

**B I P T**

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**BELGIAN INSTITUTE FOR POSTAL SERVICES  
AND TELECOMMUNICATIONS**

**Comparative study on the price level of telecom  
products in Belgium, the Netherlands, France,  
Germany and the United Kingdom [tariffs of August  
2014]**

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**\*\*\*DISCLAIMER: This study on telecom products offers an overall view of prices in various countries according to predetermined profiles. Because of methodological assumptions this study is not suitable for comparing operator tariffs within one and the same country.\*\*\***

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## 1 EXECUTIVE SUMMARY

### **Methodological key elements of the study:**

- In total 699 tariff plans from five countries have been analysed (Belgium, the Netherlands, France, Germany and the United Kingdom). Only the prices mentioned on the operator's website and/or in his online price lists have been taken into account.
- The methodology applied in the study is based on the OECD methodology. Prices of telecom products are compared in a uniform way based on user profiles or product categories.
- User profiles take account of Belgian user behaviour and have been developed after an enquiry from the main Belgian operators. Therefore, they do not necessarily correspond with the average use of telecom products in the neighbouring countries. However, product categories classify tariff plans based on objective (technical) parameters.
- For each country at least three operators have been selected in order to give a representative picture of tariff plans on the market concerned. The total market share of these operators amounts to at least 80%.
- The tariffs were looked up between 01/08/2014 and 12/08/2014: as a result this study is a snapshot of telecom prices. The telecom market is dynamic and therefore the prices and/or structure of certain tariff plans are very likely to have changed in the meantime.
- The study only treats residential use (for consumers), thus excluding the business market.
- Prices are in euro, inclusive of VAT, corrected according to the purchasing power parity. Belgium has been considered to be the standard.
- Once-only installation costs and promotions restricted in time, have not been taken into account.
- Per operator for each profile the cheapest tariff plan has been included in the price comparison. The hypothesis is based on a 'rational consumer' who will compare prices of his own accord and select a tariff plan that suits his needs best.

### **Important limitations inherent to a purely quantitative comparison of telecom products:**

- In Belgium's neighbouring countries the minimum contract duration is typically one or two years, whereas the maximum actual contract duration in Belgium does not exceed six months. This difference in duration generally has an influence on the average price level observed, which probably puts Belgium at a disadvantage in this comparison.
- The results from the price comparison study are strongly dependent on the user profiles.
- Qualitative aspects (access to hotspots and Wi-Fi, free use of online music services, watching television on several devices, etc.) are not taken into consideration. Nonetheless, certain qualitative elements are explained in chapter 13.
- If the price comparison shows that a specific product A is cheaper than another product B, it does not automatically mean that product B is less advantageous for the customer, because certain qualitative aspects of product B which have not been included in the price comparison may be of use to him.

### **MOBILE TELEPHONY POSTPAID<sup>1</sup>**

On average, Belgium takes third place. In general, a consumer would pay slightly less in France or the United Kingdom for his mobile phone use. The Netherlands and Germany are mostly more expensive. For profile 4 (which is the most representative for the average mobile user in Belgium) Belgium finishes favourably in second place. For this profile only the United Kingdom is cheaper.

### **MOBILE TELEPHONY PREPAID<sup>2</sup>**

Compared to 2012 and 2013 Belgium maintains its good position. Belgium takes second place, behind the United Kingdom. A prepaid customer would be worse off in France; the price difference is quite large. Also the Netherlands and Germany are more expensive.

### **FIXED TELEPHONY<sup>3</sup>**

Within the group of analysed countries, Belgium generally takes a favourable position. Belgium has the lowest weighted average price for two out of five profiles (the 'heavy' profiles 4 and 5). For profile 2 Belgium is second best. As to profiles 1 and 3 Belgium has an average score and is preceded by France and Germany. In all user profiles Belgian consumers would pay more in the UK and in the Netherlands.

### **BROADBAND INTERNET<sup>4</sup>**

For lack of observations within the group of selected Belgian operators and because of insufficient representativeness<sup>5</sup> it is impossible to compare countries for stand-alone broadband products.

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<sup>1</sup> The vast majority of mobile callers has a stand-alone mobile contract, which means that only a very small minority concludes his mobile contract together with other telecom services (in a bundle).

<sup>2</sup> 40% of mobile callers use a prepaid card (last year this was 48%). On average, this group of users makes less calls than people with a postpaid subscription: only 12% of all outgoing call minutes is made as part of a prepaid tariff plan.

<sup>3</sup> Of all households having a fixed telephony subscription 71.7% purchase it in a bundle. The other 28.3% purchases fixed telephony as a stand-alone product. Therefore, the comparison exercise where the bundle includes fixed telephony, is more representative.

<sup>4</sup> The downward trend of selling fixed broadband as a stand-alone product continued in 2013; only 16.6% of broadband subscribers still takes this product in an unbundled form. This evolution is clearly shown in this price study.

<sup>5</sup> See '30% rule', § 8.

## **MOBILE INTERNET (FOR TABLET USERS)<sup>6</sup>**

Compared to its neighbouring countries Belgium scores very well as regards tariff plans for low to heavy use. In those categories only the United Kingdom is cheaper. In the intensive use category Belgium scores badly: Belgium finishes last here.

## **DUAL PLAY (BROADBAND AND TELEVISION)<sup>7</sup>**

This dual play combination is only offered by Belgian and Dutch operators. Only for category 2 (average speed) a valid result was obtained. In this category the Dutch offer is more competitive, when the weighted average price is considered. Dual play broadband and television including an ultrafast broadband component is offered only by VOO in Belgium.

## **DUAL PLAY (BROADBAND AND FIXED TELEPHONY)<sup>8</sup>**

The selected Belgian operators only offer dual play broadband and fixed telephony with an average speed. Without extra costs for the use of fixed telephony Belgium takes third place within the group of four countries where this dual play combination is offered. In that scenario the weighted average price is lowest in France. When those costs for fixed telephony are included, Belgium is second - both for profile 1 (25 calls) and profile 2 (70 calls) - behind Germany, where the rise of the total cost after adding the extra costs for fixed telephony is by far the smallest.

## **TRIPLE PLAY<sup>9</sup>**

In category 2 (30 to 60 Mbps) Belgium - without extra costs for the use of fixed telephony - takes an unfavourable last place but one in the group of five countries studied. When considering extra costs for fixed telephony (25 calls) Belgium turns out to be the cheapest country but one in the benchmark. When the cost of 70 fixed telephone calls is included Germany finishes second, before Belgium. France definitely presents itself as the cheapest country for this type of product.

As for category 3 (60 to 100 Mbps) the relatively reasonable costs of fixed telephony in Belgium are to its advantage. When taking into account the cost of 70 calls our country presents itself as the most competitive one in a group of three countries (Belgium, the Netherlands and the UK).

Finally, in category 4 (over 100 Mbps) our country brings up the rear in the group of four countries selected in the analysis. The situation is slightly better when the cost of a fixed telephony profile 2 (70 calls) is taken into consideration. In that case the additional costs force the total weighted average cost for the Netherlands strongly upwards, as a result of which

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<sup>6</sup> Penetration of mobile data without voice (stand-alone: dongles and SIM cards for tablets) is very low in Belgium and only amounts to 6%.

<sup>7</sup> About 21% of Belgian households have a dual play bundle. The combination of broadband + television is most common (54% of all dual play bundles).

<sup>8</sup> About 21% of Belgian households have a dual play bundle. The combination of broadband + fixed telephony is the second most common (24% of all dual play bundles).

<sup>9</sup> A classical triple play (fixed telephony + broadband + television) is the bundle most purchased (about 35% of all households have a triple play bundle).

Belgium moves up to the last place but one in the ranking. In this category too, France presents itself as the cheapest country.

Due to the change of methodology making a comparison with the previous edition of the price study is not evident. It would seem that the situation has not changed significantly in that for the products with a download speed under 100 Mbps, Belgium rather takes an average position, whereas for triple play offers that include an ultra-fast Internet component (>100 Mbps) our country turns out to be expensive compared to the neighbouring countries where such products are available.

## 2 OBJECTIVE AND BASIC METHODOLOGY

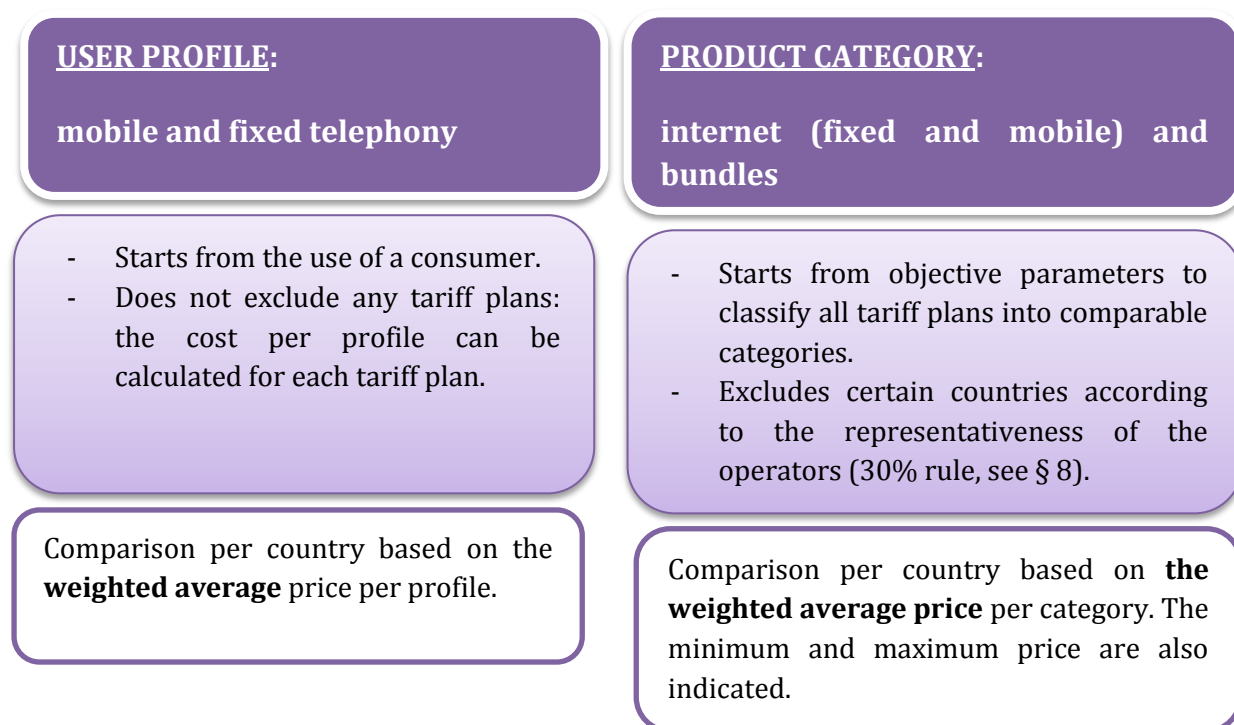
1. The purpose of this study is to verify how the price level of telecom products on the Belgian market compares to the price level of similar products in the countries that surround us. BIPT first started this study in 2012 at the request of vice prime minister Johan Vande Lanotte. This document is the third edition, based on data collected in August 2014.
2. BIPT has examined the price level of telecom products in a group of five countries (Belgium, the Netherlands, France, Germany and the United Kingdom). A total of 699 tariff plans has been compared for residential users in the five countries mentioned above, including:
  - 263 for mobile telephony
  - 52 for fixed telephony
  - 103 for mobile Internet
  - 29 for broadband Internet
  - 86 for dual play offers
  - 98 for triple play offers
  - 68 for quadruple play offers.
3. The methodology used in this study is based on the methodology applied by the OECD for comparing prices of telecom products. In short, the OECD gives the following directions for making price comparisons:
  - offers are compared according to predetermined user profiles<sup>10</sup>;
  - only offers the prices of which are clearly indicated on the operator's website are taken into account in the comparison exercise;
  - Internet offers allowing only a limited number of websites or only e-mail are discarded;
  - if several offers apply to the same profile, the cheapest offer is selected for the comparison;
  - at least two main operators (based on market share) are included in the study. If the combined market share of the two main operators is below 80 per cent, more operators are included;
  - the total cost of a tariff plan is the sum of the monthly recurrent cost and the lease of the line or cable (if applicable). Once-only costs of terminal equipment (e.g. the purchase of a modem) are written down over a 3 year period.
4. In chapter 3 further details are given about the methodology. In general this comparison exercise was structured in the same way as last year, but for a few refinements.

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<sup>10</sup> Only for fixed and mobile telephony. The other product types are subdivided into product categories.

## User profiles and product categories

5. So as to compare the various tariff plans, user profiles (for mobile and fixed telephony) or product categories (for mobile data, broadband and bundles) are taken. A user profile is a description of the calling behaviour of a certain user and aims to determine (based on a number of objective parameters) what that user spends periodically and which tariff plan is most advantageous, and that for each operator. A product category is differentiated based on the minimum requirement(s) a tariff plan has to fulfil and aims to divide the tariff plans into coherent groups. The outcome of the comparison is therefore closely linked with the choice of the user profiles and product categories, as is shown in the table below:



6. For each user profile (in case of mobile and fixed telephony) the monthly cost has been calculated for each tariff plan. Next per profile the weighted average is indicated. This average is obtained by multiplying the cheapest tariff plans per profile in one country with the market share<sup>11</sup> a certain operator has on that market. It indicates how much an end-user who fits a certain profile, would spend on average in a country.
7. Per product category (broadband, mobile data and bundles) the weighted average price of the cheapest offers per operator are indicated (according to that operator's market share of the broadband market), as well as the minimum and maximum price of all the offers within the product category concerned.

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<sup>11</sup> Market shares taken from operators' annual reports and data from national regulators, as mentioned by Ofcom on its website. This concerns combined market shares mobile market (postpaid/prepaid). Market shares have been rescaled to 100 (i.e. the operator market shares in a specific country have been adapted, so that together they amount to 100%). The market shares are based on the total number of active users per operator, not the number of users per tariff plan (those numbers are not available).

8. A country's weighted average price is deemed representative only if the combined underlying operators have at least 30% market share ('30% rule')<sup>12</sup>. Non-representative results are not included in the graphs - therefore not all five countries analysed are necessarily included in all the graphs. The fact that a country is not included can also result from tariff plans not being available in a certain category in that country.
9. BIPT has chosen to start as much as possible from consumer use and the product offer on the Belgian market<sup>13</sup> and to compare telecom products in other countries to that standard. That method allows to find out what a Belgian consumer would pay abroad for a telecom product of about similar characteristics.
10. Using user profiles/product categories and the corresponding methodological choices, unavoidably has a number of disadvantages:
  - the first disadvantage is that the consumer use indicated in these profiles does not necessarily correspond with that of typical users in other studied countries and that product categories do not necessarily perfectly fit the product offer in those countries;
  - the second disadvantage is that a number of factors relating to tariff structure and product characteristics among other things, are not considered. Telecom products are more and more combined with extra services (e.g. free Wi-Fi, free premium TV channels) that are of extra use to consumers, but which are not directly quantifiable. Those qualitative elements are left out of consideration.
11. However, BIPT thinks that when interpreting this study sufficient account has to be taken of qualitative elements, which may all have a big influence on observable differences in price levels. Chapter 13 gives more details about qualitative aspects and differences between countries.

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<sup>12</sup> If within a category few tariff plans are available, the combined (absolute) market share should be at least 30%. If it is less than 30% no results are shown for the country concerned. For multiplay offers the market share is determined on the basis of the broadband component.

<sup>13</sup> To develop the profiles an enquiry was made in 2012 into consumer use with the main Belgian telecom providers. Some of them have been further refined in the meantime.

## Representativeness

12. When selecting operators BIPT has striven for maximum representativeness on the analysed markets. For practical reasons only the major operators have been analysed (see figure below). The operators included in this study always represent together at least 80 per cent of the total market for a specific product category in a specific country.

	Mobile telephony & mobile broadband	Fixed telephony	Broadband & bundles
<b>Belgium</b>	- Base Company - Belgacom - Mobistar - Telenet	- Belgacom - Numericable - Telenet - Voo	- Belgacom (incl. Scarlet) - Numericable - Telenet - Voo - Snow*
<b>The Netherlands</b>	- KPN - T-Mobile - Vodafone	- KPN - Tele2* - UPC* - Ziggo*	- KPN* - Tele2 - UPC* - Ziggo*
<b>France</b>	- Bouygues - France Telecom (Orange) - Free - SFR	- Bouygues* - Free* - France Telecom (Orange) - Numericable* - SFR	- Bouygues - France Telecom (Orange) - Free* - Numericable* - SFR
<b>Germany</b>	- Deutsche Telekom - E-Plus - O2 - Vodafone	- Deutsche Telekom - Kabel Deutschland - Vodafone*	- 1&1 - Deutsche Telekom - O2* - Vodafone* - Unity Media (UPC)
<b>United Kingdom</b>	- 3UK - EE (T-Mobile & Orange) - O2 - Vodafone	- BT - Sky - Talktalk - Virgin Media*	- BT* - Sky* - Talktalk* - Virgin Media

Figure 1: List of the operators included in this comparison.

13. Not all of the operators mentioned above offer all services separately. Especially fixed telephony and fixed broadband as stand-alone products are increasingly difficult to get and more and more operators offer those services only in combination with other telecom products, as part of a bundle. Operators who do meet the representativeness criteria but who do not offer stand-alone products of a specific type of product, have been marked with '\*' in the table above. That is why in the comparison for stand-alone products no products of such operators have been included.
14. As a consequence the comparison for the services 'fixed telephony stand-alone' and 'fixed broadband stand-alone' are less representative.

### 3 METHODOLOGY

15. A total of 699 tariff plans for residential users in five countries, namely Belgium, the Netherlands, France, Germany and the United Kingdom have been compared. Because of their proximity these countries are a traditionally often used comparison group.
16. All tariffs have been collected in August 2014. Any changes made in operator tariff plans after August 2014, have not been included in the price comparison. As a result this study is only a snapshot of the price level, and does not represent any price dynamic over a certain period.
17. During the collection of the tariff plans no account was taken of (temporary) promotions or discounts for new customers. If the operator distinguishes the price of a tariff plan according to the contract duration, they were included as separate tariff plans. In the comparison only the cheapest tariff plan is taken into consideration<sup>14</sup> because it benefits the consumer the most in the long run. The contract duration has an impact on the price level for each country. In the neighbouring countries the minimum contract duration is typically one or two years. The monthly price of a tariff plan with a two year contract duration is usually lower than the price a consumer would pay if he committed himself to one year. In Belgium consumers have the right to cancel their contracts unilaterally after six months already, without having to pay an early termination fee.
18. All prices mentioned are inclusive of VAT, in order to reflect the price actually paid by the consumer. Prices are adjusted according to purchasing power parity (Euro PPP)<sup>15</sup>. The purchasing power parity is a measure to compare the price level in various countries, taking account of the relative purchasing power in a particular country, related to a commonly defined set of goods and services. Belgium is taken as the reference point. That way an indication is given of how much a consumer would pay for a particular product abroad with the same level of purchasing power as the Belgian consumer.

Country	VAT percentage	PPP (EU27 = 1)	PPP (Belgium = 1)
Belgium	21%	1.1264	1
The Netherlands	21%	1.09829	0.9750
France	20%	1.12353	0.9975
Germany	19%	1.04160	0.9250
United Kingdom	20%	0.923997	0.8203

Figure 2: VAT % (Source: OECD Statistics) and PPP (Source: Eurostat data base).

<sup>14</sup> In Belgium by definition the minimum contract duration is six months.

<sup>15</sup> The correction factor also covers the rate of exchange; this is important for the United Kingdom. For a detailed description and more background information about how the data concerning purchasing power parity have been created, we refer to the Eurostat website:

[http://epp.eurostat.ec.europa.eu/cache/ITY\\_SDDS/EN/prc\\_ppp\\_esms.htm](http://epp.eurostat.ec.europa.eu/cache/ITY_SDDS/EN/prc_ppp_esms.htm).

19. Further on in this chapter the methodological choices of the study are treated more profoundly. In section 3.7 further explanation is given about a number of general points of interest regarding the interpretation of this study.

### 3.1 Mobile telephony postpaid

#### Cost calculation mobile telephony postpaid

20. When determining the monthly recurrent cost of the tariff plans for postpaid mobile telephony, account has been taken of the following elements:
- the monthly subscription fee that is due and the call minutes, SMS messages and mobile data included in that fee.
21. Apart from that depending on the profile chosen (see below) the cost of the following elements has been calculated:
- the number of call minutes, SMS messages and any mobile data in the profile, not included in the subscription;
22. Account has also been taken of possible extras regarding:
- extras for the number of call minutes (e.g. fixed fee for unlimited on-net calling);
  - extras for SMS messages (e.g. flat fee for unlimited texting);
  - extras for mobile data (e.g. flat fee per 500 MB of data).
23. Any other extras have been left out of consideration<sup>16</sup>. As mentioned in section 3.7 offers do not distinguish themselves purely based on their price levels. Qualitative aspects also play a role, such as giving free content in the form of free Wi-Fi or access to hotspots, free use of Facebook and Twitter, free access to a music service, etc. These qualitative advantages have not been taken into account in the price comparison.
24. Tariff plans where the end-user pays at the end of the month according to his usage and where no fixed subscription fee is required, are included in the price comparison of postpaid tariffs<sup>17</sup>. Tariff plans only sold online (web-only) have also been included. Limited use tariff plans with (e.g. blocked flat rates) have been left out of consideration.
25. No account has been taken of promotions giving a temporary reduction on the monthly subscription fee for new customers. In some countries the price of the tariff plan depends on the contract duration set by the customer. In that case the cheapest formula was opted for, which in practice boils down to the longest contract duration (e.g. 24 months in Germany). In Belgium consumers have the right to cancel their contracts after six months unilaterally and for free, as laid down in the Telecom Act of 13 June 2005. In reality most Belgian telecom operators do not impose a contract duration, which means that customers can cancel their contracts at any time and switch to another operator - see also section 3.7.

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<sup>16</sup> This involves among other things extras for international calls and extras for cheap and/or free calls to a limited number of personally selected numbers or a free service bundle added to the offer.

<sup>17</sup> An example of such a tariff plan is Telenet's 'Prijs volgens gebruik' ('Price according to usage'). Contrary to prepaid tariff plans for these tariff plans the customer is not required to charge a specific amount in advance.

26. Once-only charges, such as the purchase or activation of a SIM card, have been left out of consideration. Extra tariffs for extra services not included in the description above have also been left out of account<sup>18</sup>.
27. MMS tariffs and international rates for calls/SMS messages/data (roaming) have not been taken into account in the profiles selected.
28. Consumer behaviour is not uniform in all countries; this factor is one to make a price comparison extra complicated. An example is the importance of conditional sales (handset subsidy). Conditional sales, where subscription formulas are offered in combination with the sale of a GSM handset, have been left out of the price comparison. As a result the tariff formulas included are always SIM only. According to Belgian operators conditional sales form only a small part of the tariff plans sold. Abroad conditional sales are more common practice: that is why customers are quicker to change their handsets. Seeing that SIM only tariff plans are less commonly bought foreign tariff plans are less representative in this comparison.

#### Explanation about profiles for mobile telephony postpaid

29. In order to have a solid basis of comparison to compare the various tariff plans in a relevant way, six consumer profiles have been developed, all of which imply a specific usage by the end-user<sup>19</sup>. The figure below gives an overview of those profiles.
30. As can be deduced from the figure below, account has been taken of the number of call minutes, SMS messages and data usage to calculate the monthly recurrent cost of a tariff plan. The number of call minutes is divided according to destination (on-net/off-net) and period (peak, off-peak, weekend). Each time, free call minutes and other extras have also been applied according to the division indicated in these profiles. Some profiles include 'unlimited SMS messages'. In that case the monthly cost has been determined for 1,000 SMS messages.
31. The profiles in the figure below have been applied to all postpaid tariff plans. Next, for each profile it has been investigated which tariff plan is cheapest per operator. This cheapest tariff plan per operator for a certain profile has been included in the price comparison<sup>20</sup>. Those cheapest tariff plans have been weighted according to the operator's market share, to obtain a national weighted average cost in the end.

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<sup>18</sup> This concerns a wide range of additional tariffs, such as tariffs for the use of customer services and the purchase of a SIM card.

<sup>19</sup> The profiles have been developed to reflect consumer usage on the Belgian market and to apply it to tariff plans abroad. When choosing these profiles the main mobile operators on the Belgian market have been consulted with. The choice of the profiles and their parameters have a big influence on the results of the price level comparison.

<sup>20</sup> The consumer has been assumed to act rationally and to choose the cheapest offer available from a specific operator based on his usage. For more explanation about this assumption, see section 3.7.

Profile 1: Very few calls (no data): 60 call minutes, 50 SMS messages, no data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	50	-
60%	On-net	36 min	9 min	14 min	13 min		
40%	Off-net	24 min	6 min	10 min	8 min		
<b>Total</b>		<b>60 min</b>	<b>15 min</b>	<b>24 min</b>	<b>21 min</b>		

Profile 2: Average calls (no data): 120 call minutes, 100 SMS messages, no data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	100	-
60%	On-net	72 min	18 min	29 min	25 min		
40%	Off-net	48 min	12 min	19 min	17 min		
<b>Total</b>		<b>120 min</b>	<b>30 min</b>	<b>48 min</b>	<b>42 min</b>		

Profile 3: Few calls, few data: 100 call minutes, 100 SMS messages, 50 MB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	100	50 MB
60%	On-net	60 min	6 min	36 min	18 min		
40%	Off-net	40 min	4 min	24 min	12 min		
<b>Total</b>		<b>100 min</b>	<b>10 min</b>	<b>60 min</b>	<b>30 min</b>		

Profile 4: Average calls, average data: 120 call minutes, 200 SMS messages, 200 MB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	200	200 MB
60%	On-net	72 min	18 min	29 min	25 min		
40%	Off-net	48 min	12 min	19 min	17 min		
<b>Total</b>		<b>120 min</b>	<b>30 min</b>	<b>48 min</b>	<b>42 min</b>		

Profile 5: Many calls, many data: 300 call minutes, unlimited SMS messages, 1 GB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	Unlimited	1 GB
60%	On-net	180 min	45 min	72 min	63 min		
40%	Off-net	120 min	30 min	48 min	42 min		
<b>Total</b>		<b>300 min</b>	<b>75 min</b>	<b>120 min</b>	<b>105 min</b>		

Profile 6: Intensive calling, intensive data 400 call minutes, unlimited SMS messages, 2 GB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			10%	60%	30%	Unlimited	2 GB
60%	On-net	240 min	24 min	144 min	72 min		
40%	Off-net	160 min	16 min	96 min	48 min		
<b>Total</b>		<b>400 min</b>	<b>40 min</b>	<b>240 min</b>	<b>120 min</b>		

Figure 3: Survey profiles mobile telephony postpaid.

32. Profiles 1 and 2 include no mobile data. Profiles 3 up to and including 6 do have mobile data. Profile 3 covers the basic use of a infrequent caller. Profile 4 is the most representative profile for the average mobile user in Belgium. Profiles 5 and 6 relate to bigger users and represent a smaller portion of consumers in Belgium. Especially profile 6 is still future-oriented considering the heavy use of data (2 GB). This profile corresponds the most with an unlimited tariff plan.
33. Based on an inquiry of Belgian operators, aggregated numbers of BIPT show that the average monthly volume of calls per active mobile subscriber in 2013 is 102 minutes. On average, 176 SMS messages were sent a month. 45% of the total number of active mobile users uses mobile data and per mobile data user an average of 135 MB (per month) was consumed in 2013. In the meantime data use has already risen to 54% (S1 2014).
34. 88% of call minutes are made by cell-phone users with a postpaid subscription (at the end of 2013). The other 12% of call minutes are made as part of a prepaid tariff plan. Therefore prepaid customers are rather low users. The proportion of the number of customers with a postpaid subscription is 60% compared to the number of customers with a prepaid subscription (40% at the end of 2013). The number of prepaid users is diminishing in recent years.

