national calls for roamers



INTUG g'day roamers

- from T-Mobile USA
  - not available
- from Singtel
  - national call on Optus AU$ 0.69 + 0.36
  - SMS send AU$ 0.45 but free to receive
- from UK Vodafone World
  - national call 79p and to call UK
  - SMS send 75p receive 35p
- Vodafone Ireland
  - Inbound call EUR 1.77
  - National call EUR 0.52
- Orange France
  - Inbound call EUR 1.10
  - Call to Zone 3 EUR 2.40
- Proximus on Vodafone
  - national call EUR 0.41
  - Inbound call EUR 1.10
- T-Mobile on Telstra
  - National call EUR 0.58
  - Inbound call EUR 1.80
- Orange UK
  - Inbound call £0.35
  - Making a call £ 0.70
- Orange CH
  - Inbound call CHF 0.80
  - national calls CHF 2.00 or on "travel plan" CHF 0.90
- Smartone HK
  - Inbound HK 9.00
  - National call HK$ 6.00
- Telefónica Móviles on Telstra
  - Incoming calls 0.3 € + 1,29 €/min
  - National calls 0.2 € + 0,4 €/min
  - Calls to Spain 0.32 € + 0,56 €/min
  - SMS send 0.75 € and free for receive
- Vodafone NZ on Optus
  - incoming NZ$0.44 - NZ$1.24
  - national NZ$ 1.40
  - back to NZ NZ$1.05
  - SMS send/receive "surcharge" NZ$ 0.65

INTUG GPRS roaming



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INTUG GPRS roamers

- Vodafone
  - from UK/Espana – not available
  - from NZ – NZ$ 30/MB (AU$ 26.67)
- Orange CHF 31/MB (AU$ 31.53)
- SingTel Mobile AU$ 31.20/MB
- Hong Kong
  - Orange HK$ 150/MB (AU$ 24.35)
  - People's Phone HK$ 170/MB (AU$27.60)
- Telefónica Móviles
  - on Telstra €16.69/MB (AU$26.67)

