

L'OBSERVATOIRE DES MARCHÉS

**MARKET OBSERVATORY :  
THE TELECOMMUNICATIONS SERVICES MARKET IN FRANCE  
AT THE FOURTH QUARTER 2004  
(declared operators)**

## **Introduction**

At the fourth quarter 2004, the electronic communications market in France represented €9.4 billion. Global market growth increased 2.9% over the fourth quarter 2003.

### **Fixed telephony**

Fixed telephony revenues (€3.1 billion) fell 4.9% at the fourth quarter 2004 over the fourth quarter 2003. The number of unbundled lines increased quickly, reaching 1.5 million lines at the end of 2004 (compared with 273 255 lines at end 2003). Full unbundling concerned just 92 869 lines at end 2004 but increased strongly (+73.5%) during the fourth quarter.

### **Internet**

Revenues of registered operators in the Internet sector reached €630 million in the last quarter 2004. Of the 12 million Internet subscriptions in service at end 2004, 6.5 million were high-speed subscriptions. The number of high-speed Internet subscriptions increased by one million in the fourth quarter and by three million throughout 2004. Registered operators generated €630 million in revenue on the Internet market. The increase observed on this market (75.4% more than a year earlier) is due in part to the integration and accounting of Internet access providers (IAPs) in the results of registered operators. Still, when estimated at a constant scope with previous quarters, the growth in revenue generated by Internet remains strong (about 50% according to the Market Observatory estimate).

### **Mobile**

With €3.8 billion in revenues at the fourth quarter 2004, mobile telephony continues to lead the market in growth. The mobile sector represents 40% of all revenues for the electronic communications market. The increase in revenues for this sector is fed by the increase in the number of subscribers (which with €44.5 million at the end of the year was up close to 7% in 2004) and by the development of uses (+7.8% for voice and +14.7% for data transport).

### **Quarterly growth in traffic volume**

For the first time, the Observatory is publishing quarterly series of traffic volume (fixed, dial-up Internet, mobile, SMS) which are corrected for seasonal variations. This will make it easier to understand medium-term trends. The volume of traffic originating on fixed telephones has been declining for the past several years, although this decline slowed at the end of the period. The increase in the volume of mobile traffic (voice and SMS) is regular and sustained. The volume of dial-up Internet calls has been declining since late 2003.

*Note - Data for one quarter may be revised in the subsequent observatory following corrections made by operators in their reports, Any discrepancies are due to rounding*

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# 1 The telecommunications market as a whole

## 1.1 The end user market

In the fourth quarter 2004, the entire market generated €9.434 billion in revenue, for a 2.9% increase over the fourth quarter 2003. The increase in mobile telephony and Internet revenues is feeding this market growth and offsets the erosion of other sectors, especially that of fixed telephony, which with €3.155 billion at the last quarter 2004, is down 4.9% over one year. The strong growth in Internet revenue (+75.4%) is related in part to an expansion of the scope following the integration of an IAP which had previously not been registered. Nonetheless, the estimated increase in revenue with a constant scope remains very strong (about 50% according to the Market Observatory estimate).

| Sales<br>(in millions of euros)                         | Q4 2003      | Q1 2004            | Q2 2004            | Q3 2004            | Q4 2004      | Change<br>Q4 04/Q4 03 |
|---|--------------|--------------------|--------------------|--------------------|--------------|-----------------------|
| <b>Fixed telephony</b>                                  | 3 319        | 3 273 <sup>1</sup> | 3 201 <sup>1</sup> | 3 152 <sup>1</sup> | 3 155        | -4,9%                 |
| <b>Internet</b>   | 359          | 437                | 439                | 560                | 630          | +75,4%                |
| <b>Mobile telephony</b>                                 | 3 490        | 3 479              | 3 616              | 3 786              | 3 780        | +8,3%                 |
| <b>Total telephony and Internet</b>                     | <b>7 168</b> | <b>7 189</b>       | <b>7 256</b>       | <b>7 497</b>       | <b>7 566</b> | <b>+5,5%</b>          |
| <b>Advanced services</b>                                | 456          | 436                | 414 <sup>2</sup>   | 427 <sup>2</sup>   | 443          | -2,9%                 |
| <b>Leased lines</b>                                     | 586          | 551                | 542                | 554                | 566          | -3,5%                 |
| <b>Data transport</b>                                   | 153          | 130 <sup>3</sup>   | 130 <sup>3</sup>   | 147 <sup>3</sup>   | 155          | +1,4%                 |
| <b>Operator assistance, directories and advertising</b> | 91           | 57                 | 67                 | 80                 | 73           | -19,9%                |
| <b>Hosting and call centre management</b>               | 7            | 4                  | 7                  | 7                  | 7            | -7,7%                 |
| <b>Terminals and equipment</b>                          | 703          | 533                | 472                | 629                | 625          | -11,1%                |
| <b>Total Market</b>                                     | <b>9 165</b> | <b>8 900</b>       | <b>8 888</b>       | <b>9 341</b>       | <b>9 434</b> | <b>+2,9%</b>          |

\* *adjusted figures.*

<sup>1</sup> This indicator includes sales of access fees and subscriptions, calls from fixed lines excluding calls to Internet, of public phones and cards.

<sup>2</sup> Not including the added value of not declared ISPs (e.g., AOL and Club Internet).

<sup>3</sup> This item includes data transport on mobile networks, and sales of radio-paging operators until the 4th quarter 2003.

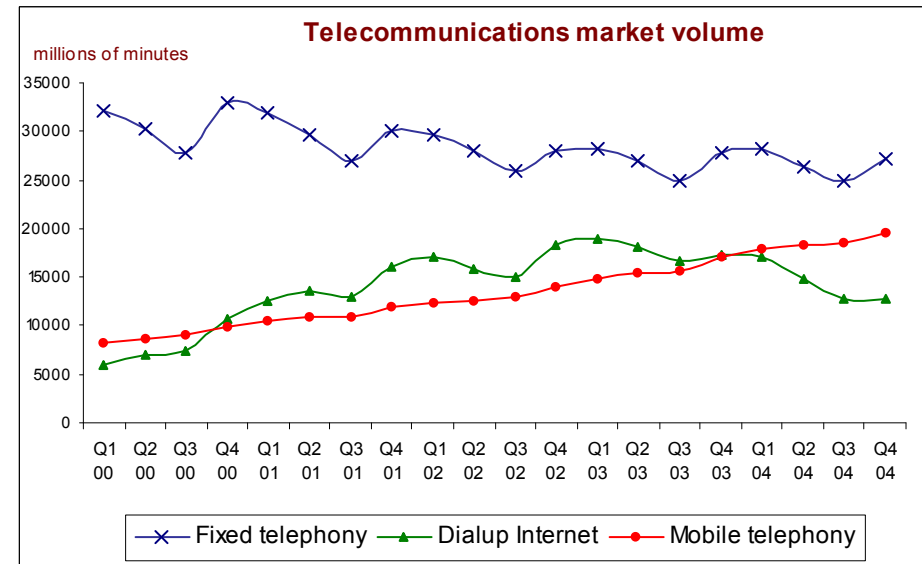
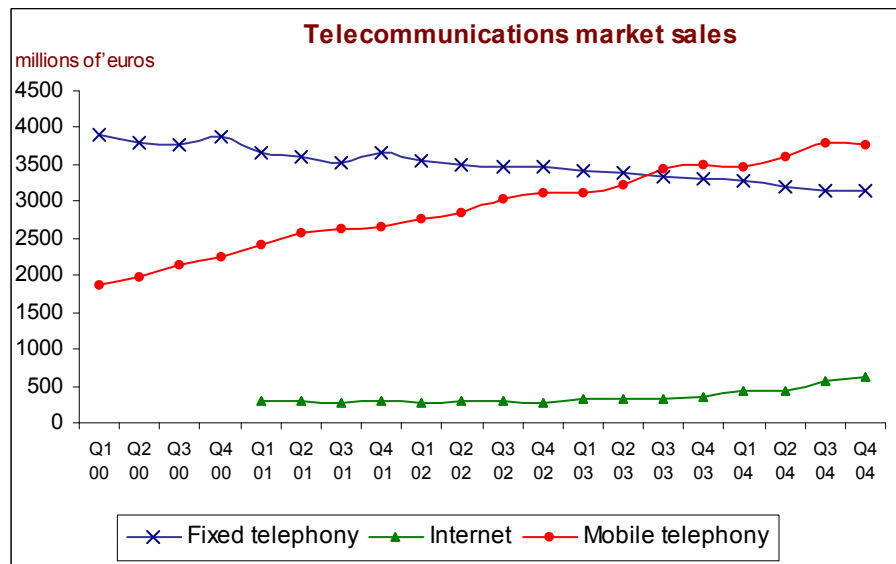
<sup>4</sup> The indicator includes only sales of data transport from fixed lines, since data transport from mobile lines is included in global mobile telephony figures.

