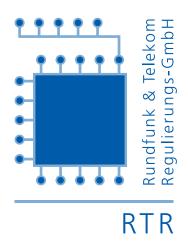
## RTR Telecom Monitor Annual Review 2012





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## **Preface**

#### Dear readers,

The RTR Telecom Monitor, which has been published quarterly for several years now, presents and explains the latest data and trends on the Austrian telecommunications markets. This RTR Telecom Monitor 2012 Annual Review complements the quarterly reports (which are only published in German).

#### Subject areas and structure

The content of the regular quarterly RTR Telecom Monitor editions is contained in this report in Sections 1 to 6. These sections give statistics for the fixed network, leased lines, mobile network and broadband sectors, present business indicators and provide comparisons across these sectors, with increased emphasis laid on annual trends.

Section 7 contains international comparisons of data from the areas listed above. The data used in those comparisons were derived from the European Commission's Digital Agenda Scoreboard.

Section 8 deals with a selection of internationally accepted technology indices, such as the Networked Readiness Index, and highlights Austria's performance in these international comparisons.

## Changes to the underlying data resulting from the amendment to the Communications Survey Ordinance (KEV)

The rationale for the data survey on which the RTR Telecom Monitor is based is the Communications Survey Ordinance (KEV), Federal Law Gazette II No. 365/2004, which came into force on 1 October 2004. RTR is obliged by this Ordinance to carry out statistical surveys of communications markets on a quarterly basis, compile the statistics and publish them.

With effect from 30 March 2012 the amended KEV came into force, replacing the previous KEV dating from 2004. The amendment had become necessary because in such a highly dynamic field as telecommunications a great deal has happened in nine years both on the markets and in the technology and this fact has had to be properly reflected. In addition, RTR was keen to standardise the type of questions asked in the operator surveys (BAF) and the KEV. To do this it was necessary to bring terms and definitions into line with those from the operator surveys.

These changes inevitably have an effect on the information presented in the RTR Telecom Monitor. New content is included for the first time at the start of the first quarter of 2012 and supplemented with each succeeding quarter. Information that had been queried in the past is also given, but where the definitions according to which it is evaluated have now changed, it is difficult to make comparisons between one period and another. Where the amended KEV has no impact on the information or definitions, they are given as usual covering the last twelve quarters.

PREFACE 5

#### **Data collection**

In order to reduce the burden on the individual operators, RTR specified the sample in line with Art. 4 Par. 1 KEV in such a way that, on the basis of the statistical population of the most recent market analyses, a market share of at least 90% is covered for each cluster (fixed network, leased lines, mobile network and broadband). From this sample, RTR extrapolates the data for the statistical population.

#### Statistical analyses and data

The charts in the RTR Telecom Monitor contain for the most part rounded values. The exact values can be found in tables at the end of each chapter. The retail revenues referred to are always net revenues. Due to occasional post-hoc data corrections, the values in the charts presented here may differ slightly from the information provided in earlier issues of the RTR Telecom Monitor. Where major deviations (> 5%) arise in individual data values, a comment to this effect is provided for the figure in question.

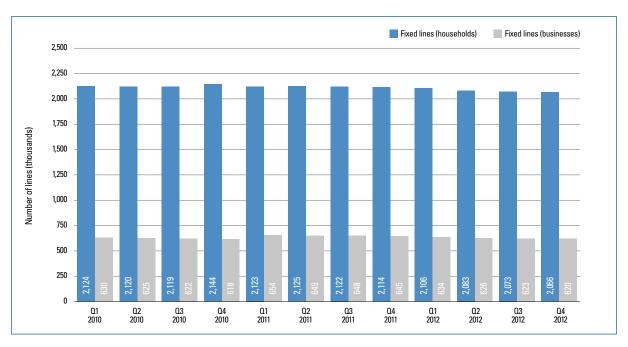
We sincerely hope that this publication provides you with interesting and informative reading.

Georg Serentschy
Managing Director
RTR Telecommunications and Postal Services Division

## Section 1 | Fixed network

## Fixed lines

### **▶ NUMBER OF FIXED LINES IN STEADY DECLINE**

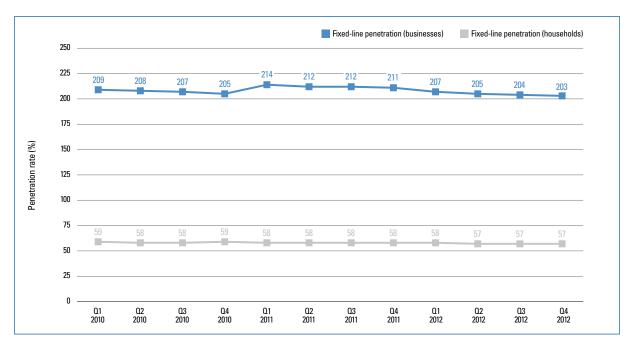


The chart above shows the total number of fixed telephone lines in households and businesses, regardless of the infrastructure on which those lines are based (e.g. copper-wire pairs, coaxial cable, optical fibre).

- The number of fixed lines in households shows a slight but steady downward trend. At the end of Q4 2012 there were 2,066,000 fixed lines in Austria. This figure has declined by 2.3% compared with the end of last year.
- The number of fixed lines in businesses is also declining. There are currently some 620,000 lines, about 3.9% down on a year ago.

## Fixed-line penetration

### **➡ FIXED-LINE PENETRATION REMAINS CONSTANT**



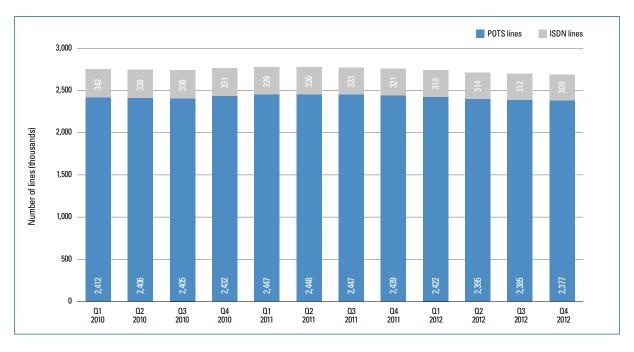
Source: RTR, Statistics Austria (number of households and businesses)

The chart shows fixed-line penetration rates among households and businesses. The higher penetration rate for businesses is due to the - in most cases - greater number of fixed lines per business and is therefore not strictly comparable with that of households.

■ A comparison between the number of fixed lines and the number of households or businesses in Austria shows a penetration rate of 57% for households and 203% for businesses in Q4 2011. These values are virtually unchanged from the previous quarter; only the fixed-line penetration rate in businesses has fallen by one percentage point.

## Development of fixed lines

### **⇒** FIXED LINES SHOW STEADY DOWNWARD TREND

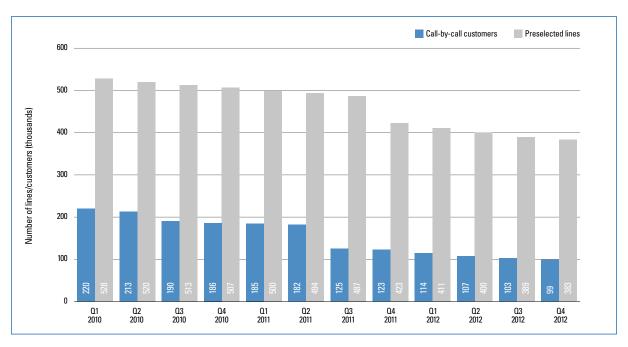


The figure above shows the number of fixed lines in Austria broken down by type (POTS and ISDN). Multi-ISDN lines cannot be shown in the chart because the figure is too small. A POTS ("plain old telephone service") line is a conventional telephone line as found in many households. An ISDN line provides two channels so two calls can be held at the same time. In the case of multi-ISDN lines, which are almost exclusively used by businesses, more than two channels are available at the same time.

- The total number of fixed lines in Q4 2012 was some 2.69 million, of which the majority (88.1%) were POTS lines.
- The total number of POTS lines in Austria was some 2,377,000, about 2.5% less than at the end of 2011.
- There were also some 309,000 ISDN lines, about 3.7% down on Q4 2011.
- The remaining lines, numbering some 12,100, were multi-ISDN lines almost exclusively used by businesses. The number of these lines increased from the previous year by 18.4%.
- Some 22.4% of all fixed lines were voice-over-broadband lines (604,600), i.e. the voice telephony line is carried on a broadband connection. Just below 28,000 lines (1%) are based on radio transmission or another wireless technology.

## Preselected lines and call-by-call customers

### **CbC AND CPS CONTINUE TO FALL**



The chart above shows the number of lines on which carrier pre-selection (CPS) is used and the number of call-by-call (CbC) customers in Austria.

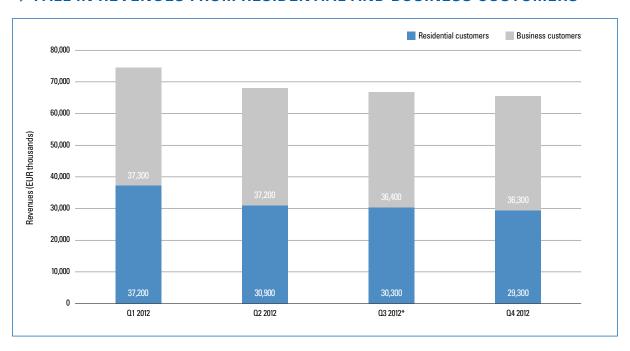
CPS refers to a pre-set carrier network code (10xx) which routes all of a subscriber's traffic (except for calls to value-added services and public service numbers) via the pre-selected carrier network.

In contrast, CbC carrier selection makes it possible to route individual telephone calls via a service provider other than the network which provides the subscriber line. In this case, the subscriber is required to enter the carrier network code (10xx) before each call. The figure above shows the number of customers who used CbC at least once in each quarter.

- Since the beginning of the periods covered, both the number of CPS lines and the number of CbC customers have fallen continuously.
- At the end of Q4 2012 some 99,400 CbC customers were recorded. That means that for the first time since the beginning of the periods depicted the number has fallen below the 100,000 mark. Compared to the previous year the decline amounts to about 19.2% or almost a fifth.
- The number of CPS lines is also falling. In Q4 2012 there were 383,000 lines, that is just below 40,000 fewer (9.4%) than at the end of the previous year.
- The decline in CbC customers in Q3 2011 is attributable to the data cleansing carried out by one of the major operators, who has removed customers that made no calls in the previous six months from the count. The fall in CPS lines between Q3 and Q4 2011 is also attributable to data cleansing.
- The ratio of CPS lines to all fixed lines in Q3 2012 was 14%. This ratio has fallen slowly but continuously in the course of time.

### Retail revenues from access services

### **⇒** FALL IN REVENUES FROM RESIDENTIAL AND BUSINESS CUSTOMERS



Retail revenues from access services include base fees and setup charges.

Base fees refer to revenues collected at regular intervals that do not depend on the actual use of the subscriber line. They also include revenues from monthly flat rates (e.g. packages which include a certain number of minutes), but such rates do not play a significant role in fixed-network services. Not included are tariffs referred to as "optional tariffs" and "flat-rate tariffs" and revenues from products bundled with broadband.

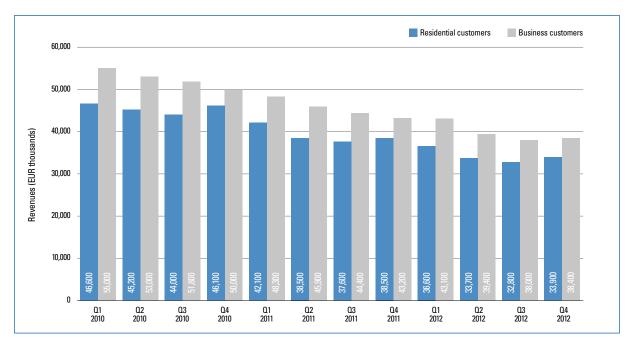
Setup charges comprise revenues generated from the setup, transfer and termination of a fixed telephone line.

- At the end of Q4 2012 revenues of some 65.5 million were generated by access services. That means a fall of 1.8% compared with Q3 2012 (which had to be corrected downwards due to retrospective data corrections by an operator). Revenues for both residential and business customers have declined.
- Total revenues from residential customers at the end of 2012 were worth some EUR 29.3 million. So the decline compared with the corrected Q3 2012 is 3.5%. The sharp decline from Q1 to Q2 2012 is due to a change in the classification by one major operator, who implemented the changeover to the amended KEV survey only in Q2 2012. Thus base fees from fixed-network products of this operator in Q1 2012 were still shown here, while in Q2 2012 they were shown, in line with the definition, for the newly created bundled products (see Section Broadband).
- Revenues for business customers fell only slightly by 0.4% from Q3 2012, and at the end of Q4 2012 amounted to some 36.3 million.

<sup>\*</sup> Due to retrospective corrections the figures shown here vary by more than 5% from those in the last issue of the RTR Telecom Monitor.

## Retail revenues from carrier services 1/2

### **⇒** SLIGHT RISE COMPARED WITH LAST QUARTER



Retail revenues from carrier services depend on the number of call minutes used, i.e. the more telephone calls a fixed subscriber makes, the higher their bill normally is.

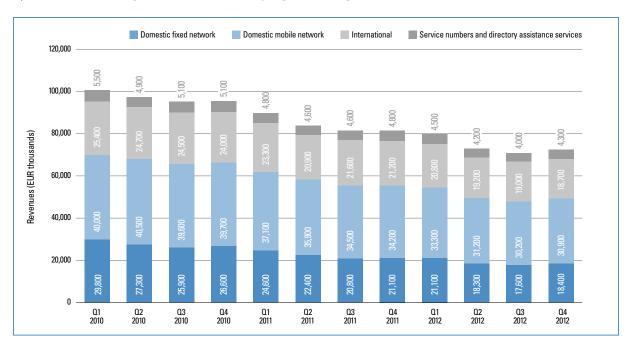
The revenues shown above include the retail fees charged by operators for calls to the domestic fixed network, domestic mobile networks, international destinations and service numbers. Revenues from fixed monthly flat rates (e.g. packages including a certain number of minutes) are not included in the figures above.\*

- At the end of 2012 revenues from residential and business customers rose again slightly after a long decline. Total revenues generated from carrier services at the end of 2012 were about EUR 72.3 million, i.e. 2.1% more than in Q3 2012.
- In Q4 residential customers generated revenues of EUR 33.9 million, i.e. 3.6% more than in the previous quarter. Year on year (Q4 2011) however, revenues have fallen clearly by 11.9%.
- A similar picture emerges for business customers: revenues of EUR 38.4 million indicate a slight rise of 0.9% compared with Q3 2012. Year on year, however, revenues have declined by 11.2%.

<sup>\*</sup> From Q1 2012 onwards revenues from online services are no longer included in the survey because they are negligible. Until Q4 2011 they are included in the revenues.

## Retail revenues from carrier services 2/2

### **➡ MARKED DECLINE IN REVENUES YEAR ON YEAR**



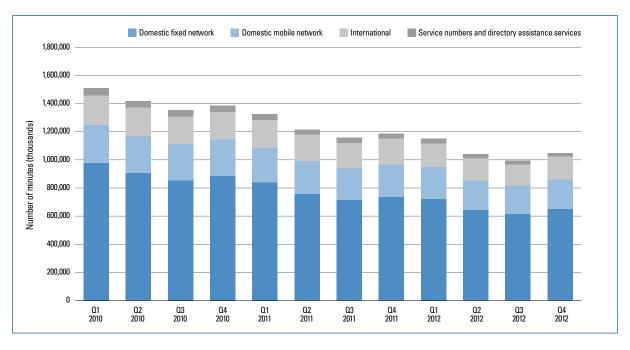
The chart above shows the revenues earned by operators from calls from fixed networks to various destinations (national fixed network, national mobile networks, international destinations and service numbers). Revenues from fixed monthly flat rates (e.g. packages including a certain number of minutes) are not included in the figures above.\*

- Calls to the domestic mobile network account for the largest proportion (some 42.7%). In Q4 2012 these generated about EUR 30.9 million. Compared to Q3 that means a rise of 2.2%. But if the last quarter of 2011 is taken as the reference period, a decline of 9.7% can be seen.
- Calls to the domestic fixed network generated EUR 18.4 million at the end of 2012 (up 5.1% on the previous quarter), while international calls generated about EUR 18.7 million (down 1.8%). Here too a comparison with the same quarter of the previous year shows a marked decline in revenues of some 12%.
- Finally, service numbers generated EUR 4.3 million in Q4, that is, 7.5% up on the previous quarter and about 9.6% less than at the end of 2011.

<sup>\*</sup> Revenues from online services are no longer surveyed because they are negligibly small and therefore not included in the chart. Values up to Q4 2011 can be found in the table at the end of the chapter.

## Call minutes on the retail market

### **➡ FIXED-LINE CALL MINUTES DOWN YEAR ON YEAR**



The figure above shows the number of real minutes in the fixed network broken down by destination. These minutes refer to the actual duration of calls made by retail customers from the fixed network.

In contrast, billed call minutes (not shown) indicate the number of minutes actually charged to those customers. The main factors accounting for the difference between these two figures are the number of free minutes included in the base fee (which is not as significant as it is in mobile networks) and the billing increment.\*

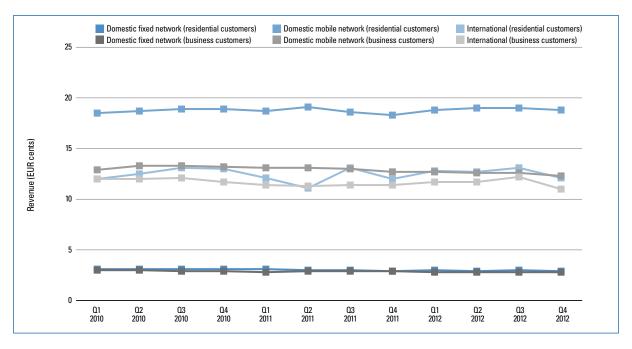
The data underlying this chart can be found in the table on page 26.

