INTUG

Mobile telecommunications competition & cartels

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INTUG contents

- European leadership
- market failures
- choosing technologies
- ensuring investment
- what happened to leadership?
- conclusions

INTUG what is INTUG?

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

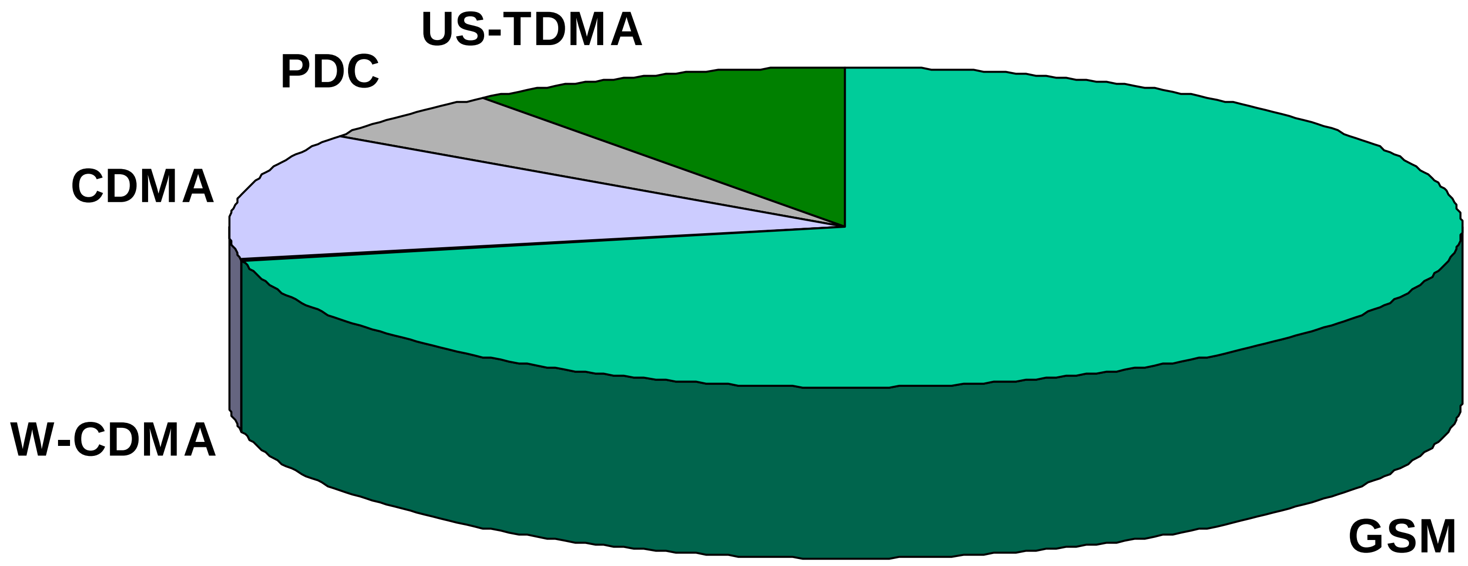
INTUG our aims

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

INTUG mobile for competition

- a second GSM operator
  - would bring competition
  - allow incumbent fixed operator to adjust to new world
- EU members states
  - licensed third operator
  - N+1 in 3G