<sup>5</sup> This market is not covered by the telecommunications services market *per se*. Since the contribution of declared operators on this market is low, this indicator gives only a partial view of actual figures.

| Volumes<br>(in millions of minutes)          | Q4 2003       | Q1 2004        | Q2 2004        | Q3 2004        | Q4 2004       | Change<br>Q4 04/Q4 03 |
|--|---------------|----------------|----------------|----------------|---------------|-----------------------|
| <b>Fixed telephony</b>                       | 27 760        | 28 274*        | 26 359*        | 24 983*        | 27 269        | -1,8%                 |
| <b>Internet (dialup Internet)</b>            | 17 313        | 17 139*        | 14 778*        | 12 693*        | 12 688        | -26,7%                |
| <b>Mobile telephony</b>                      | 16 998        | 18 009         | 18 258         | 18 552         | 19 482        | +14,6%                |
| <b>Total telephony and Internet</b>          | <b>62 072</b> | <b>63 422*</b> | <b>59 394*</b> | <b>56 228*</b> | <b>59 440</b> | <b>-4,2%</b>          |
| <b>Of witch telephony (fixed and mobile)</b> | 44 759        | 46 283*        | 44 617*        | 43 534*        | 46 751        | +4,5%                 |

\* adjusted figures

The global volume of telephony (fixed and mobile) rose 4.5% over the fourth quarter 2003: mobile telephony is up 14.6% whereas the volume of fixed telephony declined 1.8%. The decline over one year in dial-up Internet traffic (-26.7%) should be taken along with the drop in the number of dial-up Internet accesses.



## 1.2 The intermediate market between declared operators (telephony interconnection services)

### 1.2.1 The market as a whole

The €105 million decline in revenues for mobile operators' interconnection services between the third and fourth quarters 2004 is due to a seasonal effect of roaming-in revenues (calls made by clients of foreign mobile operators while in France) which declined by €112 million. Revenues for Internet interconnection increased 19.3% thanks to the "high speed" component which is becoming increasing large. Volumes for Internet interconnection services concern only the "dial-up" component and are down 32.8%.

| Sales<br>(in millions of euros) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|---------------------------------|---------|---------|---------|---------|---------|-----------------------|
| <b>Interconnexion services</b>  | 1 435   | 1 435*  | 1 494*  | 1 518*  | 1 427   | -0,5%                 |
| of witch fixed operators        | 703     | 664*    | 692     | 691*    | 701     | -0,3%                 |
| of witch Internet               | 56      | 70      | 83*     | 62*     | 66      | +19,3%                |
| Of witch dialup internet        | 50      | 41      | 37      | 33      | 32      | -35,5%                |
| of witch mobile operators       | 676     | 702     | 719     | 765     | 660     | -2,4%                 |

| Volumes<br>(in millions of minutes) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|-------------------------------------|---------|---------|---------|---------|---------|-----------------------|
| <b>Services d'interconnexion</b>    | 41 489  | 38 174* | 36 597* | 35 458* | 38 122  | -8,1%                 |
| of witch fixed operators            | 22 059  | 21 183* | 20 894* | 20 313* | 22 257  | +0,9%                 |
| of witch Internet                   | 12 277  | 9 684*  | 8 246*  | 7 557*  | 8 250   | -32,8%                |
| of witch mobile operators           | 7 152   | 7 306   | 7 456   | 7 588   | 7 615   | +6,5%                 |

\* adjusted figures

#### Notes :

- Interconnection sales and volumes are not based on the same perimeters, making it difficult to use these two indicators to calculate average prices (interconnection revenues include fixed income such as payments for connection links and services between operators).
- Interconnection includes all those services offered by declared operators under interconnection agreements. Following the mergers and integrations of certain operators early in the year, part of the intra-group flows is no more included in interconnection, which explains the decline between two quarters
- We draw the reader's attention to the fact that a part of the interconnection figures above may be counted twice, in particular for fixed operator..

### 1.2.2 Incoming international traffic<sup>1</sup>

| <b>Sales</b><br>(in millions of euros)           | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Interconnexion services – incoming international | 215     | 220     | 243     | 251     | 238     | +11,0%                |
| of witch fixed operators                         | 172     | 181     | 207     | 207     | 195     | +13,8%                |
| of witch mobile operators                        | 43      | 39      | 37      | 43      | 43      | +0,6%                 |

| <b>Volumes</b>                                     | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Interconnexion services – incoming international t | 1 478   | 1 565   | 1 660   | 1 751   | 1 677   | +13,5%                |
| of witch fixed operators                           | 1 231   | 1 313   | 1 429   | 1 466   | 1 415   | +14,9%                |
| of witch mobile operators                          | 247     | 252     | 231     | 285     | 262     | +6,4%                 |

### 1.2.3 Roaming-in<sup>6</sup> (mobile operators)

The fourth quarter corresponds to a seasonal slump for the roaming-in activity following a third quarter which is traditionally very strong, given the large number of tourists in France during the summer months.

|                               | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|-------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Sales in millions of euros    | -       | 179     | 209     | 289     | 177     | -                     |
| Volume in millions of minutes | -       | 281     | 335     | 422     | 266     | -                     |

Note: Roaming-in corresponds to calls made and received in France by customers of foreign mobile operators, which are carried by a French mobile operator

<sup>1</sup> This market segment is a subset of the total market (cf. 1.2.1)

## 2 Market segments

### 2.1 Fixed telephony

#### 2.1.1 Access, subscriptions and fixed lines

| Sales<br>(in millions of euros)                    | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 03/Q4 04 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Access fees, subscriptions and additional services | 1 364   | 1 352   | 1 355   | 1 369   | 1 374   | +0,8%                 |

The number of fixed lines remains stable, whereas the number of telephone accesses via cable networks grew 13.5% over the entire year.

| Number of fixed lines<br>(units) | Q4 2003    | Q1 2004     | Q2 2004     | Q3 2004     | Q4 2004    | Change<br>Q4 04/Q4 03 |
|----------------------------------|------------|-------------|-------------|-------------|------------|-----------------------|
| Number of fixed lines            | 33 807 233 | 33 871 175* | 33 804 447* | 33 760 323* | 33 870 181 | +0,2%                 |
| <i>of which Cable</i>            | 59 793     | 60 086      | 62 791      | 64 296      | 67 858     | +13,5%                |