- At the end of 2012 total call minutes numbered over one billion. Of that 62% was accounted for by calls to the fixed network, 20.2% to the domestic mobile network, 15.4% were international minutes and the remaining 2.4% calls to service numbers.
- In Q4 calls to the domestic fixed network totalled 649.2 million minutes. Compared to Q3 2012 this represents a rise of 5.8 %. Year on year, on the other hand, call minutes were down by 11.6%.
- 211.3 million minutes to the mobile network also mean a rise of 3.9% compared to the previous quarter. But year on year mobile telephony minutes also fell, in fact by 9.3%.
- International calls amounted to 161.6 million minutes, 7.5% longer than Q3 2012 (down 10.9% from Q4 2011).
- Service numbers account for by far the smallest share. In Q4 2012 this was only 24.8 million minutes. That is 2% down on the previous quarter and about a third less than a year ago.

<sup>\*</sup> From Q1 2012 onwards minutes to online services are no longer included in the survey and are therefore not shown in the chart. Values up to Q4 2011 can be found in the table at the end of the chapter.

## Revenues per call minute

### **▶ LOWER REVENUES PER CALL MINUTE ACROSS THE BOARD**

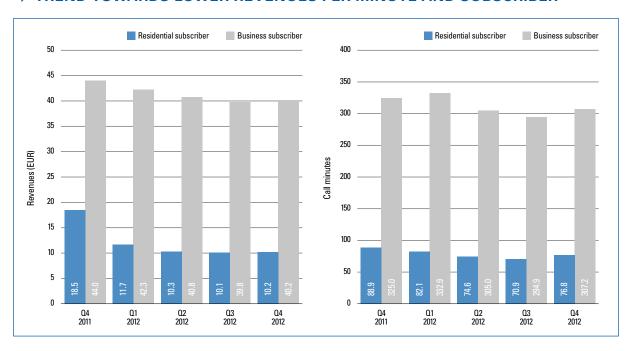


The chart above shows the revenues per minute for telephone calls from the fixed network to various destinations, broken down into residential and business customers. Revenue per call minute is calculated from retail revenues from carrier services (see page 14), divided by the number of real minutes (see page 15). The data underlying this chart can be found in the table on page 27).

- For residential customers, revenues per minute to the domestic fixed network fell slightly compared with the previous quarter and again amount to 2.9 EUR cents (down 1%). Calls to the mobile network generated revenues of 18.8 EUR cents per minute. Revenues per minute for international calls by residential customers declined from 13.1 to 12.1 EUR cents (down 7.8% compared with Q3 2012).
- Calls to the domestic fixed network for business customers earned 2.8 EUR cents per minute, as in the previous quarter. For calls to the mobile network it was 12.3 EUR cents (down 2%) and to international destinations 11.0 EUR cents (down 9.7% from Q3 2012).

## The average fixed network subscriber

### **⇒** TREND TOWARDS LOWER REVENUES PER MINUTE AND SUBSCRIBER

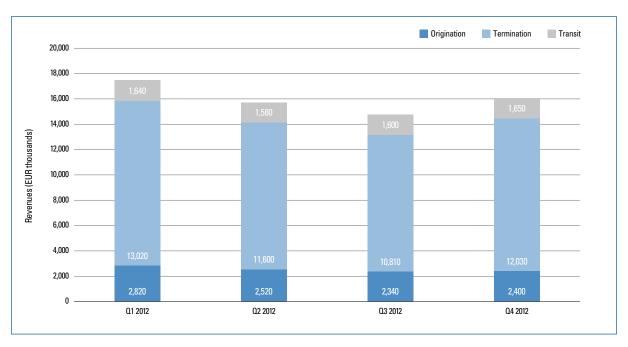


The figure shows the average number of active call minutes on the fixed network for business and residential customers per month in the respective quarter as well as the average revenues generated per month in the quarter (access services and carrier charges). The monthly values are calculated from a third of total revenues from access and carrier services and a third of the call minutes, divided in each case by the total number of fixed-network lines in the respective quarter.

- Residential fixed network subscribers each generated average revenues of EUR 10.2 per month for their providers in Q4 2012. That corresponds approximately to the value of the previous quarter. However, each residential fixed network subscriber made calls lasting 8.2% longer on average than in Q3 2012, so the conclusion may be drawn that revenues per minute and subscriber are tending to decline.
- Business subscribers each earned their fixed network providers an average monthly income in Q4 2012 of EUR 40.2, about 0.8% more than in Q3 2012. The average number of minutes grew in this period from 294.9 to 307.2 (up 4.2%).

### Wholesale revenues

### **⇒** REVENUES RISE AGAIN



The fixed wholesale market for voice telephony includes three sub-services: origination, termination and transit services.

Revenues from **origination** services arise when a network operator routes one of its own subscriber's calls to an interconnected carrier network operator (which itself has no directly connected subscribers) or routes a call to a service number subject to destination network charges.

Revenues from **termination** services are generated when a network operator routes a call from an external network to a subscriber connected to its own (fixed) network.

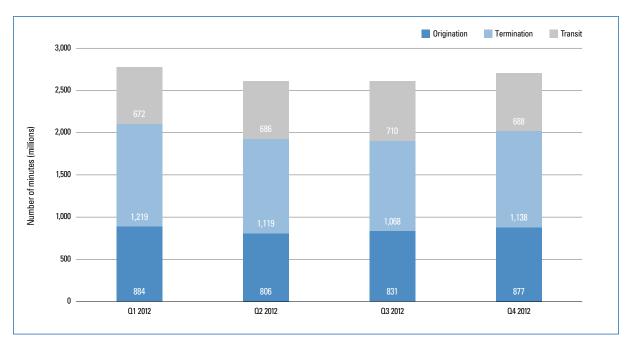
Revenues from transit services arise when a call is (re)routed between two networks by a third operator.

Origination, termination and transit services are not charged to the customer directly, but between other network operators (at the wholesale level).

- After a time when wholesale revenues had been falling continuously, Q4 2012 saw a rise in revenues. Total revenues at the end of 2012 were worth some EUR 16.1 million. The lion's share (74.9%) was accounted for by termination revenues.
- Termination revenues in Q4 2012 generated about EUR 12 million. This represents an increase of 11.3 % compared to the previous guarter.
- Origination revenues (2.4 million) and transit revenues (1.6 million) rose only slightly however, by 2.5% and 2.9% respectively.

## Wholesale market in minutes

### **⇒** RISE FOR BOTH ORIGINATION AND TERMINATION

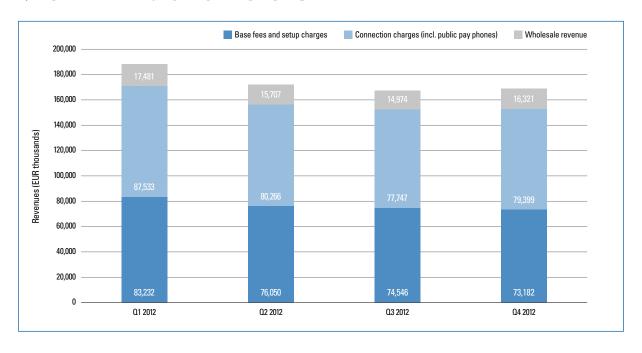


As explained on the previous page wholesale fixed network services include three sub-services: origination, termination and transit services.

- As with revenues, underlying wholesale minutes also rose in Q4 2012. 2.7 billion minutes were recorded on the wholesale market at the end of 2012, which is 3.7% more than in Q3 of the year. Termination minutes accounted for about 42.1%, origination minutes for 32.5% and transit minutes for 25.5%.
- The number of termination minutes rose in the reference period from 1.07 billion to 1.14 billion (up 6.6%). Origination minutes increased by 5.6% to 877.5 million.
- What is in decline is the number of transit minutes: 688.3 million minutes in Q4 2012 means a fall of 3% compared with Q3 2012.

### Total fixed network revenues

### **→ TOTAL REVENUES INCREASE SLIGHTLY**

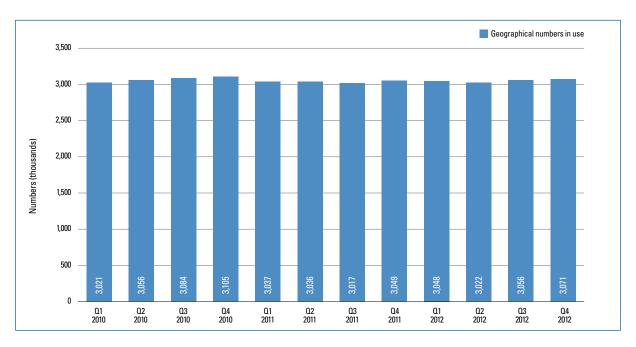


Total fixed network revenue is calculated from the total of all base fees and setup charges including other charges (revenues from optional tariffs, calling cards, charges stipulated by the Telecommunications Fee Subsidies Act and other charges such as invoicing, additional services, etc.), connection charges (including public pay phones) and revenues from origination, termination and transit charges. Not included are revenues from fixed network voice telephony that were earned from products bundled with broadband.

- Total fixed network revenues in Q4 2012 were EUR 168.9 million, up by 1% from the previous quarter. The total revenues generated on the fixed network in 2012 were EUR 696.4 billion.
- Connection charges contribute 47% to total revenue, base fees and setup charges 43.3%. Wholesale revenues accounted for 9.7% of total revenues.
- Wholesale revenues have risen sharply (up 9.7%) after the decline in the previous quarter. Connection charges have also risen compared with Q3 2012 (up 2.1%). In contrast, base fees and setup charges have fallen slightly (down 1.8%).
- The decline in revenues from access services from Q1 2012 to Q2 2012 is partly due to the change in the classification made by one major operator, who implemented the changeover to the amended KEV survey only in Q2 2012.

## Geographical numbers in use

### **⇒** AGAIN SLIGHT RISE AGAINST PREVIOUS QUARTER

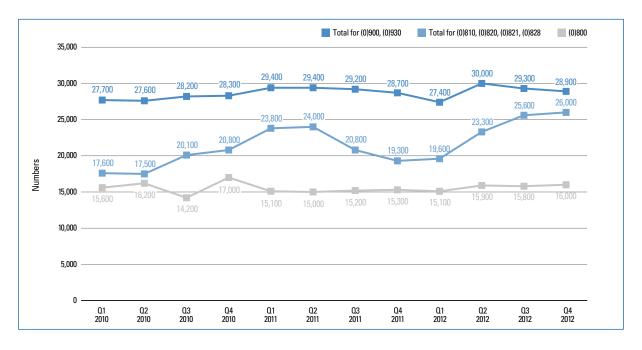


Geographical numbers are domestic telephone numbers prefixed by a local area code (e.g. 01 for Vienna). As more than one number may be assigned to a single line, the number of geographical numbers is not identical to the number of fixed subscriber lines.

■ At the end of Q4 2012 the total of call numbers used was 3,071,000. This means a slight rise of 0.5% against the previous quarter.

# Service numbers in use: (0)800, (0)810, (0)820, (0)821, (0)828, (0)900 and (0)930

### **⇒** AGAIN SLIGHT FALL IN (0)900 AND (0)930 NUMBERS

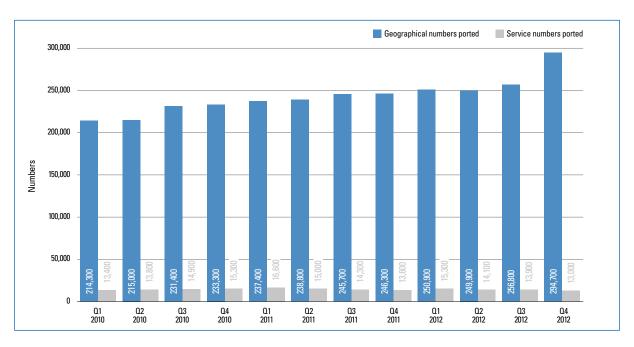


The figure above shows the number of service numbers in use in the following ranges:

- (0)800 range: toll-free services
- (0)810 range: max. EUR 0.10 per minute or text message
- (0)820 range: max. EUR 0.20 per minute or text message
- (0)821 range: max. EUR 0.20 per call or text message
- (0)828 range: text messages only; standard charges apply
- (0)900 range: max. EUR 3.64 per minute or max. EUR 10 per text message
- (0)930 range: max. EUR 3.64 per minute or max. EUR 10 per text message (erotic hotlines)
- The number of (0)800 numbers rose by about 1.3% to 16,000 compared to the previous quarter.
- There was also a rise in total for (0)810, (0)820, (0)821 and (0)828 numbers to 26,000 (up 1.6%).
- By contrast, the number of service numbers in the (0)900 and (0)930 ranges fell by 1.4%, totalling 28,900 in Q4 2012.

# Ported geographical numbers and service numbers

### **→ MARKED RISE IN PORTED GEOGRAPHICAL NUMBERS**



Number porting allows customers to retain their telephone numbers when they switch service providers. This means that customers can keep their original geographical telephone numbers (within the same local area code) when they switch to a new provider.

The figure above shows the total number of geographical telephone numbers and service numbers ported (which is not equal to the total number of porting procedures, as a single number may be ported several times).

- The total number of ported geographical telephone numbers in Q4 2012 was 294,700. This means the number of ported geographical numbers has risen by 14.8% against the previous quarter.
- The number of ported service numbers, however, fell by 6.5% to 13,000.

FIX	(ED	LINES	(PAGE 8)

		Number of lines			
		Fixed lines (households) Fixed lines (businesses)			
	Q1	2,123,745	630,158		
2010	Q2	2,119,957	625,422		
2010	O3	2,118,770	622,214		
	Q4	2,144,100	618,434		
	Q1	2,122,930	653,734		
2011	Q2	2,125,333	648,963		
2011	O3	2,121,860	647,826		
	Q4	2,114,406	644,708		
	Q1	2,106,352	633,609		
2012	Q2	2,083,166	625,699		
2012	O3	2,073,024	623,398		
	Q4	2,066,284	619,695		

### FIXED-LINE PENETRATION (PAGE 9)

		in	%
		Fixed-line penetration (households)	Fixed-line penetration (businesses)
	Q1	58.6%	209.3%
0010	Q2	58.5%	207.8%
2010	O3	58.5%	206.7%
	Q4	59.2%	205.4%
	Q1	58.2%	214.0%
2011	Q2	58.2%	212.4%
2011	O3	58.1%	212.1%
	Q4	57.9%	211.1%
	Q1	57.7%	207.4%
2012	Q2	57.1%	204.8%
2012	O3	56.8%	204.1%
	Q4	56.6%	202.9%

### **DEVELOPMENT OF FIXED LINES (PAGE 10)**

		Number of lines				
		POTS lines	ISDN lines	Multi-ISDN lines	VoB lines	lines based on wireless technology
	Q1	2,412,263	341,640	10,225		
2010	Q2	2,406,363	339,015	10,137		
2010	O3	2,405,450	335,534	10,157		
	Q4	2,431,610	330,924	10,163		
	Q1	2,447,333	329,330	10,204		
2011	Q2	2,448,479	325,817	10,203		
2011	O3	2,446,550	323,136	10,224		
	Q4	2,438,500	320,613	10,261		
	Q1	2,421,504	318,457	11,794	573,370	26,190
2012	Q2	2,394,838	314,027	11,760	584,051	26,789
2012	O3	2,384,665	311,757	12,008	592,729	27,435
	Q4	2,377,102	308,877	12,145	604,600	27,984

### PRESELECTED LINES AND CALL-BY-CALL CUSTOMERS (PAGE 11)

		Number of lines/customers			
		Preselected lines Call-by-call customers			
	Q1	527,861	220,414		
2010	Q2	519,965	213,068		
2010	O3	512,731	189,685		
	Q4	507,363	185,894		
	Q1	500,435	184,785		
2011	Q2	494,475	181,653		
2011	O3	487,370	125,233		
	Q4	422,913	123,082		
	Q1	411,346	113,531		
2012	Q2	399,908	106,640		
2012	O3	389,495	103,044		
	Q4	383,023	99,417		

### RETAIL REVENUES FROM ACCESS SERVICES (PAGE 12)

		EUR			
		Residential customers Business customers			
	Q1	37,204,290	37,320,212		
2012	Q2	30,938,848	37,155,730		
2012	O3	30,308,881	36,439,139		
	Q4	29,250,246	36,276,439		

### RETAIL REVENUES FROM CARRIER SERVICES 1/2 (PAGE 13)

		EUR		
		Residential customers	Business customers	
	Q1	46,624,602	54,974,183	
2010	Q2	45,167,360	52,974,684	
2010	O3	44,024,934	51,777,942	
	Q4	46,112,184	49,982,012	
	Q1	42,073,786	48,301,904	
2011	Q2	38,456,589	45,869,329	
2011	O3	37,580,959	44,398,313	
	Q4	38,521,721	43,219,087	
	Q1	36,584,136	43,115,973	
2012	Q2	33,727,694	39,356,636	
2012	O3	32,772,377	38,034,405	
	Q4	33,944,355	38,368,549	

### RETAIL REVENUES FROM CARRIER SERVICES 2/2 (PAGE 14)

				EUR		
			EUR			
		Domestic fixed network	Domestic mobile network	International	Service numbers and directory assistance services	Online services
	Q1	29,820,648	39,985,065	25,357,973	5,482,961	952,137
2010	Q2	27,316,434	40,482,008	24,667,943	4,873,629	802,030
2010	O3	25,877,543	39,585,100	24,547,510	5,053,871	738,852
	Q4	26,595,841	39,737,128	23,956,827	5,145,928	658,473
	Q1	24,639,100	37,058,865	23,282,662	4,801,359	593,703
2011	Q2	22,383,250	35,894,814	20,902,942	4,616,362	528,550
2011	O3	20,839,127	34,463,665	21,563,576	4,611,219	501,685
	Q4	21,108,182	34,176,725	21,226,518	4,770,243	459,140
	Q1	21,136,899	33,268,083	20,795,843	4,499,285	*
2012	Q2	18,343,354	31,249,663	19,249,626	4,241,687	*
	O3	17,562,086	30,220,523	19,015,255	4,008,917	*
	Q4	18,449,143	30,873,235	18,679,864	4,310,663	*

 $<sup>^{\</sup>ast}$  Data collection for online services was discontinued in Q1 2012.

