What is Happening in European Telecommunications?

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Europe –Statistics (1)

Area	Population	GDP	Total Lines	Line Density
Africa	763 M	$ 507 B	15, 094 M	2%
Americas	788 M	$10,127 B	241,004 M	30%
Asia	3,495 M	$ 8, 242 B	230,452 M	6%
Europe	795 M	$ 10, 127 B	282,762 M	36%
World	5,971 M	$29, 477 B	780,835 M	13%

Sources: Population (97), GDP (96) - UN, IMF
Telephone Lines (97) - ITU

Europe –Statistics (2)

Total value of merchandise trade:

exports -- $2,042 billion

imports -- $1,953 billion

Value of trade with U.S.:

exports to U.S. -- $143 billion

imports from U.S. -- $128 billion

Top sources of imports:

1. Germany
2. France.
3. United States
4. U.K.
5. Netherlands

Top markets for U.S. goods:

1. U.K.
2. Germany
3. Netherlands
4. France
5. Belgium & Luxembourg

Trade with U.S. as a percentage of total regional trade: 7%

Trade with U.S. as a percentage of total U.S. trade: 19%

Source: Center for Strategic and International Studies (1997)

Europe –History (1)

- Strong public service monopoly tradition
- Industrial policy of creating 'national champions'
- Strong national orientation
- Loss of the potential opportunities of a European-wide market
- In 1987 the European Commission published the Green Paper
- By issuing this Green Paper, the Commission started a Europe-wide debate on the telecommunications regulatory environment

Europe –History (2)

The Green Paper proposals received a broad general support and the following actions were recommended:

- **Full <u>opening</u> of the <u>terminal equipment market</u> to competition (1988)**
- **Full mutual recognition of type approval for terminal equipment**
- **Progressive opening of telecommunications markets to competition**
- **Clear <u>separation</u> of <u>regulatory</u> and <u>operational</u> activities**
- **Establishment of open access conditions to networks and services**
- **European Telecommunications Standards Institute (ETSI) (1988)**
- **Application of EC competition rules to the telecommunications**

Europe –History (3)

Since 1 January 1998,
the telecommunications markets
are fully liberalised
in most of the European Union

Regulatory Developments - Example: Germany

- 1989 - Liberalisation of mobile and satellite radio communication
- 1993 - Liberalisation of voice and data within closed user groups
- 1993 - A Telecommunications Council is established
- 1995 - German Bundespost detached from Deutsche Telekom
- 1995 - BMPT introduces new Telecommunications Law
- 1996 - The German Parliament passes the Telecommunications Law
- 1996 - Deutsche Telekom floated for DM 20B ($13.3B)
- 1996 - The first three class 4 licences issued (Colt, Vebacom, Net Cologne)
- 1997 - The BMPT decides that DT has to grant access to the last mile
- 1998 - January 1, market open for total competition

Regulatory Developments - Example: UK

• Prior to 1982 BT had a monopoly

•In 1982 Mercury Telecommunications (now owned by C&W) got a licence

•In 1984 BT privatised

•The Telecommunications Act of 1984 establishes Office of Telecommunications (OFTEL)

•In 1991 duopoly discontinued (cable and wireless operators offer fixed services)

•In 1994 OFTEL issues “Interconnection and Accounting Separation” rules that are implemented in 1997

•In 1997 OFTEL rules that till July 2001 telecommunications prices for 80% of lowest spenders will be 4.5% below inflation level

•June 1998, major changes to Wireless Telegraphy Act

•June 1998, BT provides Internet service without the need to subscribe

Numbering Plan

- by 01/01/1998, call-by-call carrier selection
- by 01/01/1999, start of a field trial of country code ‘388’
- by 01/01/2000, carrier pre-selection
- by 01/01/2000, operator number portability should be offered

Taxation

• Current VAT is based on the place of establishment of the service provider

• EU carriers charge VAT on services both within and outside the EU

• Non EU carriers may provide services into the EU free of VAT

• The proposal to submit foreign carriers to the same VAT requirements

• Exempt from VAT, telecommunications services provided by EU-based companies to customers established outside the EU

Alternative Networks

- **Firms from other industries enter the market.**
- **Establishment of virtual networks**
- **PTOs are aware of their competitive advantage**
- **PTOs lobby for regulations so that they do not become under-protected**

Alternative Networks - Example: U.K.

• The Electricity Supply Industry

• United Utilities developed a system (Oct 97) for sending data along power lines without excessive distortion. A trial in Manchester (3/98) has been completed, a planned rollout is for end of 1998.

•National Grid launched (Mar 93) a national fibre optic network. This 5,000 km network handles 60% of UK internet traffic and provides ATM for virtual private networks.

• British Rail

•The primary goal is to deliver telecommunications services to the railway itself, however it provides dark cable (5,700 km) to other companies. It is part of Hermes, an European consortium of eleven railway operators.