HK$ 6.16 = AU$ 1 = NZ$ 1.125

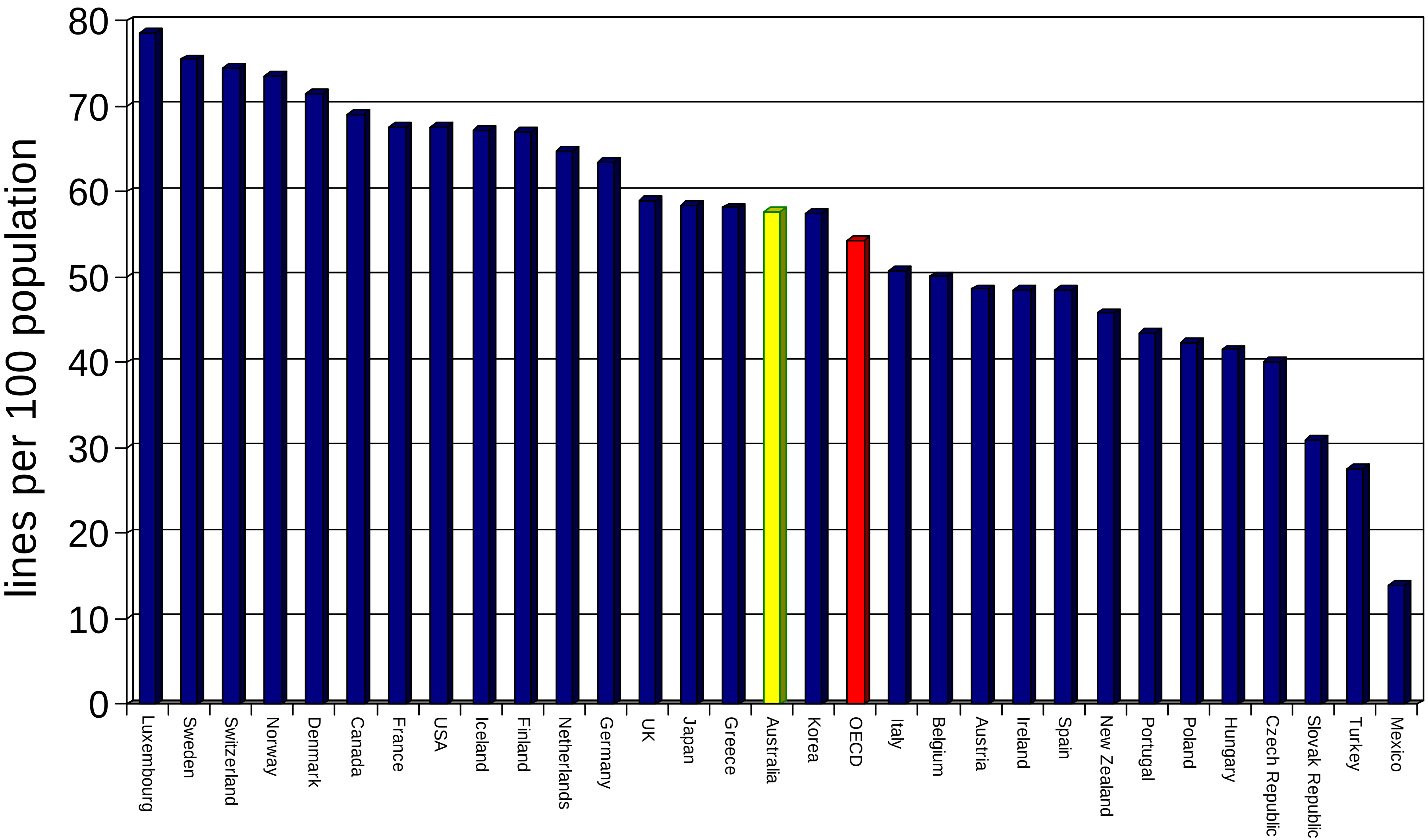
INTUG roaming policies

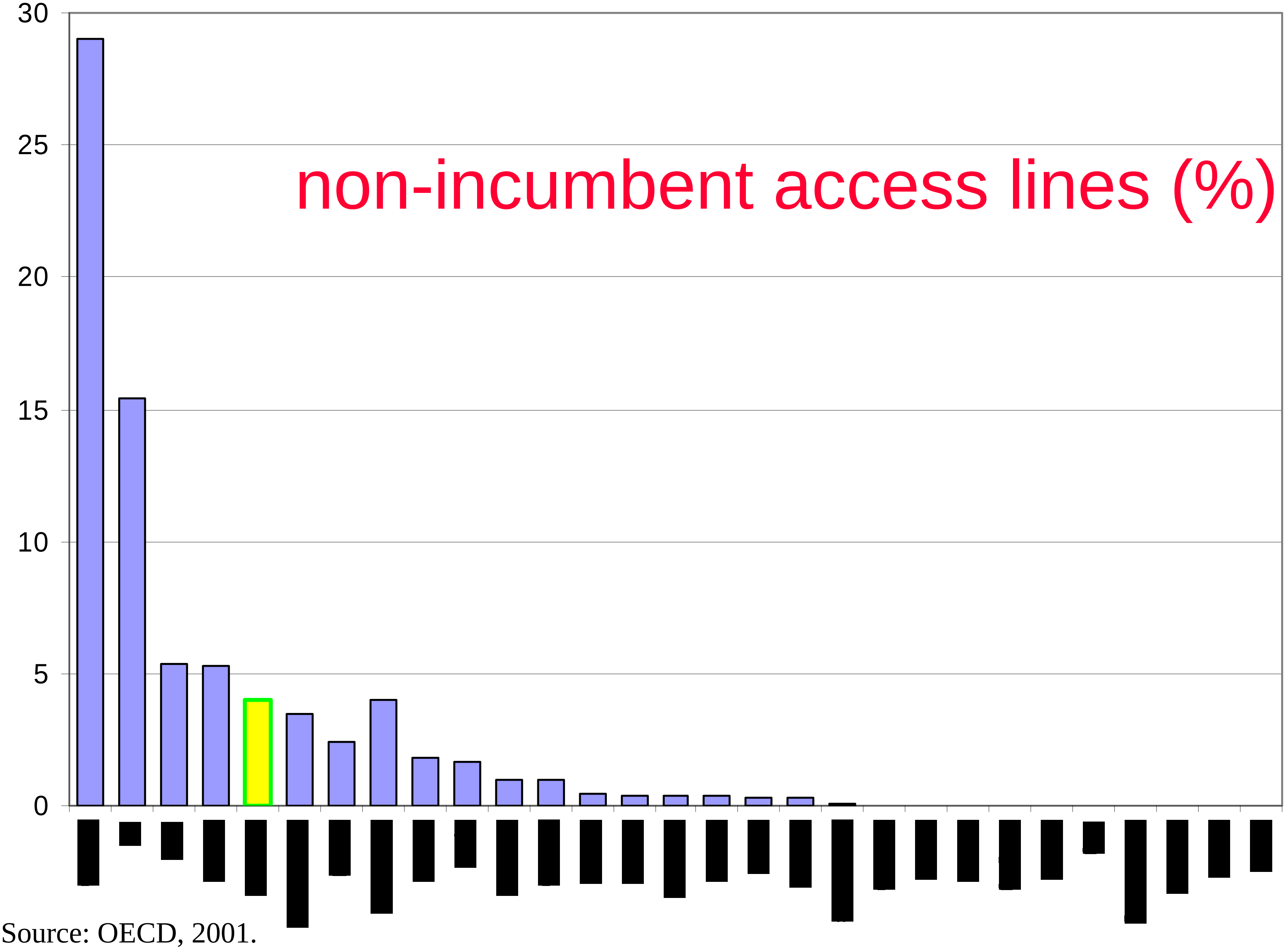
- analyse spending
- consolidate contracts
- develop and enforce policies
  - take caller ID and call from a fixed phone
  - offer guests free Wi-Fi
- maximise buying power with operators

INTUG network development

- not a leader, tracking close to OECD averages
- Australia looks more European than Asian
- fixed telephone networks:
  - ITU world rankings
    - 1990 18th
    - 2000 28th
  - persistent dominance by Telstra
- mobile telephone networks
  - ITU world ranking
    - 1999 – 24th
    - 2000 – 29th
  - modest competitive dynamics driving the market
  - far from rapid growth
- poor performance on cable TV