### **CALL MINUTES ON THE RETAIL MARKET (PAGE 15)**

		Minutes				
		Domestic fixed network	Domestic mobile network	International	Service numbers and directory assistance services	Online services
	Q1	977,640,054	266,895,805	210,911,870	55,544,900	46,514,953
2010	Q2	904,196,395	264,835,217	202,126,815	46,006,834	37,644,741
2010	O3	852,872,753	258,493,161	195,888,678	45,946,177	34,691,063
	Q4	885,459,329	259,321,096	194,876,703	44,696,666	32,304,660
	Q1	838,639,288	245,512,387	198,782,414	40,188,294	18,915,069
2011	Q2	755,918,422	236,025,717	186,255,968	37,926,502	15,104,526
2011	O3	712,520,921	230,529,494	176,768,125	38,557,478	13,020,055
	Q4	734,658,271	232,954,768	181,362,903	36,881,102	11,224,498
	Q1	722,083,283	224,818,972	170,057,362	34,362,284	*
2012	Q2	641,441,138	210,189,456	157,854,147	29,064,322	*
	O3	613,484,613	203,462,091	150,349,282	25,251,700	*
	Q4	649,204,481	211,320,350	161,633,905	24,754,729	*

<sup>\*</sup> Data collection for online services was discontinued in Q1 2012.

### REVENUES PER CALL MINUTE (PAGE 16)

				EUR	cents		
		Domestic fixed network (residential customers)	Domestic mobile network (residential customers)	International (residential customers)	Domestic fixed network (business customers)	Domestic mobile network (business customers)	International (business customers)
	Q1	3.06	18.48	12.01	3.04	12.94	12.03
2010	Q2	3.07	18.72	12.46	2.98	13.30	12.01
2010	Q3	3.15	18.90	13.11	2.93	13.27	12.10
	Q4	3.10	18.89	13.02	2.91	13.19	11.68
	Q1	3.06	18.74	12.10	2.82	13.12	11.37
2011	Q2	3.00	19.08	11.10	2.93	13.12	11.33
2011	O3	2.97	18.63	13.08	2.89	12.97	11.45
	Q4	2.90	18.26	12.04	2.85	12.69	11.36
	Q1	3.03	18.76	12.81	2.83	12.74	11.70
2012	Q2	2.92	19.04	12.71	2.81	12.64	11.72
2012	O3	2.97	19.05	13.13	2.77	12.58	12.20
	Q4	2.94	18.79	12.11	2.75	12.33	11.02

### WHOLESALE REVENUES (PAGE 18)

			EUR	
		Origination	Termination	Transit
	Q1	2,820,358	13,016,183	1,644,444
2012	Q2	2,524,280	11,598,870	1,583,710
2012	O3	2,337,537	10,814,702	1,598,952
	Q4	2,396,235	12,031,447	1,645,385

### WHOLESALE MARKET IN MINUTES (PAGE 19)

		Minutes				
		Origination	Termination	Transit		
	Q1	884,196,004	1,219,043,078	672,175,766		
2012	Q2	805,510,507	1,119,284,479	685,781,022		
2012	O3	830,733,593	1,067,666,014	709,712,872		
	Q4	877,459,225	1,137,967,252	688,330,138		

### TOTAL FIXED NETWORK REVENUES (PAGE 20)

		EUR			
		Base fees and setup charges	Connection charges (incl. public pay phones)	Wholesale revenue	
	Q1	83,232,213	87,532,790	17,480,985	
2012	Q2	76,050,380	80,266,015	15,706,860	
2012	O3	74,546,209	77,746,471	14,974,274	
	Q4	73,182,050	79,398,981	16,321,284	

### **GEOGRAPHICAL NUMBERS IN USE AND FIXED-LINE PORTING (PAGES 21/23)**

			Number of phone numbers	
		Geographical numbers in use	Geographical numbers ported	Service numbers ported
	Q1	3,020,929	214,260	13,368
2012	Q2	3,055,463	215,011	13,763
2010	Ø3	3,083,838	231,362	14,946
	Q4	3,104,824	233,290	15,265
	Q1	3,037,378	237,438	16,623
0044	Q2	3,035,921	238,810	14,995
2011	O3	3,017,262	245,674	14,283
	Q4	3,049,404	246,336	13,590
	Q1	3,047,746	250,909	15,283
0040	Q2	3,022,379	249,885	14,072
2012	<b>O</b> 3	3,055,918	256,791	13,868
	Q4	3,071,401	294,705	12,987

### SERVICE NUMBERS IN USE: (0)800, (0)810, (0)820, (0)821, (0)828, (0)900, (0)930 (PAGE 22)

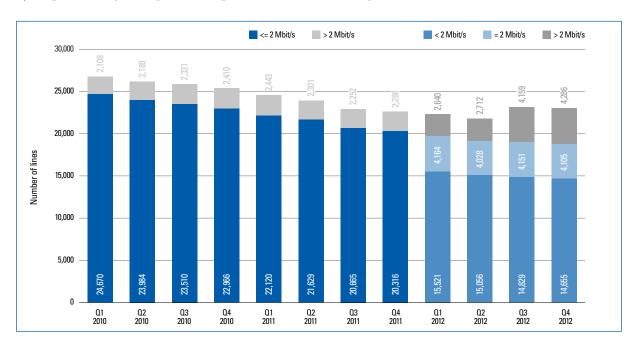
				Numbers in use		
		(0)720	(0)780	(0)800	(0)810, (0)820, (0)821, (0)828	(0)900, (0)930
	Q1	47,082	2,330	15,611	17,558	27,727
2010	Q2	47,116	2,281	16,160	17,450	27,609
2010	O3	50,118	2,312	14,243	20,095	28,216
	Q4	50,517	2,331	17,033	20,757	28,273
	Q1	50,385	2,316	15,094	23,825	29,356
2011	Q2	52,312	2,316	15,042	24,026	29,374
2011	O3	52,816	2,330	15,208	20,799	29,237
	Q4	58,513	1,911	15,311	19,255	28,688
	Q1	64,687	1,917	15,090	19,561	27,422
2012	Q2	66,073	1,906	15,939	23,267	30,025
2012	O3	68,037	1,901	15,846	25,635	29,253
	Q4	68,079	1,900	15,972	25,959	28,934

## Section 2 | Leased lines



### Number of retail leased lines in Austria

### **⇒** AGAIN INCREASE IN HIGHER BANDWIDTHS



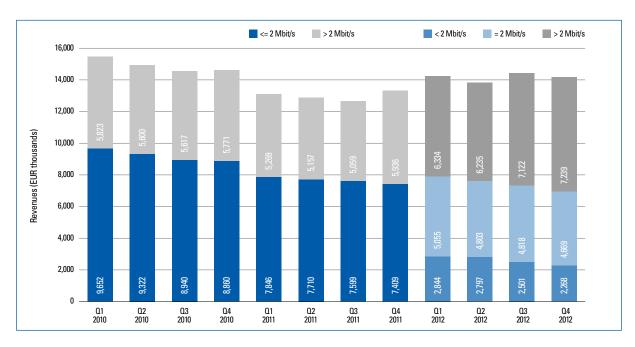
Retail leased lines refer to leased lines (see Glossary, page 98) which are not provided for operators or providers of communications networks or services (i.e. holders of general approvals), but for companies outside the telecommunications sector (e.g. banks, insurance companies, retail stores, etc.).

The chart above shows the number of retail leased lines. Until Q4 2011 these were broken down into lines with a capacity of 2 Mbit/s or less (<= 2 Mbit/s) and lines with a capacity exceeding 2 Mbit/s (> 2 Mbit/s); from Q1 2012 the categories used were lines with a capacity of less than 2 Mbit/s (< 2 Mbit/s), 2 Mbit/s (= 2 Mbit/s) and exceeding 2 Mbit/s (> 2 Mbit/s). In addition, the table at the end of the chapter provides a differentiation between the following categories: greater than 2 Mbit/s to 155 Mbit/s (>2 Mbit/s to 155 Mbit/s).

- After the data correction made by one operator in Q3 2012, the figures in the last quarter of the year did not change much on the previous quarter; showing a total of 23,045 leased lines (0.4% down on the previous quarter).
- For low bandwidths (< 2 Mbit/s) a decline of 1.2% to 14,655 leased lines was recorded. The number of leased lines with a bandwidth equal to 2 Mbit/s was also down by 1.1%. The number of leased lines with higher bandwidths rose, on the other hand. Leased lines with a bandwidth of > 2 Mbit/s to 155 Mbit/s rose by 2.9% to 3,996, while leased lines with bandwidths greater than 155 Mbit/s numbered 290 (up 4.4%).

## Revenues from retail leased lines in Austria

### **⇒** REVENUES DOWN COMPARED TO PREVIOUS QUARTER



The chart shows the revenues from retail leased lines in Austria. Until Q4 2011 these were broken down into lines with a capacity of 2 Mbit/s or less (<= 2 Mbit/s) and lines with a capacity exceeding 2 Mbit/s (> 2 Mbit/s); from Q1 2012 the categories used were lines with a capacity of less than 2 Mbit/s (< 2 Mbit/s), 2 Mbit/s (= 2 Mbit/s) and exceeding 2 Mbit/s (> 2 Mbit/s). In addition, the table at the end of the chapter provides a differentiation between the following categories: greater than 2 Mbit/s to 155 Mbit/s (> 2 Mbit/s to 155 Mbit/s).

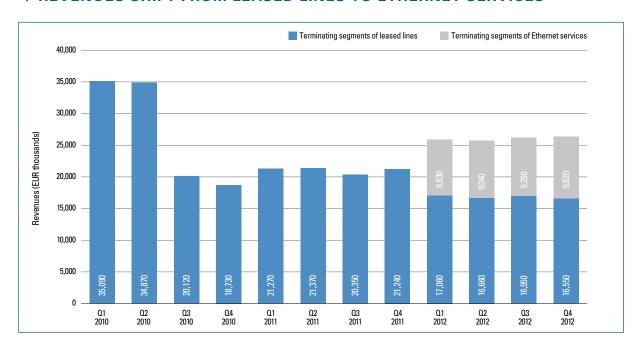
Changes in revenues are of course partly due to the lengths of leased lines, which are not however surveyed under the Communications Survey Ordinance (KEV).

Where leased lines are concerned it must be borne in mind that there are often time lags in leased lines markets between revenues and demand, frequently resulting in strong fluctuations between months and indeed quarters, caused by the billing of project business, billbacks and credits.

- Revenues from domestic retail leased lines amounted to some EUR 14.18 million in Q4, which is a decline of 1.8% on the previous quarter.
- Revenues from retail leased lines with bandwidths up to and including 2 Mbit/s (< 2 Mbit/s and = 2 Mbit/s) were down by 5.2%, while revenues from retail leased lines with higher bandwidths (> 2 Mbit/s to 155 Mbit/s and > 155 Mbit/s) rose slightly in line with the higher number of these lines (up 1.6%).

## Revenues from terminating segments

### **⇒** REVENUES SHIFT FROM LEASED LINES TO ETHERNET SERVICES



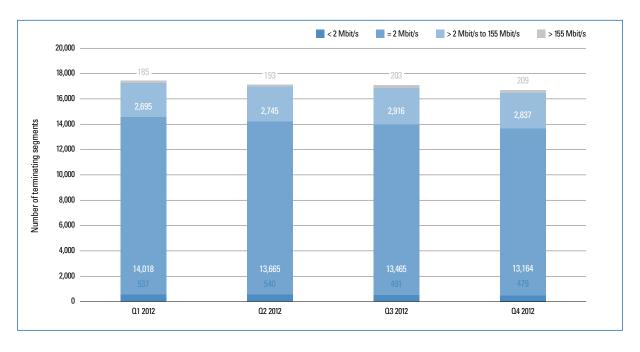
Wholesale leased lines are leased lines (see Glossary page 98) provided for other operators or providers of communications networks or services. A distinction is made between trunk segments and terminating segments. Trunk segments refer to leased lines which link interconnection points in two out of 28 Austrian towns. Terminating segments refer to all leased lines which cannot be classified as trunk segments.

The chart above shows the wholesale revenues from terminating segments. Until the end of 2011 only the revenues from leased lines were surveyed, but from Q1 2012 revenues from Ethernet services with guaranteed bandwidth were included as well. Like leased lines, Ethernet services are used for the transmission of e.g. data and voice traffic, but they are usually more flexible (more bandwidth capacity levels) and more economical than "traditional" leased lines, which are usually based on SDH technology.

- For the terminating segments of leased lines, revenues show a decline against Q3 2012 of 2.3% to EUR 16.5 million.
- Revenues from terminating segments of Ethernet services, on the contrary, rose in the reference period by 5.7% to EUR 9.8 million.
- Altogether wholesale revenues from terminating segments remained at much the same level as in Q3 2012 (up 0.5%).
- The 50% drop of revenues from Q2 to Q3 2010 is due to the merger of mobilkom austria AG and Telekom Austria AG, as a result of which the wholesale revenues previously generated between the two companies no longer featured.

## Number of terminating segments of leased lines in Austria

### **→ INCREASE IN HIGH BANDWIDTHS ONLY**

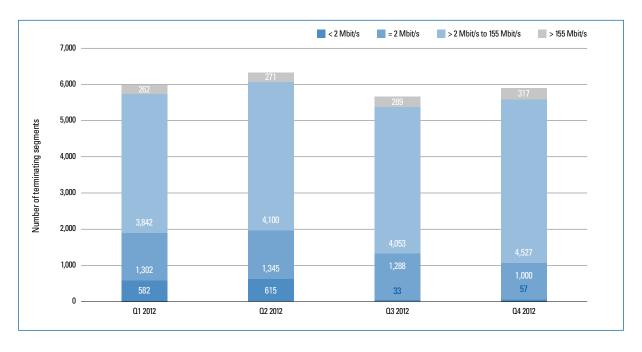


The chart shows the number of terminating segments of leased lines broken down into capacities of < 2 Mbit/s, = 2 Mbit/s, > 2 Mbit/s to 155 Mbit/s and > 155 Mbit/s. In addition, a breakdown in the capacities > 155 Mbit/s to 1 Gbit/s and > 1 Gbit/s is given in the table at the end of the chapter.

- The number of terminating segments of leased lines in Austria continued to decline slightly. After the fall in the previous quarter, the number of terminating segments dropped further to 16,689 in Q4 2012 (minus 2.3%).
- With the exception of high bandwidth segments (> 155 Mbit/s) the number was down. The number of terminating segments with low bandwidths (< 2 Mbit/s) was down by 2.4%, those = 2 Mbit/s were down by 2.2% and terminating segments in the category > 2 Mbit/s to 155 Mbit/s were down 2.7% on Q3. Segments with a high bandwidth of > 155 Mbit/s were the only ones to rise (3.1% to 209). These bandwidths only account for about 1.3% of all terminating segments, however; over 80% have a bandwidth of up to 2 Mbit/s.

## Number of terminating segments of Ethernet services in Austria

### **⇒** AGAIN MORE TERMINATING SEGMENTS OF ETHERNET SERVICES



At the wholesale level "traditional" leased lines are increasingly replaced by Ethernet services (see Glossary page 98). The chart shows the number of terminating segments of Ethernet services with guaranteed bandwidth broken down into capacities of < 2 Mbit/s, = 2 Mbit/s, > 2 Mbit/s to 155 Mbit/s and > 155 Mbit/s. In addition, a breakdown in the capacities > 155 Mbit/s to 1 Gbit/s and > 1 Gbit/s is given in the table at the end of the chapter.

- The number of terminating segments of Ethernet services rose again, reversing the trend between Q2 and Q3 2012. At the end of Q4 5,900 terminating segments of Ethernet services were recorded, which is approximately 4.2% more than in Q3 2012.
- By and large the same trend is discernible with Ethernet services as with leased lines. The numbers for large bandwidths are rising, while those of smaller bandwidths are falling. An exception to this trend in Q4 is the number of terminating segments of Ethernet services with a bandwidth of < 2 Mbit/s. The rise of these segments from 33 to 57 is connected to one large operator.

