

# Electronic communications markets

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# Market figures and status

## A. End-user market

### 1. Electronic communications market

#### a. Market revenue

##### End-user revenue

€ Million	2002	2003	2004	2005	2006	Growth
Fixed services	15,783	15,927	15,395	15,217	15,149	-0.4 %
Fixed telephony	14,030	13,509	12,629	12,072	11,419	-5.4 %
Internet	1,753	2,418	2,767	3,145	3,729	18.6 %
Mobile services	11,788	13,243	14,868	16,203	16,865	4.1 %
<b>Total telephony and Internet</b>	<b>27,570</b>	<b>29,171</b>	<b>30,264</b>	<b>31,420</b>	<b>32,014</b>	<b>1.9 %</b>
Value-added services	2,112	2,175	2,382	2,723	2,651	-2.6 %
Leased line services	4,451	4,556	4,264	3,500	3,422	-2.2 %
<b>Total electronic communication services</b>	<b>34,133</b>	<b>35,901</b>	<b>36,910</b>	<b>37,644</b>	<b>38,088</b>	<b>1.2 %</b>
Other services	1,875	2,137	2,474	3,100	2,951	-4.8 %
<b>Total operator end-market revenue</b>	<b>36,008</b>	<b>38,038</b>	<b>39,384</b>	<b>40,745</b>	<b>41,039</b>	<b>0.7 %</b>

Source: ARCEP, EC Observatory – Annual survey, 1998 to 2005; quarterly surveys for 2006 (estimated figures).

Internet: ARCEP estimate (EC Observatory for 2000 to 2003 data).

Data transport: joint ARCEP/IINSEE survey on electronic communications, for 2000 to 2003 data.

#### Electronic communications market growth between 2005 and 2006

2006 was marked by a significant change in the structure of the capacity services market, dedicated specifically to businesses: the integration of Transpac into France Telecom on 1 January 2006 meant the end of financial transactions between the two companies. Prior to the merger, France Telecom and Transpac both sold capacity services, which were booked as “Leased line” and “Data transport» revenue.

To be able to assess the way the electronic communications market evolved between 2005 and 2006 for comparable data, the Observatory published 2005 data corresponding to the data field for 2006, in other words excluding sales between France Telecom and Transpac.

Capacity service revenue prior to 2005 was not reprocessed, as a result of which growth between 2004 and 2005 is not comparable.

The arrival of a new major operator in the directories market (“Other services”) in 2005 also disrupted the continuity in market parameters between 2004 and 2005.

Market growth figures for 2002 to 2005 based on the old parameters are presented below.

Growth of end-user revenue

Growth in %	2002	2003	2004	2005
Fixed services	0.0 %	0.97 %	-3.3 %	-1.2 %
Fixed telephony	-2.4 %	-3.7 %	-6.5 %	-4.4 %
Internet	24.1 %	37.9 %	14.4 %	13.7 %
Mobile services	17.5 %	12.3 %	12.3 %	9.0 %
<b>Total telephony and Internet</b>	<b>6.8 %</b>	<b>5.8 %</b>	<b>3.7 %</b>	<b>3.8 %</b>
Value-added services	2.8 %	3.0 %	9.5 %	14.3 %
Leased line services	6.5 %	2.4 %	-6.4 %	2.8 %
<b>Total electronic communication services</b>	<b>6.5 %</b>	<b>5.2 %</b>	<b>2.8 %</b>	<b>4.4 %</b>
Other services	-15.3 %	14.0 %	15.8 %	4.1 %
<b>Total operator end-market revenue</b>	<b>5.1 %</b>	<b>5.6 %</b>	<b>3.5 %</b>	<b>4.4 %</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

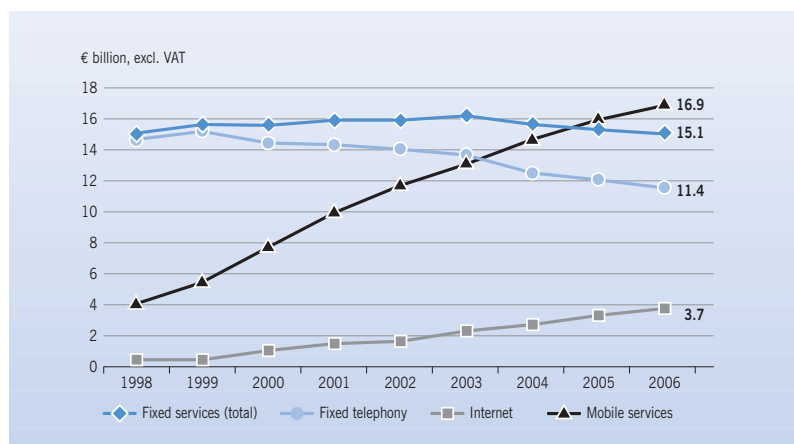
In 2006, operators generated revenue of close to 41 billion euros in the end-user market – a slight increase (+0.7%) over 2005. Revenue generated by electronic communication services (€38 billion) rose by 1.2%, slightly less than in previous years.

The decline in the growth rate for mobile telephony services was even greater in 2006 than in 2005: mobile service revenue rose by 4.1% in 2006 compared to 9% in 2005 and to more than 12% in 2003 and 2004.

Internet access revenue continues to grow at a healthy pace (+18.6%), thanks to the driving force of broadband. Meanwhile, fixed telephony revenue dropped by 5.4% in 2006 – the increase in fixed telephony subscription and access revenue in July 2006 having been unable to compensate for the decline in calling revenue.

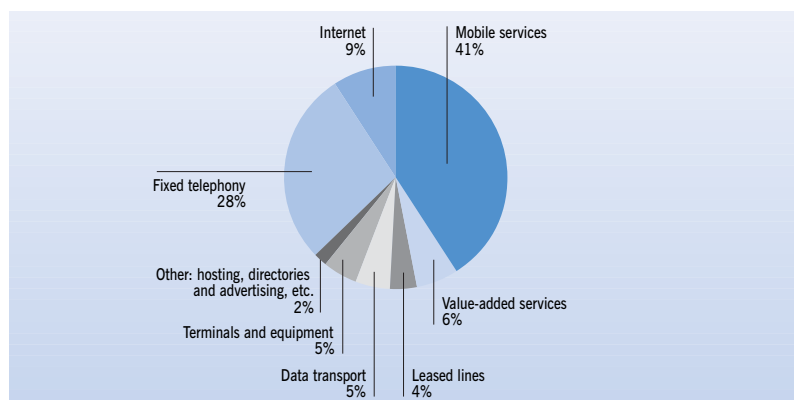
Total earnings generated by telephony and Internet access operations, which account for close to 80% of the total retail market revenue, rose by 1.9% compared to 2005.

## Telephony and Internet service revenue



Source: ARCEP.

## Breakdown of electronic communication service revenue in 2006



Source: ARCEP.

After enjoying very high growth in 2005 (+14.3%), revenue generated by value-added services dropped by 2.6% in 2006, with directory assistance services (which account for 6% of VAS revenue) alone decreasing by close to 27%. Revenue generated by other advanced services remained virtually unchanged.

### b. Voice traffic reaches nearly 200 billion minutes in 2006

#### End-user volume

Million minutes	2002	2003	2004	2005	2006
Fixed telephony	112,456	108,931	105,100	106,176	105,439
Mobile services	51,844	63,469	74,248	81,711	94,092
<b>Total "voice" services</b>	<b>164,300</b>	<b>172,400</b>	<b>179,348</b>	<b>187,886</b>	<b>199,531</b>
Narrowband Internet	66,831	71,779	54,687	38,233	25,921
Number of SMS sent (million units)	5,523	8,188	10,335	12,597	15,023

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

End-user volume

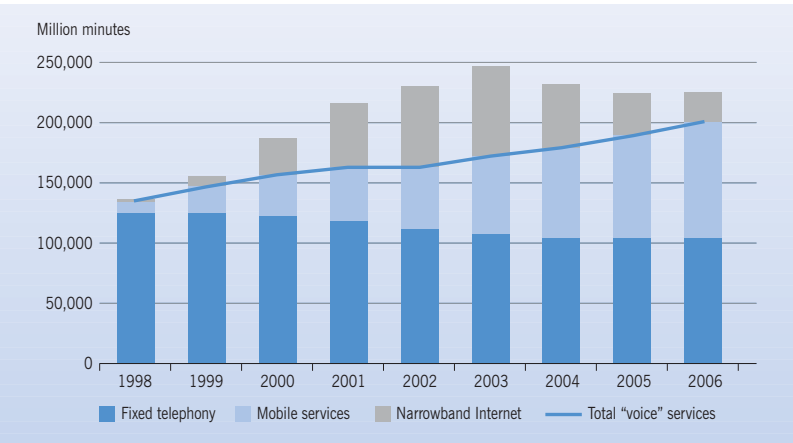
Growth in %	2002	2003	2004	2005	2006
Fixed telephony	-5.1%	-3.1%	-3.5%	1.0%	-0.7%
Mobile services	16.6%	22.4%	17.0%	10.1%	15.2%
<b>Total "voice" services</b>	<b>0.8%</b>	<b>4.9%</b>	<b>4.0%</b>	<b>4.8%</b>	<b>6.2%</b>
Narrowband Internet	27.4%	7.4%	-23.8%	-30.1%	-32.2%
Number of SMS sent (million units)	57.4%	48.3%	26.2%	21.9%	19.3%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

The increase in voice traffic in 2006 was higher than any annual increase in recent years. Although fixed telephony traffic has stabilised at around 105 billion minutes over the past two years - after having decreased at a rate of roughly 3% during the two years before that - traffic originating on mobiles reported very healthy growth of 15.2% in 2006 after having increased by “only” 10% in 2005.

The number of SMS being exchanged continues to rise, with 2.5 million more text messages sent than in 2005 and an annual growth rate holding steady at around 20%.

Growth of telephony and narrowband Internet volumes



Source: ARCEP.

c. Customer base continues to grow, except for carrier selection

Subscriptions

Million units	2002	2003	2004	2005	2006
Subscriptions to a fixed telephony service	34.124	33.913	34.541	36.498	38.168
Carrier selection	6.420	7.514	7.676	8.220	6.883
Internet subscriptions	9.124	10.617	11.939	13.217	15.252
Number of mobile service customers	38.593	41.702	44.544	48.088	51.662

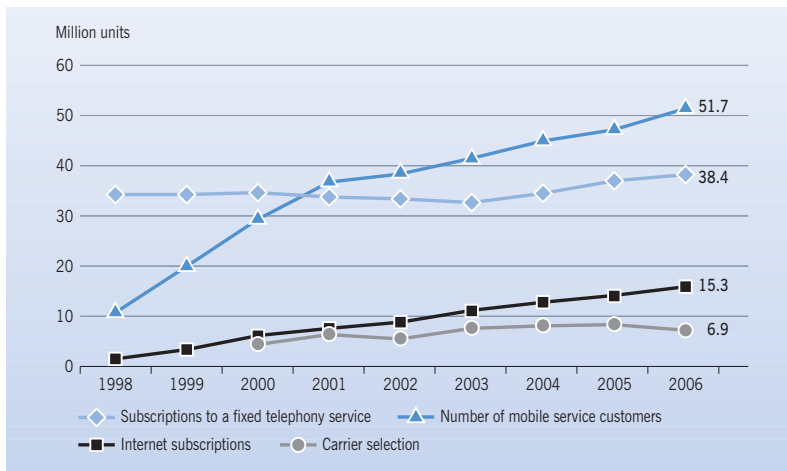
Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## Subscriptions

Growth in %	2002	2003	2004	2005	2006
Subscriptions to a fixed telephony service	0.1%	-0.6%	1.8%	5.7%	4.6%
Carrier selection	8.1%	17.0%	2.2%	7.1%	-16.3%
Internet subscriptions	30.6%	16.4%	12.4%	10.7%	15.4%
Number of mobile service customers	4.7%	8.1%	6.8%	8.0%	7.4%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## Telephony and Internet subscriptions



Source: ARCEP.

The number of mobile customers topped the 50-million mark in the 4th quarter of 2006. Growth continues apace of previous years, at an annual rate of between +7 and +8%.

The massive popularity of broadband Internet did not wane in 2006: for the third consecutive year, the broadband base grew by three million new subscribers. Meanwhile, narrowband Internet continued its decline, as users switch to high-speed services. The total broadband base grew by 15% in 2006, to reach 15.3 million customers.

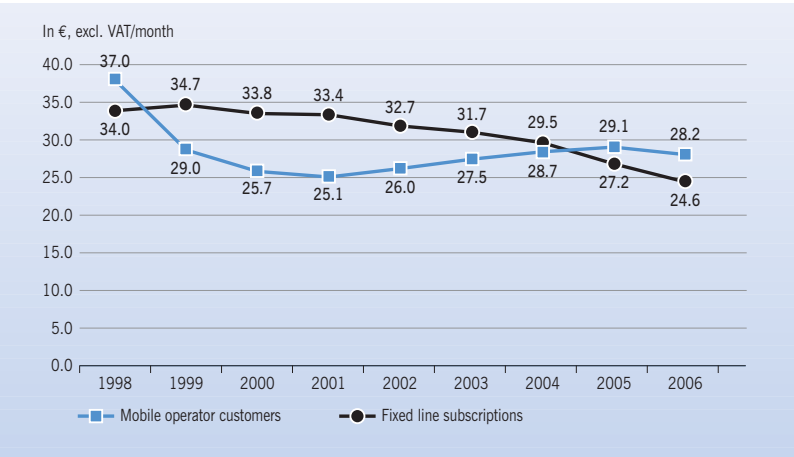
The number of fixed line phone subscriptions increased by 4.6%. The number of VoIP subscriptions doubled to reach 6.6 million, while the classic fixed telephony base shrank by close to 5% to 31.6 million subscriptions, compared to 33.1 million at the end of 2005.

Carrier selection dropped by a dramatic 16.3% in 2006: having decreased by 1.3 million, the subscriber base is only slightly larger than it was in 2002.

2. Decrease in the average monthly telephone and Internet bill

Customers' average monthly bill decreased for both mobile telephony (by €1, excl. VAT) and fixed telephony (by €2.7, excl. VAT).

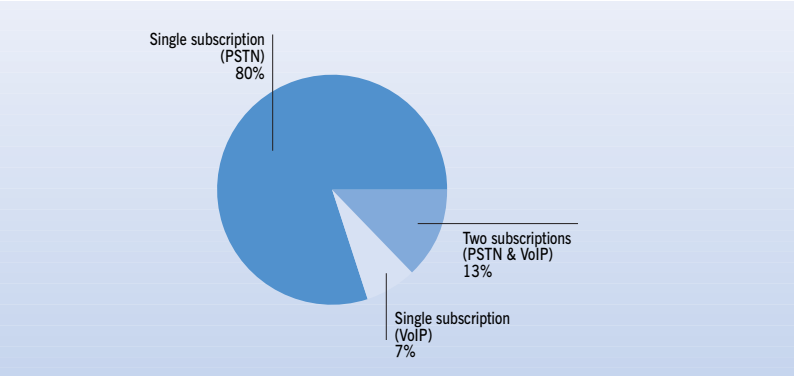
Customers' average monthly telephone invoice



Source: ARCEP.

The sharp rise in IP telephony customers has meant an automatic decrease in the average invoice for outbound calls from fixed lines, as the denominator increases. At the end of 2006, 13% of fixed lines were carrying two phone subscriptions.

Breakdown of fixed line service subscriptions as of 31/12/2006



Source: ARCEP.

Voice over IP has also contributed to the drop in the average bill by lowering the numerator: the average monthly invoice for a customer with access to VoIP is well below that of a customer who uses only a PSTN line, since most national IP calls to a fixed number are not billed. Average spending for VoIP users is around €3.7, excl. VAT, a month, compared to €27.9, excl. VAT (including the phone subscription) a month for a PSTN line customer. (These figures exclude the price of the Internet subscription, which is attributed in totality to the "Internet" market).



Another key factor: the growing use of full unbundling, which has allowed customers to no longer pay for a telephone subscription, has gone a long way in helping to decrease their monthly expenditure.

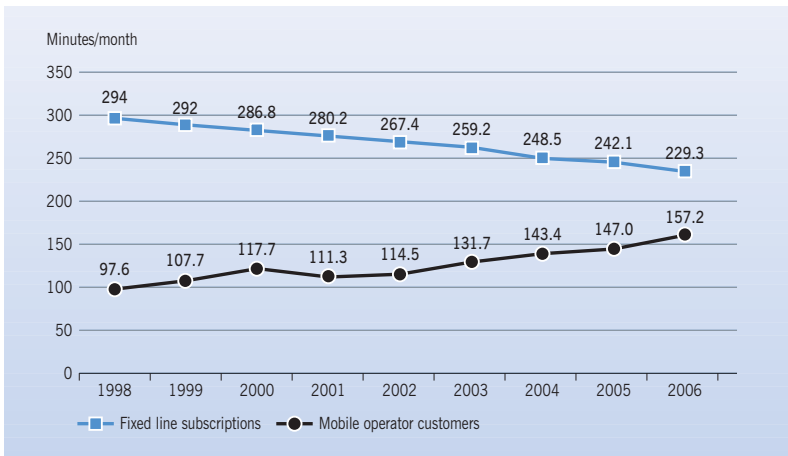
Lastly, the price of PSTN calls has also contributed to lowering fixed telephony bills.

The increase in the price of France Telecom phone subscriptions has nonetheless offset this substantial drop in prices, particularly for customers with no access to full unbundling.

The average monthly invoice for mobile customers has decreased for the first time since 2001. The decrease totalled €2.2, excl. VAT, a month for flat rate subscribers and €0.1, excl. VAT, for prepaid card users<sup>1</sup>. On the other hand, per-user traffic increased considerably in 2006: by an average 10 minutes a month, per customer compared to 2005.

<sup>1</sup> - Cf. Part 5,  
Chapter 2, C, 1.