• The Water Supply Utilities

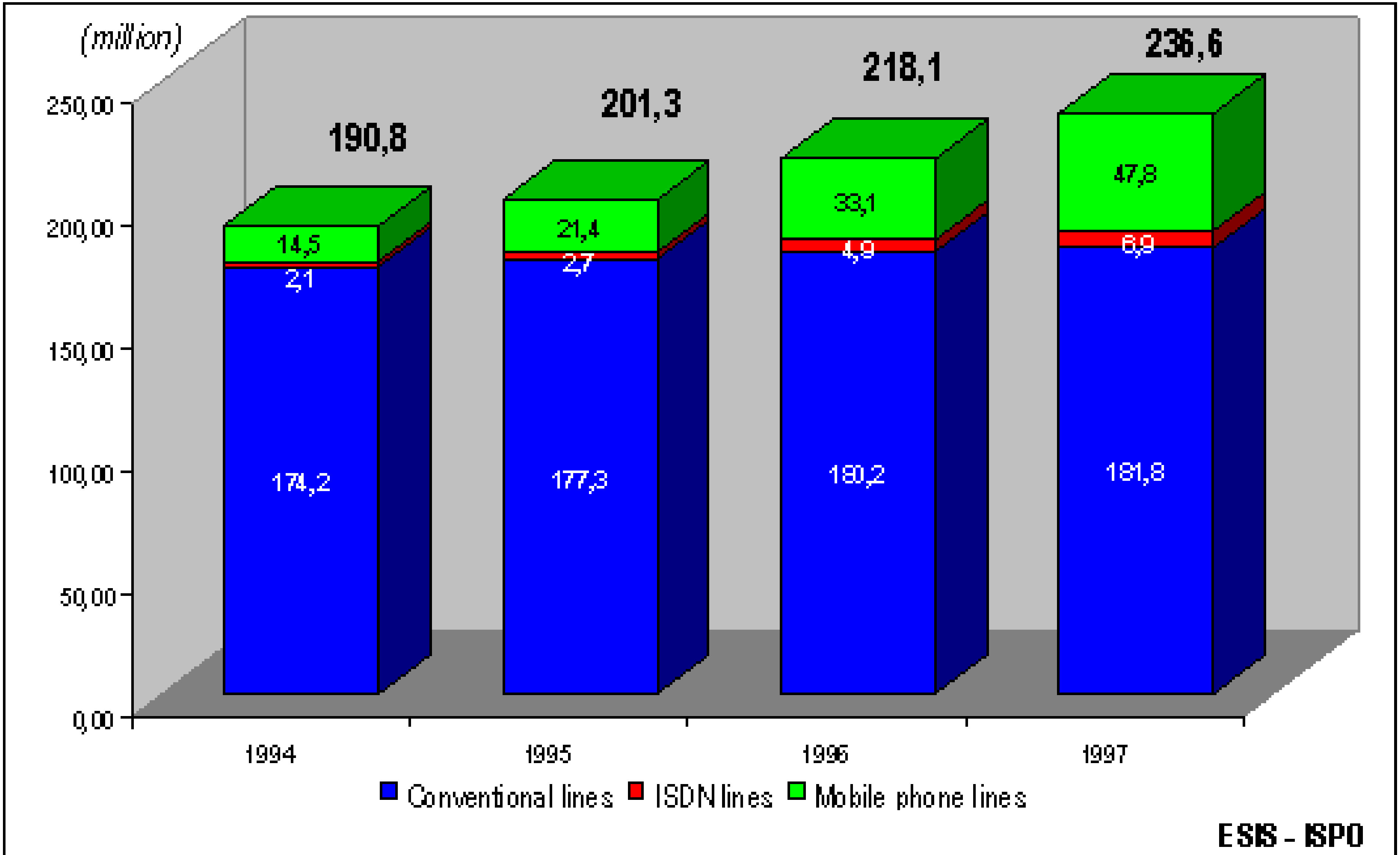
• Fibreway (Apr 98) announced that its fibre network along 10,000 km of water supply canals and pipes will be finished by the Jan 1999.