NUMBER OF DOMESTIC RETAIL LEASED LINES (P	(PAGE 30)	
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				Number	of lines		
		<= 2 Mbit/s	> 2 Mbit/s	< 2 Mbit/s	= 2 Mbit/s	> 2 Mbit/s to 155 Mbit/s	> 155 Mbit/s
	Q1	24,670	2,108				
2010	Q2	23,984	2,189				
2010	Q3	23,510	2,331				
	Q4	22,966	2,410				
	Q1	22,120	2,443				
2011	Q2	21,629	2,301				
2011	Q3	20,665	2,252				
	Q4	20,316	2,288				
	Q1			15,521	4,164	2,452	188
2012	Q2			15,056	4,028	2,515	198
2012	Q3			14,829	4,151	3,881	278
	Q4			14,655	4,105	3,996	290

### REVENUES FROM RETAIL LEASED LINES IN AUSTRIA (PAGE 31)

				El	JR		
		<= 2 Mbit/s	> 2 Mbit/s	< 2 Mbit/s	= 2 Mbit/s	> 2 Mbit/s to 155 Mbit/s	> 155 Mbit/s
	Q1	9,652,176	5,823,002				
2010	Q2	9,322,416	5,600,087				
2010	O3	8,939,548	5,617,284				
	Q4	8,859,978	5,770,830				
	Q1	7,845,978	5,268,680				
2011	Q2	7,710,028	5,156,879				
2011	<b>O</b> 3	7,599,000	5,059,072				
	Q4	7,409,477	5,936,118				
	Q1			2,843,895	5,054,625	5,745,004	588,660
2012	Q2			2,796,818	4,803,477	5,642,313	592,896
2012	O3			2,501,486	4,817,632	6,415,256	706,977
	Q4			2,267,749	4,668,726	6,535,767	703,659

### WHOLESALE REVENUES FROM LEASED LINES AND ETHERNET SERVICES (PAGE 32)

			EL	JR	
		Terminating segments / leased lines	Terminating segments / Ethernet services	Trunk segments / leased lines	Trunk segments / Ethernet services
	Q1	35,086,000		4,827,482	
2010	Q2	34,865,898		4,788,123	
2010	O3	20,120,813		2,933,316	
	Q4	18,729,206		2,728,050	
	Q1	21,273,113		2,554,325	
2011	Q2	21,371,847		2,465,453	
2011	O3	20,353,582		2,301,961	
	Q4	21,242,861		2,370,865	
	Q1	17,059,284	8,826,207	2,202,290	392,074
2012	Q2	16,659,324	9,036,236	2,080,892	430,340
2012	O3	16,945,184	9,290,645	2,071,888	758,550
	Q4	16,548,286	9,818,340	1,982,318	786,462

### NUMBER OF TERMINATING SEGMENTS OF LEASED LINES IN AUSTRIA (PAGE 33)

		Number of terminating segments						
		< 2 Mbit/s	= 2 Mbit/s	> 2 Mbit/s to 155 Mbit/s	> 155 Mbit/s to 1 Gbit/s	> 1 Gbit/s		
	Q1	537	14,018	2,695	178	6		
2012	Q2	540	13,665	2,745	186	7		
2012	O3	491	13,465	2,916	195	7		
	Q4	479	13,164	2,837	202	7		

### NUMBER OF TERMINATING SEGMENTS OF ETHERNET SERVICES IN AUSTRIA (PAGE 34)

			Number of terminating segments						
		< 2 Mbit/s	= 2 Mbit/s	> 2 Mbit/s to 155 Mbit/s	> 155 Mbit/s to 1 Gbit/s	> 1 Gbit/s			
	Q1	582	1,302	3,842	240	22			
0040	Q2	615	1,345	4,100	251	20			
2012	O3	33	1,288	4,053	286	3			
	Q4	57	1,000	4,527	313	3			

Q4

4,876

978,115

LEASED LINES – NUMBER OF 64 KBIT/S EQUIVALENTS						
				Number		
		< 2 Mbit/s	= 2 Mbit/s	> 2 Mbit/s to 155 Mbit/s	> 155 Mbit/s to 1 Gbit/s	> 1 Gbit/s
	Q1	5,734	431,802	1,627,720	1,941,522	889,665
2012	Q2	5,543	421,883	1,688,865	2,054,495	978,115
2012	O3	5,175	420,039	1,817,303	2,208,215	978,115

407,206

1,854,917

2,240,302

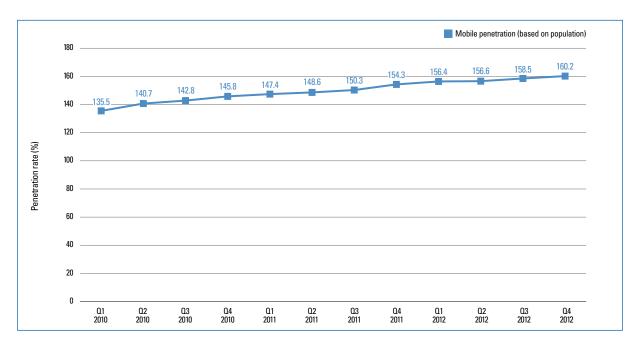
#### ETHERNET SERVICES - NUMBER OF 64 KBIT/S EQUIVALENTS Number > 2 Mbit/s to > 155 Mbit/s to < 2 Mbit/s = 2 Mbit/s > 1 Gbit/s 155 Mbit/s 1 Gbit/s Q1 5,536 35,307 1,365,305 2,415,179 348,348 2,481,806 315,172 Q2 5,883 36,299 1,419,725 2012 Q3 362 33,720 1,352,435 2,703,732 49,764 **Q**4 573 25,899 1,457,926 2,972,157 49,764

## Section 3 | Mobile communications



## Mobile penetration

#### **→ MARKED GROWTH AGAIN**



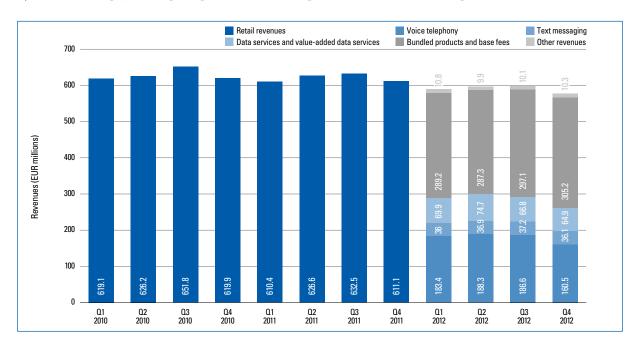
Source: RTR, Statistics Austria (population figures)

The mobile penetration rate is calculated as the number of activated SIM cards divided by the country's population. This figure therefore represents the (notional) average number of SIM cards owned by every Austrian. However, it also includes both SIM cards used by businesses and machine-to-machine (M2M) SIM cards.

- The penetration rate increased continuously over the period as it did in the previous quarters. After a short flattening of growth in Q2 2012 there were clearer signs of growth again from Q3 to Q4 (up 1.7 percentage points). The penetration rate in Q4 was 160.2%.
- The drivers of this development were the increasing number of mobile broadband connections and the growth of M2M SIM cards used in addition to standard mobiles (e.g. for traffic control systems, in-vehicle software etc.).

### Retail revenues from mobile communications

#### **⇒** TREND TOWARDS MORE INEXPENSIVE ALL-IN TARIFFS



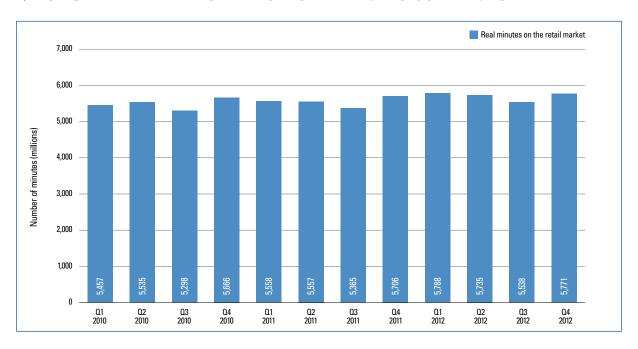
This includes all revenues (base fees, activation charges, service charges, connection charges etc.), earned from the company's (own) retail customers in Austria, including revenues earned from roaming. In line with the amendment to the KEV, mobile services revenues are classified as follows:

- Revenues clearly attributable to mobile voice telephony or value-added voice services;
- Revenues clearly attributable to text messaging and value-added text messaging services.
- Revenues clearly attributable to mobile data and value-added data services (inc. multimedia messages);
- Bundled products and base fees: revenues not clearly attributable to one of the aforementioned categories;
- Revenues from "bundled products and base fees" accounted for by data services (excluding text messages);\*
- Other revenues, e.g. reminder charges
- Total retail revenues from mobile communications in the last quarter of 2012 were EUR 576.9 million, which means a reduction of 3.5% against the previous quarter.
- Of that EUR 576.9 million, EUR 160.46 million was accounted for by revenues from voice telephony (down 14%), EUR 36.14 million by texting revenues (down 2.9%), EUR 115.27 million by data services (including the share of bundled products, down 1.4%) and EUR 189.9 million by bundled products and base fees (excluding data services, up 5.4%). The remaining EUR 10.3 million come from other revenues (up 1.5%). The relatively marked decline in voice telephony reflects the recent trend away from exclusive voice and/or data service to better-value all-in-one tariffs that include base fees, minutes and data. This means revenues tend to shift to the "bundled products and base fees" category.

<sup>\*</sup> These are not shown separately in the chart; the values are listed in the table at the end of the section.

### Call minutes on the retail market

#### **⇒ LONG-TERM TREND TOWARDS MORE MINUTES CONTINUES**



The chart above shows real call minutes on mobile networks. This includes minutes from voice telephone calls including value-added voice services, but not (non-voice) services, video telephony etc.

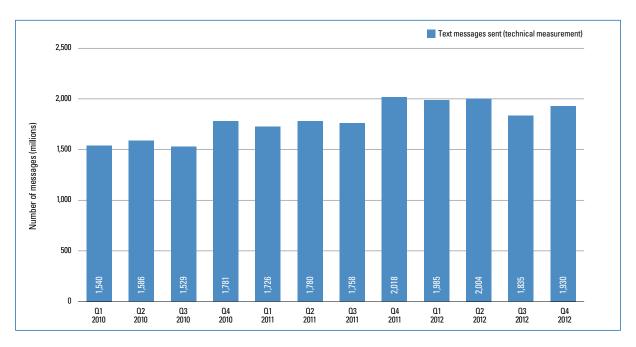
Real minutes refer to the actual duration of calls made by retail customers.

This must be distinguished from minutes invoiced, i.e. the number of minutes actually billed to the subscriber. The main factors accounting for the difference between these two figures are the number of free minutes included in the periodic base fee and the billing increment. This difference between real minutes and billed minutes can be considerable where flat-rate packages are offered.

- The total number of call minutes in Q4 2012 was 5.77 billion. This is 233 million more than in the previous quarter (up 4.2%).
- Despite the falls seen in Q3 of the year (holiday period), once again the long-term trend towards ever more call minutes becomes evident, which can be attributed to the increasing use of bundled tariffs including call minutes.

## Text messages

#### **⇒** RENEWED GROWTH IN TEXT MESSAGES AS EXPECTED

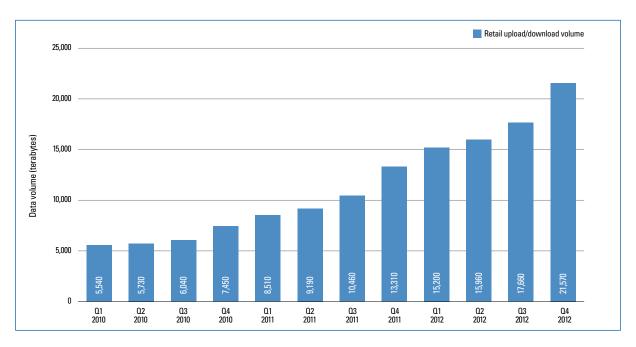


The chart above shows all text messages (technical measurement) sent in the respective quarters. The term "technical measurement" means that the figure also includes text messages which are not charged individually to the retail customer (e. g. text messages included in the base fee or flat rate). Multimedia messages are not included in these figures.

- As was to be expected from the previous trend, the number of text messages rose again after the fall seen in Q3 2012. With 1,930 million text messages the figure was up 5.1% against the previous quarter.
- The number of text messages certainly shows a marked decline compared with 2011 (with 2,018 million text messages sent the Q4 2011 number was 4.6% higher than that in Q4 2012). If all quarters are taken together, however, the total for 2011 is 7,282 million text messages and in 2012 7,754 million respectively, which means an increase of 6.5% in 2012.

## Data volume (retail market)

#### **→** ONE-FIFTH MORE DATA IN ONE QUARTER

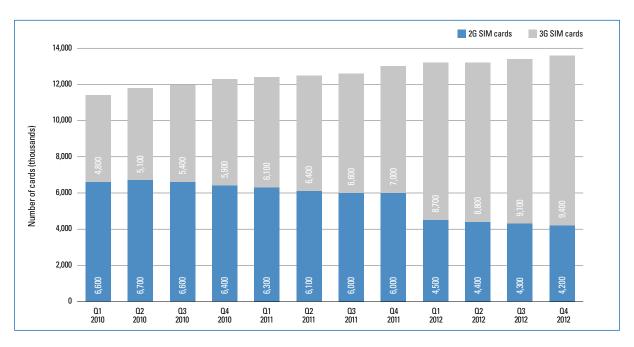


The figure above shows the data volume used for uplink and downlink transmissions on the retail mobile communications market in terabytes (1 terabyte = 1,024 gigabytes = 1,048,576 megabytes). These figures do not include text messages or multimedia messages.

- In Q4 2012, too, there appears to be no end to the dramatic growth in data volume, on the contrary: 21,570 terabytes compared to the 17,660 terabytes in Q3 2012 means an increase of 22.1%. Within one year (baseline Q4 2011) the data volume has grown by 62.1% and it has almost trebled since Q4 2010.
- Since Q1 2010 the data volume has grown by an average 13.4% each quarter. Whether there will be an end to this trend or at least a possible levelling out of this growth is impossible to say at the moment.

### SIM cards in use

#### **⇒** CONTINUOUS GROWTH TO 13.6 MILLION SIM CARDS

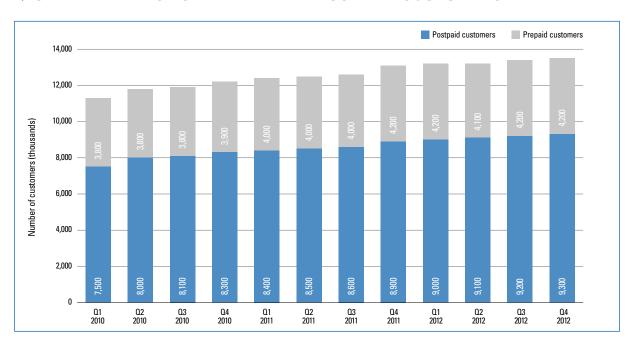


The chart above shows the number of SIM cards activated and in use, broken down into 2G (GSM) and 3G (UMTS) cards.

- The number of SIM cards has risen continuously, and again in Q4 2012. In Q4 2012 there were 13.6 million SIM cards in circulation in Austria (up 1.5% against the previous quarter).
- Of those 4.2 million (31%) are 2G cards and 9.4 million (69%) are 3G cards. Operators have so far reported almost no 4G cards so they are not included in the chart.
- The jump in the distribution between 2G and 3G SIM cards from Q4 2011 to Q1 2012 is due to a change in the classification of one operator that now shows all its SIM cards as 3G cards.
- The share of machine-to-machine (M2M) SIM cards in Q4 2012 was 0.8% (see table on page 52).

## Prepaid vs. postpaid SIM cards

#### **⇒** STABLE BALANCE OF PREPAID AND POSTPAID CUSTOMERS

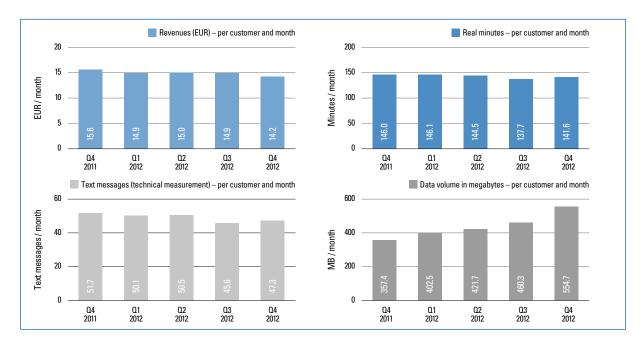


The chart above shows the number of prepaid and postpaid customers in the mobile communications market. Prepaid customers use SIM cards on which a certain amount of credit (in the form of minutes, text messages, data volume, etc.) is stored. Thus the customer pays for the service in advance. In the case of postpaid customers (also referred to as contract customers), a bill for the service is sent after it has been used (usually on a monthly basis).

■ The chart shows the distribution of the 13.6 million SIM cards between prepaid and postpaid customers. A very stable balance between the two has been evident for some time now. In Q4 2012 68.8% of all mobile customers were postpaid customers and 31.2% prepaid customers.

## The average mobile communications customer

#### **⇒** DOWNWARD TREND IN REVENUE PER SUBSCRIBER AND MONTH

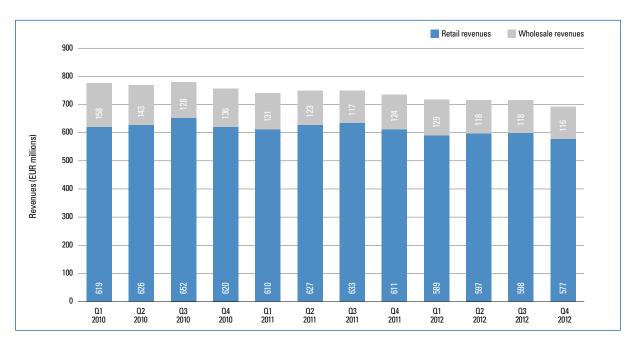


The charts show the average revenues generated, the average number of real minutes and text messages sent and the data volume used in megabyte per mobile customer as averaged monthly figures for each quarter. The values are therefore based on one-third of retail customer revenues, real minutes, number of text messages and data volumes of a quarter, divided by the total number of current subscribers registered with the mobile operators. Multimedia messages are no longer included under the amended KEV.

- The average monthly revenue generated per mobile customer in Q4 2012 was EUR 14.2. This figure is tending to fall slightly over time.
- The number of call minutes per mobile customer rose slightly again for the first time after the decline seen in the previous quarters. 141.6 minutes per subscriber and month means an increase of 2.8% compared with an average month in the previous quarter.
- The same trend is seen in the number of text messages sent. Here too a fall in the number of texts sent per subscriber and month was evident in the previous quarters, which was reversed in Q4 2012. An average 47.3 text messages per month and subscriber constitutes a rise of 3.7% against Q3 2012.
- What is unsurprising considering the record data volume figures is the continued rise in data volume used per month and subscriber in Q4 2012. With the average customer using 554.7 MB, this figure was more than 20% up compared to Q3 2012.

### Total mobile communications revenue

#### **→ TOTAL REVENUE FALLS BY 3.2%**

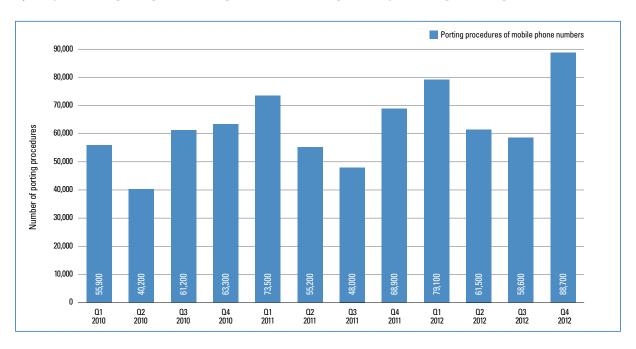


The chart above shows the revenues on the retail and wholesale markets. Retail revenues include all revenues (base fees, activation charges, service charges, connection charges etc.), earned from the company's (own) retail customers in Austria, including revenues earned from roaming. Wholesale revenues are revenues from origination and termination charges, from selling airtime to resellers and revenues from national roaming (including MVNO access).

- Total revenues in the mobile communications sector fell in Q4 against Q3 from EUR 715.9 million to EUR 692.7 million (down 3.2%). This is due mainly to the fall in revenues from voice telephony. Voice calls are offered to an increasing extent in more economical packages bundled with other products (see page 41).
- Another reason for falling mobile revenues is the fall in wholesale revenues, which declined from EUR 118 million in Q3 2012 to EUR 115.8 million in Q4 2012 (down 1.9%). This is due mainly to declining revenues from international roaming, which can be explained by the fact that a normally stronger Q3 (main summer tourism period) is followed by a weaker Q4.