INTUG mobile techologies



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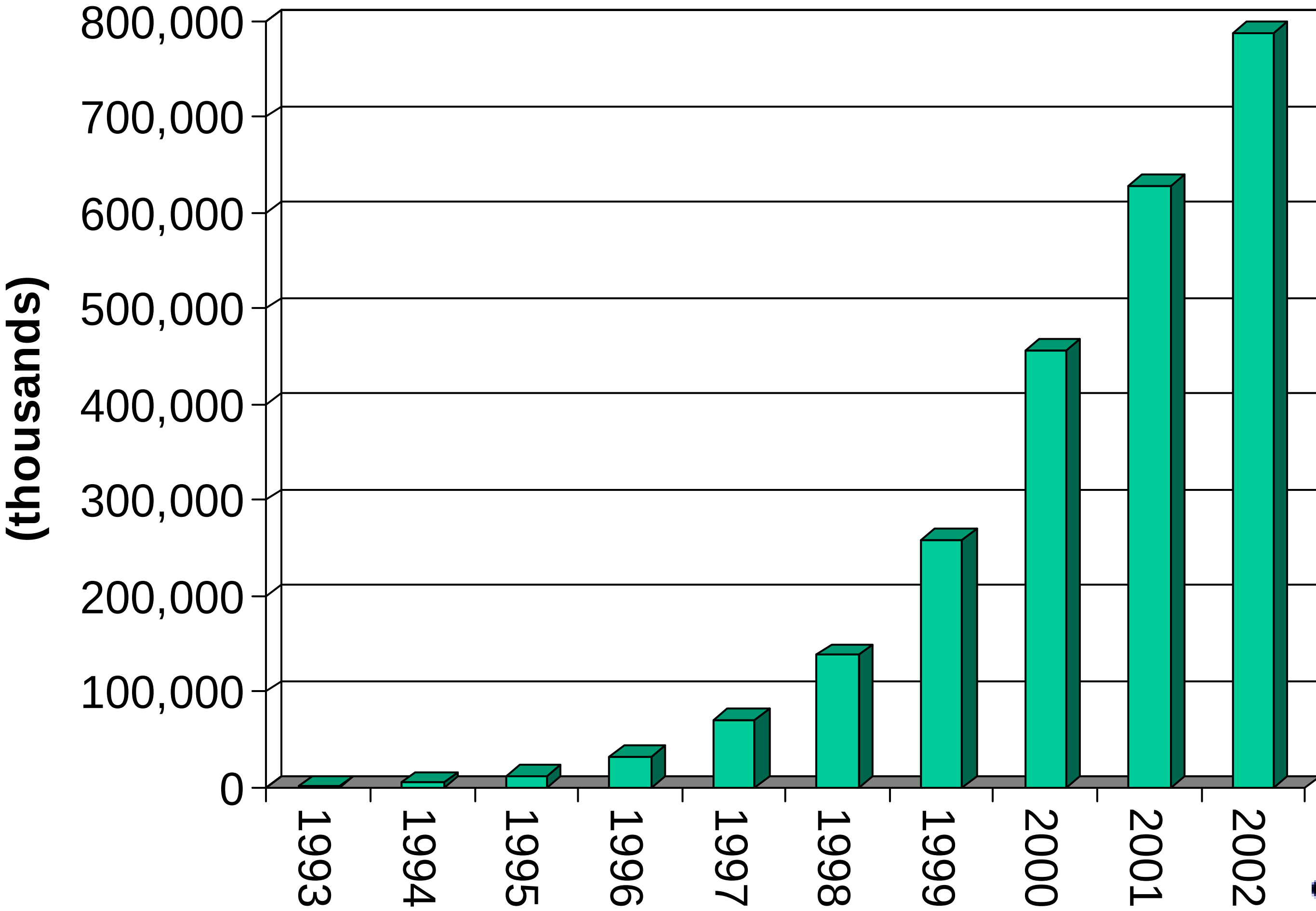
INTUG GSM subscribers



Source: GSM Association.