### Average monthly volume, per customer



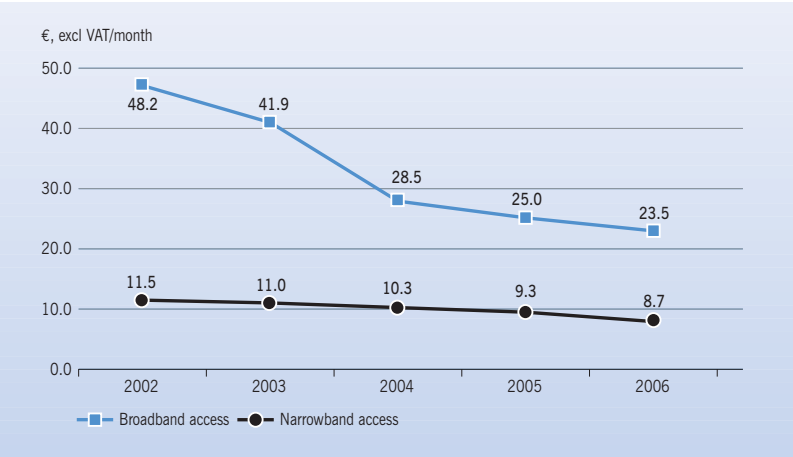
Source: ARCEP.

The reasons for the decline in the volume of traffic generated by fixed telephony subscriptions are the same: although customers with a VoIP subscription tend to make longer calls, those with two subscriptions (PSTN and VoIP, via shared access) do not necessarily spend twice as much time on the phone. This is why the portion of fixed subscription traffic continues to shrink.

To neutralise the effect of dual subscriptions on the same line, what needs to be measured is the volume of traffic per fixed line. Measuring fixed traffic transiting over the same line indicates that the volume of fixed calls (PSTN or VoIP) per line has remained relatively unchanged since 2004: 4 hours and 14 minutes a month, per line in 2006.

The average monthly bill for broadband Internet subscribers has decreased by €1.5, going from €25, excl. VAT, in 2005 to €23.5, excl. VAT, in 2006. Narrowband subscriber invoices decreased by 5.6% in one year, down to €8.7, excl. VAT, in 2006.

Average monthly Internet subscription bill



Source: ARCEP.

Details concerning indicators for customer invoices  
and average monthly volumes

ARCEP publishes a Market Observatory report providing **average monthly billing indicators per subscription for fixed telephony, mobile telephony, and the Internet**. The figures correspond to the average amount operators bill their customers for subscription and usage (voice and data). These indicators are different from ARPU (Average Revenue per User) which corresponds to operator revenue for all income associated with network use (for both incoming and outgoing calls).

Revenue taken into account to calculate the average monthly bill for mobile-originated traffic includes revenue from: outgoing calls, data services (interactive messaging and Internet access services), and roaming out. Revenue from interconnection (incoming calls) is not included.

Financial analysts and operators publish an indicator of average revenue per customer (average recurring revenue or ARPU). This includes: revenue from outgoing calls, data services, value-added services, AND revenue from incoming calls (interconnection). Depending on the operator, the figure may also include roaming revenue.

Similarly, the Observatory publishes indicators of **average monthly outbound traffic** per customer, representing the extent to which customers use their telephones.

Certain financial analysts and operators use **AUPU** (Average Usage per User), an indicator of average traffic per customer, which is analogous to ARPU; it incorporates all incoming calls or a subset thereof to arrive at a volume base comparable to that used for ARPU. It does not represent average consumption per customer but is yet another indicator of the volume of operator activity on a per-customer basis.

With respect to fixed telephony, the only revenue included is from telephone subscriptions and calls (including revenue from telephone calls over broadband). All other revenue, especially from advanced and Internet services, is excluded. This provides only a partial view of the fixed bill, since it looks only at values related to telephony.

With respect to the Internet, it comprises revenue from flat-rate subscriptions for Internet access and revenue from Internet connections charged by the minute.

## B. Investment and employment

Direct employment (as of 31 December)

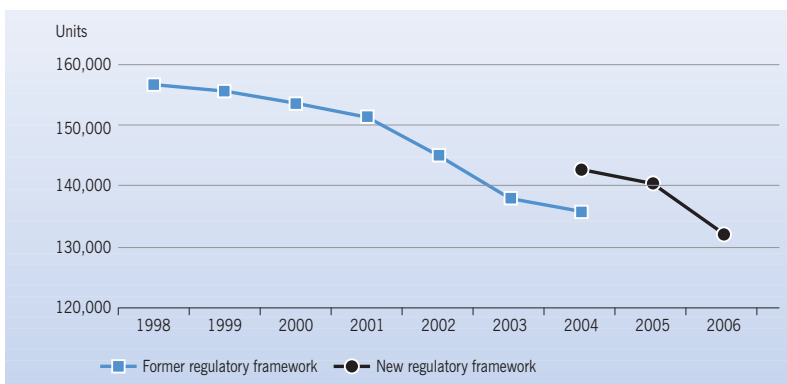
Units	2002	2003	2004	2005	2006
<b>Jobs</b> (former regulatory framework)	<b>145,487</b>	<b>138,716</b>	<b>136,547</b>	<b>134,066</b>	
Growth, in %	-3.8%	-4.7%	-1.6%	-1.8%	
<b>Jobs</b> (new regulatory framework)			<b>142,137</b>	<b>140,410</b>	<b>131,854</b>
Growth, in %				-1.2%	-6.1%

Source : ARCEP, EC Observatory – Annual surveys 1998 to 2005; quarterly surveys for 2006 (estimated figures).

*Note: the number of operators queried has doubled with the extension of the regulatory framework: increasing from 115 to 220 at the end of 2004. In terms of employment, this extension has had a rather minor impact: at the end of 2004, the operators present under the old regulatory framework represented 137,000 jobs; the incorporation of new operators represented only 5,000 additional jobs on that same date.*

After 2005, when the decline in employment was less marked than in previous years, the number of employees working for declared operators dropped sharply in 2006. The decrease has affected fixed network operators, with significant restructuring occurring among the leading players. This change in employment levels is the result of consolidation that began in late 2005 and over the course of 2006 (integration of subsidiaries, takeover of other operators). Mobile operators' staff levels, meanwhile, remained largely the same in 2006 as in 2005, and account for 14% of the sector's employees.

### Electronic communications operator employees



Source: ARCEP.

Annual investments

€ Million	2002	2003	2004	2005	2006
Investment (under former regulatory framework)	5,699	5,437	5,343	6,037	
% change	-37.9%	-4.6%	-1.7%	13.0%	
Investment (under new regulatory framework)		5,493	6,342	7,010	
% change				15.5%	10.5%

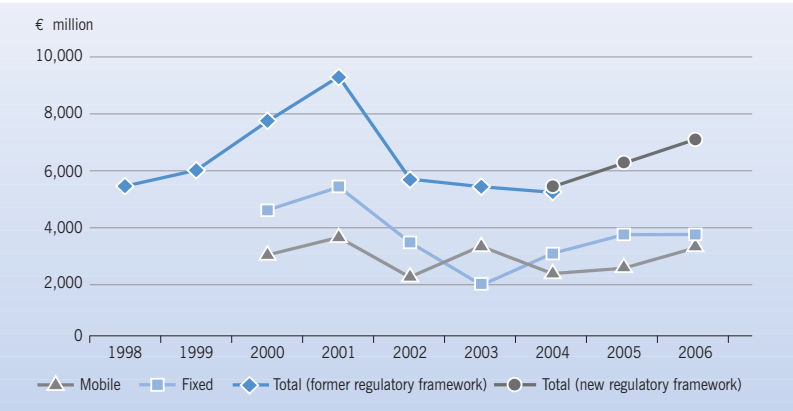
Source: ARCEP Market Observatory, annual surveys 1998-2005; quarterly surveys for 2006 (estimated figures).

Investments have risen sharply for the second year in a row (+10.5%, after a significant increase of 15.5% in 2005). The highest increase is reported by mobile operators (+26%) which accounted for close to half of the 7 billion in investments made in telecommunications operations in 2006, up from roughly 40% in 2005.

As in 2005, mobile operators' investments were devoted primarily to UMTS networks and Edge technology, but also to new HSDPA network rollouts.

Fixed operator investments were concentrated on Internet access, and ADSL in particular, to improve unbundling coverage.

Investment in telecom operations



Source: ARCEP.

# The different retail market segments

## A. Fixed telephony

### 1. Access

#### a. Subscriptions

#### Subscriptions to fixed telephony services

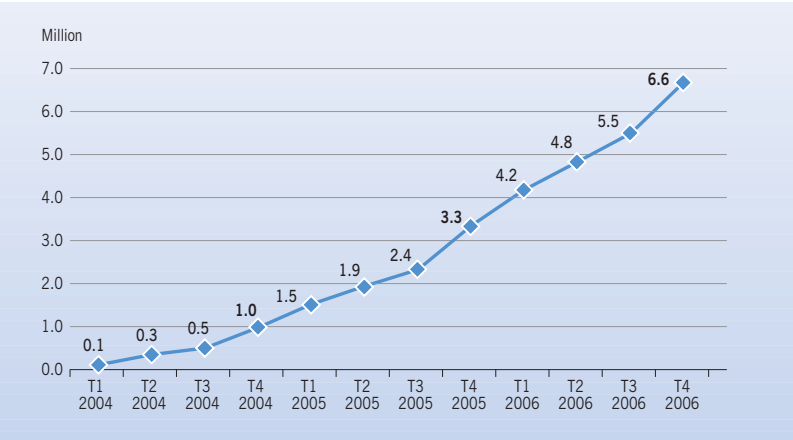
Million units	2002	2003	2004	2005	2006	Growth
<b>Number of subscriptions at period end</b>	<b>34.124</b>	<b>33.913</b>	<b>34.541</b>	<b>36.498</b>	<b>38.168</b>	<b>4.6%</b>
of which analogue lines	28.980	28.673	28.502	27.969	26.477	-5.3%
of which digital lines	5.084	5.176	5.038	5.002	4.872	-2.6%
of which cable	0.058	0.060	0.069	0.135	0.211	55.7%
of which voice over IP	–	–	0.931	3.392	6.608	94.8%

Source: ARCEP Market Observatory, annual surveys 1998-2005; quarterly surveys for 2006 (estimated figures).

The number of fixed telephony subscriptions increased by 1.7 million in 2006, due to a sharp rise in the number of VoIP subscriptions (+3.2 million), which doubled over the course of the year, combined with an increase in cable telephony subscriptions. On the other hand, there were 1.5 million fewer analogue and digital line subscriptions than in 2005.

The trend of replacing a fixed line with a mobile one, which has marked the past several years, appears to be losing steam: in 2006, the level of residential fixed telephony equipment increased from 82% to 82.2% (According to the survey on multimedia equipment, “*La Référence des Equipements Multimédias, Médiamétrie/GFK*”).

VoIP subscriptions



Source: ARCEP.

Revenue from access charges, subscriptions and additional services

€ Million	2002	2003	2004	2005	2006	Growth
Access, subscriptions and additional services	5,426	5,505	5,439	5,651	5,852	3.5%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

Note: in addition to telephone subscription revenue, access revenue includes VoIP subscriptions and revenue from additional services (caller display, etc.). It does not include flat rate bundled service revenue.

Earnings generated by telephone service access increased by 3.5% during the year. The 7.2% increase in the price of a phone subscription in July 2006 compensated for the loss of access revenue incurred by the decline in the number of subscriptions on analogue and digital lines. Overall, however, this increase did not offset the drop in revenue generated by calls originating on fixed lines.

Access and subscription revenue also includes the sums billed to end users for setting up charged VoIP services. These fees accounted for 4% of access revenue in 2006, compared to 1% in 2005.

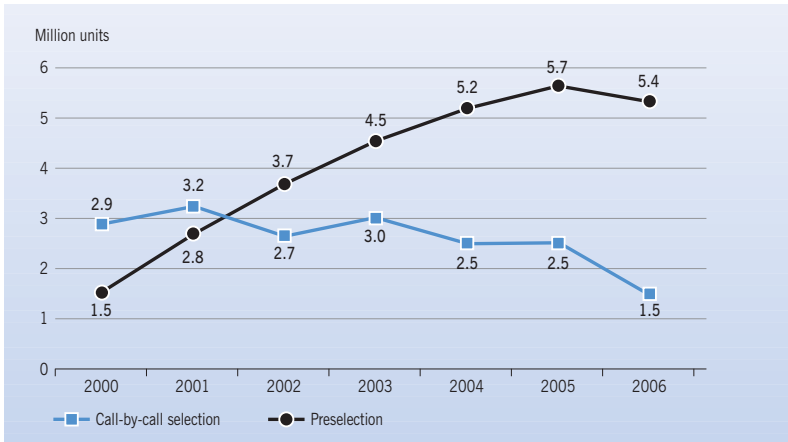
b. Carrier selection

Carrier selection subscriptions

Million units	2002	2003	2004	2005	2006	Growth
Of which call-by-call selection	2.722	2.991	2.513	2.533	1.470	-42.0%
Of which preselection	3.698	4.523	5.163	5.687	5.413	-4.8%
Carrier selection subscriptions	6.420	7.514	7.676	8.220	6.883	-16.3%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

### Number of carrier selection subscriptions



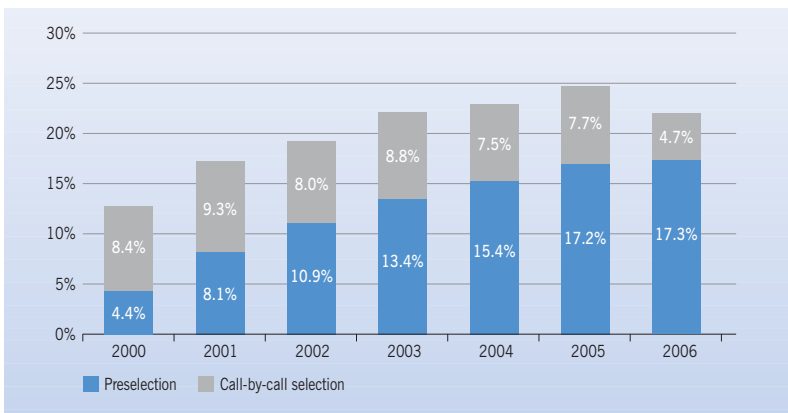
Source: ARCEP.

The number of carrier selection subscriptions shrank in 2006, for both call-by-call and preselection.

The tide began to turn on preselection in late 2005, with a 2.5% decrease in the fourth quarter. The trend continued on throughout 2006, with a total 4.8% decrease in the preselection base compared to 2005. Meanwhile, call-by-call selection – which requires users to dial the operator prefix for each call – lost 1.1 million customers: a sharp drop from a user base that had been vacillating between 2.5 and just over 3 million subscriptions since 2000.

The success of full unbundling has had a major impact on this form of competition.

### Carrier selection subscriptions as a percentage of total telephone service subscriptions (excluding cable)



Source: ARCEP.

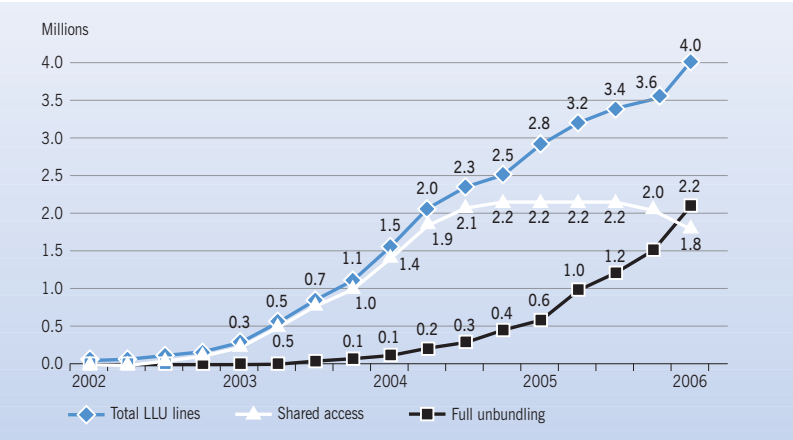
c. Unbundling

Unbundling

Million units	2002	2003	2004	2005	2006	Growth
Number of shared access lines	0.001	0.269	1.443	2.248	1.831	-18.5%
Number of fully unbundled lines	0.001	0.004	0.093	0.592	2.189	269.9%
Total LLU lines	0.001	0.273	1.536	2.840	4.020	41.6%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

Number of unbundled lines



Source: ARCEP.

Shared access appears to have reached its peak at the end of 2005, at 2.2 million lines. In 2006, the number of shared access lines decreased by close to 20%. Full unbundling, on the contrary, has been enjoying ever-increasing success since mid-2005 – having become available in a growing number of regions. A sizeable portion of shared access lines have been converted to fully unbundled ones. Over the course of Q4 2006, the number of fully unbundled lines grew by 45% to reach 2.2 million, and now outnumber shared access lines (1.8 million).

The number of LLU lines has thus increased by a total 42% in a single year, i.e. by 1.2 million additional lines.

Number retention: 1.7 million numbers were ported in 2006, with a slight rise occurring in the fourth quarter due to an increase in the availability of full LLU.

d. Public payphones and prepaid cards

Public payphones

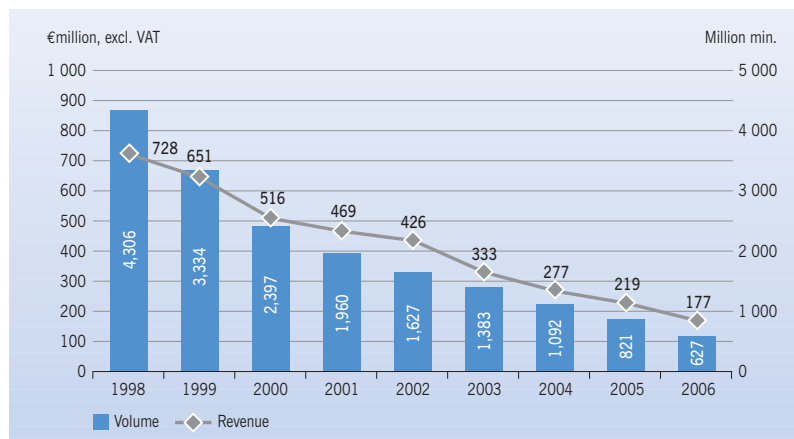
	2002	2003	2004	2005	2006	Growth
Call revenue ( € million)	426	333	277	219	177	-19.1%
Call volume (million minutes)	1,627	1,383	1,092	821	627	-23.7%
Number of public payphones as of 31 December (units)	202,418	192,275	189,298	179,770	169,790	-5.6%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).