INTUG telecommunications channels



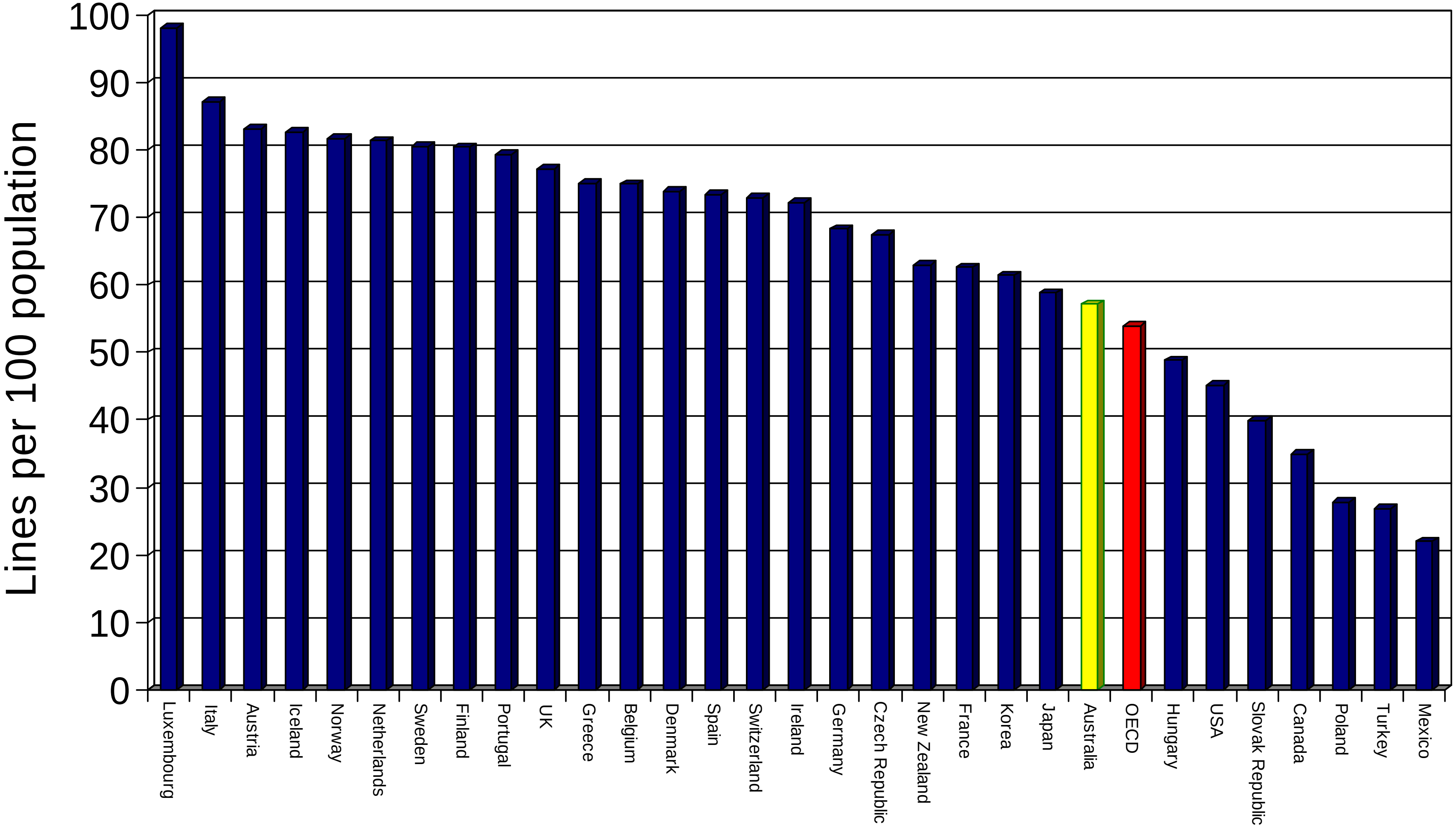


Source: OECD, 2001.

INTUG IP telephony

- transforming the market
  - a driver in broadband adoption
  - Vonage
  - Skype
- price competition
- raises massive regulatory problems
  - wire tapping
  - access to emergency services
  - contribution to universal service fund
  - level playing field

INTUG mobile penetration



INTUG fixed-to-mobile

- excessive pricing is endemic with Calling Party Pays (CPP)
- distorts mobile pricing and fixed offers
- limits fixed-mobile convergence
- markets have been shown not to solve this, it requires strong regulatory intervention
- it takes time for operators to adjust, so the sooner the better