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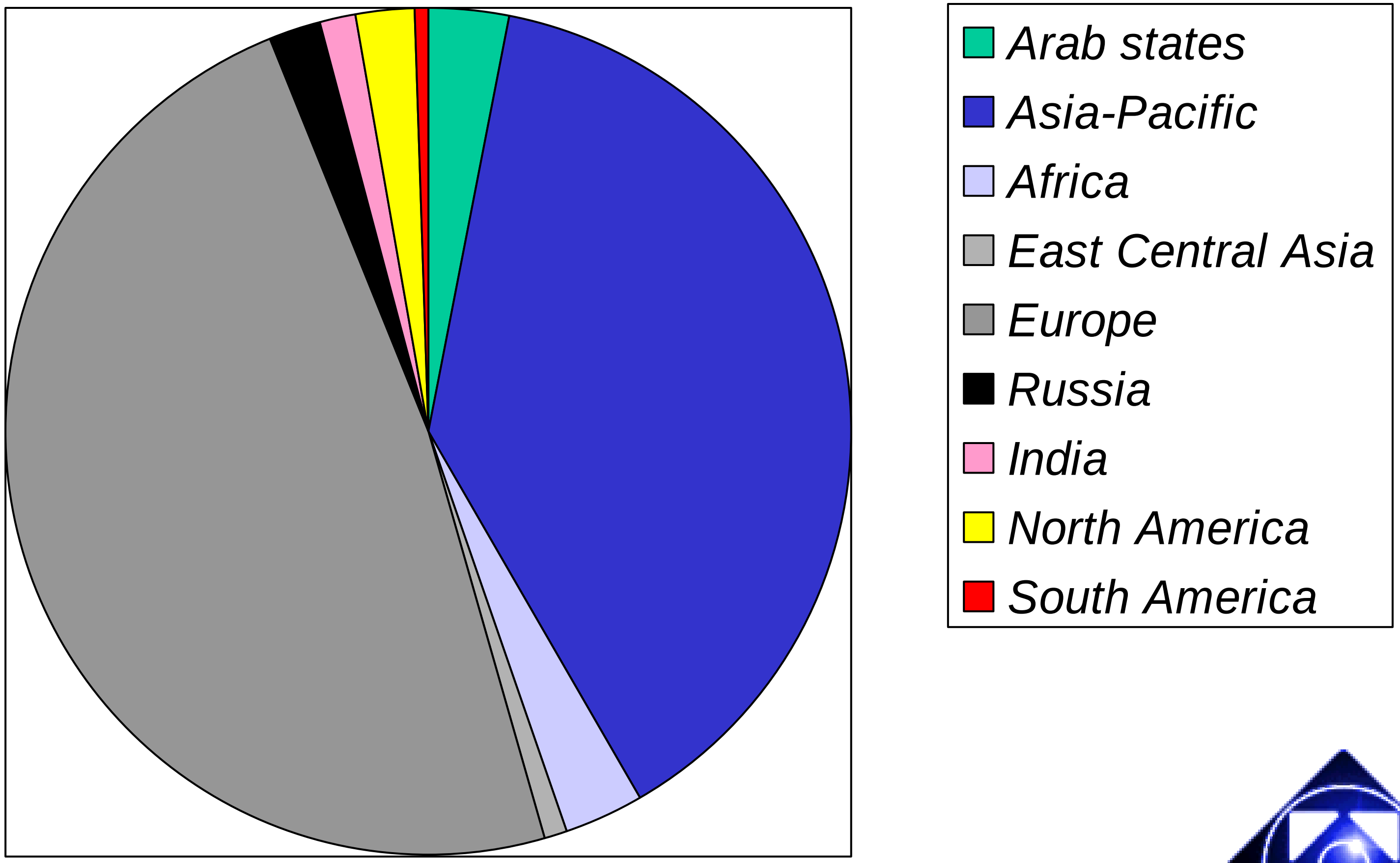
INTUG GSM worldwide



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Source: ITU.

INTUG mobile teledensity

Country	2000	1999	Rank 2000	Rank 1999	Change
Luxembourg	86.11	47.97	1	11	10
Hong Kong	80.92	64.14	2	1	-1
Taiwan, China	80.24	52.24	3	7	4
Austria	76.15	51.98	4	8	4
Norway	75.09	61.29	5	4	-1
Italy	73.73	52.83	6	6	0
United Kingdom	72.70	45.69	7	14	7
Finland	72.04	63.38	8	2	-6
Sweden	71.72	58.29	9	5	-4
Israel	70.18	47.18	10	12	2
Singapore	68.38	41.88	11	19	8
Netherlands	66.99	42.52	12	18	6
Portugal	66.49	46.73	13	13	0
Ireland	65.75	44.20	14	16	2
Switzerland	64.39	42.68	15	17	2
Denmark	63.11	49.47	16	10	-6
Slovenia	61.21	31.75	17	25	8
Spain	60.93	30.60	18	28	10
Germany	**58.60**	**28.54**	**19**	**30**	**11**
Iceland	57.11	61.93	20	3	-17