The number of public payphones has been shrinking by 10,000 units every year (with the exception of 2004 when the base shrank by only 3,000 units). In terms of volume and revenue, the decrease in 2006 totalled 20%.

### Public payphones



Source: ARCEP.

### Post-paid and prepaid fixed phone cards

	2002	2003	2004	2005	2006	Growth
Fixed telephone card revenue	217	244	248	241	208	-13.4%
Millions of card minutes used	1,380	1,741	1,941	2,173	2,169	-0.2%
Millions of prepaid cards sold	15.935	23.022	21.803	24.991	26.145	4.6%
Millions of post-paid cards, as of 31 December	2.861	2.798	2.518	2.847	2.850	0.1%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

The volume of the market for prepaid and post-paid fixed network phone cards is holding steady, but revenue has dropped by 13%.

*There are two types of phone card for fixed networks (apart from phone cards usable only on an operator's public payphones):*

- *post-paid cards for which billing takes place after the call has been completed (either subscription cards connected to a subscriber account where call charges appear on the subscriber's bill or bank or credit cards, allowing calls to be billed directly to a bank account or to a distributor account);*
- *prepaid cards supporting telephone call charges up to a fixed amount, which is paid in advance.*

2. Fixed telephony calls

Details on the indicators for IP telephony services

Regarding the terminology used

IP telephony service indicators in this publication cover voice over broadband regardless of medium (chiefly DSL IP, but also cable IP) and VoIP for operators that have declared their activity to ARCEP.

ARCEP defines “voice over broadband” as fixed telephony service using Voice over IP technology on an Internet access network at speeds in excess of 128 kbps where quality is controlled by the operator providing the service. It defines “voice over Internet” as voice communications using the public Internet network where service quality is not controlled by the operator providing the service.

The outgoing Voice over IP calls counted by the Observatory correspond to access services. The indicators do not refer to IP traffic that traverses the IP backbone only.

Moreover, the Observatory does not survey operators that have not declared their activity and which support PC-to-PC VoIP. These operators are outside the scope of the survey.

Revenue taken into consideration

The Observatory distinguishes calls originating with IP telephony services from other voice calls. However, while VoIP calling volume includes all traffic observed in the end market, revenue includes only billed VoIP traffic (for example, over and above a service bundle flat rate).

a. Outbound fixed line calls

Outbound fixed line calling revenue

€ Million	2002	2003	2004	2005	2006	Growth
National calls	4,192	3,850	3,567	3,264	2,949	-9.6%
International calls	850	819	673	632	565	-10.6%
Calls to mobiles	2,919	2,758	2,425	2,065	1,668	-19.2%
<b>Total fixed-line revenue</b>	<b>7,961</b>	<b>7,427</b>	<b>6,666</b>	<b>5,961</b>	<b>5,182</b>	<b>-13.1%</b>
of which calls originating from VoIP services	–	–	16	96	224	134.1%

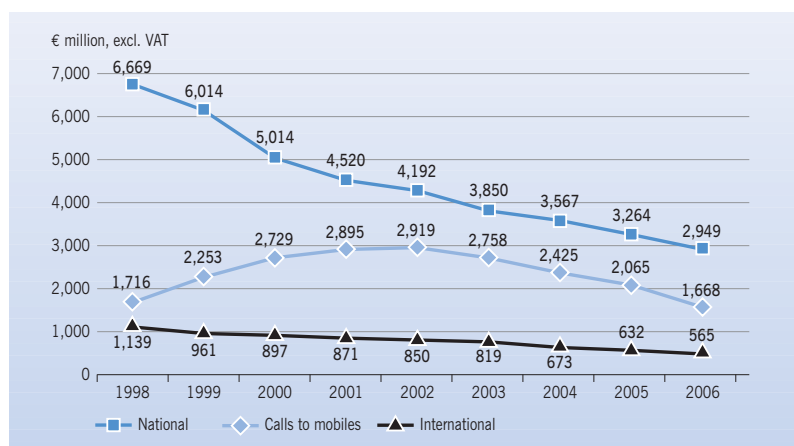
Source : ARCEP (Observatoire des CE - Enquêtes annuelles de 1998 à 2005, enquête trimestrielle pour 2006, estimation provisoire).

Revenue from fixed line calls dropped by 13%, or 800 million in 2006. Half of the decrease is due to a decline in income generated by fixed-to-mobile calls (-19%) whose retail price dropped by the same percentage as mobile call termination tariffs (-24% on 1 January 2006). Meanwhile, the volume of calls to mobiles has increased slightly (+1%).

Revenue generated by outbound national and international calls has dropped by 10% and 11%, respectively, as a result of decreasing PSTN calling tariffs

(compensation for an increase in the price of phone subscriptions) and due to the rising volume of VoIP calls. National traffic remains stable, whereas international traffic has increased by more than 17%. A number of unmetered international calling offers attached to operator service boxes were introduced in early 2006, which gave a considerable boost to international calling traffic.

### Outbound fixed line calling revenue



Source: ARCEP.

### Outbound fixed line call volume

Million minutes	2002	2003	2004	2005	2006	Growth
National calls	94,143	89,536	86,149	86,838	85,432	-1.6%
International calls	4,808	4,907	4,281	4,116	4,823	17.2%
Calls to mobiles	10,498	11,365	11,638	12,227	12,387	1.3%
<b>All outbound fixed-line calls</b>	<b>109,449</b>	<b>105,807</b>	<b>102,067</b>	<b>103,181</b>	<b>102,643</b>	<b>-0.5%</b>
of which calls originating from VoIP services	—	—	1,453	8,440	18,618	120.6%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

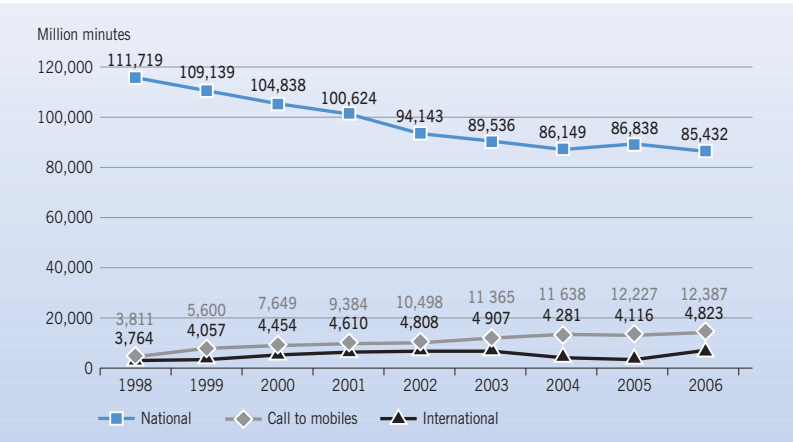
Volume of outbound fixed line calls



Source: ARCEP.

The volume of calls originating on fixed lines has been holding steady since 2004, at 103 billion minutes. IP traffic has managed to compensate for the ongoing decline in the volume of calls originating on fixed networks – having increased its share of fixed traffic from 2% in 2004 to 18% in 2006. In Q4 2006, it accounted for 23% of total traffic, and roughly 30% of consumer calling traffic.

Volume of outbound fixed line calls



Source: ARCEP.

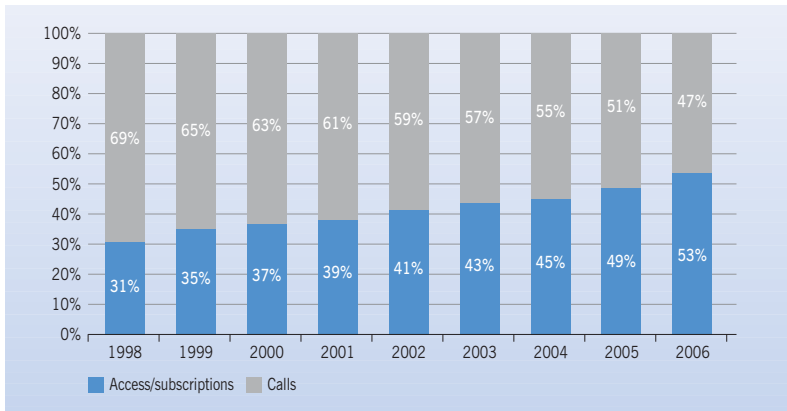
### b. Total fixed telephony

#### Total fixed calling revenue

€ Million	2002	2003	2004	2005	2006	Growth
Access, subscriptions and calls from fixed lines	13,387	12,932	12,105	11,612	11,034	-5.0%
Access, subscriptions	5,426	5,505	5,439	5,651	5,852	3.5%
Calls	7,961	7,427	6,666	5,961	5,182	-13.1%
Public payphones	426	333	277	219	177	-19.1%
Cards	217	244	248	241	208	-13.4%
<b>Total fixed telephony</b>	<b>14,030</b>	<b>13,509</b>	<b>12,630</b>	<b>12,072</b>	<b>11,419</b>	<b>-5.4%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

#### Breakdown of revenue generated by fixed telephony services



Source: ARCEP.

The share of revenue generated by access and subscriptions has gained 21 points since 1998 and, in 2006, it exceeded the share of income generated by calls.

#### Total fixed telephony volumes

Million minutes	2002	2003	2004	2005	2006	Growth
All calls from fixed lines	109,449	105,807	102,067	103,181	102,643	-0.5%
Public payphones	1,627	1,383	1,092	821	627	-23.7%
Cards	1,380	1,741	1,941	2,173	2,169	-0.2%
<b>Total fixed telephony</b>	<b>112,456</b>	<b>108,931</b>	<b>105,100</b>	<b>106,176</b>	<b>105,439</b>	<b>-0.7%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

### 3. Average consumption

#### Average monthly consumption per fixed subscription

€, excl. VAT, or minutes/month	2002	2003	2004	2005	2006	Growth
Average monthly customer bill (€, excl. VAT)	32.7	31.7	29.5	27.2	24.6	-9.6%
Average monthly volume, per customer	267.4	259.2	248.5	242.1	229.1	-5.4%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

Average monthly consumption, per fixed subscriber

PST	2002	2003	2004	2005	2006	Évol.
Average monthly customer revenue (€, excl. VAT)	32.7	31.7	29.8	28.8	27.9	-3.2%
Average monthly volume, per customer (minutes)	267.4	259.2	248.3	236.7	216.6	-8.5%
VoIP	2002	2003	2004	2005	2006	Évol.
Average monthly customer revenue (€, excl. VAT)	–	–	2.9	3.7	3.7	1.2%
Average monthly volume, per customer (minutes)	–	–	260.1	325.4	310.3	-4.6%

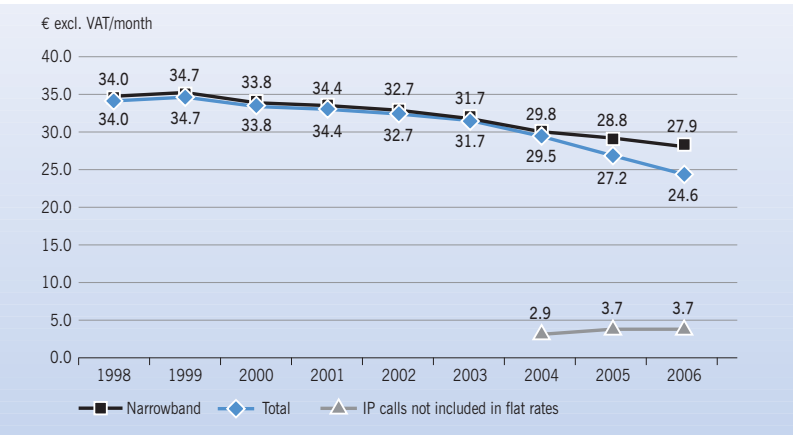
Source ARCEP, Observatoire des CE - Enquêtes annuelles de 1998 à 2005, enquête trimestrielle pour 2006, estimation provisoire

Notes: Average customer base for Year N: [(total customer base at the end of Year N + total customer base at the end of Year N-1)/2.]

The bill is calculated by dividing the fixed line call revenue and subscription revenue for Year N by the estimated customer base for Year N, then dividing the result by 12.

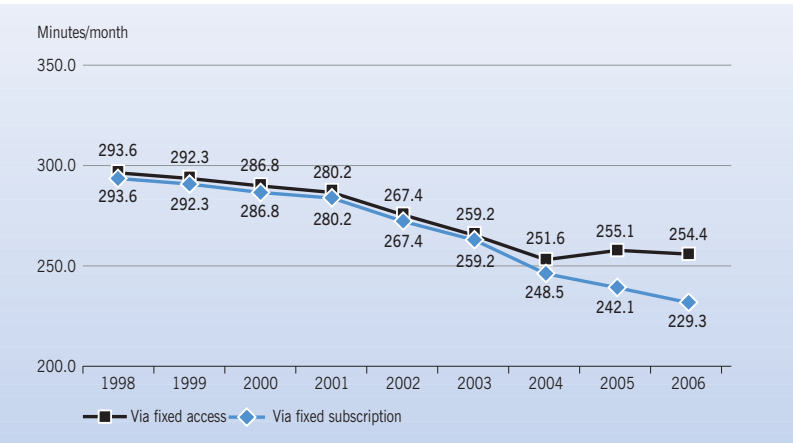
Average monthly volume is calculated by dividing the traffic volume for Year N by the estimated customer base for Year N, then dividing the result by 12.

Average monthly voice call bill, per fixed line subscription (excl. VAS)



Source: ARCEP.

Average monthly volume of outbound fixed calls



Source: ARCEP.

## B. Internet

### 1. Internet market

#### a. Subscriptions

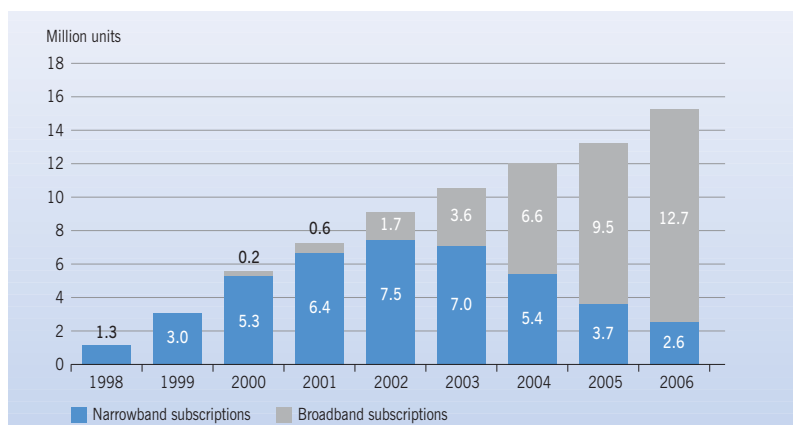
##### Internet subscriptions

Million units	2002	2003	2004	2005	2006	Growth
Narrowband*	7.469	7.048	5.377	3.746	2.557	-31.7%
Broadband	1.655	3.569	6.561	9.471	12.695	34.0%
<b>Total Internet subscriptions*</b>	<b>9.124</b>	<b>10.617</b>	<b>11.939</b>	<b>13.217</b>	<b>15.252</b>	<b>15.4%</b>

\* Source: AFA up to and including 2002. Thereafter, statistics supplied by the following ISPs: 9 Online, AOL France, Club Internet, Free (dial-up only), InterPC, NC, Noos, Tiscali France, UPC France, and Wanadoo. Includes free access, otherwise known as metered use, accounts that have connected at least once in the past 40 days plus all accounts that pay a monthly flat rate (regardless of whether flat-rate telephony is included or whether the account is residential or business).

Source: ARCEP Market Observatory, Annual Surveys 1998-2005 and quarterly surveys for 2006 (estimated figures).

##### Number of Internet subscriptions



Source: ARCEP.

The Internet market continues to enjoy a healthy momentum, reporting a 15.4% increase in subscriptions during the year. This growth has been sustained over the past three years by broadband access for which the subscriber base grew by close to 34% in 2006, while the number of narrowband users dropped by close to 30%.

Broadband subscriptions (xDSL, cable and other) accounted for 83% of all Internet subscriptions at the end of 2006.

#### b. Revenue

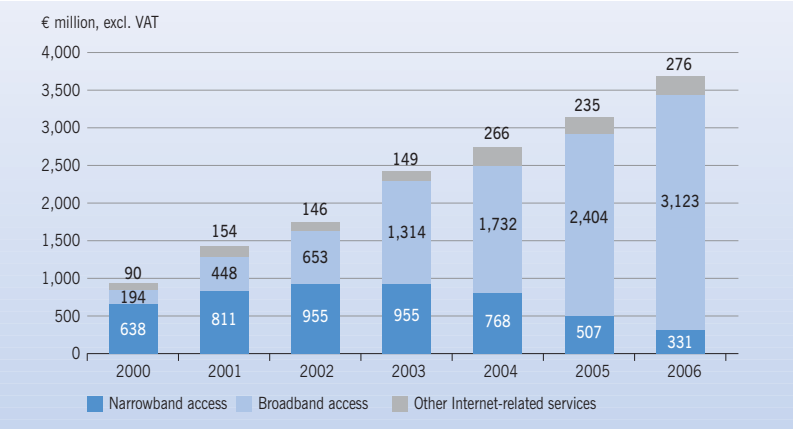
##### Total Internet revenue

€ Million	2002	2003	2004	2005	2006	Growth
Narrowband access	955	955	768	507	331	-34.8%
Broadband access	653	1,314	1,732	2,404	3,123	29.9%
Other Internet-related services	146	149	266	235	276	17.6%
<b>Total Internet</b>	<b>1,753</b>	<b>2,418</b>	<b>2,767</b>	<b>3,145</b>	<b>3,729</b>	<b>18.6%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

As in 2005, the rise in revenue reflects the growth of the user base: narrowband earnings have dropped by close to 33% while broadband revenue has increased by 30%. Internet access generated a total €3.7 billion in 2006.