Foreign Operators - Example: Italy

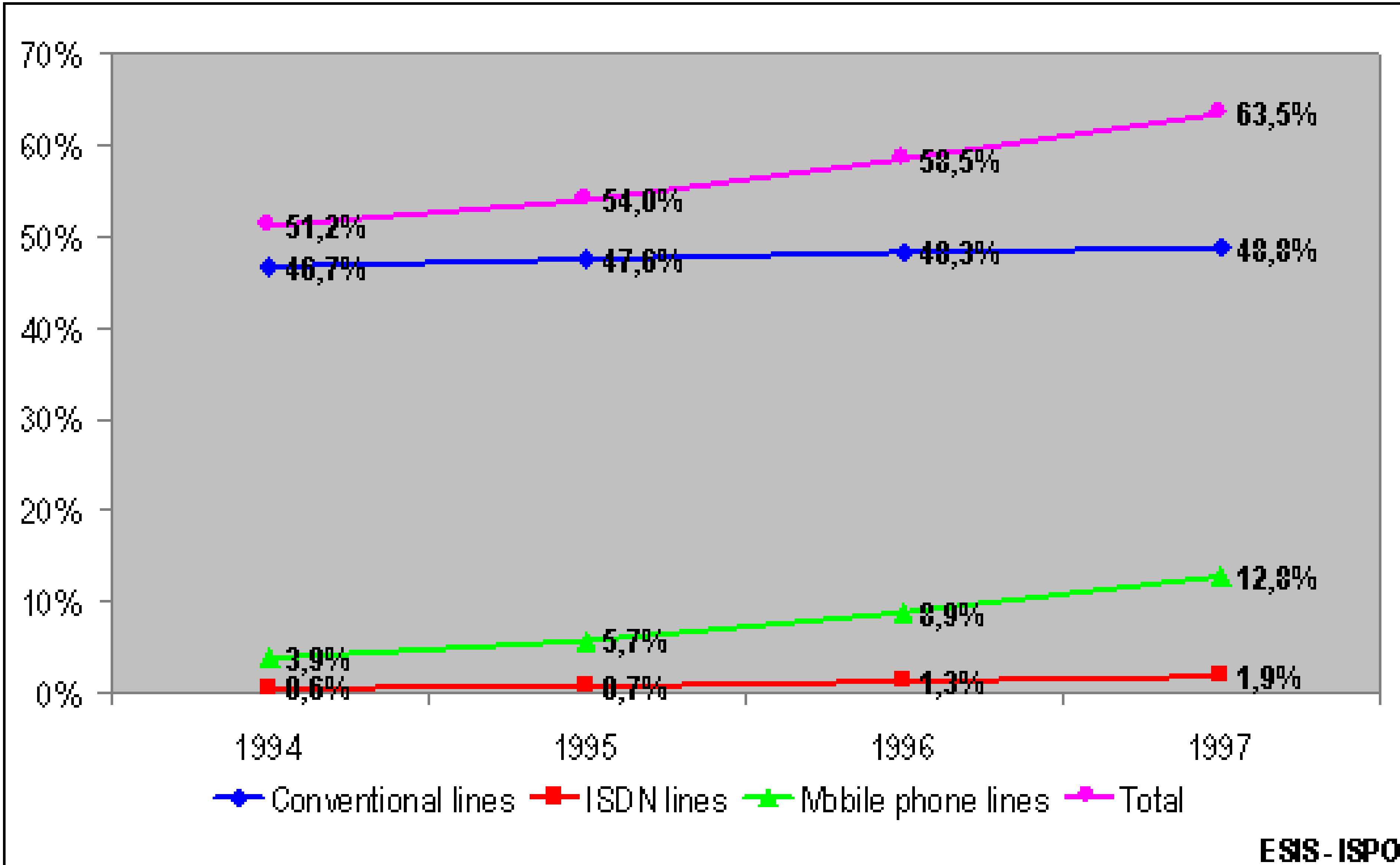
- <u>Foreign Operators</u>
  - Global One
  - AT&T/Unisource
  - Cable and Wireless
  - GEIS (General Electric Information Services)

- <u>Joint Ventures</u>
  - Omnitel ProntoItalia (Olivetti, Mannesmann, Bell Atlantic, Air Touch)
  - Albacom (BT, Banca Nazionale del Lavoro, Mediaset, ENI)
  - Infostrada (Ollivetti, Mannesmann, Bell Atlantic)
  - Wind (Enel, Deutsche Telecom, France Telecom)

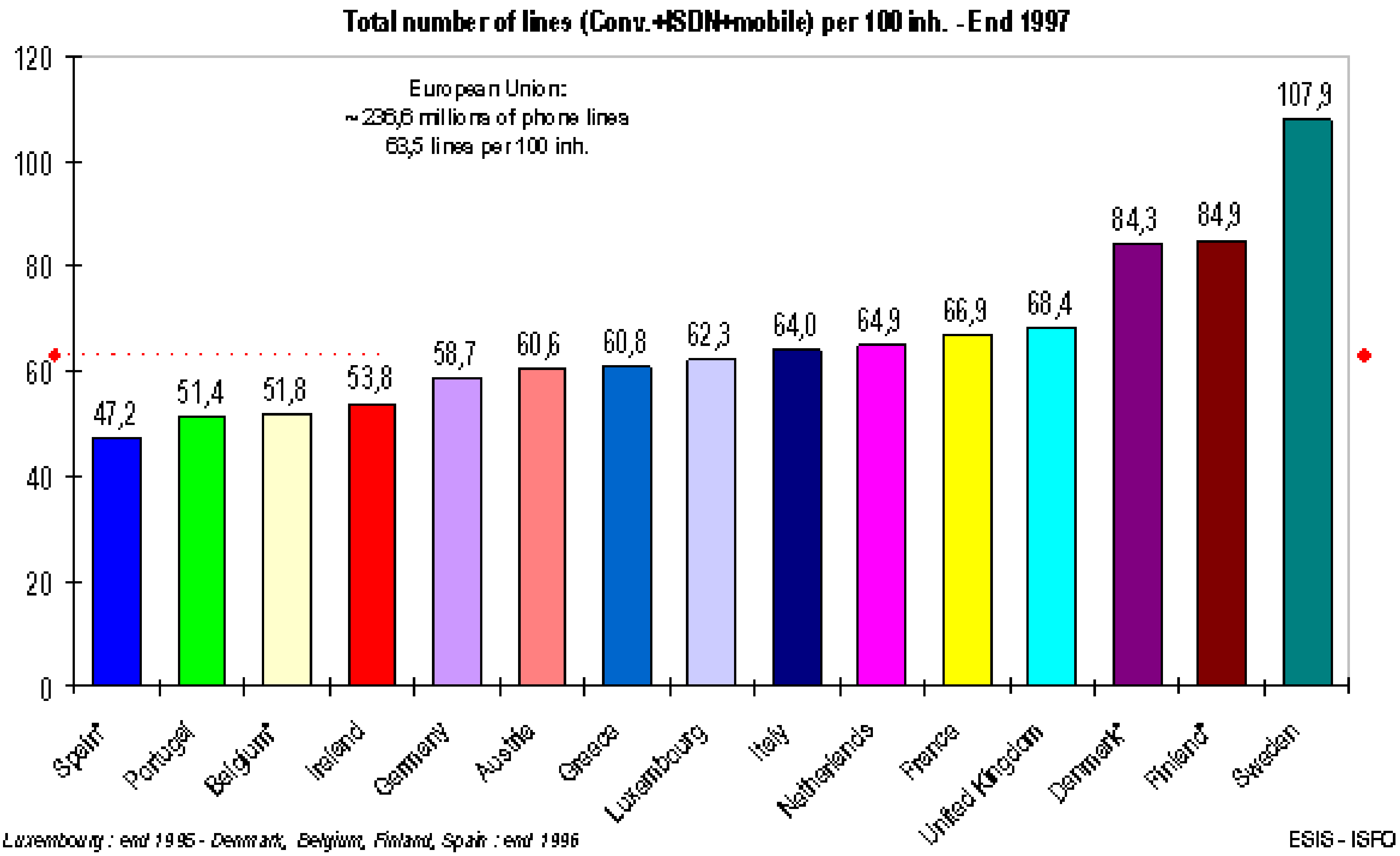
European Telephony Statistics (1)