\* adjusted figures

The growth observed since the beginning of the year continued during the fourth quarter 2004: call-by-call carrier selection continued to decline, whereas pre-selection grew at an annual rate of 15.7%, and represented 16% of fixed lines at end 2004.

| Number of indirect connexions<br>(units) | Q4 2003   | Q1 2004    | Q2 2004    | Q3 2004    | Q4 2004   | Change<br>Q4 04/Q4 03 |
|--|-----------|------------|------------|------------|-----------|-----------------------|
| Number of indirect connexions            | 7 589 629 | 7 727 214* | 7 915 566* | 7 896 331* | 7 929 794 | +4,5%                 |
| <i>of which call-by-call selection</i>   | 2 944 713 | 2 925 666* | 2 794 075* | 2 629 584* | 2 554 188 | -13,3%                |
| <i>of which pre-selection</i>            | 4 644 917 | 4 801 548* | 5 121 491* | 5 266 747* | 5 375 606 | +15,7%                |

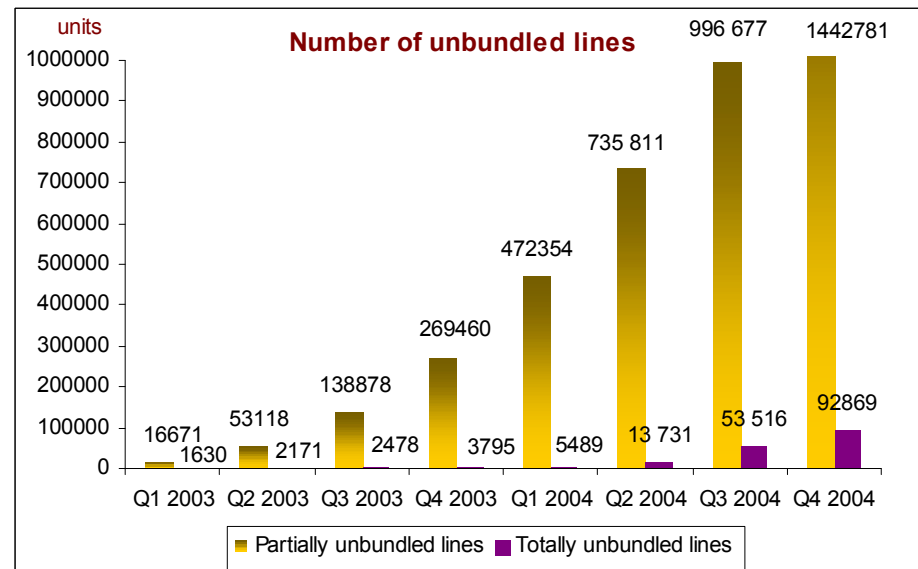
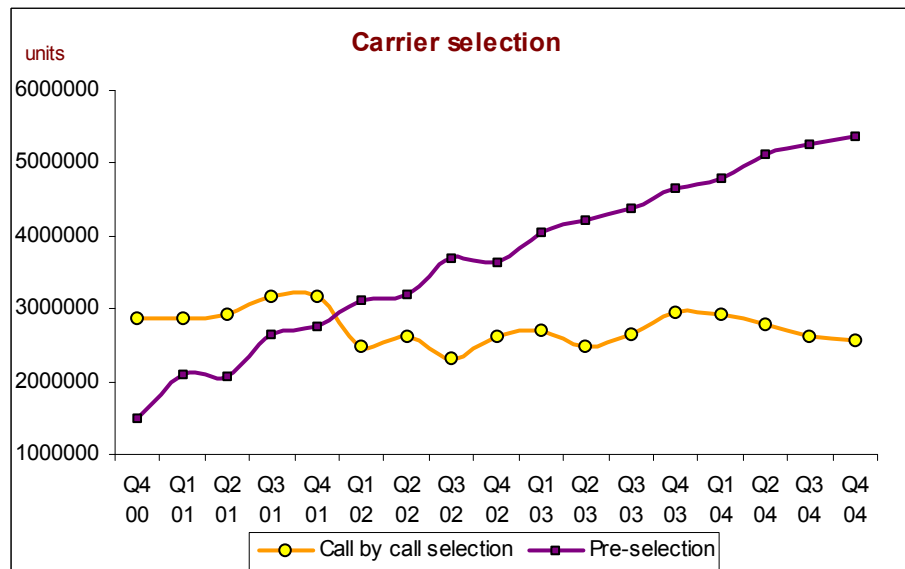
\* adjusted figures

*Note* The call-by-call selection numbers take into account only active subscriptions, and pre-selection numbers include only subscriptions in service, net of cancellations



The growth in the number of unbundled lines was strong right from the beginning of the year. Close to 500 000 additional lines were unbundled during the fourth quarter 2004, bringing the total to 1.5 million lines at end 2004, compared with 273 000 lines at end 2003. Full unbundling (92 869 lines) is also growing strongly (+73.5% during the fourth quarter), although it still represents only a very marginal share of the total number of fixed lines (0.5%).

| Unbundling (units)               | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004   | Q4 2004   | Change Q4 04/Q4 03 |
|----------------------------------|---------|---------|---------|-----------|-----------|--------------------|
| Number of unbundled lines        | 273 255 | 477 843 | 749 542 | 1 050 293 | 1 535 650 | +474,5%            |
| Of which partially unbundled     | 269 460 | 472 354 | 735 811 | 996 777   | 1 442 781 | +447,3%            |
| Of which totally unbundled lines | 3 795   | 5 489   | 13 731  | 53 516    | 92 869    | +2 401,9%          |



### 2.1.2 Calls from fixed lines (excluding public payphones, cards and Internet)

The decrease in the cost of call termination on mobile networks continues to be felt: revenues generated by fixed-mobile calls were down 12.6% over the fourth quarter 2003, despite traffic volumes up 5.4% for the same period. The global volume of calls from fixed lines declined by 1.6% over the fourth quarter 2003, because of the decline in the number national calls (and especially local calls) which were not offset by international calls and calls to mobiles.

| Sales<br>(in millions of euros)            | Q4 2003      | Q1 2004       | Q2 2004       | Q3 2004       | Q4 2004      | Change<br>Q4 04/Q4 03 |
|--|--------------|---------------|---------------|---------------|--------------|-----------------------|
| National calls excluding fixed to mobile * | 942          | 967*          | 908*          | 855*          | 884          | -6,1%                 |
| <i>Of which local calls**</i>              | 567          | 580*          | 578*          | 545*          | 553          | -2,4%                 |
| <i>Of which long-distance calls</i>        | 375          | 387*          | 330*          | 311*          | 331          | -11,7%                |
| International calls                        | 198          | 192*          | 183*          | 187           | 181          | -8,6%                 |
| Calls to mobiles                           | 686          | 644*          | 631*          | 605*          | 599          | -12,6%                |
| <b>Total calls from fixed lines</b>        | <b>1 825</b> | <b>1 803*</b> | <b>1 722*</b> | <b>1 648*</b> | <b>1 664</b> | <b>-8,8%</b>          |

\* adjusted figures

\*\* excluding Internet access calls. The breakdown between local calls and long-distance calls is an ART estimate

| Volumes<br>(in millions of minutes)        | Q4 2003       | Q1 2004        | Q2 2004        | Q3 2004        | Q4 2004       | Change<br>Q4 04/Q4 03 |
|--|---------------|----------------|----------------|----------------|---------------|-----------------------|
| National calls excluding fixed to mobile * | 22 928        | 23 390*        | 21 381*        | 19 886*        | 22 269        | -3,1%                 |
| <i>Of which local calls**</i>              | 15 679        | 15 895*        | 14 376*        | 13 098*        | 14 691        | -6,3%                 |
| <i>Of which long-distance calls</i>        | 7 248         | 7 494*         | 7 005*         | 6 788*         | 7 578         | +4,5%                 |
| International calls                        | 1 212         | 1 250*         | 1 266*         | 1 278*         | 1 292         | +6,6%                 |
| Calls to mobiles                           | 2 896         | 2 946*         | 2 983*         | 3 063*         | 3 053         | +5,4%                 |
| <b>Total calls from fixed lines</b>        | <b>27 035</b> | <b>27 586*</b> | <b>25 631*</b> | <b>24 227*</b> | <b>26 614</b> | <b>-1,6%</b>          |

\* adjusted figures.