Internet revenue



Source: ARCEP.

2. Narrowband

Narrowband subscriptions

Million units	2002	2003	2004	2005	2006	Growth
Flat rates	–	4.301	3.001	2.132	1.482	-30.5%
Pay-as-you-go accounts	–	2.747	2.376	1.614	1.076	-33.4%
Total	7.469	7.048	5.377	3.746	2.557	-31.7%

\* Source: AFA up to and including 2002. Thereafter, statistics supplied by the following ISPs: 9 Online, AOL France, Club Internet, Free (dial-up only), InterPC, NC, Noos, Tiscali France, UPC France, and Wanadoo. Includes free-access, otherwise known as metered-use, accounts that have connected at least once in the past 40 days plus all accounts that pay a monthly flat rate (regardless of whether flat-rate telephony is included or whether the account is residential or business).

Source: ARCEP Market Observatory, Annual Surveys 1998-2005 and quarterly surveys for 2006 (estimated figures).

Narrowband access revenue

€ million	2002	2003	2004	2005	2006	Growth
Flat rates	641	704	574	379	247	-34.8%
Access calls	313	251	195	128	83	-34.8%
Total narrowband access revenue	955	955	768	507	331	-34.8%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

Narrowband volumes

Million minutes	2002	2003	2004	2005	2006	Growth
Flat rates	54,521	61,618	46,997	32,906	22,195	-32.5%
Access calls	12,310	10,161	7,690	5,328	3,726	-30.1%
Total narrowband volumes	66,831	71,779	54,687	38,233	25,921	-32.2%

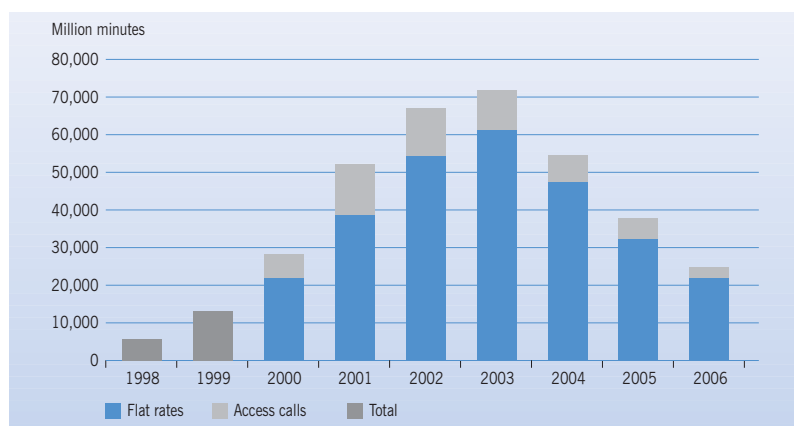
Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).



Narrowband connections began to decline in late 2003, as subscribers started switching to broadband. The resulting impact on traffic and revenue did not begin to be felt until 2004, however, when they decreased by 20%. In 2005 and 2006, they dropped by a further 30%.

Flat rate subscriptions (1.4 million) account for 58% of narrowband subscriptions, for more than 85% of traffic and 73% of revenue.

### Breakdown of narrowband traffic



Source: ARCEP.

## 3. Broadband

### Broadband subscriptions

Million units	2002	2003	2004	2005	2006	Growth
xDSL access	1.368	3.172	6.103	8.902	12.019	35.0%
Cable access*	0.283	0.394	0.454	0.563	0.670	19.0%
Other access (WLL, fibre optic, satellite, etc.)	0.004	0.003	0.004	0.005	0.006	5.0%
<b>Total</b>	<b>1.655</b>	<b>3.569</b>	<b>6.561</b>	<b>9.471</b>	<b>12.695</b>	<b>34.0%</b>

\*Source: up to and including 2003, AFORM (Association Française des Opérateurs de Réseaux Multiservices, (<http://www.aform.org>).

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

### Broadband Internet access revenue

€ million	2002	2003	2004	2005	2006	Growth
xDSL access	455	998	1,521	2,233	2,959	32.5%
Cable access	84	129	116	112	111	-0.8%
Other access (WLL, fibre optic, satellite, etc.)	114	186	95	59	53	-10.1%
<b>Total broadband revenue</b>	<b>653</b>	<b>1,314</b>	<b>1,732</b>	<b>2,404</b>	<b>3,123</b>	<b>29.9%</b>

Source: ARCEP, EC Observatory - estimate for 2000 to 2003 data - Annual surveys for 2004 and 2005; quarterly survey for 2006 (estimated figures).

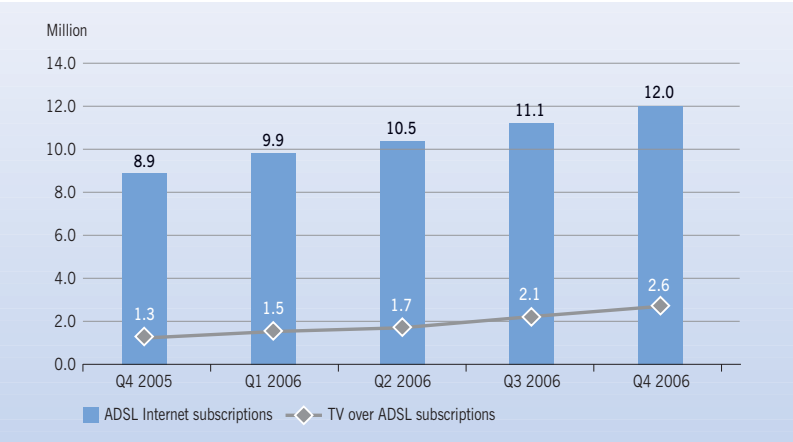
The number of broadband subscriptions reached 12.7 million at the end of 2006, marking a 34% increase during the year. The number of broadband Internet access connections grew by 3 million – following through on similar increases in 2005 and 2004.

ADSL alone accounts for 12 million subscriptions, or 95% of the total base.

4. TV over ADSL

TV over ADSL subscriptions totalled 2.6 million at the end of 2006, or double the number one year earlier.

ADSL and TV over ADSL subscriptions



Source: ARCEP.

TV over ADSL subscriptions

Million units	Q4 2005	Q1 2006	Q2 2006	Q3 2006	Q4 2006	Growth
TV over ADSL subscriptions	1,318	1,489	1,713	2,055	2,596	97.0%

*This indicator covers subscriptions that include TV over xDSL services that can be technically activated by customers (“eligible” subscriptions).*

*Subscriptions are taken into account:*

- regardless of the number of channels on offer, and regardless of the tariff formula;
- regardless of whether subscribed to separately or as part of a bundled offer that includes access to one or several other services aside from TV (Internet, telephony);
- regardless of whether or not the customer has activated their TV service option.

5. Average consumption

Average monthly Internet bill

€ excl. VAT	2002	2003	2004	2005	2006	Growth
Average monthly bill per narrowband customer	11.5	11.0	10.3	9.3	8.7	-5.6%
Average monthly bill per broadband customer	48.2	41.9	28.5	25.0	23.5	-6.0%

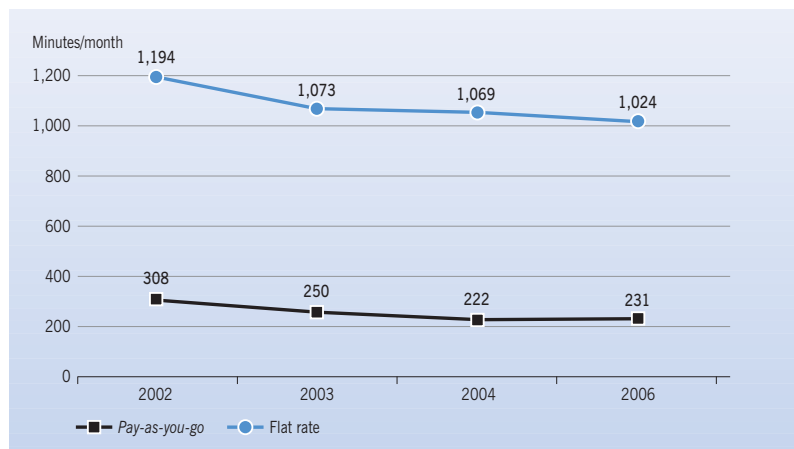
Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## Average monthly consumption per narrowband Internet customer

Hours/month	2002	2003	2004	2005	2006	Growth
Average monthly volume per flat rate customer	–	19h54	17h53	17h48	17h05	-4.0%
Average monthly volume per pay-as-you-go customer	–	5h08	4h10	3h42	3h43	0.4%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## Average monthly consumption per narrowband Internet subscription



Source: ARCEP.

## C. Mobile

### 1. Mobile market

#### a. Customers

##### a) Total customers

The mobile subscriber base has been growing at an annual rate of between 7% and 8% since 2003. In 2006, it increased by 7.5%.

## Number of mobile service users, by type of customer

Million units	2002	2003	2004	2005	2006	Growth
<b>Number of customers</b>	<b>38.593</b>	<b>41.702</b>	<b>44.544</b>	<b>48.088</b>	<b>51.662</b>	<b>7.4%</b>
Consumer	34.133	36.522	38.720	41.680	44.627	7.1%
Business	4.459	5.179	5.824	6.408	7.035	9.8%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

b) Breakdown by type of subscription: flat rate/prepaid

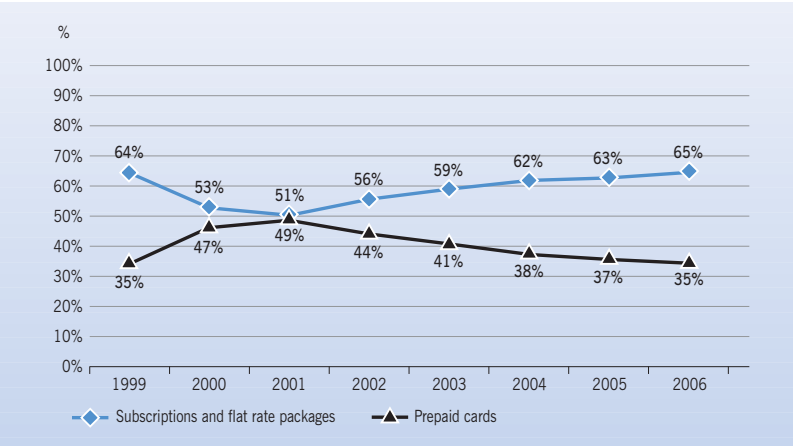
Number of mobile service customers

Million units	2002	2003	2004	2005	2006	Growth
Subscriptions and flat rate packages	21.485	24.553	27.420	30.528	33.572	10.0%
Prepaid cards	17.108	17.149	17.124	17.561	18.090	3.0%
of which active prepaid cards	16.416	16.462	16.409	16.698	17.185	2.9%
<b>Total mobile service customers</b>	<b>38.593</b>	<b>41.702</b>	<b>44.544</b>	<b>48.088</b>	<b>51.662</b>	<b>7.4%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

The number of flat rate subscriptions continues to grow at a greater rate than the prepaid card base (10% vs. 3%), with subscriptions now accounting for 65% of the total customer base. Inactive cards represented a very small portion of the base (1.8%) in the past three months.

Growth of market share for flat rate subscriptions and prepaid cards



Source: ARCEP.

c) Multimedia base

The multimedia subscriber base is defined as the group of prepaid and post-paid customers who used a WAP, i-mode, MMS or email multimedia service at least once during the previous month

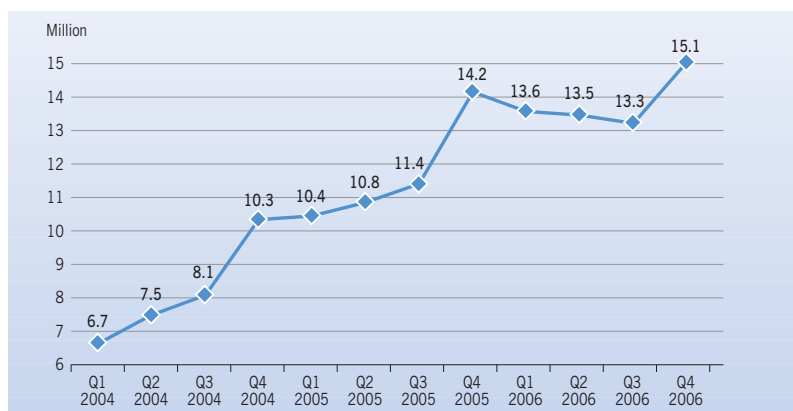
Multimedia base

Million units	2000	2001	2002	2003	2004	2005	2006	Growth
Multimedia mobile base	—	—	—	—	10.324	14.154	15.079	6.5%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

Growth of multimedia service users was lower in 2006 than in 2005. In December 2006, 15 million customers used a multimedia service, or 29% of all mobile customers.

## Multimedia mobile base



Source: ARCEP.

## d) Portability

In the last quarter of 2006, 40,000 more numbers were ported from one mobile operator to another than in Q4 2005, marking a 50% increase. A total of 430,000 customers switched mobile operators while retaining their number in 2006.

## Multimedia and mobile number portability base

Unités	2000	2001	2002	2003	2004	2005	2006	Évol.
Total numbers ported in the year	–	–	–	–	205,451	322,840	429,587	33.1 %

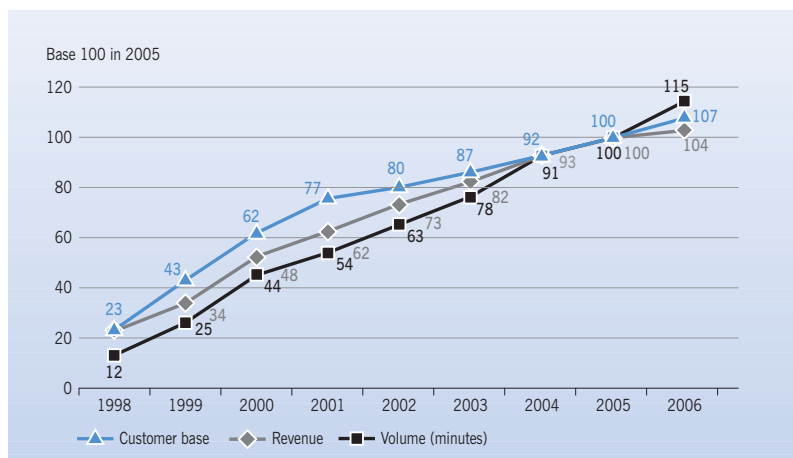
Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## b. Revenue and volume

## a) Market growth

## Mobile telephony growth in value, volume and customer base

Retail market (excluding VAS)



Source: ARCEP.

Traffic originating on mobile phones is increasing at a faster rate than equipment levels and than growth in revenue generated by calls: since 1998, the volume has increased by a factor of 9.5 whereas revenue and customer numbers have grown by a factor of just over four.

This trend continued on through 2006: calling minutes increased by 15.2% (and data traffic by 19.2%), or 8 points more than the customer base and 11 points more than revenue growth. The gap in 2005 was somewhat smaller than in previous years due to lesser growth (10.1%) for calls originating on mobiles. Spurred by unmetered offers, traffic was clearly back on an upward swing in 2006.

### Breakdown of mobile service revenue

€ million	2002	2003	2004	2005	2006	Growth
Voice services	11,093	12,125	13,446	14,275	14,627	2.5%
Data transport	676	1,106	1,416	1,925	2,238	16.3%
<b>Mobile service revenue</b>	<b>11,768</b>	<b>13,231</b>	<b>14,862</b>	<b>16,199</b>	<b>16,865</b>	<b>4.1%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

After increasing by 12% in 2003 and 2004, revenue growth dropped to 9.1% in 2005 and down to 4.1% in 2006. This decline is due primarily to calling services, which reported only 2.5% growth in 2006, whereas data transport services (SMS, MMS,...) gained 16.3% and now account for 13% of mobile service revenue (excluding VAS) and for close to half of reported growth (47%).

The rising number of unmetered calling offers has had an adverse effect on retail market revenue, as a portion of heavy users have switched to this type of offer. The average monthly invoice for flat rate subscribers decreased by 5.5% during the year.

### b) Breakdown by type of subscription

#### Mobile service revenue by subscription type

€ million	2002	2003	2004	2005	2006	Growth
Subscriptions and flat rates	9,636	10,963	12,512	13,821	14,454	4.6%
Prepaid cards	2,132	2,268	2,350	2,379	2,412	1.4%
<b>Mobile service revenue</b>	<b>11,768</b>	<b>13,231</b>	<b>14,862</b>	<b>16,199</b>	<b>16,865</b>	<b>4.1%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

The rise in traffic and revenue generated by subscribing customers has been greater than for phone card users. The volume of traffic generated by flat rate subscribers increased by 15.8%, compared to only 8% for prepaid card users. Flat rate subscribers account for 92% of the minutes used, and for close to 86% of mobile service revenue.

Text messaging figures, on the other hand, more closely reflect the composition of the user base: the number of SMS sent by subscribing or flat rate customers – which comprise 65% of the total customer base – totalled 11.1 billion, or 74% of text messages sent in 2006.