3G could soak up a lot of money to "cross-subsidise" handsets and services

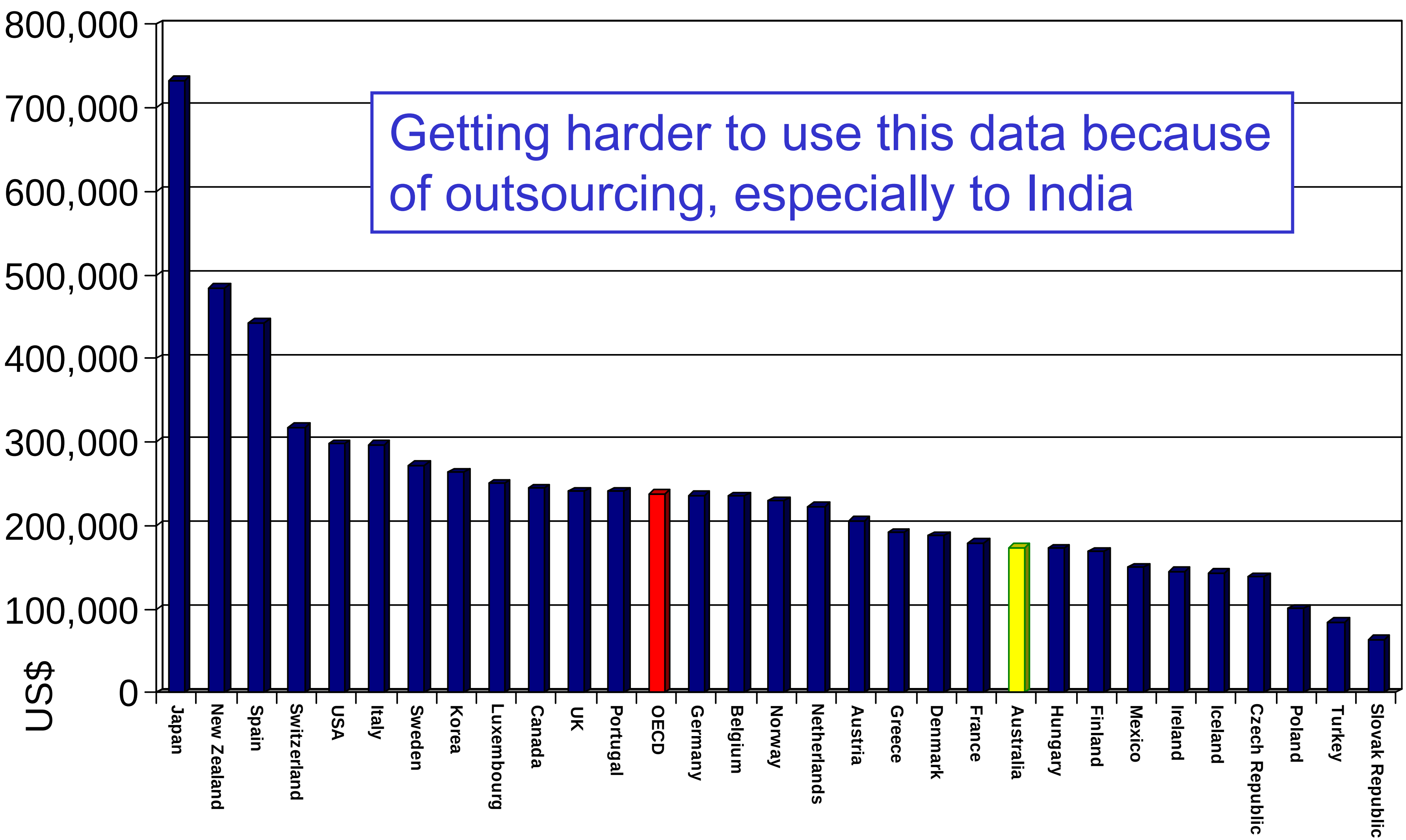
INTUG 3G

- Games, Gambling and Girls
- Greed, Gullibility and Grief
- good-ish news from Japan/Korea
- upgrade from GSM to UMTS seems harder than from CDMA
- corporate users are still waiting for affordable 2.5G

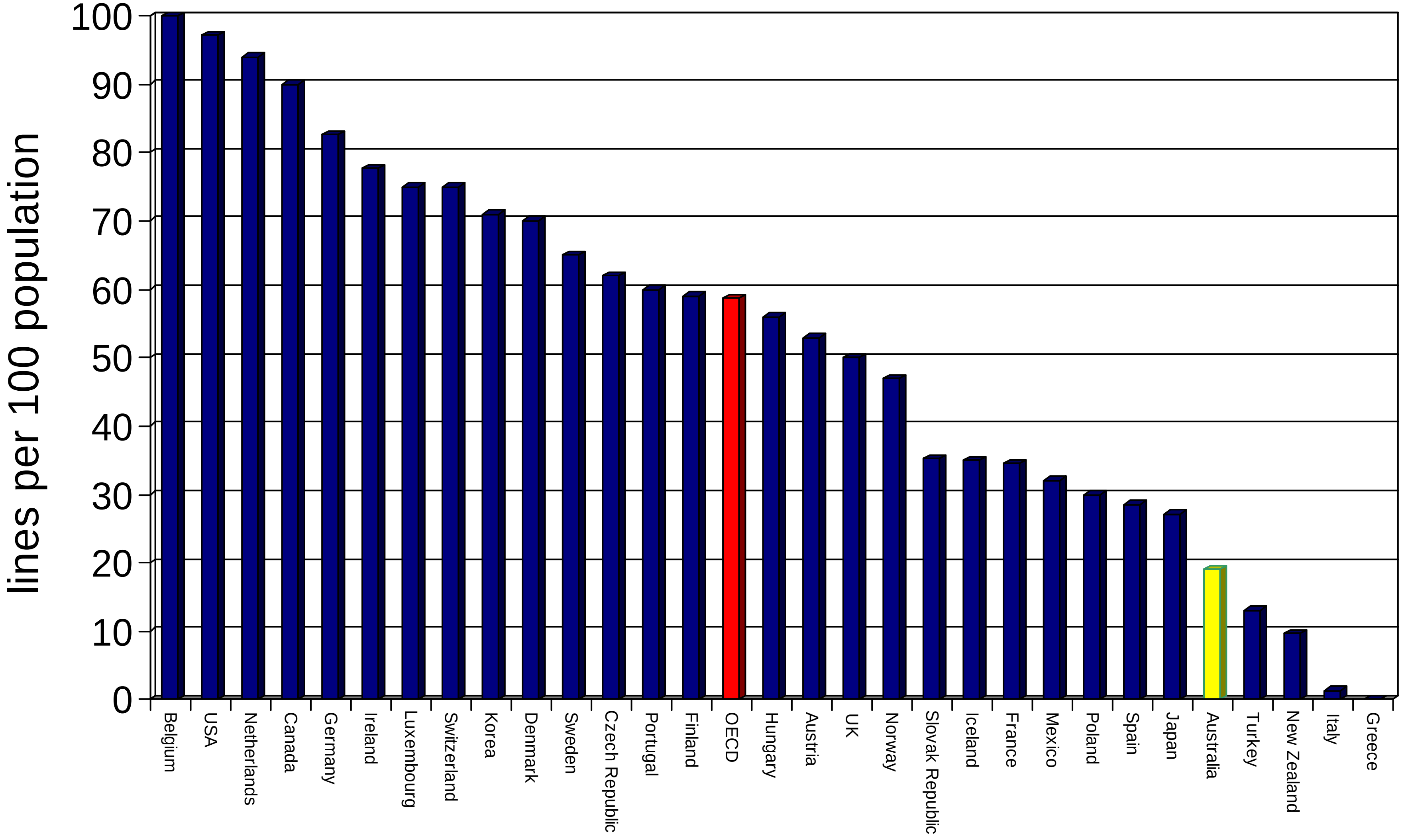
INTUG Japan and USA

- KDDI Au Win in Japan
  - cdma2000 1X EV-DO
  - ¥4,200 (AU$ 49.92) monthly unlimited
  - up to 2.4 Mbps downlink and 144kbps or more uplink (best efforts)
- Verizon
  - "national" cdma2000 1X coverage
  - US$ 79.99 (AU$ 103.55) monthly unlimited
  - 40-60kbps, bursting to 144kbps
- AT&T Wireless
  - "national" GPRS/EDGE
  - US$ 79.99 (AU$ 103.55) monthly unlimited
  - 100-130kbps, bursting to 200kbps