#### Choice of mobile telephony operators (postpaid)

35. The figure below lists the operators and their tariff plans that have been taken into consideration for mobile telephony. In total, for the five countries 20 operators are involved and overall, 177 tariff plans have been analysed.

BE			
Mobistar Kangoeroe 8	Belgacom Easy+ 10	Telenet Prijs volgens gebruik	BASE B-0
Mobistar Kangoeroe 15	Belgacom Easy+ 15	Telenet King	BASE B-9
Mobistar Kangoeroe Unlimited	Belgacom Easy+ 25	Telenet Kong	BASE B-15
Mobistar Dolfijn 12	Belgacom Easy+ 45	Telenet King Supersize	BASE B-19
Mobistar Dolfijn 15	Belgacom Smart+ 15		BASE B-19-Base
Mobistar Dolfijn 20	Belgacom Smart+ 25		BASE B-25
Mobistar Panter 25	Belgacom Smart+ 35		BASE B-29
Mobistar Panter 45	Belgacom Smart+ 50		BASE B-29-Base
Mobistar Panter 60	Belgacom Smart+ 65		BASE B-39
	Belgacom Generation MTV 10		BASE B-49
	Belgacom Generation MTV 15		BASE B-59
	Belgacom Generation MTV 25		BASE B-Europe-19
			BASE B-Europe-39
			BASE B-Europe-99
NL			
KPN Budget 100 (12&24m)	Vodafone Red Essential (12&24m)	T-Mobile Smart Seconds 50 (12&24m)	
KPN Budget 300 (12&24m)	Vodafone Red (12&24m)	T-Mobile Smart Seconds 200 (12&24m)	
KPN Basis 150 (12&24m)	Vodafone Red Super (12&24m)	T-Mobile Bel en SMS 70 (12&24m)	
KPN Basis 300 (12&24m)	Vodafone Smart 200 (12&24m)	T-Mobile Bel en SMS 110 (12&24m)	
KPN Alles-in-1 Mobiel Instap (12&24m)	Vodafone Smart 500 (12&24m)	T-Mobile Bel en SMS 220 (12&24m)	
KPN Alles-in-1 Mobiel Standaard (12&24m)	Vodafone Scherp S (12&24m)	T-Mobile Bel en SMS 330 (12&24m)	
KPN Alles-in-1-Mobiel Premium (12&24m)	Vodafone Scherp M (12&24m)	T-Mobile Bel en SMS 440 (12&24m)	
	Vodafone Scherp L (12&24m)	T-Mobile Bel en SMS 550 (12&24m)	
	Vodafone Scherp XL (12&24m)	T-Mobile Stel Samen (12&24m)	
UK			
Vodafone 300 Plan (1&12m)	Three Sim Only 13 (1m)	EE Sim Only 13 (1m)	O2 Sim Only 9 (1m)
Vodafone 900 Plan (1&12m)	Three Sim Only 18 (1m)	EE Sim Only 15 (1m)	O2 Sim Only 12 (1m)
Vodafone 1200 Plan (1&12m)	Three Sim Only 18 (1m)	EE Sim Only 17 (1m)	O2 Sim Only 15 (1m)
Vodafone 1GB Plan (1m)	Three Sim Only 21 (1m)	EE Sim Only 20 (1m)	O2 Sim Only 21 (1m)
Vodafone 2 GB Plan (1m)	Three Sim Only 21 (1m)	EE Sim Only 23 (1m)	O2 Sim Only 22 (1m)
Vodafone Red Starter (12m)	Three Sim Only 26 (1m)	EE Sim Only 26 (1m)	O2 Sim Only 27 (1m)
Vodafone Red (12m)	Three Sim Only 7 (12m)	EE Sim Only 10 (12m)	O2 Sim Only 8 (12m)
Vodafone Red L (12m)	Three Sim Only 10 (12m)	EE Sim Only 12 (12m)	O2 Sim Only 9 (12m)
Vodafone Red XL (12m)	Three Sim Only 10 (12m)	EE Sim Only 14 (12m)	O2 Sim Only 11 (12m)
	Three Sim Only 15 (12m)	EE Sim Only 17 (12m)	O2 Sim Only 16 (12m)
	Three Sim Only 15 (12m)	EE Sim Only 20 (12m)	O2 Sim Only 19 (12m)
	Three Sim Only 18 (12m)	EE Sim Only 23 (12m)	O2 Sim Only 20 (12m)
	Three Sim Only 18 (12m)		O2 Sim Only 25 (12m)
	Three Sim Only 23 (12m)		O2 Sim Only 30 (12m)
FR			
Bouygues Forfait 2H 9,99 (12m)	SFR RED 2H (1m)	Orange M6 SIM (12m)	Free Forfait 20 (1m)
Bouygues Forfait 2H 14,99 (12m)	SFR RED 24H/24 (1m)	Orange M6 SIM 500M (12m)	Free Forfait 2 (1m)
Bouygues Forfait 24/24 (12m)	SFR RED 3G (1m)	Orange M6 SIM 1G (12m)	
Bouygues Forfait Sensation 29,99 (12m)	SFR RED 5G (1m)	Orange Zen 4G (12m)	
Bouygues Forfait Sensation 39,99 (12m)	SFR Carré 2H (1&12m)	Orange Zen 500Mo (12m)	
Bouygues Forfait Sensation 64,99 (12m)	SFR Carré 500M (1&12m)	Orange Origami Play 3G (12m)	
	SFR Carré 3G (1&12m)	Orange Origami Play 7G (12m)	
	SFR Carré 5G (1&12m)	Orange Jet Europe (12m)	
	SFR Carré 8G (1&12m)		
	SFR Carré 12G (1&12m)		
	SFR Carré International (1&12m)		
DE			
O2 Blue Basic Flex (1&24m)	Vodafone Red XS (24m)	E-Plus Pur Classic (24m)	T-Mobile Allnet (24m)
O2 Blue Select Flex (1&24m)	Vodafone Red S (24m)	E-Plus Smart Classic (24m)	T-Mobile XS (24m)
O2 Nxt Flex (1&24m)	Vodafone Red M (24m)	E-Plus All-in Classic (24m)	T-Mobile S (24m)
O2 Blue All-in S Flex (1&24m)	Vodafone Red L (24m)	E-Plus Pur (24m)	T-Mobile M (24m)
O2 Blue All-in M Flex (1&24m)	Vodafone Red Premium (24m)	E-Plus Smart (24m)	T-Mobile L (24m)
O2 Blue All-in L Flex (1&24m)	Vodafone Smart S (24m)	E-Plus All-in (24m)	T-Mobile XL (24m)
O2 Blue All-in XL Flex (1&24m)	Vodafone Smart M (24m)	E-Plus All-in Plus (24m)	T-Mobile XXL (24m)
O2 Blue All-in Premium Flex (1&24m)	Vodafone Smart L (24m)		T-Mobile Call 50 (24m)
O2 Blue All-in Premium (24m)	Vodafone Smart XL (24m)		
O2 Blue Basic (24m)	Vodafone Basic 50 (24m)		
O2 Blue Select (24m)	Vodafone Basic 100 (24m)		

Figure 4: list of all tariff plans included for postpaid mobile telephony.

## 3.2 Mobile telephony prepaid

### Cost calculation mobile telephony prepaid

36. When determining the monthly recurrent cost of the tariff plans for prepaid mobile telephony, account has been taken of the following elements:
  - the amounts to be (re)charged for each tariff plan and the call minutes, SMS messages and mobile data included in the (re)charge;
  - extra call minutes, SMS messages and/or mobile data offered to the end-user as a 'bonus' when recharging a certain amount within a certain space of time (usually within a month).
37. If applicable and when cheaper for the customer, account has been taken of the purchase of a bundle of call minutes and/or SMS messages and/or mobile data (e.g. unlimited on-net calls or unlimited SMS messages for a flat fee).
38. The user recharges at least once a month. If the value of the initial monthly (re)charge - as the case may be, combined with the 'bonus' value - is not enough to cover the monthly consumption, the user will recharge a second time before the end of the month. In that case only the additional consumption is charged and not the total amount of that extra recharge. The credit thus accumulated (the value of the recharge minus the additional consumption) is left out of consideration. The monthly cost is at least the amount of the initial monthly recharge, even if the consumption is lower than the value of that r(e)charge.
39. If the consumer gets bonus minutes after a recharge they were taken into account. If the number of bonus minutes depends on the number of recharges the biggest bonus was opted for. The underlying idea is that we calculate the cost for a customer who has been taking the same product for a 'considerable' time.
40. Once-only charges, such as the purchase or activation of a SIM card, have been left out of consideration. Extra tariffs for extra services not included in the description above have also been left out of account<sup>21</sup>.
41. Conditional sales, where subscription formulas are offered in combination with the sale of a GSM handset, have been left out. As a result the tariff formulas included are always SIM only. Since conditional sales are more common abroad, the selected tariff plans for the neighbouring countries may be less representative (see above).

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<sup>21</sup> This concerns a wide range of additional costs, such as the use of customer services (which is free in Belgium, but may be payable in the neighbouring countries).

## Explanation about profiles for mobile telephony prepaid

42. In view of comparing prices of prepaid mobile telephony tariff plans 4 consumer profiles have been used. The figure below gives an overview of those profiles.

Profile 1: Average calls (no data): 50 call minutes, 100 SMS messages							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	100	-
65%	On-net	33 min	13 min	10 min	10 min		
35%	Off-net	17 min	7 min	5 min	5 min		
<b>Total</b>		<b>50 min</b>	<b>20 min</b>	<b>15 min</b>	<b>15 min</b>		

Profile 2: Many calls (no data): 100 call minutes, 150 SMS messages							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	150	-
65%	On-net	65 min	26 min	20 min	20 min		
35%	Off-net	35 min	14 min	10 min	10 min		
<b>Total</b>		<b>100 min</b>	<b>40 min</b>	<b>30 min</b>	<b>30 min</b>		

Profile 3: Average calls (with data): 50 call minutes, 50 SMS messages, 50 MB							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	50	50 MB
65%	On-net	33 min	13 min	10 min	10 min		
35%	Off-net	17 min	7 min	5 min	5 min		
<b>Total</b>		<b>50 min</b>	<b>20 min</b>	<b>15 min</b>	<b>15 min</b>		

Profile 4: Few calls (a lot of data): 20 call minutes, unlimited SMS messages, 1 GB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	1000	1 GB
65%	On-net	13 min	5 min	4 min	4 min		
35%	Off-net	7 min	3 min	2 min	2 min		
<b>Total</b>		<b>20 min</b>	<b>8 min</b>	<b>6 min</b>	<b>6 min</b>		

Figure 5: Survey profiles mobile telephony prepaid.

43. As can be seen in this figure, the monthly recurrent cost of a certain tariff plan has been worked out, taking account of the number of call minutes, SMS messages and mobile data. The number of call minutes is divided according to destination (on-net/off-net) and period (peak, off-peak, weekend). When determining the relevant monthly cost the type of recharge or combination of recharges sufficient to satisfy a specific type of consumer use is examined. Bonus minutes and extra SMS messages have been taken into consideration. Certain operators offer free SMS messages, only to on-net numbers. In that case it has been assumed that 60% of text messages - as set in the profile - are sent on-net and 40% of the texts are sent off-net.

44. After having applied a certain profile to all prepaid tariff plans of an operator, it was examined which tariff plan was cheapest for that particular profile. Next, the cheapest offer for each operator for a certain profile has been included in the price comparison. Those cheapest tariff plans have been weighted according to the operator's market share, to obtain a national weighted average cost in the end.

#### Choice of mobile telephony operators (prepaid)

45. The figure below lists the operators and their tariff plans that have been taken into consideration for prepaid telephony. In total, for the five countries 17 operators are involved and overall, 86 tariff plans have been analysed.

BE			
Proximus Pay&Go Easy 15	Mobistar Kangoeroe 10	Base B-prepaid 5	
Proximus Pay&Go Easy 25	Mobistar Kangoeroe 15	Base B-prepaid 10	
Proximus Pay&Go Easy 50	Mobistar Kangoeroe 25	Base B-prepaid 15	
Proximus Pay&Go Smart 10	Mobistar Dolfijn 10	Base B-prepaid 20	
Proximus Pay&Go Smart 15	Mobistar Dolfijn 15	Base B-prepaid-Base 5	
Proximus Pay&Go Smart 25	Mobistar Dolfijn 25	Base B-prepaid-Base 10	
Proximus Pay&Go Max 15	Mobistar Internet on Mobile 10	Base B-prepaid-Base 15	
Proximus Pay&Go Max 25	Mobistar Internet on Mobile 15	Base B-prepaid-Base 20	
Proximus Pay&Go Max 50	Mobistar Internet on Mobile 20	Base Check 10	
		Base Check 15	
		Base Check 20	
NL			
KPN Prepaid	Vodafone Prepaid 10	T-Mobile Prepaid	
	Vodafone Prepaid 20		
UK			
Three Pas as you Go	O2 Pay as you Go Big Bundle 10	Vodafone Freedom Freebee 10	EE Pay as you Go
Three Pay as you Go All-in One 10	O2 Pay as you Go Big Bundle 15	Vodafone Freedom Freebee 20	EE Pay as you Go 15
Three Pay as you Go All-in One 15	O2 Pay as you Go Big Bundle 20	Vodafone Freedom Freebee 30	
Three Pay as you Go All-in One 25	O2 Pay as you Go Unlimited 10	Vodafone Freedom Freebee 40	
	O2 Pay as you Go Unlimited 15	Vodafone Freebee Minutes 10	
		Vodafone Freebee Minutes 20	
		Vodafone Freebee Texts 10	
		Vodafone Freebee Texts 20	
		Vodafone Freebee Data 10	
		Vodafone Freebee Data 20	
FR			
Orange Mobicarte 25	SFR La Carte 15	Bouygues Classique 5	
Orange Mobicarte 35	SFR La Carte 25	Bouygues Classique 10	
Orange Mobicarte 20	SFR La Carte 35	Bouygues Classique 15	
Orange Mobicarte 30		Bouygues Classique 20	
		Bouygues Classique 25	
		Bouygues 24/24 - 20	
		Bouygues 24/24 - 25	
		Bouygues 24/24 - 35	
DE			
Vodafone CallYa Talk & SMS	T-Mobile Xtra Card	O2 Loop Freikarte	Base Prepaid
Vodafone CallYa Smartphone Basic	T-Mobile Xtra Call	O2 Smart S	
Vodafone CallYa Smartphone Allnet	T-Mobile Xtra Triple	O2 Smart M	
Vodafone CallYa Smartphone Allnet Flat	T-Mobile Xtra Click	O2 Smart L	
		O2 Smart XL	
		O2 Smart All-in	

Figure 6: list of all tariff plans included for prepaid mobile telephony.

### 3.3 Fixed telephony

#### Cost calculation fixed telephony

46. The cost of a fixed telephony tariff plan comprises the following monthly recurrent costs - if applicable:
  - the subscription fee of the tariff plan;
  - the costs related to the call minutes not included in the subscription. For each profile the call minutes are divided according to the nature of the connection (fixed/mobile) and the period (peak/off-peak/weekend), for which operators often charge different rates. If relevant, the geographical destination (local/long-distance) and the network type (on-net/off-net) have been taken into consideration. To determine the relative importance of on-net traffic, we take the operator's market share as the basis;
  - the set-up cost for setting up the connection;
47. Account has been taken of options as regards the number of call minutes (e.g. for an additional flat fee customers can make unlimited calls to all landlines). A standard tariff with option is regarded as a separate tariff plan and contains in the description the name of the option preceded by the word 'with' (e.g. Belgacom Classic line with 'Happy Time XL').
48. In every user profile (see below) the number of calls is defined. In this study we assume that a call to a fixed telephone number lasts five minutes. A call to a mobile number lasts two minutes.
49. Once-only costs relating to installation and activation, are not taken into consideration. Tariffs for extra services, as well as tariffs for international communication and calls to special numbers, have also been left out.
50. Fixed telephony is increasingly included in bundles (see also chapter 13, topic 4), which often comprise a fixed telephony component to which a flat fee applies (e.g. 'unlimited calls to domestic numbers' or 'unlimited calls during the weekend'). This section only concerns the analysis of stand-alone fixed telephony offers and therefore only paints a limited picture of the real price level concerning fixed telephony. Therefore, fixed telephony tariff plans which are only available in combination with other telecom products have not been taken into account for comparing fixed telephony prices.

## Explanation about profiles for fixed telephony

51. To obtain a solid basis for comparison of the various tariff plans five consumer profiles<sup>22</sup> have been developed, as shown in the figure below.
52. Especially profile 2 (average caller, mainly in the evening and during the weekend) is strongly present on the market and therefore representative of a large selection of the population. Indeed, the active population mostly calls during off-peak hours. Data collected by BIPT show that an average caller made about 207 minutes of calls a month in 2013. The number of minutes defined in profiles 2 and 3 amounts to 299 minutes. Profiles 4 and 5 are very extreme (510 minutes) and therefore only apply to a small part of the population. The same goes for the light profile 1 (95 minutes).

Profile 1: Low use (25 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%

Profile 2: Medium use, off-peak and during the weekend (70 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%

Profile 3: Medium use, week during the day (70 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	60%	20%	20%
25%	Mobile	17	60%	20%	20%

Profile 4: Heavy use, off-peak and during the weekend (120 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	90	30%	30%	40%
25%	Mobile	30	35%	25%	40%

Profile 5: Heavy use, mainly during the day during the week (120 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	90	60%	20%	20%
25%	Mobile	30	60%	20%	20%

Figure 7: List of fixed telephony profiles.

53. These profiles have been applied to all tariff plans collected. Next - for each operator - it has been examined which tariff plan is cheapest for the profile concerned. Only the cheapest offer for each operator for a certain profile has been included in the price comparison.

<sup>22</sup> The profiles have been developed to reflect consumer usage on the Belgian market and to apply it to tariff plans abroad. When choosing these profiles the main fixed operators on the Belgian market have been consulted with. The choice of the profiles and their parameters has a big influence on the results of the price level comparison.

## Choice of fixed telephony operators

54. The figure below lists the operators and their tariff plans that have been taken into consideration for fixed telephony. In total, for the five countries 12 operators are involved and overall, 52 tariff plans have been analysed.

Land	Operator	Tariefplan
BE	Belgacom	Belgacom Classic-lijn
		Belgacom Classic -lijn met "Happy Time XL"
		Belgacom Classic-lijn met "No Limit National"
		Belgacom Classic-lijn met "Happy Time XL" en "No Limit National"
	Telenet	Telenet Freephone Europe
		Telenet Freephone Europe met "Anytime"
	VOO	VOO Telefonie Eco Soir & W-E
		VOO Telefonie Blabla 24h/24h
		VOO Telefonie Eco Soir & W-E met "Vast naar Mobiel"
	Numericable	VOO Telefonie Blabla 24h/24h met "Vast naar Mobiel"
		Numericable Start Telefonie
		Numericable Extra Telefonie
NL	KPN	KPN BelBasis
		KPN BelBudget
		KPN BelVrij Altijd
		KPN BelVrij Avond & Weekend
		KPN BelVrij Weekend
UK	BT	BT Weekend
		BT Evening & Weekend
		BT Anytime
	TalkTalk	TalkTalk Evening & Weekend
		TalkTalk UK Anytime
		TalkTalk Evening & Weekend met "Mobile Extra"
	Sky	TalkTalk UK Anytime met "Mobile Extra"
		Sky Talk Weekends
		Sky Freetime
FR	Orange	Sky Talk Anytime UK
		Orange Abonnement Principal
		Orange Atout
		Orange Optimal 30min
		Orange Optimal 2H
		Orange Optimal 4H
	SFR	Orange Optimal Illimité
		SFR Ligne Fixe Abonnement Seul
		SFR Ligne Fixe 2H
		SFR Ligne Fixe 3H
		SFR Ligne Fixe 5H
		SFR Ligne Fixe Illimité
DE	Deutsche Telekom	SFR Ligne Fixe Illimité met "Mobile Illimité"
		Deutsche Telekom Call Start
		Deutsche Telekom Call Plus
		Deutsche Telekom Call Basic
		Deutsche Telekom Call Comfort
		Deutsche Telekom Call Start met "Festnetz zum Mobil"
	Kabel Deutschland	Deutsche Telekom Call Basic met "Festnetz zum Mobil"
		Deutsche Telekom Call Comfort met "Festnetz zum Mobil"
		Kabel Deutschland Einzelangebot Telefon
		Kabel Deutschland Einzelangebot Telefon met "Telefon-Flatrate"
		Kabel Deutschland Einzelangebot Telefon met "Best Mobile 30"
		Kabel Deutschland Einzelangebot Telefon met "Best Mobile 200"
Kabel Deutschland Einzelangebot Telefon met "Telefon-Flatrate" en "Best Mobile 30"		
Kabel Deutschland Einzelangebot Telefon met "Telefon-Flatrate" en "Best Mobile 200"		

Figure 8: List of all tariff plans included for fixed telephony.

## 3.4 Broadband Internet

### Cost calculation broadband Internet

55. The cost of a broadband Internet tariff plan comprises the following monthly recurrent costs - if applicable:
- the subscription;
  - line rental (i.e. the cost a customer has to pay to have a broadband line or a landline at his disposal, apart from his subscription fee);
  - rental of equipment or once-only purchase of the equipment if the purchase is cheaper (equipment is written down over a period of 36 months).
56. Once-only costs, such as installation and activation, are not taken into consideration. Extra tariffs for additional services (add-ons) have also been left out. If however, the customer is offered the opportunity to obtain permanently a higher download speed for an extra charge, this is included as a separate tariff plan in the benchmark. The broadband Internet section only relates to offers with which Internet access can be obtained. If the rental of a landline is necessary, but no specific fixed telephony arrangements have been provided for (in other words calling is only possible at standard rates), the product is still considered to be a stand-alone broadband offer. In such cases in the commercial offer no attention is paid to the fixed telephony component.
57. The importance of stand-alone broadband Internet is diminishing: consumers increasingly choose to purchase several telecom products in a bundle from a single operator (see topic 4 in chapter 13). Therefore, not all Internet operators still have a pure *stand-alone* Internet offer. Because of that trend BIPT finds that stand-alone Internet has become less relevant within the context of this study - the result of which is the extension and the more in-depth treatment of the section on multiple play offers.

### Explanation about the broadband Internet product categories

58. Internet offers do not only differ from each other in terms of price, but also in terms of speed, and therefore, quality. To compare Internet offers, they are grouped based on the download speed advertised<sup>23</sup>.
59. Moreover, Internet offers are more and more differentiated based on additional quality characteristics (e.g. unlimited data volume, free mobile Internet, availability of interactive services, etc.). Even products with similar speed may differ considerably because of other elements. This makes an objective comparison purely based on download speeds especially difficult.

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<sup>23</sup> The advertised speed may differ from the actual speed. This depends on a number of factors such as the number of users making simultaneous use of the Internet and the distance to the exchange (see topic 2 in chapter 13). The advertised speed can be seen as the maximum speed obtainable.

60. As for the division into categories BIPT has opted for an approach where the differentiation is made only on the basis of the advertised download speed<sup>24</sup>, as shown in the table below.

Category 1: Low speed	Speed < 30 Mbps
Category 2: Average speed	30 Mbps ≥ Speed < 60 Mbps
Category 3: High speed	60 Mbps ≥ Speed < 100 Mbps
Category 4: Very high speed	Speed ≥ 100 Mbps

Figure 9: Overview of the broadband Internet product categories.

61. If within one and the same product category several tariff plans are offered by a single operator, the country comparison is only based on the cheapest tariff plan. Nevertheless, tariff plans excluded from the price comparison, are mentioned in the basic overview annexed. This way the reader gets an idea of the qualitative differentiation of the Internet offers within the same technology used<sup>25</sup>.

#### Choice of broadband Internet operators

62. The figure below lists the operators and tariff plans that have been examined for broadband Internet. In total, 11 operators are involved, who together offer 29 tariff plans.
63. Not all operators have complete geographical coverage; they may for instance only focus on urban areas or on specific regions. Consequently not all tariff plans are available to all the inhabitants of a certain country.

<sup>24</sup> The French tariff plans have been included in this benchmark based on their theoretical speeds, even though the usual range of speed is communicated together with the tariff plan.

<sup>25</sup> Various operators in the comparison group apply an identical speed (and therefore technology) for all of their offers. However, the prices are different, based on download limit or extra advantages (e.g. free use of music service).

Land	Operator	Tarifplan
BE	Belgacom	Belgacom "Internet Overal/Partout Comfort" 30 6m
		Belgacom "Internet Overal/Partout Maxi" 30 6m
		Belgacom "Internet Overal/Partout Start" 30 6m
	Numericable	Numericable "Internet 100 Mega" 100 6m
		Numericable "Internet 200 Mega" 200 6m
		Numericable "Internet 50 Mega" 50 6m
	Telenet	Telenet "Internet 60" 60 6m
		Telenet "Basic Internet" 30 6m
		Telenet "Internet 160" 160 6m
	VOO	VOO "Fiber 120" 120 6m
		VOO "Internet à la Folie" 100 6m
		VOO "Internet Beaucoup" 45 6m
		VOO "Internet Passionément" 55 6m
		VOO "Internet un Peu" 35 6m
	Scarlet	Scarlet "Scarlet Internet ADSL" 12 6m
Scarlet "Scarlet Internet VDSL2" 30 6m		
DE	1&1	1&1 "Surf-Flat 6.000" 6 1m
		1&1 "Surf-Flat 6.000" 6 24m
	Unitymedia	Unitymedia "Internet 10" 10 24m
		Unitymedia "Internet 100" 100 24m
		Unitymedia "Internet 50" 50 24m
FR	Orange "Livebox Découverte" 8 1m	
	SFR	SFR "Internet Seul ADSL présélection" (zone non dégroupée) 6,6 1m
		SFR "Internet Seul ADSL présélection" (zone dégroupée) 20 1m
NL	Tele2	Tele2 "Internet van Tele2" 20 12m
		Tele2 "Internet van Tele2" 40 12m
UK	Virgin Media	Virgin Media "Up to 100Mb broadband" 100 12m
		Virgin Media "Up to 152Mb broadband" 152 12m
		Virgin Media "Up to 50Mb broadband" 50 12m

Figure 10: List of all tariff plans included for broadband Internet.

## 3.5 Mobile Internet

### Cost calculation mobile Internet

64. When determining the monthly recurrent cost of the tariff plans for mobile Internet, account has been taken of the following elements:
  - the monthly subscription fee that is due and the mobile data included in that fee.
65. The comparison only relates to postpaid subscriptions and prepaid offers for laptops and tablets (SIM only). Conditional sales, where subscription formulas are offered in combination with the sale of a tablet or laptop, have therefore been left out.
66. Tariffs with data for smartphones, where SMS messages and voice are included, are included in the mobile telephony section.
67. Account has only been taken of stand-alone data limits and not with the offer of free volume over Wi-Fi or hotspots for clients who already have a broadband subscription. Other possible quality parameters such as download speed and network coverage (regional or national) have also been left out. Yet, the quality elements are important in the evaluation of a subscription formula. See topic 5 in chapter 13 for more information.
68. Once-only charges, such as the purchase or activation of a SIM card or dongle (for a laptop), have been left out of consideration. No account has been taken of promotions giving a temporary reduction on the monthly subscription fee for new customers. Abroad the price of the tariff plan sometimes depends on the contract duration. In that case the longest possible contract duration has been opted for.