### Outbound mobile calling minutes by subscription type

Million minutes	2002	2003	2004	2005	2006	Growth
Subscriptions and flat rates	46,646	57,378	68,066	74,576	86,387	15.8%
Prepaid cards	5,197	6,091	6,182	7,134	7,705	8.0%
<b>Total number of minutes</b>	<b>51,844</b>	<b>63,469</b>	<b>74,248</b>	<b>81,711</b>	<b>94,092</b>	<b>15.2%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## 2. Mobile voice services

### a. Voice revenue by call destination

#### Mobile calling minute revenue, by call destination

€ million	2002	2003	2004	2005	2006	Growth
National calls	10,219	10,942	12,029	12,653	12,956	2.4%
International calls	424	437	535	608	589	-3.2%
Roaming out	450	745	881	1 013	1 082	6.8%
<b>Outbound mobile call revenue</b>	<b>11,093</b>	<b>12,125</b>	<b>13,446</b>	<b>14,275</b>	<b>14,627</b>	<b>2.5%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

*N.B.: National calls, which cover all calls from a mobile to a fixed station in France as well as calls to paid voice mail generate nearly 90% of voice revenue and 97% of traffic*

### b. Voice volume by call destination

#### Mobile call volumes, by destination

Million minutes	2002	2003	2004	2005	2006	Évol.
National mobile-to-fixed calls	18,710	20,839	22,168	20,082	19,181	-4.5%
On-net calls	19,939	25,968	31,869	40,612	50,372	24.0%
Mobile-to-mobile calls	11,973	15,202	18,267	18,925	22,162	17.1%
International calls	713	805	959	999	1,160	16.1%
Roaming out	509	655	985	1,093	1,217	11.4%
<b>Outbound mobile call volume</b>	<b>51,844</b>	<b>63,469</b>	<b>74,248</b>	<b>81,711</b>	<b>94,092</b>	<b>15.2%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

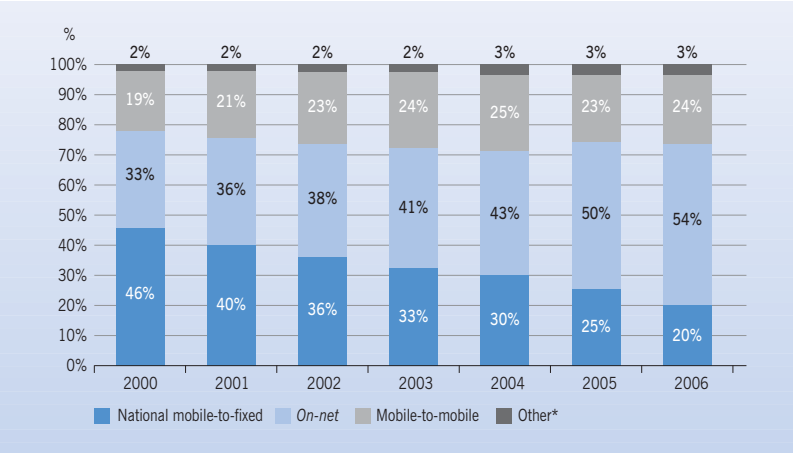
Since 2005, more and more operators have been introducing unmetered calling offers, particularly for calls to other customers of the same operator. However in early 2006, unmetered offers for calls to any operator over any network, either fixed or mobile, began to appear. This trend has triggered a rise in user consumption: the volume of minutes for calls originating on a mobile reached 94 billion minutes in 2006, a 15.2% increase compared to 2005.

Traffic to national fixed lines has dropped for the second year in a row, but less dramatically than in 2005 (-4.5% in 2006 compared to -9.3% in 2005). On-net calls (those placed and received on the same mobile network, including a host operator's MVNO) have increased sharply once again (+24%): since 1998 the annual growth rate

has been over 20%. The additional volume in 2006 totalled 10 billion minutes. Off-net calls (i.e. to another operator’s network) rose by 17.1% in 2006, after having increased by only 3.5% in 2005 – a dramatic turn from the 20% to 30% increases of previous years.

In 2006, off-net calls became the second most frequent type of call, accounting for 24% of traffic compared to 20% for calls to fixed lines, which are now in third place. The percentage of on-net traffic rose by four points, accounting for 54% of calls originating on mobile phones. International and roaming out traffic flows are also on the rise, reporting an increase of +16.1% and +11.4%, respectively.

Mobile call volume by destination



\*Other: calls to international destinations and roaming out.  
Roaming out refers to calls placed from abroad by customers of French mobile operators.  
Source: ARCEP.

3. Mobile data

a. Revenue

A major driving force for mobile revenue growth, data transport generated an additional €300 million in income in 2006, marking a 16.3% increase. This is less than the 36.1% growth (+€500 million) reported in 2005, however, which was the result of a 23% rise in SMS and MMS volume and revenue, and the considerable strides made by mobile Internet and multimedia services (“other data transport”).

Mobile data transport revenue

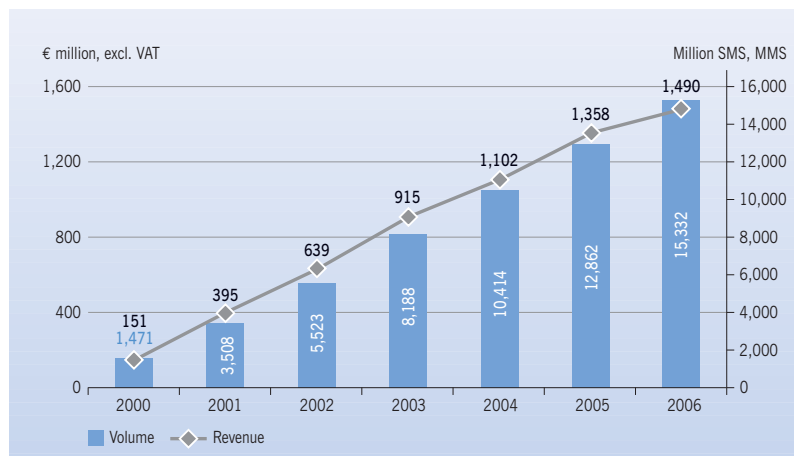
€ million	2002	2003	2004	2005	2006	Growth
Data transport	676	1,106	1,416	1,925	2,238	16.3%
of which person-to-person messaging (SMS, MMS)	639	915	1 102	1 358	1 490	9.8%
of which other data transport	37	191	314	567	748	31.8%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).



Revenue generated by SMS and MMS has increased by “only” 9.8%, whereas traffic has risen by 19.2%. The disparity can be attributed to decreases in call termination tariffs (by 19% in early 2006, then by 30% in September 2006) which were carried over to the retail market.

### Person-to-person messaging



Source: ARCEP.

#### b. Total volume of messages sent

#### Number of person-to-person messages sent

Million units	2002	2003	2004	2005	2006	Growth
Number of P2P SMS	5,523	8,188	10,335	12,597	15,023	19.3 %
Number of P2P MMS			79	265	310	16.8 %
<b>Total person-to-person SMS and MMS sent</b>	<b>5,523</b>	<b>8,188</b>	<b>10,414</b>	<b>12,862</b>	<b>15,332</b>	<b>19.2 %</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## 4. Average per-customer consumption

### Average monthly consumption, per mobile customer

€, excl. VAT, minutes or units per month	2002	2003	2004	2005	2006	Growth
Average monthly customer bill (€, excl. VAT) (1)	26.0	27.5	28.7	29.1	28.2	-3.3 %
Average monthly volume, per customer (2)	114.5	131.7	143.4	147.0	157.2	6.9 %
Average number of SMS sent per month, per customer (3)	12.2	17.0	20.0	22.7	25.1	10.7 %

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

N.B.: Average customer base for Year N:  $[(\text{Total customer base at the end of Year N} + \text{total customer base at the end of Year N-1})/2]$ .

(1) This indicator is calculated by dividing mobile telephony revenue for Year N by the estimated average customer base for Year N and dividing the result by 12. This indicator, which includes neither interconnection revenue nor advanced-services revenue, is distinct from the traditional average revenue per user (ARPU) indicator.

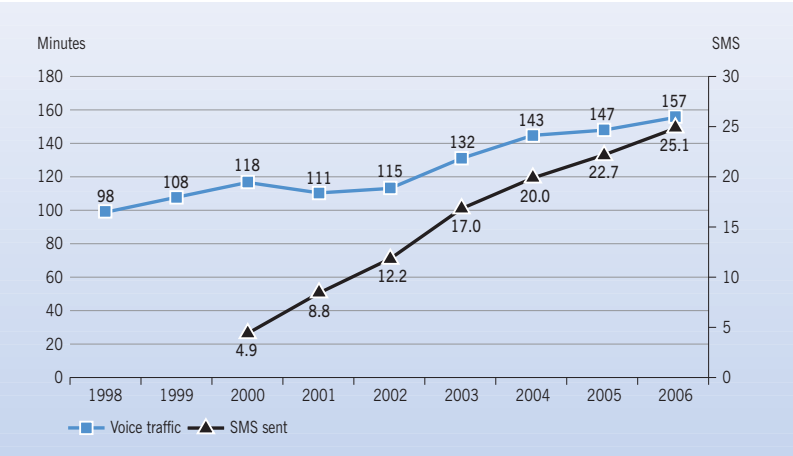
(2) This indicator is calculated by dividing the traffic volume for Year N by the estimated average customer base for Year N, then dividing the result by 12.

(3) This indicator is calculated by dividing the number of SMS for Year N by the estimated average customer base for Year N, then dividing the result by 12.

In 2006, the average monthly bill decreased by close to a euro compared to 2005, or by 3.3% to 28.2, excl. VAT, a month per customer for telephony and data services (excluding special services). This decrease puts an end to the trend of a steady increase in monthly bills that lasted from 2002 to 2005: +€1.5 in 2003, then +€1.2 in 2004 and +€0.4 in 2005.

In terms of calling minutes per customer, the lower growth reported in 2005 has been reversed: mobile customers are calling 10 minutes more a month than in 2005 (+6.9% compared to +2.6% in 2005), for a total 2 hours and 37 minutes per month. The average number of text messages sent reached 25.1 a month, up 10.7% over the previous year.

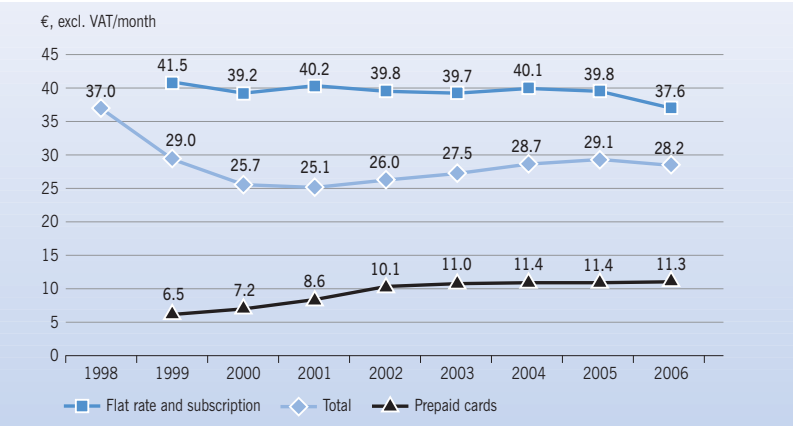
Average monthly volume per mobile customer



Source: ARCEP.

The average monthly bill for flat-rate customers has gone down by 5.5% (a decrease of €2.2, excl. VAT) compared to 1.4% for prepaid card users. The latter call 36 minutes a month on average and spend €11.3, excl. VAT, whereas flat-rate subscribers call just over 3 hours and 44 minutes a month, and spend an average €37.6, excl. VAT.

Average monthly bill per mobile customer



Source: ARCEP.

### Average monthly customer consumption, by subscription type

Flat rates	2002	2003	2004	2005	2006	Growth
Average monthly revenue, per customer (€, excl. VAT)	39.8	39.7	40.1	39.8	37.6	-5.5%
Average monthly calling minutes, per customer	193	208	218	215	225	4.7%
Cards						
Average monthly revenue, per customer (€, excl. VAT)	10.1	11.0	11.4	11.4	11.3	-1.4%
Average monthly calling minutes, per customer	25	30	30	34	36	5.1%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## D. Other services

### 1. Value-added services (excluding directory assistance)

#### Advanced service revenue

€ million	2002	2003	2004	2005	2006	Growth
Advanced "voice and telematic" services	1,856	1,815	1,972	2,213	2,174	-1.7%
Advanced "data" (SMS+, MMS+)	–	84	194	288	315	9.2%
<b>Total advanced service revenue</b>	<b>1,856</b>	<b>1,900</b>	<b>2,166</b>	<b>2,501</b>	<b>2,489</b>	<b>-0.5%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

#### Advanced "voice and telematic" service volumes

Million minutes	2002	2003	2004	2005	2006	Growth
Originating from fixed customers	9,476	9,929	10,196	11,738	11,354	-3.3%
Originating from mobile customers	1,163	1,051	1,224	1,446	1,543	6.7%
<b>Total volume of calls</b>	<b>10,639</b>	<b>10,980</b>	<b>11,420</b>	<b>13,184</b>	<b>12,897</b>	<b>-2.2%</b>

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

#### Advanced "data" service volumes

Million messages	2002	2003	2004	2005	2006	Growth
Number of messages (SMS+, MMS+)	–	–	450	631	638	1.2%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

In 2006, revenue generated by services such as SMS+ and MMS+ accounted for 13% of value-added service revenue billed by operators.

### 2. Directory assistance services

#### Telephone directory services

	2002	2003	2004	2005	2006	Growth
Directory assistance revenue (€ million)	256	275	216	223	162	-27.0%
Number of completed calls (million)	–	–	–	214	173	-19.0%

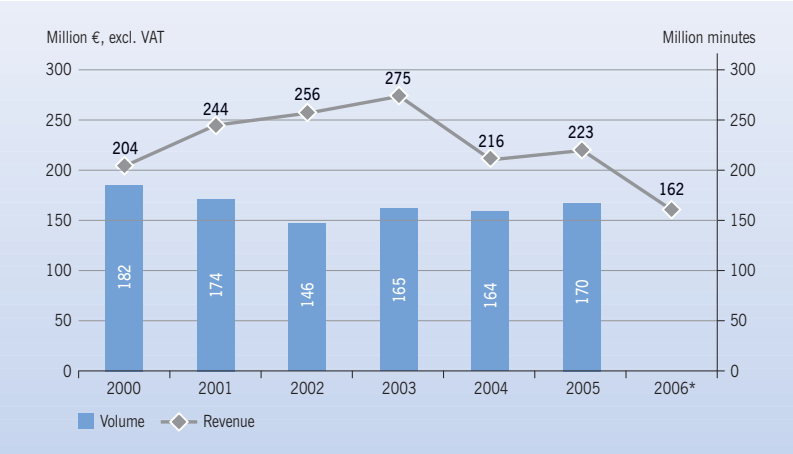
Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

Numbers beginning with 118, which have been in place since 2 November 2005, provide access to directory assistance services. The old numbers remained in service until 3 April 2006.

During the transitional period, where both types of directory service number coexisted, the volume of calls remained steady. The final shut-down of the old numbers, on 3 April 2006, led to a sharp drop in the number of calls made to directory assistance services and, as a result, to a decline in operator revenue. From 53 million calls in Q1 2006, the volume dropped to around 40 million calls after the “12” number shut down.

In 2006, the directory assistance market experienced a 27% decrease in revenue and a 20% drop in the volume of calls.

Directory assistance services



\* Volume of minutes not available for 2006.

Source: ARCEP.

3. Terminal and equipment sales and rental

Terminal and equipment sales and rental revenue

€ million	2002	2003	2004	2005	2006	Growth
Fixed operators and ISPs	633	624	813	802	732	-8,8%
Mobile operators	1,120	1,389	1,567	1,680	1,511	-10.1%
Terminal and equipment revenue	1,753	2,014	2,380	2,482	2,243	-9.7%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

4. Hosting and call centre management

Hosting and call centre management revenue

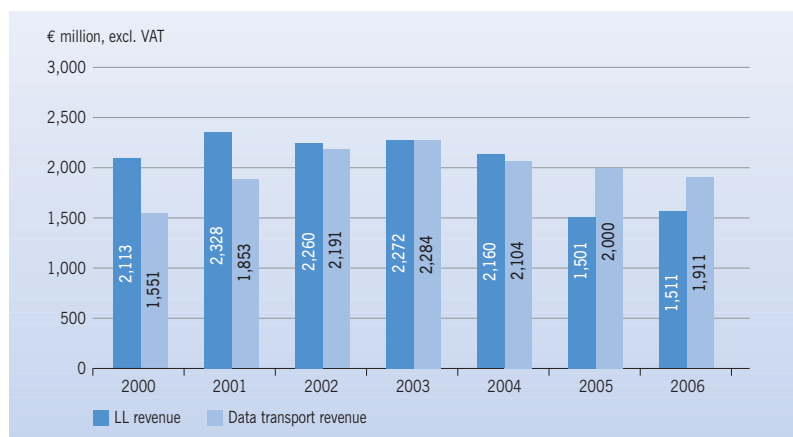
€ million	2002	2003	2004	2005	2006(p)	Growth
Hosting and call centre management revenue	34	40	25	22	36	66.5%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

## E. Capacity services

The integration of Transpac into France Telecom on 1 January 2006 altered the revenue generated by capacity services sold in the end market, as it marked the end of financial transactions between the two companies. To be able to assess the way the electronic communications market evolved between 2005 and 2006 for comparable data, the Observatory published 2005 data corresponding to the data field for 2006, in other words excluding sales between France Telecom and Transpac. This led to a €900 million decline in capacity service revenue in 2005, which went from €4.4 billion to €3.5 billion.

### Leased line and data transport revenue



Source: ARCEP.

### 1. Leased lines

#### Leased line base

Units	2002	2003	2004	2005	2006	Growth
Analogue and digital LL base	359,003	317,548	292,027	247,853	241,572	-2.5%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

#### Leased line revenue

€ million	2002	2003	2004	2005	2006	Growth
LL revenue	2,260	2,272	2,160	1,501	1,511	-0.7%

Source: ARCEP, EC Observatory - Annual surveys from 1998 to 2005; quarterly survey for 2006 (estimated figures).