\*\* excluding Internet access calls

### 2.1.3 Fixed phone cards and public payphones

| <b>Subscriber cards and prepaid cards</b> | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|---|---------|---------|---------|---------|---------|-----------------------|
| Sales (in millions of euros)              | 55      | 48*     | 53*     | 60      | 54      | -2,1%                 |
| Volumes (in millions of minutes)          | 420     | 409*    | 443*    | 459*    | 425     | +1,3%                 |

\* adjusted figures

| <b>Public payphones</b>          | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|----------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Sales (in millions of euros)     | 76      | 70      | 70      | 75      | 63      | -16,6%                |
| Volumes (in millions of minutes) | 306     | 279     | 286     | 297     | 230     | -24,7%                |

|  | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Number of public payphones at end of quarter (units) | 192 273 | 195 773 | 189 079 | 191 794 | 189 339 | -1,5%                 |

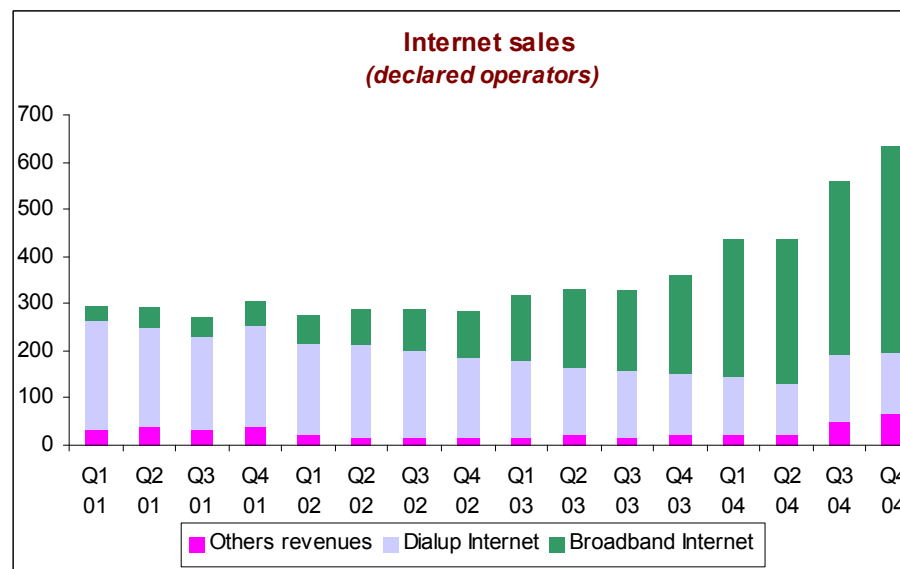
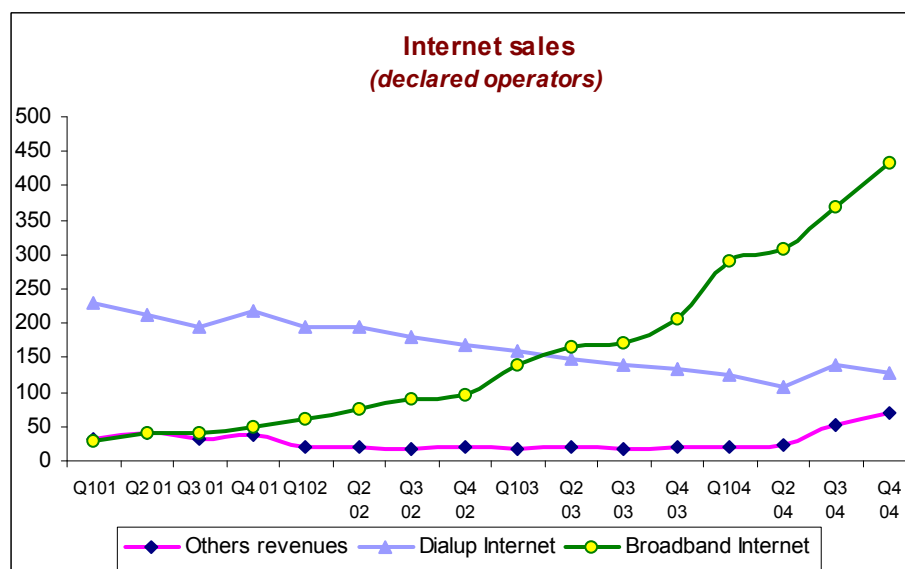
## 2.2 Internet

### 2.2.1 Sales and volumes (declared operators)

The major increase in Internet revenues beginning the third quarter 2004 was due in part to the extension of the scope of the survey, following the integration of an IAP which had previously not been registered. The Market Observatory considers that this scope modification explains some €180 million in additional sales for the total Internet activity for the second half of 2004.

| Sales (declared operators)<br>(in millions of euros) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| <b>Total Internet sales</b>                          | 359     | 437     | 439     | 560     | 630     | +75,4%                |
| Of which dialup Internet                             | 133     | 126     | 108     | 139     | 128     | -3,6%                 |
| Of which broadband Internet                          | 206     | 291     | 307     | 369     | 433     | +110,1%               |
| Of which other revenues                              | 20      | 20      | 23      | 52      | 69      | +238,4%               |

*Note: It is important to remember that sales are for services billed by declared operators directly to the end user or to access providers when these are not declared operators. Therefore, the figures do not include total financial consumption; they ignore the added value of access providers who are not declared operators.*



## 2.2.2 Dialup Internet (declared operators)

The major increase in revenues beginning the third quarter is due in part to an extension of the scope of the survey.

| Sales<br>(in millions of euros)    | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|------------------------------------|---------|---------|---------|---------|---------|-----------------------|
| <b>Total dialup Internet sales</b> | 133     | 126     | 108     | 139*    | 128     | -3,6%                 |
| Of which collection for ISPs       | 57      | 57      | 48      | 23*     | 17      | -70,6%                |
| Of which flat rate packages        | 16      | 13      | 12      | 73      | 67      | +310,7%               |
| Of which free access accounts      | 60      | 56      | 47      | 43      | 45      | -25,5%                |

\* adjusted figures.

Note: This publication distinguishes between two types of subscription for Internet access calls for end users:

- (a) Users pay their ISP for a flat number of minutes for calls to Internet. In this case, the local loop operator collects Internet traffic for the ISPs (AFA definition: paying accounts on the basis of a flat monthly rate).