### Explanation about the mobile Internet categories

69. For the purpose of the comparison product categories have been established according to the mobile Internet volume included in a tariff plan. This corresponds with the methodology used by the OECD in its comparative study. In order to align the product categories with the Belgian products, the sector has been asked to give input. Next BIPT has arrived at the following four categories:

Category 1: Low volume	200 MB < volume ≤ 500 MB
Category 2: Average volume	500 MB < volume ≤ 1 GB
Category 3: High volume	1 GB < volume ≤ 2 GB
Category 4: Very high volume	2 GB < volume ≤ 5 GB

Figure 11: Overview of the mobile Internet categories

70. If - within one and the same product category - several tariff plans apply from a single operator, the cheapest tariff plan has been chosen to calculate the country average. The shaded part represents the maximum price available on the market if all the tariff plans (not only the cheapest one per operator) are taken into account within one category.

## Choice of mobile Internet operators

71. The figures below list the operators and their tariff plans that have been examined for mobile Internet. In total, 17 operators are involved, who together offer 103 tariff plans.

BE			
Belgacom Mobile Internet Comfort	Mobistar Regular	BASE Internet Anywhere 10	Telenet King Surf
Belgacom Mobile Internet Favorite	Mobistar Unlimited	BASE Internet Anywhere 15	Telenet Kong Surf
Belgacom Mobile Internet Pay & Surf (pre)		BASE Internet Anywhere 30	
NL			
T-Mobile Soms (12m)	Vodafone Instap (1m)	KPN Basis (1m)	
T-Mobile Regelmatig (12m)	Vodafone Start (1m)	KPN Instap (1m)	
T-Mobile Vaak (12m)	Vodafone Basis (1m)	KPN Standaard (1m)	
T-Mobile Altijd (12m)	Vodafone Extra (1m)	KPN Premium (1m)	
T-Mobile Labtop Prepaid (1m)	Vodafone Instap (12m)	KPN Internet Prepaid (1m)	
T-Mobile Prepaid Internet Plus (1m)	Vodafone Start (12m)		
T-Mobile Prepaid Internet Maximaal (1m)	Vodafone Basis (12m)		
	Vodafone Extra (12m)		
	Vodafone Prepaid Data		
UK			
Three Broadband 250MB (1m)	O2 Pre Data 1GB (1m)	EE Broadband 500MB (1m)	Vodafone 1GB UK (1m)
Three Broadband 500MB (1m)	O2 Pre Data 2GB (1m)	EE Broadband 1GB (1m)	Vodafone 2GB UK (1m)
Three Broadband Lite (1m)	O2 Pre Data 3GB (1m)	EE Broadband 3GB (1m)	Vodafone 4GB UK (1m)
Three Broadband 1GB (1m)	O2 Monthly Data 1GB (1m)	EE Broadband 15GB (1m)	Vodafone 10GB UK (1m)
Three Broadband 5GB (1m)	O2 Monthly Data 2GB (1m)	EE Broadband 25GB (1m)	Vodafone Data Pack 10 (1m)
Three Broadband 10GB (1m)	O2 Monthly Data 3GB (1m)	EE Broadband 500MB (12m)	Vodafone Data Pack 20 (1m)
Three Broadband 15GB (24m)	O2 Monthly Data 5GB (1m)	EE Broadband 1GB (12m)	
Three Broadband + 1 Prepaid (1m)		EE Broadband 3GB (12m)	
Three Broadband +3 Prepaid (1m)		EE Broadband 15GB (12m)	
Three Broadband +12Prepaid (1m)		EE Broadband 25GB (12m)	
		EE Broadband 50GB (12m)	
		EE Broadband Tablet 2GB (24m)	
		EE Broadband Tablet 10GB (24m)	
FR			
Orange Prépayé SIM 0,5GB (1m)	SFR Connecté Partout 1G (1m)	Bouygues Bbox Nomad 6 (1m)	
Orange Prépayé SIM 2GB (1m)	SFR Connecté Partout 5G (1m)	Bouygues Bbox Nomad 16 (1m)	
Orange Let's go 3G (1m)	SFR Connecté Partout 12G (1m)	Bouygues Bbox Nomad 32 (1m)	
Orange Let's go 12G (1m)		Bouygues Bbox Nomad 6 prepaid (1m)	
Orange Let's go 3G (12m)			
Orange Let's go 12G (12m)			
DE			
Vodafone Mobilinternet Flat 7,2 (24m)	O2 Go + Surf Flat M (24m)	E-Plus Internet M (24m)	T-Mobile Data Comfort S Eco (24m)
Vodafone Mobileinternet Flat 21,6 (24m)	O2 Go + Surf Flat L (24m)	E-Plus Internet L (24m)	T-Mobile Data Comfort M Eco (24m)
Vodafone Mobileinternet Flat 42,2 (24m)	O2 Go + Surf Flat XL (24m)	E-Plus Internet XL (24m)	T-Mobile Data Comfort L Eco (24m)
Vodafone Mobileinternet Flat 50 (24m)	O2 Go + Surf Flat XXL (24m)		
Vodafone Websessions Basic (24m)	O2 Monats Flat S Prepaid (1m)		
Vodafone Websessions S (24m)	O2 Monats Flat M Prepaid (1m)		
Vodafone Websessions M (24m)	O2 Monats Flat L Prepaid (1m)		
Vodafone Websessions L (24m)	O2 Monats Flat XL Prepaid (1m)		

Figure 12: List of all tariff plans included for mobile Internet.

## 3.6 Multiple play

### Cost calculation multiple play

72. As for multiple play tariff plans only the following service combinations are treated, broadband being considered as the central element.
- dual play (broadband with fixed telephony);
  - dual play (broadband with television);
  - triple play (broadband, television and fixed telephony);
  - quadruple play offers cover broadband, television, fixed telephony and mobile telephony purchased from the same operator and usually charged by means of a single bill. In some cases the mobile telephony element in the 'all in one' offer is presented by the operator as an option, customers having the choice to add one or more mobile telephony subscriptions, usually with a price cut for the (stand-alone) mobile telephony subscription. If mobile telephony is offered separately from the bundle with a reduction for existing customers, it is linked to the triple play bundle and also presented as a quadruple play offer.
73. The categorisation of the multiple play tariff plans is based on the methodology used for the broadband offers, as described in the section above.
74. Other service combinations (e.g. broadband & mobile telephony or television & fixed telephony) lie outside the scope of this study.
75. The cost of the tariff plan comprises the following monthly recurrent costs - if applicable:
- the subscription fee;
  - line rental (i.e. the cost a customer has to pay to have a broadband line or a landline at his disposal, apart from his subscription fee);
  - rental of equipment (e.g. modem and/or decoder) or once-only purchase of the equipment if the purchase is cheaper (equipment is written down over a period of 36 months);
  - for the dual play (broadband with fixed telephony) and triple play (broadband, television and fixed telephony) offers, extra charges are also taken into account for call minutes not included in the multiple play subscription (as the case may be, also call set-up charges). The costs of the fixed telephony element have been determined on the basis of 25 and 70 calls, which corresponds with fixed telephony profiles 1 and 2 respectively (see section 3.3). The comparison based on the price of the basic subscription is relevant for consumers opting for this product in order to be reachable on a landline and/or (sporadically) call within the arrangement of the bundle (mostly at least free calls to landlines during off-peak and during the weekend);

- for quadruple play offers the subscription fee of the cheapest mobile telephony element is considered if it is not included in the bundle. The number of call minutes, SMS messages and mobile data included, largely varies per tariff plan and operator. For the mobile telephony component no extra usage fees are taken into account. In this case no extra usage fees are taken into account for the fixed telephony component for call minutes not included in the multiple play subscription.

### Choice of multiple play operators

76. Regarding the choice of multiple play operators we refer to the criteria and comments concerning broadband Internet. The figures below list the operators and tariff plans that have been examined for multiple play. In total, 24 operators are involved, who together offer 252 multiple play tariff plans.

### Dual play (broadband with television)

Land	Operator	Tariefplan	
BE	Belgacom	Belgacom "Pack Internet + TV Comfort" 30 6m	
		Belgacom "Pack Internet + TV Maxi" 30 6m	
		Belgacom "Pack Internet + TV Start" 30 6m	
		<b>Numericable</b>	Numericable "Duo [TV + WEB]" 50 6m
		<b>Telenet</b>	Telenet "Internet & TV" 30 6m
		<b>VOO</b>	VOO "Pack DUO TV NET Un Peu" 35 6m
			VOO Pack "DUO TV NET A La Folie" 100 6m
			VOO Pack "DUO TV NET Beaucoup" 45 6m
			VOO Pack "DUO TV NET Fiber 120" 120 6m
			VOO Pack "DUO TV NET Passionnement" 55 6m
		<b>SNOW</b>	SNOW "2-pack internet & televisie" 30 6m
	NL	<b>Tele2</b>	Tele 2 "Internet & TV" 20 12m
			Tele 2 "Internet & TV" 40 12m
<b>UPC</b>		UPC "120Mb/s Internet" 120 12m	
		UPC "200Mb/s Internet" 200 12m	
		UPC "2-in-1 Basis" 50 12m	
		UPC "2-in-1 Extra Power" 200 12m	
		UPC "2-in-1 Power" 120 12m	
		UPC "50Mb/s Internet" 50 12m	
<b>Ziggo</b>		Ziggo "TV + Internet Z1" 30 12m	
		Ziggo "TV + Internet Z2" 90 12m	
		Ziggo "TV + Internet Z3" 180 12m	

Figure 13: list of all dual play tariff plans included (broadband with television).

## Dual play (broadband with fixed telephony)

Land	Operator	Tariefplan	
BE	Belgacom	Belgacom "Pack Internet + Telephony Comfort" 30 6m	
		Belgacom "Pack Internet + Telephony Maxi" 30 6m	
		Belgacom "Pack Internet + Telephony Start" 30 6m	
	VOO	VOO "Pack "DUO NET TEL" 35 6m	
		Scarlet "Scarlet Internet & Telefonie/Téléphonie" 30 6m	
	SNOW	SNOW "2-pack internet & digitale televisie" 30 6m	
	DE	1&1	1&1 "Doppel-Flat 16.000" 16 1m
			1&1 "Doppel-Flat 16.000" 16 24m
			1&1 "Doppel-Flat 6.000" 6 1m
			1&1 "Doppel-Flat 6.000" 6 24m
1&1 "Doppel-Flat V-DSL" 100 24m			
1&1 "Doppel-Flat V-DSL" 50 1m			
1&1 "Doppel-Flat V-DSL" 50 24m			
1&1 "Surf & Phone-Flat Special" 16 24m			
Deutsche Telekom		Deutsche Telekom "Call & Surf Basic mit Internet-Flatrate" 16 12m	
		Deutsche Telekom "Call & Surf Comfort Plus" 16 24m	
		Deutsche Telekom "Call & Surf Comfort Speed Fiber" 200 24m	
		Deutsche Telekom "Call & Surf Comfort Speed VDSL" 100 24m	
		Deutsche Telekom "Call & Surf Comfort Speed VDSL" 50 24m	
		Deutsche Telekom "Call & Surf Comfort" 16 24m	
		Vodafone	Vodafone "DSL Zuhause S" 16 24m
			Vodafone "Komplettanschluss" 1 24m
Vodafone "DSL TelefonFlat Paket" 1 24m			
Vodafone "DSL Zuhause M" 16 24m			
Vodafone "VDSL Zuhause M" 50 24m			
Vodafone "VDSL Zuhause M" 100 24m			
Unitymedia		Unitymedia "2play PLUS 100" 100 24m	
		Unitymedia "2play PREMIUM 150" 150 24m	
		Unitymedia "2play SMART" 10 24m	
O2		O2 "DSL All-in L Family" 50 24m	
		O2 "DSL All-in M" 16 24m	
		O2 "DSL All-in S" 8 24m	
		O2 "DSL All-in L" 50 24m	
		O2 "DSL All-in XL" 100 24m	
FR		Bouygues	Bouygues "BBOX ADSL (zone non dégroupée)" 15 1m
	Free		
	Free	Free "Freebox Crystal ADSL (Zone Non Dégroupée)" 15 1m	
		Free "Freebox Crystal ADSL2+ (Zone Dégroupée)" 15 1m	
		Free "Freebox Révolution (Zones Fibrée)" 1000 1m	
		Free "Freebox Révolution VDSL2 (Zone Dégroupée)" 50 1m	
	Numericable	Numericable "iStart" 15 12m	
	SFR	SFR "Box de SFR ADSL" (zone non dégroupée) 6,6 1m	
		SFR "Box de SFR Fibre" 1000 1m	
		SFR "Box de SFR ADSL" (zone dégroupée) 20 1m	
SFR "Box de SFR VDSL" (zone dégroupée) 95 1m			
NL	KPN	KPN "Basis Thuis Glasvezelpakket Plus" 500 12m	
		KPN "Basis Thuis Glasvezelpakket" 100 12m	
		KPN "Basis Thuis" 10 12m	
		KPN "Basis Thuis" 50 12m	
		KPN "Basis Thuis" 80 12m	
		KPN "Basis Thuis" 100 12m	
	Tele2	Tele 2 "Internet & Bellen" 20 12m	
		Tele 2 "Internet & Bellen" 40 12m	
	UK	BT	BT "Broadband" 17 18m
			BT "BT Infinity 1" 38 18m
BT "Unlimited Broadband Extra" 17 18m			
BT "Unlimited Broadband" 17 18m			
BT "Unlimited BT Infinity 1" 38 18m			
BT "Unlimited BT Infinity 2" 76 18m			
Sky		Sky "Fibre Unlimited Pro" 76 12m	
		Sky "Fibre Unlimited" 38 18m	
Talktalk		TalkTalk "Simply Broadband with Superpowered Fibre" 38 18m	
		TalkTalk "Simply Broadband" 14 12m	
Virgin Media		Virgin Media "Up to 100Mb broadband + phone" 100 18m	
		Virgin Media "Up to 152Mb broadband + phone" 152 18m	
		Virgin Media "Up to 50Mb broadband + phone" 50 18m	

Figure 14: list of all dual play tariff plans included (broadband with fixed telephony).

## Triple play (broadband with television and fixed telephony)

Land	Operator	Tarifplan	
BE	Belgacom	Belgacom "Pack Internet + TV + Telephony Comfort" 30 6m	
		Belgacom "Pack Internet + TV + Telephony Maxi" 30 6m	
		Belgacom "Pack Internet + TV + Telephony Start" 30 6m	
	Numericable	Numericable "Triple Play Extra" 100 6m	
		Numericable "Triple Play Max" 200 6m	
		Numericable "Triple Play Start" 50 6m	
	Telenet	Telenet "Whoppa" 160 6m	
		Telenet "Whop" 60 6m	
	VOO	VOO "Pack TRIO A La Folie" 100 6m	
		VOO "Pack TRIO Beaucoup" 45 6m	
		VOO "Pack TRIO Fiber 120" 120 6m	
		VOO "Pack TRIO Passionément" 55 6m	
		VOO "Pack TRIO Un Peu" 35 6m	
	Scarlet	Scarlet "Scarlet Trio" 30 6m	
	SNOW	SNOW "3-pack 30" 6m	
	DE	Deutsche Telekom	Deutsche Telekom "Entertain Comfort" 100 24m
			Deutsche Telekom "Entertain Comfort" 16 24m
Deutsche Telekom "Entertain Comfort" 200 24m			
Deutsche Telekom "Entertain Comfort" 50 24m			
Deutsche Telekom "Entertain Premium" 100 24m			
Deutsche Telekom "Entertain Premium" 16 24m			
Deutsche Telekom "Entertain Premium" 200 24m			
Deutsche Telekom "Entertain Premium" 50 24m			
Vodafone		Vodafone "DSL Zuhause L inkl. TV" 16 24m	
		Vodafone "VDSL Zuhause L inkl. TV" 50 24m	
Unitymedia		Unitymedia "3play PLUS 100" 100 24m	
		Unitymedia "3play SMART 50" 50 24m	
FR		Bouygues	Bouygues "BBOX ADSL (zone dégroupée - zone étendue)" 15 1m
			Bouygues "BBOX ADSL (zone dégroupée en propre par Bouygues)" 15 1m
	Bouygues "BBOX Sensation Fibre FTTB" 200 1m		
	Bouygues "BBOX Sensation Fibre FTTH" 400 1m		
	Bouygues "BBOX Sensation VDSL (zone dégroupée - zone étendue)" 50 1m		
	Bouygues "BBOX Sensation VDSL (zone dégroupée en propre par Bouygues)" 50 1m		
	Free	Free "Freebox Crystal ADSL2 (Zone Dégroupée) avec TV" 15 1m	
		Free "Freebox Révolution (Zone Fibrée) avec TV" 1000 1m	
		Free "Freebox Révolution VDSL2 (Zone Dégroupée) avec TV" 50 1m	
	Numericable	Numericable "Essentiel" 15 12m	
		Numericable "LaBox Start" 200 12m	
		Numericable "Max" 15 12m	
		Numericable "Start" 15 12m	
	Orange	Numericable "LaBox Start" 30 12m	
		Orange "Livebox Jet Fibre" 500 1m	
		Orange "Livebox Play Fibre" 200 1m	
		Orange "Livebox Zen Fibre" 100 1m	
		Orange "Livebox Zen sur ligne fixe Orange ADSL" 15 1m	
		Orange "Livebox Zen sur ligne fixe Orange VDSL" 50 1m	
		Orange "Livebox Play sur ligne fixe Orange ADSL" 15 1m	
		Orange "Livebox Play sur ligne fixe Orange VDSL" 50 1m	
		Orange "Livebox Jet sur ligne fixe Orange ADSL" 15 1m	
		Orange "Livebox Jet sur ligne fixe Orange VDSL" 50 1m	
		Orange "Livebox Zen sans ligne fixe Orange ADSL" 15 1m	
		Orange "Livebox Zen sans ligne fixe Orange VDSL" 50 1m	
		Orange "Livebox Play sans ligne fixe Orange ADSL" 15 1m	
		Orange "Livebox Play sans ligne fixe Orange VDSL" 50 1m	
		Orange "Livebox Jet sans ligne fixe Orange ADSL" 15 1m	
	Orange "Livebox Jet sans ligne fixe Orange VDSL" 50 1m		
	SFR	SFR "Box de SFR ADSL" option TV Satellite (zone non dégroupée) 6,6 1m	
		SFR "Box de SFR Fibre option TV évolution" 1000 1m	
		SFR "Box de SFR ADSL option TV Classique" (zone dégroupée) 20 1m	
			SFR "Box de SFR VDSL option TV Classique" (zone dégroupée) 95 1m

Figure 15: list of all triple play tariff plans included.

Land	Operator	Tariefplan
NL	KPN	KPN "Alles-in-1 Thuis Instap Glasvezelpakket Plus" 500 12m
		KPN "Alles-in-1 Thuis Instap Glasvezelpakket" 100 12m
		KPN "Alles-in-1 Thuis Instap" 10 12m
		KPN "Alles-in-1 Thuis Instap" 80 12m
		KPN "Alles-in-1 Thuis Premium Glasvezelpakket Plus" 500 12m
		KPN "Alles-in-1 Thuis Premium Glasvezelpakket" 100 12m
		KPN "Alles-in-1 Thuis Premium" 50 12m
		KPN "Alles-in-1 Thuis Premium" 80 12m
		KPN "Alles-in-1 Thuis Standaard Glasvezelpakket Plus" 500 12m
		KPN "Alles-in-1 Thuis Standaard Glasvezelpakket" 100 12m
		KPN "Alles-in-1 Thuis Standaard" 50 12m
		KPN "Alles-in-1 Thuis Standaard" 80 12m
		Tele2
	Tele 2 "Glasvezel Internet, Bellen & TV" 40 24m	
	Tele 2 "Glasvezel Internet, Bellen & TV" 60 24m	
	Tele 2 "Internet, Bellen & Interactieve TV" 20 12m	
	Tele 2 "Internet, Bellen & Interactieve TV" 40 12m	
	UPC	UPC "Alles-in-1 Basis" 50 12m
		UPC "Alles-in-1 Extra Power" 200 12m
		UPC "Alles-in-1 Power" 120 12m
Ziggo	Ziggo "Alles-in-1 Basis" 30 12m	
	Ziggo "Alles-in-1 Extra" 180 12m	
	Ziggo "Alles-in-1 Plus" 90 12m	
UK	BT	BT "TV Entertainment + BT Infinity 1" 38 18m
		BT "TV Entertainment + Unlimited BT Infinity 2" 76 18m
		BT "TV Essential + Broadband" 17 18m
		BT "TV Essential + Unlimited Broadband" 17 18m
	Sky	Sky "Broadband Lite" 17 12m
		Sky "Broadband Unlimited" 17 12m
	Talktalk	TalkTalk "Essentials TV, Broadband and Calls with Superpowered Fibre" 38 18m
		TalkTalk "Essentials TV, Broadband and Calls" 14 18m
		TalkTalk "Plus TV, Broadband and Calls with Superpowered Fibre" 38 18m
		TalkTalk "Plus TV, Broadband and Calls" 14 18m
	Virgin Media	Virgin Media "Big Bang" 100 18m
		Virgin Media "Big Daddy" 152 18m
		Virgin Media "Big Easy" 50 18m
		Virgin Media "Big Kahuna" 152 18m

Figure 15: list of all triple play tariff plans included.

### *Quadruple play (broadband with television, fixed and mobile telephony)*

77. Mobile telephony is increasingly being offered as part of a bundle of telecom products. In combination with a classical triple play this bundle is called a quadruple play. Comparing quadruple play offers is complicated because account has to be taken of the characteristics of the four separate services included in the bundle (Internet speed, number of call minutes for fixed and mobile telephony included, number of SMS messages and mobile data included, number of TV channels, etc.). That is why BIPT has chosen not to subdivide the quadruple play offers into product categories. For this product type no extra usage fees for fixed and mobile telephony are taken into account either. The cost calculation of the broadband element is similar to the one applied to triple play offers.
78. As for the mobile telephony element, only the cheapest mobile subscription has been added to the triple play if mobile communication is not included in (the cost price of) the standard quadruple play offer. Any discounts for adding this mobile service to the bundle have been deducted from the price<sup>26</sup>. In figure 53 a short description is given of the number of call minutes, SMS messages and mobile data included for this subscription.
79. The list of quadruple play offers in chapter 12 is not exhaustive. They are both offers explicitly marketed by the operators as a quadruple play and triple play offers to which a mobile element has been added offered by the same operator. It is of no importance whether those products are billed separately or not.

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<sup>26</sup> In the BIPT tariff simulator a quadruple play offer is defined as a single product, which has to be presented as a quadruple play on the operator's website. A combination of a triple play with a discount on the mobile element is not included in the tariff simulator as a quadruple play.

### 3.7 General points of interest and limitations

80. Telecom products are practically never identical. Although they can be grouped according to certain qualities, they will always differ in terms of additional services and/or other characteristics. This does not make it easy to draw conclusions about objectively observable price differences. If the price comparison shows that a specific product A has a lower price than another product B, it does not automatically mean that product B is more adverse for each customer. Product B may be more advantageous for a particular group of consumers, because qualitative elements (e.g. free Wi-Fi, extra TV channels, ...) may also be of specific (economic) use to the end-user. However, in this price comparison those qualitative aspects are left out of consideration.
81. The study has a few limitations resulting from methodological choices made in order to be able to compare all tariff plans from the various countries:
- 81.1. **Representativeness:** when selecting the operators BIPT has striven for maximum representativeness of the analysed markets. The operators included in this study represent together at least 80 per cent of the total market<sup>27</sup> for a specific product category in a specific country. BIPT thinks that this choice best represents what the general price level of the products most bought is. This does not exclude the fact that in a certain country products can be offered at more competitive prices, e.g. by smaller operators or resellers. Moreover, we consider a combined market share of 30 per cent per product and per country as a minimum requirement of validity for inclusion in the results. The '30 per cent rule' was applied to various broadband and multiplay segments within the framework of this study.
  - 81.2. **Rational consumer:** the end-user has been assumed to choose the cheapest offer available from a specific operator, fitting his/her calling behaviour or Internet usage. In other words the end-consumer is assumed to make a rational choice, with full knowledge of the tariff structure, and to choose the product that is most favourable considering his or her consumption. This implies a large measure of tariff transparency, consumer awareness and willingness to compare prices. In practice consumers are often not willing to make efforts to find out what the cheapest telecom product for them is.
  - 81.3. **Differences in tariff structure:** because of the often diverging tariff structures in the various countries choices have to be made regarding the charges to consider. Indeed, sometimes certain costs charged in one country, do not exist in the other. It is also particularly difficult to find out how much importance an end-user attaches in a specific country to services for which he has to pay extra. Therefore, BIPT has opted to use a realistic representation of the end-user's monthly recurrent cost, although it is definitely not comprehensive.
  - 81.4. **Marketed tariff plans:** because of methodological reasons this study only covers tariff plans marketed in August 2014 on operator websites. Apart from

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<sup>27</sup> This '80 per cent rule' can be deviated from if the (remaining) providers of a stand-alone product in a certain country together represent less than 80 per cent market share. This is notably the case with fixed telephony in all the neighbouring countries.

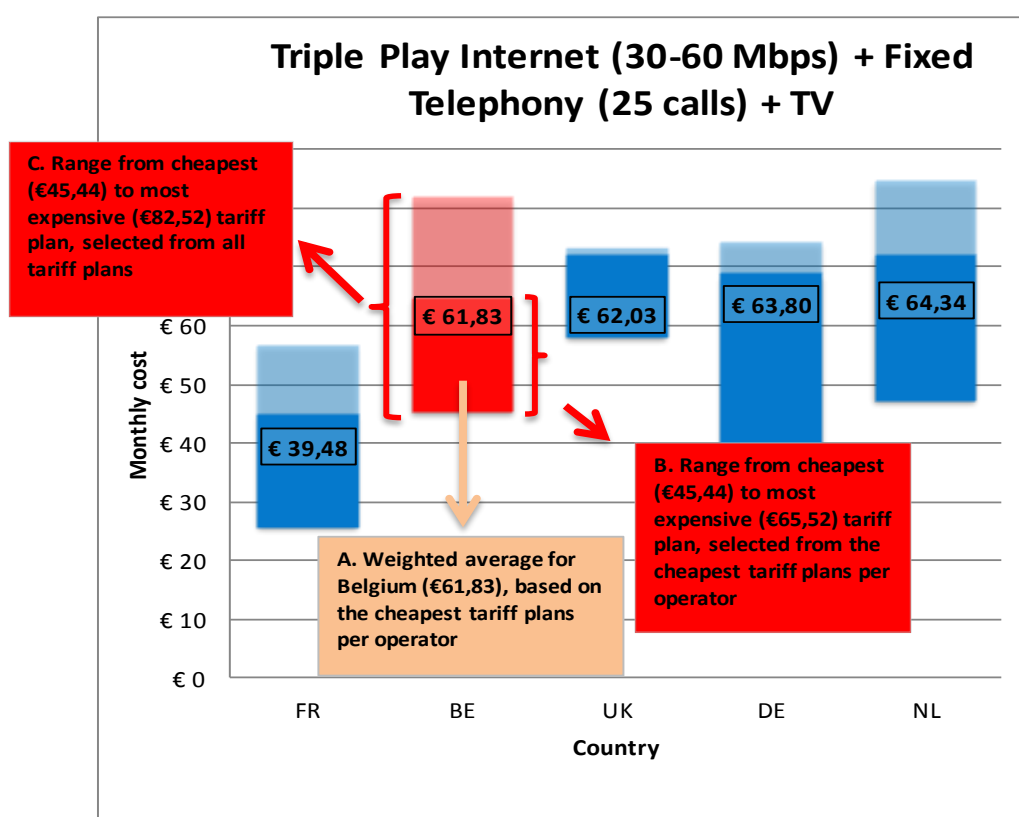
those tariff plans there is a whole range of 'old' tariff plans, which are no longer marketed, but still purchased by customers. Those old tariff plans are often more expensive.