## Porting of mobile telephone numbers

#### **▶ NUMBER OF PORTED MOBILE TELEPHONE NUMBERS PEAKS**

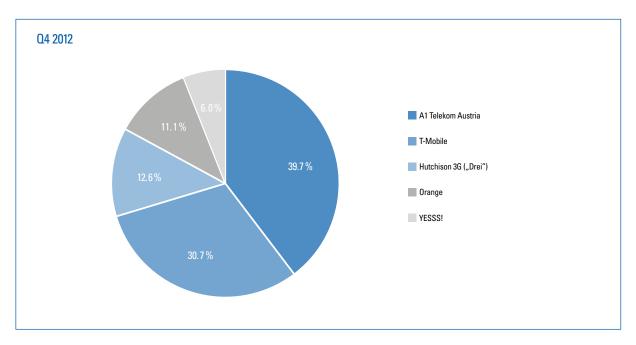


Number porting allows customers to retain their telephone numbers when they switch service providers. The chart above shows the porting procedures/telephone numbers imported for an operator in one quarter, i.e. SIM cards in the case of mobile operators and subscriber numbers on the fixed network. Reverse portings (e.g. after cancellation by a subscriber) are not considered in the porting numbers. If the number of a subscriber is ported several times within a quarter ("subsequent porting"), this is counted separately each time.

■ In Q4 2012 88,700 mobile telephone numbers were imported (up 51.5% against Q3), more than in any quarter in the past three years.

## Market share of mobile service providers in Austria

#### **▶** LITTLE CHANGE (AS YET) ON THE MOBILE MARKET



The chart above shows the market shares of mobile operators in Austria based on their subscriber numbers (number of SIM cards used).

- A1 Telekom Austria, the market leader on the mobile market, accounted for a market share of 39.7% in Q4 2012, corresponding to the previous quarter's figure. In absolute terms A1 Telekom Austria had 5.38 million customers (up by 68,000 against Q3 2012). But although A1 gained some 108,400 customers within one year (baseline Q4 2011), it lost about one percentage point of market share.
- T-Mobile ranks second. With 30.7% it lost market share again compared with Q3 (down 0.3 percentage points). T-Mobile had 4.16 million customers in Q4 2012, some 17,400 more than in the previous quarter.
- Hutchison 3G had a market share of 12.6% in Q4 2012, i.e. 0.7 percentage points up on the previous quarter. At the end of 2012 Hutchison 3G had 1.7 million customers, which is 105,900 more than in the previous quarter and 363,500 more than at the end of 2011.
- Orange (due to the merger with Hutchison 3G and the takeover of YESSS! by A1 Telekom Austria, the chart does not include YESSS!) showed an increase by 3,900 customers against the previous quarter and a market share of 11.1%, equivalent to 1.5 million customers.
- YESSS! had some 816,000 customers in Q4 and a market share of 6.0%. YESSS! lost about 13,000 customers against the previous quarter, and about 10,800 within a year (based on Q4 2011).

RETAIL REVENUES FROM MOBILE COMMUNICATIONS (P.	AGE 41)
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		EUR					in %	
		Retail revenues	Voice telephony	Text messaging	Data services and value-added data services	Bundled products and base fees	Other revenues	Share of data services in bundled products
	Q1	619,092,949						
2010	Q2	626,154,803						
2010	O3	651,784,166						
	Q4	619,924,454						
	Q1	610,377,233						
2011	Q2	626,624,060						
2011	O3	632,515,400						
	Q4	611,141,328						
	Q1		183,393,113	35,977,945	69,922,551	289,241,172	10,792,583	18%
0040	Q2		188,267,697	36,882,760	74,656,237	287,283,563	9,893,769	17%
2012	Q3		186,634,996	37,213,168	66,780,985	297,115,537	10,132,284	17%
	Q4		160,461,545	36,137,249	64,888,265	305,153,204	10,288,462	17%

#### CALL MINUTES ON THE RETAIL MARKET (PAGE 42)

		Real minutes
	Q1	5,456,752,767
2010	Q2	5,535,190,357
2010	O3	5,297,652,964
	Q4	5,666,239,267
	Q1	5,557,671,608
2011	Q2	5,556,743,787
2011	O3	5,364,599,431
	Q4	5,705,787,396
	Q1	5,788,072,050
2012	Q2	5,734,784,353
2012	O3	5,537,818,294
	Q4	5,771,290,667

#### TEXT MESSAGES (PAGE 43)

		Text messages sent (technical measurement)
	Q1	1,540,118,940
2010	Q2	1,585,528,257
2010	Q3	1,529,339,478
	Q4	1,780,783,386
	Q1	1,725,954,985
2011	Q2	1,779,843,615
2011	Q3	1,758,186,234
	Q4	2,018,375,997
	Q1	1,984,876,550
2012	Q2	2,003,805,415
2012	O3	1,835,394,527
	Q4	1,929,827,033

DATA VOLUME (RETAIL MARKET) (PAGE 44)				
		Retail upload/download volume (megabytes)		
	Q1	5,810,776,434		
2010	Q2	6,012,456,442		
2010	O3	6,336,680,256		
	Q4	7,815,577,154		
	Q1	8,921,282,869		
2011	Q2	9,640,975,664		
2011	O3	10,968,507,825		
	Q4	13,961,403,983		
	Q1	15,941,607,958		
2012	Q2	16,740,230,488		
2012	O3	18,512,934,796		

22,613,660,102

SIM CARDS IN USE (PAGE 45)							
		Number of SIM cards					
		2G SIM cards	3G SIM cards	4 G SIM cards	thereof M2M SIM cards		
	Q1	6,582,746	4,764,783				
2010	Q2	6,735,549	5,056,272				
2010	Q3	6,553,221	5,422,106				
	Q4	6,366,940	5,874,145				
	Q1	6,257,189	6,131,590				
2011	Q2	6,130,538	6,368,301				
2011	O3	6,022,979	6,632,571				
	Q4	5,996,070	7,026,508				
	Q1	4,524,684	8,677,898	223	86,351		
2012	Q2	4,393,808	8,838,573	287	93,497		
2012	O3	4,346,491	9,059,562	380	100,652		
	04	4.206.611	9.381.291	461	107.621		

	PREPAID VS. POSTPAID SIM CARDS (PAGE 46)					
		Number	of customers			
		Postpaid customers	Prepaid customers			
	Q1	7,517,329	3,830,200			
2010	Q2	8,019,450	3,772,371			
2010	O3	8,142,077	3,833,250			
	Q4	8,344,419	3,896,666			
	Q1	8,433,436	3,955,343			
2011	Q2	8,513,940	3,984,899			
2011	O3	8,621,693	4,033,857			
	Q4	8,854,952	4,167,626			
	Q1	9,043,684	4,159,121			
2012	Q2	9,094,056	4,138,612			
2012	O3	9,185,425	4,221,008			
	Q4	9,345,338	4,243,025			

TOTAL MOBIL	.E COMMUNICAT	TIONS REVENUI	E (PAGE 48)
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		EUR		
		Retail revenues	Wholesale revenues	
	Ω1	619,092,949	157,973,186	
2010	Q2	626,154,803	142,994,010	
2010	O3	651,784,166	128,020,690	
	Q4	619,924,454	135,954,323	
	Q1	610,377,233	130,587,523	
2011	Q2	626,624,060	123,311,439	
2011	O3	632,515,400	116,450,153	
	Q4	611,141,328	124,371,586	
	Q1	589,327,364	128,953,660	
2012	Q2	596,984,026	117,581,408	
2012	O3	597,876,970	118,034,261	
	Q4	576,928,725	115,801,148	

#### PORTING OF MOBILE PHONE NUMBERS (PAGE 49)

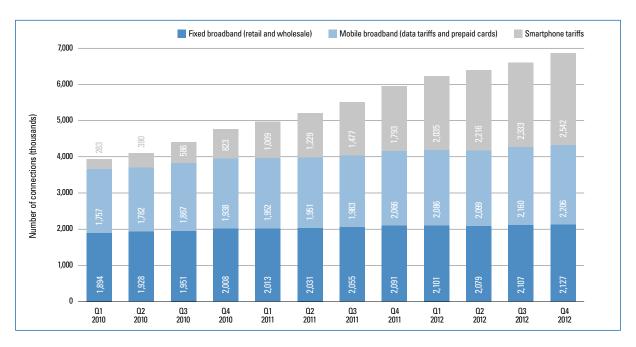
		Number of porting procedures of mobile phone numbers
	Q1	55,880
2010	Q2	40,173
2010	O3	61,209
	Q4	63,302
	Q1	73,542
2011	Q2	55,204
2011	O3	48,038
	Q4	68,873
	Q1	79,092
2012	Q2	61,525
2012	O3	58,576
	Q4	88,745

## Section 4 | Broadband



### Fixed and mobile broadband connections

#### **CONTINUED GROWTH IN BROADBAND CONNECTIONS**



The chart above shows the total number of fixed and mobile broadband connections. Fixed broadband connections here include connections with a download rate of at least 144 kbit/s. For the infrastructure of fixed broadband connections see Glossary page 98.

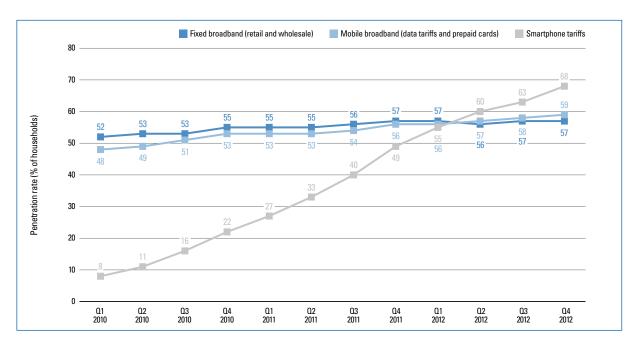
With mobile broadband two categories are distinguished: the "mobile data tariffs" category comprises both pure data tariffs (no voice/text messaging) with at least 250 MB included in the monthly charge and products with no fixed monthly charge (e.g. prepaid data products and data/voice products), where the customer has accessed the Internet at least once in the quarter in question.

The "smartphone tariffs" category comprises all contracts for voice and text messaging services that include at least 250 MB data services in the monthly charge and that were used to access the Internet at least once each quarter.

- The total number of fixed broadband connections in Austria in Q4 2012 was about 6.9 million. This is up by 4.2 % compared with the previous quarter.
- An increase in connections continues to be evident in all categories with the greatest growth seen in smartphone tariffs. These increased by 9% from the previous quarter. Mobile broadband grew by 2.2%, fixed broadband by almost 0.9%.
- Compared to Q4 2011 the number of smartphone tariffs increased by 41.7%. Mobile broadband increased by 6.8%, while fixed broadband grew by 1.7%.

## Broadband penetration

#### **STRONG GROWTH IN SMARTPHONE PENETRATION**



Source: RTR, Statistics Austria (number of households)

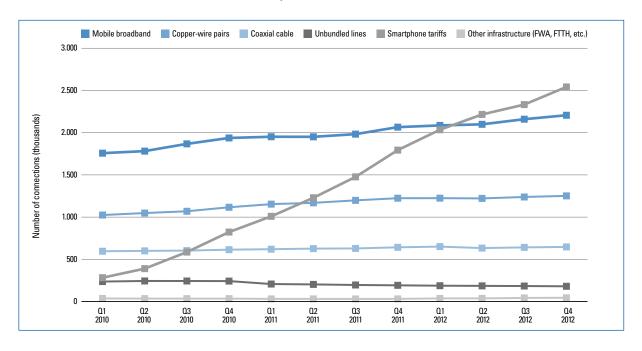
Broadband penetration refers to the ratio of fixed and mobile broadband connections to the total number of households in Austria. Calculation of the penetration rate includes broadband connections used in businesses.

- In statistical terms 57% of some 3.7 million Austrian households have fixed broadband connection, 59% have a mobile broadband connection. Both fixed and mobile broadband show only a slightly increased penetration rate compared to the previous quarter. There are smartphone tariffs in more than two out of three households (68%), which marks an increase of 5.5 percentage points compared to the previous quarter.
- In Q4 2011 smartphone penetration had been at 49% and thus still well below that of fixed (57%) and mobile (56%) broadband; however, it increased considerably in the course of 2012.

SECTION 4 | BROADBAND 57

## Retail broadband connections by type of infrastructure

#### FIXED BROADBAND CONSTANT, MOBILE BROADBAND CONTINUES TO RISE

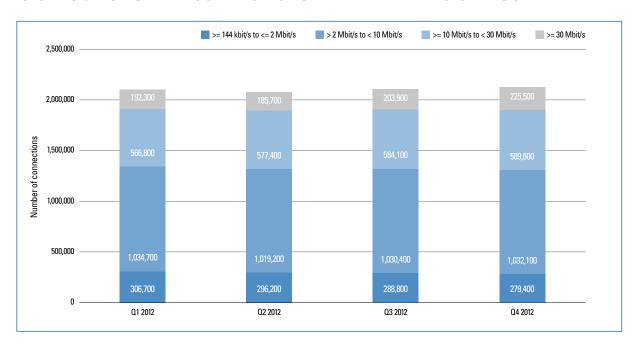


The chart above shows the total number of fixed and mobile broadband connections in Austria by infrastructure used. The fixed broadband connections include connections with a download rate of at least 144 kbit/s. For the infrastructure of fixed broadband connections see Glossary page 98. The data for this chart are contained in the table on page 65.

- The number of DSL connections grew by 1.1% compared to the preceding quarter and by 2.3% since Q4 2011. Connections based on unbundled copper-wire pairs fell by 1.7% compared with Q3 2012 and by 6% over the course of 2012.
- The number of cable broadband connections has remained relatively constant since Q4 2011 (up 1%).
- While FWA (fixed wireless access) connections fell by 12.8% altogether in the previous four quarters, the number of FTTH (fibre to the home) connections more than doubled in the same period (from about 11,000 to 27,000 connections).
- The number of mobile broadband connections, whether pure data tariffs/prepaid cards (mobile broadband) or smartphone tariffs, has seen more pronounced growth in the last year than the number of fixed broadband connections. Mobile broadband grew by 6.8% since Q4 2011, smartphone tariffs by 41.7%.

## Retail broadband connections by bandwidth category

#### ⇒ SIX OUT OF SEVEN CONNECTIONS IN THE >2 MBIT/S CATEGORY

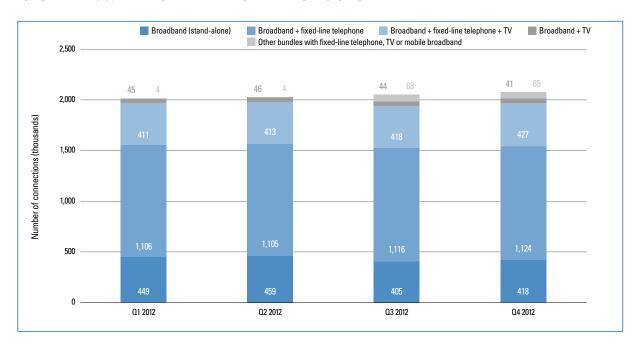


The chart above shows the total number of fixed broadband connections in Austria broken down by bandwidth categories. Due to the small numbers involved, categories 1 (>= 144 kbit/s to < 2 Mbit/s) and 2 (= 2 Mbit/s) and categories 5 (30 Mbit/s to < 100 Mbit/s) and 6 (>= 100 Mbit/s) were combined. The ones between, i.e. category 3 (> 2 Mibt/s to < 10 Mbit/s) and category 4 (10 Mbit/s to < 30 Mbit/s) are unchanged.

- The majority of retail broadband connections falls into the category > 2 Mbit/s to < 10 Mbit/s (1.03 million), the second largest group is the category of connections between 10 and 30 Mbit/s (about 589,600).
- Compared with the previous quarter both categories grew slightly (by 0.2% and 0.9% respectively).
- The growth in the number of connections > 30 Mbit/s is particularly marked. Compared with Q3 2012 there were 10.6% more connections in this category in Q4.
- Looking at the entire year it becomes evident that connections with lower bandwidths tend to decline (especially >= 144 kbit/s to <= 2 Mbit/s, down 8.9 %), while those in the higher bandwidths are growing (>= 30 Mbit/s, up 17.3 %).

## Number of retail broadband connections – fixed network

#### **→ ONLY 20% ARE STAND-ALONE PRODUCTS**

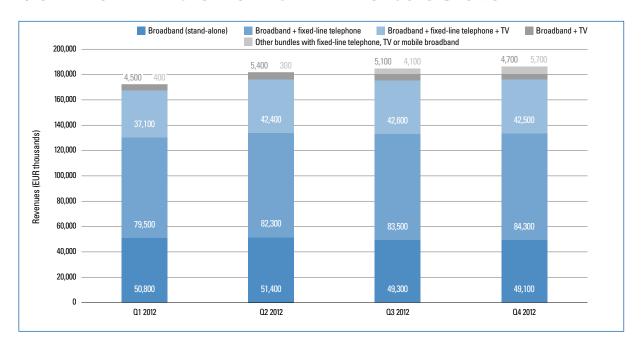


The chart shows the number of broadband products sold to retail customers. Broadband products may be sold without any other product (stand-alone) or can be a combination of broadband with one or more other products (bundled product). The most common combination is broadband and fixed network and/or TV.

- The combination of broadband and fixed-line telephone is the most popular 1.12 million connections (54%) fall into this category. From Q1 2012 to Q4 2012 the number of connections increased by 18,000, i.e. up 1.7%.
- The second largest group (21%) is the bundle consisting of broadband, fixed-line telephone and TV. Since Q1 2012 this type of combined product rose by 4%.
- Stand-alone products account for 20% of all broadband connections, showing a decline of 7.1% since the beginning of 2012.
- Broadband and TV as well as other bundles with broadband account for a total of 5% of broadband connections. The sharp increase in the category of other bundles since Q1 2012 is due to a data correction made during the year by one operator.