(b) If the local loop operator is an access provider, it enters its flat-rate revenues on the "Dialup Internet flat-rate revenues" line
- Clients have free access accounts (with no monthly subscription) with access providers and pay only for what they consume ("pay as you go") directly to the local loop operator (AFA definition: free access accounts or billed according to use).

| Volumes (declared operators)<br>(in millions of minutes) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| <b>Total volumes for Internet billed to end users</b>    | 17 313  | 17 139* | 14 778* | 12 693* | 12 688  | -26,7%                |
| Of which free access accounts volume                     | 2 520   | 2 359   | 2 056   | 1 780   | 1 796   | -28,7%                |

\* adjusted figures

### 2.2.3 Internet subscriptions (declared operators and non declared ISPs operators)

The number of subscriptions, shown below, is taken from the results of ARCEP's specific quarterly survey of IAPs. The results of this survey covering the fourth quarter 2004 were published by ARCEP on 27 April 2005.

| <b>Internet subscriptions<br/>(declared operators and non declared ISPs operators) (units)</b> | Q4 2003    | Q1 2004    | Q2 2004    | Q3 2004    | Q4 2004    | Change<br>Q4 04/Q4 03 |
|--|------------|------------|------------|------------|------------|-----------------------|
| <b>Internet subscriptions</b>  | 10 617 186 | 11 061 655 | 11 141 458 | 11 308 326 | 11 936 519 | +12,4%%               |
| - Dialup Internet subscriptions (1)  | 7 047 871  | 6 660 209  | 6 230 045  | 5 810 631  | 5 406 522  | -23,3%%               |
| - Broadband Internet subscriptions (cable, xdsl, WLL...) (2)                                   | 3 569 315  | 4 401 446  | 4 911 413  | 5 497 695  | 6 529 997  | +82,9%                |

| <b>Dialup Internet (1)<br/>(declared operators and non declared ISPs operators<br/>(units))</b> | Q4 2003   | Q1 2004   | Q2 2004   | Q3 2004   | Q4 2004   | Change<br>Q4 04/Q4 03 |
|---|-----------|-----------|-----------|-----------|-----------|-----------------------|
| <b>Dialup Internet subscriptions</b>  | 7 047 871 | 6 660 209 | 6 230 045 | 5 810 631 | 5 406 522 | -23,3%                |
| - Free access accounts subscriptions  | 2 747 285 | 2 680 449 | 2 549 824 | 2 475 512 | 2 390 546 | -13,0%                |
| - Flat rate packages (access and calls)   | 4 300 586 | 3 979 761 | 3 680 221 | 3 335 119 | 3 015 976 | -29,9%                |

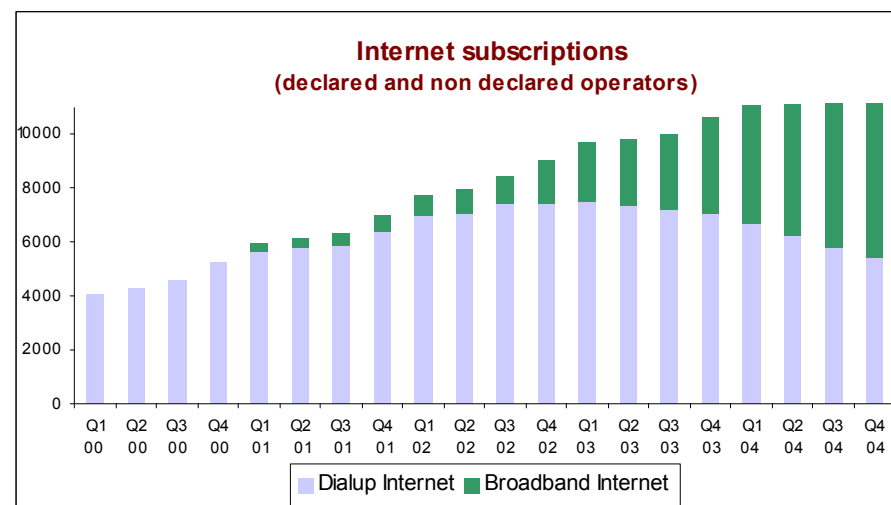
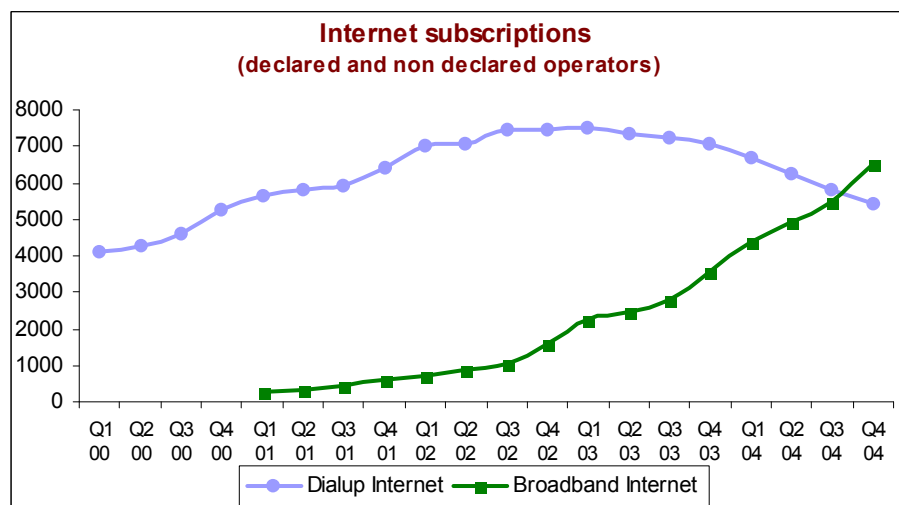
| <b>Broadband Internet (2)<br/>(declared operators and non declared ISPs operators<br/>(units))</b> | Q4 2003   | Q1 2004   | Q2 2004   | Q3 2004   | Q4 2004   | Change<br>Q4 04/Q4 03 |
|--|-----------|-----------|-----------|-----------|-----------|-----------------------|
| <b>Broadband Internet subscriptions (cable, xdsl, WLL...)</b>                                      | 3 569 315 | 4 401 446 | 4 911 413 | 5 497 695 | 6 529 997 | +82,9%                |
| - ADSL   | 3 172 013 | 3 978 077 | 4 482 948 | 5 061 779 | 6 072 723 | +91,4%                |
| - Cable (AFORM)  | 393 788   | 419 779   | 424 978   | 432 500   | 454 035   | +15,3%                |
| - Other technology   | 3 514     | 3 590     | 3 487     | 3 416     | 3 239     | -7,8%                 |

(1) Source : ART's Internet Observatory from the 4<sup>th</sup> quarter 2003. Data of Q4 2003 have been adjusted since the last publication.

(2) Source : ART's Internet Observatory from the 4<sup>th</sup> quarter 2003. Cable : source AFORM: Association Française des Opérateurs de Réseaux Multiservices (<http://www.aform.org>)

The number of Internet accesses reached 11.9 million at the end of the fourth quarter 2004 for a 12.4% increase over the year. At the fourth quarter, the number of high-speed Internet accesses (6.5 million) exceeded the number of dial-up accesses for the first time. One million additional high-speed accesses were recorded during the fourth quarter 2004.