- 81.5. **National coverage:** some services included in this comparison are not available nation-wide. Indeed, certain operators have partial territorial coverage (regional coverage, municipal coverage, local coverage, ...). Especially ultrafast broadband Internet is concentrated in the big conurbations in certain countries.
- 81.6. **Contract duration:** The contract duration has an impact on the price level for each country. In the neighbouring countries the minimum contract duration is typically one or two years. The monthly price of a tariff plan with a two year contract duration is usually lower than the price a consumer would pay if he committed himself to one year. In Belgium consumers have the right to cancel their contracts unilaterally after six months already, without having to pay an early termination fee, as laid down in the Telecom Act of 13 June 2005. In Belgium's neighbouring countries the minimum contract duration is typically one or two years. In fact the Belgian operators are therefore at a disadvantage in this comparison. This applies to all segments in this study (mobile telephony, fixed telephony, broadband and bundles).
82. The limitations described above should be considered when interpreting the results obtained. Although a price comparison - such as the one in this study - can give an overall picture of the Belgian price level compared to its neighbouring countries, it is not possible to make a comparative study of telecom tariffs that gives a comprehensive and indisputable picture of the price level across countries. Moreover, BIPT points out that this study gives a static analysis of the price level. This means that in a certain time frame (August 2014) the tariff plans made available at the time by the operators analysed, were observed. Because these tariff plans are subject to various changes (both regarding price level and other characteristics) after the period of investigation other tariff plans and/or price levels may be observed among the operators studied.
83. Apart from this BIPT study other international price studies are made by the European Commission and the OECD, but also by consultancy firms or magazines. Although available price studies by and large apply the same method to compare telecom prices, all studies are different as to their purpose. As a consequence the studies' results may be different from one another. Several elements have an impact on monitoring and comparing the price level of telecom products, and therefore produce a different classification of the results:
- the period in which the tariffs have been collected;
  - the sample of operators selected;
  - the sample of tariff plans selected;
  - the user profile used to compare tariff plans;
  - the (once-only and/or recurrent) costs taken into account.

84. Although each study in itself represents a certain trend, it is impossible to give a comprehensive and indisputable picture of the price level across countries. It is therefore important to interpret the results with some caution. For lack of an absolute basis of comparison a price study can only give a general picture of the price difference between countries.
85. Apart from this international price study BIPT regularly publishes a document giving an overview of all Belgian tariff plans, classified according to price. Because the national price comparison contains a larger sample of operators the document is better suited for comparing the operators than this international price study is.
86. A consumer can easily find out for himself which tariff plan is best suited for his needs by entering his user profile in the BIPT tariff simulator. [www.besttariff.be](http://www.besttariff.be).

### 3.8 Presentation of the results

87. For mobile telephony and fixed telephony, per country and per user profile a figure is presented of the weighted average of the cheapest tariff plans per operator (weighting according to that operator's market share for the product concerned).
88. In regard to broadband Internet, bundles and mobile data countries are also compared based on the weighted average (A), per category, on the basis of the cheapest tariff plans per operator. The graph also provides information about the price range of the cheapest tariff plans per operator (B) as well as the price range of all tariff plans (C). This is illustrated by means of observations for the product type triple play/product category 2 (average speed). The weighting is done according to the market share of the operator concerned on the broadband market.



Tariff plan	Price	Part of BE weighted average price?
Scarlet "Scarlet Trio" 30 6m	€ 45,44	Yes
SNOW "Triple Play" 30 6m	€ 45,70	
Numericable "Triple Play Start" 50 6m	€ 55,00	
VOO "Pack TRIO Un Peu" 35 6m	€ 57,45	
Belgacom "Pack Internet + TV + Telephony Start" 30 6m	€ 65,52	
VOO "Pack TRIO Beaucoup" 45 6m	€ 67,45	No
Belgacom "Pack Internet + TV + Telephony Comfort" 30 6m	€ 70,52	
VOO "Pack TRIO Passionément" 55 6m	€ 75,95	
Belgacom "Pack Internet + TV + Telephony Maxi" 30 6m	€ 82,52	

Figure 16: Example of the presentation of the results for Internet and bundles.

89. At the end of each section the results are summarised and the Belgian tariff plans are positioned graphically. In this figure the cheapest tariffs of the Belgian operators included in the comparison are positioned against the cheapest tariffs analysed in the neighbouring countries. The black arrow - which shows per profile/category the price range of all tariffs collected - links the minimum tariff (bottom of the arrow) to the maximum tariff (top of the arrow). Each red rhomb represents an observed price level of a Belgian offer. The lower the red rhombs are situated on a vertical arrow, the better the Belgian offers are priced compared to the neighbouring countries. In a few cases the red rhombs are widely scattered over the arrow: in that case it is harder to draw an unambiguous conclusion about the Belgian tariffs.
90. Because of the diversity of quadruple play offers the option has been made not to subdivide this product group. As a consequence representing the price level in a graph and a comparison with the various countries make less sense. Instead that chapter only gives a table indicating the results found for all providers in all countries concerned.

## 4 MOBILE TELEPHONY (POSTPAID)

### 4.1 Profile 1: Very few calls (no data)

Profile 1: Very few calls (no data): 60 call minutes, 50 SMS messages, no data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	50	-
60%	On-net	36 min	9 min	14 min	13 min		
40%	Off-net	24 min	6 min	10 min	8 min		
<b>Total</b>		<b>60 min</b>	<b>15 min</b>	<b>24 min</b>	<b>21 min</b>		

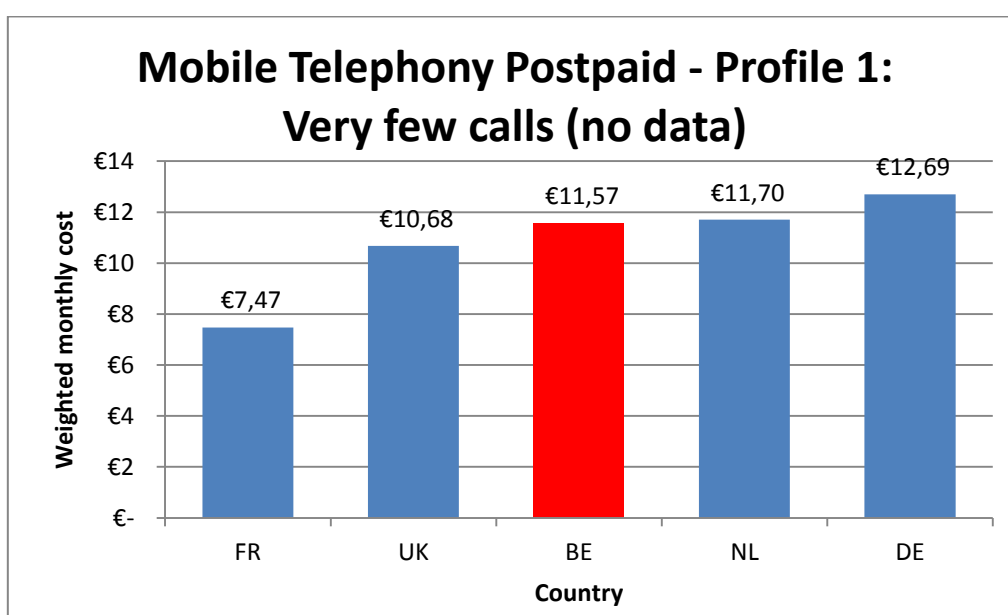


Figure 17: Weighted average per country mobile telephony postpaid profile 1 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 4.2 Profile 2: Average calls (no data):

Profile 2: Average calls (no data): 120 call minutes, 100 SMS messages, no data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	100	-
60%	On-net	72 min	18 min	29 min	25 min		
40%	Off-net	48 min	12 min	19 min	17 min		
<b>Total</b>		<b>120 min</b>	<b>30 min</b>	<b>48 min</b>	<b>42 min</b>		

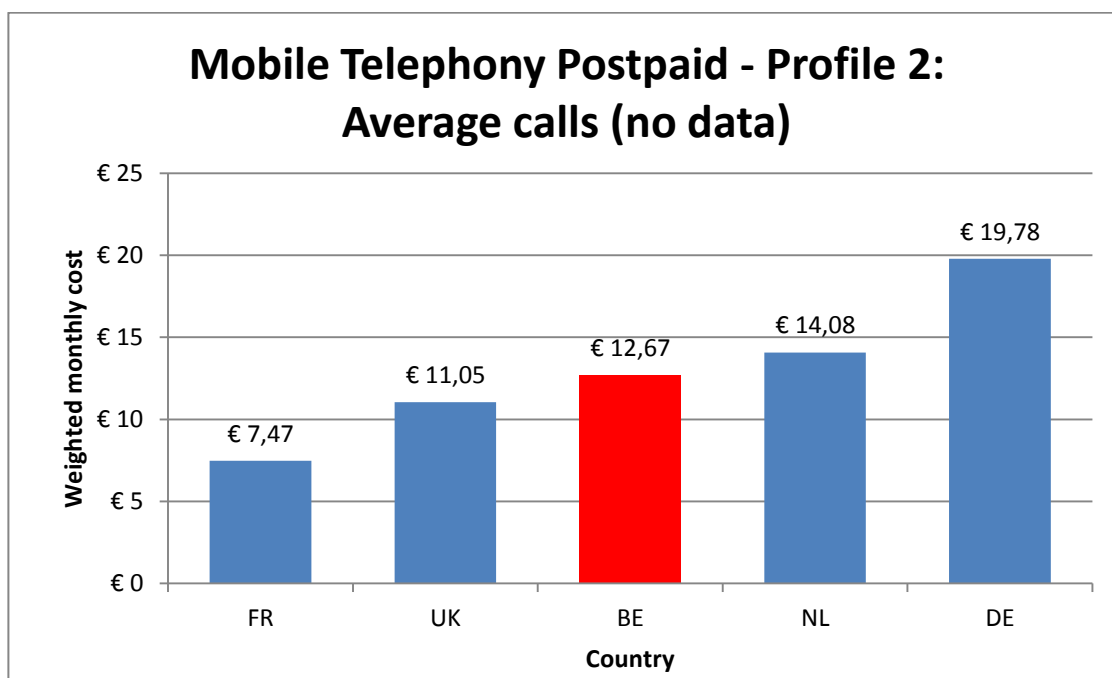


Figure 18: Weighted average per country for postpaid mobile telephony profile 2 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

### 4.3 Profile 3: Few calls, few data:

Profile 3: Few calls, few data: 100 call minutes, 100 SMS messages, 50 MB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	100	50 MB
60%	On-net	60 min	6 min	36 min	18 min		
40%	Off-net	40 min	4 min	24 min	12 min		
<b>Total</b>		<b>100 min</b>	<b>10 min</b>	<b>60 min</b>	<b>30 min</b>		

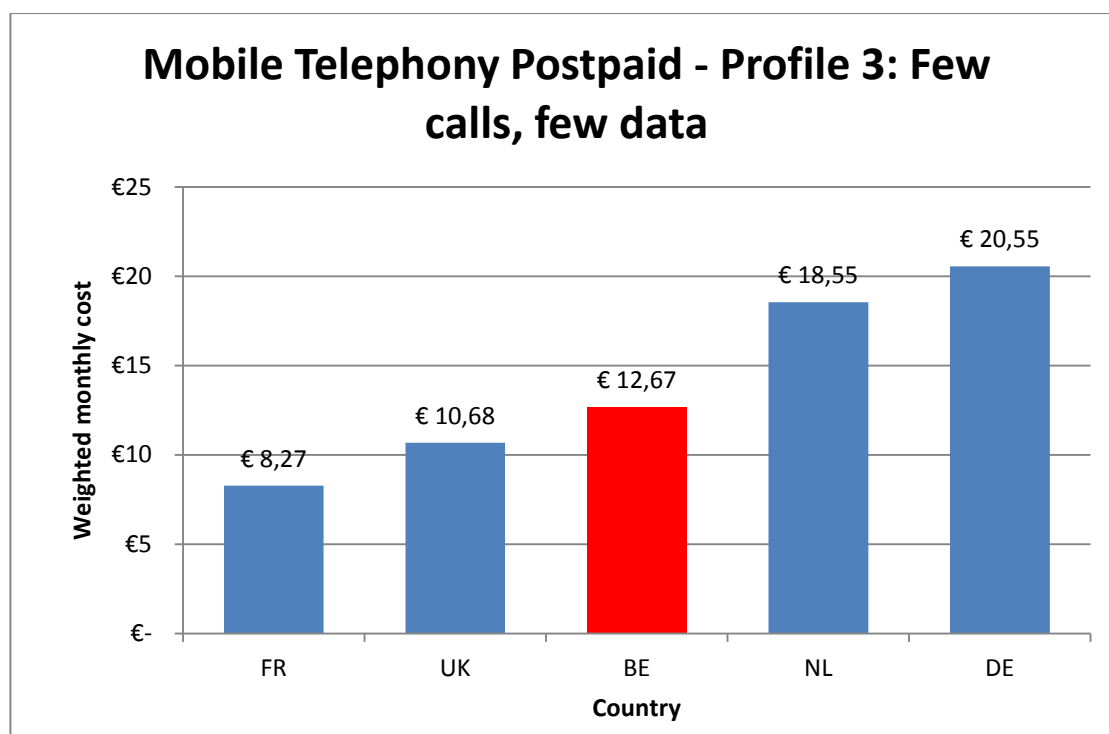


Figure 19: Weighted average per country mobile telephony postpaid profile 3 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

#### 4.4 Profile 4: Average calls, average data

Profile 4: Average calls, average data 120 call minutes, 200 SMS messages, 200 MB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	200	200 MB
60%	On-net	72 min	18 min	29 min	25 min		
40%	Off-net	48 min	12 min	19 min	17 min		
<b>Total</b>		<b>120 min</b>	<b>30 min</b>	<b>48 min</b>	<b>42 min</b>		

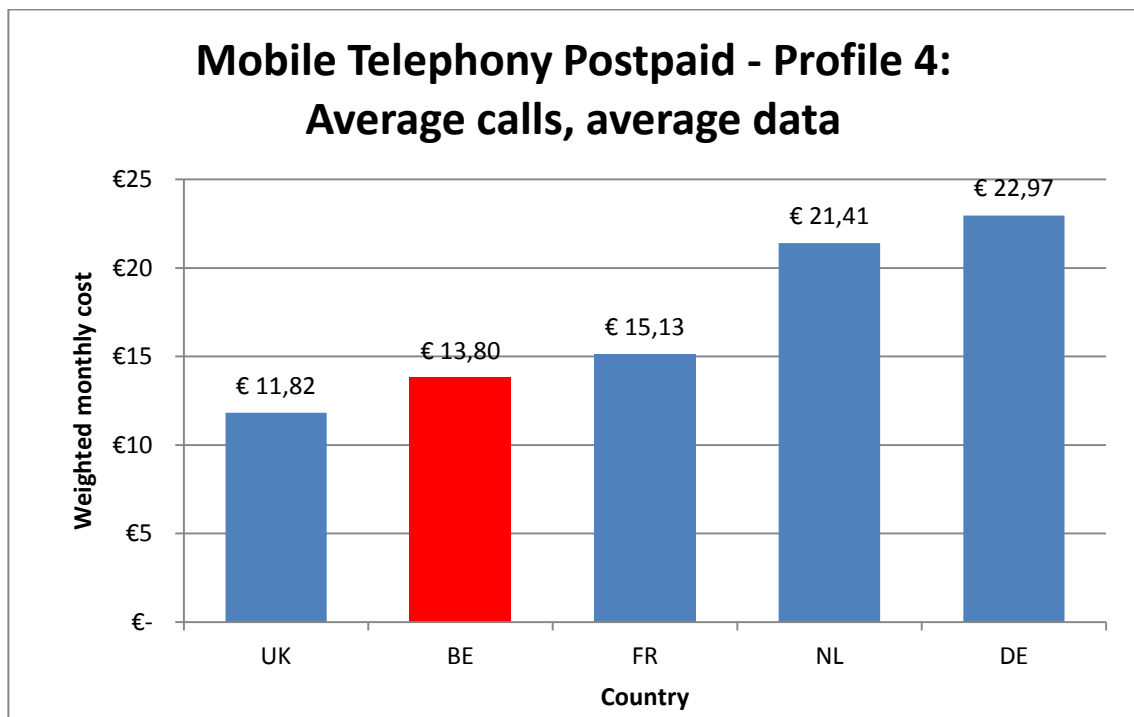


Figure 20: Weighted average per country mobile telephony postpaid profile 4 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

#### 4.5 Profile 5: Many calls, many data

Profile 5: Many calls, many data: 300 call minutes, unlimited SMS messages, 1 GB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			25%	40%	35%	Unlimited	1 GB
60%	On-net	180 min	45 min	72 min	63 min		
40%	Off-net	120 min	30 min	48 min	42 min		
<b>Total</b>		<b>300 min</b>	<b>75 min</b>	<b>120 min</b>	<b>105 min</b>		

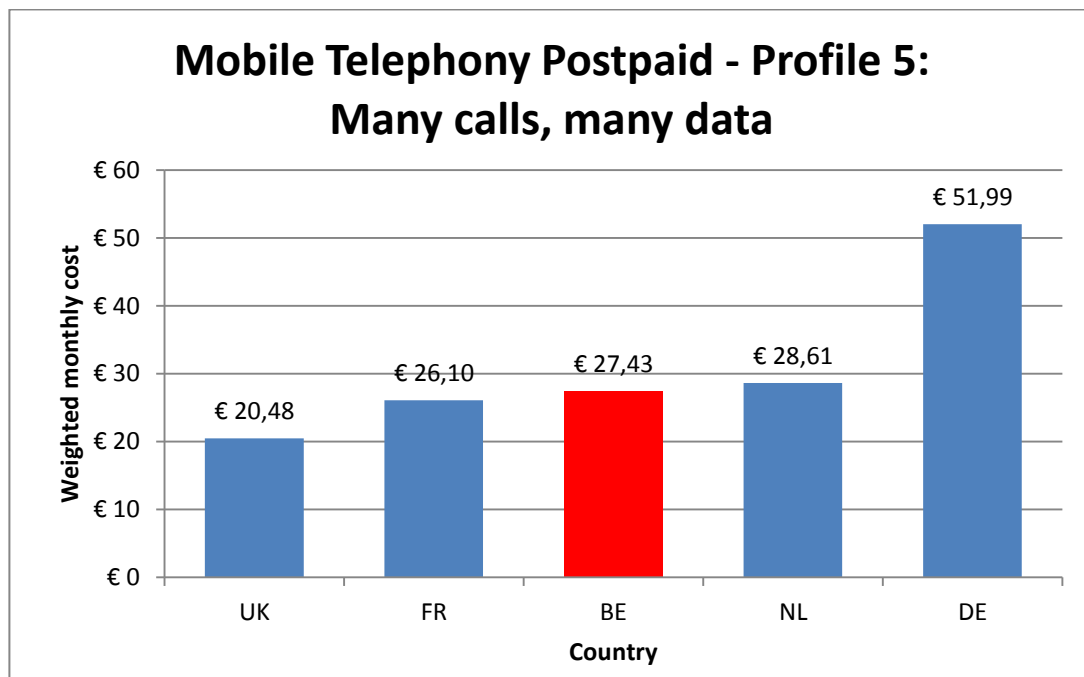


Figure 21: Weighted average per country mobile telephony postpaid profile 5 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

#### 4.6 Profile 6: Intensive calling, intensive data

Profile 6: Intensive calling, intensive data 400 call minutes, unlimited SMS messages, 2 GB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			10%	60%	30%	Unlimited	2 GB
60%	On-net	240 min	24 min	144 min	72 min		
40%	Off-net	160 min	16 min	96 min	48 min		
<b>Total</b>		<b>400 min</b>	<b>40 min</b>	<b>240 min</b>	<b>120 min</b>		

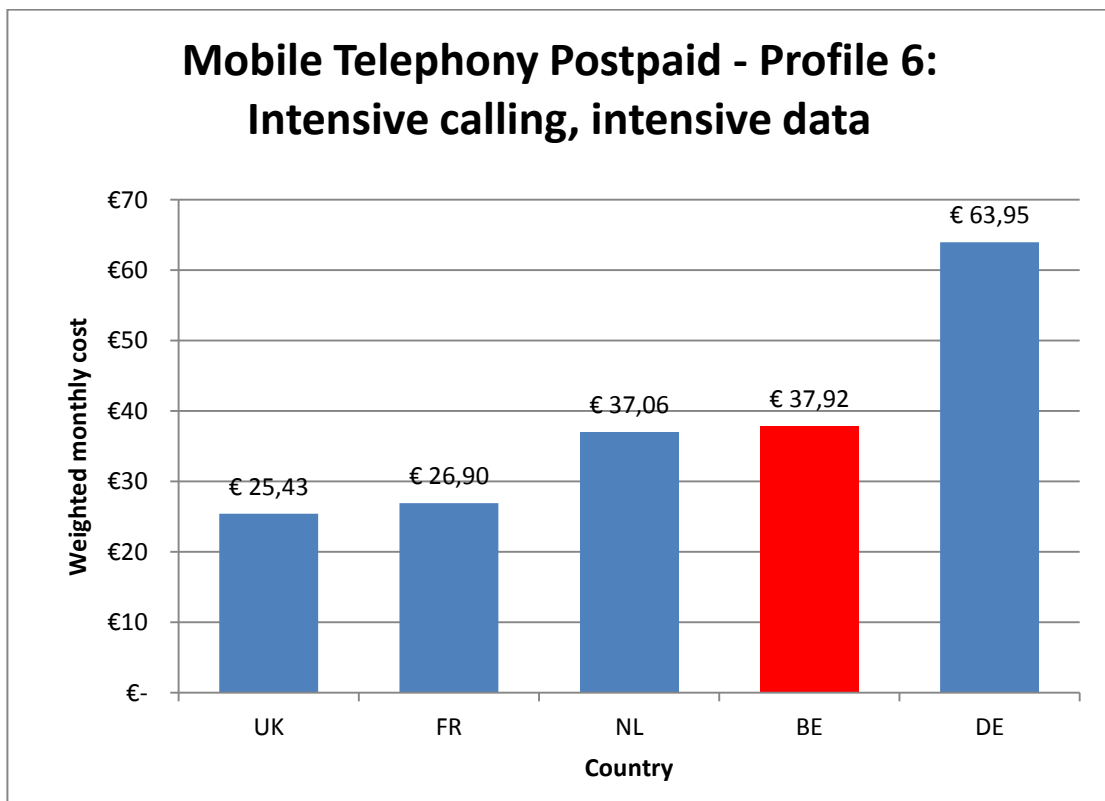


Figure 22: Weighted average per country mobile telephony postpaid profile 6 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 4.7 Summary of the postpaid mobile telephony results

91. In general the following trend in mobile telephony (postpaid) is seen: a consumer will pay less in France or the United Kingdom than in Belgium. Using a mobile phone is - for almost all profiles - more expensive in the Netherlands and significantly more expensive in Germany. All profiles combined Belgium has a medium score with the third place.
92. Tariff plans that are rather oriented to low use, without any mobile data, are very cheap in France. The United Kingdom follows; each time the difference with Belgium is very small. Tariff plans with a lot of data and many call minutes are cheapest in the United Kingdom. Belgium is second for profile 4 (average calls, average data). BIPT notices that this profiles comes closest to a typical Belgian's use, as shown in our statistics. For profile 6 (intensive use) Belgium finishes in fourth place, behind the United Kingdom and France, and closely behind the Netherlands (the difference is negligible). This user profile corresponds best with the unlimited tariff plans, which offer unlimited call minutes, including a lot of mobile data (at least 2 GB).
93. Based on the figure below we notice that the Belgian tariff plans are situated by and large at the bottom of the vertical arrow. The price difference with the neighbouring countries is often small; only Germany is significantly more expensive.
94. The price level for mobile calling in Belgium diminished significantly between 2012 and 2013. Although prices also went down in the four neighbouring countries, Belgium's relative position improved in 2013 compared to its neighbouring countries. This year, Belgium maintains its 'medium position'. All profiles combined the price level in Belgium has decreased by about one euro.
95. In this comparison only SIM only tariffs have been analysed. The large majority of Belgian cell phone users has a SIM only subscription; in our neighbouring countries conditional sales are more common, however. The result may be that the selected foreign tariff plans are less representative.
96. In Belgium's neighbouring countries the minimum contract duration is typically one or two years, whereas the maximum actual contract duration in Belgium does not exceed six months. This difference in duration generally has an influence on the average price level observed, which probably puts Belgium at a disadvantage in this comparison.
97. The study only takes account of the tariff plans marketed in the August period. Seeing that the market is very dynamic the price level may well have changed in the meantime. In reality we see that consumers often have a tariff plan that is not suited for their needs, or not adapted to recent price evolutions. The characteristics of call bundles are also adapted on a regular basis: BIPT notices that an increasing number of operators launch tariff plans that include a number of roaming minutes and data, enabling the consumer to use the call bundle abroad without having to pay extra.