## Revenues from retail broadband connections – fixed network

#### **⇒** SHARE OF REVENUES FROM BUNDLED PRODUCTS GROWS



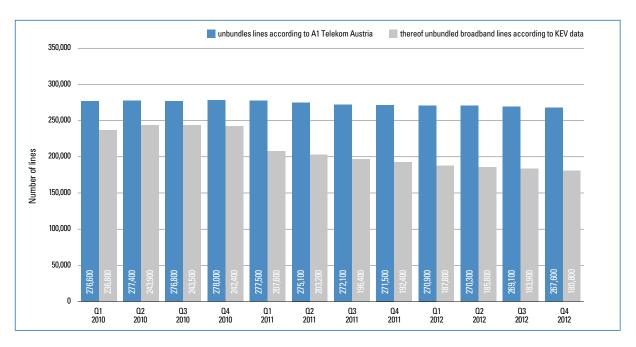
The chart shows the revenues from broadband connections sold to retail customers using the operator's infrastructure or an unbundled line. This includes broadband stand-alone products and bundled products where broadband is offered in combination with another product (voice telephony and/or TV and/or other products).

- In Q4 2012 fixed broadband connections generated revenues of EUR 186.3 million, 0.9% up on the previous quarter. Total revenues generated by fixed broadband in 2012 were EUR 725 million.
- In line with the number of connections, it is the broadband and fixed bundled products (EUR 84.3 million) that generate most of the revenue. This was up by 6% compared with Q1 2012.
- About one quarter of revenues is generated each by broadband stand-alone products (EUR 49.1 million) and broadband, fixed network and TV (EUR 42.5 million). Compared with Q1 2012 revenues earned with broadband stand-alone products were down 3.3%, while revenues earned with bundles of broadband, fixed network and TV were up 14.6%.
- Bundles of broadband and TV generated revenues of EUR 4.7 million in Q4 2012, other bundles EUR 5.7 million. Those two categories therefore account for 5.6% of total revenues from fixed broadband.

SECTION 4 | BROADBAND 61

### Unbundled lines of A1 Telekom Austria

#### **⇒** UNBUNDLED LINES CONTINUE TO DECLINE SLIGHTLY

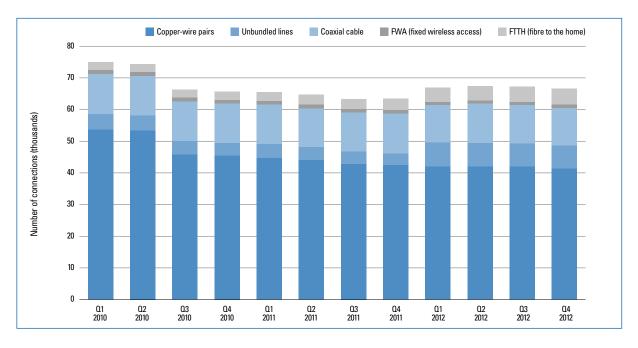


The chart above shows the unbundled lines of A1 Telekom Austria. The unbundling of subscriber lines from the incumbent's fixed network access gives alternative service providers with no connection of their own direct access to the customer, as they can lease the subscriber line from the incumbent at a regulated price. Unbundled network elements are made available if the regulatory authority has identified in a market analysis procedure that one company has significant market power in one of the relevant markets, and has imposed on it the obligation of granting access to its telecommunications network and unbundled elements of it. The chart shows all lines unbundled by A1 Telekom Austria (supply-side) in comparison to the unbundled broadband lines used by other operators (demand-side) according to the KEV.

- A1 Telekom Austria claims to have unbundled about 267,600 lines at the end of Q4 2012, which is 0.6% down on the previous guarter and 1.4% down compared to Q4 2011.
- Similarly, the number of lines with unbundled broadband access decreased (by 1.7%) according to the data collected under the KEV. Compared to Q4 2011 the number fell by 6%.
- The difference between unbundled lines and unbundled broadband lines results from the unbundled lines used exclusively for voice or for leased lines.

### Number of wholesale broadband connections

#### **⇒** FALL IN WHOLESALE BROADBAND CONNECTIONS

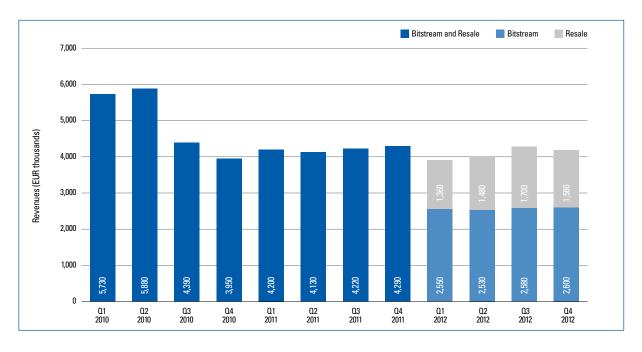


This chart shows the number of broadband connections (bitstream or resale) provided to other communications service providers on the wholesale market on their own or on a leased infrastructure (unbundled) for connecting to retail customers (or for resale) – classified by the infrastructure used. The data underlying this chart can be found in the table on page 66.

- In Q4 2012 there was a total of some 66,600 wholesale broadband connections. This figure is down by 0.9% compared with the previous quarter. Since Q4 2011 the number of wholesale broadband connections has decreased by 11.8%.
- Almost two-thirds of them are copper-wire pairs (41,300), which have declined by 2.6% since Q4 2011.
- Nearly 18% of wholesale broadband connections are cable connections (11,800), down by 5.7% compared with Q4 2011.
- The number of wholesale broadband connections based on unbundled lines was 7,400 in Q4 2012, remaining unchanged against the previous quarter. The jump from Q4 2011 to Q1 2012 is partly attributable to the change in the data surveyed and the associated corrections of operators.
- FWA wholesale broadband connections in Q4 2012 amounted to some 1,000 and FTTH wholesale broadband connections to 5,100.

## Revenues from wholesale broadband connections

#### **⇒** ABOUT TWO-THIRDS ACCOUNTED FOR BY BITSTREAM



Revenues from broadband connections supplied on the wholesale market include one-off charges (e.g. installation charges, setup and activation charges) and ongoing charges plus charges for data transfer, etc. A distinction is made between bitstream and resale. With bitstream access the connection is made to the wholesale customer at a predefined point, and the latter then sets up the Internet connectivity and is responsible for the end user relationship. With resale the Internet connectivity is provided by the wholesale operator, the wholesale customer is a reseller.

- Wholesale broadband connections generated total revenues of EUR 16.37 million in 2012, EUR 4.18 million of which was generated in Q4 2012.
- This is down by 2.2% against the previous quarter, and down by 2.6% compared with Q4 2011.
- Bitstream wholesale revenues represent about two-thirds of total revenues. The proportion of resale wholesale broadband connections grew only slightly from some 35% to 38% in 2012.

#### FIXED AND MOBILE BROADBAND CONNECTIONS (PAGE 56)

			Number of connections	
		Fixed broadband (retail and wholesale)	Mobile broadband (data tariffs and prepaid cards)	Smartphone tariffs
	Q1	1,893,957	1,757,304	282,505
0010	Q2	1,927,578	1,781,623	389,874
2010	O3	1,950,999	1,867,394	586,192
	Q4	2,008,088	1,937,408	822,951
	Q1	2,013,330	1,951,706	1,009,251
0044	Q2	2,030,921	1,950,907	1,228,897
2011	O3	2,055,113	1,982,638	1,476,573
	Q4	2,090,596	2,065,641	1,793,289
	Q1	2,100,524	2,085,851	2,034,629
0010	Q2	2,078,594	2,098,970	2,215,933
2012	O3	2,107,115	2,159,574	2,332,629
	Q4	2,126,596	2,206,340	2,541,545

#### RETAIL BROADBAND CONNECTIONS BY TYPE OF INFRASTRUCTURE (PAGE 58)

				Nu	mber of connecti	ons		
		Copper-wire pairs	Unbundled lines	Coaxial cable	FWA (fixed wireless access)	FTTH (fibre to the home)	Mobile broadband	Smartphone tariffs
	Q1	1,024,579	236,806	595,846	27,762	8,964	1,757,304	282,505
2010	Q2	1,048,234	243,947	600,229	26,213	8,954	1,781,623	389,874
2010	Q3	1,069,223	243,473	603,458	25,530	9,316	1,867,394	586,192
	Q4	1,116,563	242,405	614,362	25,296	9,462	1,937,408	822,951
	Q1	1,153,748	207,615	620,228	23,731	8,008	1,951,706	1,009,251
2011	Q2	1,169,080	203,183	626,967	22,559	9,132	1,950,907	1,228,897
2011	Q3	1,198,529	196,412	629,075	21,651	9,447	1,982,638	1,476,573
	Q4	1,223,952	192,400	642,537	20,853	10,854	2,065,641	1,793,289
	Q1	1,224,491	187,780	650,923	20,573	16,757	2,085,851	2,034,629
2012	Q2	1,221,632	185,765	633,294	19,565	18,337	2,098,970	2,215,933
	Q3	1,238,525	183,859	641,610	18,705	24,415	2,159,574	2,332,629
	Q4	1,251,657	180,759	649,231	18,190	26,760	2,206,340	2,541,545

#### RETAIL BROADBAND CONNECTIONS BY BANDWIDTH CATEGORY (PAGE 59)

			Number of connections						
		>= 144 kbit/s to < 2 Mbit/s	= 2 Mbit/s	> 2 Mbit/s to < 10 Mbit/s	10 Mbit/s to < 30 Mbit/s	30 Mbit/s to < 100 Mbit/s	>= 100 Mbit/s		
	Q1	25,556	281,154	1,034,707	566,804	158,604	33,699		
2012	0.2	23,378	272,782	1,019,246	577,448	153,491	32,248		
2012	Q3	21,769	267,017	1,030,400	584,054	170,042	33,833		
	Q4	19,482	259,906	1,032,142	589,589	190,473	35,004		

#### NUMBER OF RETAIL BROADBAND CONNECTIONS - FIXED NETWORK (PAGE 60)

		Number of connections					
		Broadband (stand-alone)	Broadband + fixed-line telephone	Broadband + fixed-line telephone + TV	Broadband + TV	Other bundles with fixed-line telephone, TV or mobile broadband	
	Q1	449,325	1,105,550	410,722	45,221	3,766	
2012	Q2	458,614	1,105,020	412,508	45,705	3,767	
2012	O3	405,026	1,115,516	417,512	44,389	68,278	
	Q4	417,534	1,123,949	426,958	41,139	64,864	

#### REVENUES FROM RETAIL BROADBAND CONNECTIONS – FIXED NETWORK (PAGE 61)

		EUR					
		Broadband (stand-alone)	Broadband + fixed-line telephone	Broadband + fixed-line telephone + TV	Broadband + TV	Other bundles with fixed-line telephone, TV or mobile broadband	
	Q1	50,803,720	79,534,260	37,086,849	4,542,493	439,926	
2012	Q2	51,400,426	82,274,891	42,433,558	5,447,344	318,463	
2012	Q3	49,298,216	83,470,879	42,580,682	5,111,059	4,106,514	
	Q4	49,113,333	84,316,836	42,492,062	4,740,360	5,687,553	

#### NUMBER OF WHOLESALE BROADBAND CONNECTIONS (PAGE 63)

		Number of connections						
		Copper-wire pairs	Unbundled lines	Coaxial cable	FWA (fixed wireless access)	FTTH (fibre to the home)	Others (satellite, etc.)	
	Q1	53,593	4,974	12,620	1,182	2,614	128,293	
2010	Q2	53,367	4,707	12,492	1,182	2,557	144,606	
2010	O3	45,735	4,358	12,440	1,182	2,645	47,149	
	Q4	45,539	3,934	12,417	1,182	2,614	54,071	
	Q1	44,629	4,509	12,381	1,182	2,848	51,183	
2011	Q2	43,965	4,105	12,347	1,182	3,023	50,867	
2011	O3	42,805	3,924	12,326	1,182	3,145	166,755	
	Q4	42,416	3,661	12,565	1,182	3,500	13,839	
	Q1	41,911	7,625	11,880	976	4,467	1,487	
2012	Q2	41,946	7,460	12,404	969	4,620	1,487	
2012	O3	41,865	7,405	11,977	970	4,971	1,484	
	Q4	41,326	7,359	11,849	966	5,107	1,482	

#### NUMBER OF WHOLESALE BROADBAND CONNECTIONS, SUBDIVIDED INTO BITSTREAM AND RESALE

			Number of connections					
			Copper-wire pairs	Unbundled lines	Coaxial cable	FWA (fixed wireless access)	FTTH (fibre to the home)	
	Q1	Bitstream	41,882	5,640	8,396	953	4,460	
2012	Q2	Bitstream	41,917	5,513	11,298	946	4,611	
2012	Q3	Bitstream	41,836	5,431	8,548	947	4,942	
	Q4	Bitstream	41,297	5,311	8,417	943	5,077	
	Q1	Resale	29	1,985	3,484	23	7	
2012	Q2	Resale	29	1,947	1,106	23	8	
2012	O3	Resale	29	1,974	3,429	23	30	
	Q4	Resale	29	2,047	3,432	23	30	

#### REVENUES FROM WHOLESALE BROADBAND CONNECTIONS (PAGE 64)

			EUR	
		Bitstream und Resale	Bitstream	Resale
	Q1	5,730,109		
2010	Q2	5,883,790		
2010	O3	4,386,702		
	Q4	3,945,620		
	Q1	4,195,355		
2011	Q2	4,130,218		
2011	O3	4,223,692		
	Q4	4,291,888		
	Q1		2,550,611	1,357,795
2012	Q2		2,533,859	1,475,248
2012	O3		2,578,633	1,696,591
	Q4		2,603,257	1,578,649

#### NUMBER OF RETAIL FIXED BROADBAND CONNECTIONS, CATEGORISED BY CUSTOMER TYPE

		Number of connections			
		Residential customers	Business customers	Total	
	Q1	1,816,768	197,816	2,014,584	
2012	Q2	1,829,352	196,261	2,025,613	
2012	O3	1,853,021	197,700	2,050,721	
	Q4	1,878,381	196,063	2,074,444	

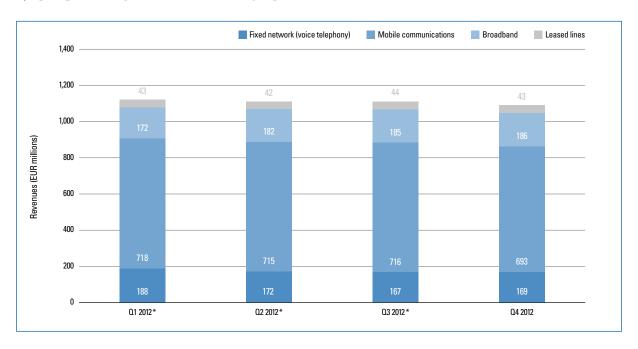
#### REVENUE FROM RETAIL FIXED BROADBAND CONNECTIONS, CATEGORISED BY CUSTOMER TYPE

		EUR			
		Residential customers	Business customers	Total	
	Q1	137,671,036	34,736,211	172,407,248	
2012	Q2	146,487,256	35,387,425	181,874,681	
2012	O3	148,245,728	36,321,623	184,567,351	
	Q4	149,902,903	36,447,241	186,350,144	

# Section 5 | Comparisons across sectors

## Revenues from fixed, mobile, broadband and leased line services

#### **⇒** SLIGHT DECLINE IN REVENUES



The chart includes revenues from the following categories:

**Fixed network (voice telephony)**: Revenues from residential and business customers as well as public pay telephones (phone booths), retail revenues from periodic base fees, setup charges (except for bundles with broadband) and connection charges, wholesale revenues from origination, termination and transit services, revenues from additional services, other fees and remuneration pursuant to the Telecommunications Fee Subsidies Act or for special coverage obligations.

**Mobile communications**: Retail revenues from periodic base fees, activation fees, connection charges and data services, remuneration for special coverage obligations and remuneration pursuant to the Telecommunications Fee Subsidies Act; wholesale revenues from termination, origination, international roaming (see Glossary, page 98), national roaming and the sale of airtime to resellers (see Glossary, page 98).

**Broadband (fixed):** Retail revenues from periodic base fees, setup charges (incl. revenues from bundled products with broadband) and volume-based charges; wholesale revenues from setup charges, ongoing charges and volume-based charges.

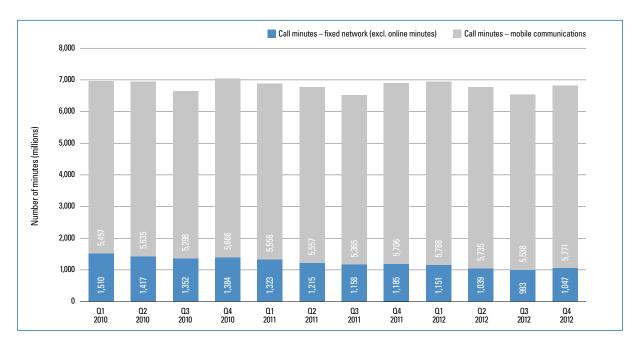
Leased lines: Retail revenues from periodic base fees and setup charges for domestic retail leased lines (see Glossary, page 98); wholesale revenues from periodic base fees and setup charges for terminating and trunk segments (see Glossary, page 98).

- In Q4 2012, revenues in the telecommunications sector amounted to EUR 1.09 billion (down 1.8% on the previous quarter). Total revenues in 2012 were EUR 4.43 billion.
- The largest share (64.1%), with annual revenues of EUR 2.84 billion, was generated from mobile services.
- 16.3% of the annual revenues in 2012 (EUR 725 million) was generated by broadband services.
- 15.7% (EUR 696 million) of the annual revenues in the telecommunications industry was generated by fixed-line telephony in 2012.
- Revenues from leased lines amounted to EUR 172 million (3.9% of annual revenues).

<sup>\*</sup> Due to retrospective corrections the figures shown on this page vary by more than 5% from those in the last issue of the RTR Telecom Monitor.

### Real minutes in fixed and mobile networks

#### **⇒** SHARE OF MOBILE CALL MINUTES ON THE RISE



The chart above shows the number of real minutes (in million) in the following segments:

**Mobile communications:** Call minutes to the domestic fixed network, domestic mobile networks, international numbers, service numbers and directory assistance services;

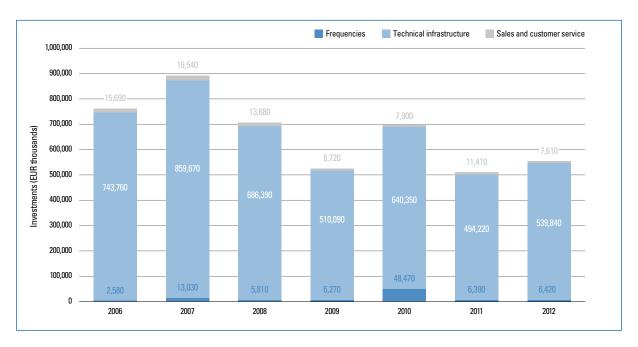
**Fixed network**: Call minutes to the domestic fixed network, domestic mobile networks, international numbers, service numbers and directory assistance services.