INTUG revenue per operator employee



INTUG cable television



INTUG broadband

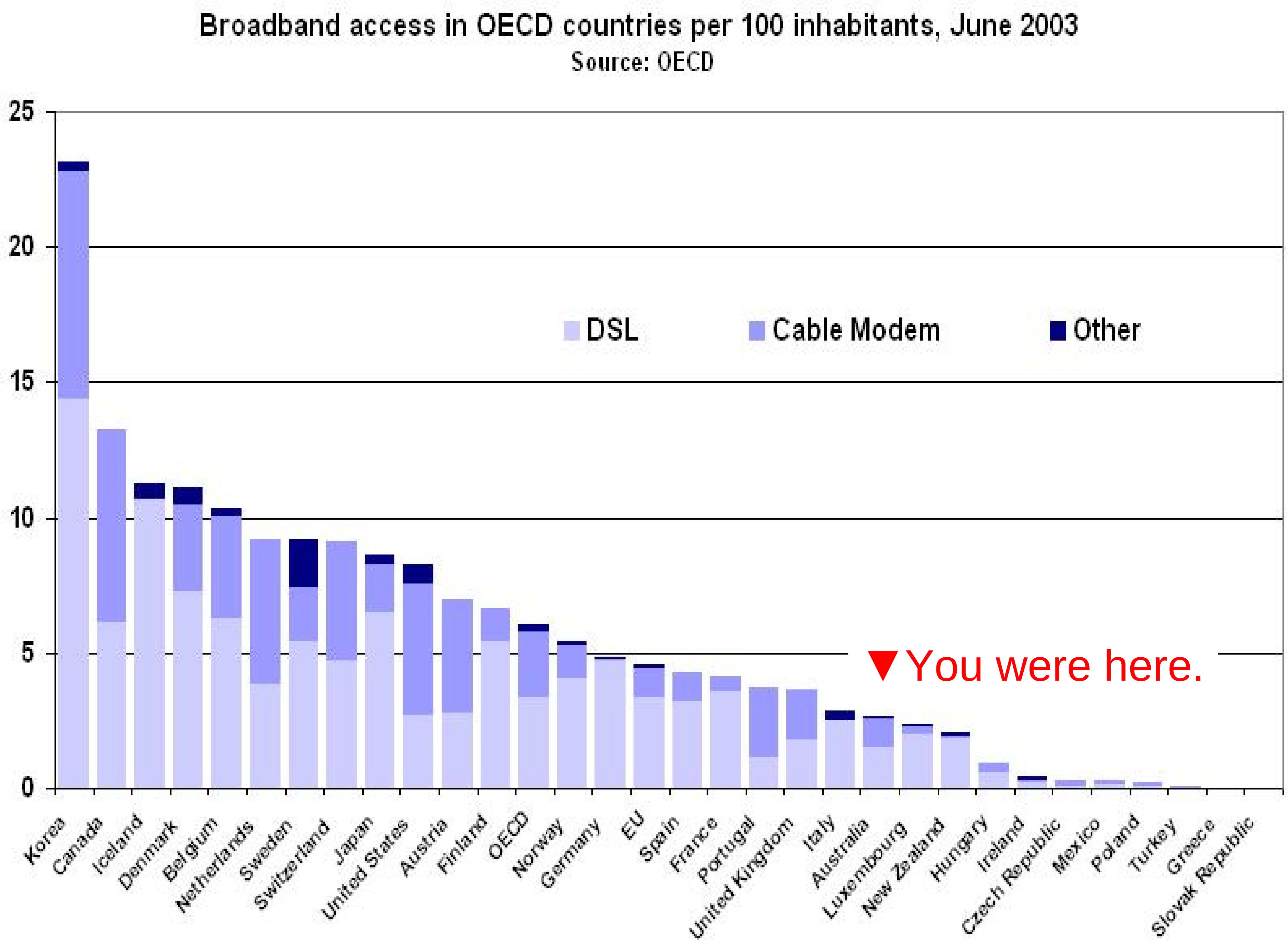
- very, very rapid diffusion worldwide
- faster than VCRs, colour TVs, etc
- now in North Africa (e.g., Maroc Telecom 256kbps, 1.5GB download for AU$ 125)
- accelerating in India
- digital divide:
  - Europe and old empires - up to 1.5 Mbps
  - Asia more than 10Mbps

INTUG broadband competition?

- some evidence of price competition
- weakening of download caps
- resellers outselling Telstra 2 to 1 on DSL
- wholesale market regulation still a problem
- but very little movement on line speed
  - still mostly “bonsai” 0.256 Mbps
- can this level of competition catch up with Korea/Japan?
- can Australia leapfrog a generation?

INTUG where is Australia?