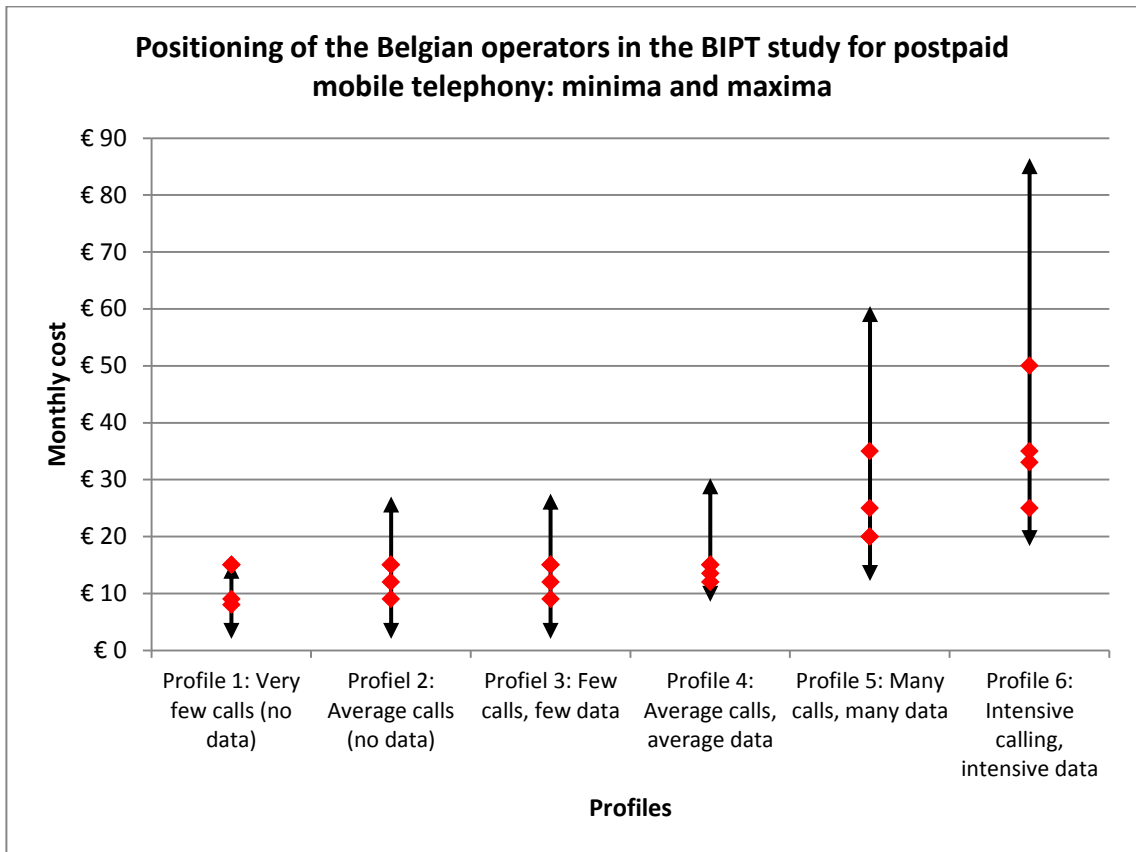


Figure 23: Survey of the minimum and maximum price observed in the five countries, per profile, mobile telephony postpaid (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 5 MOBILE TELEPHONY (PREPAID)

### 5.1 Profile 1: Average calls (no data)

Profile 1: Average calls (no data): 50 call minutes, 100 SMS messages							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	100	-
65%	On-net	33 minutes	13 minutes	10 minutes	10 minutes		
35%	Off-net	17 minutes	7 minutes	5 minutes	5 minutes		
<b>Total</b>		<b>50 minutes</b>	<b>20 minutes</b>	<b>15 minutes</b>	<b>15 minutes</b>		

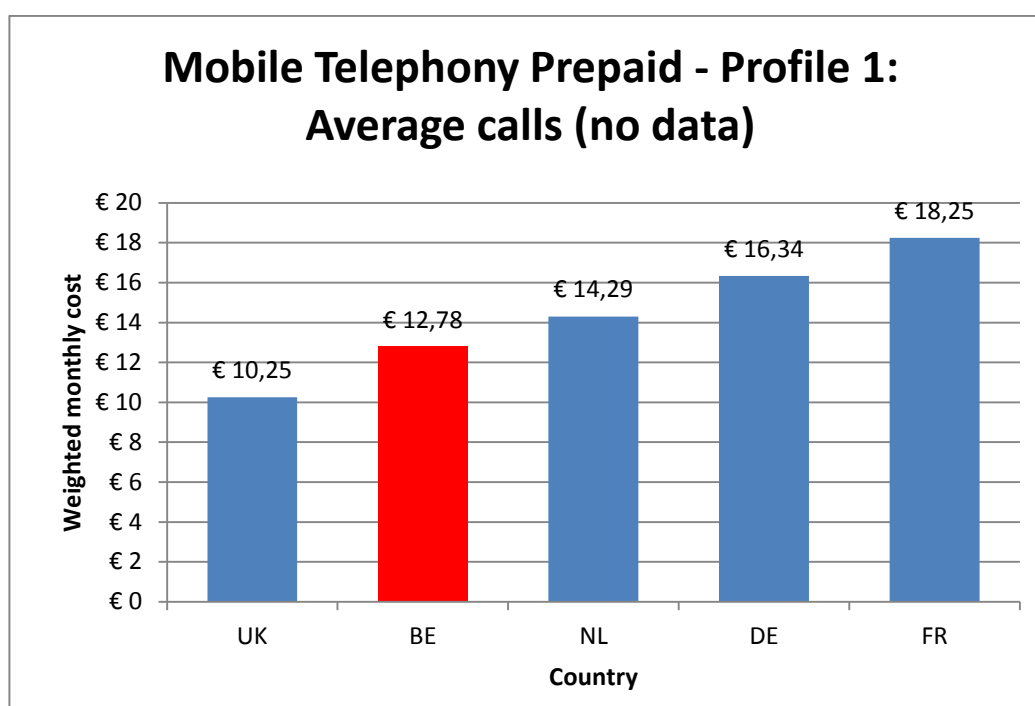


Figure 24: Weighted average per country mobile telephony prepaid profile 1 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 5.2 Profile 2: Many calls (no data)

Profile 2: Many calls (no data): 100 call minutes, 150 SMS messages							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	150	-
65%	On-net	65 minutes	26 minutes	20 minutes	20 minutes		
35%	Off-net	35 minutes	14 minutes	10 minutes	10 minutes		
<b>Total</b>		<b>100 minutes</b>	<b>40 minutes</b>	<b>30 minutes</b>	<b>30 minutes</b>		

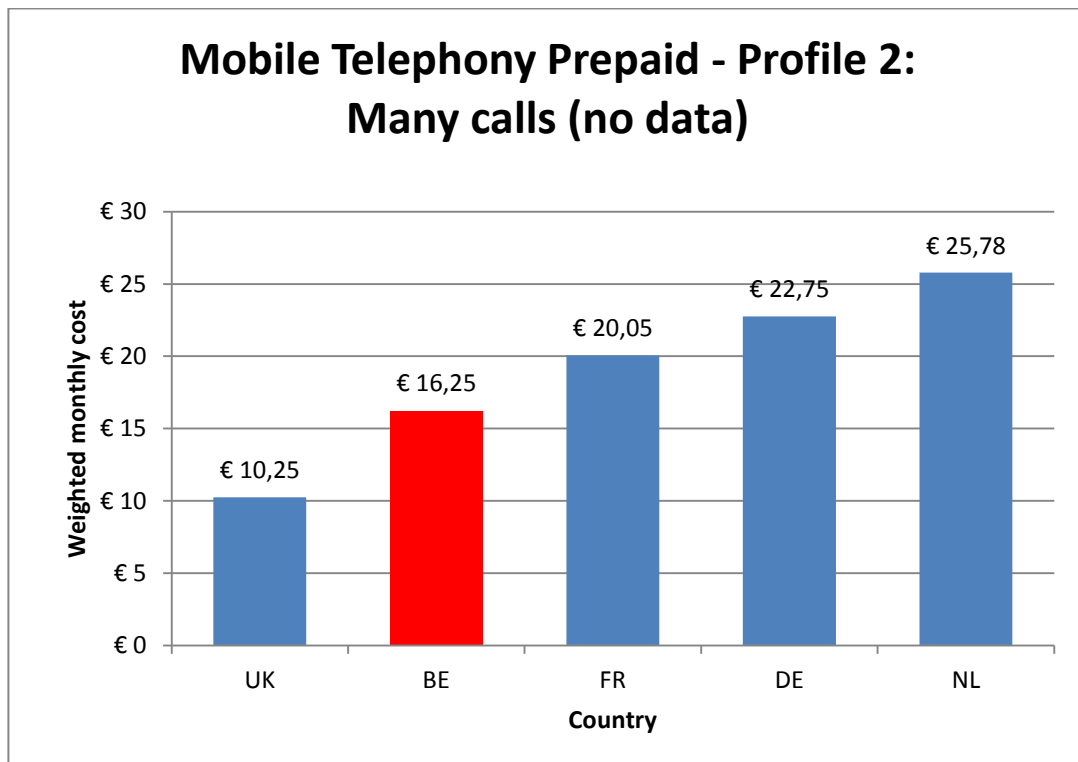


Figure 25: Weighted average per country mobile telephony prepaid profile 2 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

### 5.3 Profile 3: Average calls (with data)

Profile 3: Average calls (with data): 50 call minutes, 50 SMS messages, 50 MB							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	50	50 MB
65%	On-net	33 minutes	13 minutes	10 minutes	10 minutes		
35%	Off-net	17 minutes	7 minutes	5 minutes	5 minutes		
<b>Total</b>		<b>50 minutes</b>	<b>20 minutes</b>	<b>15 minutes</b>	<b>15 minutes</b>		

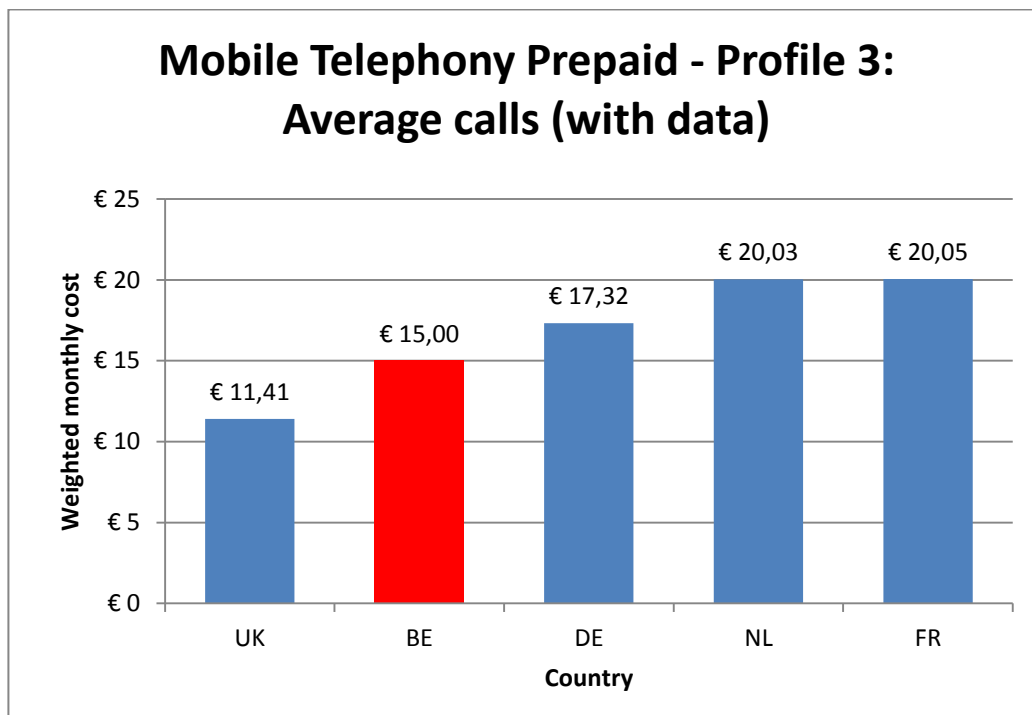


Figure 26: Weighted average per country mobile telephony prepaid profile 3 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 5.4 Profile 4: Few calls (a lot of data)

Profile 4: Few calls (a lot of data): 20 call minutes, unlimited SMS messages, 1 GB of data							
		Number of minutes	Peak	Off-peak	Weekend	SMS	Data
Destination			40%	30%	30%	Unlimited	1 GB
65%	On-net	13 minutes	5 minutes	4 minutes	4 minutes		
35%	Off-net	7 minutes	3 minutes	2 minutes	2 minutes		
<b>Total</b>		<b>20 minutes</b>	<b>8 minutes</b>	<b>6 minutes</b>	<b>6 minutes</b>		

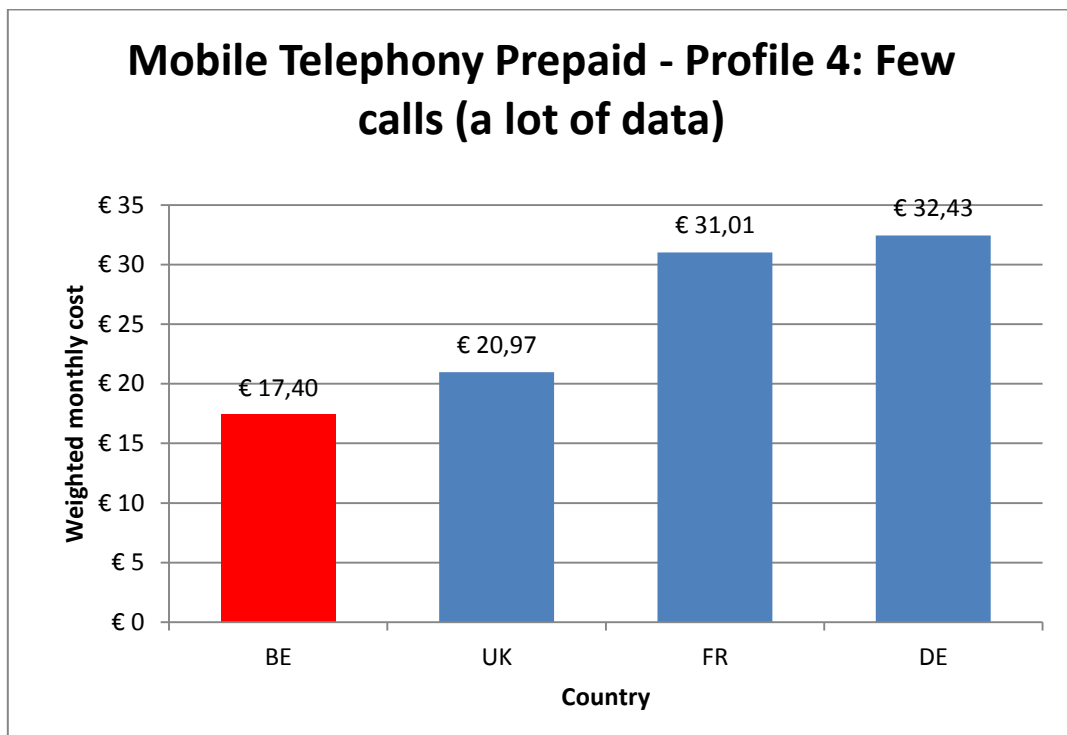


Figure 27: Weighted average per country mobile telephony prepaid profile 4 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 5.5 Summary of the prepaid mobile telephony results

98. In general the following trend in prepaid mobile telephony is observed: Belgium takes second place, behind the United Kingdom. A prepaid customer would be worse off in France; the price difference is quite large. Also the Netherlands and Germany are more expensive. For a user profile with a lot of mobile data (1 GB) Belgium finishes first. For this profile however, less tariff plans are observed, thus making the comparison less representative.
99. Compared to 2012 and 2013 Belgium maintains its good position. The price level has decreased lightly compared to last year. In the neighbouring countries too (except for France) the price level has decreased, so that the ranking corresponds with last year's results.

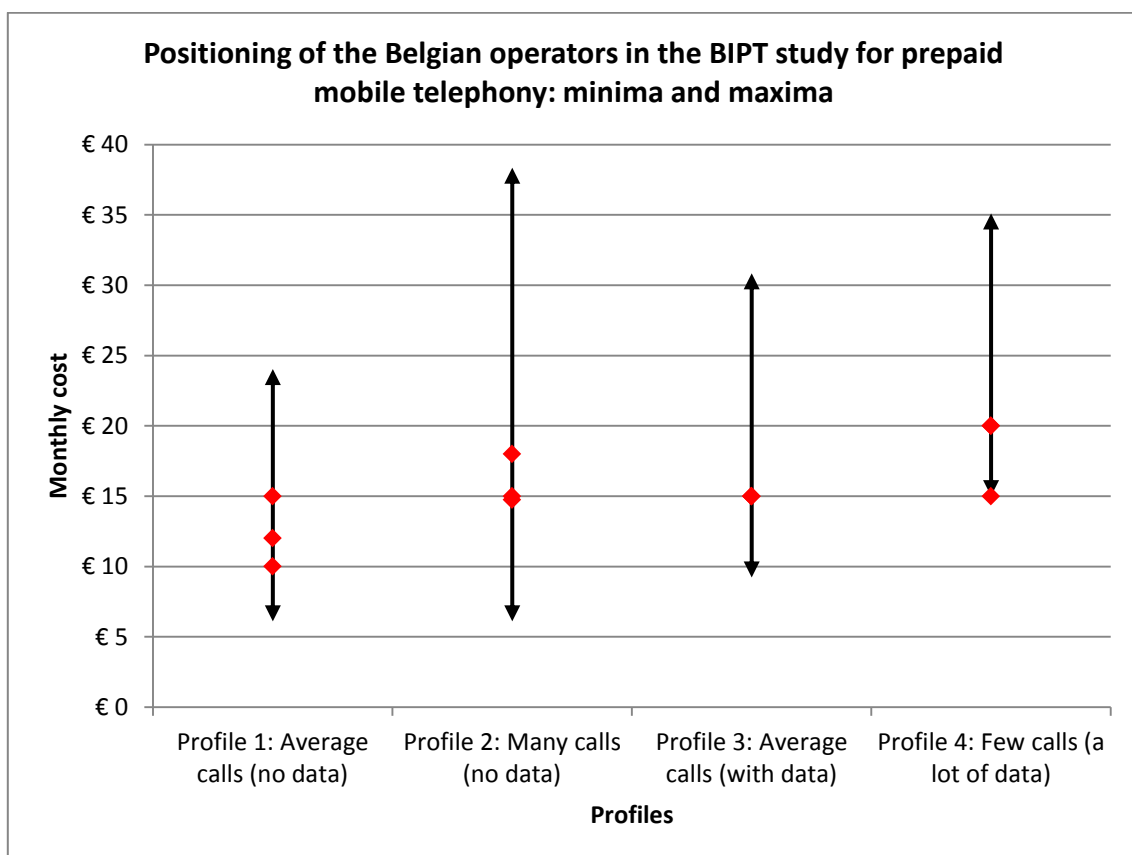


Figure 28: Survey of the minimum and maximum price observed in the five countries, per profile, mobile telephony prepaid (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 6 FIXED TELEPHONY

### 6.1 Profile 1: Low use

Profile 1: Low use (25 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%

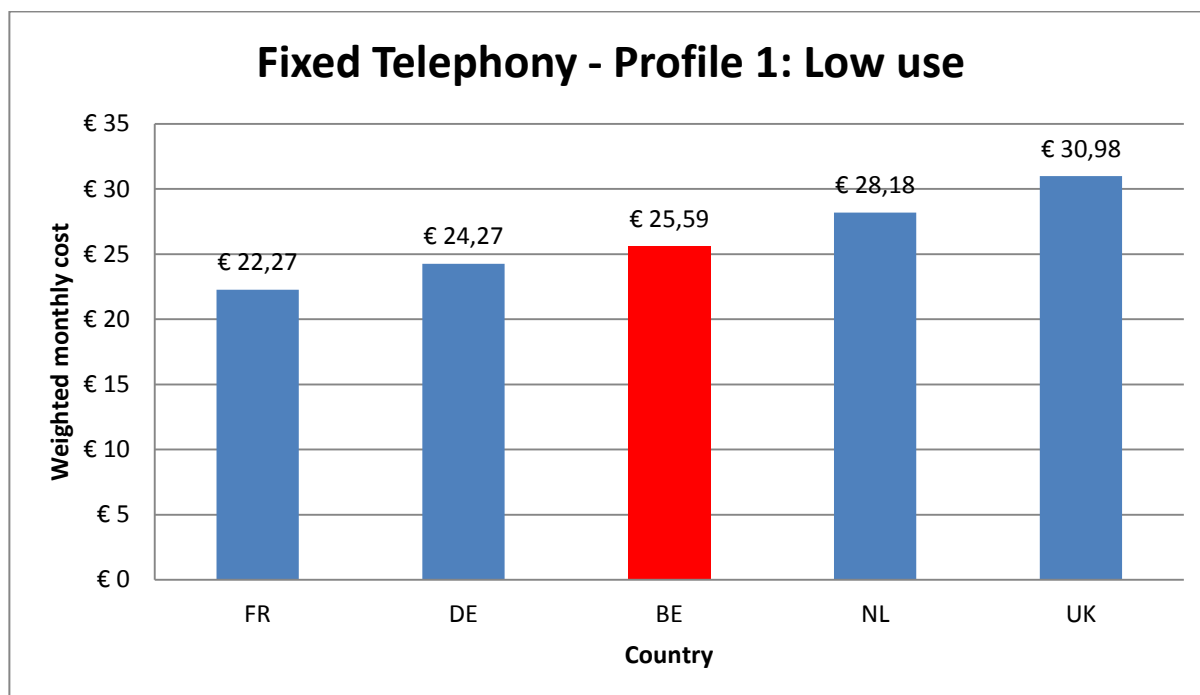


Figure 29: Weighted average per country fixed telephony profile 1 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 6.2 Profile 2: Medium use (off-peak and weekend)

Profile 2: Medium use, off-peak and during the weekend (70 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%

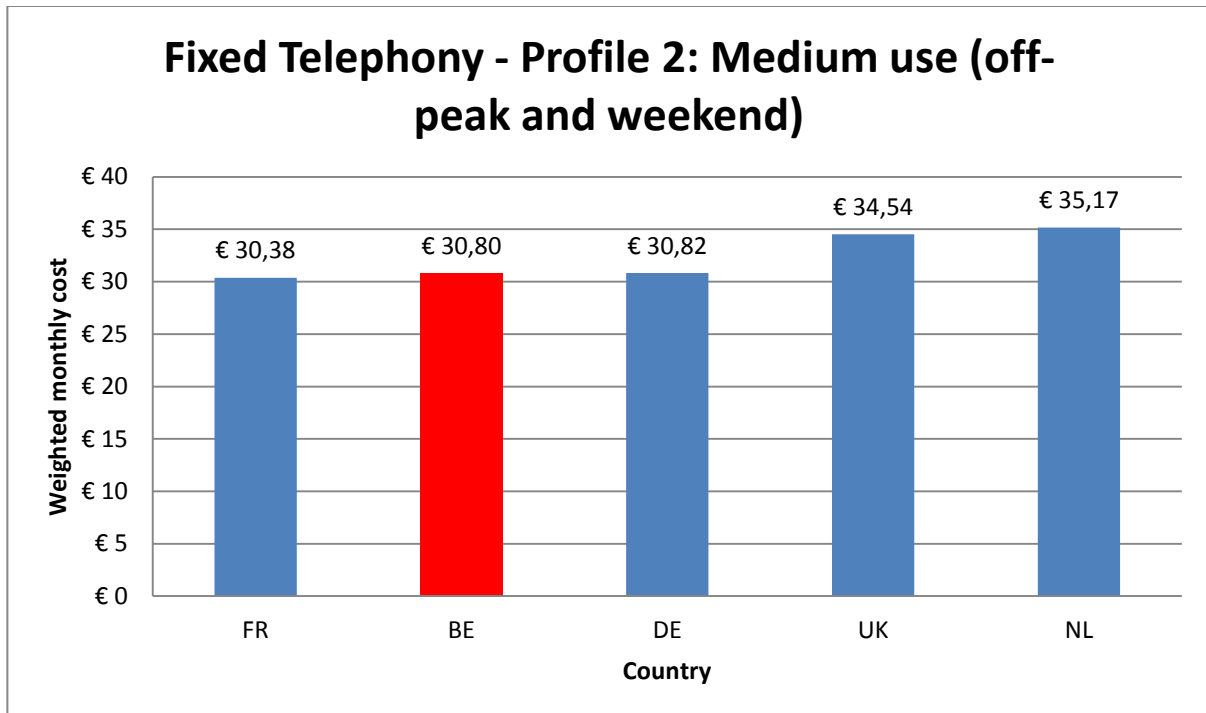


Figure 30: Weighted average per country for fixed telephony profile 2 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

### 6.3 Profile 3: Medium use (peak)

Profile 3: Medium use, week during the day (70 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	60%	20%	20%
25%	Mobile	17	60%	20%	20%

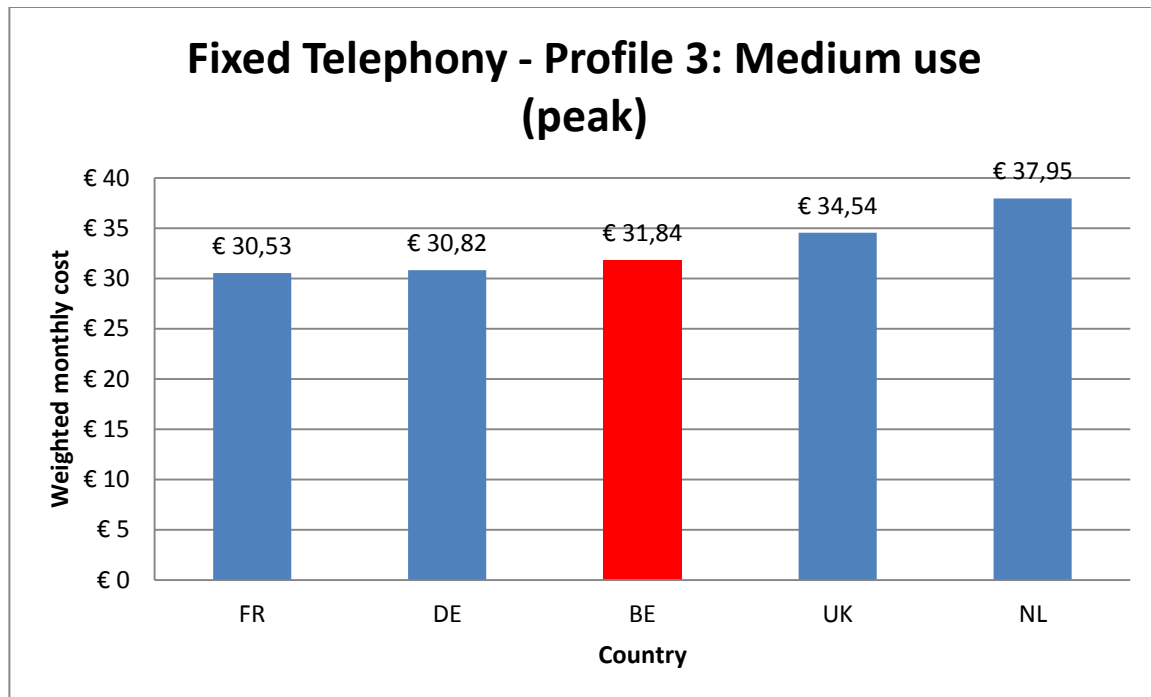


Figure 31: Weighted average per country for fixed telephony profile 3 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

#### 6.4 Profile 4: Intensive use (off-peak and weekend)

Profile 4: Heavy use, off-peak and during the weekend (120 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	90	30%	30%	40%
25%	Mobile	30	35%	25%	40%

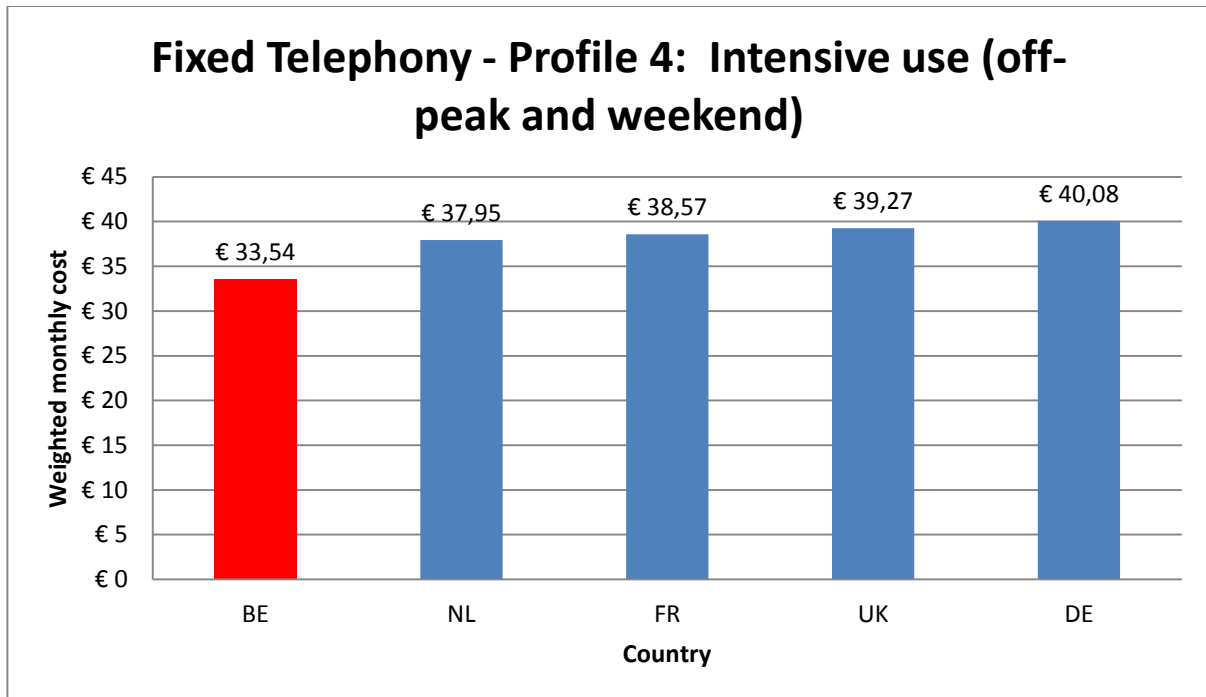


Figure 32: Weighted average per country for fixed telephony profile 4 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 6.5 Profile 5: Intensive use (peak)