- The number of call minutes in fixed and mobile networks amounted to 6.6 billion minutes in Q4 2012, up 4.4% on the previous quarter.
- Total call minutes in 2012 were 27.06 billion, with the share of mobile minutes on the rise. In Q1 2012, mobile calls accounted for 83.4% of all call minutes; in Q4 2012, this share was 84.6%.

# Section 6 | Business indicators

### Investment

### **▶ INVESTMENT INCREASED AGAIN IN 2012**



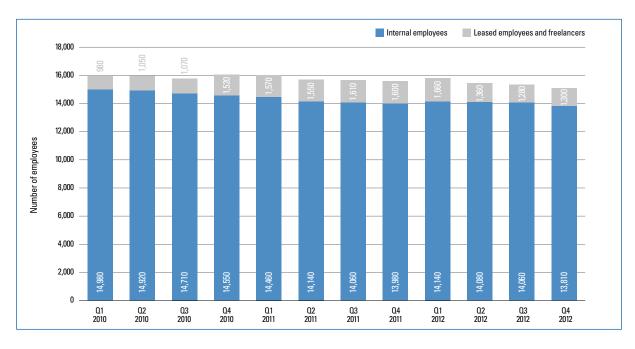
The chart above shows the development of investments in frequencies, technical infrastructure as well as sales and customer service on an annual basis. In this context, it is important to note that the values reported here are partly based on estimates and extrapolations from individual quarters for entire years. As a result, the exact figure for total investments cannot be calculated reliably.

The investment volumes shown above only include those investments made directly by telecommunications enterprises. They do not include investments by upstream or downstream industry sectors.

- Total investment in 2012 amounted to EUR 553.86 million, making an increase of 8.2% on investments in 2011.
- 97.5 % of this figure was investment in technical infrastructure. Investment in frequencies accounted for 1.2% of total investment, while 1.4% was accounted for by investment in sales and customer service.
- Total investment in 2012 as a proportion of the revenues for the areas shown here (some EUR 4.913 billion) was about 11.3%.

## Employees in the telecommunications sector

### **⇒** FALL IN THE NUMBER OF EMPLOYEES



The chart above shows the number of employees in the telecommunications sector, broken down into internal employees, leased employees and freelancers, and expressed in terms of full-time equivalents (FTEs).

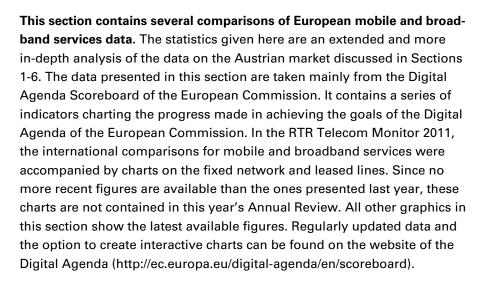
When interpreting these figures, please note that they only include staff employed directly by telecommunications enterprises. The figures do not include employees in supplier industries, external call-centre employees or outsourced positions.

- In Q4 2012 the total number of permanent employees in the telecommunications sector was about 13,810 with 1,300 freelancers and leased employees.
- Compared to Q4 2011 this was a reduction of 1.2% in the number of employees and 18.8% in the number of freelancers and leased employees.

### INVESTMENT (PAGE 74)

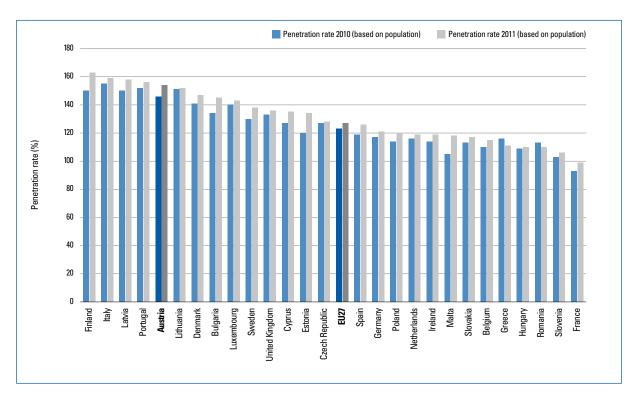
	EUR			
	Frequencies	Technical infrastructure	Sales and customer service	TOTAL
2003	742	126,346,912	3,182,765	129,530,419
2004	1,142,649	562,781,658	12,431,474	576,355,781
2005	2,383,899	760,832,230	8,233,018	771,449,147
2006	2,581,636	743,762,925	15,689,120	762,033,682
2007	13,027,172	859,669,726	19,544,569	892,241,468
2008	5,806,481	686,385,738	13,681,417	705,873,636
2009	6,266,141	510,088,491	8,722,572	525,077,204
2010	48,471,900	640,352,400	7,901,463	696,725,763
2011	6,391,794	494,222,664	11,412,617	512,027,075
2012	6,417,316	539,837,348	7,605,235	553,859,900

# Section 7 | International comparisons



### Mobile penetration (2010 to 2011)

### **▶** MORE MOBILE PHONES THAN INHABITANTS IN ALMOST ALL COUNTRIES



Source: RTR, European Commission - Digital Agenda Scoreboard

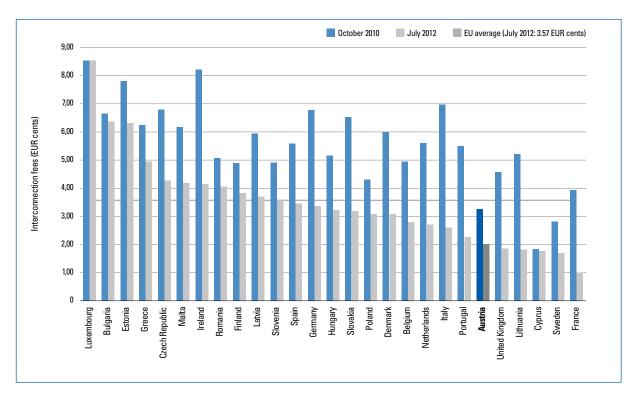
The chart above provides an international comparison of mobile penetration rates (as of December 2010 and December 2011). The penetration rate shown here is based on the number of SIM cards per 100 inhabitants.

The data for this chart can be found in the table on page 87.

- At 154% the mobile penetration rate in Austria at the end of 2011 was well above the EU average.
- In almost all European countries there are more SIM cards than inhabitants, over 127% on average.
- In 2011 Finland was top of the league with a penetration rate of 163%, which is about five SIM cards for every three inhabitants. Only France was still below the 100% mark in 2011 with a penetration rate of 99%.

# Interconnection fees for termination in mobile networks

### **⇒** AUSTRIA BELOW EU AVERAGE



Source: European Commission – Digital Agenda Scoreboard; BEREC – Integrated Report on Mobile Termination Rates & SMS Termination Rates

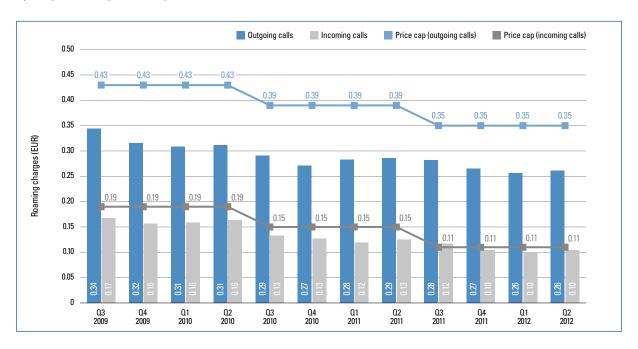
The chart above provides an international comparison of mobile termination charges. Telecommunications service providers charge each other (at the wholesale level) for termination services, that is, the routing of incoming calls to their mobile networks.

The data for this chart can be found in the table on page 88.

- In mid-2012 interconnection charges for mobile termination in Austria were 2.01 EUR cents. The unweighted EU average was 3.57 EUR cents, the weighted average 2.76 EUR cents per minute. Termination charges in Austria are thus below the EU average.
- In 2012, as in 2010, Luxembourg was the country with the highest termination charges, followed by Bulgaria and Estonia.
- In fact, in all EU countries except for Luxembourg termination charges fell, in some cases sharply, between 2010 and 2012. With the implementation of the Recommendation on Termination Rates, a further fall in termination fees can be expected in 2013.

# Average retail roaming rates for calls within the EU/EEA

### **⇒** ROAMING RATES FALL



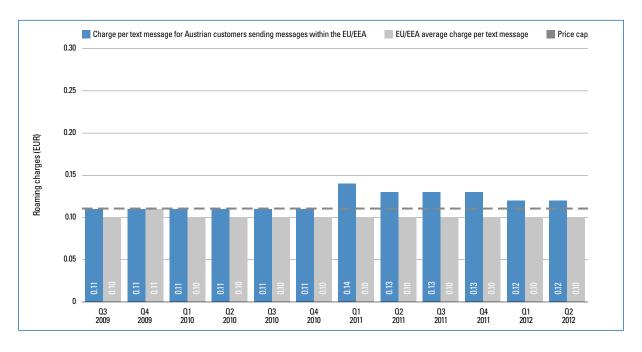
Source: RTR

The chart above shows the average retail roaming rates (excluding VAT) (see Glossary, page 98) charged to Austrian subscribers for incoming and outgoing calls while roaming within the EU/EEA and the price caps prescribed by the Roaming Regulation.

- Roaming charges continue to decline in Austria. At the end of Q2 2012 the average cost was EUR 0.261 for outgoing calls and EUR 0.104 for incoming calls.
- This means average retail roaming rates for outgoing calls within the EU/EEA are well below the maximum permitted under the Roaming Regulation (EUR 0.35); for incoming calls they are just below the prescribed cap of EUR 0.11.
- The reason for this development is that more and more tariffs with inclusive roaming minutes are offered and used.

# Average retail text message roaming charges within the EU/EEA

### **→ TEXT MESSAGE ROAMING CHARGES CONSTANT SINCE 2009**



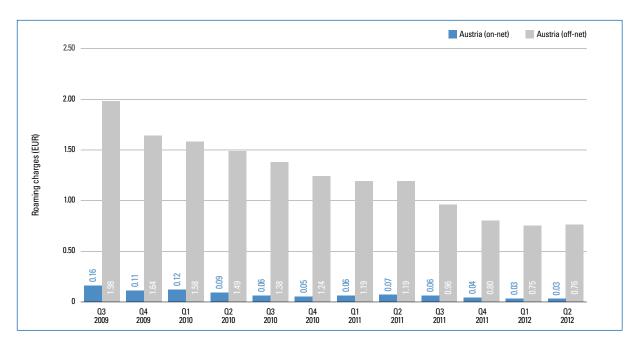
Source: RTR, ERG/BEREC International Roaming Benchmark Data Reports

The chart above shows the average amount (excluding VAT) charged to Austrian and EU/EEA subscribers for sending a text message within the EU/EEA, as well as the price cap applicable to text message roaming since the Roaming Regulation was expanded in the summer of 2009 (see Glossary, page 98).

- In the summer of 2009 the price cap for text message roaming was fixed by regulation. At that time prices fell sharply. For Austrian subscribers prices halved in Q3 2009.
- Since then there were only minor fluctuations, amounting in Q2 2012 to EUR 0.117 for Austrian subscribers in EU/EEA countries. The average EEA roaming charge was EUR 0.103.
- When calculating average text message roaming charges, tariffs not subject to price regulation are also included. For this reason, the value for Austria can exceed the stipulated price cap. The prescribed limits according to the statutory regulations are however complied with.

# Average retail data roaming rates within the EU/EEA (per megabyte)

### **⇒** DATA ROAMING GETTING STEADILY CHEAPER



Source: RTR

The chart above shows the average charges per megabyte (excluding VAT) for data roaming (see Glossary, page 98) within the EU/EEA, broken down into on-net and off-net prices for Austria. A statutory price cap for data roaming came into force only on 1 July 2012 (EUR 0.70 maximum excluding VAT per MB transmitted) so it has not yet been included in the chart.

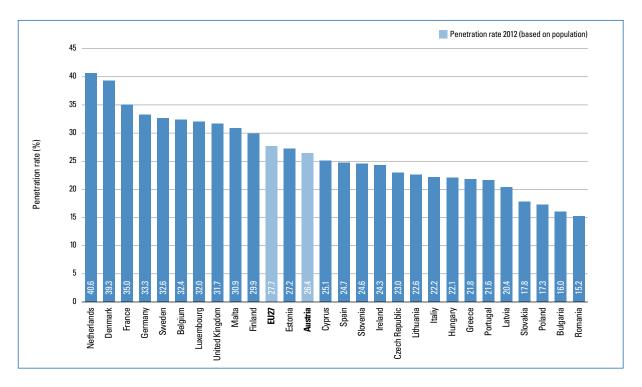
**On-net:** the visited network operator belongs to the same corporate group (majority shareholder) as the home network operator.

**Off-net**: the visited network operator does not belong to the same corporate group (majority shareholder) as the home network operator.

- The charges for data roaming (on-net and off-net) have fallen continuously in the last three years.
- In Q2 2012 Austrian subscribers paid EUR 0.03 per MB on-net and EUR 0.76 off-net for data roaming within the EU/EEA.

### Fixed broadband penetration

### **⇒** EVERY FOURTH AUSTRIAN HAS FIXED BROADBAND ACCESS



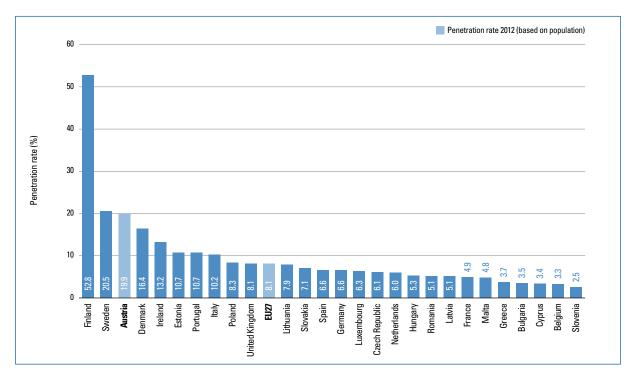
Source: RTR, European Commission - Digital Agenda Scoreboard, Broadband

The chart above provides an international comparison of broadband penetration rates based on fixed infrastructure such as DSL, coaxial cable, unbundled lines (see Glossary, page 98), wireless, etc. (as of January 2012). The penetration rate is calculated from the number of broadband connections per 100 inhabitants. Mobile broadband connections are not included in these figures.

- In January 2012 Austria showed a broadband penetration rate of 26.4%, which means more than every fourth Austrian has fixed broadband access. This puts Austria just below the EU average of 27.7%.
- The highest density of fixed broadband connections is reported in the Netherlands (40.6%) and Denmark (39.3%).
- The laggards in the EU are Romania (15.2%) and Bulgaria (16.0%).

## Mobile broadband penetration

### **⇒** AUSTRIA AGAIN AMONG THE FRONT RUNNERS



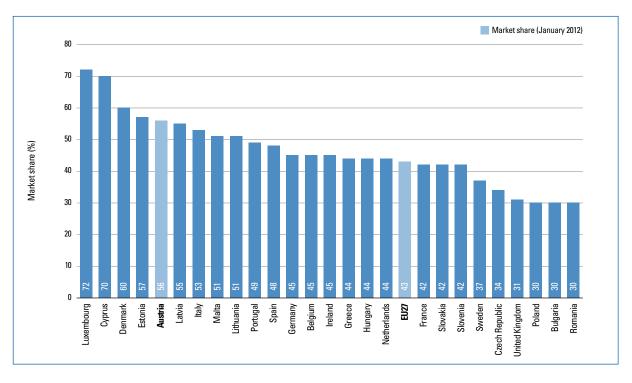
Source: RTR, European Commission - Digital Agenda Scoreboard, Broadband

The chart provides an international comparison of mobile broadband penetration rates (as of January 2012). The penetration rate is calculated from the number of mobile broadband lines (pure data tariffs) per 100 inhabitants. Broadband lines on fixed infrastructure (such as ADSL, coaxial cable, etc.) are not included in these figures.

- While Austria is just below the EU average when it comes to density of fixed broadband connections, the penetration rate for mobile broadband is well above the EU average of 8.1%.
- Almost every fifth Austrian (19.9%) has mobile broadband access. Only Sweden and Finland have a higher density of mobile broadband.
- Mobile broadband penetration rates are lowest in Slovenia, Belgium, Cyprus and Bulgaria, where there are only three mobile broadband connections for every 100 inhabitants.

## Incumbent operator's share of broadband market

### **→** AUSTRIAN INCUMBENT HAS A MARKET SHARE OF 56%



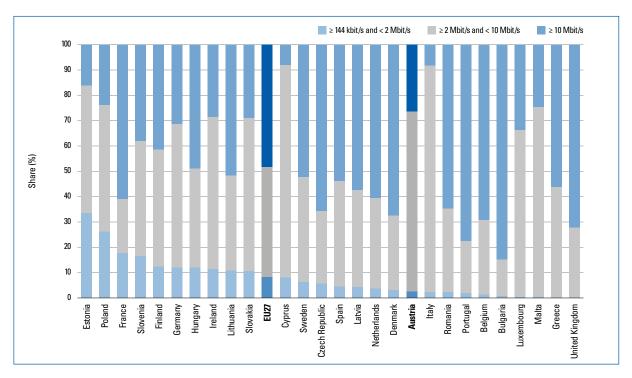
Source: European Commission - Digital Agenda Scoreboard, Electronic Communications Market Indicators

The chart above shows the market shares of the retail broadband market held by national incumbent operators (former monopoly operators) (as of January 2012). It only includes broadband lines via fixed infrastructure (e.g. DSL, coaxial cable, etc.). Mobile broadband connections are not included.

- Without taking into account mobile broadband connections, the market leader and incumbent operator A1 Telekom Austria had a market share of 56% in Austria in January 2012.
- In four EU countries the incumbent's market share is greater than in Austria: in Estonia, Denmark and particularly in Cyprus and Luxembourg (where it is 70% and 72% respectively).
- The lowest incumbent market shares are those of Romania, Bulgaria and Poland with 30% each.