- OECD (30 countries)
  - June 2001– 12th
  - June 2002 – 18th
  - June 2003 – 22nd
  - June 2004 – 23rd??
- world rankings
  - 22 OECD members
  - plus Hong Kong, Taiwan, Singapore & Estonia plus ……

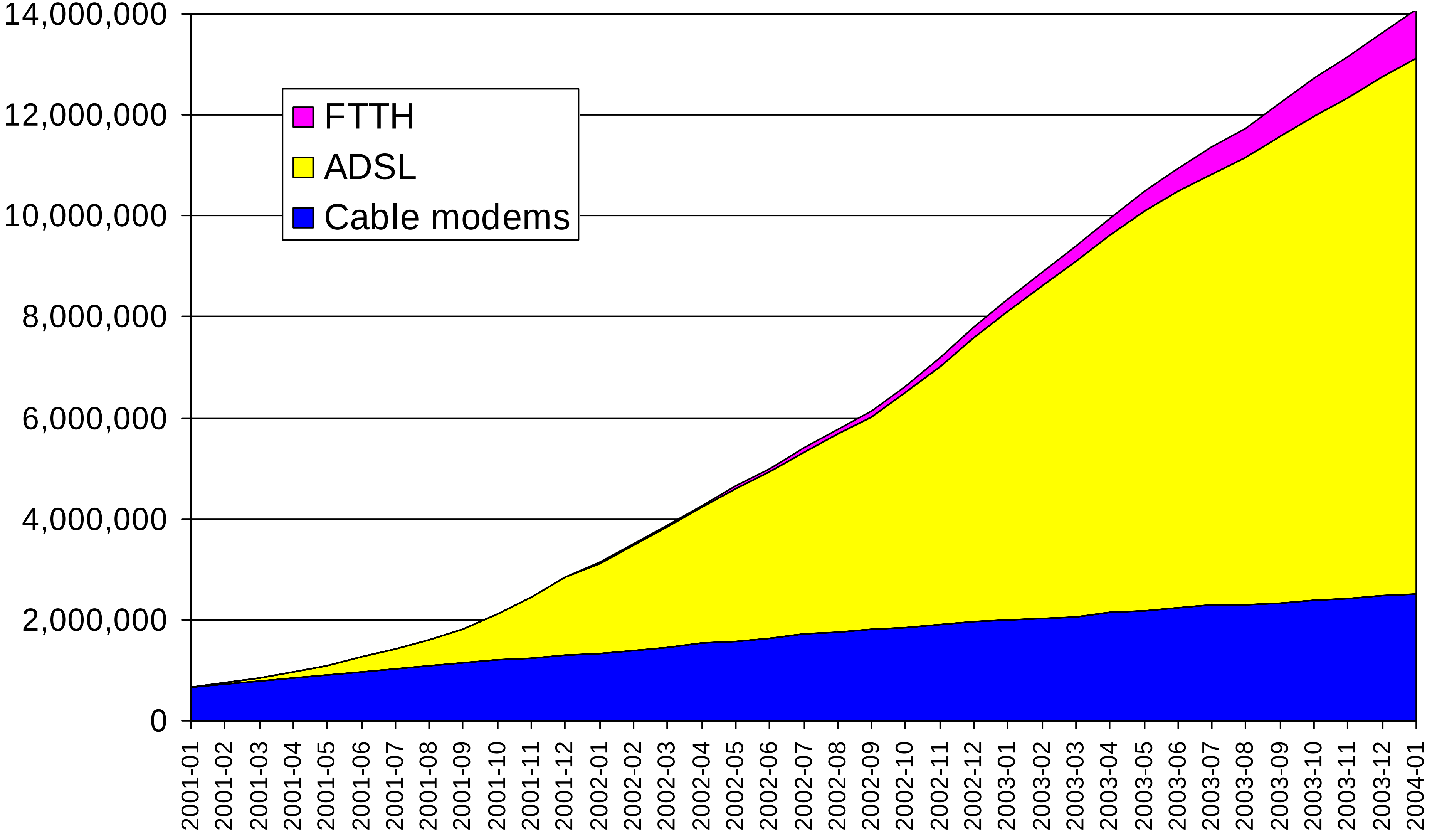


Broadband access in OECD countries per 100 inhabitants, June 2003
Source: OECD
25
20
15
10
5
0
DSL
Cable Modem
Other
You were here.
Korea
Canada
Iceland
Denmark
Belgium
Netherlands
Sweden
Switzerland
Japan
United States
Austria
Finland
OECD
Norway
Germany
EU
Spain
France
Portugal
United Kingdom
Italy
Australia
Luxembourg
New Zealand
Hungary
Ireland
Czech Republic
Mexico
Poland
Turkey
Greece
Slovak Republic

Japan/Korea/China

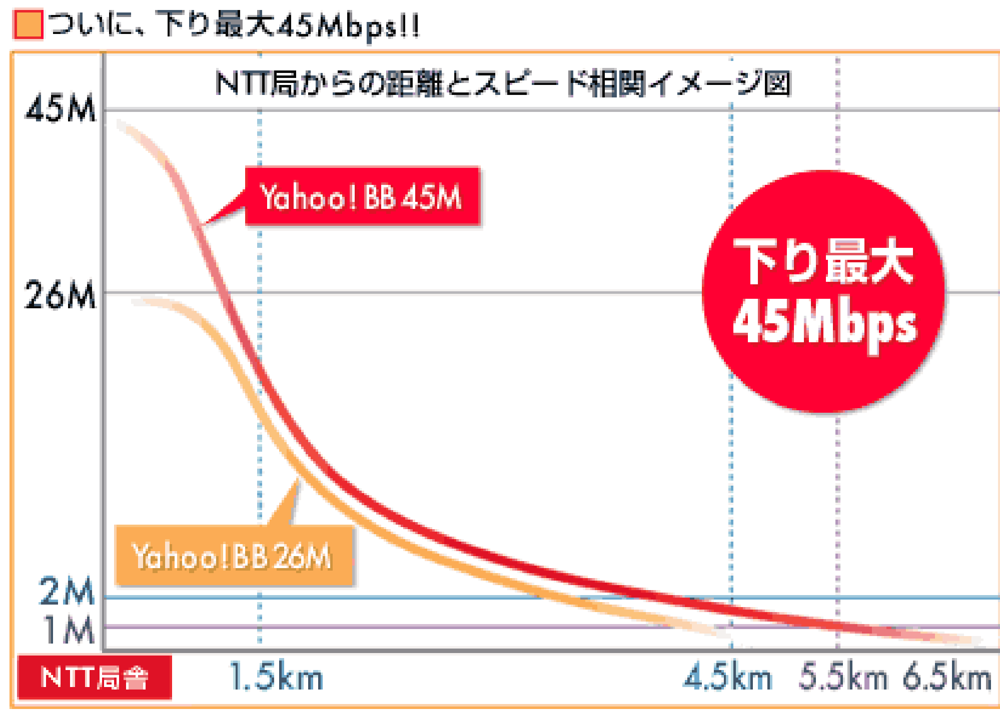
- Korea is the world leader:
  - saturated Q4 2002 10Mbps for about US$ 25
  - moving to Video DSL
  - and on to Broadband Convergence Network
- Japan is chasing very fast
- rapid diffusion in Asia of:
  - technology
  - business model
- China is growing rapidly
- India is getting organised