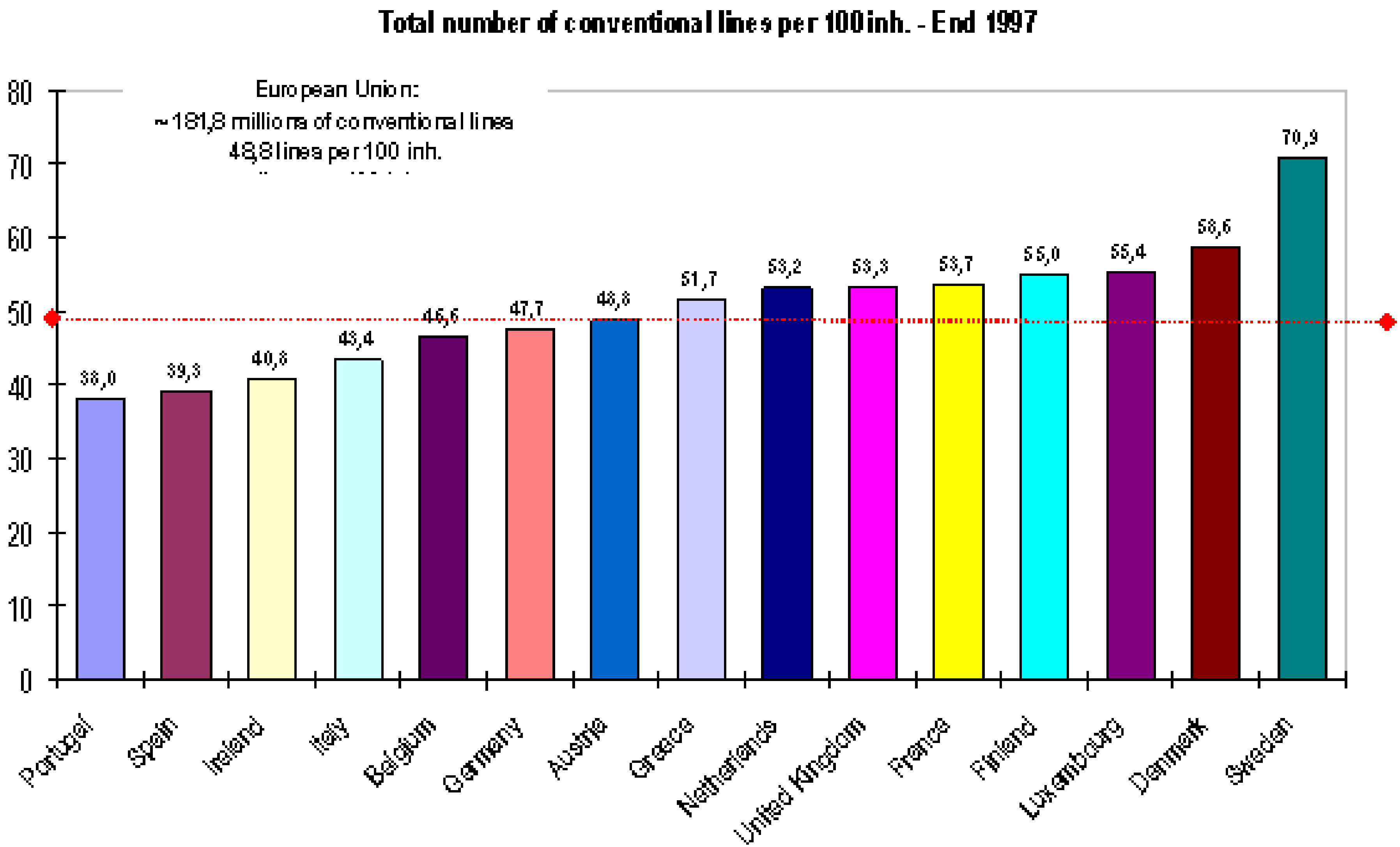
European Telephony Statistics (2)