### Broadband lines by bandwidth

### **⇒** BANDWIDTH DISTRIBUTION IN EU COUNTRIES VARIES WIDELY



Source: RTR, European Commission - Digital Agenda Scoreboard, Electronic Communications Market Indicators

The chart above gives an international comparison of the different bandwidths of broadband lines expressed as percentages. The data for Austria are from 1 January 2012, the data for the other countries from 1 January 2011. The data for this chart can be found in the table on page 89.

- The majority of broadband lines in Austria (71.2%) have a bandwidth of between 2 Mbit/s and 10 Mbit/s. Slightly more than a quarter of the lines have bandwidths of 10 Mbit/s or greater. Only 2.4% of broadband connections have bandwidths of less than 2 Mbit/s.
- The largest proportion of high bandwidths (≥ 10 Mbit/s) are found in Bulgaria, Portugal and the United Kingdom with more than 70% each. The largest proportion of lines of < 2 Mbit/s is found in Poland and Estonia (26.2% and 33.5% respectively).
- In the EU on average 8.2% of broadband connections fall into the < 2 Mbit/s bandwidth category, 43.4% fall into the ≥ 2 Mbit/s and < 10 Mbit/s categories. Almost half of them (48.4%) are connections with bandwidths ≥ 10 Mbit/s.</p>

### MOBILE PENETRATION (2010 TO 2011) (PAGE 78)

	in	%
Country	Penetration rate 2010	Penetration rate 2011
Finland	150%	163%
Italy	155%	159%
Latvia	150%	158%
Portugal	152%	156%
Austria	146%	154%
Lithuania	151%	152%
Denmark	141%	147%
Bulgarien	134%	145%
Luxembourg	140%	143%
Sweden	130%	138%
United Kingdom	133%	136%
Cyprus	127%	135%
Estonia	120%	134%
Czech Republic	127%	128%
EU27	123%	127%
Spain	119%	126%
Germany	117%	121%
Poland	114%	120%
Netherlands	116%	119%
Ireland	114%	119%
Malta	105%	118%
Slovakia	113%	117%
Belgium	110%	115%
Greece	116%	111%
Hungary	109%	110%
Romania	113%	110%
Slovenia	103%	106%
France	93%	99%

### INTERCONNECTION FEES FOR TERMINATION IN MOBILE NETWORKS (PAGE 79)

	EUR cents			
Country	October 2010	July 2012		
Luxembourg	8.53	8.53		
Bulgaria	6.65	6.36		
Estonia	7.80	6.32		
Greece	6.24	4.95		
Czech Republic	6.80	4.27		
Malta	6.17	4.18		
Ireland	8.22	4.15		
Romania	5.07	4.05		
Finland	4.90	3.82		
Latvia	5.94	3.70		
Slovenia	4.92	3.57		
Spain	5.59	3.46		
Germany	6.78	3.37		
Hungary	5.16	3.22		
Slovakia	6.53	3.18		
Poland	4.30	3.09		
Denmark	6.00	3.09		
Belgium	4.94	2.80		
Netherlands	5.60	2.70		
Italy	6.97	2.60		
Portugal	5.50	2.27		
Austria	3.26	2.01		
United Kingdom	4.58	1.85		
Lithuania	5.22	1.82		
Сургиѕ	1.84	1.76		
Sweden	2.82	1.70		
France	3.93	1.00		

56.2%

72.3%

#### **BROADBAND LINES BY BANDWIDTH (PAGE 86)** in % Country $\geq$ 144 kbit/s and < 2 Mbit/s $\geq$ 2 Mbit/s and < 10 Mbit/s ≥ 10 Mbit/s Estonia 33.5% 50.3% 16.2% Poland 26.2% 50.0% 23.8% France 17.6% 21.4% 61.0% 16.5% 45.5% 38.0% Slovenia Finland 12.4% 46.2% 41.4% Germany 12.0% 56.7% 31.2% 11.9% 39.1% 49.0% Hungary Ireland 11.4% 60.0% 28.6% Lithuania 10.7% 37.6% 51.7% Slovakia 10.6% 60.3% 29.1% EU27 8.2% 43.4% 48.4% Cyprus 7.9% 83.9% 8.2% Sweden 6.3% 41.3% 52.4% Czech Republic 28.7% 65.7% 5.6% Spain 4.4% 41.8% 53.8% 4.3% 38.2% 57.5% Latvia Netherlands 3.7% 35.8% 60.5% Denmark 3.0% 29.6% 67.4% Austria 2.4% 71.2% 26.4% Italy 2.2% 89.6% 8.2% 2.2% 33.0% 64.8% Romania Portugal 1.9% 20.6% 77.5% Belgium 1.3% 29.4% 69.2% Bulgaria 0.7% 14.5% 84.8% Luxembourg 0.3% 65.9% 33.8% 0.3% 75.1% 24.6%

43.8%

27.7%

0.0%

0.0%

Greece

United Kingdom

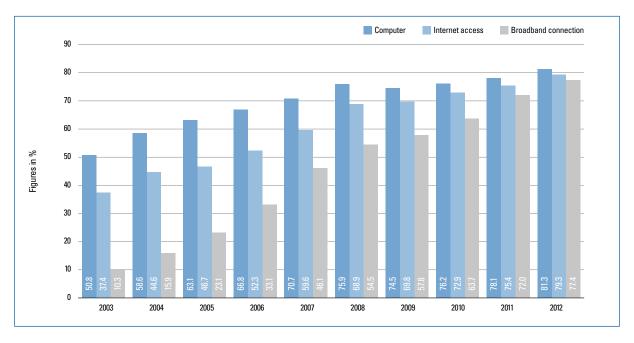
# Section 8 | Technology indicators

Information and communications systems are the pillars of the knowledge society and form the basis for the interaction of industry, politics and society. Technologies driving and underpinning information and communications are therefore increasingly important. Coupled with this is the need to quantify the developmental levels of societies with respect to the use of information and communications technologies (ICT). The intention is to make comparisons between countries, chart developments over time and create the basis for economic and political decision-makers. One method of responding to all these requirements is to map the relevant technology and communications parameters in the form of indices.

There are various technology indices used internationally with differing methodological approaches and emphasis. This section will discuss the main indices and Austria's performance by international standards.

# Computers, Internet access and broadband in households

### **⇒** ALMOST ALL COMPUTERS CONNECTED VIA BROADBAND



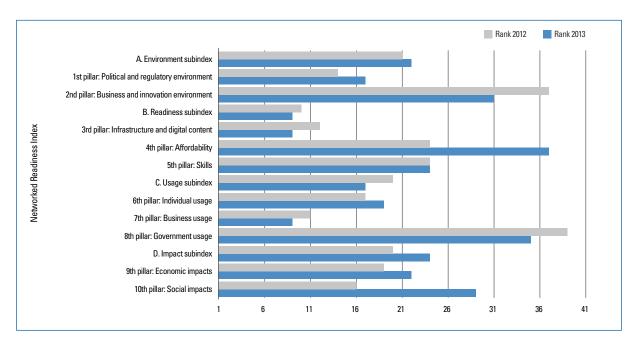
Source: Statistics Austria

This chart shows the percentages of Austrian households with computers, Internet access and a fixed or mobile broadband connection over the years.

- As can be seen from the chart, the number of Austrian households with computers has grown continuously over the past few years. While in 2003 only about half of households had a computer, it is now four out of five households (81.3%). Virtually all of them (79.3%) are connected to the Internet and of those the great majority are connected via broadband (77.4%).
- It is also evident from the chart that computer equipment, Internet connections and broadband access are increasingly reaching the point where all households having a computer will be connected with the Internet via broadband.

### Networked Readiness Index - Austria

### **⇒** AUSTRIA RETAINS ITS 19TH PLACE



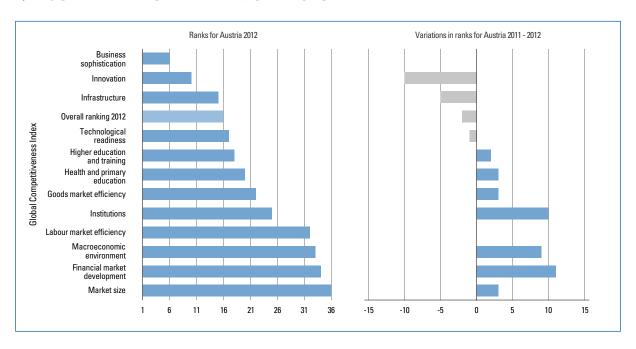
Source: World Economic Forum, The Global Information Technology Report 2013

The Networked Readiness Index (NRI) of the World Economic Forum is one of the most important indices that measures the extent to which a country is equipped with and uses information and communications technologies. The NRI 2013 depicts the ICT data of 144 countries based on a total of 54 variables.

- Austria ranks 19th in the NRI 2013, retaining its position of the previous year. As the structure of the NRI did not change this time, comparisons at the subindex levels can be made. Austria has improved its position in the readiness and usage clusters, but slipped in the rankings for environment and impact. In particular the usage ranking has improved (from 20 to 17), largely due to the higher use in the business sector (7th pillar: from 11 to 9). It is especially Austria's capacity to innovate that has seen an improvement in the evaluation.
- Particularly striking is Austria's slippage on the affordability parameter (4th pillar: from 24 to 37), but this is due to the fact that other nations show very marked improvements. Furthermore, a broadband tariff has always been applied to Austria which does not correspond to actual market conditions.
- Austria also continues to occupy a modest position by international standards in the government usage of ICT (8th pillar: from 39 to 35). The poor showing here is due to the fact that Austria's government bodies are considered not to rate the importance of ICT (77th) and promote it (58th) appropriately.
- The NRI 2013 is headed by Finland, which ousts Sweden in this position. Ranked 2nd, as in the previous year, is Singapore, followed by the previous top-ranking Sweden. The Netherlands take fourth place, followed by Norway. Denmark, which used to head the rankings in the past, is only in eighth place this time making it the weakest Scandinavian nation.
- Germany has performed relatively well (moving from 16 to 13), as has Luxembourg (improving from 21 to 16). Japan and New Zealand have slipped (from 18 to 21 and from 14 to 20 respectively).

### Global Competitiveness Index

### **⇒** AUSTRIA IMPROVED BY TWO PLACES



Source: World Economic Forum, Global Competitiveness Report 2012 – 2013

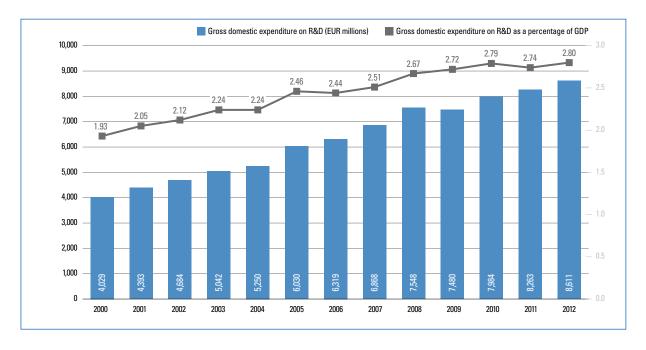
The World Economic Forum defines competitiveness as the set of institutions, policies and production factors that determine the level of productivity of a country. The level of productivity in turn sets the level of prosperity that can be earned by an economy. In other words, the greater a country's competitiveness, the more likely it is that it can produce high incomes. Productivity is by definition an input-output ratio, i.e. it is a measure of the best possible output that can be achieved with the existing production factors.

The twelve parameters are measured either by questioning or by observation. The index also takes into account a country's level of development. Accordingly it distinguishes between factor-driven, efficiency-driven and innovation-driven economies. Developing countries are among the factor-driven economies, while western industrial nations represent innovation-driven economies.

- Austria occupies 16th place in the overall ranking for 2012, improving by two places compared with the previous year. This improvement is due to Austria's good ranking in the "innovation" parameter, where Austria improved from last year by 10 places, ranking it now among the top ten nations. There were also improvements in the "infrastructure" and "technological readiness" categories. Once again Austria managed to assert its position in the "business sophistication" parameter. In this ranking it held on to its excellent sixth place of the previous year.
- Austria performed less well, however, when it comes to the "financial market development", "institutions" and "macroeconomic environment" parameters. Here it slipped in the rankings by about ten places, which excludes Austria from the top 30 nations world-wide. With regard to the "health and primary education", "market size", "goods market efficiency" and "higher education and training" pillars Austria was on the decline compared to the previous year, but this slippage was less serious. Thus in the realms of health and education Austria still ranks among the 20 best nations in the world.
- The ranking is headed as last year by Switzerland, followed by Singapore, Finland and Sweden.

# Gross domestic expenditure on R&D in absolute terms and as a proportion of GDP

### **⇒** RECORD FIGURE FOR AUSTRIA FOR EXPENDITURE ON R&D



Source: Statistics Austria

The annual overall estimate of gross domestic expenditure on R&D is derived from the detailed structural data of Statistics Austria obtained from primary-data surveys on R&D and the research-related analyses and evaluations of the budgets of the federal and provincial governments of Austria, also conducted annually. Gross domestic expenditure on R&D (sometimes referred to as "research-spending ratio"), expressed as a percentage of gross domestic product, is an indicator of major political relevance.

- With a total of EUR 8.6 billion, gross domestic expenditure on research and development in Austria was higher in 2012 than it has ever been before. The largest share, EUR 3.8 billion (45%) comes from Austrian businesses, followed by EUR 2.9 billion (33%) from the Austrian federal government and EUR 1.3 billion (about 16%) from other countries. The remaining expenditure came from the Austrian provinces and other funding sources.
- The research-spending ratio was also higher than ever before, with 2.8% of domestic industrial output allocated to R&D in 2012.

# Section 9 | Appendix

### Glossary

### Airtime (mobile communications)

Airtime refers to a service which mobile network operators provide for domestic resellers. A reseller is a communications service provider that offers public mobile services to retail customers but does not provide those services using its own network. This includes all mobile service providers (such as resellers or [enhanced] service providers) that do not operate their own communications network – neither a radio network nor a core network – in providing mobile communications services.

#### Bitstream and resale

Bitstream and resale are wholesale products at different levels of the value chain, allowing the wholesale customer to provide Internet services to the end user. Bitstream access is provided at predefined handover points. The wholesale customer provides the Internet connectivity and is in charge of the customer relationship. With resale the Internet connectivity is provided by the wholesale supplier.

#### **Broadband**

Broadband Internet access or broadband Internet connections are Internet connections (technology neutral) with a download speed of > 144 kbit/s. The Internet connection can also be offered as part of a bundle with other services. The connection can be made in the following ways:

- as a dedicated line (copper-wire pairs in the A1 Telekom Austria network),
- on an unbundled line (see unbundling),
- as virtual unbundling (see virtual unbundling),
- via coaxial cable (cable modem),
- as fixed wireless access, e.g. W-LAN, WiFi, WLL ("fixed" access, not via hot spots),
- or on another infrastructure. This includes e.g. powerline carrier broadband (PWL) and broadband access via satellite (SAT).

### **Ethernet services**

Ethernet services with guaranteed bandwidth provide guaranteed bandwidth between two network termination points (excluding leased lines with Ethernet user interfaces at the user's end – because on-demand switching functionality is provided for instance).

### International roaming

In connection with mobile communications, the term "roaming" refers to the use of a mobile telephone outside the coverage area of one's own network operator (the home network), in which case the mobile phone uses the service of another network (the visited network). In international roaming, the home and visited networks are located in different countries and their coverage areas generally do not overlap.

#### **Leased lines**

Leased lines provide symmetrical transmission capacity with a guaranteed bandwidth between two points without switching functions. Leased lines may also be referred to as "private circuits" or "data lines".

#### Mobile broadband

Mobile broadband comprises pure data tariffs, data products not based on a fixed monthly charge and smartphone tariffs.

Pure data tariffs (no voice services or text messaging) are mobile services including at least 250 MB in the monthly charges.

Products not based on a fixed monthly charge (e.g. prepaid data products or data/voice products) are products that are used by customers to access the Internet at least one time each quarter.

Smartphone tariffs are all contracts for voice and text messaging services that include at least 250 MB data services in the monthly charges and that are used to access the Internet at least one time each quarter.

### **Number porting**

Number porting allows customers to retain their telephone numbers when they switch service providers. The RTR Telecom Monitor only includes telephone numbers imported by an operator in a specific quarter; i.e. SIM cards in the case of mobile operators and subscriber numbers on the fixed network. Reverse portings (e.g. after cancellation by a subscriber) are not considered porting procedures. If the number of a subscriber is ported several times within a quarter (subsequent porting), this is counted separately each time.

#### Residential customers - business customers

"Business customers": all legal persons and corporations under public or private law, partnerships, registered companies and partnerships (eingetragene Erwerbsgesellschaften, Gesellschaften bürgerlichen Rechts), as well as natural and legal persons who are entrepreneurs within the meaning of Art. 1 of the Austrian Consumer Protection Act (Federal Law Gazette 140/1979 as last amended), including start-up activities within the meaning of Art. 1 Par. 3 leg. cit).

### Trunk and terminating segments (leased lines and Ethernet services)

A distinction is made at the wholesale level between trunk segments and terminating segments. Trunk segments are leased lines or Ethernet services that do not normally extend to the user's network termination point and that link handover points in the 28 Austrian towns and cities where A1 Telekom Austria has set up network handover points to other telecommunications operators. Terminating segments are leased lines or Ethernet services at the wholesale level that are not classified as trunk segments.

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### Unbundling

In telecommunications, unbundling refers to the separate provision of specific services which were previously available only in conjunction with other services. For example, the unbundling of subscriber lines from fixed network access offered by the incumbent operator gives alternative service providers direct access to the customer without requiring the latter to install the "last mile" themselves, as they can lease the (naked) subscriber line from the incumbent at a regulated price.

### Voice-over-broadband (VoB)

VoB are voice telephony services based on a broadband connection (stand-alone or bundled). VoB does not include voice-over-Internet, where services are provided on the basis of the (public) Internet, but the Internet connection is provided by an independent third party (e.g. Skype).

### Virtual unbundling

According to an official TKK decision, A1 Telekom Austria is obliged to offer virtual unbundling in areas where it expands the fibre optic cable network (NGA – next generation access). Virtual unbundling is a wholesale service that enables alternative providers (as in the case of physical unbundling) to offer their own (broadband) products to end users

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### **Publishing information**

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