INTUG Japanese broadband



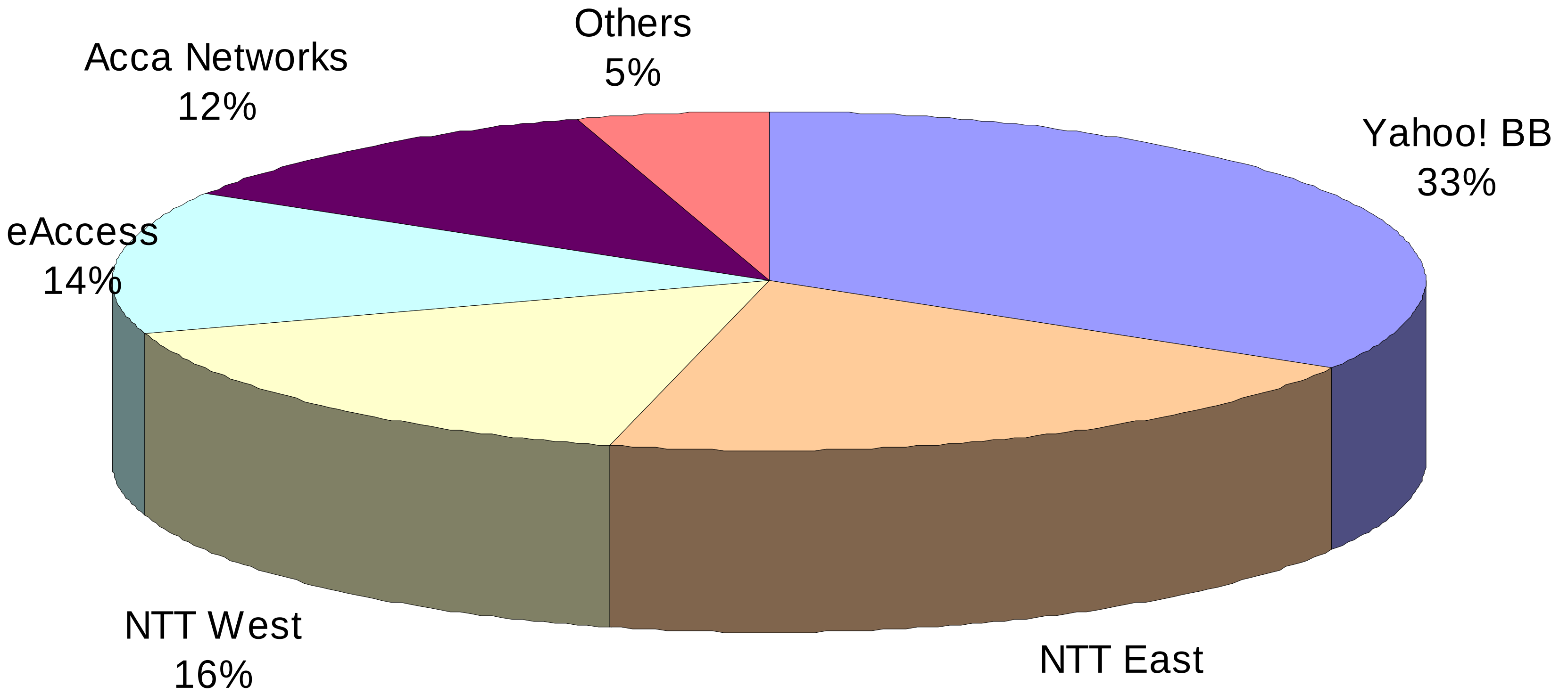
INTUG some monthly charges

- Yahoo! BB ADSL
  - 45Mbps ¥ 3,938
  - 26Mbps ¥ 3,838
  - 12Mbps ¥ 3,538
  - 8Mbps ¥ 3,138
- eAccess + InterQ
  - 40Mbps ¥ 3,880
  - 8Mbps ¥ 3,680
- Tokyo Electric Power Company (TEPCO)
  - 100Mbps FTTH ¥6,480



