

Electronic Communications Market Review April 2004 – September 2004

Malta Communications Authority

"Il-Piazzetta" Suite 43/44, Tower Road, Sliema SLM 16, MALTA

Telephone: +356 21 336 840

Fax: +356 21 336 846

www.mca.org.mt

TABLE OF CONTENTS

EXECUTIVE SUMMARY	4
1 THE FIXED LINE MARKET	6
1.1 Fixed Line Subscriptions	6
1.2 Fixed Line Telephony Traffic	7
1.2.1 Fixed Line Outgoing Traffic terminating on the same network.....	7
1.2.2 Fixed Line outgoing traffic terminating on mobile networks	8
2 THE MOBILE MARKET	9
2.1 Mobile Telephony Subscribers	9
2.2 Mobile Market Penetration	10
2.3 Pre Paid and Post Paid	11
2.4 Average Revenue Per User	12
2.5 Outgoing Mobile Traffic.....	13
2.6 SMS Traffic	14
3 VOICE TELEPHONY MARKET.....	15
3.1 Local Voice Telephony Traffic	15
3.2 Voice over Internet Protocol (VOIP)	16
3.3 International Minutes.....	17
4 THE CABLE TELEVISION MARKET.....	18
4.1 Cable Television Subscribers	18
4.2 Cable Television Average Revenue Per Subscriber	19

5	INTERNET	20
5.1	Internet Subscriptions	20
5.2	Internet Traffic - Dial-Up	21
5.3	Broadband Internet	22
6	EUROPEAN TRENDS	23
6.1	SMS Usage and Tariffs	23
6.2	EU SMS Usage	24
6.3	EU Broadband Penetration	25
7	THE COMMUNICATIONS INDUSTRY IN THE MALTESE ECONOMY ...	26
7.1	International Comparison	31
8	REGULATORY DEVELOPMENTS IN MALTA	35
8.1	Consultative Documents	35
8.2	Decision Notices	36
8.3	Legislation	36
8.4	General	37
9	INTERNATIONAL TARIFFS ANALYSIS	39
9.1	EU Benchmarking of Retail Tariffs	39
9.1.1	Monthly Fixed Line Tariffs	39
9.1.3	Local Fixed Line Call Tariffs	40
9.1.4	International Fixed Line Calls (to a nearby country)	41
9.2	EU Benchmarking of Wholesale Tariffs	42
9.2.1	Fixed Termination Rates	42
9.2.2	Mobile Termination Rates.....	43

EXECUTIVE SUMMARY

This is the fifth publication of the Malta Communications Authority's (MCA) Electronic Communications Market Review Report, which gives an overview of the industry for the six-month period ending September 2004, including an analysis of the main trends and developments in the various sectors of the Maltese electronic communications market.

Since the last publication, there were two developments that are being reported in this edition of the Market Review. The first being Malta joining the EU together with another nine member countries on 1 May 2004. The second key development was the coming into force of the new Electronic Communications (Regulations) Act and subsidiary legislation on 14 September 2004. This framework replaced the old Telecommunications (Regulations) Act and subsidiary legislation thus placing Malta in line with the rest of the European Union members.

The period under review was characterised by the continued steady growth in broadband subscriptions and Voice over Internet Protocol (VOIP) traffic. The mobile market has also maintained its consistently positive trend. Broadband subscriptions reached a level of over 31,000 connections, a growth rate of over 37% since the beginning of the year. With the recent improvement in services by way of an increase in bandwidth offered to customers, and new concepts such as pay per use broadband (coupled with the increase in dial up costs for internet users), it is expected that the growth experienced during 2004 will continue in the near future.

A slight reduction in fixed line telephony subscriptions was noted. This can primarily be attributed to the fixed line tariff rebalancing that came into effect on 1 June 2004 and which resulted in an increase in the retail price of line rentals. Fixed line telephony minutes experienced a continued downward trajectory in activity. In fact fixed line minutes (excluding international minutes) experienced a drop of 25% from the same period in 2003, representing a drop of over 125 million minutes of traffic. A more realistic assessment of the impact of fixed line tariff rebalancing on traffic and subscriptions would be effectively established in the next edition of the market review to be published in 2005.

Mobile subscribers grew to 298,326 active subscriptions from March to September 2004, representing a growth rate of 2.4%. On a year-on-year basis, mobile subscribers grew by over 17,000 or 6.2%. These figures reflect the continuous positive performance of the local mobile telephony market.

Encouraging growth was registered in terms of overall Internet subscriptions. As stated previously, this was mainly driven by broadband connections. In fact more than 85,672 Internet subscriptions were reported at the end of September 2004, of which nearly 37.6% are broadband. In comparison, the last market report issued in March 2004, broadband subscribers constituted only 31% of the Internet market.

The period under review was also characterised by further take up of Voice over Internet Protocol (VOIP) services for international calls. As mentioned previously the tariff rebalancing undertaken by Maltacom resulted in a significant reduction in

international calling rates for customers. This, together with sustained use of VOIP, continued the trend of increased volumes of international traffic.

The market report analyses the contribution of the communications sector to the Maltese economy from 2000 to 2003. It also reviews the developments in this sector within the economy in general during 2004, as evidenced from the first nine months of the year. The analysis mainly covers output, labour-productivity and profitability. This section shows that the communications industry's share in GDP stood at 3.1% during the first three quarters of the year, while the year-on-year rate of growth of turnover fell short of that in the general economy.

Over the same period, the communications industry recorded a gross operating rate of 20.3%, almost five percentage points higher than the rate for the whole economy. At the same time the share of household expenditure on telecommunication services remained stable at just over 4.5%. When observed holistically, the data for the first nine months of the year shows that the significant contribution of the communications industry in the economy stabilised during the year under review.

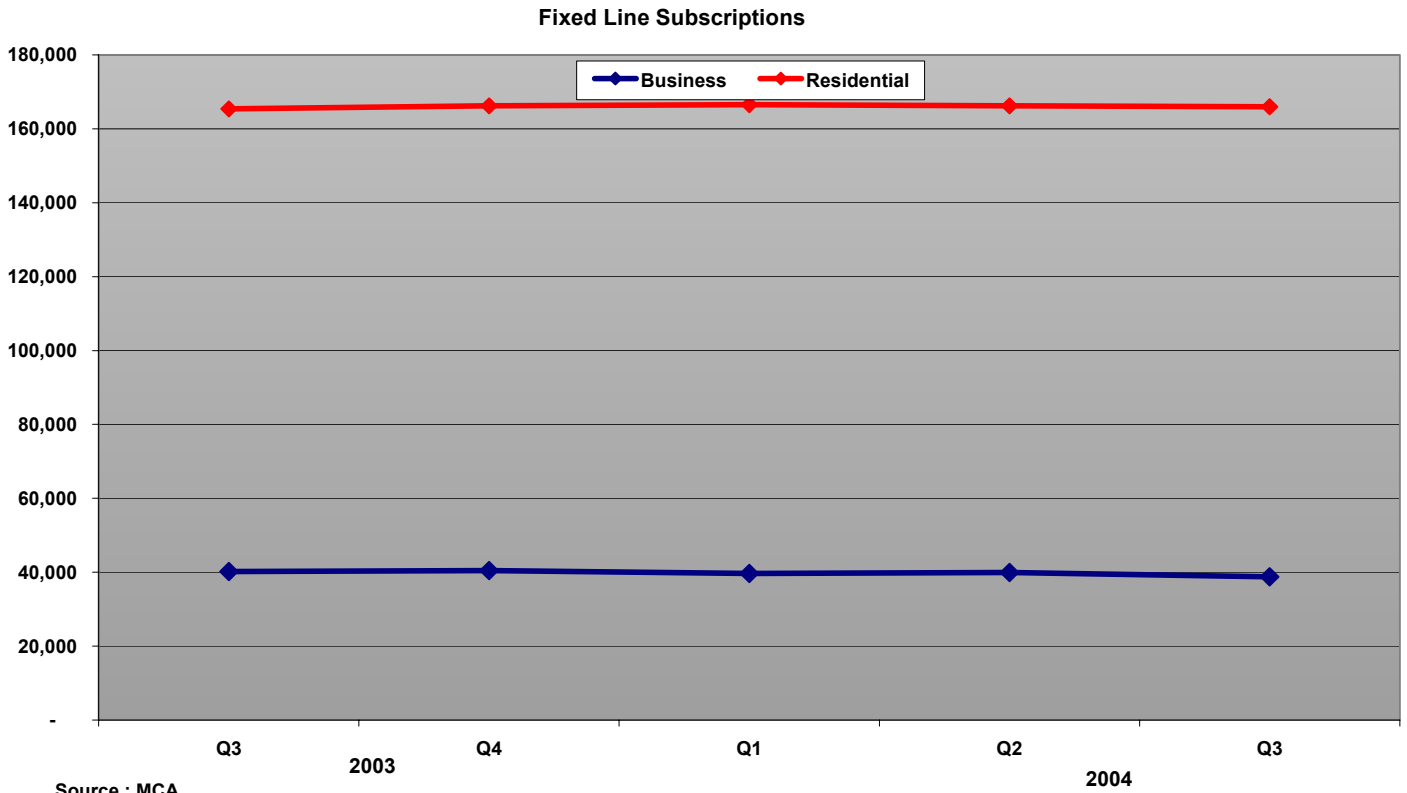
The fifth edition of the market report also includes a comparative analysis, (from an international perspective), of various economic and market indicators underpinning the Maltese electronic communications sector. This analysis includes benchmarking of amongst others SMS usage and electronic communications revenue per capita. It is also pertinent to note that the EU benchmarks of local retail and wholesale tariffs are now inclusive of the 25 member states.

1 THE FIXED LINE MARKET

1.1 Fixed Line Subscriptions

At the end of September 2004 there were 204,721 fixed-line telephony subscribers. When compared with the figure recorded earlier this year i.e. in March 2004, this signifies a slight reduction of 0.7%. Given this decrease, the penetration of fixed line telephony now stands at 51.4 lines per 100 inhabitants.

The following chart shows the split between residential and business subscribers. In fact 19% of fixed line subscribers are classified as business lines with the rest being residential.

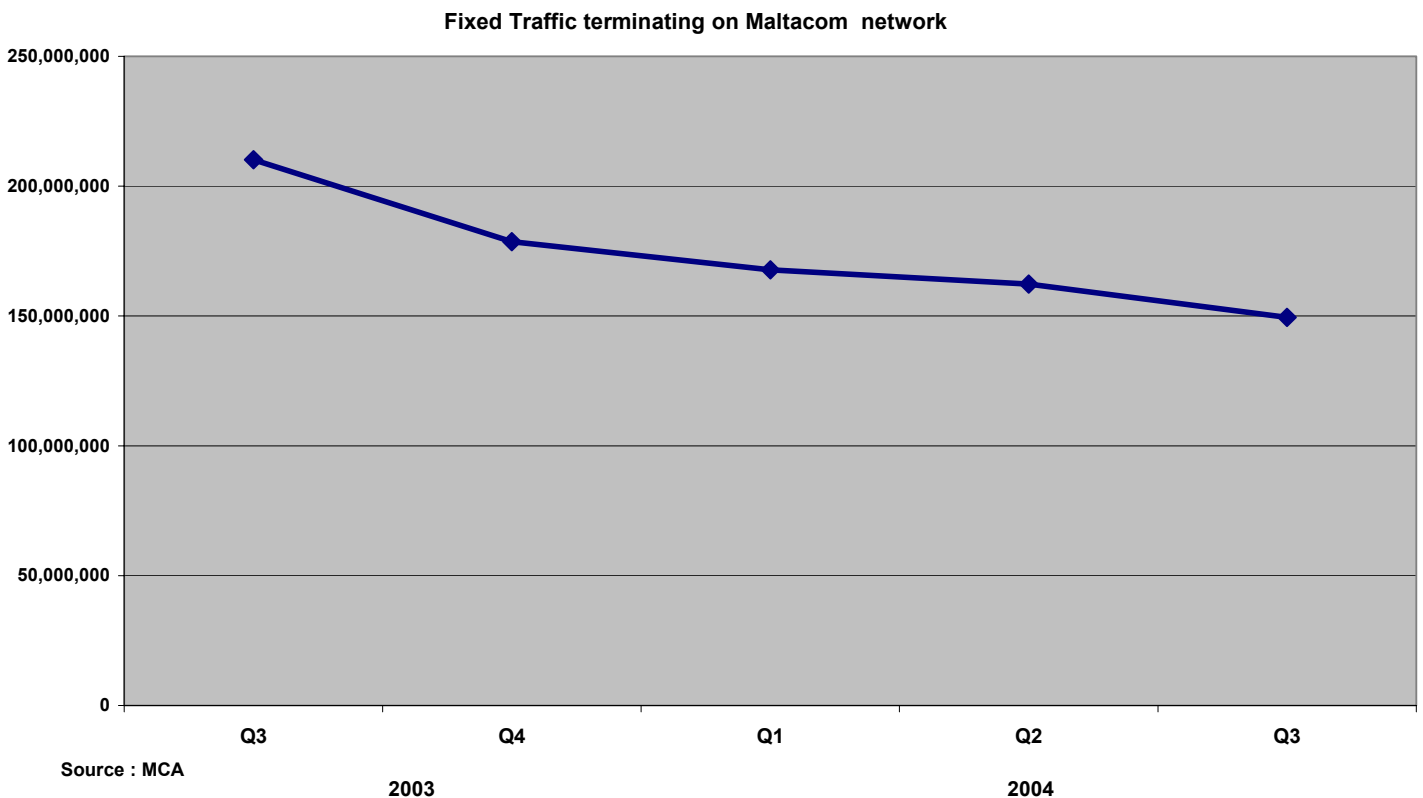


1.2 Fixed Line Telephony Traffic

1.2.1 Fixed Line Outgoing Traffic terminating on the same network

The chart below reflects fixed line traffic minutes originating and terminating on Maltacom's own network during the period under review

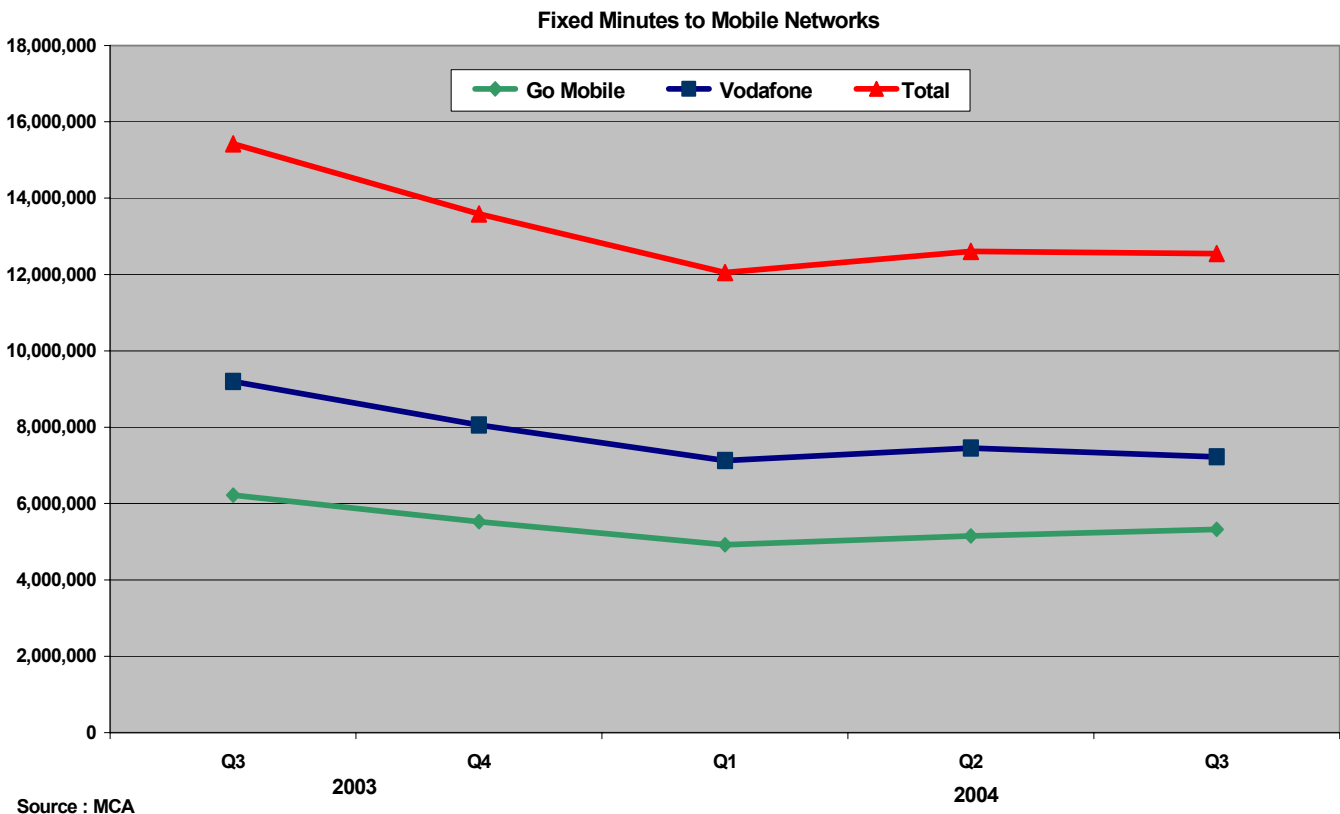
The downward trend in fixed line minutes is clearly evident in the chart below. In fact, when comparing quarterly figures for the third quarter of 2003 with the same quarter in 2004, it transpires that there are 60 millions minutes less – i.e. a significant decrease. This can be attributable partly to the trend of fixed to mobile substitution and potentially reduced usage as a result of the increase in cost of local calls.



1.2.2 Fixed Line outgoing traffic terminating on mobile networks

Fixed to mobile traffic has been experiencing a steady decrease over the past years. One can attribute this downward trend to higher mobile substitution. Evidence of this shift away from the traditional fixed-line form of communication towards its mobile substitute can be discerned from the considerably high mobile penetration rate in Malta, which currently stands at 75%, as well as from the consistent increase in mobile usage.