Profile 5: Heavy use, mainly during the day during the week (120 calls)					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	90	60%	20%	20%
25%	Mobile	30	60%	20%	20%

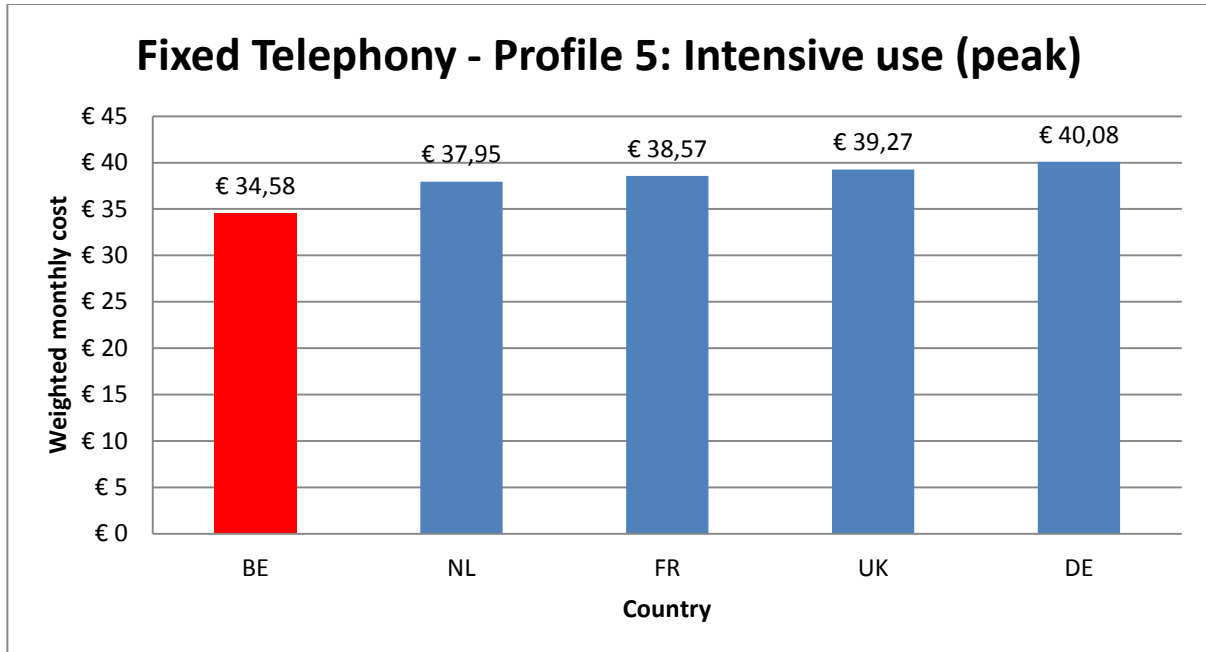


Figure 33: Weighted average per country for fixed telephony profile 5 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 6.6 Summary of the fixed telephony results

100. Within the group of analysed countries, Belgium generally takes a favourable position. Our country has the lowest weighted average price for two out of five profiles - notably the 'heavy' profiles 4 and 5. For profile 2 Belgium is second best. As to profiles 1 and 3 Belgium has an average score and is preceded by France and Germany. In all user profiles Belgian consumers would pay more in the UK and the Netherlands. In the Netherlands the incumbent KPN is the only operator who still offers stand-alone fixed telephony.
101. We notice a status quo regarding Belgium's position among the neighbouring countries compared to last year - with the exception of profile 2, for which last year, we boasted the lowest weighted average price. This year, France is doing better for that profile, though it should be said that the differences between the countries in the top 3 are very small.
102. Finally BIPT points out that a small number of people still take fixed telephony as a stand-alone product, making this comparison little representative for the average Belgian (see also topic 'Bundle penetration').

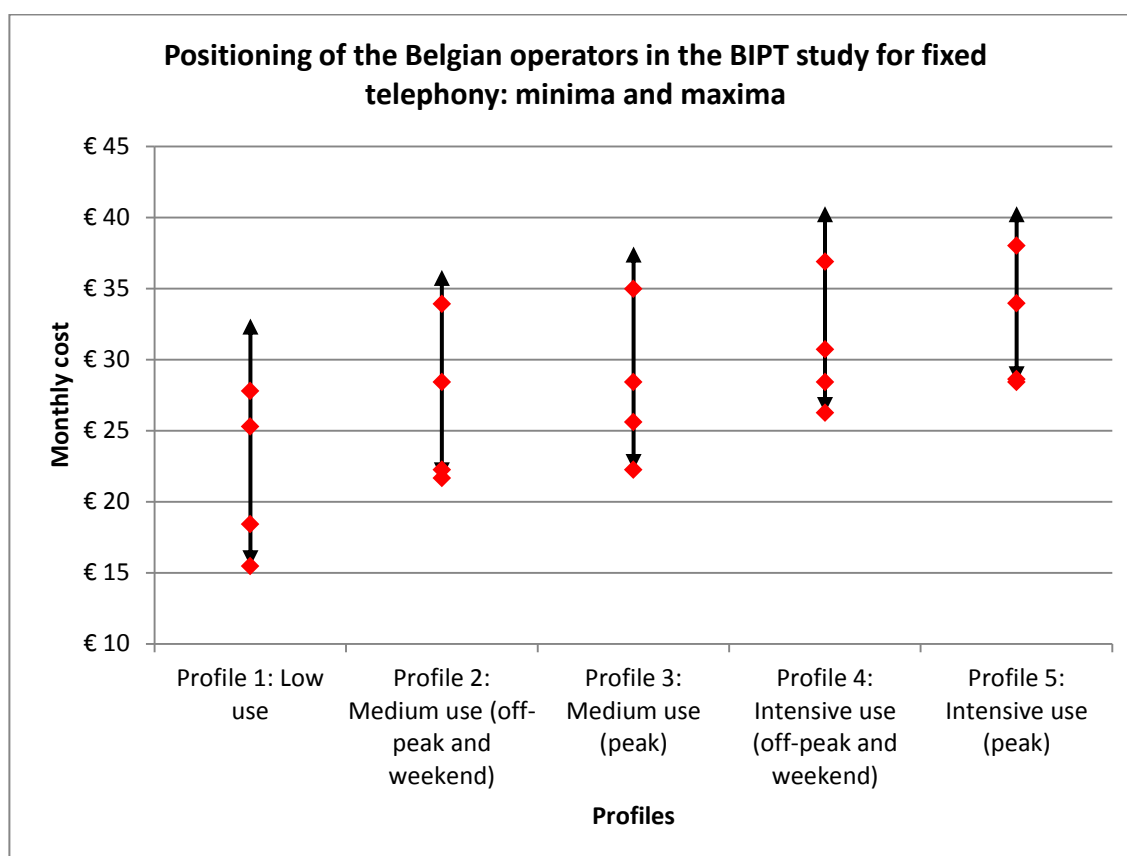


Figure 34: Overview of the minimum and maximum price observed in the five countries, per profile, fixed telephony (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 7 BROADBAND INTERNET

### 7.1 Category 1: Low speed

Category 1: Low speed	Speed < 30 Mbps
-----------------------	-----------------

103. In this category no tariff plans have been observed for the selected Belgian operators, thus making a country comparison impossible.

### 7.2 Category 2: Average speed

Category 2: Average speed	$30 \text{ Mbps} \geq \text{Speed} < 60 \text{ Mbps}$
---------------------------	---

104. In this category tariff plans have been observed in Belgium, the Netherlands, the United Kingdom and Germany. Only in Belgium the '30 per cent rule' is observed, so that it is impossible to compare countries.

### 7.3 Category 3: High speed

Category 3: High speed	$60 \text{ Mbps} \geq \text{Speed} < 100 \text{ Mbps}$
------------------------	--

105. In this category only one tariff plan has been observed for the selected Belgian operators. There are no observations in the neighbouring countries and so it is not possible to compare the countries.

### 7.4 Category 4: Very high speed

Category 4: Very high speed	Speed $\geq 100 \text{ Mbps}$
-----------------------------	-------------------------------

106. In this category tariff plans have been observed in Belgium, the United Kingdom and Germany. Only in Belgium however, the '30 per cent rule' is observed, so that it is impossible to compare countries.

## 8 MOBILE INTERNET (FOR TABLET USERS)

### 8.1 Category 1: Low volume

Category 1: Low volume	200 < volume ≤ 500 MB
------------------------	-----------------------

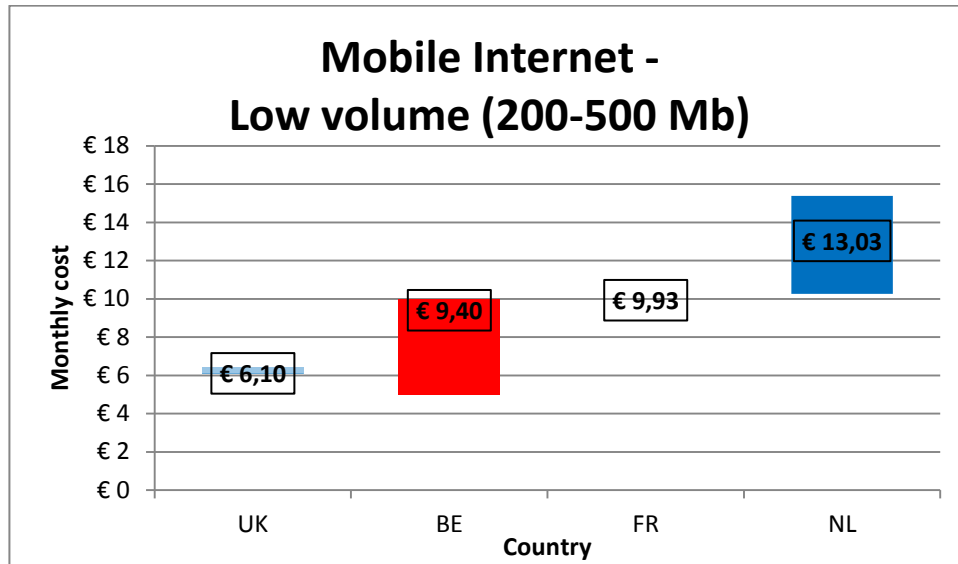


Figure 35: Weighted average per country for mobile Internet category 1 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 8.2 Category 2: Average volume

Category 2: Average volume	500 MB < volume ≤ 1 GB
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Not representative in Belgium.

## 8.3 Category 3: High volume

Category 3: High volume	1 GB < volume ≤ 2 GB
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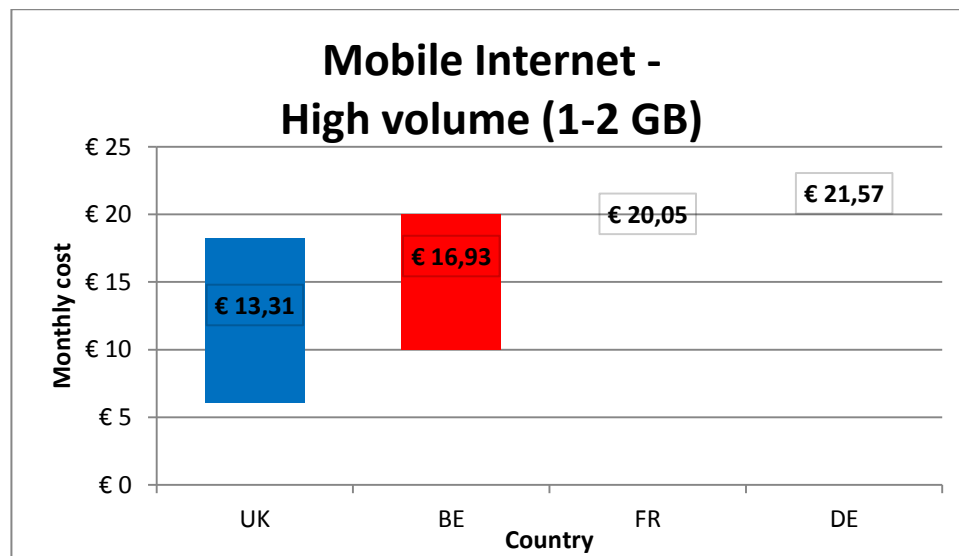


Figure 36: Weighted average per country for mobile Internet category 3 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 8.4 Category 4: Very high volume

Category 4: Very high volume	2 GB < volume ≤ 5 GB
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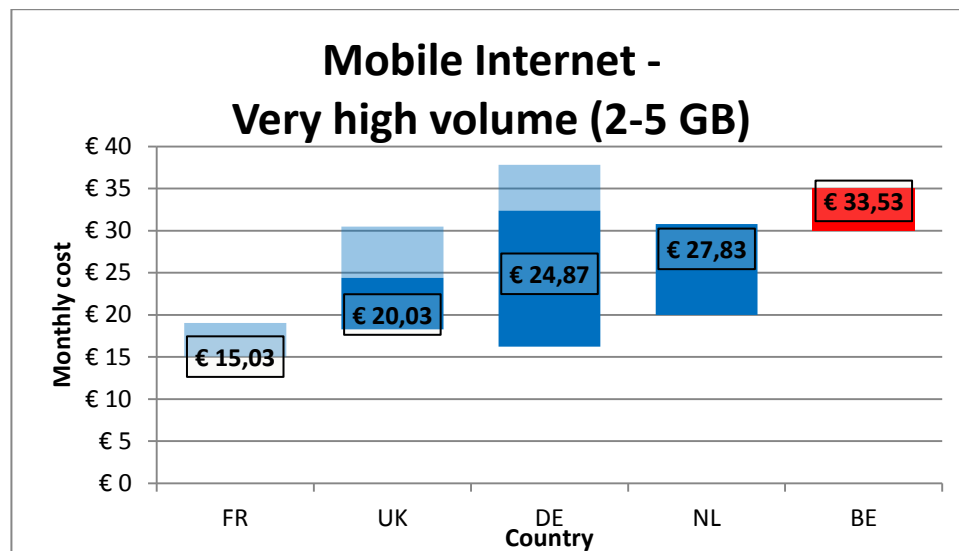


Figure 37: Weighted average per country for mobile Internet category 4 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 8.5 Summary of the mobile Internet results

107. In general the following trend in mobile Internet (stand-alone) is seen: Compared to its neighbouring countries Belgium scores very well as regards tariff plans for low to heavy use. In those categories only the United Kingdom is cheaper. In the intensive use category Belgium scores badly: Belgium finishes last here. When we look at last year's results we notice that in this segment no notable evolution has taken place as regards price level. The respective country positions have also largely remained the same.
108. The data volume included in the Belgian tariff plans is fairly small (roughly speaking up to maximum 5 GB), while in other countries bundles including a volume of up to 20 GB are already established. It should be said however that the Belgian operators have woven a very dense hotspot and Wi-Fi network. The extensive availability of Wi-Fi access could - at least in part - be a substitute for the users' needs to have mobile Internet access.
109. The number of people who actually take a stand-alone tariff plan for mobile data is very low: only 6 in 100 people have a subscription (SIM card for tablet or dongle for PC). As mentioned above people do use Wi-Fi networks as a substitute for a mobile data subscription. Belgacom also gives a quantity of free mobile data as part of an Internet subscription.
110. In Belgium's neighbouring countries the minimum contract duration is typically one or two years, whereas the maximum actual contract duration in Belgium does not exceed six months. This difference in duration generally has an influence on the average price level observed, which probably puts Belgium at a disadvantage in this comparison.
111. Finally it should be pointed out that quality parameters, such as download speed and network coverage of the various networks (3G or 4G) have been left out of consideration.

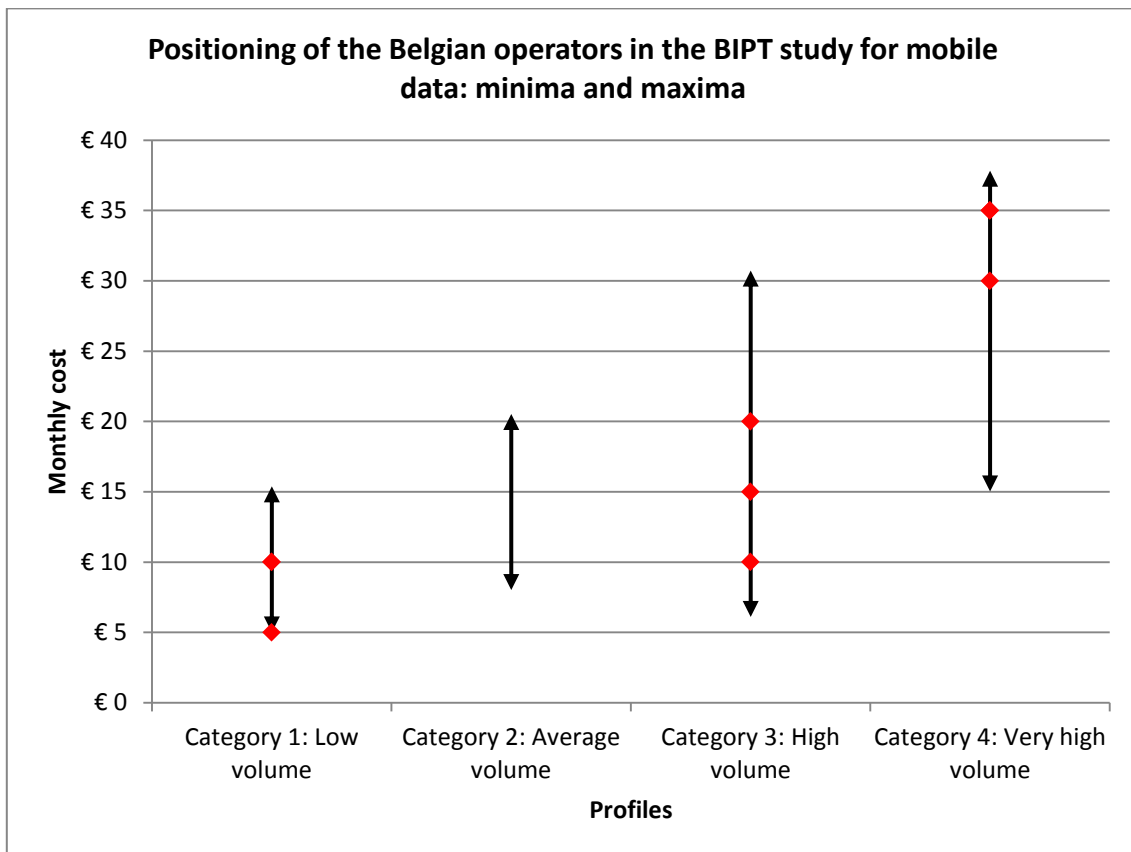


Figure 38: Overview of the minimum and maximum price observed in the five countries, per category, mobile broadband for tablet users (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 9 DUAL PLAY (BROADBAND + TV)

112. This dual play combination is only offered by Belgian and Dutch operators. Only for category 2 (average speed) a valid result was obtained. In this category the Dutch offer is more competitive, when the weighted average price is considered. Dual play broadband and television including an ultrafast broadband component is offered only by VOO in Belgium.
113. Because of the low representativeness of the tariff plans it is not possible to make a coherent comparison with the results of the 2013 price study, which showed that - based on the median observation - the Belgian offer was more competitive than the Dutch one as for the then category 2/3 (Internet speed between 30 and 100 Mbps).
114. The results mentioned above should be differentiated based on the findings concerning regional availability of broadband and the differences between the speed advertised and the actual speed (see also chapter 13, topics 1 and 2). Topic 4 holds important background information about bundle offers.

## 10 DUAL PLAY (BROADBAND + FIXED TELEPHONY)

### 10.1 Category 1: Low speed

Category 1					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: Low speed					
Speed < 30 Mbps					

115. In this category no tariff plans have been observed for the selected Belgian operators, thus making a country comparison impossible.

## 10.2 Category 2: Average speed

Category 2					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: Average speed					
30 Mbps ≥ Speed < 60 Mbps					

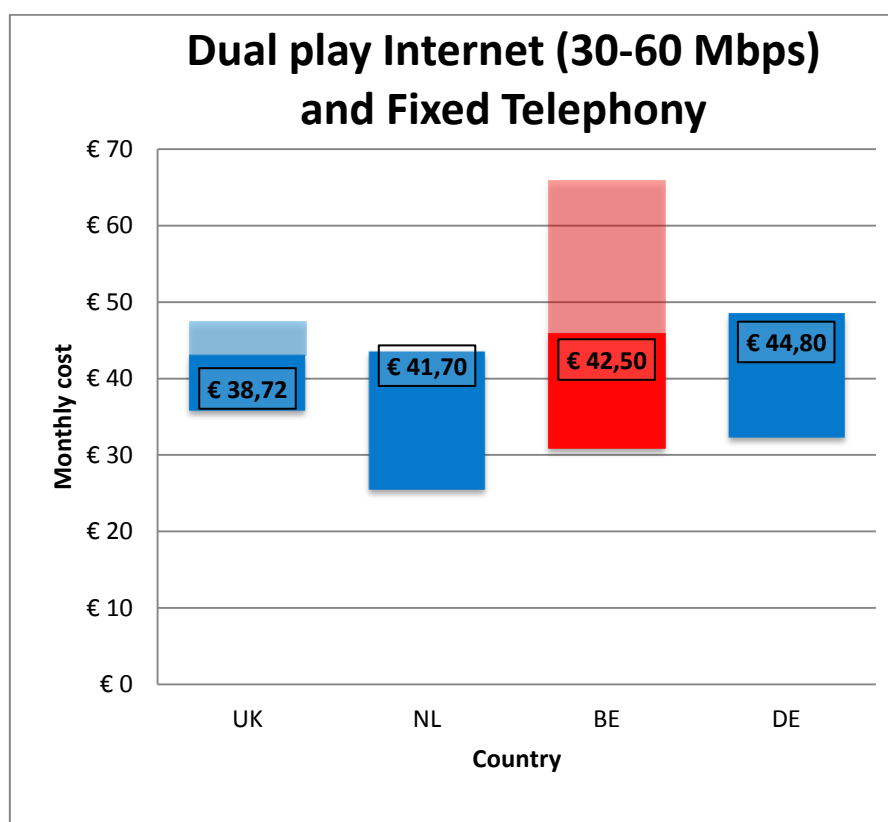


Figure 39: Weighted average per country dual play (Internet + fixed telephony), category 2 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

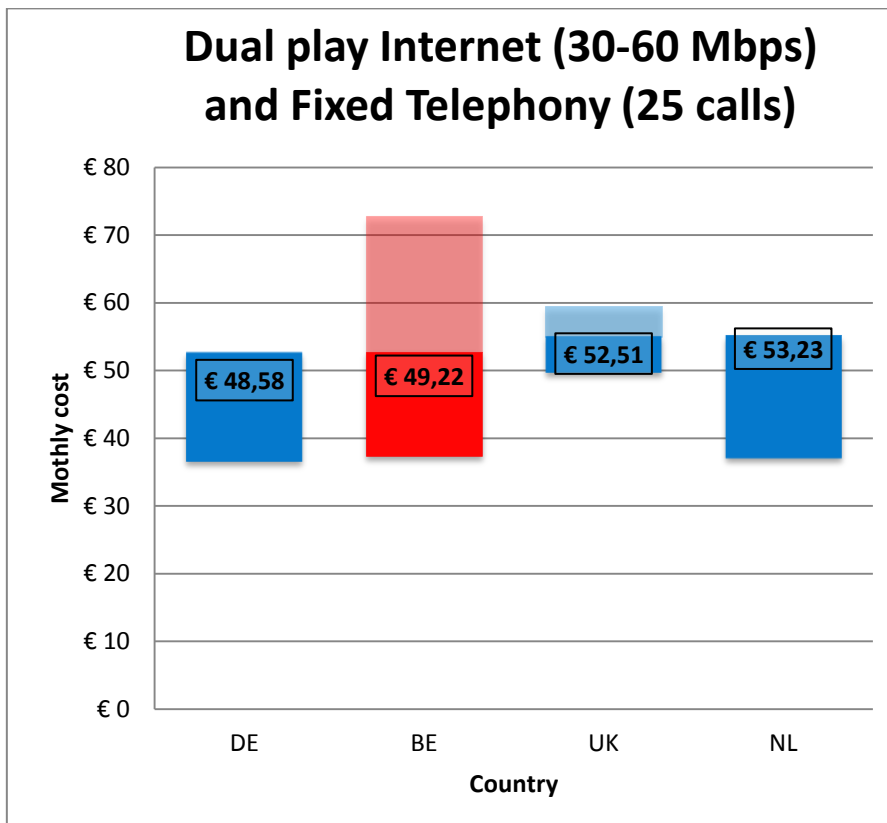


Figure 40: Weighted average per country dual play (Internet + fixed telephony), category 2, including 25 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

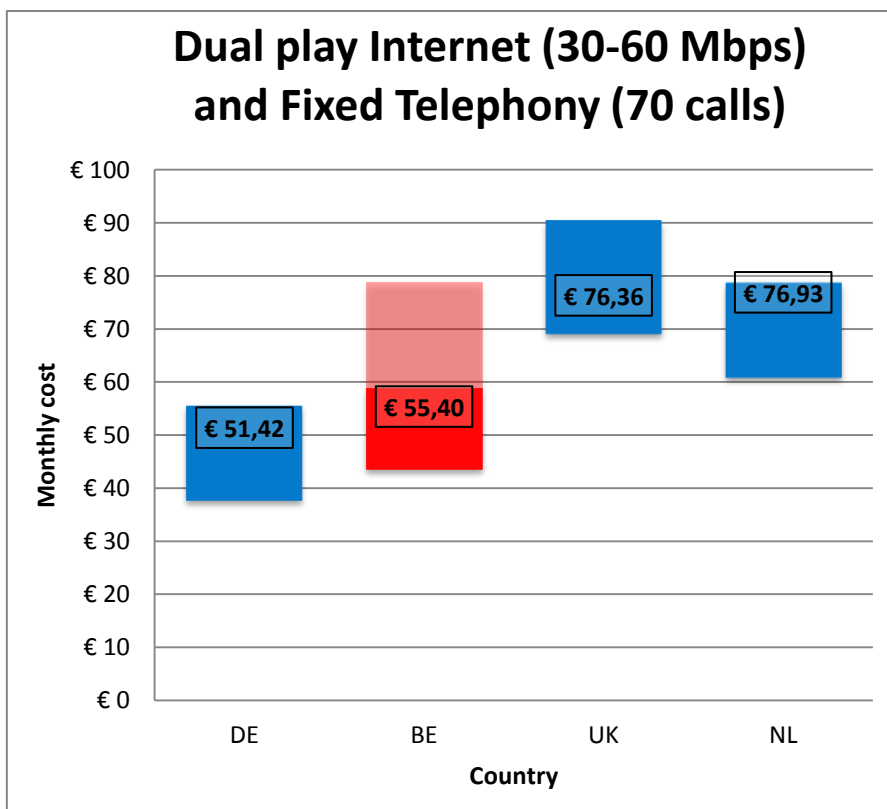


Figure 41: Weighted average per country dual play (Internet + fixed telephony), category 2, including 70 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

### 10.3 Category 3: High speed

Category 3					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: High speed					
60 Mbps ≥ Speed < 100 Mbps					

116. In this category no tariff plans have been observed for the selected Belgian operators, thus making a country comparison impossible.