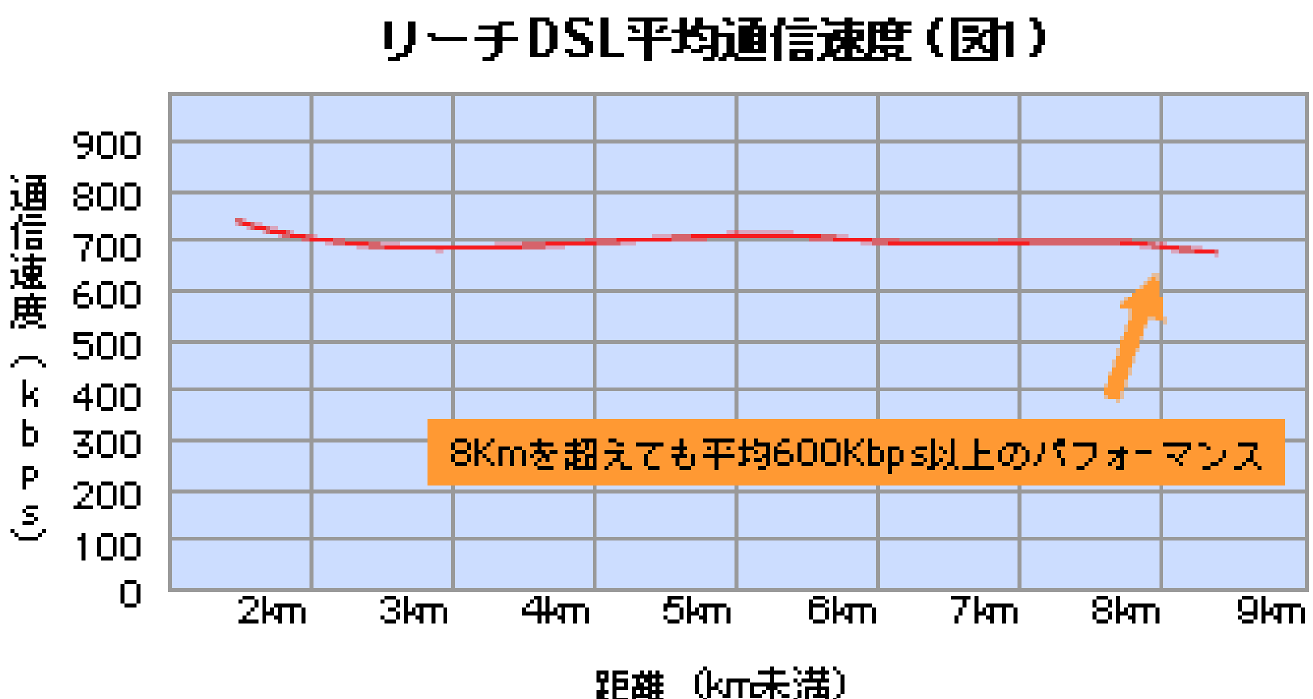
AU$1 = ¥ 84.15

INTUG ADSL market shares



INTUG Yahoo! BB reach

- new service further from the exchange
- 600kbps at 8 kilometres
- price JPY 3,000



INTUG Canada

- best comparison for Australia:
  - post-imperial, former dominion
  - large spaces, small population, few cities
- number two in the world
- competition in urban areas
- aggregated purchasing in rural areas
- satellite and FWA in “outback”
- SSI Skyline – Northwest Territories
  - 1.5/0.25 Mbps, 5GB/month for CA$59.95+GST
  - 90 per cent of homes in Yellowknife with 20 miles radius using 2.5GHz band non-directional

AU$ 1 = CA$ 1.045

INTUG Canada *versus* Australia

- Telus ADSL
- basic offer
  - 1.5/0.5 Mbps
  - 6 GB download
  - CA$ 24.95/month
- office offer
  - 2.5/0.6 Mbps
  - 15 GB download
  - CA$ 79.95/month

6x and 9x

30x

0.8x

- Telstra Bigpond
- basic offer
  - 0.256/0.06 Mbps
  - 0.2 GB download
  - AU$ 29.95/month
- highest offer
  - 1.5/0.256 Mbps
  - 20 GB download
  - AU$ 149.95/month

AU$ 1 = CA$ 1.045

INTUG serving the outback

- OECD analysis says:
  - too early to intervene for rural broadband
  - serious risks of market distortions
  - strong positive experiences of new entrants
  - cannot yet nominate a technology, or even a speed
- many new technologies and business models
- aggregation of demand does help
- leading countries are combining satellite and Fixed Wireless Access (FWA)
- the far north of Sweden has a community self-help project to lay-it-yourself FTTH

INTUG rural Wireless ISPs

- SSI Skyline (Yellowknife, NT)
- Sioux Valley Wireless (South Dakota)
- GCI Broadband Services (Alaska)
- Xtratyme (Minnesota)
- Prairie Inet (Iowa & Illinois)
- even in UK and France
- why so little in Australia?
  - is the spectrum available?
  - is there sufficient entrepreneurial spirit?
  - is there a backhaul bottleneck?
  - is the incumbent behaving anticompetitively?
  - are there pilot projects?

INTUG electricity companies

- long-term investors
- large customer bases
- strong billing platforms
- skilled workforces
- Fibre To The Home (FTTH)
  - Tokyo Electric Power Company (TEPCO)
    - 100Mbps FTTH ¥6,480 (AU$ 77) per month
- Powerline Communications (PLC)
  - known interference problems
  - Endesa in Spain

INTUG best practice for broadband

- infrastructure competition:
  - separate ownership of cable TV from xDSL
  - open up spectrum for WLAN and FWA
  - get utility companies into the market
- service competition:
  - make local loop unbundling work
  - Provide regulated wholesale products
    - bitstream access
    - Wholesale Line Rental (WLR)
- open access for content
  - especially “must have” (e.g., AFL)
- benchmark against the best and the most appropriate

cut the Telstra-Murdoch-Packer knot

INTUG conclusions

- not much has changed since last year
- further slippage on OECD broadband rankings; slow and/or unavailable
- economic growth is being held back
- need for a strong policy direction:
  - setting tough goals
  - pro-competition
  - market opening
- operators continue to use policy debates to predetermine competition

INTUG Telstra

- sale of final lot of government shares (T3):
  - a history of dreadful indecision
  - it has created a policy blight
  - getting easier with improved financial markets
- a general election might:
  - “clear the air”
  - identify the necessary political compromises
- strangely and unsuccessfully adventurous overseas and in print

INTUG thank you

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