Executive Summary

A study prepared for the European Commission
DG Communications Networks, Content & Technology by:
This study was carried out for the European Commission by

Internal identification
Contract number: 30-CE-0598139/00-32
SMART number: 2013/0055

DISCLAIMER
By the European Commission, Directorate-General of Communications Networks, Content & Technology.

The information and views set out in this publication are those of the author(s) and do not necessarily reflect the official opinion of the Commission. The Commission does not guarantee the accuracy of the data included in this study. Neither the Commission nor any person acting on the Commission’s behalf may be held responsible for the use which may be made of the information contained therein.

doi:10.2759/729441

Copyright © 2016 – European Union. All rights reserved. Certain parts are licensed under conditions to the EU. Reproduction is authorised provided the source is acknowledged.
I. Introduction

As the provision of fast and ultra-fast internet access for all is one of the priority action areas of the “Digital Agenda for Europe” (DAE) initiative, the European Commission pursues the monitoring of broadband internet access offers, which was started in the frame of the “i2010 – A European Information Society for growth and employment” initiative.

Through the Broadband Internet Access Cost (BIAC) study, it is analysed and compared how much residential customers actually pay for fixed broadband\(^1\) in the EU28 and a number of other countries (Canada, Iceland, Japan, South Korea, Liechtenstein, the former Yugoslav Republic of Macedonia, Norway, USA (i.e. State of California, State of Colorado and State of New York), Switzerland and Turkey).

This report contains the results of the analysis of Standalone and bundled broadband offers collected from a broad range of ISPs\(^2\) in Autumn 2015 (21 September 2015 – 10 October 2015). For all offers, a set of financial and technical parameters was collected, allowing to calculate the total cost that a consumer actually pays per month. The analysis and comparison is thus performed on this total monthly price, composed of the basic monthly charges and all other relevant elements such as e.g. the initial set-up charges, the rental price for equipment, discounts, etc. To allow a comparison on a like-to-like basis, the broadband offers are grouped per type of service offering and allocated to different speed baskets\(^3\), notably:

<table>
<thead>
<tr>
<th>Types of service offerings</th>
<th>Speed baskets</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standalone broadband</td>
<td>144+kbps-1Mbps</td>
</tr>
<tr>
<td>Double play with Tel:</td>
<td>1+Mbps - 2Mbps</td>
</tr>
<tr>
<td>broadband in a bundle with fixed telephony</td>
<td>2+Mbps - 4Mbps</td>
</tr>
<tr>
<td>Double play with TV:</td>
<td>4+Mbps - 8Mbps</td>
</tr>
<tr>
<td>broadband in a bundle with TV</td>
<td>8+Mbps - 12Mbps</td>
</tr>
<tr>
<td>Triple play:</td>
<td>12+Mbps - 30Mbps</td>
</tr>
<tr>
<td>broadband in a bundle with fixed telephony and TV</td>
<td>30+Mbps - 100Mbps</td>
</tr>
<tr>
<td></td>
<td>100+Mbps</td>
</tr>
</tbody>
</table>

Per country, type of service offering and speed basket, the least expensive offer is identified, and its total monthly price is subsequently compared between countries and over time.

---


2 Per country, data is collected from the largest ISPs together covering 90% of the market (with a maximum of 8 ISPs per country). For non-EU countries, an 80% market coverage is aimed at.

3 Which each also have different usage levels per service included (e.g. downloadable volume, number of minutes, etc.).
II. Results of the study

In Autumn 2015, a total of 4,859 Standalone and bundled offers including fixed services were collected\(^4\). 37% of these are Standalone offers, whereas Double play including Telephony, Triple play and Double play including TV respectively account for 26%; 23% and 14% of all collected offers. No less than 49% of offers are provided through FTTx technology, while 22% are cable offers and 20% are provided through xDSL. The remaining 9% are offers provided through Ethernet, Plug & Play technologies or Satellite.