Indeed, communication has shifted towards a more 'direct and personalised approach' either by means of a call or an sms. Subsequently this has resulted in the downward shift in fixed to mobile traffic. In fact, when comparing quarter 3 of 2004 with the same period in 2003, there were 2.8 millions minutes less – or 18.6% less PSTN originating minutes terminating on mobile networks.

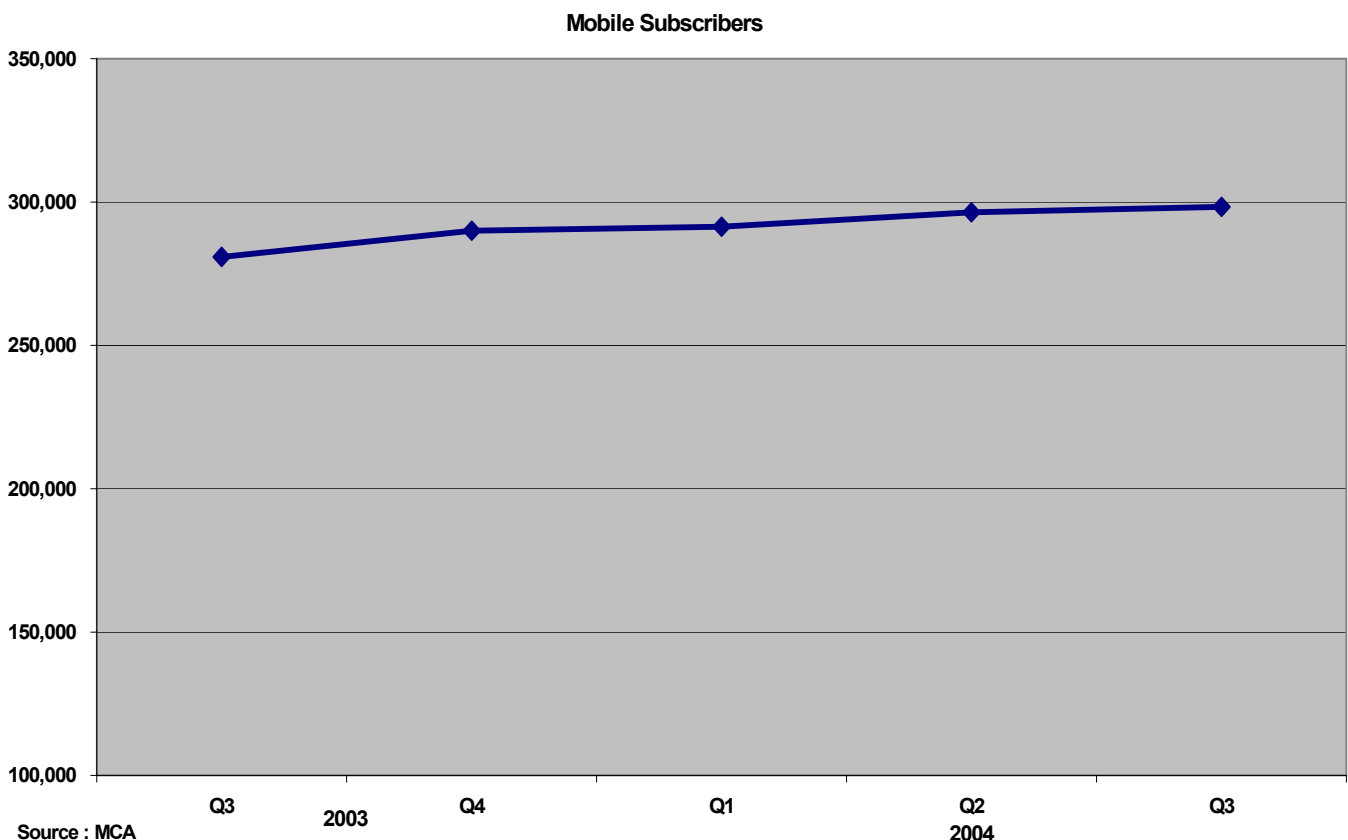


2 THE MOBILE MARKET

2.1 Mobile Telephony Subscribers

As at September 2004 there were 298,326 *active* mobile subscriptions. It is important to note that for the first time in this report, mobile subscribers are being reported in accordance with the definition of the International Telecommunications Union (ITU) and the European Regulators Group (ERG). This means that only subscribers that have been active during the previous 90 days are reported.

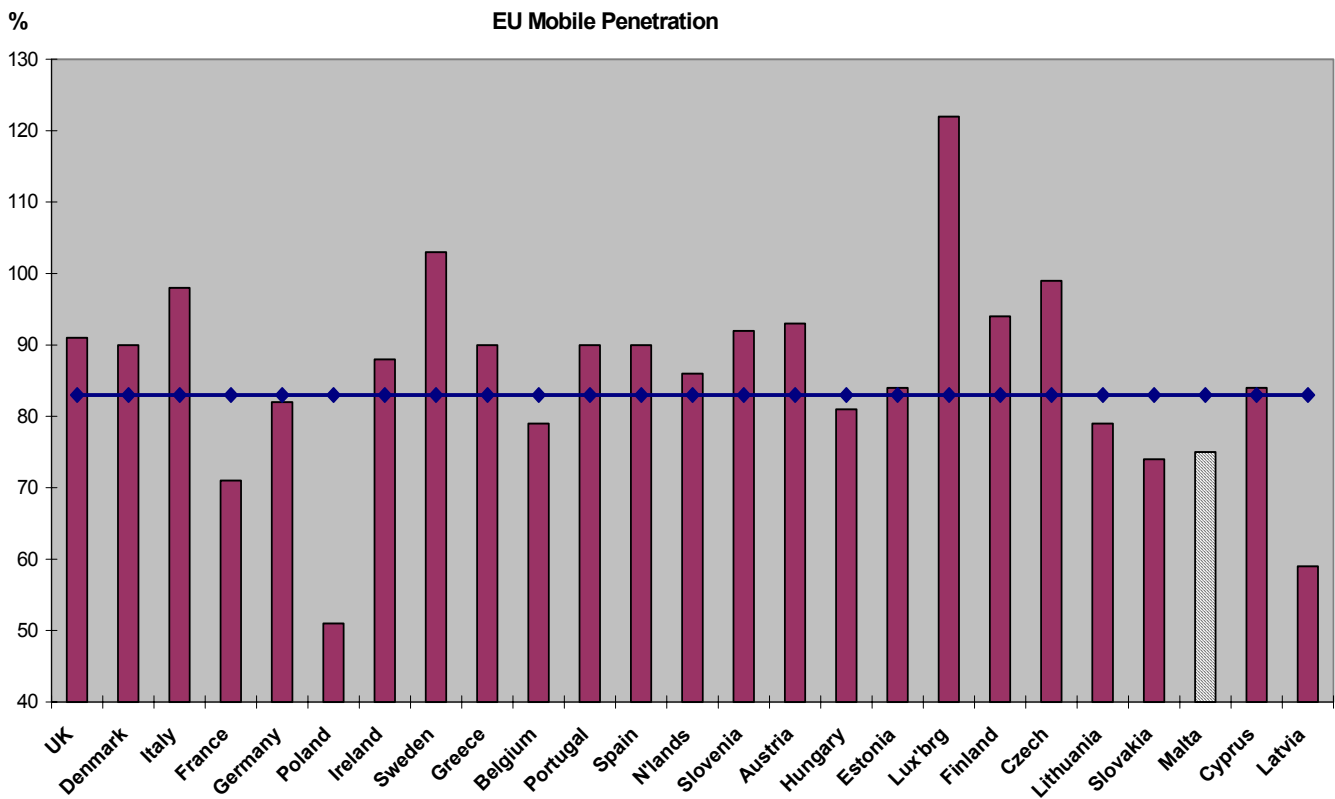
In any case, the reported figure still represents an increase of over 17,000, 6.2% since September 2003. This growth pattern has maintained its extremely positive trend with an increase of over 2.4% since March 2004. However due attention must be given to 'short term subscriber growth' during the third quarter of 2003. This may be due to foreigners purchasing local SIM cards for the duration of their holiday and subsequently discarding them upon their departure.



2.2 Mobile Market Penetration

The continued positive performance in the local mobile telephony market effectively means that 75% of the Maltese population are subscribed to a mobile network. When compared to the number of mobile subscribers in September 2003 this reflects an increase of 4 percentage points.

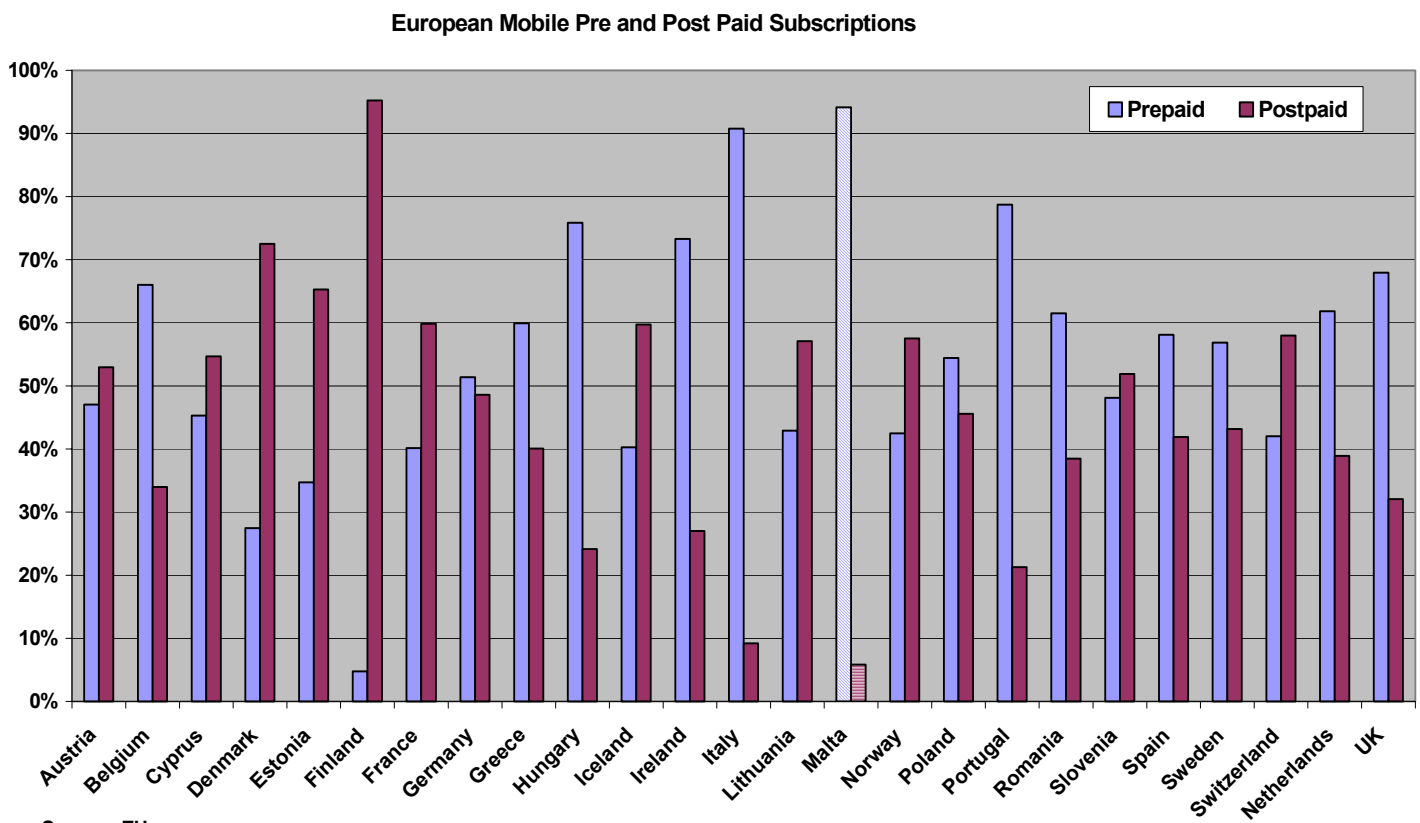
The graph below shows the number of mobile subscribers per inhabitant compared with that of the other EU countries and the EU average at July 2004. The graph indicates that the local rate of mobile penetration (at September 2004) is below the EU average, which currently stands at 83%.



Source : EU

2.3 Pre Paid and Post Paid

An interesting comparison of the composition of the mobile market in terms of pre paid and post paid subscribers is seen below. In this illustration Malta has the highest percentage of prepaid mobile customers in Europe, with Italy a close second. On the other hand Finland has the highest in terms of post paid (or contract) customers

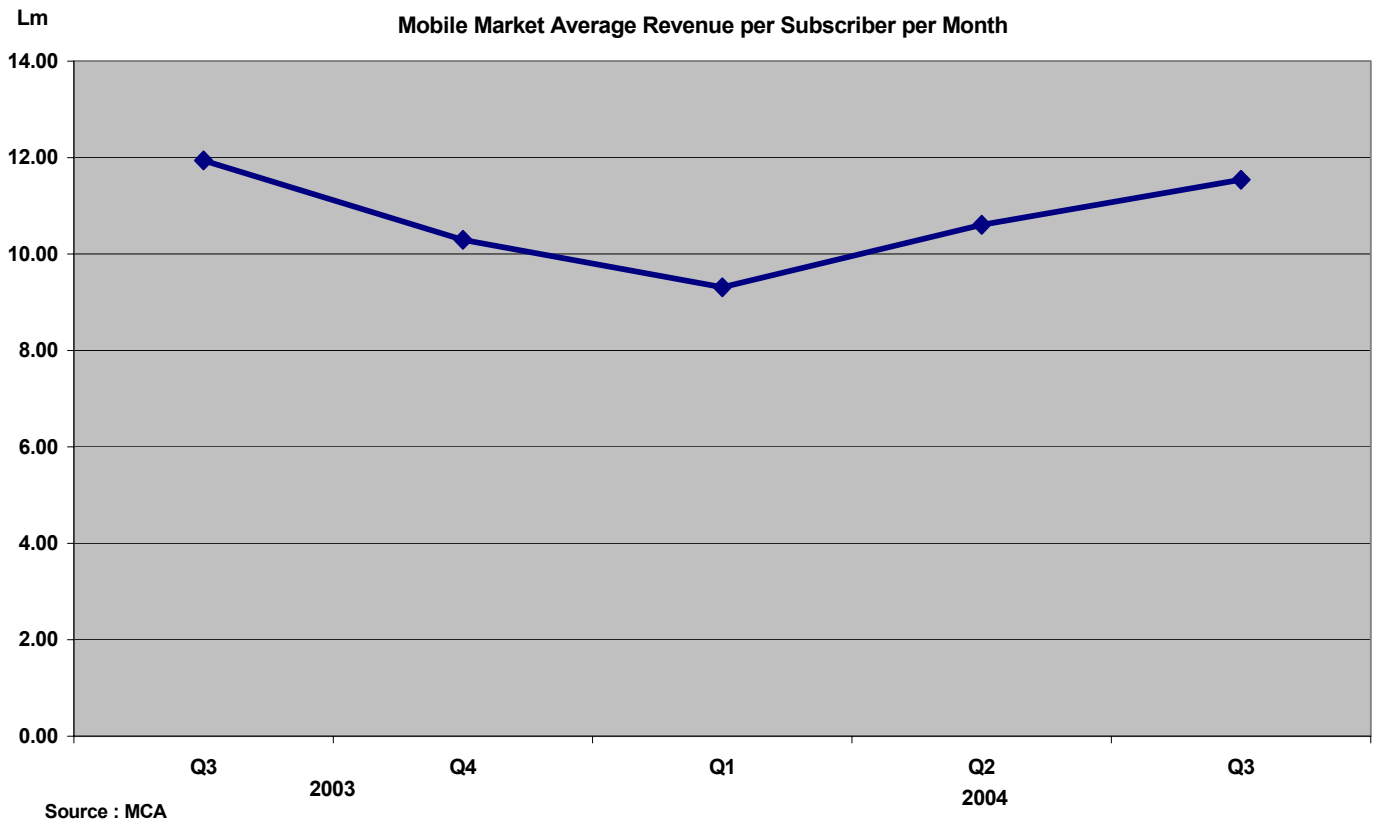


2.4 Average Revenue Per User

The chart below shows the monthly weighted average revenue per user (ARPU) in the local mobile market. This indicator represents the average amount of revenue generated by a local mobile subscriber for a network over a one-month period.

The ARPU figures traditionally follow a seasonal pattern. This is evident when analysing the summer periods where spend on mobile services are usually higher than other periods during the year.

The local ARPU figure actually had a slight decrease of 3.3% in third quarter of 2004 when compared to the comparable quarter of 2003.