N.B.: 2005 data displayed in the same manner as 2006 data, i.e. excluding sales between France Telecom and Transpac.

### 2. Data transport

#### Data transport revenue

€ million	2002	2003	2004	2005	2006	Growth
Data transport revenue	2,191	2,284	2,104	2,000	1,911	-4.4%

Source: joint ARCEP/IINSEE survey on electronic communications, for 2000 to 2003 data; ARCEP (EC Observatory - Annual surveys for 2004 and to 2005; quarterly survey for 2006 (estimated figures).

N.B.: 2005 data displayed in the same manner as 2006 data, i.e. excluding sales between France Telecom and Transpac.

The number of connections grew from 300,000 in 2005 to 380,000 in 2006, in other words by 26%. The majority are IP-VPN, which account for 91% of connections, compared to 82% one year earlier.

Data transport corresponds to services over X25, Frame Relay, MAN and IP, etc. networks. A distinction is made between these capacity transport services, which are billed by volume, and leased line services which are more commonly used to connect two company sites, and which potentially involve large volumes of traffic.

# Consumption and usage in France

Over the past two years, changes in the telecommunications services equipping households have been shaped to a considerable degree by the growing popularity of broadband Internet, which has largely overshadowed narrowband access.

On the other hand, the trend of replacing a fixed phone with a mobile, which had been particularly prevalent since the late 1990s among certain user categories (youth and low-income households), appears to have come to a halt. Although mobile phone equipment levels continue to rise, the decline in fixed equipment appears to have reached a plateau. This comes as the result of the appeal of broadband and the growing use of VoIP, which allows consumers to make calls from their fixed line at a very low price.

## Surveys

This data presented here is from surveys performed by Médiamétrie and CREDOC.

Performed jointly by Médiamétrie and GfK, La Référence des Équipements Multimédia, is a quarterly survey conducted on a representative sample of 6,000 persons aged 15 years and older who were interviewed in person concerning the equipment in their homes.

The CREDOC survey, which was conducted on behalf of ARCEP and CGTI, describes the equipment individuals own and how they use it. This survey was conducted in person in June with a sample of 2,200 persons aged 12 and older.

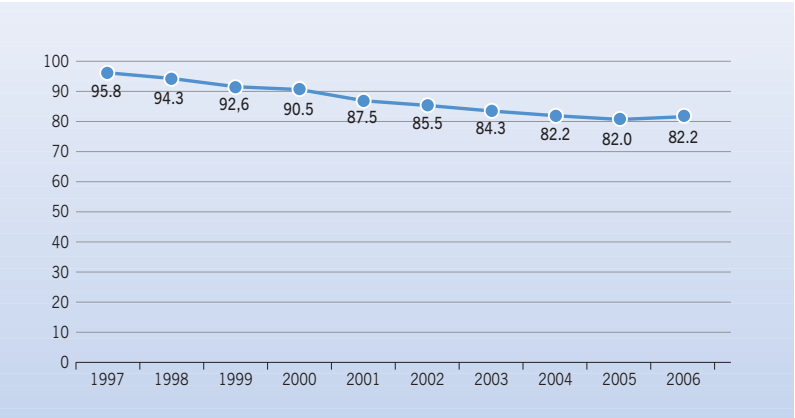
In the first case, equipment penetration is understood as the percentage of households having the specified device. In the second case, it is the percentage of individuals who have the specified device in their home.

## A. Household equipment

### 1. Fixed telephony equipment levelling off

Fixed telephony equipment levels in households, which had been dropping steadily since the introduction of the mobile phone in the second half of the 1990s, have been levelling off at around 82% for the past two years, which means that 18% of households no longer have a fixed line.

Residential fixed telephony equipment rate



Source: "La référence des Equipements Multimedia" 2006 – Médiamétrie/GfK.

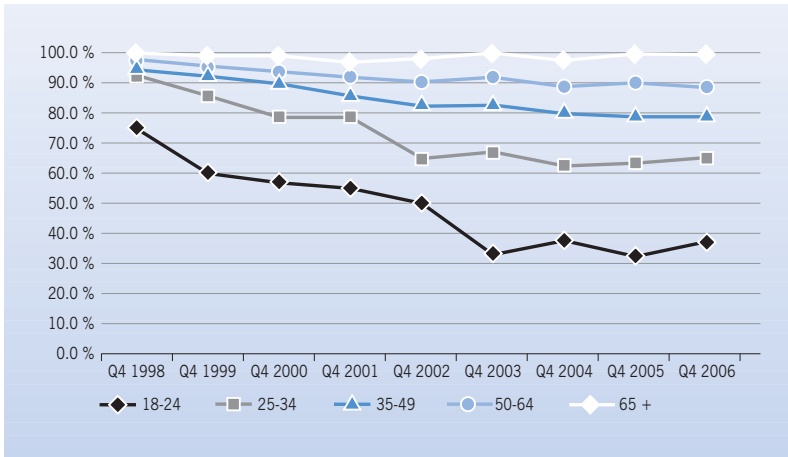
Household equipment is closely bound up with age. From the late 1990s up to 2004, a period during which fixed telephony equipment levels dropped significantly, it was the younger households (under 35 years of age) which contributed the most to this decline – in other words, the ones that were the first to equip themselves with mobile phones.

At the end of 2006, only 40% of very young households were equipped with a fixed line, compared to 60% of 25 to 34-year-olds, and close to 100% of older households. These disparities have changed very little in recent times; the only perceivable change being among 25 to 34-year-olds whose fixed line equipment rate has risen very slightly: from 62% at the end of 2004 to 64% at the end of 2006. While the younger users often have a low income and prefer using a mobile phone, the next age group is made up of young people with a slightly higher income, who are more "settled" in their home and for whom Internet access, which has become a necessity, requires them to have a fixed telephone subscription.

The impact that income levels have on telephony equipment remains unchanged: the lowest income households are more likely to replace their fixed line with a mobile phone. Only two-thirds of the category of households comprised of blue-collar and non-managerial white-collar workers are equipped with a fixed phone line, compared to 90% of managerial/executive-level white-collar households.



### Residential fixed telephony equipment rate, by age of the head of the household



Source: "La référence des Equipements Multimedia" 2006 – Médiamétrie/GfK.

N.B.: The 18 to 24-year-old category is a very small one when looking at households: a large portion of people of this age still live with their parents, and it is therefore the age of the parents which is taken into account. The 18 to 24-year-old category accounts for around 0.9 million households, compared to 3.8 million households in 25 to 34-year-old category.

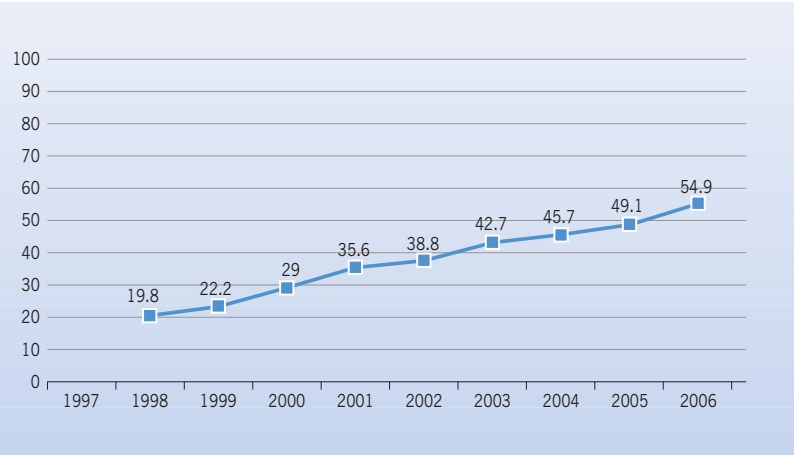
## 2. A computer in more than 50% of households

Computer equipment levels in households, which have been increasing at a rate of three to four points a year since 2001, rose by a record 5.8 points in 2006. As a result, 55% of households in France were equipped with a computer at the end of 2006.

This increase applies to all age groups, with particularly high growth (of close to 10 points) being reported in younger households. Three-quarters of households whose head is between the ages of 25 and 34 now own a computer. Also noteworthy was the substantial increase in the young retiree age group: after having stagnated at around 20%, equipment levels in households in the 65 to 74-year-old category have been rising significantly since mid-2006 – totalling 30% by the end of the year. Meanwhile, one in ten households in the 75+ category have a computer.

Family equipment levels are nearing their peak: 73% of three-member households and 82% of those with four or more people owned a computer at the end of 2006, while one-third of families with four or more members had several computers in the home.

Rate of computer equipment in households

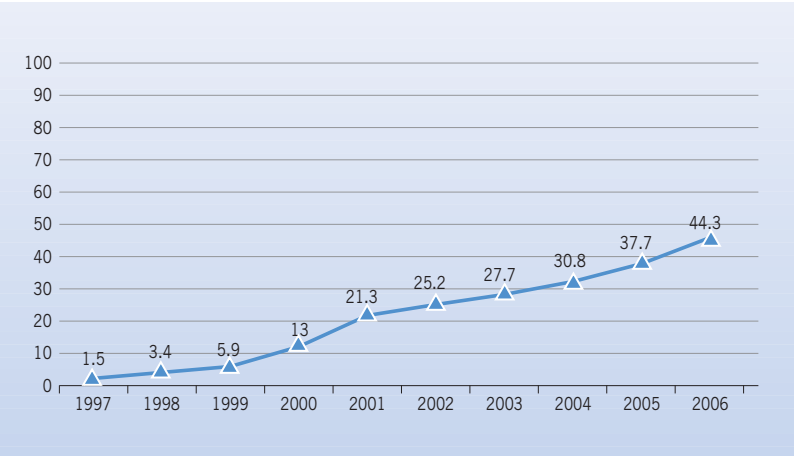


Source: "La référence des Equipements Multimedia" 2006 – Médiamétrie/GfK.

3. Rise of residential Internet

Residential Internet access increased significantly for the second consecutive year: this time by seven points, to reach 44% by the end of 2006.

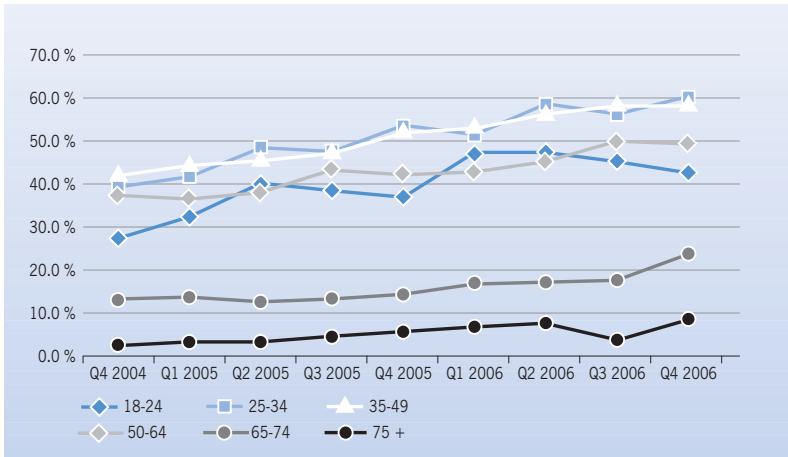
Percentage of households with Internet access



Source: "La référence des Equipements Multimedia" 2006 – Médiamétrie/GfK.

This increase concerns all categories of household, including the 65 to 74-year-old group, of which close to a quarter now have Internet access. The transition from narrowband to broadband is nearly complete: 84% of Internet households now have broadband access.

### Residential Internet equipment rates, by age of the head of the household



Source: "La référence des Equipements Multimedia" 2006 – Médiamétrie/GfK.

## B. Individual equipment levels

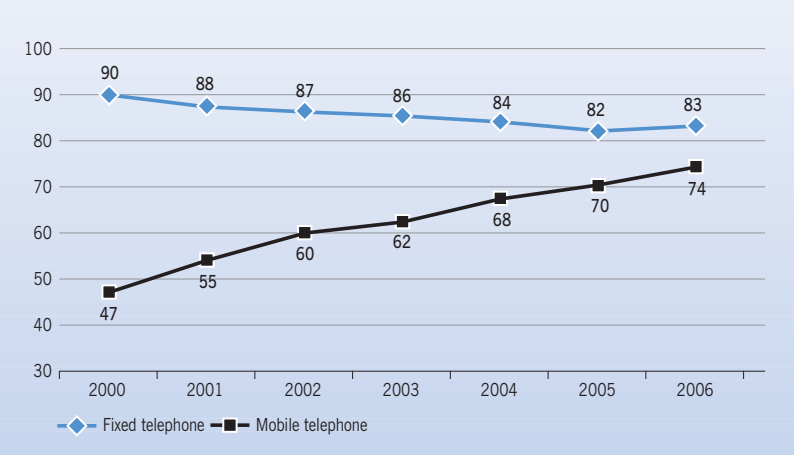
### 1. Rise in mobile equipment, fixed line equipment levelling off

Although fixed telephony and computers are two types of equipment tied to the home, and thus the household, the same cannot be said of mobile phones which are personal devices by and large. Measuring the rate of mobile phone penetration therefore needs to be based on total population and not on the number of households.

In June 2006, 83% of adults had at least one fixed phone line at home, the same percentage as the previous year. It appears that the decline in residential fixed line equipment has come to an end, thanks in large part to the success of IP telephony offers and of full unbundling, which allows consumers to subscribe to a single operator and enjoy low fixed calling prices.

Mobile equipment rates continue to rise at a steady pace: close to three out of four people own a mobile phone. The mobile equipment rate has been increasing at an average annual rate of three points.

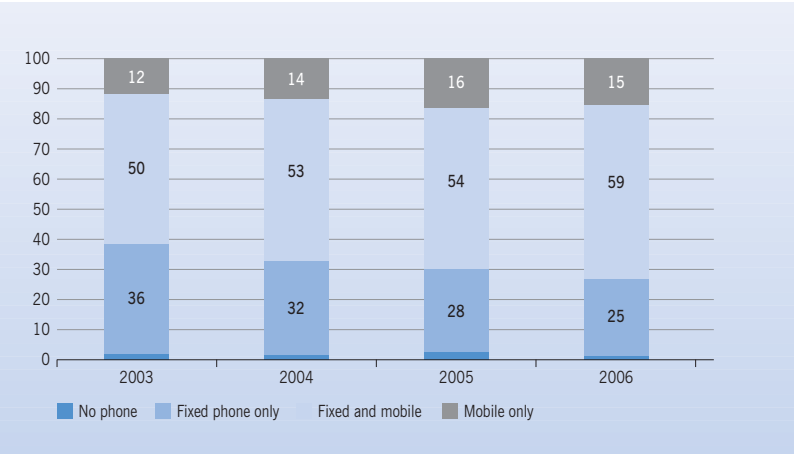
Percentage of adults equipped with a fixed or mobile phone  
(People 18 years of age and over)



Source: CREDOC surveys of living standards and aspirations in France  
(Conditions de vie et Aspirations des Français).

As the decline in fixed equipment levels has stabilised, and with the ongoing rise in mobile equipment, double equipment rates are rising. 59% of individuals aged 18 and over now have both a fixed line and a mobile phone. After having increased by 33% between 2003 and 2005, the number of people with only a mobile phone is tending to level off.

Breakdown of the population by telephone equipment  
(People 18 years of age and over)



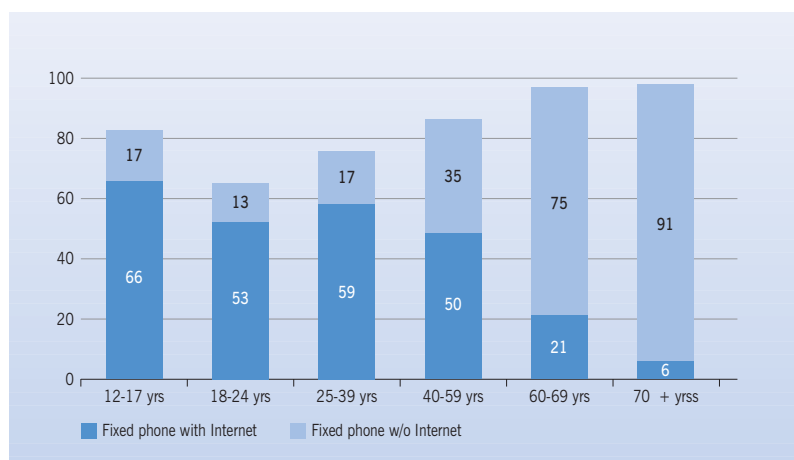
CREDOC surveys of living standards and aspirations in France  
(Conditions de vie et Aspirations des Français).

## 2. Internet access becoming indispensable

Internet access is becoming a powerful incentive for having a fixed line subscription: whereas a great many young consumers are opting to cancel their fixed line and use only their mobile phone (a third of 18 to 24-year-olds and a quarter of 25 to 39-year-olds), a fixed line goes hand in hand with Internet access for the youngest age groups. Internet users now account for the majority of fixed subscribers up to the age of 60.

### Residential fixed telephony and Internet equipment in June 2006

(People 12 years of age and over)



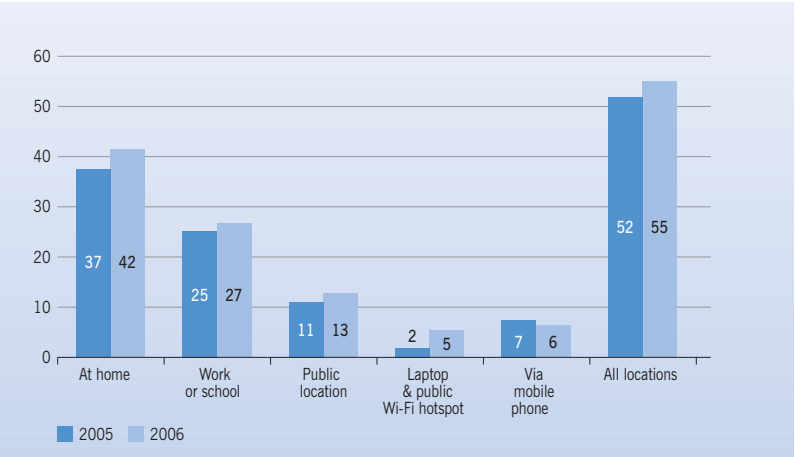
Source: CREDOC surveys of Standard of living and aspirations in France  
(Conditions de vie et Aspirations des Français).