The study results show that between 2012 and Autumn 2015, at the EU28 level prices for all types of service offerings and all speed baskets have fallen, albeit to a different extent. The drop is most consistent over the years and at the same time most outspoken for 30-100 Mbps offers, and the largest decline observed of 25.9% relates to Double play with fixed telephony offers in this speed range. In the 100+-Mbps range, a drop in prices was for the first time observed during the previous data collection (February 2015), and this new trend is further confirmed, with prices dropping by between 5 and 15% between February and October 2015. In the lower speed baskets (i.e. 30 Mbps and lower), the decreasing trend in prices is more limited, and has furthermore slowed down during the most recent period. For Triple play offers, an increase has recently even taken place in these speed ranges. At the individual Member State level, the good news is that prices in several speed and service offering baskets have slightly grown closer, as prices in the most expensive country or countries have often decreased. A price drop is however not a ubiquitous trend among countries with higher prices, and combined with the fact that in countries with lower prices a stable or even downward evolution can be observed, considerable differences remain.

Distinguishing between good and bad performers is not always straightforward, since Member States’ relative position in some cases strongly differs between types of service offerings and speed baskets:

\(^4\) In addition to this, 1852 bundles including mobile telephony and/or mobile broadband were also collected.
Clustering is performed through the k-means clustering approach, a method that aims to partition all observations in a predefined number of clusters by minimising the average squared Euclidean distance of observations to the cluster centre, with 4 clusters. In the graph, all clusters are centered around the cluster mean, and the size of the clusters illustrates the number of observations belonging to the cluster.

Figure 1: Clustering of countries based on prices for the least expensive offer available for Standalone, Double Play and Triple Play (expressed in EUR/PPP, VAT included)
A low price for all types of service offerings and speed baskets is encountered in Poland, and apart from some exceptions also in Bulgaria, France and Lithuania, whereas Belgium, Croatia, Cyprus, Ireland, Italy, Malta and Spain are expensive for all selected offer types. In other countries, the situation is more mixed, e.g. in Czech Republic, Hungary and Sweden Standalone offers are low-priced, while only in the latter country the same can be said for Double play with fixed telephony. Similarly, Denmark, Finland, Estonia and Sweden have low-priced least expensive offers in the 8+Mbps – 12Mbps range, whereas Latvia offers low prices for speeds above 12 Mbps, and Romania in the 100+Mbps-category.

When expressing these monthly prices as a percentage of income, results are more or less confirmed, as all bad performers on average show a percentage of income per capita spent on broadband access that is higher than the EU28 average, while nearly all good performers have a percentage below the EU28 average. The only exception is Bulgaria, as on average, 2.26% of Bulgarian income per capita is spent on broadband access as defined in the BIAC study, which is more than the EU28 average of 1.9%. The leading positions are reserved for France, Lithuania, Finland and Germany, where on average less than 1.40% of income per capita is spent on (bundles with) fixed broadband.

The ‘clustering’ analysis also illustrates the effects of higher speeds and of bundling of products on the offer prices:

- At EU28 level, the premium for upgrading a 12-30 Mbps offer to the 30-100 Mbps speed range is rather limited. This amount of around 2 to 4 EUR/PPP is in stark contrast to the premium of 13 to 14 EUR that needs to be paid on average in the EU for upgrading from a 30-100 Mbps offer to an offer of more than 100 Mbps. Moreover, individual country premiums for passing the 100 Mbps cap are much more diverse and can in some cases (i.e. Cyprus, Malta and Slovenia) even be larger than 50 EUR/PPP. Also, countries in which the price of the least expensive 100+ Mbps offer is lower than the 30-100 Mbps equivalent, are scarce, while a negative premium for going from a 12-30 to a 30-100 Mbps offers appears in a handful of countries for all types of service offerings. Finally, this in some cases negative correlation between speeds and prices becomes the general rule for the lower speed basket: indeed, in many countries the least expensive available offer in the 12-30 Mbps basket is cheaper than that of the 8-12 Mbps basket, resulting in a negative premium of -1 to -6 EUR/PPP at EU28 level. Considering all these elements, it is therefore not surprising that, for the three types of bundles, the EU28 average of 30-100 least expensive offers is also cheaper than that of the 8-12 Mbps basket.