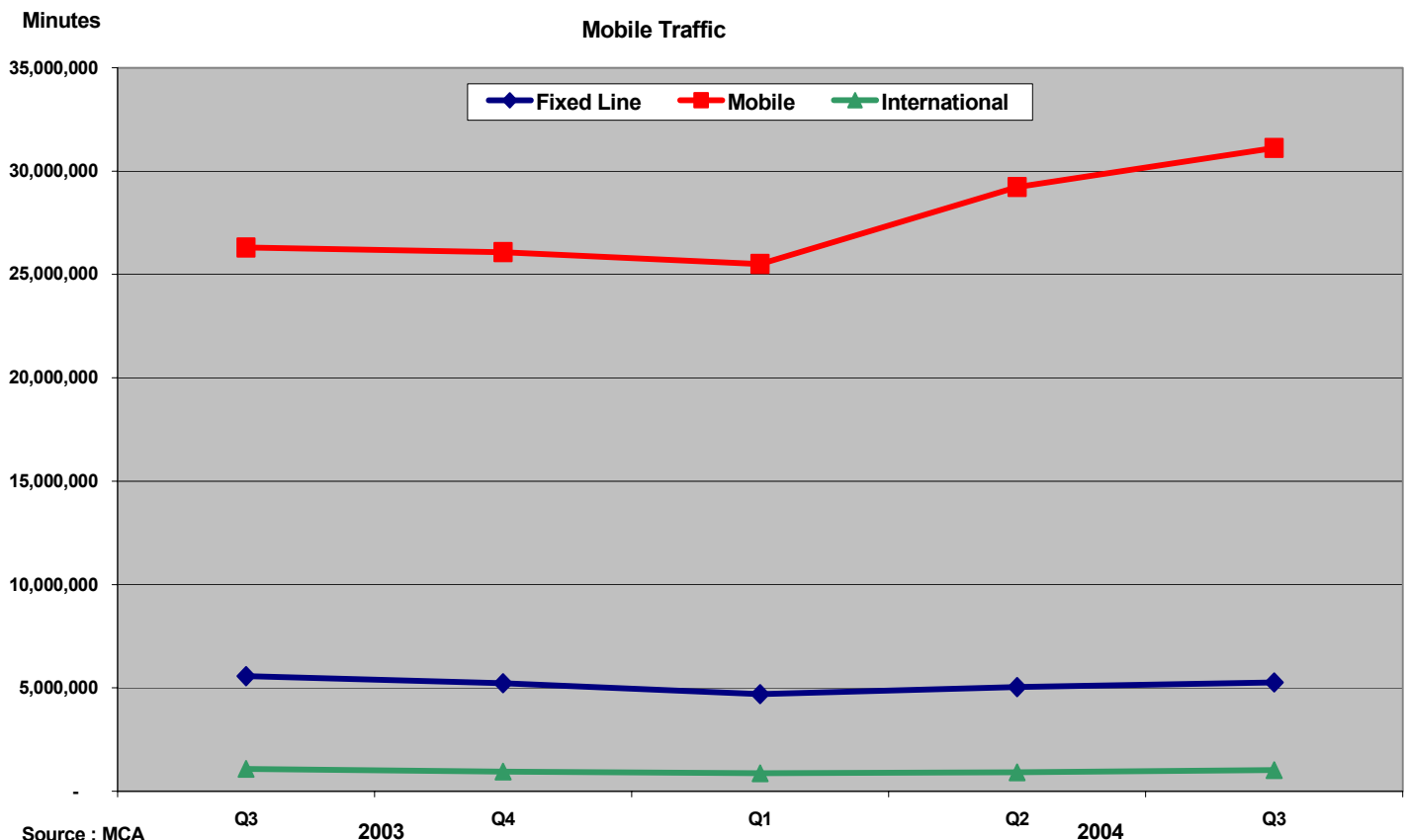
2.5 Outgoing Mobile Traffic

The graph illustrates the total number of minutes made by mobile subscribers over the past year. It reflects the outgoing mobile traffic towards three broad destination categories, namely calls to other mobile operators' networks, calls to fixed-line networks, and calls to international destinations.

When viewed on a year-on-year basis, mobile-to-mobile traffic grew by almost 5 million minutes in the third quarter of 2004. This is an encouraging increase of 18%.

It can be observed that the continued increase in mobile minutes is also resulting in less traffic from mobile users to fixed line numbers. In fact there was a reduction of 5.5% from the same periods in 2003 and 2004. This fact, perhaps partly due to changes in lifestyle, the mobile is fast becoming the main and preferred method of communication.

International minutes experienced a decrease of over 5.7% over the same period. The decline may be partly attributable to competition from cheaper rate offers by VoIP operators and Maltacom's revised international tariffs.

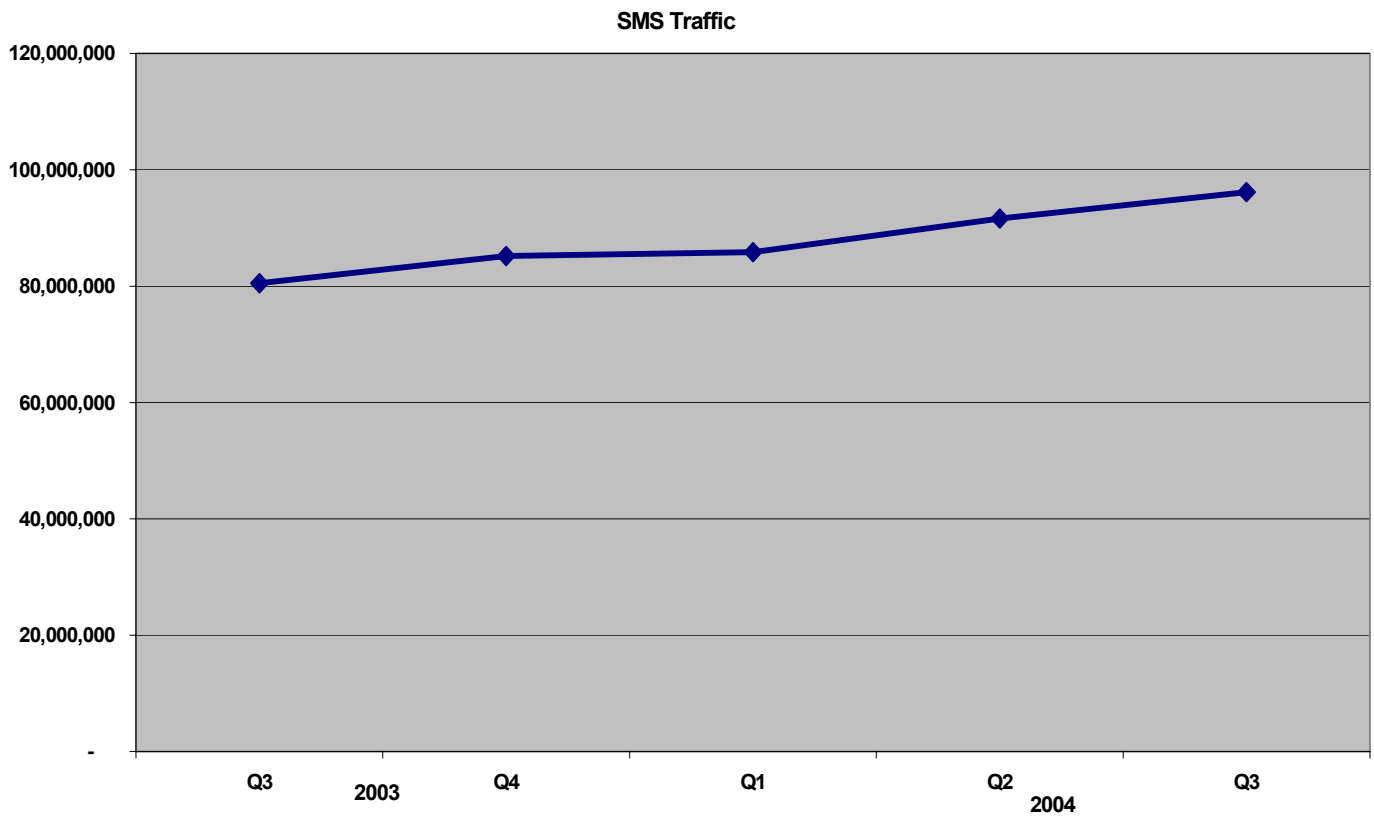


2.6 SMS Traffic

SMS traffic grew by 15.5 million messages, or 19.5%, between the third quarter of 2003 and the same quarter of 2004.

This was a very robust growth and confirms Malta's status as the highest SMS users in Europe. This fact will be treated in more detail later on in this report.

It is important to note that both operators reduced their SMS tariffs during September and October of 2003. The surge in SMS usage noted earlier suggests that this is a price sensitive service. However, as highlighted previously the growth of mobile subscribers over the past year has undoubtedly contributed to the increase in the absolute volume of SMS traffic.

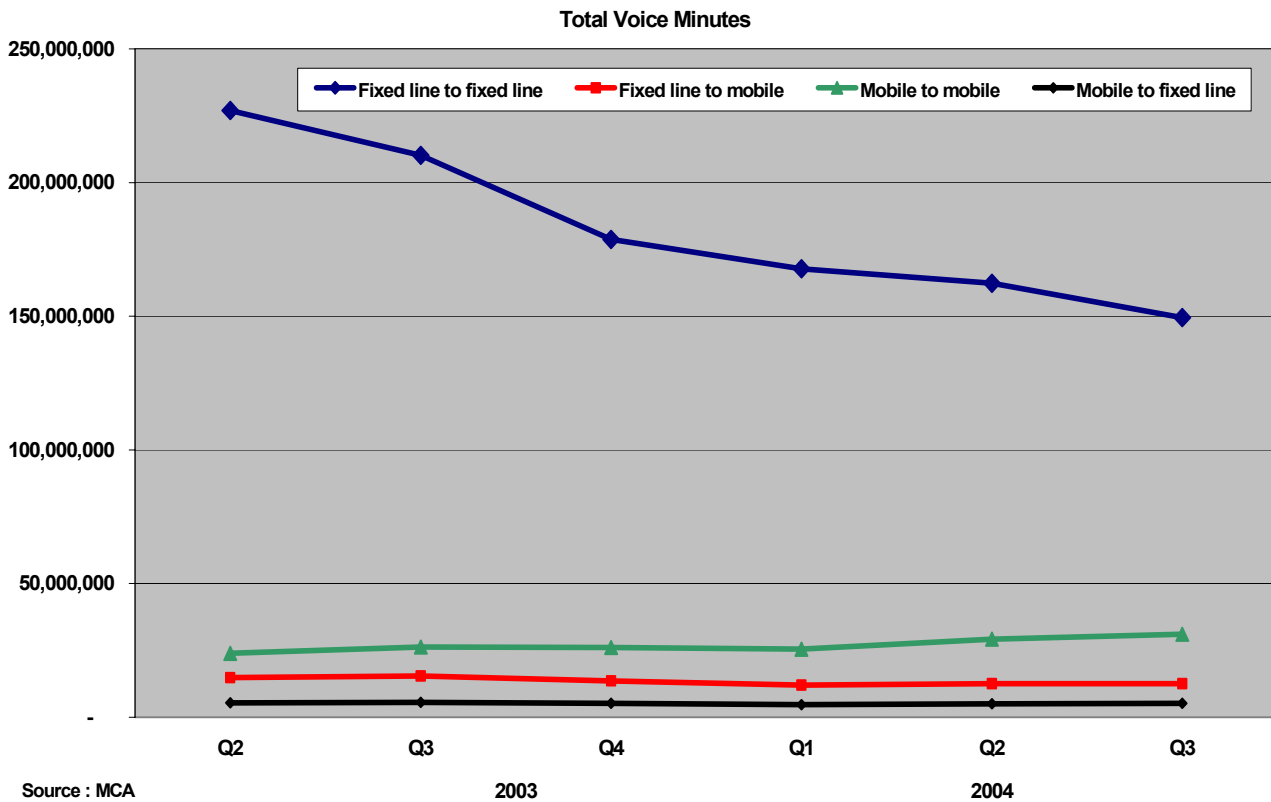


3 VOICE TELEPHONY MARKET

3.1 Local Voice Telephony Traffic

The aggregation of all local telephony traffic is reflected in the graph below. The decline in the usage of fixed-to-fixed-line telephony is evident. Nevertheless, it still remains the most highly used form of communications in terms of absolute volume of minutes consumed with nearly 150 million minutes in the 3rd quarter of this year. This however is a decline of 28% in fixed to fixed traffic over the comparable quarter of 2003.

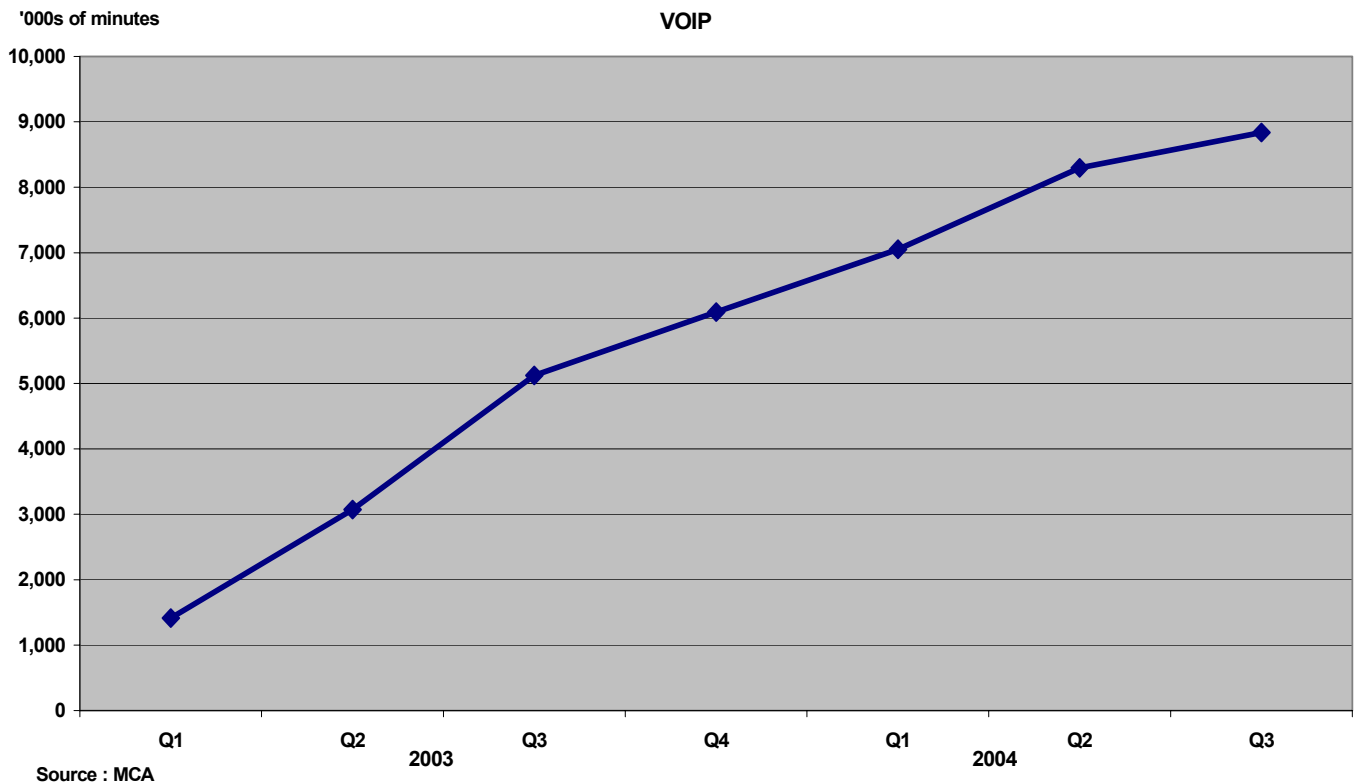
In comparison, during the same time span, mobile-to-mobile traffic rose to 31.1 million minutes from 26.3 million. This represents an increase in excess of 18% and therefore confirms the trend in mobile telephony noted earlier in this report.



3.2 Voice over Internet Protocol (VOIP)

VoIP traffic experienced increased usage during the period reviewed, as 8.8 million minutes of traffic were generated in the third quarter of 2003. This is an increase of over 72% since September of 2003 and confirms the status of VoIP as the main form of international communications.

The significantly cheaper international rates combined with a wide retail distribution network and availability of prepaid VoIP cards has definitely assisted the growth of VoIP. In June of this year Maltacom reduced their international tariffs and from the graph below it appears to have stemmed the downward trajectory of fixed international traffic. It remains to be seen if this reduction will be sufficient to recover its previous market share.

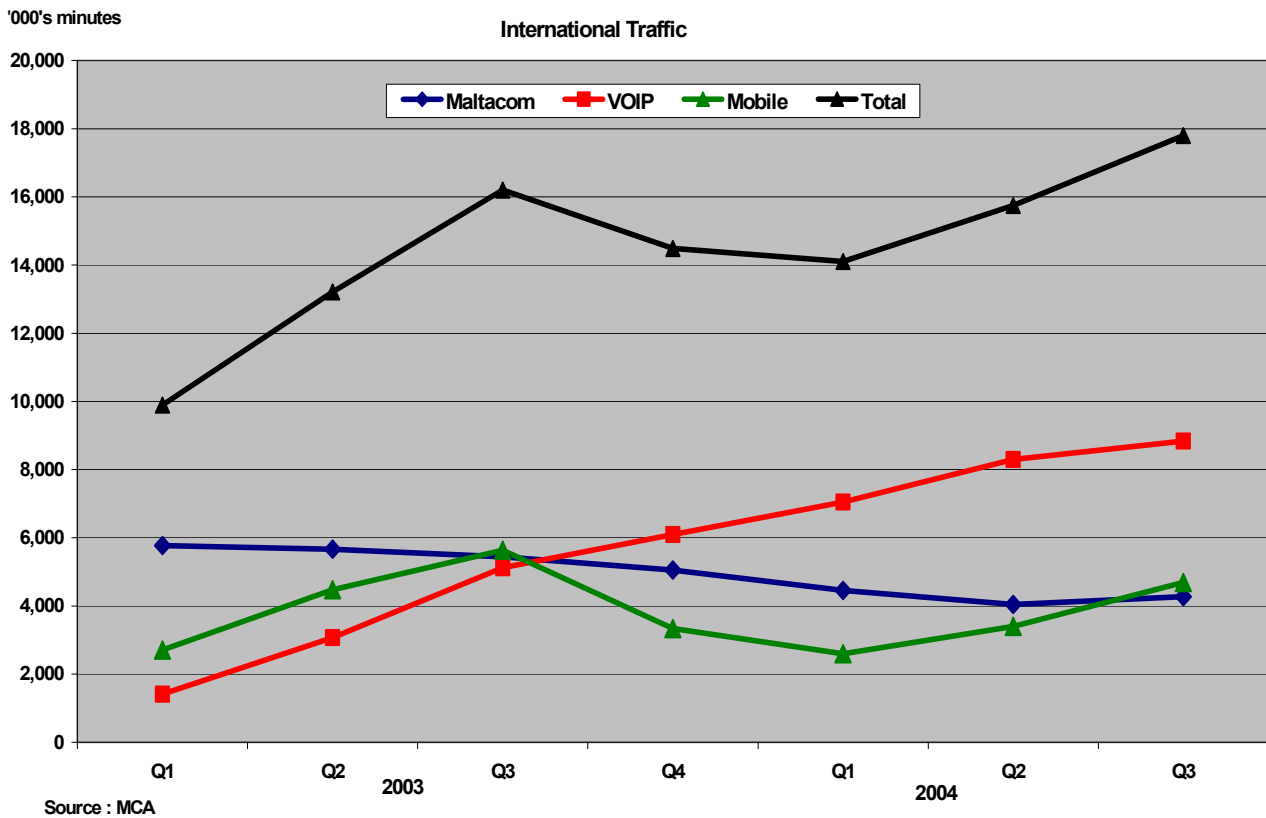


3.3 International Minutes

An increase of 9.8% in total international outgoing minutes was registered between the third quarter of 2003 and the comparable period this year. As can be seen, the growth has been mainly sustained as a result of VOIP traffic.