*Note: In order to correctly interpret the figures for high-speed Internet access by access technology, one must take into account the differences in geographic coverage by telephone and cable networks. Aform estimates the number of cable connections suitable for Internet at 6.3 million while xDSL has a technical potential of over 25 million lines.*



## 2.3 Mobile telephony

In the fourth quarter 2004, the mobile telephony market grew 8.4% in value with respect to the fourth quarter 2003. Data transport now generates close to 10% of sector revenues. With about one billion additional minutes over the previous quarter, mobile telephony volumes at the fourth quarter also rose sharply, especially as concerns mobile-mobile volumes.

| Sales<br>(in millions of euros)                       | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|---|---------|---------|---------|---------|---------|-----------------------|
| <b>Mobile telephony</b>                               | 3 182   | 3 166   | 3 304   | 3 449   | 3 430   | +7,8%                 |
| Of which outgoing internationals calls                | 120     | 118     | 131     | 129     | 127     | +6,2%                 |
| <b>Data transport on mobile networks</b>              | 305     | 312     | 312     | 337     | 350     | +14,7%                |
| Of which interpersonal messaging (SMS, MMS and other) | 265     | 266     | 262     | 281     | 285     | +7,6%                 |
| <b>Total mobile telephony</b>                         | 3 487   | 3 479   | 3 616   | 3 786   | 3 780   | +8,4%                 |

| Volumes<br>(in millions of minutes)    | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Calls to national fixed lines          | 5 575   | 5 717   | 5 502   | 5 356   | 5 581   | +0,1%                 |
| Calls to mobiles on the same network** | 6 876   | 7 553   | 7 743   | 8 024   | 8 575   | +24,7%                |
| Calls to other networks                | 4 140   | 4 330   | 4 553   | 4 578   | 4 850   | +17,1%                |
| Outgoing internationals calls          | 205     | 215     | 238     | 253     | 252     | +22,6%                |
| Roaming out <sup>7</sup>               | 202     | 195     | 222     | 340     | 223     | +10,3%                |
| <b>Total mobile telephony</b>          | 16 998  | 18 009  | 18 258  | 18 552  | 19 482  | +14,6%                |

\* Call volumes include calls to check voice mail. At the 1<sup>st</sup> quarter 2004, the increase in volume is explained in part by the reclassification of certain text messaging calls and to the short numbers of mobile operators which are no longer included in "advanced services" but in "calls to mobiles on the same network". We can estimate that this reclassification concerns some 120 million minutes of 1<sup>st</sup> quarter 2004 figures.

<sup>7</sup> Roaming out covers calls made in a foreign country by subscribers of French mobile operators.



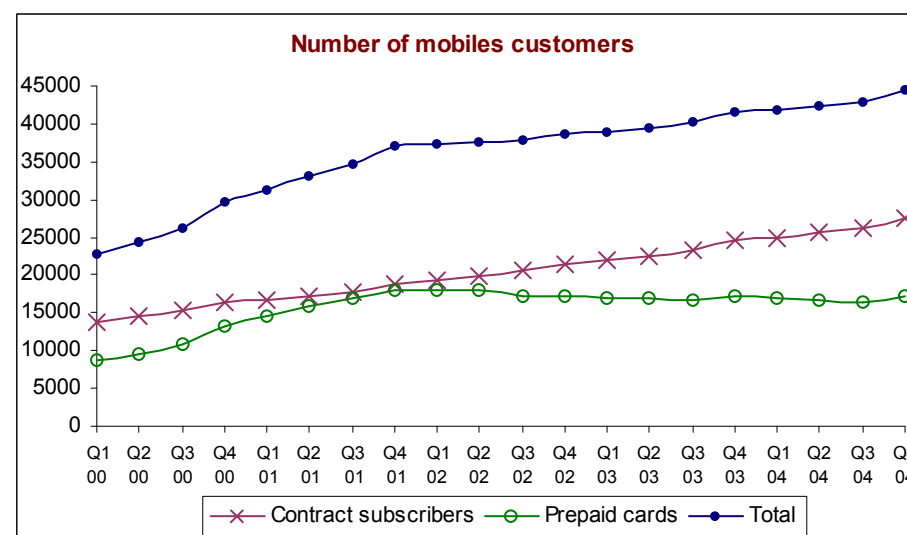
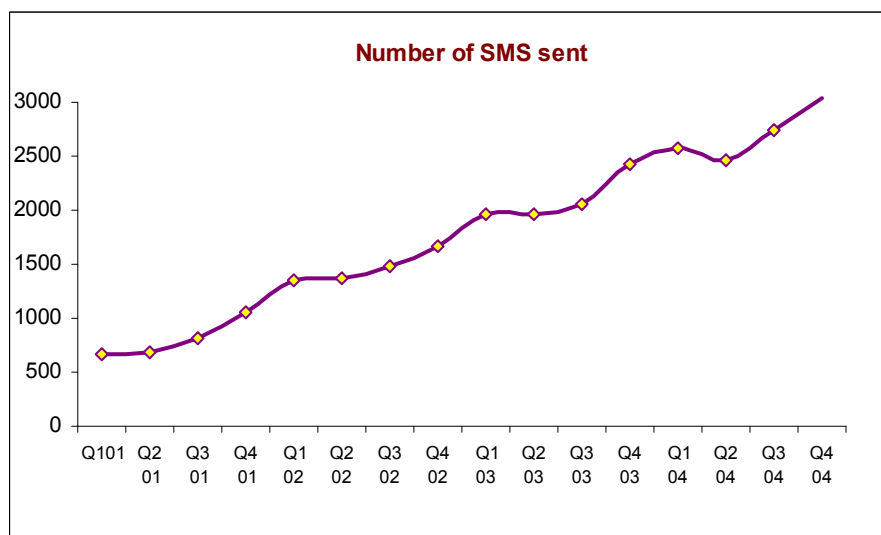
| <b>Volume of interpersonal messaging<br/>(millions of units)</b> | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Number of interpersonal SMS sent during the quarter              | 2 429   | 2 572   | 2 455   | 2 746   | 3 045   | +25,4%                |

*Note: Beginning the 1<sup>st</sup> quarter 2004, the Observatory no longer collects messaging operator or satellite mobile network data, as they represent only a very small volume of activity. These data are, however, available in the Mobile Observatory.*

Total telephony numbers reached 44.5 million at the end of the fourth quarter 2004, for growth of 6.9% and 2.9 million units over the fourth quarter 2003. Flat-rate packages predominated with 61.6% of total accesses at end 2004.

| <b>Number of mobile customers<br/>(units)</b> | Q4 2003    | Q1 2004    | Q2 2004    | Q3 2004    | Q4 2004    | Change<br>Q4 04/Q4 03 |
|---|------------|------------|------------|------------|------------|-----------------------|
| Mobile telephony                              | 41 683 598 | 41 924 426 | 42 243 852 | 42 867 776 | 44 543 959 | +6,9%                 |
| Of which contract subscribers                 | 24 536 549 | 25 007 843 | 25 583 575 | 26 333 274 | 27 419 540 | +11,7%                |
| Of which mobile prepaid cards                 | 17 147 049 | 16 916 583 | 16 660 277 | 16 534 502 | 17 124 419 | -0,1%                 |
| Of which active pre-paid cards <sup>8</sup>   | 16 461 854 | 16 328 741 | 16 027 076 | 15 923 340 | 16 411 204 | -0,3%                 |

<sup>8</sup> A pre-paid card is said to be active if the customer has sent or received at least one call during the past three months. Only telephone calls are considered, whether free or payable. SMS are not taken into account in the calculation.



| Number (units)                                     | Q4 2003 | Q1 2004   | Q2 2004   | Q3 2004   | Q4 2004    | Change Q4 04/Q4 03 |
|--|---------|-----------|-----------|-----------|------------|--------------------|
| Active mobile multimedia users                     | -       | 6 678 507 | 7 548 559 | 8 062 476 | 10 306 837 | -                  |
| Number of mobile numbers ported during the quarter | -       | 46 352    | 51 779    | 47 450    | 59 864     | -                  |

*Notes :* The active numbers of multimedia users is defined as the number of customers (contract subscribers or prepaid cards users) who have used a multimedia service such as Wap, i-Mode, MMS or e-mail (SMS are not included) at least once in the past month, regardless of the support technology (CSD, GPRS, UMTS...). The number of ported mobile telephone numbers is the number of effective porting (numbers activated by the recipient operator) done during the quarter.