- In general, prices increase as services are added, but, as was observed during the last BIAC exercise, the addition of fixed telephony usually comes at a higher price than the addition of TV, i.e. respectively +9.5 to 10.5 EUR/PPP and +5.5 to 8 EUR/PPP on average. Moreover, there are some exceptions to the overall trend, as in a couple of countries the least expensive Triple play offer is cheaper than the least expensive Double play offer (with Telephony or TV). In the 30-100 Mbps basket in Hungary, the least expensive Triple play offer is cheaper than both types of Double play offers, while in Cyprus and France Triple play is cheaper than Double play with Tel in several speed baskets.

---

6 In the former two countries, this is the case for Triple play offers, while in the latter two countries, this is the case for Standalone offers.
The BIAC data collection exercise results in a rich dataset allowing for several insights:

From the EU-wide statistics on least expensive offers resulting from the study, the following observations can be made:

- 31% of offers are provided by incumbents. However, **incumbents offer the cheapest product only in around 10% of cases**. This is a considerable drop from the 20% observed during the last BIAC exercise. Relatively speaking, incumbents seem to more often offer the best deals for Triple play and Double play with Tel offers.

- Nearly 3 out of 4 least expensive offers in the 30-100 Mbps basket are FTTx offers, while in the lower basket (12-30 Mbps), FTTx together with xDSL accounts for around 2 out of 3 least expensive offers. In the latter basket, cable thus comes out more often as least expensive technology, i.e. in 26.3% versus 18.6% (for 30-100 Mbps) of cases. These percentages are rather in line with the relative importance of cable offers in the entire collected sample (22%).

When not only focusing on the statistics of least expensive offers per category but on those of all collected offers, a comparison can be made with EU take-up figures per speed basket and per type of service offering. While no real trend can be derived from the correspondence between the types of service offerings provided by ISPs and those subscribed to by customers, the comparison of the relative importance of speed categories in the number of collected offers and the take-up per speed category shows that **lower speed offers appear to still be more popular among consumers than what is proposed**. Above 10/12 Mbps and especially above 30 Mbps, the relative number of offers clearly surpasses the demand. This observation is very similar to what was seen during the February 2015 exercise. The only difference is that there are now a few more countries where this effect can only be observed for speeds above 30 Mbps. This information thus further confirms last year’s observation that many consumers do not migrate to higher speed products simply because these become available. The **changeover to higher speed can first be observed at the offers and then at the take-up**.

Further analysis of all collected offers shows that on average, 85% of the price paid by consumers on a monthly basis corresponds to the monthly subscription fee, the remaining **15% thus covering additional recurring and (a part of) non-recurring costs** (equipment, installation, activation, etc.). Like during the last BIAC exercise, especially in Bulgaria, Finland, Lithuania and Poland does the advertised price correspond very well to the actual price to be paid. While in Ireland, Spain and the United Kingdom, more than 30% needs to be added to the advertised price. In the United Kingdom, the price consumers actually pay is even more than double the advertised price.7

Finally, in all cases, the EU28 average of least expensive offers is substantially cheaper than that of the USA and Canada. Above 30 Mbps however, offers from Japan and South Korea come into the equation, and these countries **systematically have lower least expensive prices than the EU28 on average**. The price of least expensive 30-100 Mbps offers is indeed on average 8% higher than in Japan and 29% higher than in South Korea. The gap is even larger for 100+ Mbps offers (i.e. on average +57% compared to Japan and +40% compared to South Korea).

---

7 This is largely due to the fact that to nearly every offer a separate charge needs to be added to fixed telephone line rental or cable TV subscription, whereas in other countries this fee is more often included in the monthly broadband subscription fee.