### 10.4 Category 4: Very high speed

Category 4					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: Very high speed					
Speed ≥ 100 Mbps					

117. In this category no tariff plans have been observed for the selected Belgian operators, thus making a country comparison impossible.

## 10.5 Summary of the results for dual play (broadband and fixed telephony)

118. The selected Belgian operators only offer dual play broadband and fixed telephony with an average speed. Belgium has the biggest price range (biggest difference between cheapest and most expensive offer) and takes the following positions - based on the weighted average price:
- Without extra costs for the use of fixed telephony: **third place (3/4)** within the group of four countries where this dual play combination is offered, followed by Germany. The weighted average price is lowest in France. The differences between the countries are relatively small however.
  - Including costs of a fixed telephony profile 1 (25 calls): Belgium moves up to the **second position (2/4)** in the ranking. The total cost increase after adding the extra charges for fixed telephony is by far the smallest in Germany, which therefore positions itself as the cheapest country. The difference in absolute terms between Germany and Belgium is very small though (less than € 1).
  - Including costs of a fixed telephony profile 2 (70 calls): Germany and Belgium still occupy first and **second position (2/4)** respectively, but the difference between the two countries becomes bigger in absolute terms. The extra costs for this fixed telephony profile, drive up the total weighted average cost for the United Kingdom and the Netherlands considerably.
119. Because of the change in methodology it is not possible to make a coherent comparison with the results of the 2013 price study, which showed that - based on the median observation - Belgium occupied a relatively favourable second position within the group of four countries, where this dual play combination was offered in category 2/3 (Internet speed over 30 Mbps and under 100 Mbps).
120. The results mentioned above should be differentiated based on the findings concerning regional availability of broadband and the differences between the speed advertised and the actual speed (see also chapter 13, topics 1 and 2). Topic 4 holds background information about bundle offers.

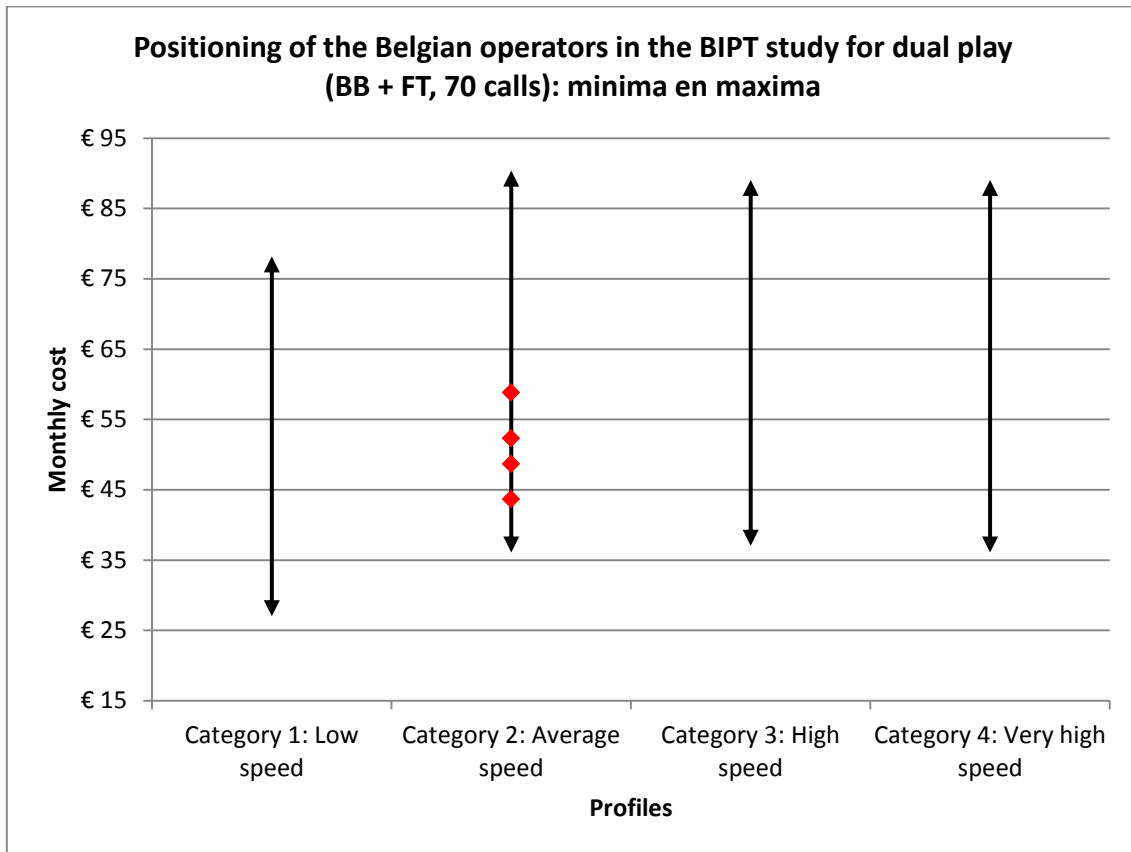


Figure 42: Overview of the minimum and maximum price observed in the representative countries, per category, dual play (broadband and fixed telephony, 70 calls) (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 11 TRIPLE PLAY (BROADBAND + TV + FIXED TELEPHONY)

### 11.1 Category 1: Low speed

Category 1					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: Low speed					
Speed < 30 Mbps					
TV part of the bundle					
No requirements					

121. In this category no tariff plans have been observed for the selected Belgian operators.

## 11.2 Category 2: Average speed

Category 2					
Fixed telephony part of the bundle: Low use (25 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: Average speed					
30 Mbps ≥ Speed < 60 Mbps					
TV part of the bundle					
No requirements					

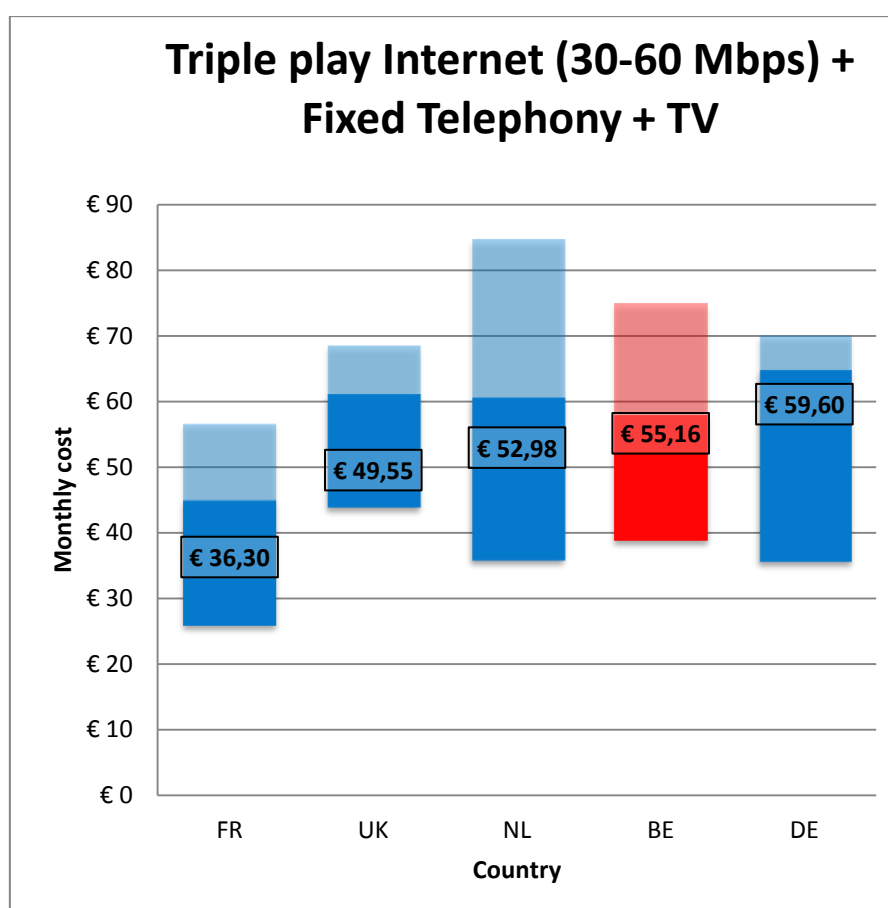


Figure 43: Weighted average per country for triple play (Internet + fixed telephony + TV), category 2 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

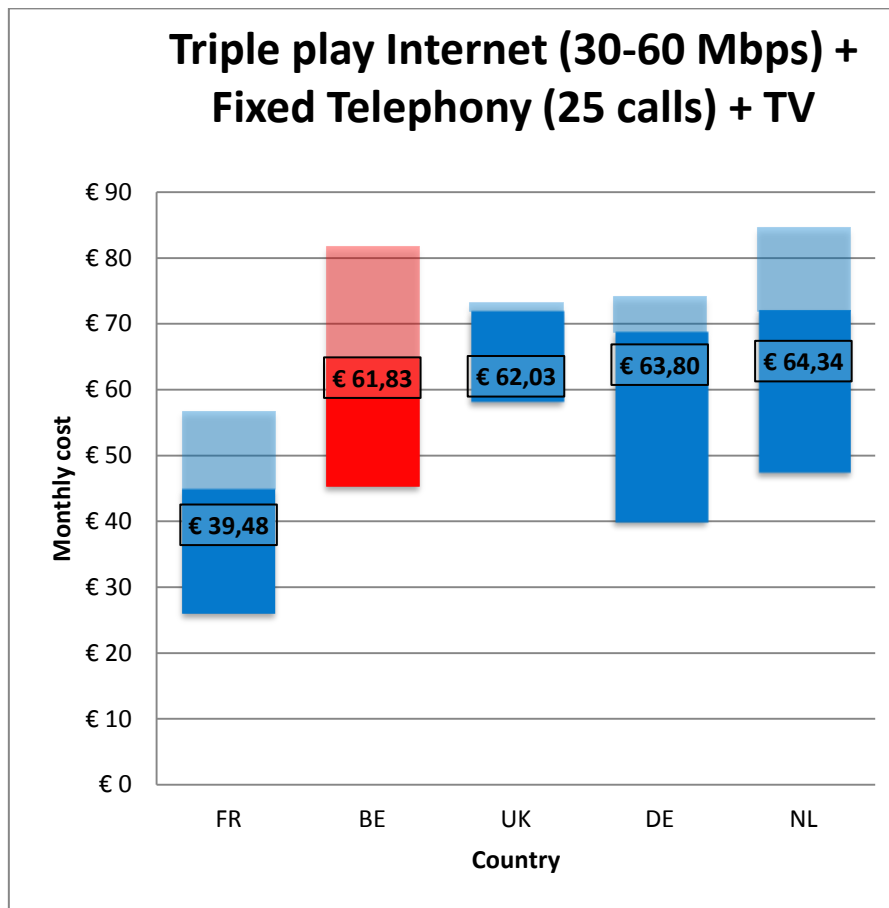


Figure 44: Weighted average per country for triple play (Internet + fixed telephony + TV), category 2, incl. 25 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

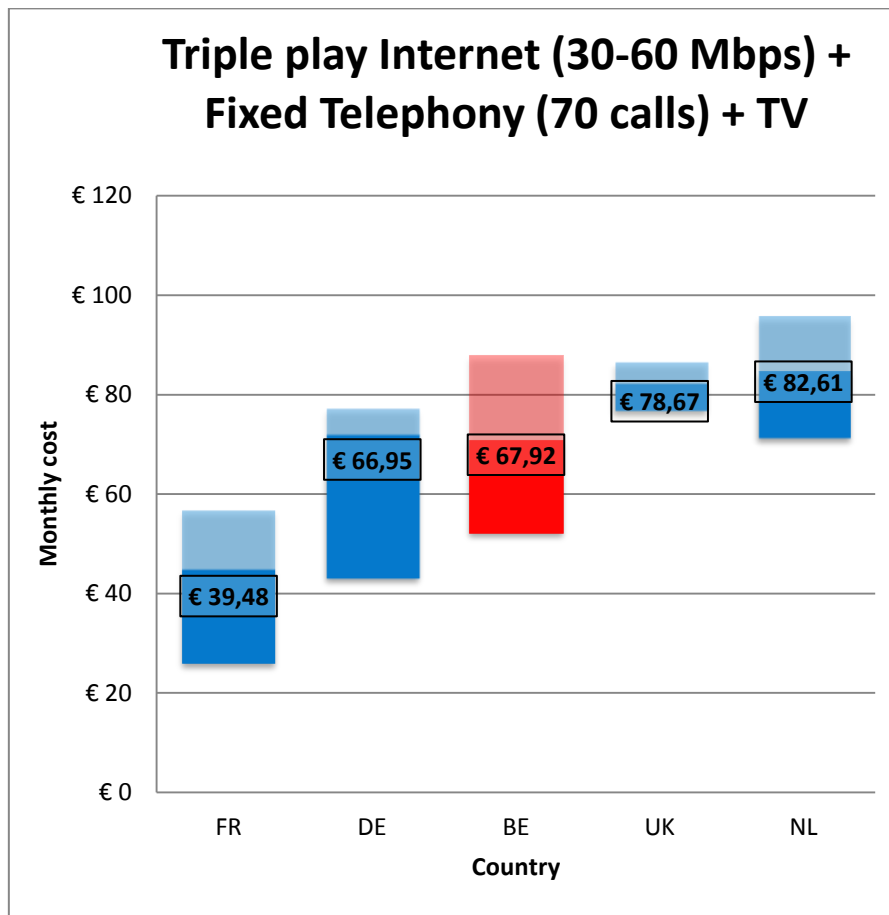


Figure 45: Weighted average per country for triple play (Internet + fixed telephony + TV), category 2, incl. 70 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

### 11.3 Category 3: High speed

Category 3					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: High speed					
60 Mbps ≥ Speed < 100 Mbps					
TV part of the bundle					
No requirements					

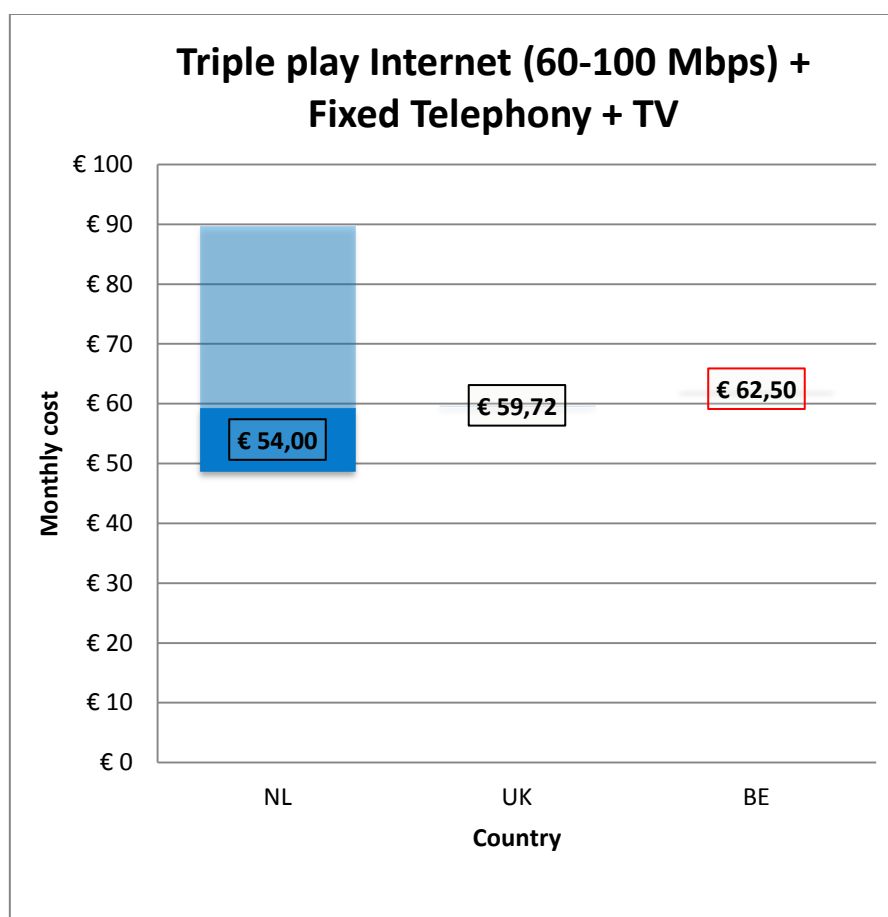


Figure 46: Weighted average per country for triple play (Internet + fixed telephony + TV), category 3 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

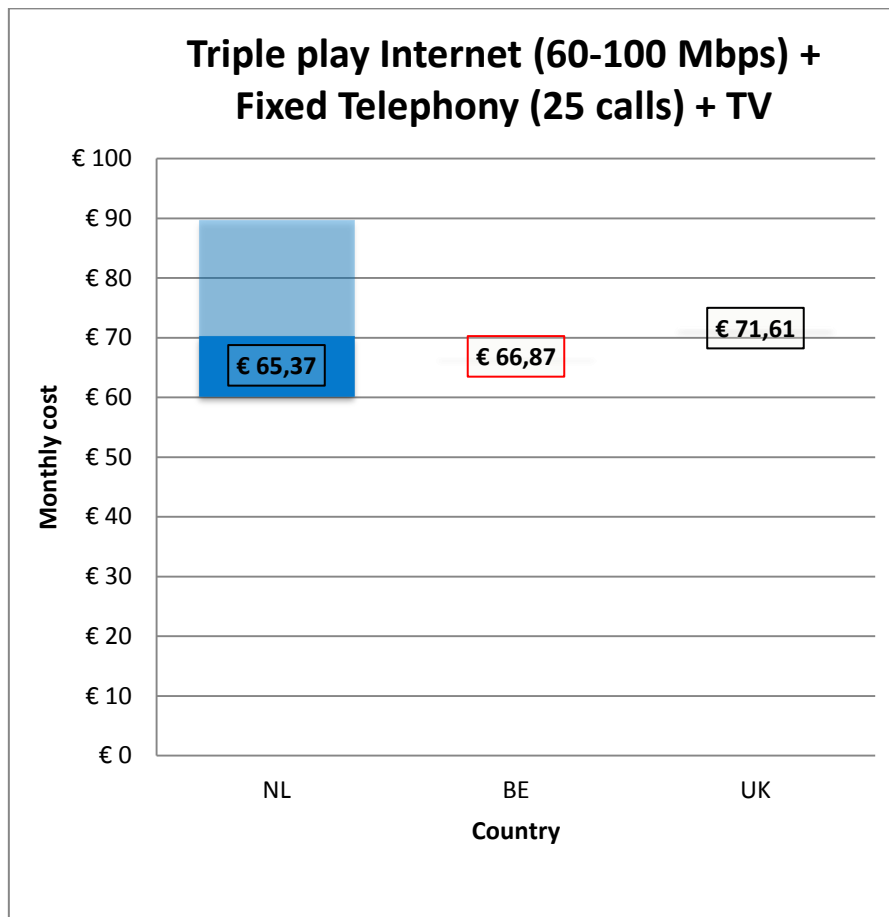


Figure 47: Weighted average per country for triple play (Internet + fixed telephony + TV), category 3, incl. 25 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

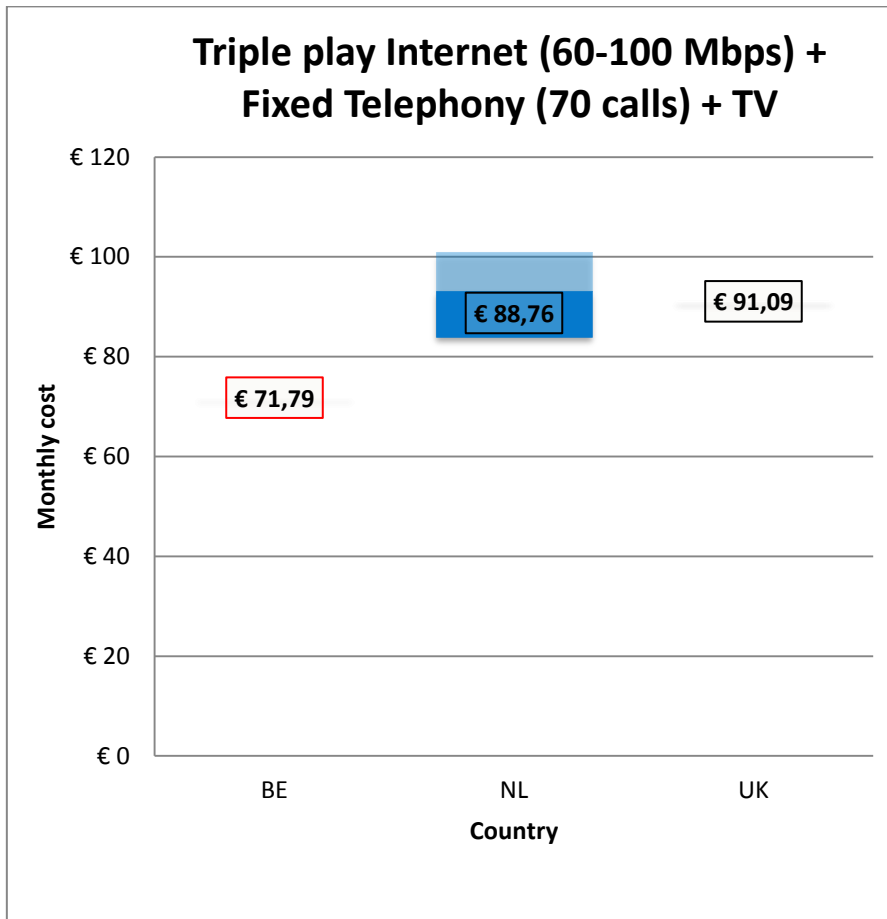


Figure 48: Weighted average per country for triple play (Internet + fixed telephony + TV), category 3, incl. 70 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 11.4 Category 4: Very high speed

Category 4					
Fixed telephony part of the bundle: Low use (25 calls) = FT P1					
	Destination	Number of calls	Peak	Off-peak	Weekend
60%	Fixed	15	40%	25%	35%
40%	Mobile	10	55%	20%	25%
Fixed telephony part of the bundle: Medium use (70 calls) = FT P2					
	Destination	Number of calls	Peak	Off-peak	Weekend
75%	Fixed	53	30%	30%	40%
25%	Mobile	17	35%	25%	40%
Internet part of the bundle: Very high speed					
Speed ≥ 100 Mbps					
TV part of the bundle					
No requirements					

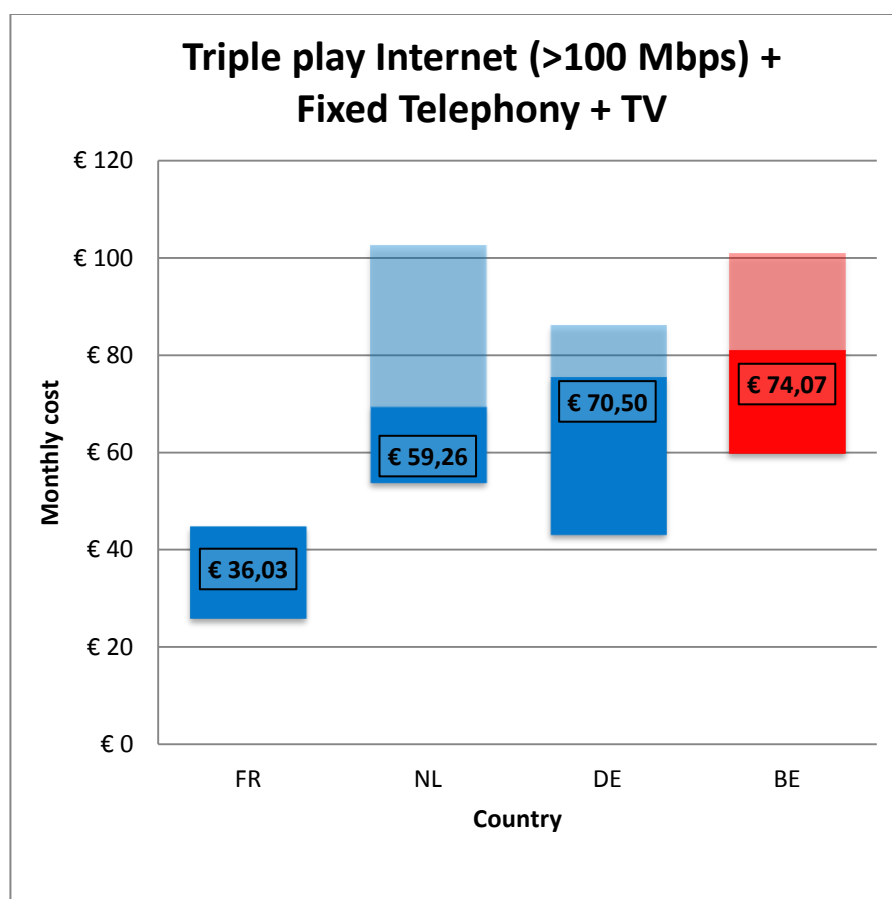


Figure 49: Weighted average per country for triple play (Internet + fixed telephony + TV), category 4 (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

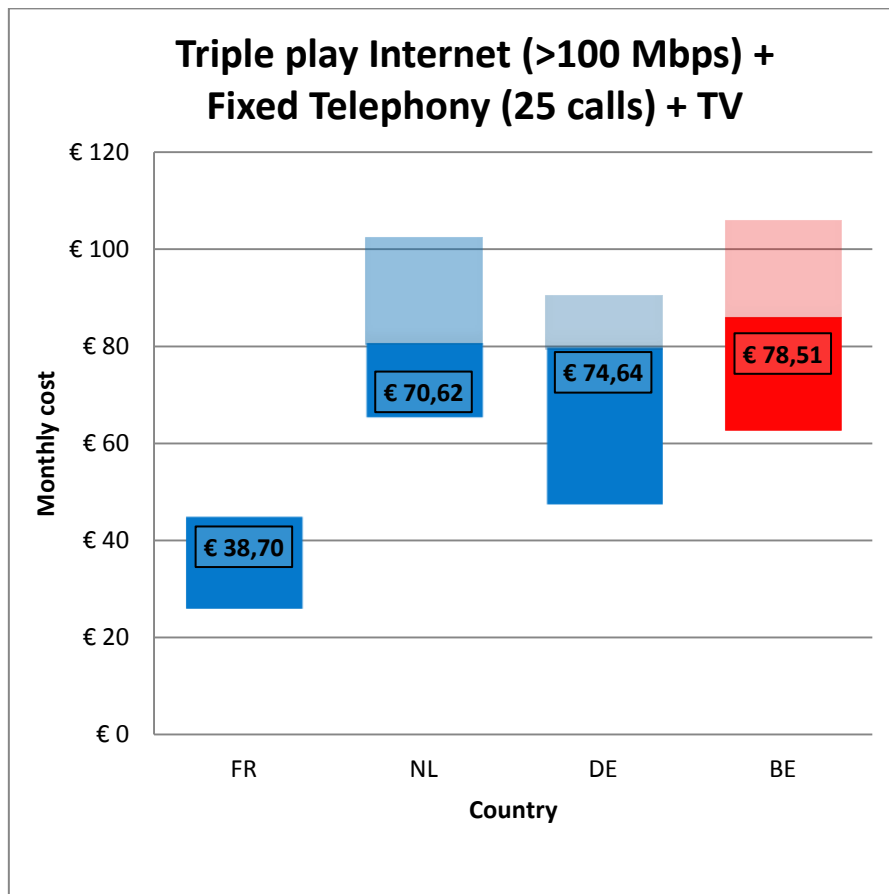


Figure 50: Weighted average per country for triple play (Internet + fixed telephony + TV), category 4, incl. 25 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

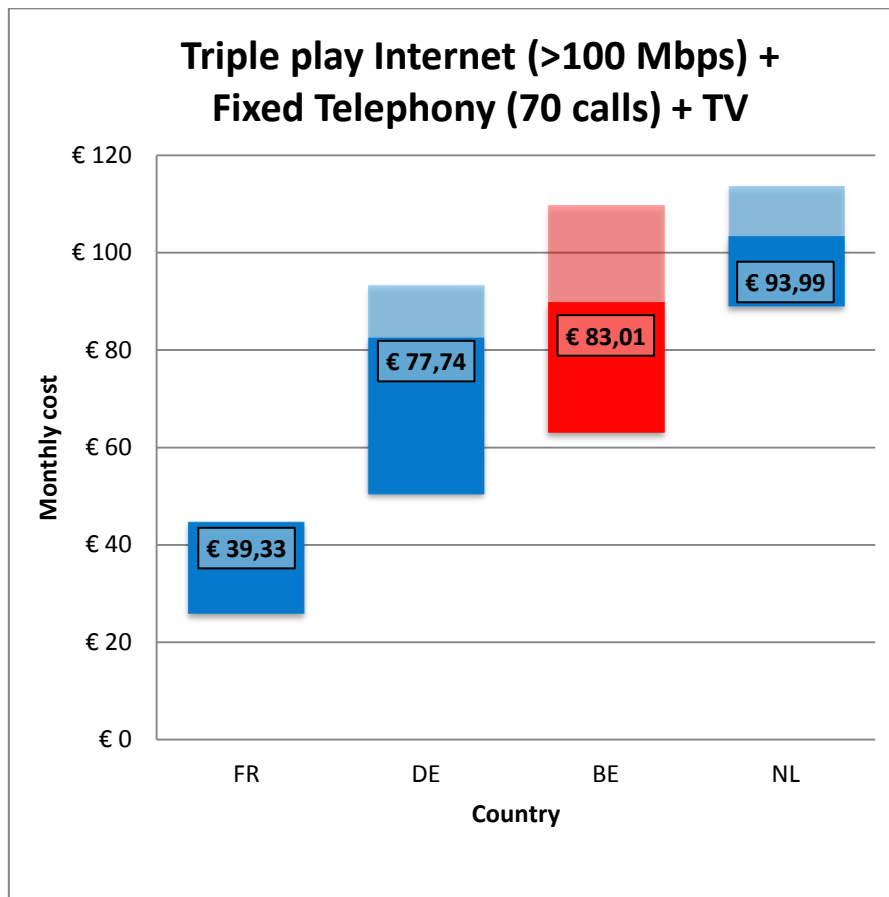


Figure 51: Weighted average per country for triple play (Internet + fixed telephony + TV), category 4, incl. 70 calls (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

## 11.5 Summary of the results for triple play (broadband, TV and fixed telephony)

122. The Belgian operators in the selection offer triple play in categories 2, 3 and 4. Based on the weighted average price, Belgium occupies the following positions.