## 2.4 Other market segments

### 2.4.1 Advanced services

| Sales (**)<br>(in millions of euros) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--------------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Advanced Services                    | 456     | 436*    | 414     | 427     | 443     | -2,9%                 |
| Fixed operators                      | 348     | 323*    | 301     | 298     | 304     | -12,4%                |
| Mobile operators                     | 108     | 114     | 113     | 129     | 138     | +27,7%                |

\* adjusted figures.

\*\* this includes all amounts billed by operators to customers who call "special numbers", including sums paid by the operators to service providers.

| Volumes<br>(in millions of minutes) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|-------------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Advanced Services                   | 2 719   | 2 357*  | 2 334*  | 2 483*  | 2 637   | -3,0%                 |
| Fixed operators                     | 2 347   | 2 120*  | 2 102*  | 2 217*  | 2 378   | +1,3%                 |
| Mobile operators                    | 372     | 237     | 232     | 266     | 259     | -30,3%                |

\* adjusted figures

Note: The decline in the volume of mobile operators' advanced services observed beginning the first quarter 2004 is due to a clarification of the definition of advanced services. This modifies the way that calls to voice mail and the short numbers of mobile operators are reported. Some of these have been shifted from the "advanced services" line to the "calls to mobiles on the same network" line. We can estimate that this reclassification concerns some 120 million minutes of 1<sup>st</sup> quarter 2004 figures.

### 2.4.2 Leased lines and data transport (fixed line operators only)

| Sales<br>(in millions of euros) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|---------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Leased lines                    | 586     | 551     | 542     | 554     | 566     | -3,5%                 |
| Data transport                  | 153     | 130*    | 130*    | 147*    | 155     | +1,4%                 |

\* adjusted figures

Note : Leased line sales may include double accounts in that they cover sales from operators to other operators. These sales may represent up to 35% of total leased line sales. Licensed operators represent only a part of the total data transport market (about one-quarter in 2002).

### 2.4.3 Other telephony-related services

#### Directory services

Until the fourth quarter 2003, the series of “directory services, directories and advertising” revenues for fixed operators incorrectly covered some call centre activities. Scope rectifications performed during 2004 affect the quarterly series.

| Sales<br>(in millions of euros)                            | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Operators assistance, sales of directories and advertising | 91      | 57      | 67      | 80      | 73      | -19,9%                |
| <i>Fixed operators</i>                                     | 72      | 38      | 47      | 59      | 52      | -28,1%                |
| <i>Mobile operators</i>                                    | 19      | 19      | 20      | 21      | 21      | +11,6%                |

#### Terminals and equipments

| Sales<br>(in millions of euros) | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|---------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Terminals and equipments        | 703     | 533     | 472     | 629     | 625     | -11,1%                |
| <i>Fixed operators</i>          | 160     | 183     | 164     | 176     | 170     | +6,4%                 |
| <i>Mobile operators</i>         | 543     | 350     | 308     | 453     | 455     | -16,2%                |

Note: As in previous editions, revenue from packs and terminals includes commissions to distributors

### 2.4.4 Hosting and call centre management

| Sales<br>(in millions of euros)    | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|------------------------------------|---------|---------|---------|---------|---------|-----------------------|
| Hosting and call centre management | 7       | 5       | 8       | 7       | 7       | -7,7%                 |

## 2.5 Indicators per users

While the average volume of traffic per client from fixed lines remains relatively stable, the average volume per client on mobile phones continues to increase significantly (+7.3% over one year). What's more, mobile telephony clients sent 23.2 SMS on average during the fourth quarter 2004 compared with fewer than 20 during the fourth quarter 2003, for a 17.3% increase per client.

| <b>Average monthly invoice per user</b><br><i>In euros</i> | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| Fixed telephony user (1)                                   | 31,5    | 31,1*   | 30,3    | 29,8    | 29,6    | -5,9%                 |
| Mobile telephony user (1')                                 | 28,4    | 27,7    | 28,6    | 29,7    | 28,8    | +1,5%                 |

*Note :* This is the average invoiced amount excluding tax. For fixed calls (see note 1), the revenue used is that of the subscription and telephone calls excluding other services, in particular Internet.

| <b>Volume of average monthly traffic per user</b><br><i>in hours</i> | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| From fixed telephony network (2)                                     | 4h27    | 4h32*   | 4h13*   | 3h59*   | 4h19    | -1,8%                 |
| From mobile telephony networks (2)                                   | 2h18    | 2h24    | 2h25    | 2h26    | 2h29    | +7,3%                 |

\* adjusted figures

| <i>units</i>                                     | Q4 2003 | Q1 2004 | Q2 2004 | Q3 2004 | Q4 2004 | Change<br>Q4 04/Q4 03 |
|--|---------|---------|---------|---------|---------|-----------------------|
| <b>Number of SMS sent during the quarter (3)</b> | 19,8    | 20,5    | 19,4    | 21,5    | 23,2    | +17,3%                |

*Notes :*

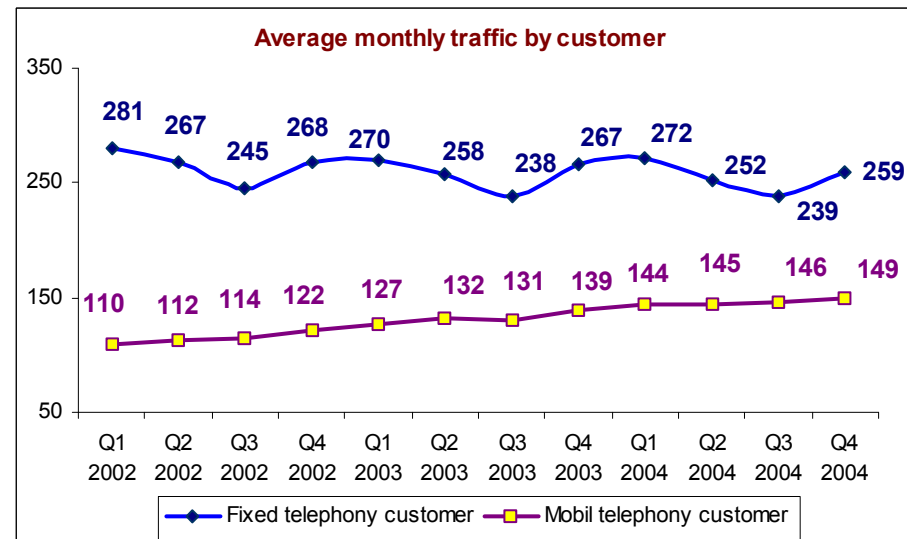
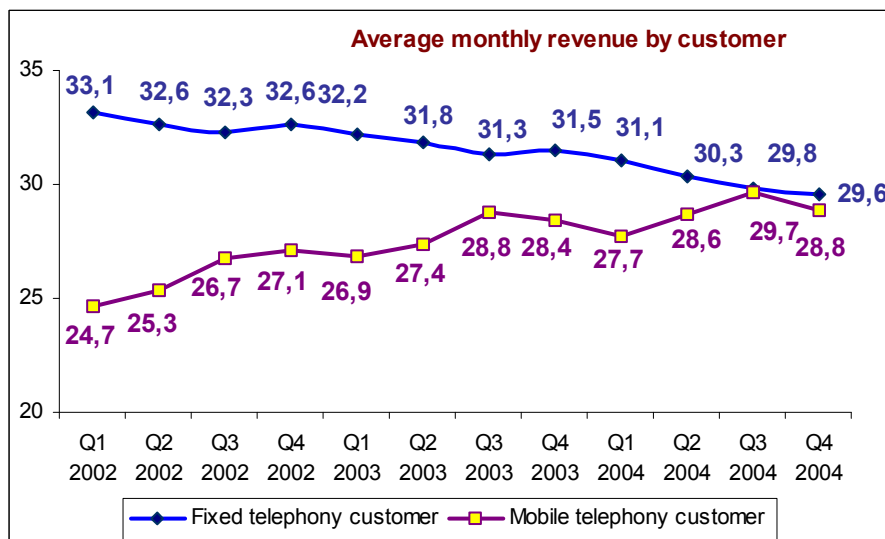
*Average number of clients of quarter N : [(total number of clients at the end of quarter N + total number of clients at the end of quarter N-1) / 2]*