Mobile international minutes – which include also the traffic originated by visitors to Malta - peak in the summer months for obvious reasons.

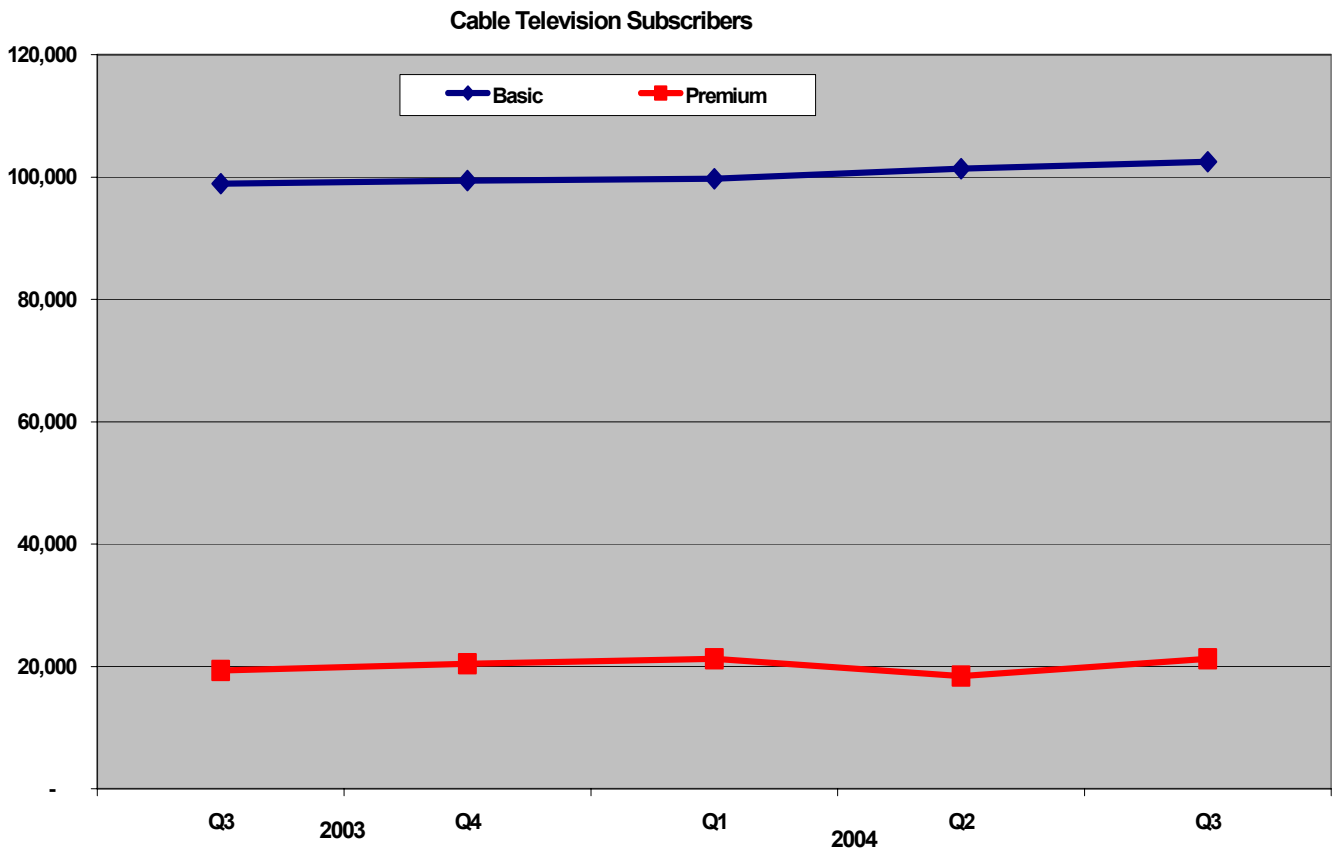
VOIP currently has 50% market share of international traffic, up from the 32% it had in the third quarter of 2003.



4 THE CABLE TELEVISION MARKET

4.1 Cable Television Subscribers

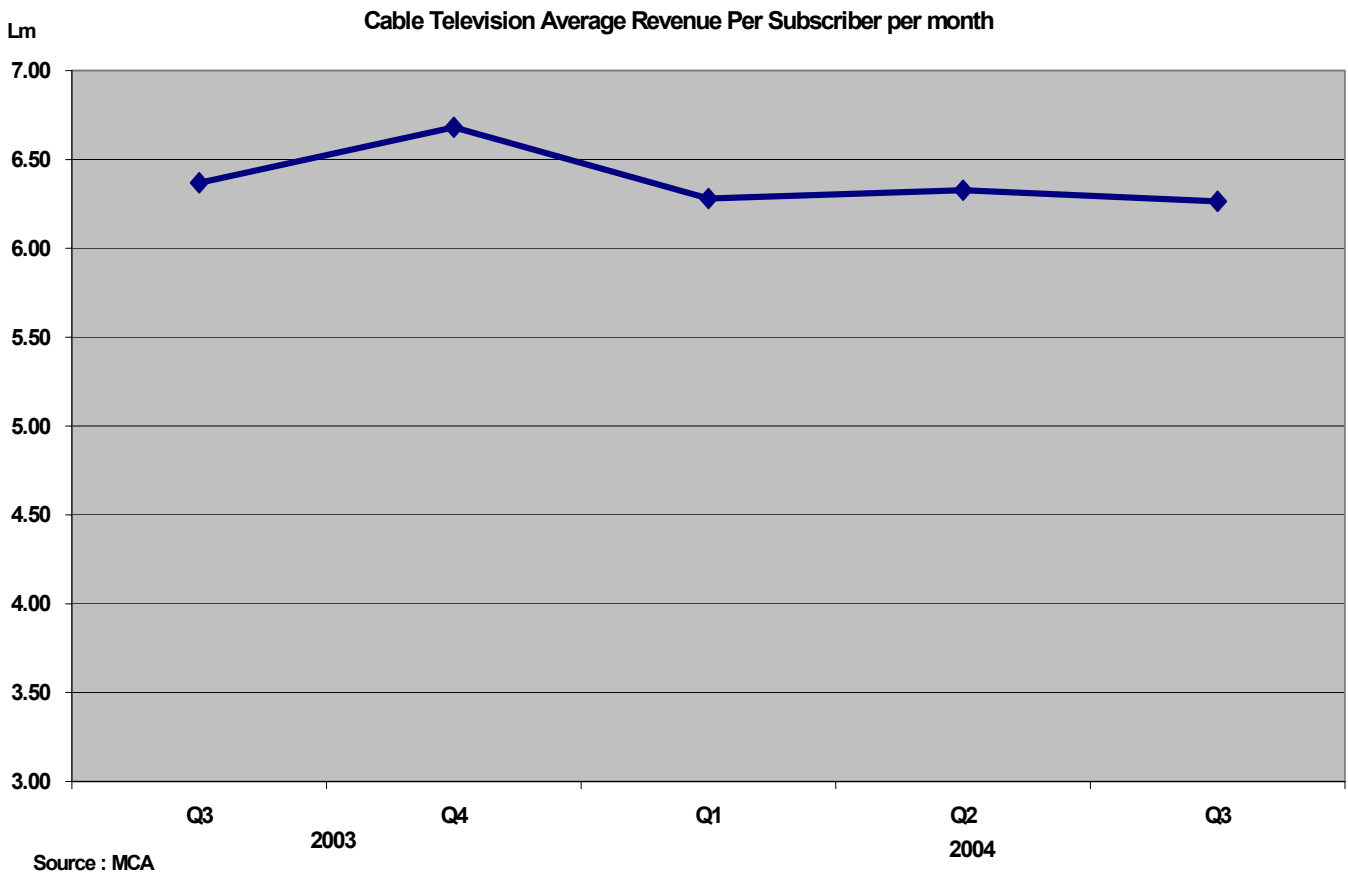
At the end of September 2004, the number of cable television subscriptions stood at 102,515, 21,232 of which were Premium subscriptions. When compared to September 2003, Cable TV subscriptions grew by 3,574, whilst premium subscriptions increased by 1,891, reflecting growth rates of 3.6% and 9.8% respectively.



Source : MCA

4.2 Cable Television Average Revenue Per Subscriber

The graph below shows the average monthly amount spent per subscriber on cable television services for the past year. A slight reduction of 1.6% in ARPU can be observed in the third quarter of 2004 when compared to the same period last year.

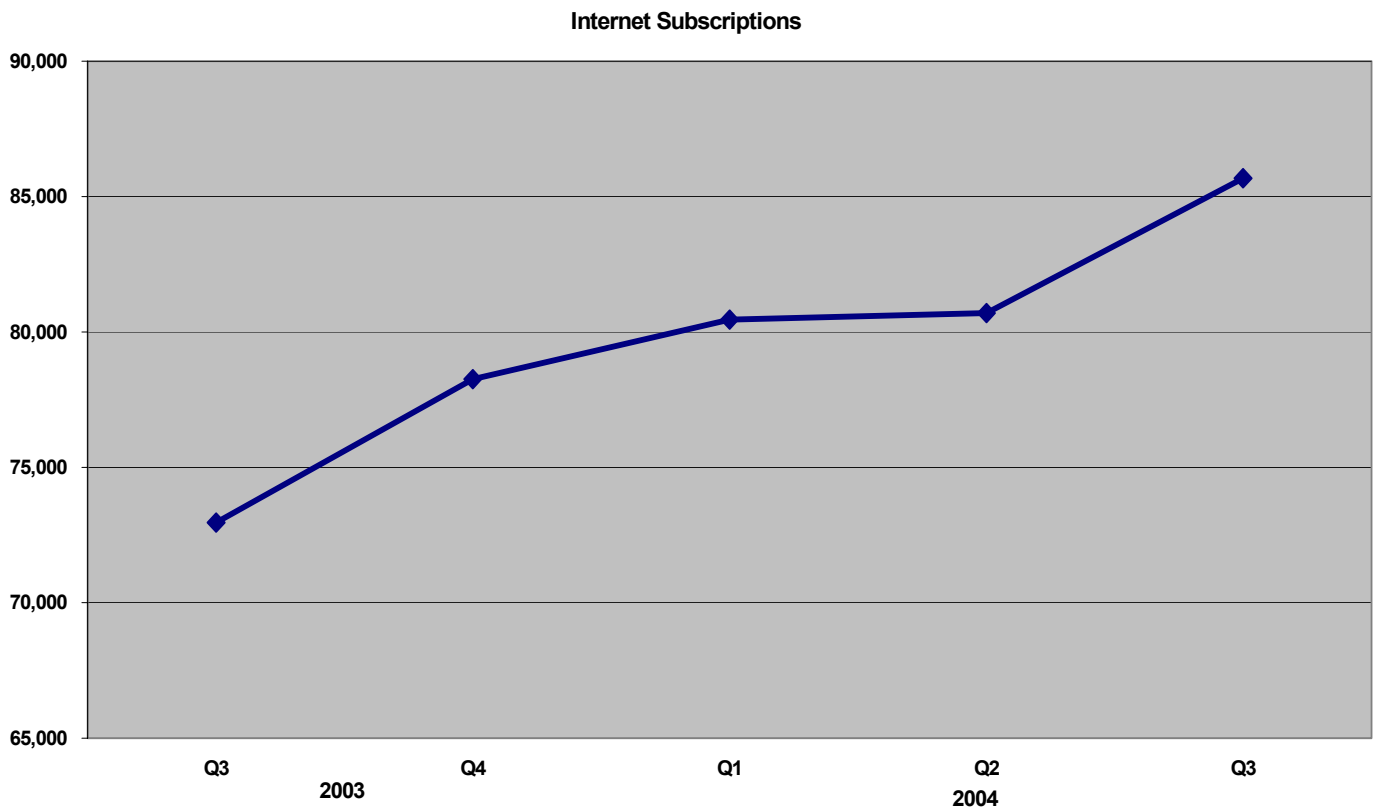


5 INTERNET

5.1 Internet Subscriptions

As at the end of September 2004, the total number of Internet subscriptions, both broadband and narrowband, amounted to 85,672 - up by 12,710 subscribers or 17.4 % since September 2003.

Consequently this translated to 21.3 subscriptions per 100 inhabitants, compared to 18.3 in the first quarter of 2003.

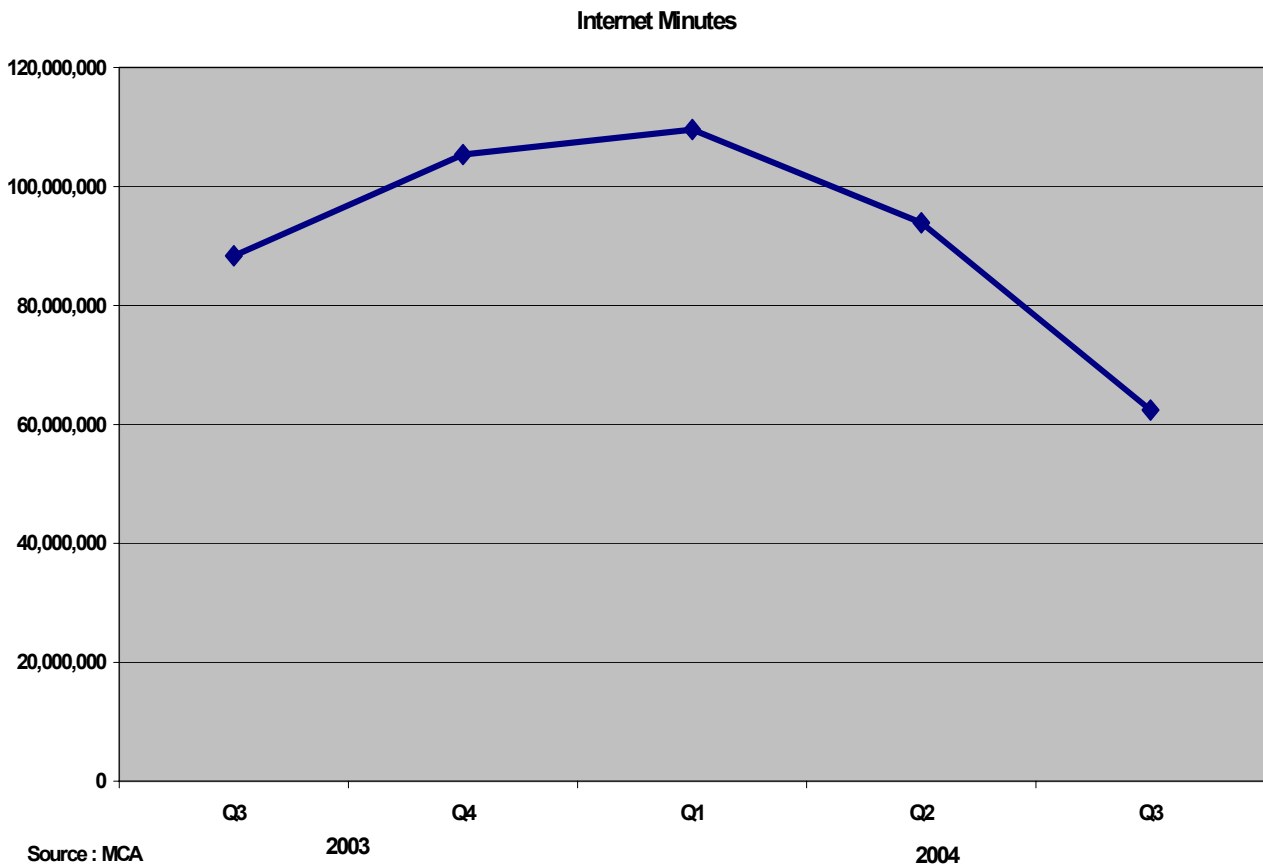


5.2 Internet Traffic - Dial-Up

The graph below shows the number of fixed line minutes used by subscribers to access Internet services. The seasonal trends with respect to Internet usage can easily be observed. However the third quarter of 2004 resulted in an abnormal downward trajectory in Internet traffic minutes. The reasons for this decline are mainly two.

Firstly, as a result of the tariff rebalancing in fixed-telephony, the duration of a pulse was reduced to 30 minutes from an unlimited duration after 18:00 hrs.

Secondly, as will be shown later on in this report, the considerable take up of broadband services during this year has seen more so called 'heavy internet users' migrate to a more efficient and cost effective solution from the traditional dial-up method of accessing the Internet. This shift has subsequently led to the substantial reduction in Internet minutes illustrated below.