INTUG market abuses

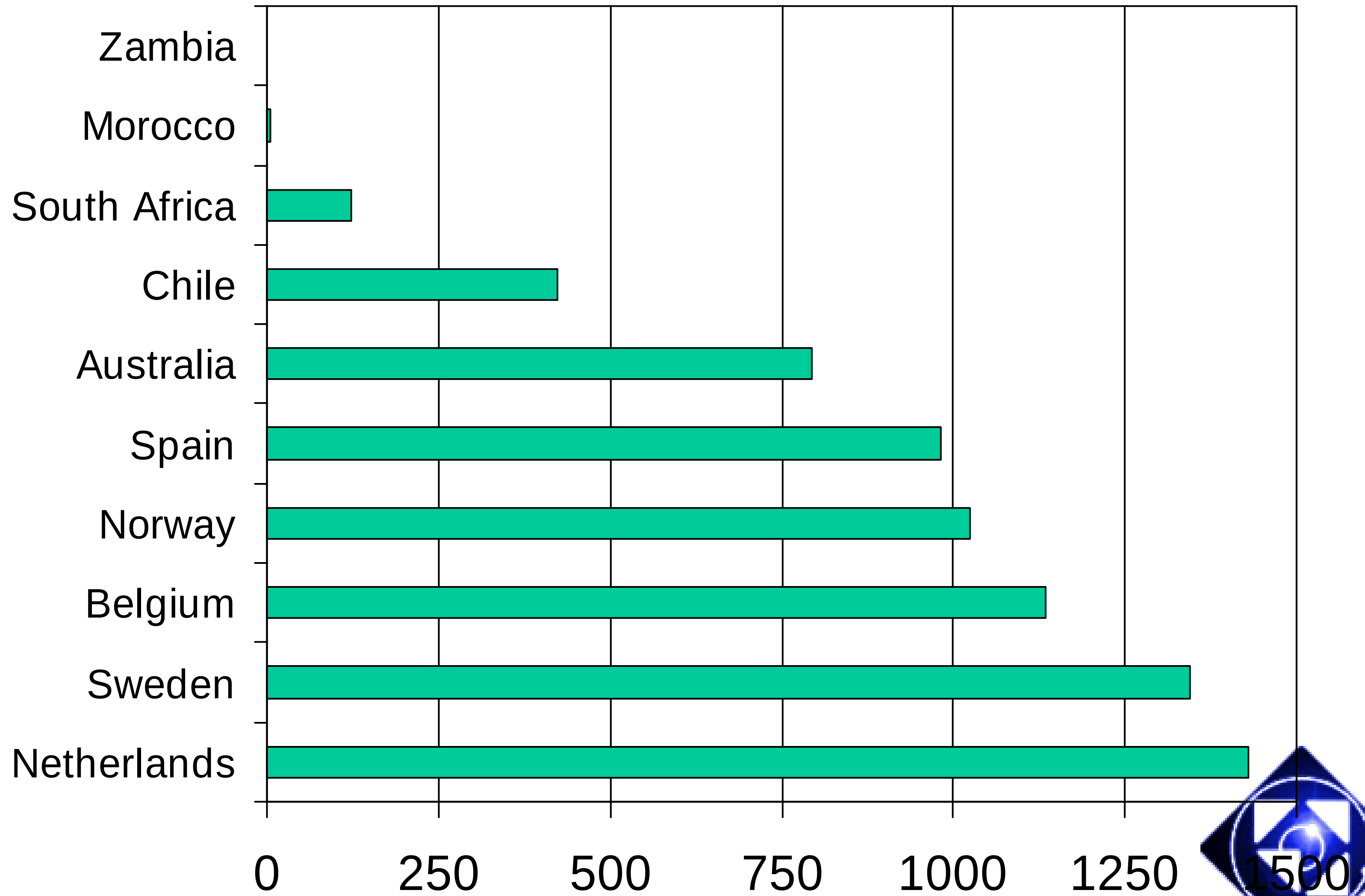
- call termination prices
  - domestic
  - international
- international mobile roaming
- Short Message Service
- financial market problems

Caused by an unwillingness to compete.