European Telephony Statistics (3)



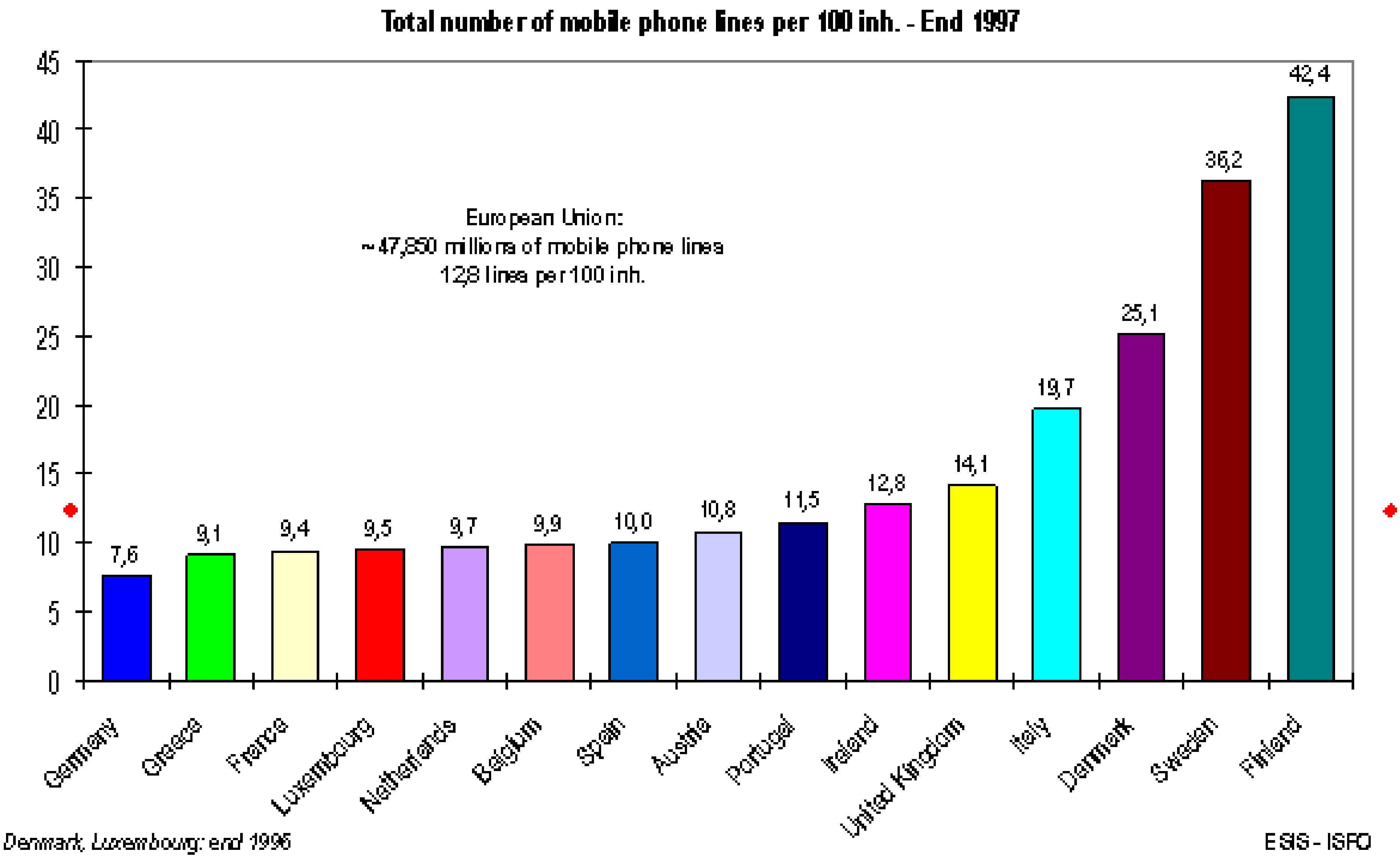
European Telephony Statistics (4)