5.3 Broadband Internet

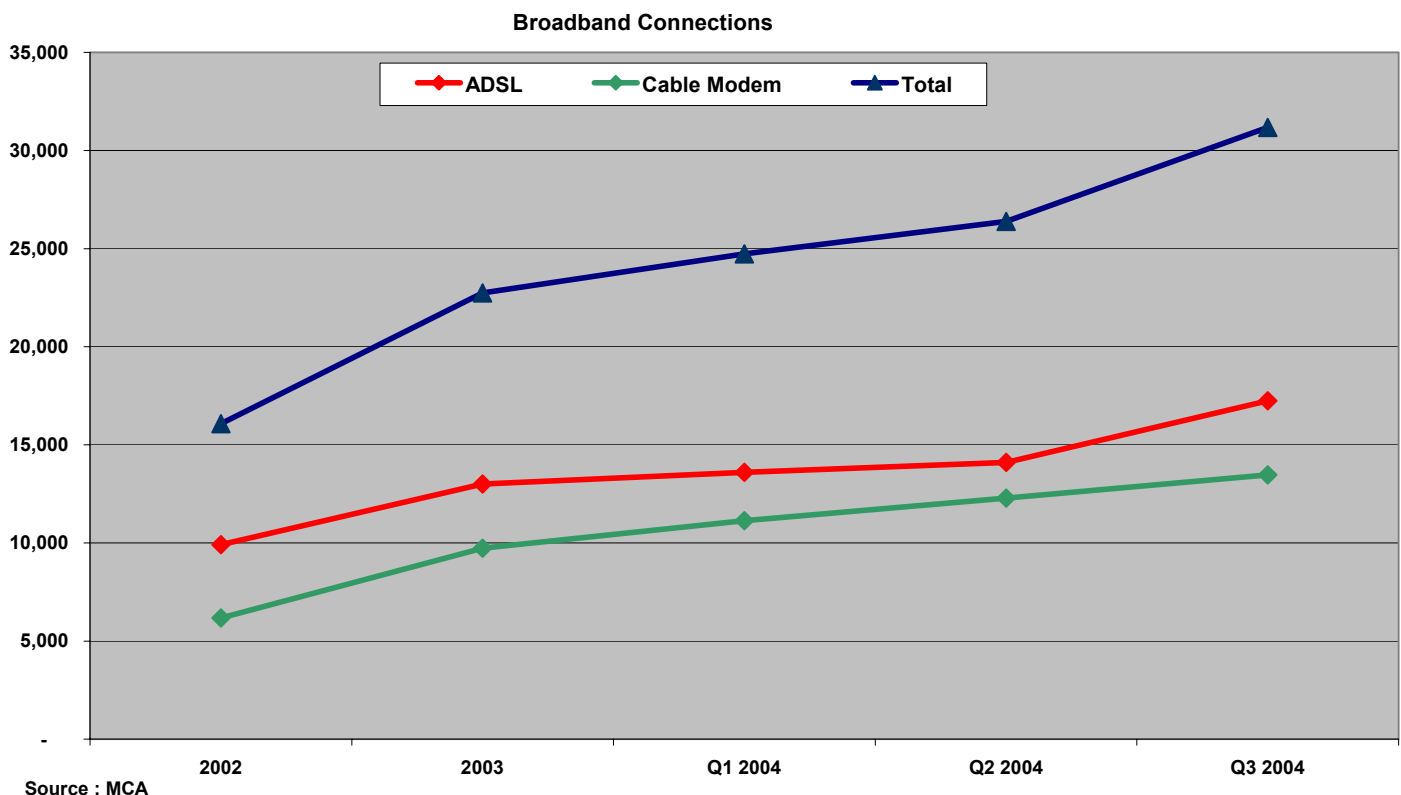
The impressive rollout of broadband connections continued throughout 2004. In fact a 37% increase was registered since the turn of the year – over 8,400 new subscriptions.

The demand for such services was fuelled further by the increase in the cost of dial up connections as a result of the aforementioned tariff rebalancing exercise on fixed telephony.

The continued marketing efforts by transport providers, coupled with hefty discounts on upfront costs for installation and modems, have also driven the broadband bandwagon to current levels.

This current positive trend is expected to continue for the reasons mentioned above, but also due to:

- A) The recent improvement of broadband services with the increased bandwidth offerings to subscribers at no additional cost.
- B) The introduction of a new concept in broadband – that of a prepaid package – by one of the transport providers.



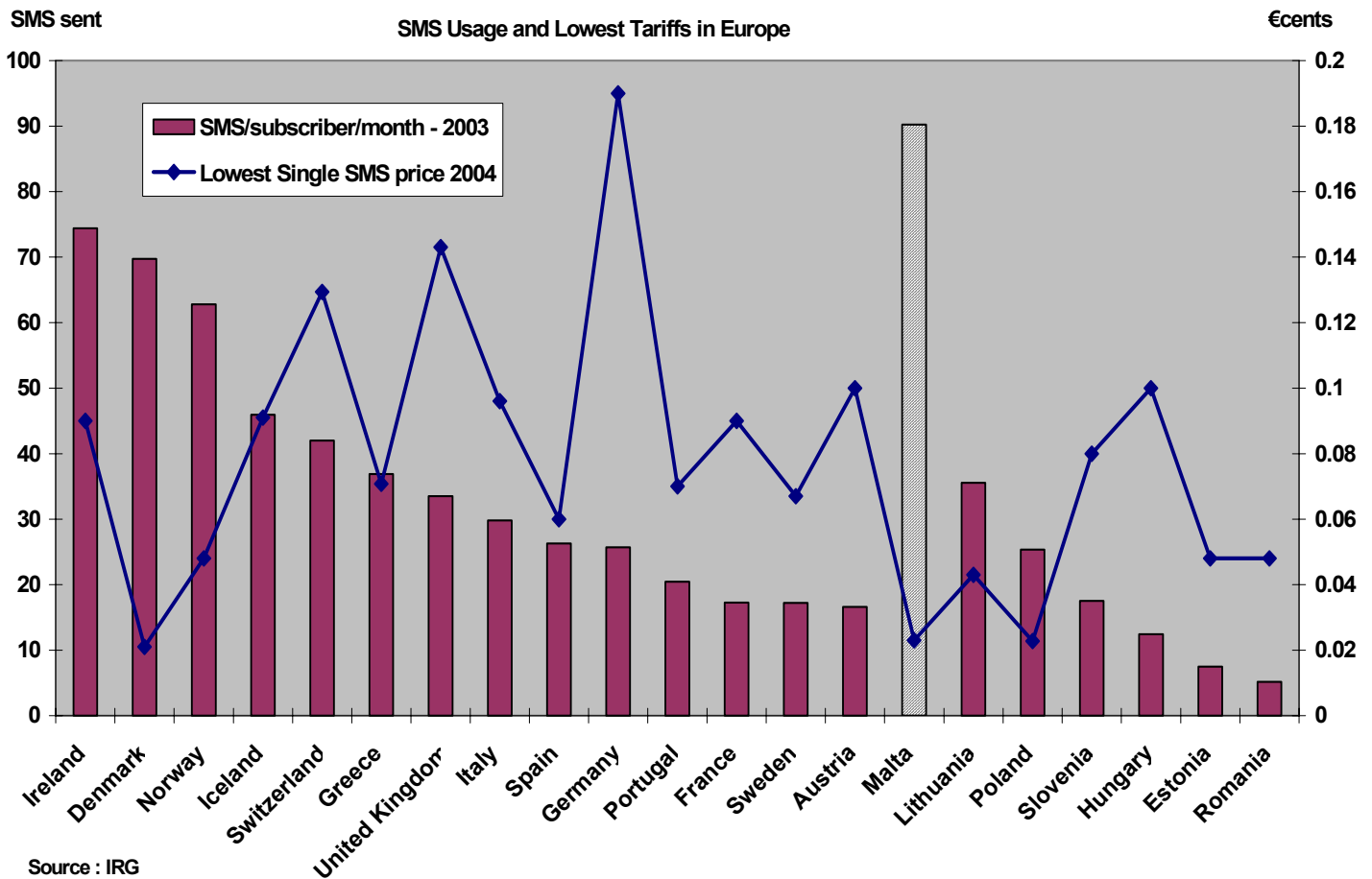
6 EUROPEAN TRENDS

6.1 SMS Usage and Tariffs

The graph below shows the average number of SMS sent by a mobile subscriber on a monthly basis for a number of European countries in 2003. It also maps out the lowest SMS tariff available in each marketplace.

The indicators are intriguing when considering the local scenario in comparison to the rest of the countries in the illustration. It is evident that the highest sms usage patterns are by Maltese subscribers. In fact, they have an average of 90 SMS sent per month and is even much higher than second placed Ireland.

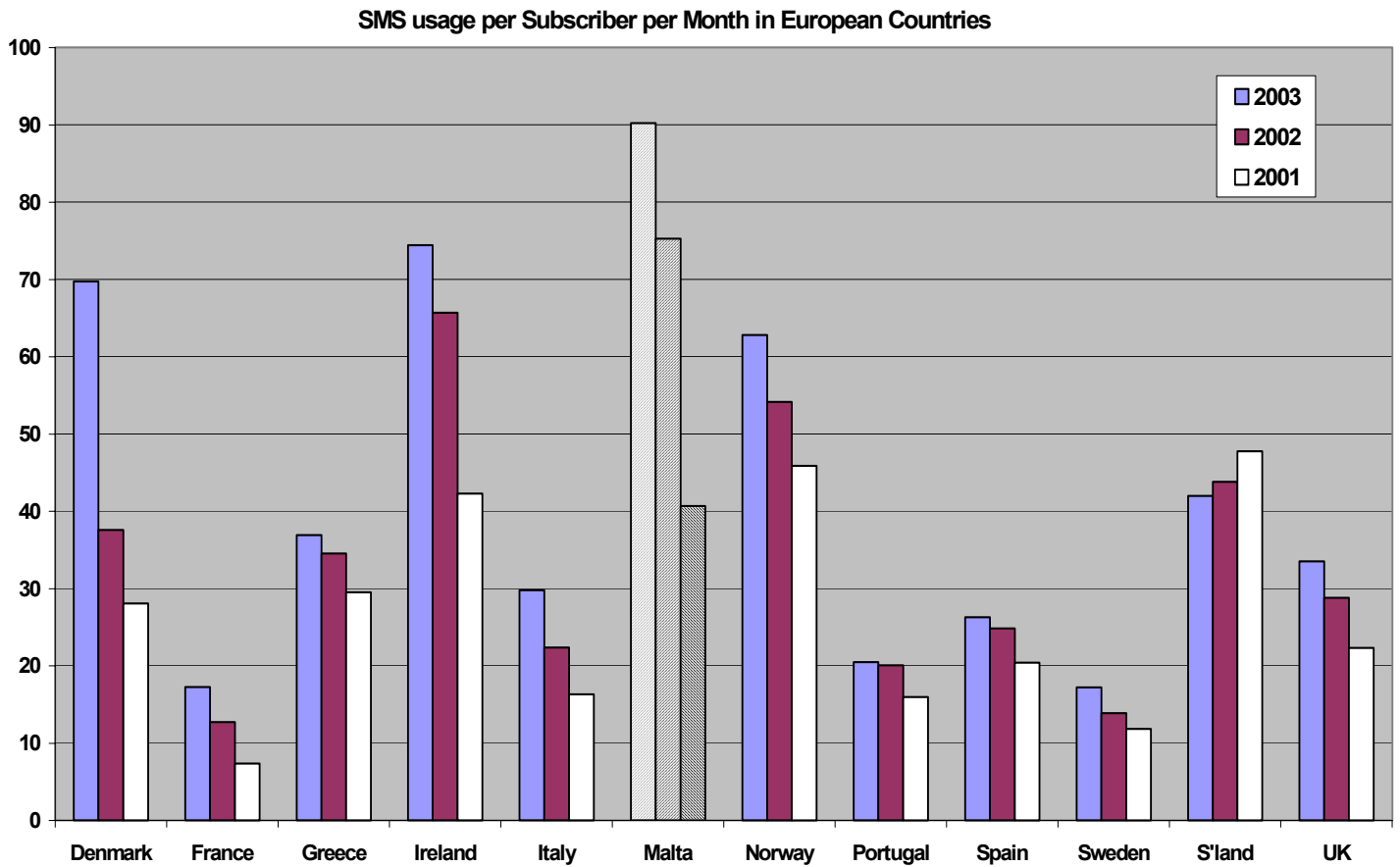
When analysing the SMS tariffs however, it transpires that Malta, together with Denmark and Poland had the lowest available SMS tariff during 2003. However the average usage in these countries is significantly less than that of Malta.



6.2 EU SMS Usage

The graph below shows the increase, or decrease, in SMS usage of various European countries from 2001 to 2003. There have been significant growths; as in the cases of Malta, Denmark and Ireland in particular, whilst Switzerland has suffered a decline.

Reasons for these upsurges can be various and could include reduction in SMS tariffs – which reflects price sensitivity, and SMS in itself becoming a trendier way to communicate, amongst other reasons.

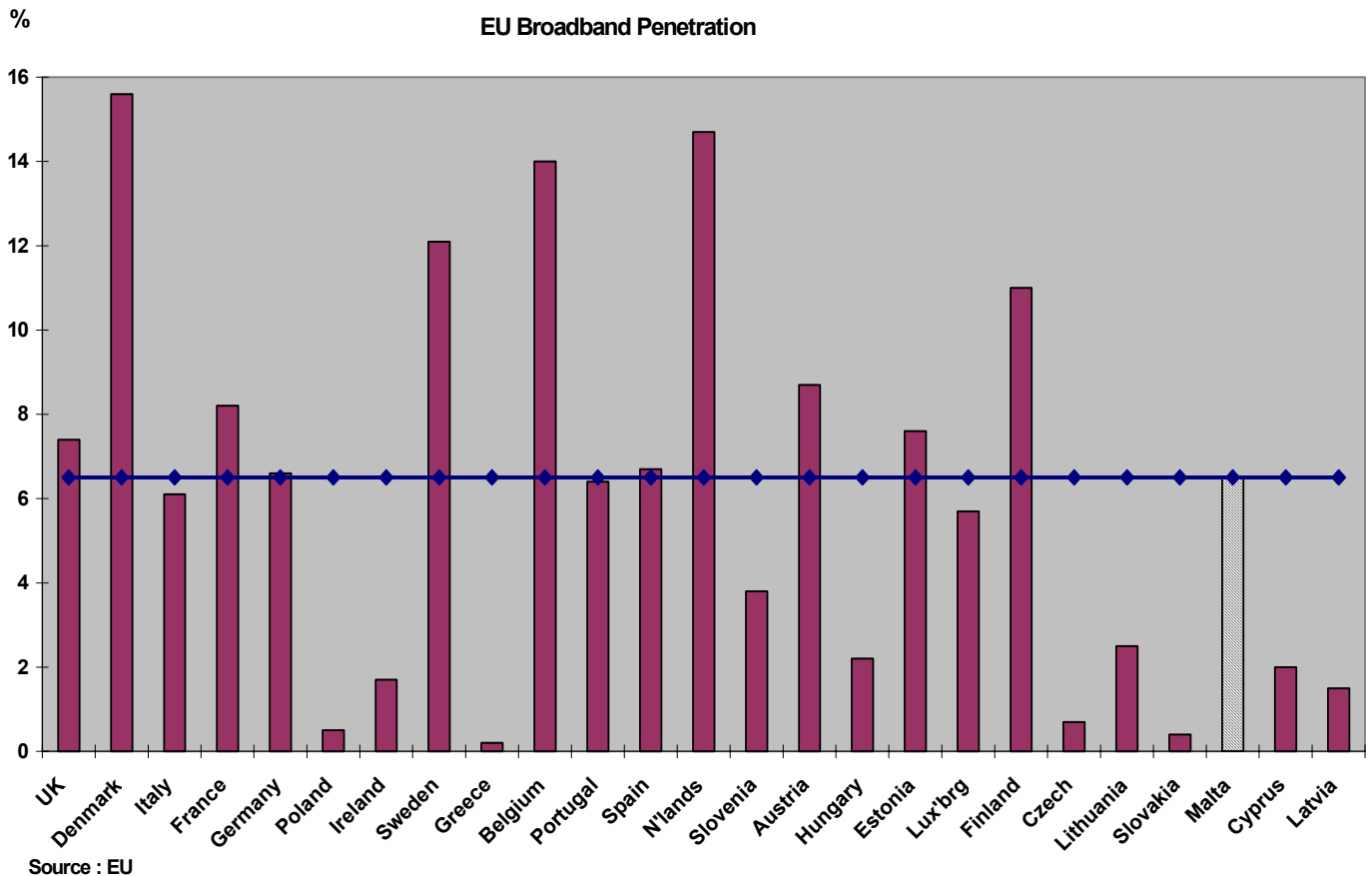


Source : IRG

6.3 EU Broadband Penetration

The illustration below shows the number of broadband connections per population in the European member states. It is a well documented fact that throughout the EU member states there is concerted effort to drive broadband growth. The chart shows the EU data as at July 2004. It reflects 6.5 broadband connections per 100 inhabitants and coincidentally this is also the average penetration in the EU states as at July 2004.

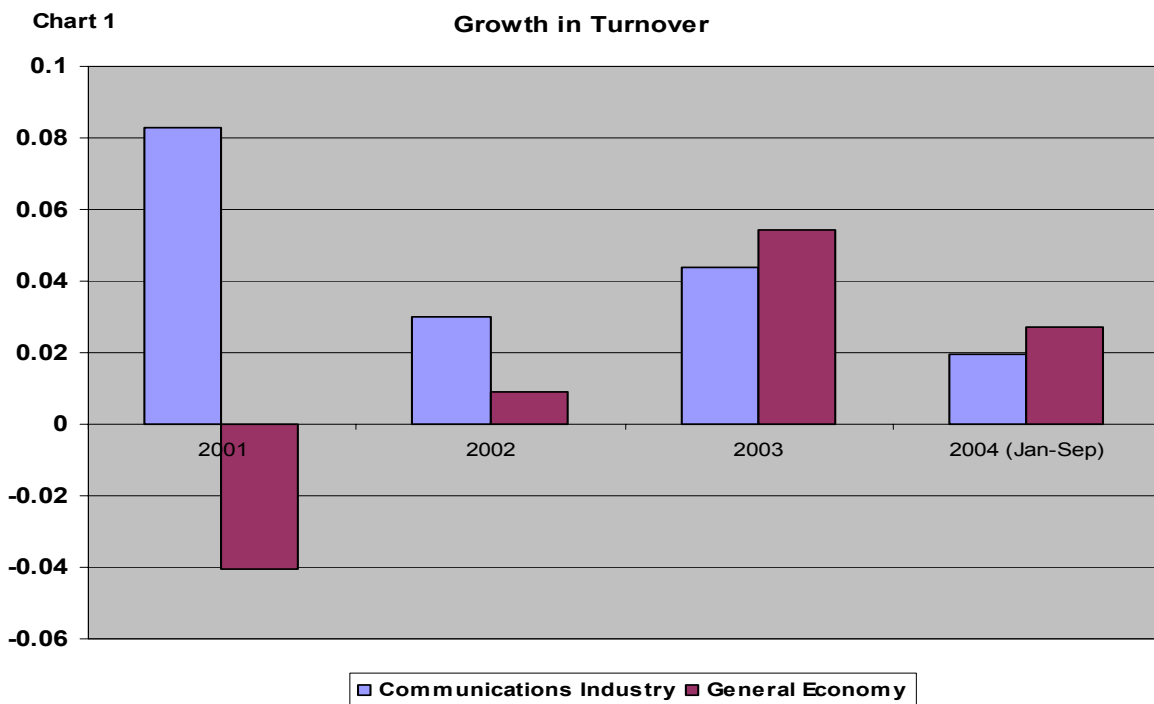
As commented upon previously one would expect the continued proliferation of broadband locally to be mirrored throughout the EU. Indeed this is one electronic communications service that should be followed with attention and future reports will focus in more detail on this sector.