Lastly, by taking account of all of the possible locations for connecting to the Internet, 55% of individuals aged 12 years and over have gone online at least once in the past 12 months: a three-point increase over 2005.

The highest rate of increase comes from personal equipment: 42% of individuals surf the web from home, or five points more than in 2005. The rate of connection at work or at school remains largely the same, i.e. 25% of users. One in ten people use public access locations such as Internet cafés, libraries, etc.

Meanwhile, it is still only small portion of users who access the Internet via mobile phone or using a laptop at a Wi-Fi hotspot.

People who have connected to the Internet in the past 12 months, by location  
(People 12 years of age and over)



Source: CREDOC surveys of Standard of living and aspirations in France  
(Conditions de vie et Aspirations des Français).

# Tariff benchmarks

# 4

## A. Fixed telephony tariff basket

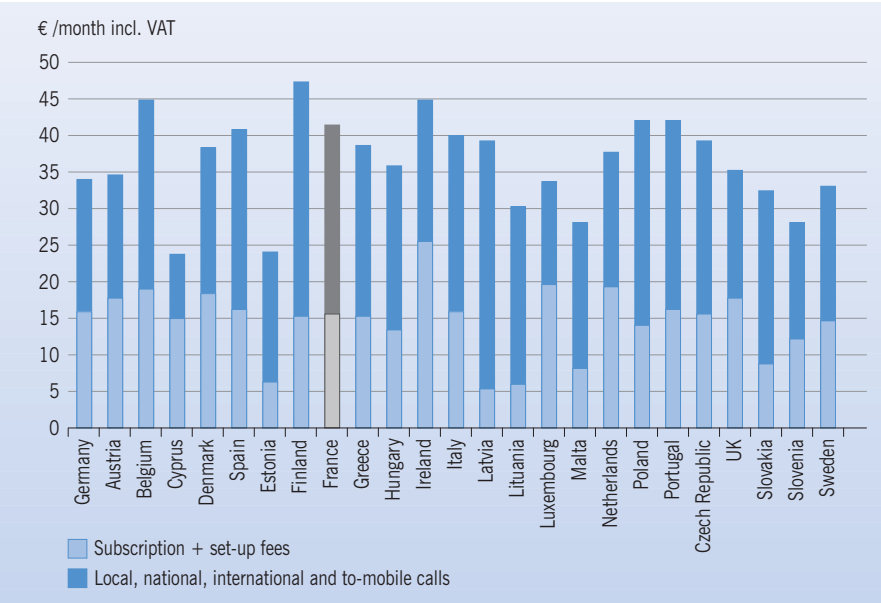
To estimate the average monthly consumer bill in various European countries the Commission, in its 12th Report, relied on OECD composite indices that include national calls to fixed terminals, international calls and calls to mobiles. Both residential and business customers are assumed to be subscribers of the incumbent operator (standard tariffs, excluding options). Every annually-defined index considers a one-year subscription for a line plus installation amortised over five years.

The residential index is based on 1,200 national calls to a fixed line, 120 two-minute calls to a mobile, and 72 international calls. The national calls are calculated as the average of calls made to 14 destinations (within a distance of 3 to 490 km) based on four calls during the week and two during the weekend, each lasting 2.5-7 minutes. Of these calls, 36% were made during peak hours, 64% were made to parties less than 10 km away, and 9% were made to parties more than 100 km away.

The business index is based on 3,600 national calls, 360 two-minute calls to a mobile, and 216 international calls. The national calls are calculated as the average of calls made to 14 destinations (3 km to 490 km) based on four calls during the week and two during the weekend, each lasting an average 3.5 minutes. Of these calls, 86% were made during peak hours, 64% were made to parties less than 10km away, and 12.5% were made to parties more than 100 km away.

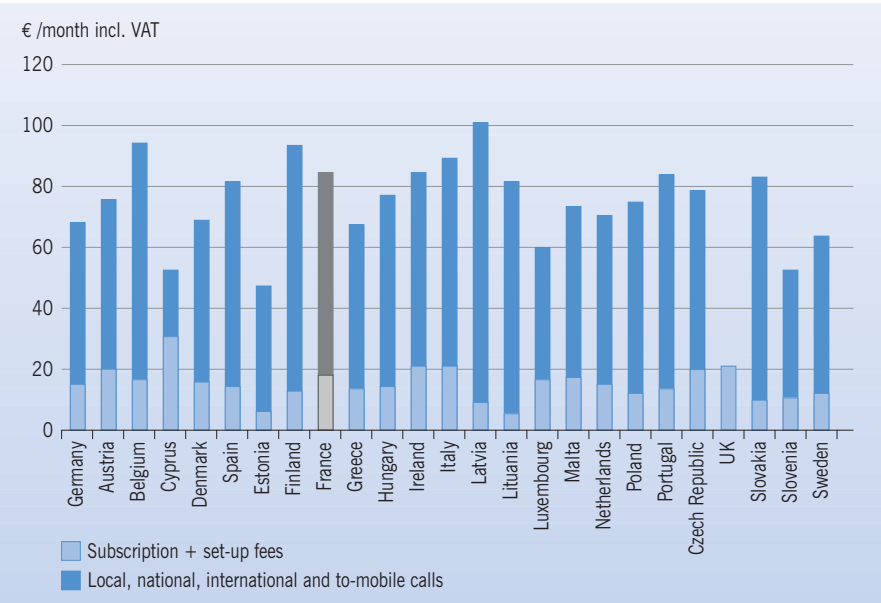
These average monthly baskets do not factor in unmetered offers or VoIP usage, which have become particularly popular in France, and which need to be taken into account when considering the figures.

Residential customer price basket



Source: 12th European Commission report.

Business customer price basket



Source: 12th European Commission report.

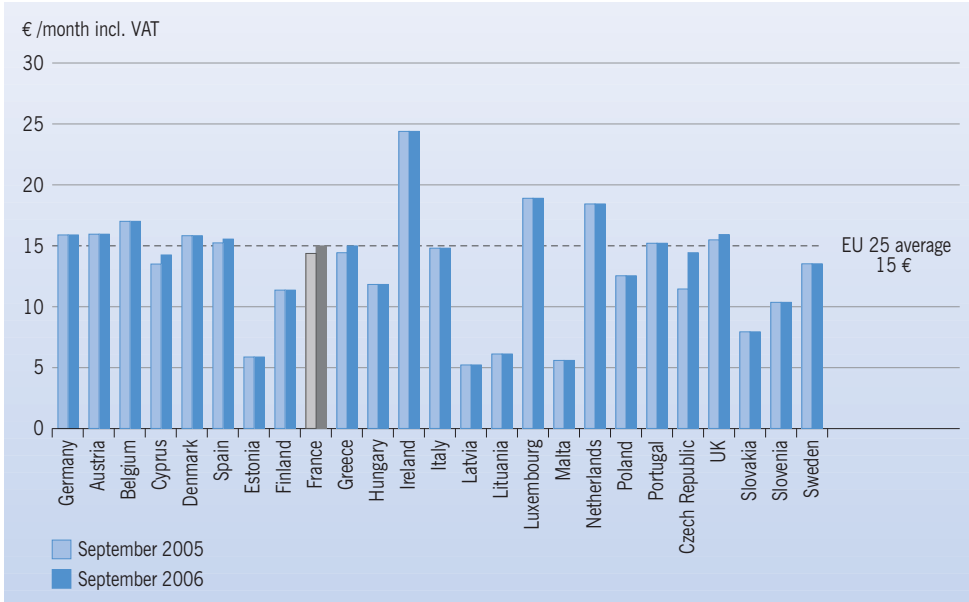


## B. Subscription

### 1. Residential subscription

The price of a monthly residential subscription in France corresponds to the European average of €15/month, incl. VAT, in September 2006. Ireland, Luxembourg and the Netherlands had the highest tariffs.

**Incumbent carrier's monthly subscription tariff  
for residential customers**

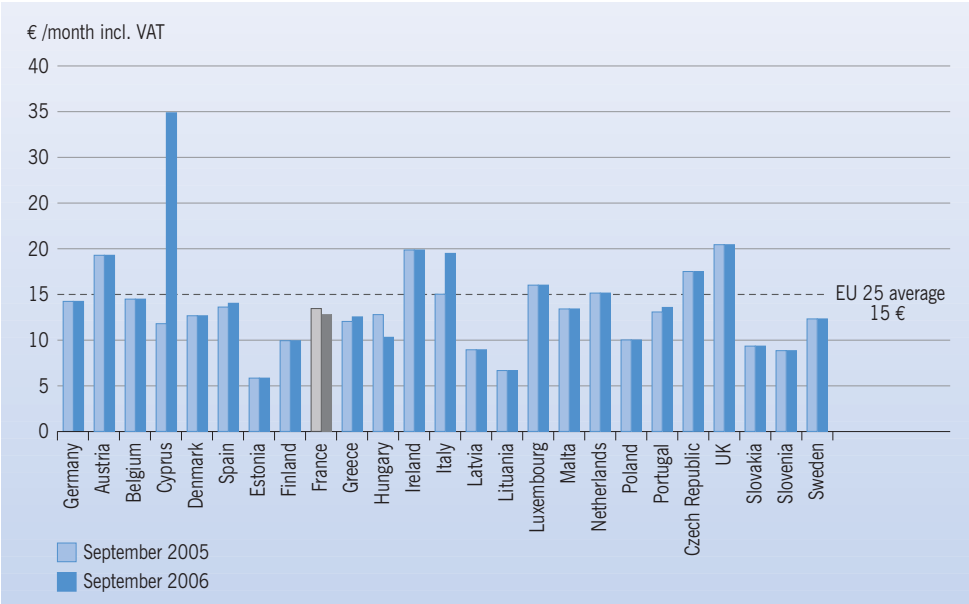


Source: 12th European Commission report.

2. Business subscription

At €12.50/month, excl. VAT, the price of a business subscription in France is below the European average (€15/month, excl. VAT). Cyprus, the UK and Ireland are home to the highest tariffs: €34.9/month, excl. VAT, €20.3/month, excl. VAT and €20/month, excl. VAT, respectively.

Incumbent carrier’s monthly subscription tariff  
for business customers



Source: 12th European Commission report.

C. Calling prices in Europe

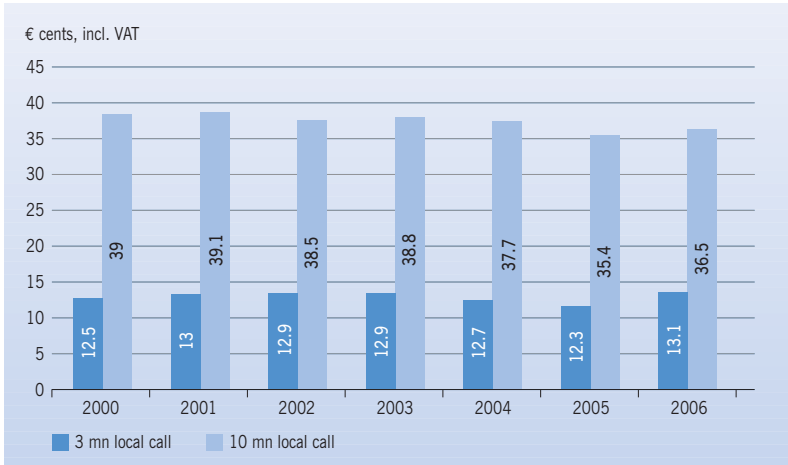
In its 12th Report, the European Commission provided information for reference purposes on the price of calls, thereby allowing the countries to be classified according to tariffs in use by the respective incumbent carriers. As unmetered services and voice over IP offerings increase in number, the usefulness of these indicators tends to diminish.

To give an example: in France, as of 31 December 2006, 23% of fixed calls (a percentage which is higher still when looking only at residential calls) were VoIP calls, in other words placed via operators’ services boxes which allow users to enjoy unmetered calling to national and a number of international destinations.

## 1. Price of local calls

The average price of local calls in Europe<sup>2</sup> has increased slightly.

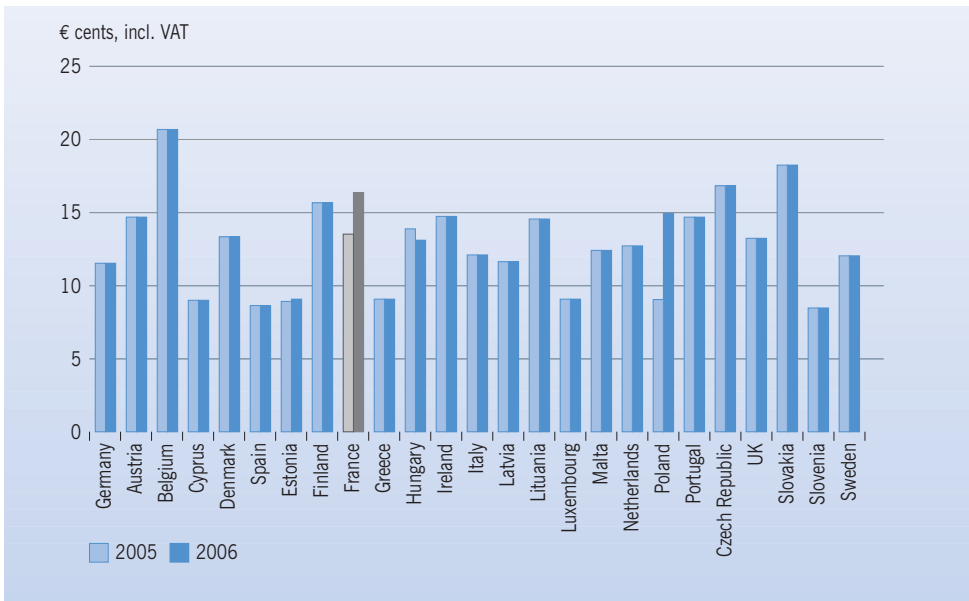
### Change in the average price of local calls in the EU-25



Source: 12th European Commission report.

The price of a three-minute local call (incumbent carrier's basic tariff in peak hours) increased in France from 13.4 eurocents, incl. VAT, in 2005 to 16.2 eurocents, incl. VAT, in September 2006 – putting it above the European average of 13.1 eurocents, incl. VAT. The highest tariff in the EU is in Belgium: 20.8 eurocents, incl. VAT.

### Basic tariff charged by the incumbent carrier for a 3-minute local call

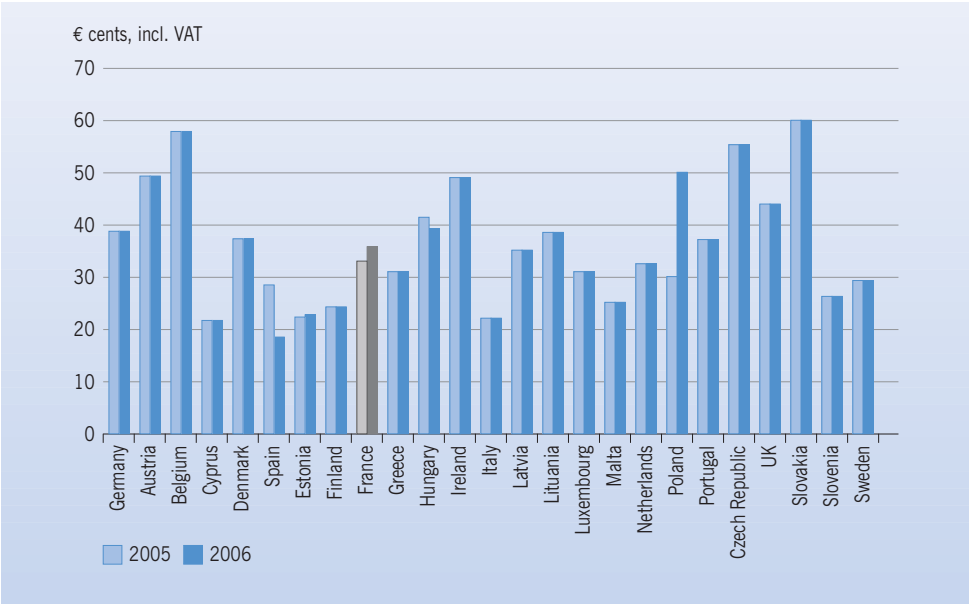


Source: 12th European Commission report.

2 - The European average is calculated based on the average for each of the 25 Member States, weighted by the population of each country.

The price of a 10-minute local call has also increased in France (35.8 eurocents, incl. VAT, compared to 33 eurocents, incl. VAT, one year earlier) but is still below the European average of 36.5 eurocents, incl. VAT. Slovakia, Belgium and the Czech Republic are home to the highest tariffs in the EU-25.

Basic tariff charged by the incumbent carrier for a 10-minute local call

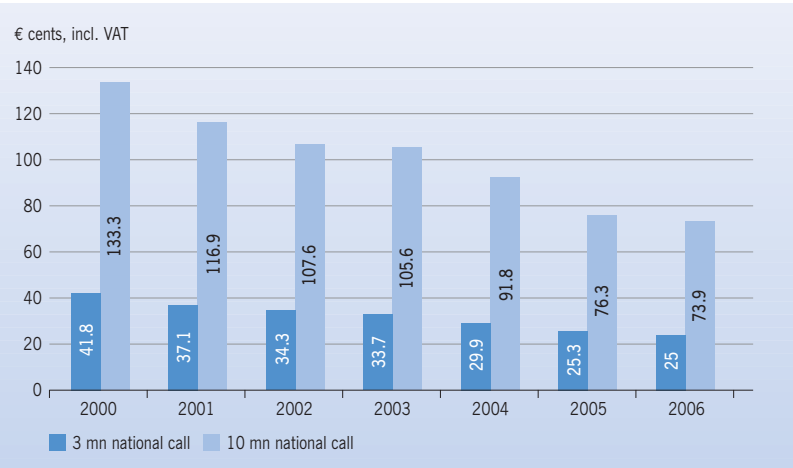


Source: 12th European Commission report.