(1) This indicator is calculated by dividing the revenues of fixed telephony access and calls of the quarter N by an estimate of the average number of clients of quarter N.

(1') This indicator is calculated by dividing the mobile telephony sales of quarter N by an estimate of the average number of clients of quarter N. This indicator, which does not include interconnection revenues, nor those from advanced services, is different from the traditional average revenue per user indicator (ARPU).

(2) This indicator is calculated by dividing the traffic volume of quarter N by an estimate of the average number of clients of quarter N

(3) This indicator is calculated by dividing the number of SMS of trimestre of quarter N by an estimate of the average number of users



### 3 Quarterly changes to traffic volumes

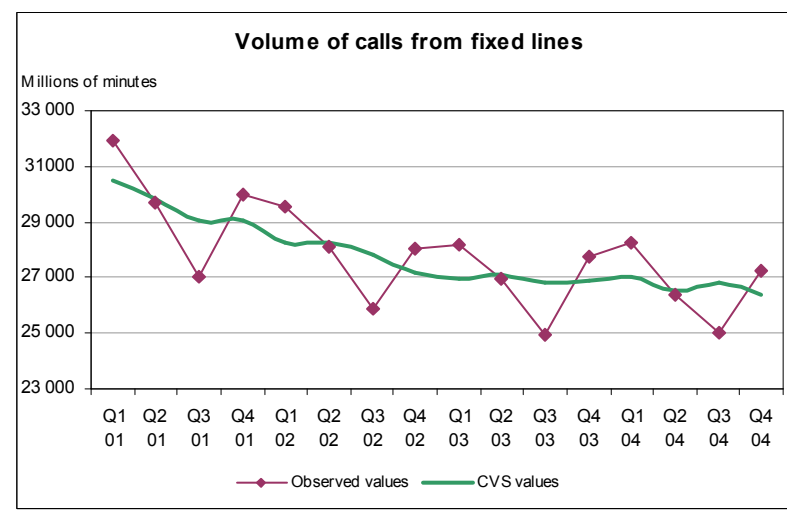
The chronological quarterly series of the Market Observatory often show seasonal variations which make them difficult to interpret. The CSV series (corrected for seasonal variations) allows us to show the trend of the series being studied and to determine variations, quarter by quarter.

#### Call volume from fixed phones: a tendency to decline and less strong at the end of the period

The volumes of calls originating on fixed lines include calls made from fixed phones, public phones and clients using prepaid cards. These volumes are highly seasonal, with a decline in the number of calls during the summer.

The corrected series shows that the strong decline in volumes from 2001 to 2002 slowed starting early 2003.

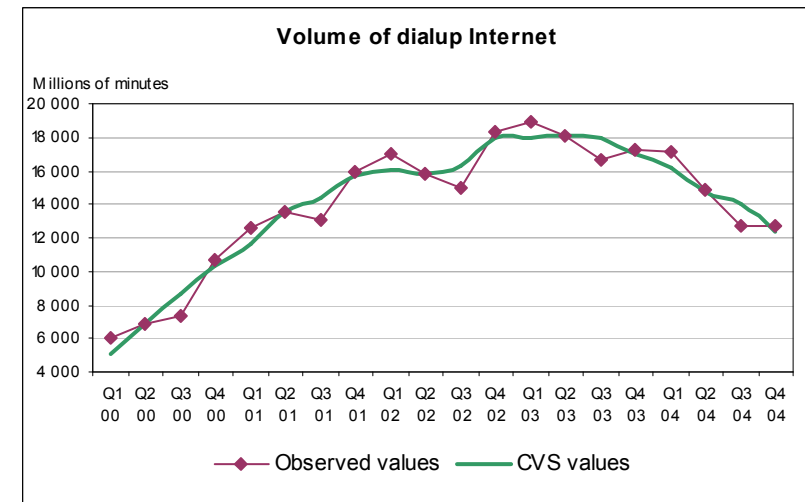
Thus, traffic volumes from fixed phones, which declined on average by 1.6% per quarter in 2001 and 2002, fell by just 0.4% per quarter in 2003 and 2004.



### Dial-up Internet call volumes: sharp decline since late 2003

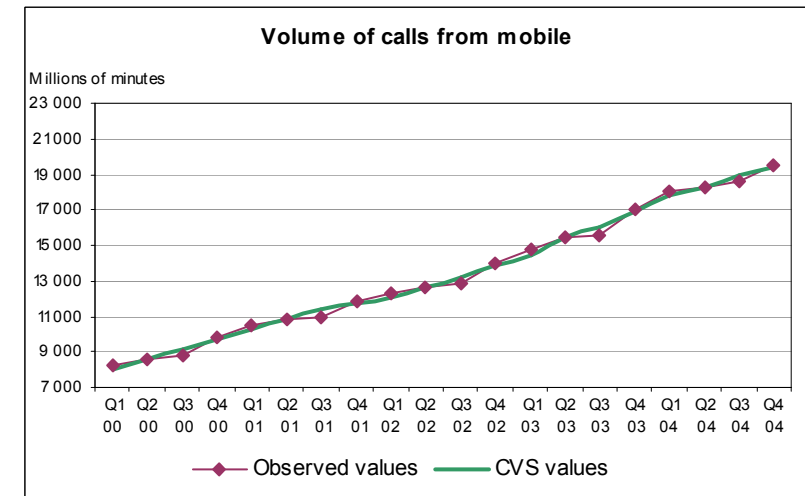
Dial-up Internet call volumes decline very sharply every third quarter because of the summer vacation. The corrected series shows a strong increase in volumes until the second quarter 2001, then slower growth until the third quarter 2003. After this date, dial-up Internet volumes decline.

The decline in dial-up access can be explained in its entirety by its rapid replacement by high-speed subscriptions, whose traffic volume is not measured in minutes. The decline seems to grow at the end of every period: traffic volumes declined by 7.6% on average during 2004.



### Call volumes from mobile phones: regular growth for several years

With a very slight decline every third quarter, mobile telephony volumes are seasonal. The corrected series confirms the strong and regular growth of traffic throughout the entire period: in 2004, it reached 3.5% per quarter on average.





## SMS volumes: growth boosted by the increase in the number of mobile clients and by the increased use of text messaging

Because of the massive number of text messages sent in early January, SMS volumes grow strongly the first quarter of every year. The corrected series shows regular growth from the first quarter 2001 to the fourth quarter 2004.

Over 2004, SMS traffic rose 6% on average. This increase is due to both the increase in the number of mobile telephony clients (+1.7%) and the increase in average SMS consumption per client (+4.1%).