7 The Communications¹ Industry in the Maltese Economy

The communications sector continued to play an important role in the Maltese economy during the first nine months of 2004; both as a producer for end-users, as well as an input to other industries.

The communications industry has also been a significant contributor to value added in the economy, as in the three years to 2003, it accounted for just over 3% of GDP. In line with the trend noted earlier, this rate is also most likely to feature in 2004, as during the nine months to September 2004, the share of value added from the communications industry in GDP stood at 3.1%. As can be seen in Chart 1, the growth in turnover managed to surpass that of the Maltese economy for 2001 and 2002. One can also notice that in 2003, the growth rate in turnover of the general economy surpassed that of the communications industries. However, this is wholly attributable to the effect of higher general prices in the economy. In fact, if one eliminates the effect of prices on value added², it would transpire that the economy experienced a contraction of 0.3% during this year. Conversely there were no significant increases in the prices of communication services during 2003, and thus one can conclude that in real terms the communications industry still managed to outperform the economy during this particular year.



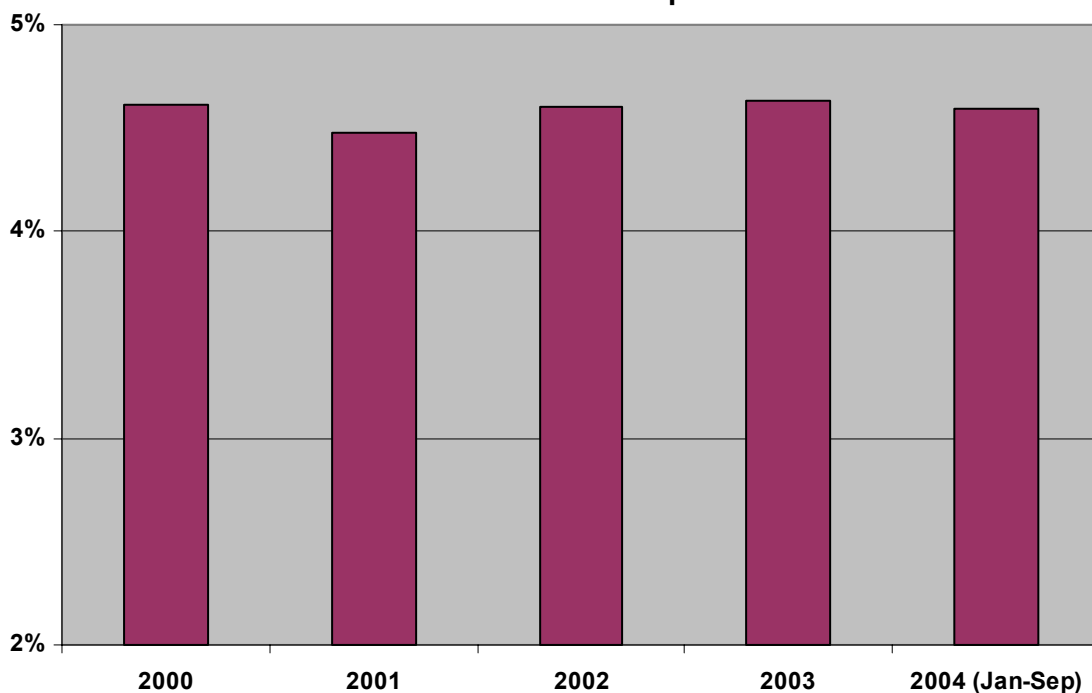
Source: NSO

¹ The communications industry incorporates post, courier and telecommunications services.

² Although value added is only a component of aggregate turnover it can still give valuable indication on the movement of prices in the economy. Since there exists no readily available index for input prices in the economy, by relating the growth in real value added with turnover, we are implicitly assuming that input prices move in line with output prices.

On the other hand, evidence from the first nine months shows that the growth in gross turnover of the general economy will outperform again that of the communications sector in 2004. This is probably due to a contraction in output of specific telecommunications services within the industry. Indeed these businesses might have recorded lower turnover, to the extent that they offset the growth in other services in the market.

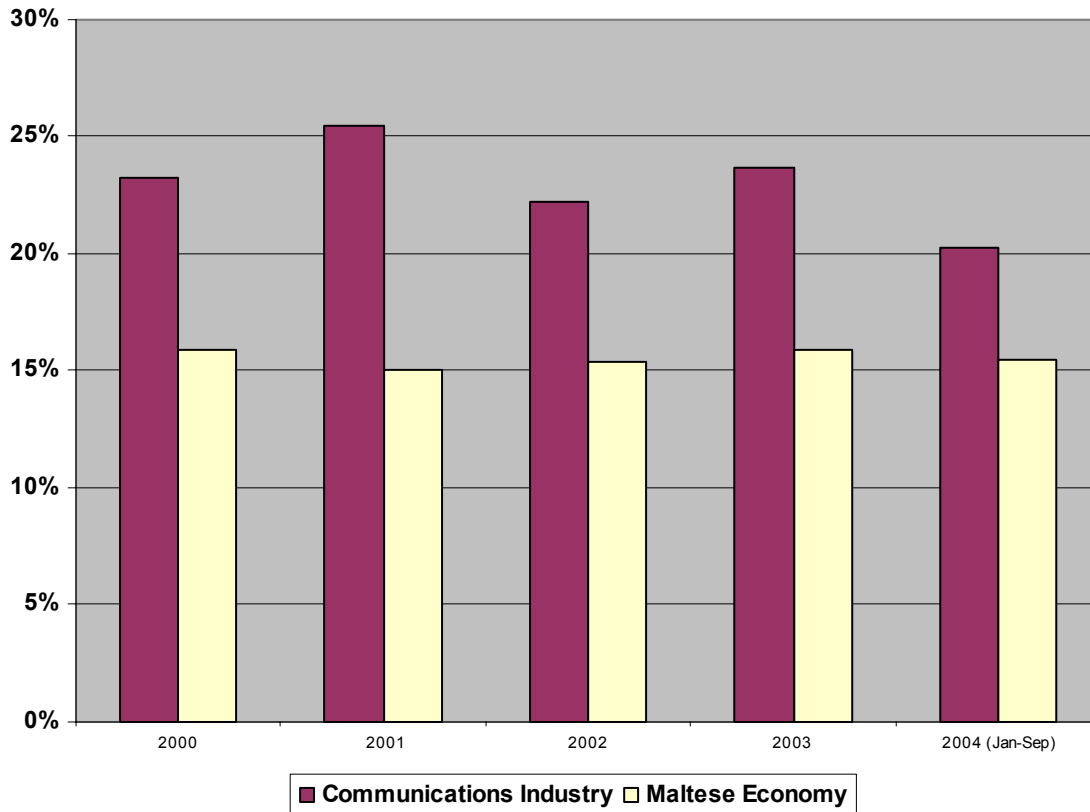
Chart 2 **Share of Telecommunications Expenditure in Total Households' Consumption**



Source: NSO

Chart 2 shows the share of households' expenditure on telecommunication services. As can be seen herein, during the nine months to September of 2004, the share of household consumption expenditure on telecommunications services remained stable at just over 4.5%, suggesting that the consumption of telecommunications services has become an integral and significant part of households' consumption baskets. Furthermore this share does not take into account the quality improvements that consumers have benefited from throughout these years.

Chart 3
Gross Operating Rates



Source: NSO

Spurred mainly by the telecommunications sector, the communications industry continued to register a higher profitability rate from that of the general economy during the January-September period of 2004. In fact, as can be seen in Chart 3, the gross operating rate ³(GOR) of the industry for the first three quarters of the year stood at 20.3%, almost five percentage points higher than the rate for the whole economy. This characteristic is mainly attributable to higher capital intensity, which demands a higher compensation to the capital employed.

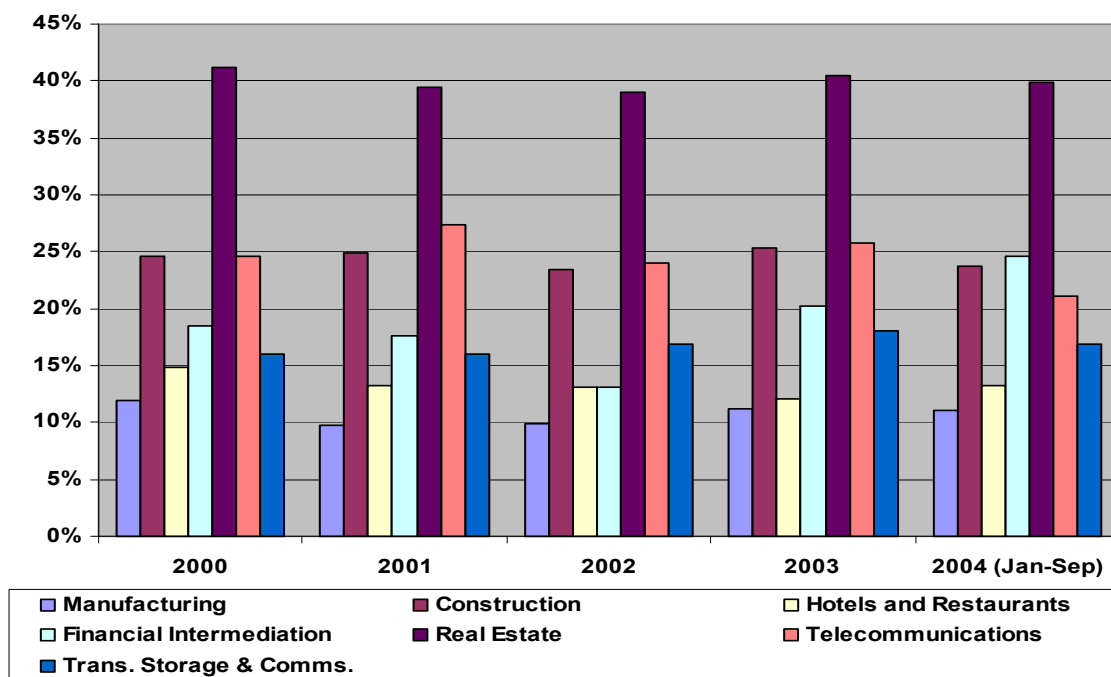
However when comparing the GOR for the first nine months of 2004 with the same period a year ago, this rate declined by 3.3 percentage points. Such a drop mainly reflects the consolidation in the fixed telephony business, which is experiencing higher competition from other forms of communications from within the industry. This phenomenon is not unique to the local scenario but it can also be observed internationally. Indeed fixed telephony businesses have been affected by higher mobile substitution, especially from SMS, and other alternatives such as voice over IP (VOIP) and e-mail.

Nonetheless, the communications industry remains one of the most profitable in the economy. Chart 4 shows the profitability rates of the main private business sectors in the economy along with that of the telecommunications sector, which is the main

³ The GOR is a measure of profitability. It shows how much of the value added is left after the labour component of the industry is compensated, as a percentage of total turnover.

driver of the communications industry. Indeed these business sectors account for roughly 75% of the total value added in the economy. As can be seen in the chart, the telecommunications sector shows the highest profitability rate after the real estate business and is very close to the rates achieved by the construction sector. When looking at the first nine months of the year, the profitability rate of the telecommunications business declined to 21.2%, from 25.8% in the comparable period last year. Such a drop is mainly the result of the developments in fixed telephony noted earlier.

Chart 4 Selected Profitability Rates



Source: NSO

A capital-intensive production process makes the labour input more productive. Chart 5 compares the labour productivity of the communications sector with that of the general economy. In this graph, labour productivity is defined as the ratio of real value added⁴ to the number of persons employed, which are in turn expressed in full time equivalents⁵. Although being a rough measure of labour productivity, this ratio is still valuable in discerning underlying trends. As can be seen in the chart, the average employee in the industry produced the equivalent of Lm21, 000 of value

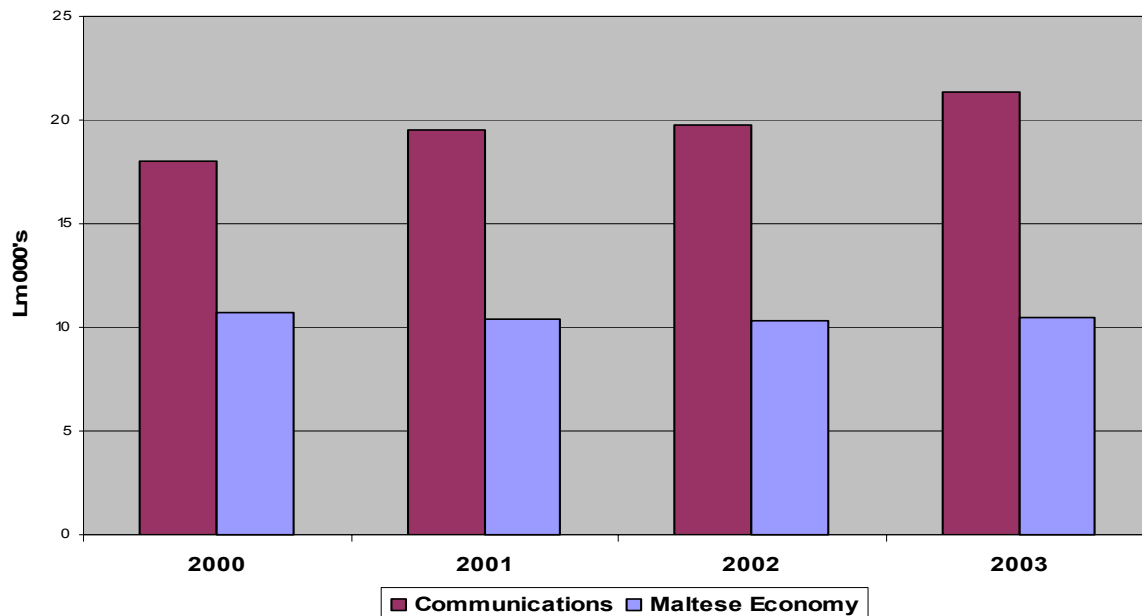
⁴ Value added for the communications industry is deflated by the Transport and Communications sub-index of the RPI, while that for the general economy is deflated by the GDP deflator

⁵ Full time equivalence was obtained by assuming that a full-timer works roughly twice as much as a part-timer.

added in 2003, representing an increase of Lm3, 300 per employee, or 18.7%, on the productivity level recorded in 2000.

Such a trend contrasts with the labour productivity patterns recorded for the economy as a whole, which remained somewhat subdued during the period reviewed. This is attributable to the low, and sometimes negative, real growth rates achieved by the economy during the past years. Contrasting evidence can also be discerned from the level of value added produced by the average employee in the economy. This remained considerably lower throughout the years reviewed, with the average employee in the communications industry producing roughly Lm9, 000 more in value added terms each year.

Chart 5 Real Value Added per Employee



Source: NSO, MCA estimates

In conclusion, the telecommunications industry has been an important input for other industries in the economy. In fact, if one considers the percentage of the output produced by the telecommunications sector that is consumed as an input by other industries, this increased from 23% in 2000, to 28.3% in 2003. Evidence from the first nine months of 2004 shows that such levels are likely to be sustained throughout this year. The same rising trend is also evident in the share of expenditure on telecommunications services in the total expenditure of Maltese industries on inputs. This rate increased from 1.1% in 2000 to 1.7% in 2003, suggesting that telecommunications services are playing an increasingly important role in the way industries conduct their day-to-day business.

7.1 International Comparison

This short note compares various economic indicators on the telecommunications sector across a selected number of European countries⁶. However it has to be noted at the outset that these results should be interpreted with caution, as various disparities exist amongst the different countries in the sample.