INTUG call termination prices

- regulated termination on fixed networks
- unregulated termination on mobile
- high and sometimes rising prices
- operators are dominant on their own market
- started at home but extended abroad
- need to drive down prices

INTUG fixed/mobile price difference (%)



international mobile roaming

- investigation by the Competition Directorate-General of European Commission begun in 1999
- looks like a cartel
- absence of competition
- inexplicable price variations
- ripping off each other's customers
- operators heavily reliant on this, can be 15% of total revenues

INTUG South Africa and Belgium

- Belgacom (fixed incumbent)
  - peak € 1.00 off-peak 0.86
- Proximus (Vodafone group)
  - international call to RSA € 1.66
  - forwarding to a roamer in RSA
    - € 2.08 MTN or Vodacom
  - calling from RSA to Belgium
    - on MTN €1.43 or €1.19 (off-peak)
    - on Vodacom € 1.51
- Telkom
  - peak R 3.64 or 3.29 off-peak (€0.34)
- Vodacom
  - international calls to Belgium
    R 5.30 and R 4.16 off-peak (€0.50 and 0.39)
  - Vodacom roaming on Proximus
    - Forwarding to a roamer R 4.23 (€ 0.40)
    - Call back to RSA R 32.12 and 30.18 off-peak (€3.00/2.82)

Price per minute
Min € 0.34 R 3.64
Max € 3.00 R 32.10

INTUG carried over into new services

- GPRS
  - € 1.40 per Megabyte at home
  - €15 per Megabyte where roaming is available
- MMS

INTUG state of play

- regulators and competition authorities are now fully aware of these issues
- they will drive down voice revenues of many operators
- operators will need to compensate with data and VANS revenues

INTUG SMS

- carried in the signalling channel
- costs to the operator are minimal
- massive contribution to revenues
- prices driven up in a spiral
- operators stabilising ARPU
- looks like a cartel
- a fairly straightforward case for a willing regulator

INTUG i-mode

- SIM-locked
- portal-locked
  - "walled garden"
- selective third-party billing
- very, very hard to transplant

market failures

- HSCSD
  - nobody has heard of this
- WAP
  - killed by hype
- GPRS
  - no business users, only trialists
  - prices are wrong by order of magnitude

INTUG financial markets

- until 2000 analysts used:
  - size of customer base
  - growth
- they got rid of the analysts
- operators now provide the Average Revenue Per User (ARPU) each month
- no remaining trust for telecommunications
- very little money is available, even for good ideas

INTUG chosing technologies

- GSM or CDMA?
- GPRS or CDMA2000?
- or CDMA/WLL/M?
- 3G?
- regulation as a hand-maiden to investment

INTUG GPRS

- like ISDN for mobile phones
- only being used in trials
- even big companies see this as grossly over-priced
- roaming prices are higher still
- no signs or hopes of any revenues for the operators
- EDGE and 3G due very soon

INTUG cdma2000

- the route to 2.5 and 3G seems easier
- cdma2000 1X
- cdma2000 1X EV-RO
- for example, South Korea

INTUG 3G

- transition to 3G was to be easy and lucrative
- financial markets pushed the operators, now telling them to get out
- few handsets and no services,
  so no additional revenues
- regulatory problems of network sharing
- may only ever be consumer services
- competition from WLAN, Bluetooth, IR …
- ***today*** there is no business case for operators

INTUG other problems

- competition law problems
  - open access
- privacy and data protection problems
  - especially when roaming
- no billing software
- push adverts
- unsolicited messages ("spam")

INTUG consolidation

- operators are keen to limit competition
- they want to "consolidate"
  - leave markets where they are weak
  - strengthen where they are strong
- secondary trading of spectrum
- want to avoid bankruptcies which would allow in new players

INTUG WLAN

- need to ensure spectrum is available
  - 2.5 GHz and 5 GHz
  - harmonised in Europe or globally
- consider licensing of public services
- encourage proper security
- it can add considerably to competition

INTUG investment

- regulation and the investment decision making process are inextricably linked
  – timing
  – costs
- asymmetry
- operators play complicated political games for financial gain, regulate my competitors, not me

INTUG leadership

- GSM was a European flagship
- adopted very widely
- beat USA and Japan
- South Korea now winning
  - global handset sales
  - revenues for mobile data
  - combining mobile and fixed access

INTUG conclusions

- enormous variations in performance
- well established market failures
- very worrying signs from 3G
- little revenue from either data or VANS on 2.5G
- WLAN looks interesting
- UWB and 4G may be medium term factors

INTUG thank you

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http://www.intug.net/talks.html