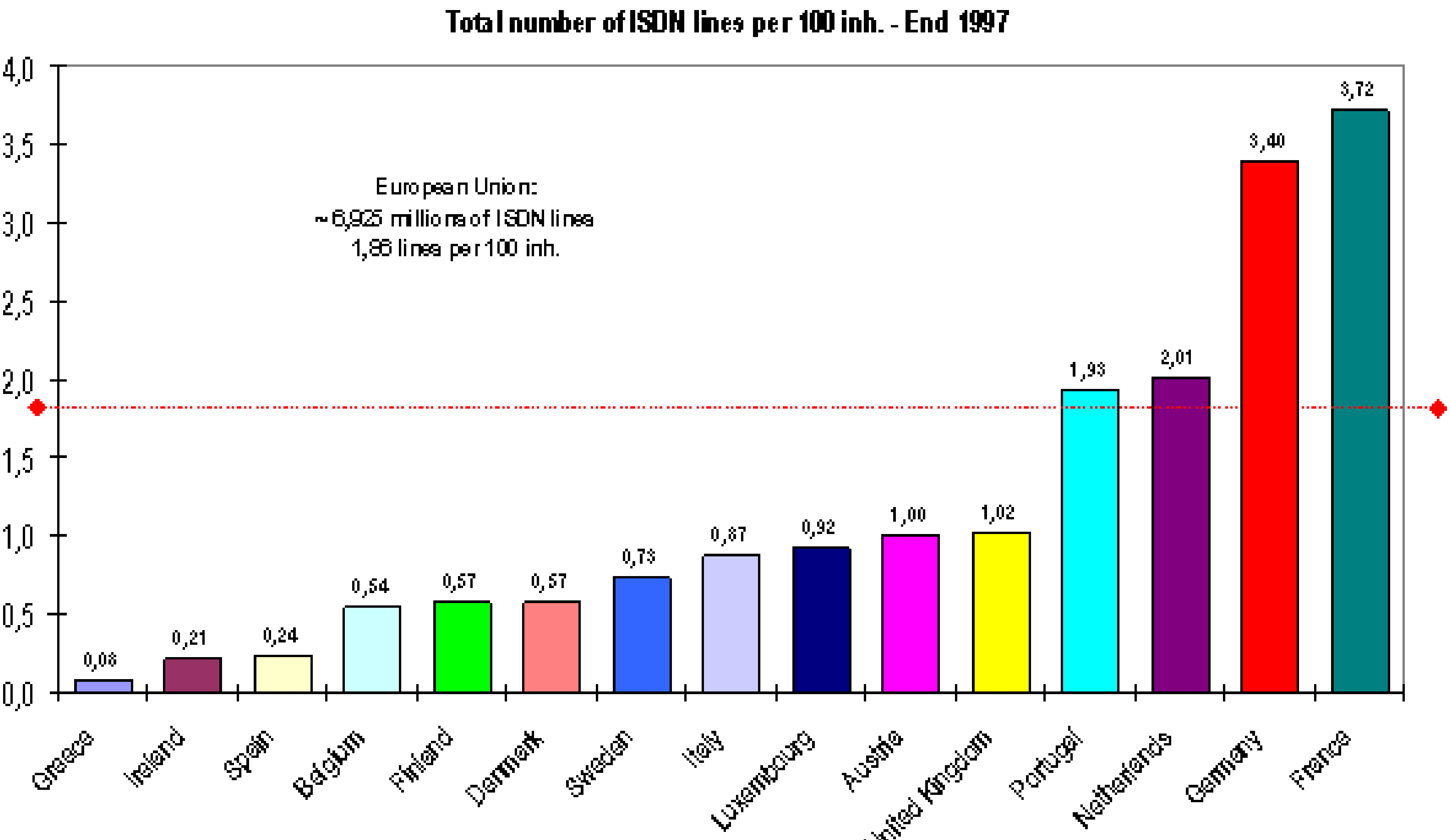
Luxembourg : end 1995 - Denmark, Belgium, Finland, Spain : end 1996

ESIS - ISPO

European Telephony Statistics (5)



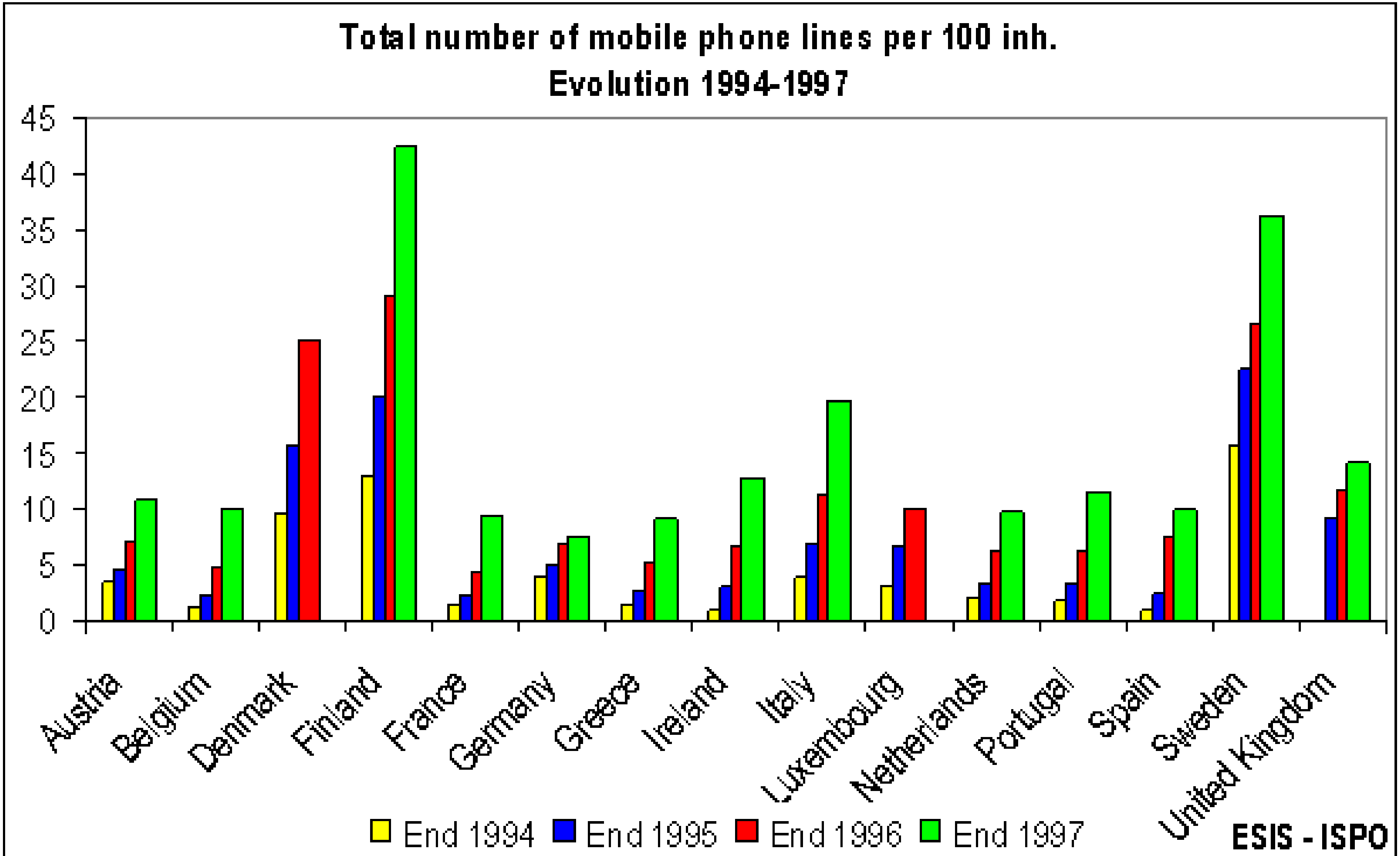
European Telephony Statistics (6)