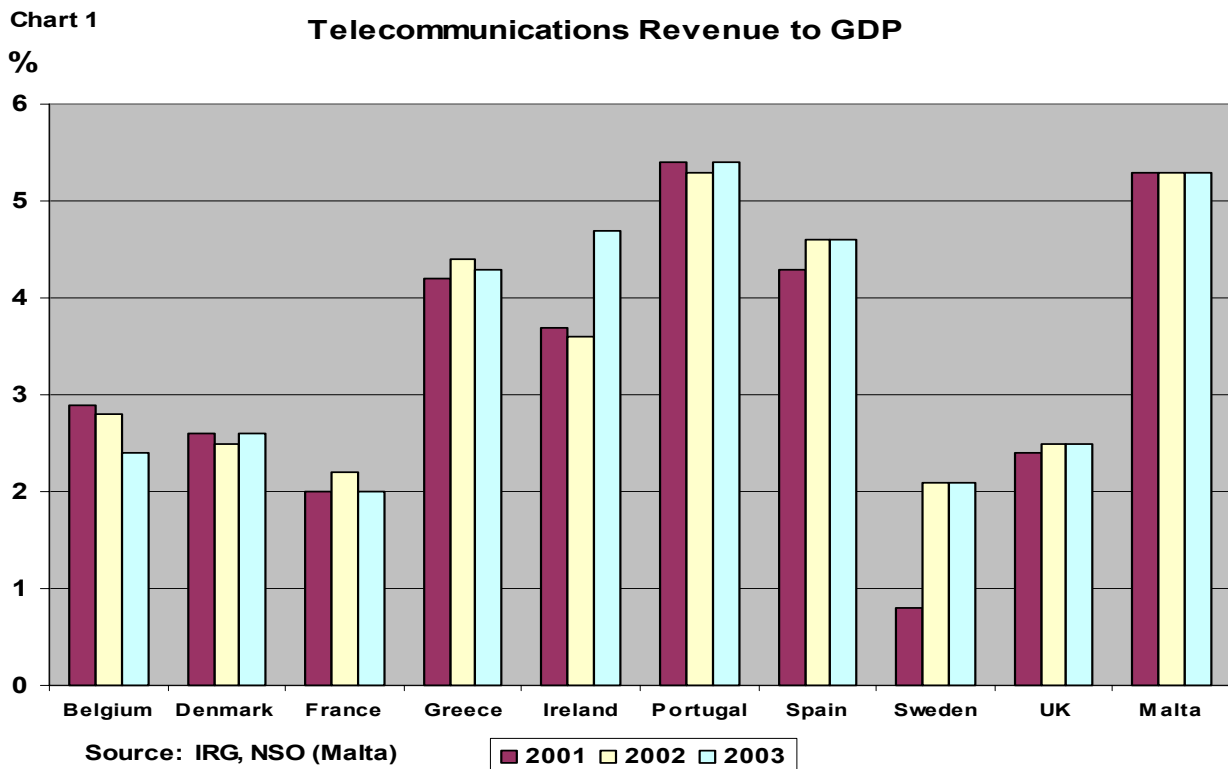


Chart 1 shows the level of turnover as a percentage of GDP across the selected countries. This gives an idea of the importance and the relative size of the sector in question in the economy overall. However, this ratio has the inherent disadvantage of overestimating the relative size of the telecommunications sector, since GDP is composed of the value added produced by industries and not total turnover. In other words, while turnover incorporates also intermediate consumption, GDP excludes it. This notwithstanding, such a ratio is still valuable in discerning some interesting trends. One can notice that Malta's share is consistently amongst the highest in the sample. Furthermore it has been very close to the shares recorded for Greece, Spain and Portugal. These countries' income per capita is relatively closer to that of Malta, suggesting similar shares amongst those countries with roughly similar levels of development.

⁶ Data for the European countries featured in this section were compiled by the IRG Market Data Analysis working group.

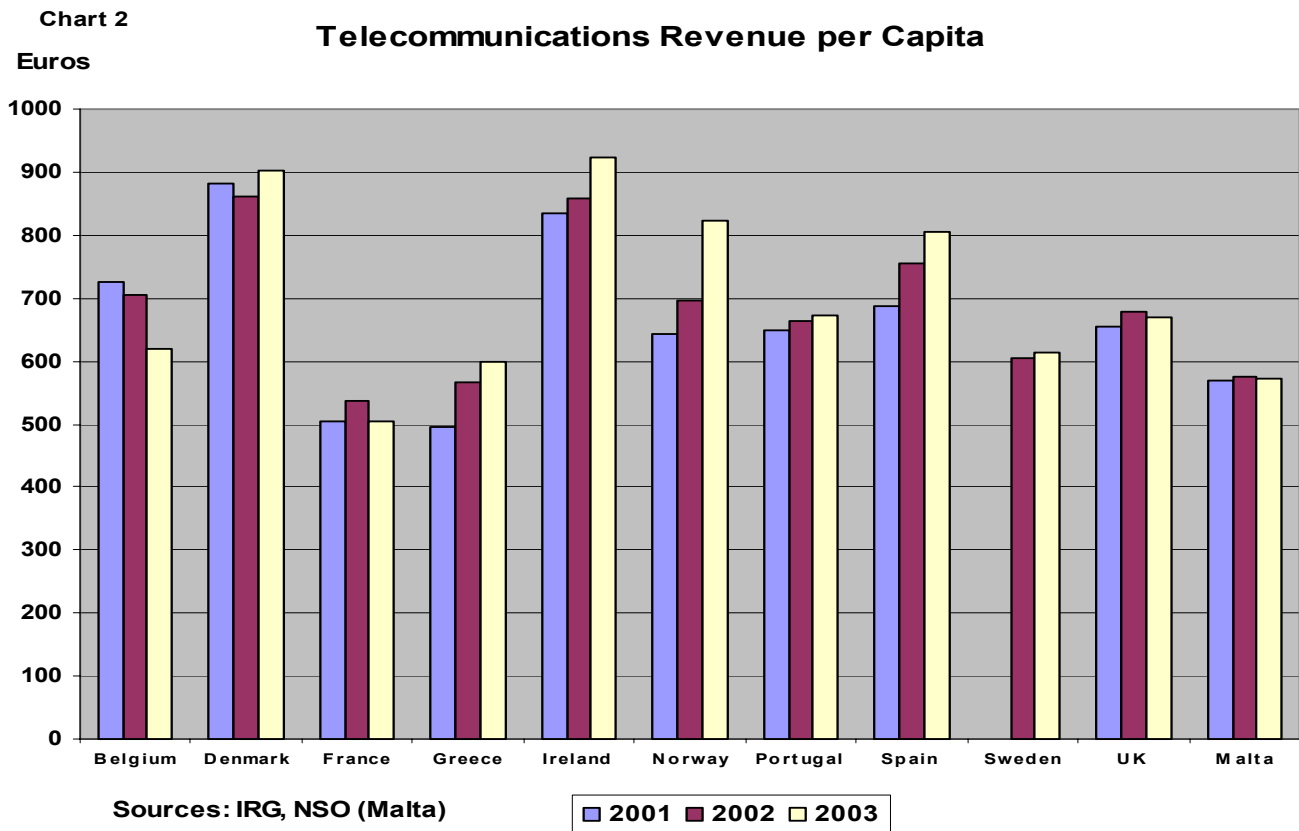
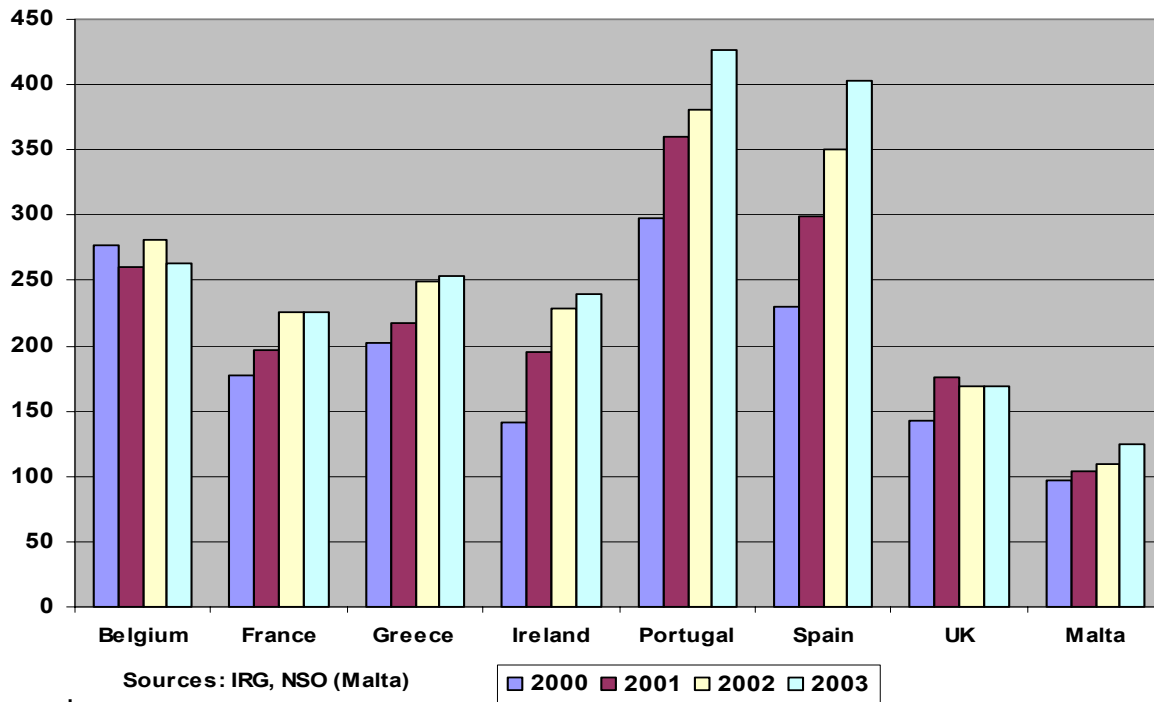


Chart 2 compares the telecommunications revenue per capita across various European countries, for the period 2001-2003. This ratio gives an indication of the expenditure levels of consumers in different European countries. One can immediately notice Malta's low rates throughout the years, as well as their similarity with the rates recorded for Greece. However the argument of economic development here is somewhat weakened on two fronts. Firstly, Portugal and Spain recorded consistently higher revenues per capita and secondly, France, which enjoys a relatively higher level of development, recorded lower rates when compared with those for Malta. Apart from the quality issues of the data used, one has to point out also that this ratio, being in nominal form, cannot distinguish neither between price and volume effects nor the quality of the services consumed. Thus the consumption bundle in France can be of a better quality than that of Malta, while lower prices in the former country might signify higher expenditure in real terms.

A rough measure of labour productivity is shown in Chart 3, which depicts the ratio of revenues to the number of persons employed in the telecommunications sector across countries. This ratio puts Malta's labour productivity in telecommunications as the lowest amongst the comparator countries in the chart. Such a low rate might

reflect the fact that in general there is over-employment in the Maltese electronic communications sector, when compared with other European countries. In fact, this rate has been improving steadily throughout the years, as employment levels started to adjust.

Chart 3
Telecommunications Revenue per Employee
 Euro 000's



For a highly capital intensive business such as the telecommunications sector, investment trends are also very important. Chart 4 compares telecommunications investment per capita across the selected European countries for the period 2001-2003. It is evident that Malta's telecommunications sector investment has been consistently at the higher end. In the local context these high investment levels may reflect the characteristics of a very small market. This constraint may be the underlying factor behind high average investment rates in Malta.

Chart 4

Telecommunications Investment per Capita

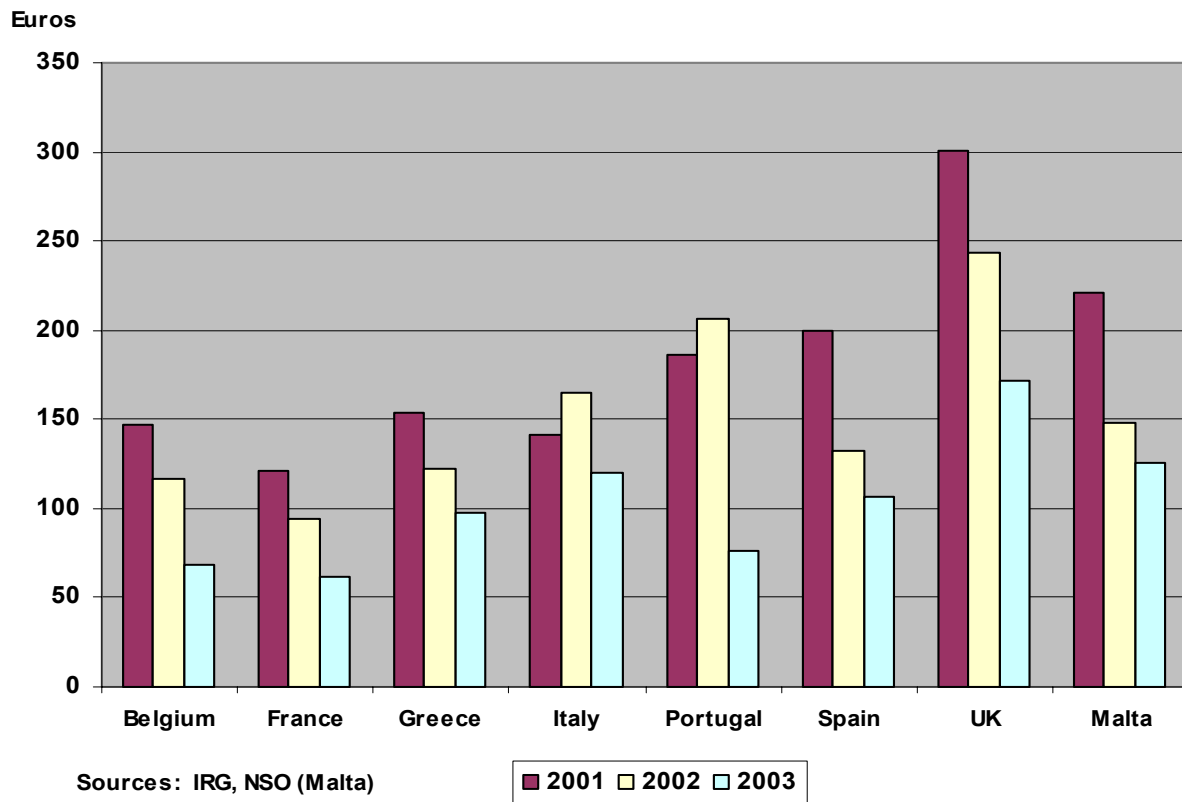


Chart 4 shows also a generally declining trend in investment per capita across all the featured countries. Such a trend might reflect higher uncertainty with regards to the general economic cycle throughout Europe in the past years, as well as the consolidation of the telecommunications sector worldwide. The Maltese telecommunications sector exhibits a similar trend starting from 2002. However, this was the result of a surge in investment during 2000 and 2001, which was not repeated in subsequent years. In fact this surge in investment is mainly attributable to a start-up investment by a new entrant in the mobile-telephony business in 2000 and a major network upgrade by another mobile operator in 2001.

8 REGULATORY DEVELOPMENTS IN MALTA

The main development for the period March to September was definitely the new Electronic Communications Legislation that came into force in September 2004. The new legislative framework aims to promote competition by facilitating the removal of barriers to entry in non-competitive markets and the creation of a level playing field in the sector. Other important areas are that the legislation ensures technology neutrality in regulation and that it introduces new rules regarding the management of radio spectrum.

The new legislation effectively transposes the EU regulatory framework for electronic communications into national legislation.

Another central development during this period was the publication of three particular consultation documents. These documents covered the topics of Fixed Wireless Access, Voice over IP and UMTS. These are all technologies that will shape the future of electronic communications and their importance cannot be undermined. The responses to these consultations will be covered in the next market report.

8.1 Consultative Documents

[Voice over IP: Regulatory Principles for Innovative Services](#)

This consultative document aims at addressing issues such as service definition and classification, quality of service, pricing, reliability, availability, numbering and billing for VoIP services.

[Interconnection Strategy for the Telecommunications Sector in Malta](#)

This document provides an overview of the MCA's proposed short and medium to long-term strategy aimed at addressing the current level of interconnection charges in light of current benchmarks and developments in this regard at EU level.

[Fixed Wireless Access \(FWA\)](#)

This consultative document outlines a number of possibilities regarding the local introduction of FWA while providing insight into the market sector itself.

[Digital Broadcasting Strategy](#)

This digital broadcasting strategy has been drawn up in respect of the migration from analogue to digital networks. It focuses on the key implications of introducing both digital television and digital radio transmissions.

[Third Generation \(3G\) Mobile Telephony](#)

This consultative paper outlines proposals leading to the development of a supply-side regulatory framework that would support the successful deployment of next generation mobile telephony in Malta.

8.2 Decision Notices

[Introducing Carrier Selection and Carrier Pre-Selection in Malta](#)

This notice includes the report on the consultation paper and the subsequent Decision.

[Maltacom plc - Tariff Rebalancing Proposal, November 2003](#)

This document outlines the MCA's decision with respect to the proposal submitted by Maltacom plc in November 2003 for a revision of its tariff schemes

8.3 Legislation

The new ELECTRONIC COMMUNICATIONS LEGISLATION came into force on the 14TH September.

[- L.N. No. 410 of 2004](#)

TELECOMMUNICATIONS (REGULATION) ACT (CAP. 399)
Telecommunications (Repeal of Various Regulations) Regulations, 2004
Government Gazette of Malta No. 17,652 - 14.09.2004

[- L.N. No. 411 of 2004](#)

COMMUNICATION LAWS (AMENDMENT) ACT, 2004 (ACT NO. VII OF 2004)
Commencement Notice
Government Gazette of Malta No. 17,652 - 14.09.2004

[- L.N. 412 of 2004](#)

ELECTRONIC COMMUNICATIONS (REGULATION) ACT (CAP. 399)
Electronic Communications Network and Services (General) Regulations, 2004
Government Gazette of Malta No. 17,652 - 14.09.2004

[- L.N. No. 413 of 2004](#)

ELECTRONIC COMMUNICATIONS (REGULATION) ACT (CAP. 399)
Electronic Communications Networks and Services (General) Regulations, 2004
Government Gazette of Malta No. 17,652 - 14.09.2004

The amendments to the Malta Communications Authority Act, Cap 418, the Telecommunications (Regulation) Act, Cap 399 – now renamed the Electronic Communications (Regulation) Act - and the Electronic Communications Networks and Services (General) Regulations have the objectives of:

- Facilitating the removal of barriers to entry in non-competitive markets.
- The creation of a level playing field in the sector.
- Achieving greater legal clarity so as to enable market players to plan on the basis of predictable outcomes.
- Ensuring technology neutrality in regulation.
- Introducing new rules regarding the management of radio spectrum.

These new laws also transpose the EU regulatory framework for electronic communications, which comprises the following directives:

The Framework Directive sets out the key principles underpinning the regulation of the electronic communications sector. It establishes objectives for national regulatory authorities, such as the Malta Communications Authority (MCA), and provides a new methodology for establishing relevant markets and for the designation of undertakings having Significant Market Power (SMP) based on Competition Law.

The Authorisation Directive requires a transition from the individual licensing regime adopted to date, to one based upon general authorisations. The Directive also sets out the maximum conditions that may be attached to a general authorisation, as well as the rights of use of radio frequencies and numbers and the rights of way.