2. Price of national calls

On the whole, the average price of national calls in the European Union is decreasing.

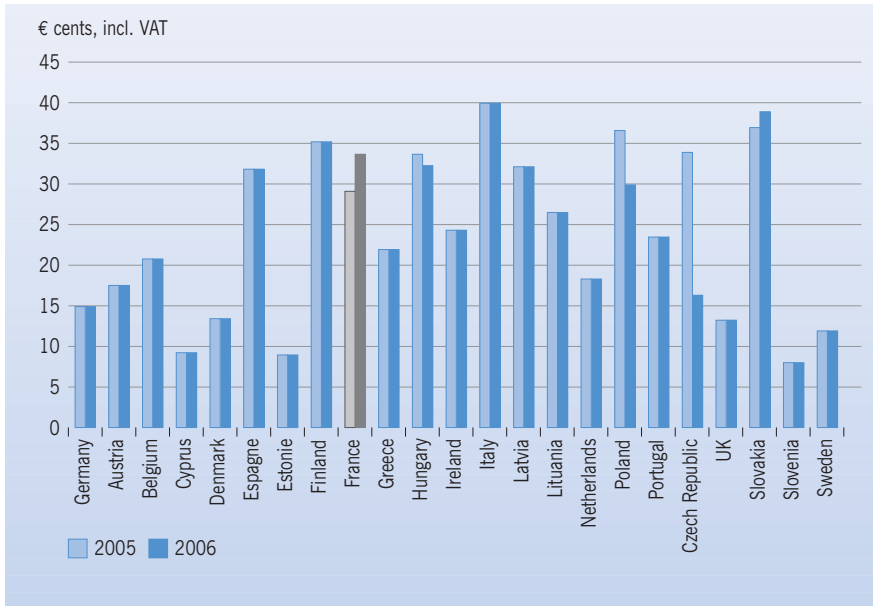
Change in the average price of national calls in the EU-25



Source: 12th European Commission report.

The price of a three-minute national call in September 2006 (incumbent carrier basic tariff in peak hours) has remained the same since 2005 in three-quarters of European Union countries. It has, however, increased in France, from 28.8 eurocents, incl. VAT, to 33.9 eurocents, incl. VAT. At 39.9 eurocents, incl. VAT, Italy has the highest prices in Europe for this type of call.

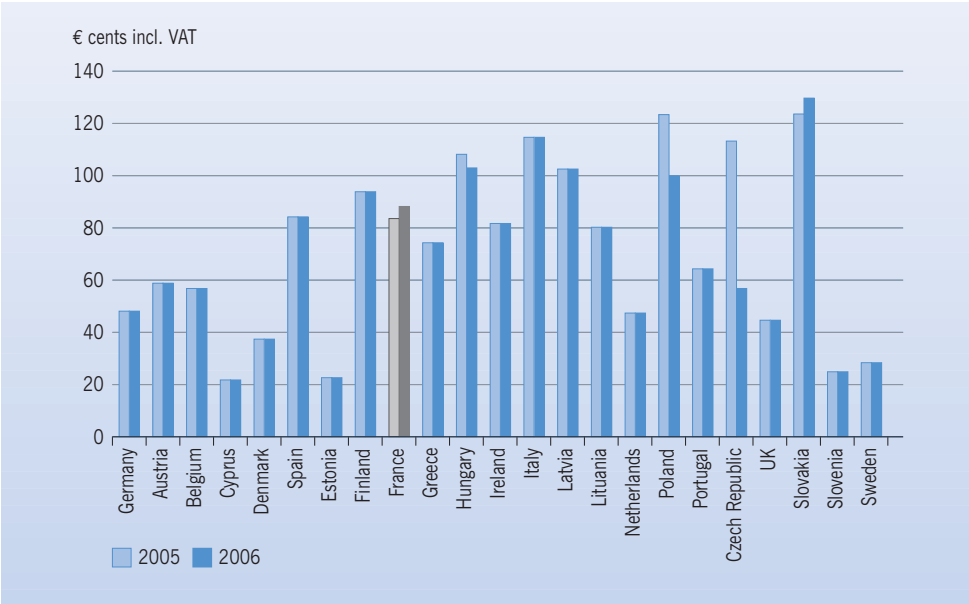
#### Basic tariff charged by the incumbent carrier for a 3-minute national call



Source: 12th European Commission report.

For a national 10-minute call, Slovakia and Italy have the highest prices. After an increase of 5 eurocents (to 88.5 eurocents, incl. VAT, in 2006) prices in France remain above the European average of 73.9 eurocents, incl. VAT. The lowest prices are found in Cyprus and Estonia.

Basic tariff charged by the incumbent carrier for a 10-minute national call



Source: 12th European Commission report.

### 3. Mobile calls

The European Commission compared the price of flat rates offered by the two largest mobile operators in each European country, and used OECD baskets to rank the different offers.

For light consumers in 2006, the most affordable tariffs were in Latvia (and, more generally, in the Baltic states and Denmark), while the UK was home to the highest tariffs for this user category.

For medium usage, Germany, Malta and Italy had the highest prices, while Denmark, Lithuania and Latvia offered the most affordable rates.

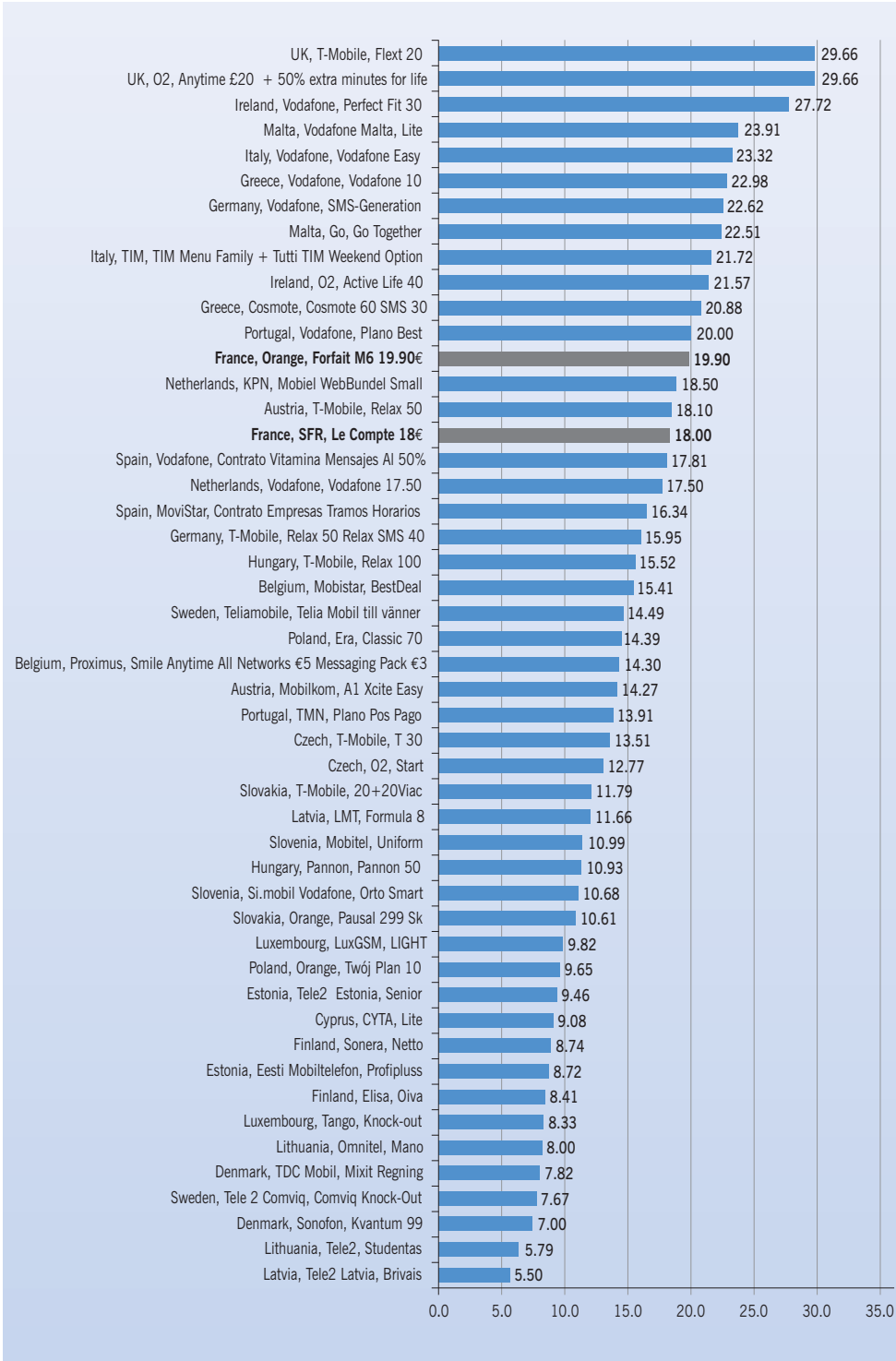
And, again, it was Denmark, Lithuania and Latvia which were home to the most attractive tariffs for mobile phone subscribers with high usage rates.

#### Gaps between the highest and lowest prices, according to mobile usage in Europe

	Highest prices	Lowest prices	Price range in France
<b>Low usage</b> (30 outbound calls/month + 33 SMS)	€29.7/month incl. VAT (UK)	€5.5/month incl. VAT (Latvia)	€18-19.9/month incl. VAT
<b>Medium usage</b> (65 outbound calls/month + 50 SMS)	€46.2/month incl. VAT (Germany)	€8.5/month incl. VAT (Denmark)	€25-28.9/month incl. VAT
<b>High usage</b> (140 outbound calls/month + 55 SMS)	€79.4/month incl. VAT (Malta)	€17.6/month incl. VAT (Denmark)	€46.5-54.8/month incl. VAT

Source: 12th European Commission report.

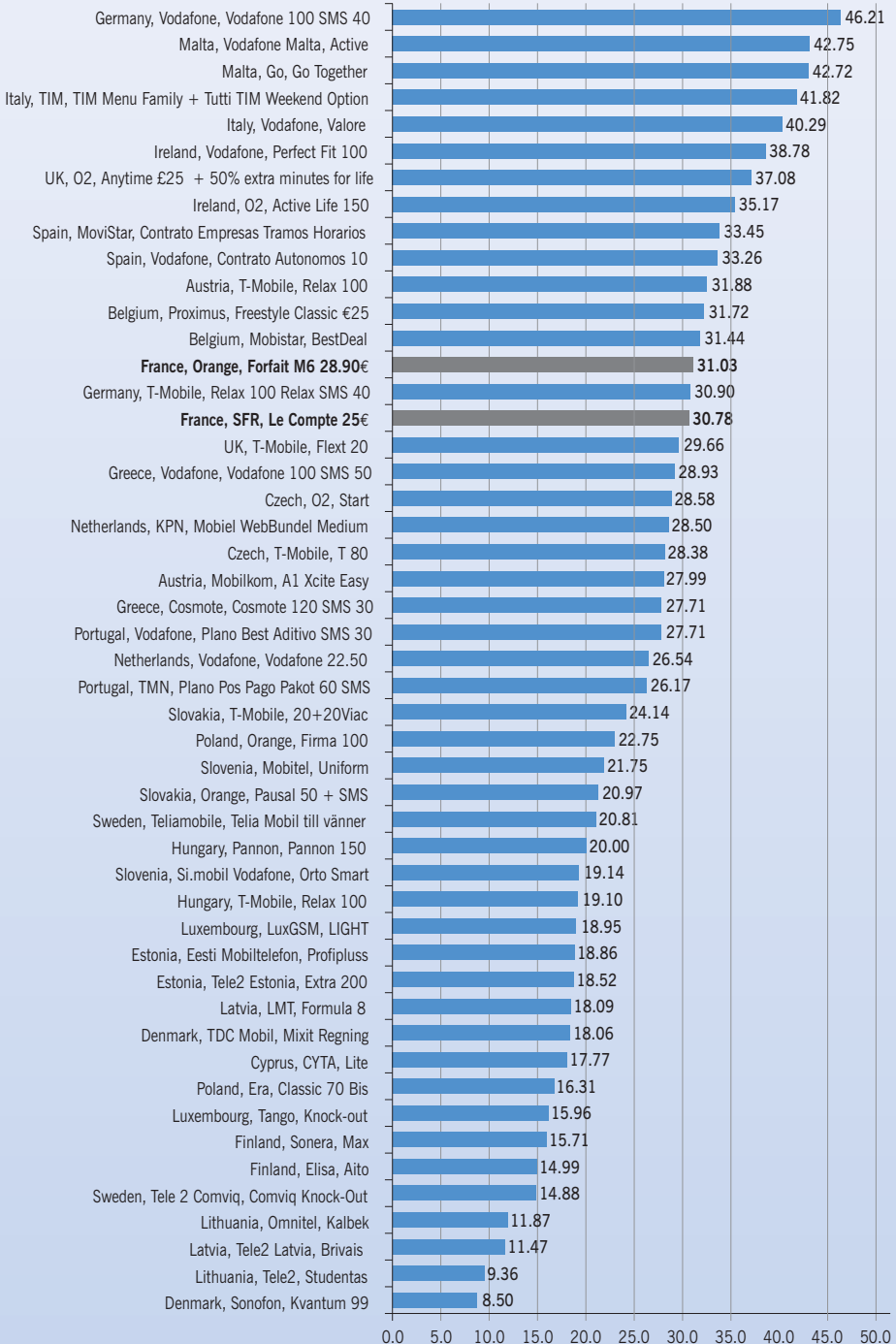
Low usage basket (€/month incl. VAT)



Source : 12th European Commission report.

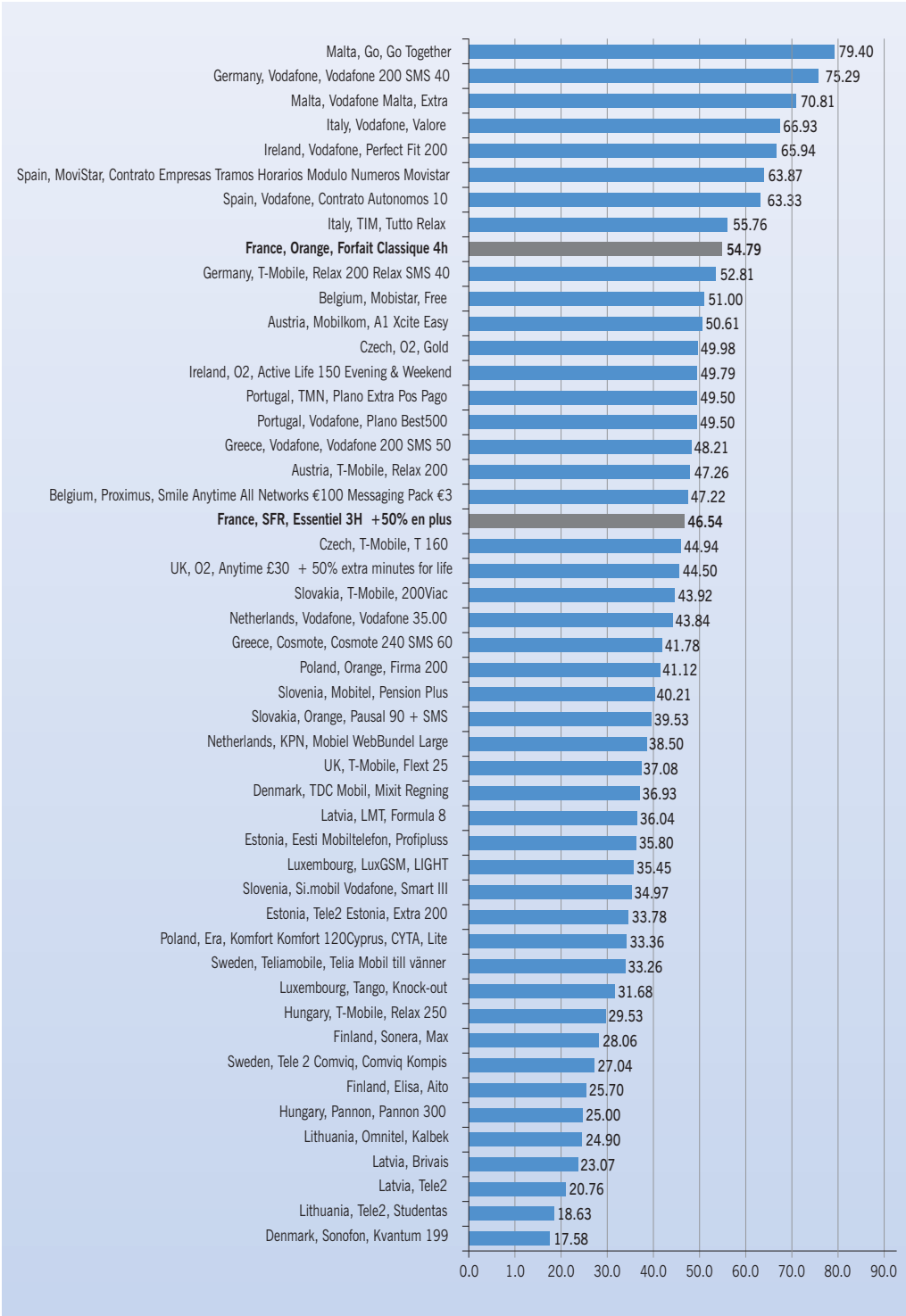


## Medium usage basket (€/month incl. VAT)



Source : 12th European Commission report.

High usage basket (€/month incl. VAT)



Source : 12th European Commission report.