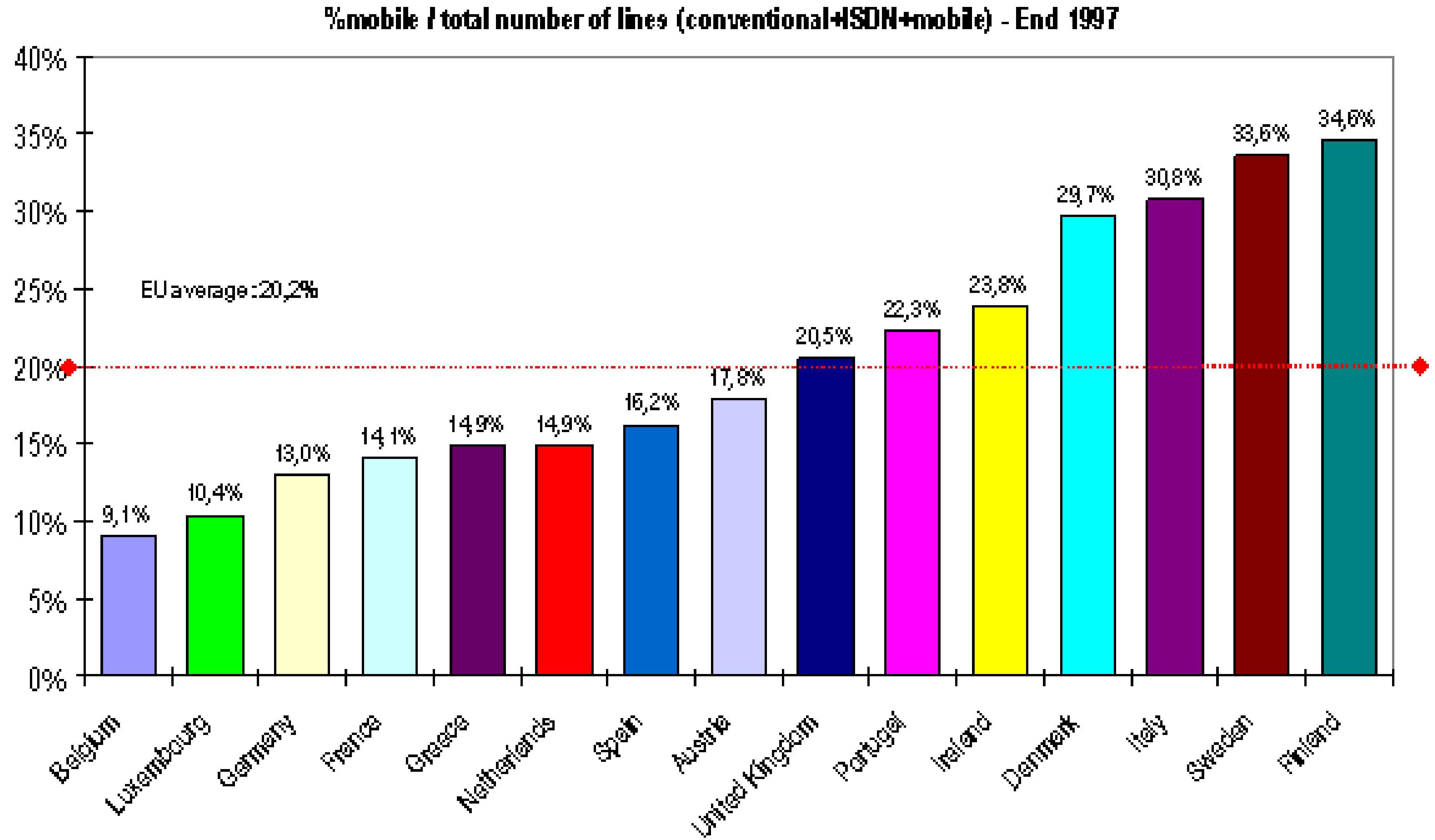
Finland, Denmark, Belgium, Spain, Luxembourg: end 1996