The Access Directive sets out the principles under which obligations regarding access and interconnection may be imposed on undertakings. In particular, it sets out the regulatory obligations that may be imposed on an undertaking found to have significant market power in a relevant wholesale market and the principles guiding the imposition of such obligations.

The Universal Service Directive sets out obligations on the provision of certain mandatory services and establishes the rights of users and consumers and the corresponding obligations of organisations providing electronic communications services.

8.4 General

ANNUAL CONFERENCE

The MCA organised its second Annual Conference in May. The international conference was entitled 'Building the Information Society, Broadband, 3G Mobile and Digital TV'.

The keynote speaker was Professor Jens Arnbak, chairman of OPTA, the independent national regulatory Authority for post and telecommunications in the Netherlands and Past Chairman of the European Regulators Group, and a veteran in the telecommunications industry.

ELECTRONIC COMMUNICATIONS REGULATORY FORUM

This forum, which was organised by the MCA and attended by all electronic communications operators discussed the Implementation of the new Electronic Communications Regulatory Framework. In particular the process of Market Definition, Analysis and Designation of Significant Market Power under the new Electronic Communications Legislation were explained in detail during the meeting.

INTERNET HEALTH MONITORING SYSTEM

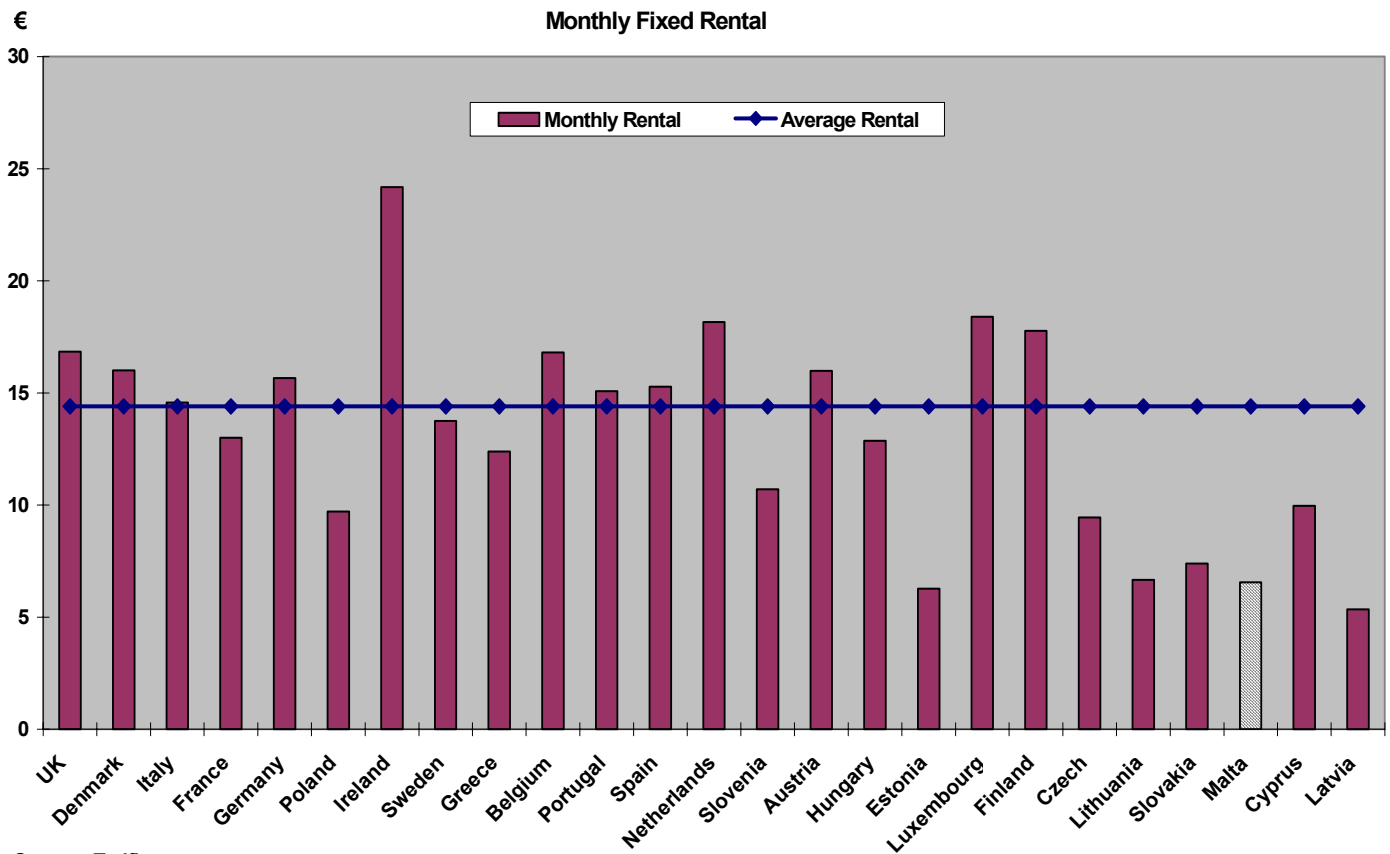
In September the MCA launched an Internet Health Monitoring System (IHMS). The IHMS is a web server, accessible by the general public, which provides information regarding the status of Internet connectivity both domestically and overseas, in an easy to use and understandable manner. The IHMS website can be accessed by going to www.nethealth.net.mt. The implementation of the IHMS is a collaborative effort that is just one initiative to boost the quality of Internet services in Malta. In fact Internet users had made over 18,000 tests by the end of November.

9 INTERNATIONAL TARIFFS ANALYSIS

9.1 EU Benchmarking of Retail Tariffs

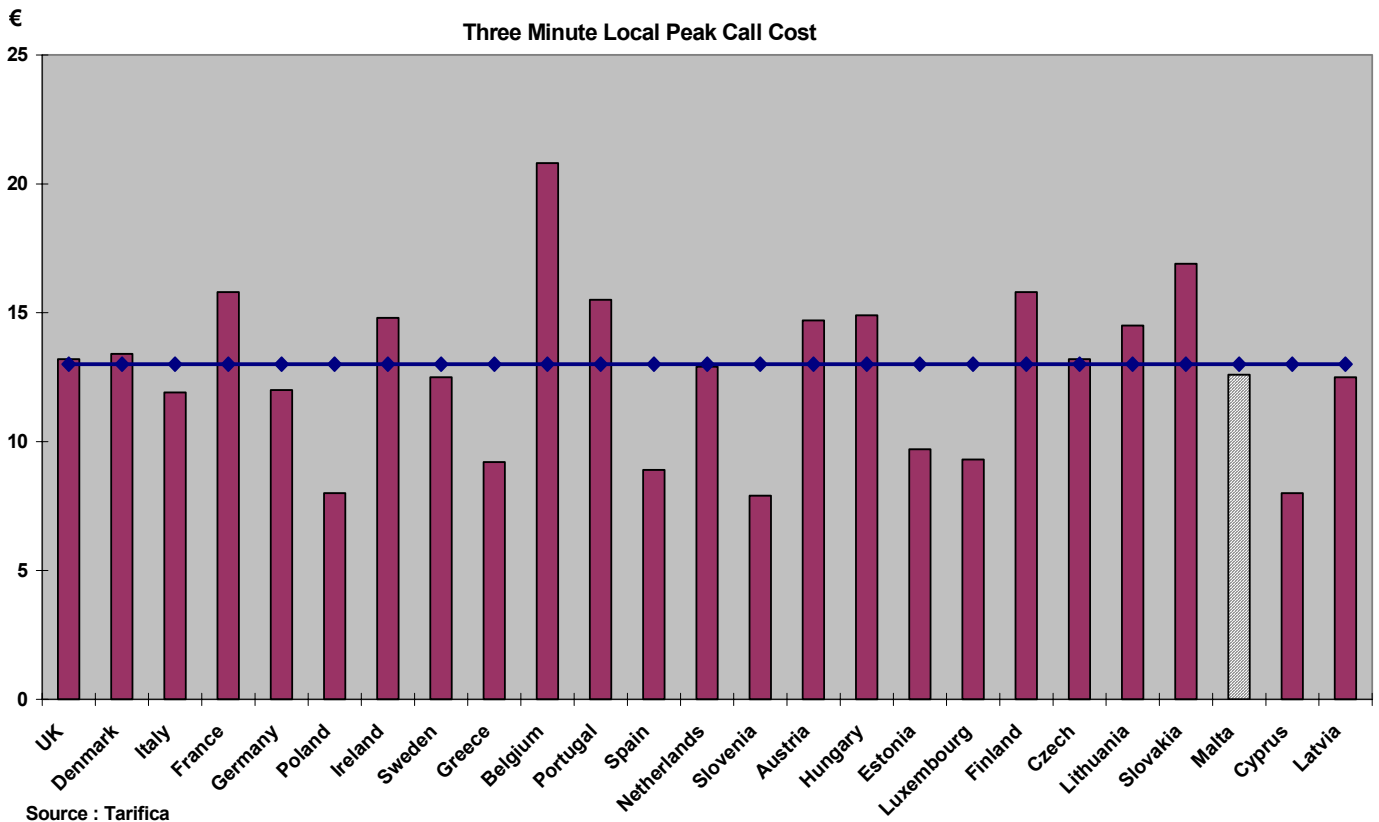
9.1.1 Monthly Fixed Line Tariffs

The chart below shows the residential monthly line rentals for fixed telephony in European States. The overall average is of €14.4. Locally the monthly rental is significantly below the EU Benchmark at the equivalent of €6.6.



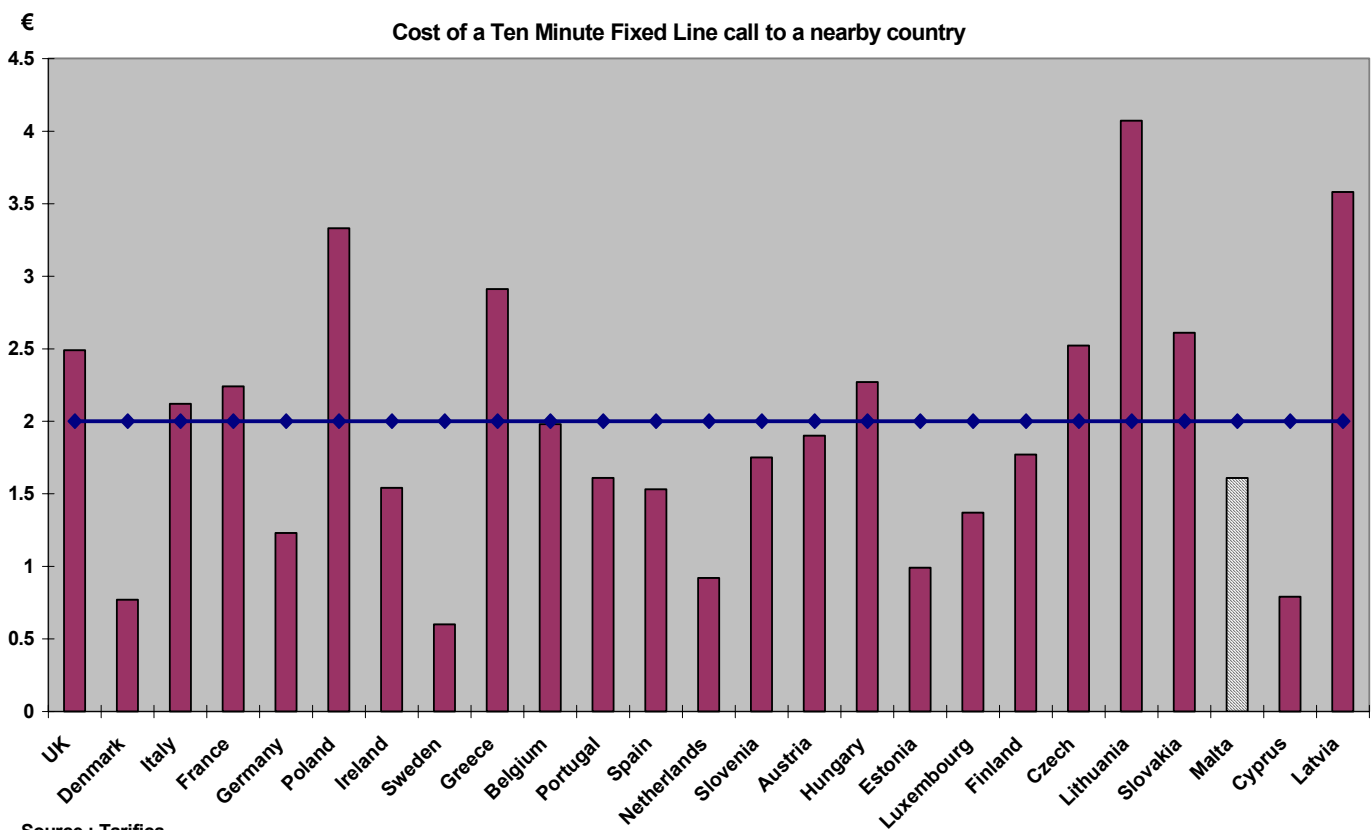
9.1.3 Local Fixed Line Call Tariffs

The following charts reflect the retail charges for customers making a fixed line call of three minutes duration during a peak time. The average call cost for such a call in the EU is of €13 cents. In Malta the cost of such a call is slightly under the average at €12.6 cents.



9.1.4 International Fixed Line Calls (to a nearby country)

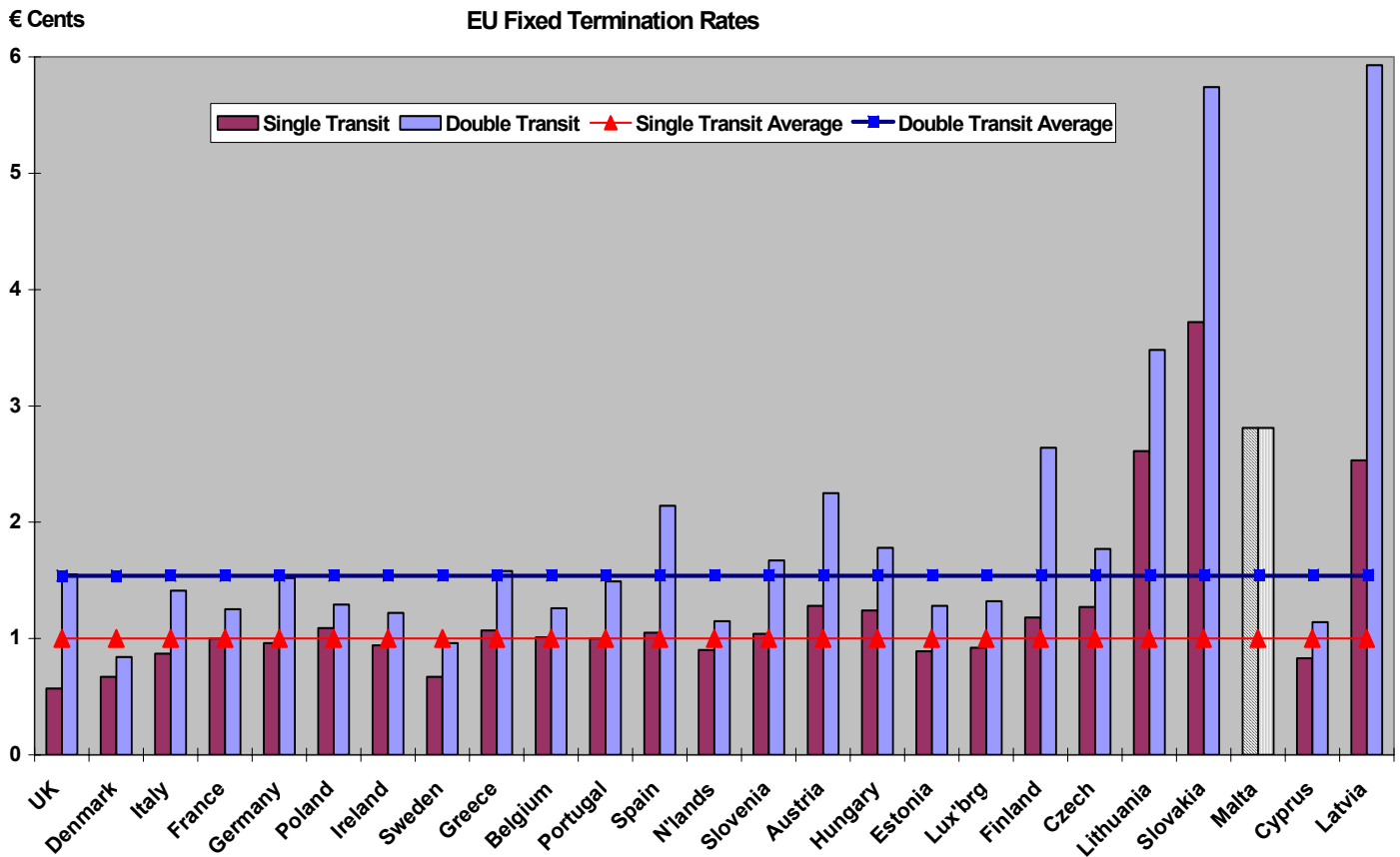
The illustration below indicates the cost of a ten-minute call to a nearby country. In Malta's this case this case it would be Italy. As can be seen the local cost for such a call is clearly below that of the EU average. This benchmark is a radical change from that reported in the previous report and is indicative of the reduction in rates by Maltacom in June 2004.



9.2 EU Benchmarking of Wholesale Tariffs

9.2.1 Fixed Termination Rates

The charge to terminate a call of a one-minute duration on a fixed network is shown below. The chart depicts both single and double transit costs. The highest local interconnect is of €0.0281 cents. The local rates are still well above the European average, although it must be noted that there was a substantial reduction very recently in December 2004 whilst the data referring to the other European countries relates to July 2004.



9.2.2 Mobile Termination Rates

The recent reduction in the local mobile termination rates can also be clearly seen below. In fact the local rates are below the EU average. However as in previous benchmarks the EU average is based on July 2004 information whilst the local rates are as at December 2004. In the mobile market termination rates are fast being reduced in all countries.