ESIS - ISPO

European Telephony Statistics (7)



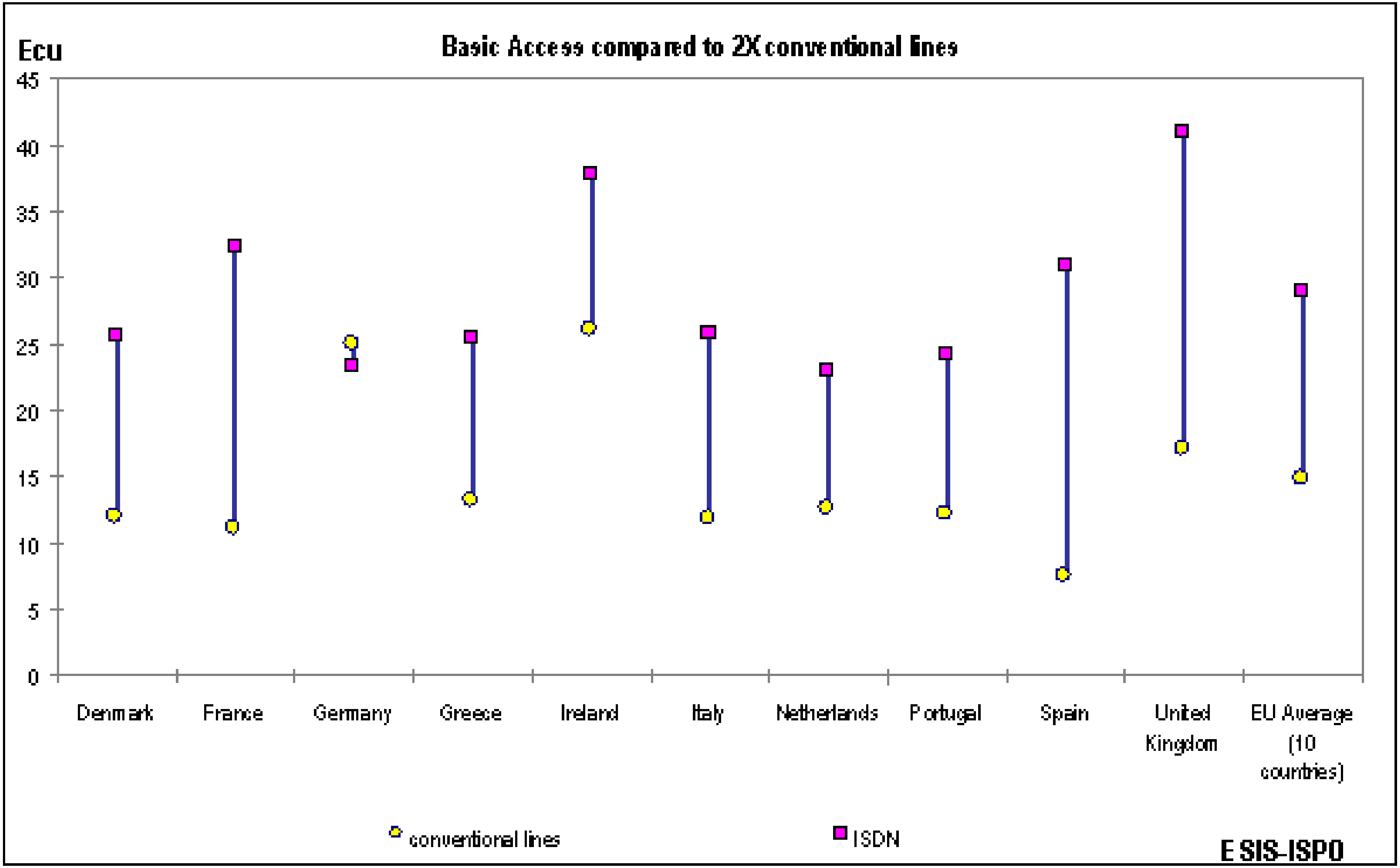
European Telephony Statistics (8)



Luxembourg: end 1995 - Belgium, Denmark, Finland, Spain: end 1996

ESIS - ISPO

European Telephony Statistics (9)



BACKUP

Major Equity Movements

- DT (1996) - $13.3B
- FT (1997) - $7B for 25%
- Swisscom (scheduled Oct 1998) - $6.5B for 49%
- MCI/WorldCom merger (1998) - $37B
- BT buys 24.9% of CONCERT from MCI - $1B
- MCI sells Internet business to C&W
- AT&T and BT invest $500M each in JV
- DT and FT cross invest 2% of their capital
- Telebras - $19B (Telefonica $1.2B for Rio, $5B for Sao Paulo; Portugal Telecom $3.25 for Sao Paulo; Telecom Italia $1.8B for the center)