123. Category 2: valid observations in five countries of the study.

- Without extra user costs fixed telephony: **fourth position (4/5)**, followed by Germany. France definitely presents itself as the cheapest country.
- Including costs of a fixed telephony profile 1 (25 calls): Belgium moves up to the **second position (2/5)** in the ranking. The total cost increase after adding the extra charges for fixed telephony is smallest in France and Germany, which therefore positions France even better as the cheapest country. The differences between the other countries narrow after adding the extra fixed telephony charges.
- Including costs of a fixed telephony profile 2 (70 calls): Germany moves to second place in the ranking, so that Belgium goes to **third position (3/5)**. As with the dual play of broadband and fixed telephony, the extra charges for profile 2 drive up the total weighted average cost for the United Kingdom and the Netherlands considerably.

124. Category 3: valid observations in Belgium, the Netherlands and the United Kingdom, with only one representative tariff plan for Belgium conforming to the '30 per cent rule'.

- Without extra costs of use for fixed telephony: the Netherlands has by far the biggest number of observations in this category and the lowest weighted average cost. Belgium takes **third position (3/3)**.
- Including costs of a fixed telephony profile 1 (25 calls): Belgium moves up to the **second place (2/3)** in the ranking and the difference with the leader - the Netherlands - is becoming significantly smaller.
- Including costs of a fixed telephony profile 2 (70 calls): In this case it is clear that the unfavourable fixed telephony charges in the Netherlands and the United Kingdom are disadvantageous to those two countries, as a result of which Belgium moves up to **first place (1/3)** in the ranking.

125. Category 4: valid observations in Belgium, France, Germany and the Netherlands.

- Without extra user costs fixed telephony: an unfavourable **fourth position (4/4)**. Once again France clearly presents itself as the cheapest country.
- Including costs of a fixed telephony profile 1 (25 calls): This does not influence Belgium's ranking, as a result of which our country, holding a **fourth position (4/4)**, is still bringing up the rear.
- Including costs of a fixed telephony profile 2 (70 calls): Again, the extra costs for profile 2 push up the total weighted average cost for the Netherlands considerably, as a consequence of which Belgium moves to the **third position (3/4)** in the ranking.

126. Because of the change in methodology it is not possible to make a coherent comparison with the results of the 2013 price study, which showed that - based on the median observation - Belgium occupied a less favourable third position within the group of four countries, where triple play in category 2/3 (Internet speed over 30 Mbps and under 100 Mbps) was offered. At the time, in France, triple play with an ultrafast broadband component (download speed of at least 100 Mbps) was also offered at extremely competitive prices. However, the availability of that tariff plan in France is (still) very limited. Belgium followed in second place with significantly cheaper tariff plans than in the Netherlands, which was third.
127. The results mentioned above should be differentiated based on the findings concerning regional availability of broadband and the differences between the speed advertised and the actual speed (see also chapter 13, topics 1 and 2). Topic 4 holds important background information about bundle offers.

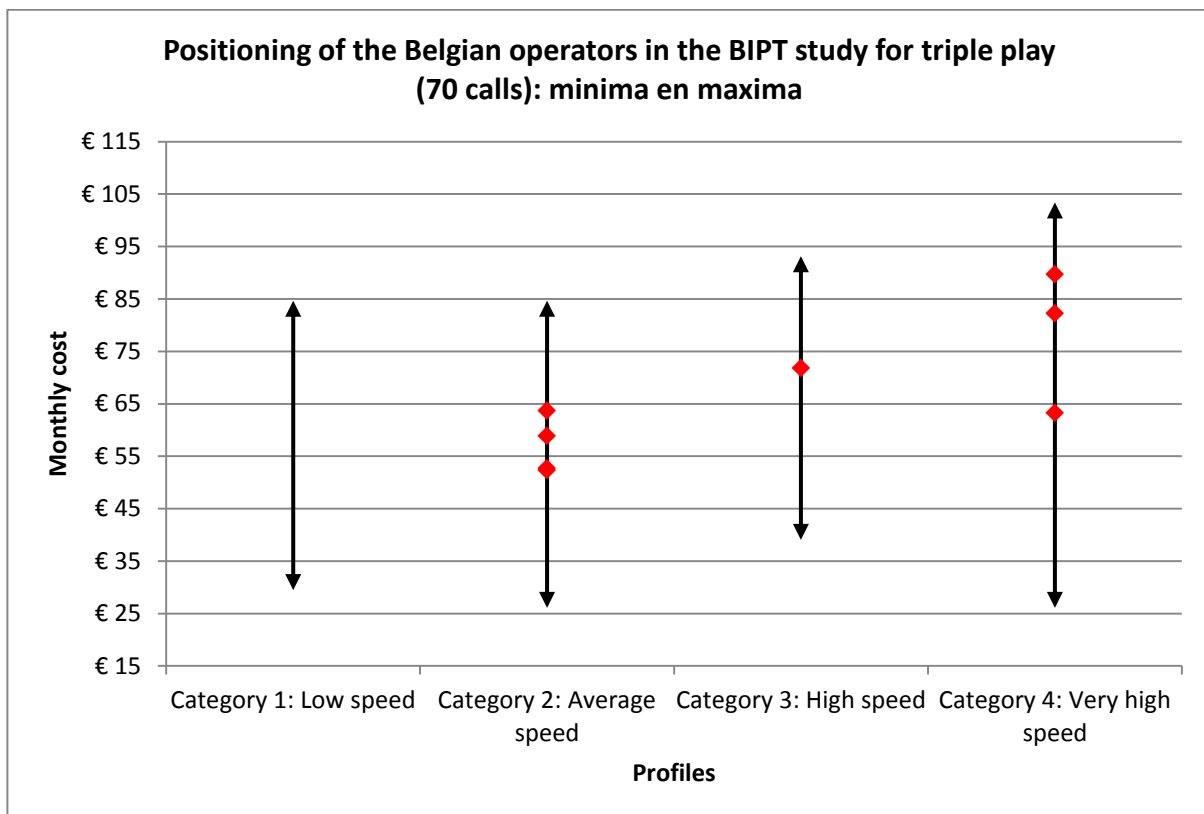


Figure 52: Overview of the minimum and maximum price observed in the representative countries, per category, triple play (Internet, television and fixed telephony, 70 calls) (Source: own calculations, data collected from operator websites between 1 and 12 August 2014, prices inclusive of VAT, EUR PPP).

# 12 QUADRUPLE PLAY (BROADBAND + TV + FIXED TELEPHONY + MOBILE TELEPHONY)

Kost	Land	Product	DL&heid (Mbps)	Technologie Internet	Zenders (#)	Inbegrepen in VT (nationaal)	Inbegrepen in MT (nationaal)
25,04	FR	Bouygues "BBOX ADSL (zone dégroupée en propre par Bouygues) & Forfait 2h Carte Seul" 15 1m	15	xDSL	165	Bellen naar vast, altijd	120 belminuten en onbeperkt SMS'en, 50MB mobiele data
31,06	FR	Bouygues "BBOX Sensation Fibre FTTH & Forfait 2h Carte Seule" 400 1m	400	FTTH	150	Bellen naar vast en mobiel, altijd	Bellen naar 3 nummers + 60 belminuten, onbeperkt SMS'en, 50 MB mobiele data
		Bouygues "BBOX Sensation VDSL (zone dégroupée en propre par Bouygues) & Forfait 2h Carte Seul" 50 1m	50	xDSL	170	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 7GB mobiele data
32,06	FR	Free "Freebox Crystal ADSL2+ (Zone Dégroupée) avec TV & Forfait 2€" 15 1m	15	xDSL	180	Bellen naar vast, altijd	120 belminuten en onbeperkt SMS'en, 50MB mobiele data
37,07	FR	SFR "Box de SFR ADSL (zone dégroupée) & TV Classique & Carré 2h + 50 Mo" 20 1m	20	xDSL	170	Bellen naar vast, altijd	Bellen naar vast en mobiel, altijd & onbeperkt SMS'en, 3GB mobiele data
		SFR "Box de SFR VDSL (zone dégroupée) & TV Classique & Carré 2h + 50 Mo" 95 1m	95	xDSL	170	Bellen naar vast, altijd	Bellen en SMS'en, 7GB mobiele data
38,07	FR	Free "Freebox Révolution (Zone Fibrée) avec TV & Forfait 2€" 1000 1m	1000	FTTH	180	Bellen naar vast en mobiel, altijd	Zu belen naar vast nat en meerdere best. internationaal, onbeperkt SMS'en nat en 50 MB data
		Free "Freebox Révolution VDSL2 (Zone Dégroupée) avec TV & Forfait 2€" 50 1m	50	xDSL	180	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 7GB mobiele data
39,42	UK	TalkTalk "Essentials TV, Broadband and Calls & SIM Only Small" 14 18m	14	xDSL	70	Bellen naar vast, dal en WE	Bellen en SMS'en, 100Mb data
40,09	FR	Orange "Open Mini ADSL" 15 12m	15	xDSL	160	Bellen naar vast, altijd	Bellen naar vast en mobiel, altijd & onbeperkt SMS'en, 3GB mobiele data
		Orange "Open Mini VDSL" 50 12m	50	xDSL	160	Bellen naar vast, altijd	Bellen naar 3 nummers + 60 belminuten, onbeperkt SMS'en, 50 MB mobiele data
45,10	FR	Orange "Open Mini Fibre" 100 12m	100	FTTH	160	Bellen naar vast, altijd	Bellen en SMS'en, 500 MB mobiele data
49,97	UK	Virgin Media "Big Easy + Mobile SIM" 50 18m	50	Kabel	60+	Bellen naar vast en Virgin Mobile, WE	Bellen en SMS'en, 100Mb data
51,03	FR	Numericable LaBox Power THD" 200 12m	200	FFTx	240	Bellen naar vast en mobiel, altijd	Zu belen naar vast nat en meerdere best. internationaal, onbeperkt SMS'en nat en 50 MB data
53,13	FR	Orange "Open Zen 4G/H+ ADSL" 15 12m	15	xDSL	160	Bellen naar vast, altijd en mobiel 1u/m	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
		Orange "Open Zen 4G/H+ VDSL" 50 12m	50	xDSL	160	Bellen naar vast, altijd en mobiel 1u/m	Bellen en SMS'en, 500MB mobiele data
53,62	FR	Numericable "Start 4 THD" 30 12m	30	FTTx	200	Bellen naar vast en mobiel, altijd	Bellen naar 3 nummers + 60 belminuten, onbeperkt SMS'en, 50 MB mobiele data
		Numericable "Start 4 THD" 200 12m	200	FTTx	200	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 7GB mobiele data
54,62	FR	Numericable "Power" 15 12m	15	xDSL	240	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
54,85	BE	Numericable "Triple Play Start & Mobile Start" 50 6m	50	Kabel	100	Bellen naar vast, altijd	60 belminuten, onbeperkt SMS'en, 60MB mobiele data
56,69	UK	TalkTalk "Plus TV, Broadband and Calls & SIM Only Small" 14 18m	14	xDSL	77	Bellen naar vast, altijd	Bellen en SMS'en, 100Mb data
58,14	FR	Orange "Open Zen 4G/H+ Fibre" 100 12m	100	FTTH	160	Bellen naar vast, altijd en mobiel 1u/m	Bellen en SMS'en, 3GB mobiele data
		Orange "Open Play 4G/H+ ADSL" 15 12m	15	xDSL	160	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
		Orange "Open Play 4G/H+ VDSL" 50 12m	50	xDSL	160	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 500MB mobiele data
58,63	FR	Numericable "Start 4" 15 12m	15	xDSL	200	Bellen naar vast en mobiel, altijd	Bellen naar vast en mobiel, altijd & onbeperkt SMS'en, 3GB mobiele data
60,00	NL	KPN "Alles-in-1 Thuis Instap & Budget 100" 10 12m	10	xDSL	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
61,06	FR	Numericable "LaBox Family THD" 200 12m	200	FFTx	280	Bellen naar vast en mobiel, altijd	120 belminuten en onbeperkt SMS'en
62,16	UK	Virgin Media "Big Bang + Mobile SIM" 100 18m	100	Kabel	130+	Bellen naar vast en Virgin Mobile, WE	300 belminuten, onbeperkt SMS'en, 300Mb data
62,95	BE	VOO "Pack TRIO Un Peu & Toudou" 35 6m	35	Kabel	70	Bellen naar vast, dal en WE	60 belminuten, onbeperkt SMS'en, 60MB mobiele data
63,15	FR	Orange "Open Play 4G/H+ Fibre" 200 12m	200	FTTH	160	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 7GB mobiele data
64,64	FR	Numericable "Family" 15 12m	15	xDSL	280	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
64,85	BE	Numericable "Triple Play Extra & Mobile Start" 100 6m	100	Kabel	130	Bellen naar vast en mobiel, dal en WE	60 belminuten, onbeperkt SMS'en, 60MB mobiele data
65,13	NL	KPN "Alles-in-1 Thuis Instap & Budget 100" 80 12m	80	xDSL	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
67,69	NL	KPN "Alles-in-1 Thuis Instap Glasvezelpakket & Budget 100" 100 12m	100	FTTH	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
70,71	UK	TalkTalk "Plus TV, Broadband and Calls with Superpowered Fibre & SIM Only Small" 38 18m	38	xDSL	77	Bellen naar vast, altijd	Bellen en SMS'en, 100Mb data
72,95	BE	VOO "Pack TRIO Beaucoup & Toudou" 45 6m	45	Kabel	70	Bellen naar vast, dal en WE	60 belminuten, onbeperkt SMS'en, 60MB mobiele data
74,36	NL	KPN "Alles-in-1 Thuis Standaard & Budget 100" 50 12m	50	xDSL	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
74,85	BE	Numericable "Triple Play Max & Mobile Start" 200 6m	200	Kabel	130	Bellen naar vast en mobiel, dal en WE	60 belminuten, 50 SMS'en, 5MB mobiele data
75,95	BE	Belgacom "Pack Internet + TV + Telephony + Mobile (Easy 15+) Comfort" 30 6m	30	xDSL	78	Bellen naar vast en mobiel, dal en WE	150 belminuten, onbeperkt SMS'en
77,82	UK	TalkTalk "Essentials TV, Broadband and Calls with Superpowered Fibre & SIM Only Small" 38 18m	38	xDSL	70	Bellen naar vast, dal en WE	300 belminuten, onbeperkt SMS'en, 300Mb data
77,95	NL	KPN "Alles-in-1 Thuis Instap Glasvezelpakket Plus & Budget 100" 500 12m	500	FTTH	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
77,95	BE	Belgacom "Pack Internet + TV + Telephony + Mobile (Smart 25+) Start" 30 6m		xDSL	78	Bellen naar vast en mobiel, dal en WE	300 belminuten, onbeperkt SMS'en, 2GB mobiele data
78,19	FR	Orange "Open Jet 4G/H+ ADSL" 15 12m	15	xDSL	160	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
		Orange "Open Jet 4G/H+ VDSL" 50 12m	50	xDSL	160	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 3GB mobiele data
79,48	NL	KPN "Alles-in-1 Thuis Standaard & Budget 100" 80 12m	80	xDSL	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
80,45	UK	Virgin Media "Big Kahuna + Mobile SIM" 152 18m	152	Kabel	230+	Bellen naar vast en Virgin Mobile, WE	300 belminuten, onbeperkt SMS'en, 300Mb data
82,05	NL	KPN "Alles-in-1 Thuis Standaard Glasvezelpakket & Budget 100" 100 12m	100	FTTH	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
82,95	BE	VOO "Pack TRIO Passionément & Toudou" 55 6m	55	Kabel	70	Bellen naar vast, altijd	60 belminuten, onbeperkt SMS'en, 60MB mobiele data
83,11	FR	Numericable "LaBox Extra THD" 200 12m	200	FFTx	300	Bellen naar vast en mobiel, altijd	120 belminuten en onbeperkt SMS'en
83,20	FR	Orange "Open Jet 4G/H+ Fibre" 500 12m	500	FTTH	160	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 7GB mobiele data
86,70	FR	Numericable "Extra" 15 12m	15	xDSL	300	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
87,95	BE	Belgacom "Pack Internet + TV + Telephony + Mobile (Easy 15+) Maxi" 30 6m	30	xDSL	78	Bellen naar vast en mobiel, dal en WE	150 belminuten, onbeperkt SMS'en
92,30	NL	KPN "Alles-in-1 Thuis Standaard Glasvezelpakket Plus & Budget 100" 500 12m	500	FTTH	100	Betalend, in functie van verbruik (gratis naar KPN en HI)	200 belminuten of SMS'en
92,95	BE	VOO "Pack TRIO A La Folle & Toudou" 100 6m	100	Kabel	70	Bellen naar vast, altijd	60 belminuten, onbeperkt SMS'en, 60MB mobiele data
98,46	NL	KPN "Alles-in-1 Thuis Premium & Budget 100" 50 12m	50	xDSL	100	Bellen naar vast en mobiel, altijd	200 belminuten of SMS'en
103,25	FR	Orange "Open Jet International 4G/H+ ADSL" 15 12m	15	xDSL	160	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
		Orange "Open Jet International 4G/H+ VDSL" 50 12m	50	xDSL	160	Bellen naar vast en mobiel, altijd	Bellen en SMS'en, 3GB mobiele data
103,59	NL	KPN "Alles-in-1 Thuis Premium & Budget 100" 80 12m	80	xDSL	100	Bellen naar vast en mobiel, altijd	200 belminuten of SMS'en
104,17	FR	Numericable "LaBox Platinum THD" 200 12m	200	FFTx	320	Bellen naar vast en mobiel, altijd	120 belminuten en onbeperkt SMS'en
106,15	NL	KPN "Alles-in-1 Thuis Premium Glasvezelpakket & Budget 100" 100 12m	100	FTTH	100	Bellen naar vast en mobiel, altijd	200 belminuten of SMS'en
107,75	FR	Numericable "Platinum" 15 12m	15	xDSL	320	Bellen naar vast en mobiel, altijd	1u/maand naar vast en mobiel, onbeperkt SMS'en (19 nummers)
108,27	FR	Orange "Open Jet International 4G/H+ Fibre" 500 12m	500	FTTH	160	Bellen naar vast en mobiel, altijd	Zu belen naar vast nat en meerdere best. internationaal, onbeperkt SMS'en nat en 50 MB data
112,95	BE	VOO "Pack TRIO Fiber 120 & Toudou" 120 6m	120	Kabel	70	Bellen naar vast, altijd	60 belminuten, 50 SMS'en, 5MB mobiele data
116,40	NL	KPN "Alles-in-1 Thuis Premium Glasvezelpakket Plus & Budget 100" 500 12m	500	FTTH	100	Bellen naar vast en mobiel, altijd	200 belminuten of SMS'en
141,40	UK	Virgin Media "Big Daddy + Mobile SIM" 152 18m	152	Kabel	260+	Bellen naar vast en Virgin Mobile, WE	300 belminuten, onbeperkt SMS'en, 300Mb data

Figure 53: Overview of all quadruple play offers, sorted according to price (Source: data collected from operator websites between 6 and 30 August 2013, prices inclusive of VAT, EUR PPP).

## 13 QUALITATIVE ELEMENTS: TOPICS AND TRENDS

### 13.1 Topic 1: Broadband Internet (availability and penetration)

128. Nowadays practically every EU inhabitant can have a broadband connection over various technologies (xDSL, cable, FTTx, WiMax, HSPA, LTE and satellite). When considering only access by way of fixed technologies (xDSL, cable, FTTx and WiMax), more than 97% of all European households has access to (fixed) broadband. In the countries analysed in the price study broadband coverage is virtually 100% (except for Germany: 98%).
129. In the meantime over 62% of the European households has access to fast broadband Internet with a download speed of at least 30 Mbps, as opposed to 54% in 2012. Fast Internet access differs substantially from country to country and from region to region. NGA networks allowing of fast Internet are mainly rolled out in densely populated areas. Belgium and also the Netherlands score very well as to the availability of fast Internet, because a large portion of the lines are equipped with NGA technology (VDSL, cable with Docsis 3.0 and FTTx). With its NGA availability of more than 98% Belgium holds second position in the European ranking, preceded only by Malta (see figure 54 below).

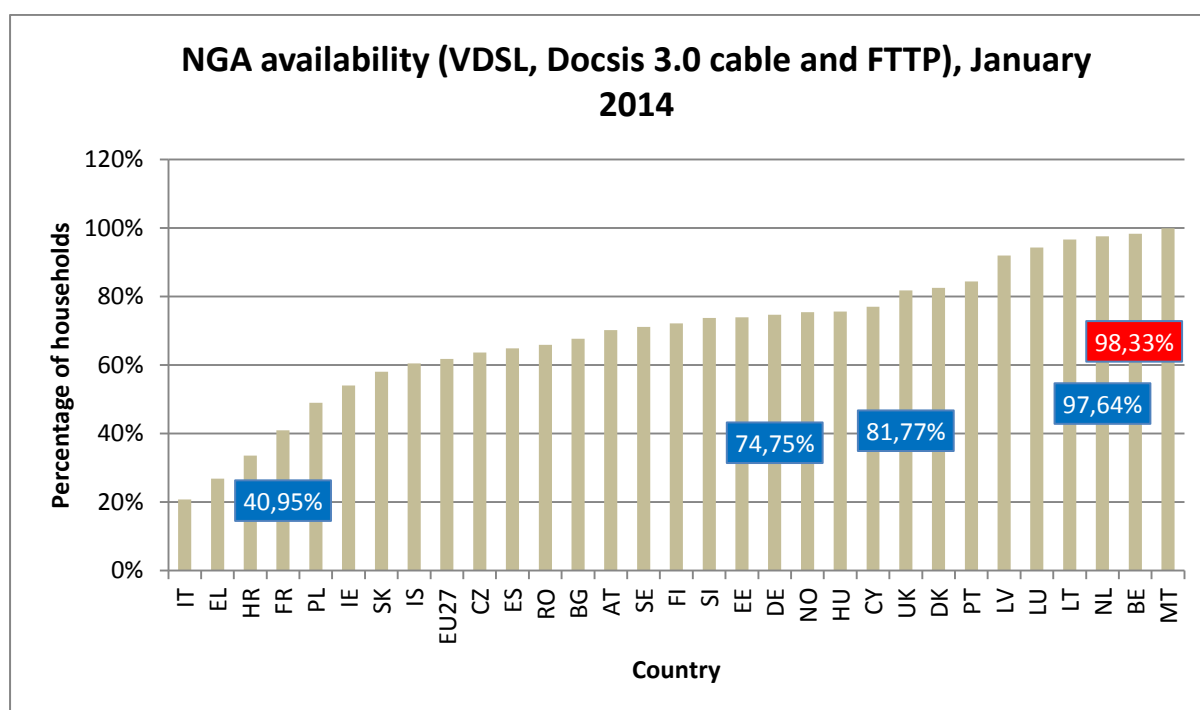


Figure 54: NGA network coverage in the EU per country - 2013 situation (Source: European Commission, Digital Agenda Scoreboard ).

130. In the majority of countries NGA coverage in rural areas is significantly lower than in urban areas. Therefore, the geographically extensive territories of the United Kingdom, Germany and France are doing significantly worse with an NGA availability of 82%, 75% and 41% of households respectively. Especially in France availability of NGA networks is (very) limited for country dwellers.

131. The number of persons effectively buying Internet is significantly lower than the number of persons having Internet access. Some 30% of Europeans has a fixed Internet subscription. In this case too, differences between countries are sometimes quite big. Belgium, the United Kingdom, Germany, France and the Netherlands are leading the European pack with a penetration rate<sup>28</sup> of 34% or more.
132. When considering only the connections with a minimum download speed of 30 Mbps average European penetration goes down to 7%. Belgium does very well here, boasting 23 subscriptions per 100 inhabitants.
133. Figure 55 paints a picture of the share of fast and ultrafast Internet of the total number of Internet subscriptions. As to fast Internet Belgium is the absolute leader. In our country slightly more than 66% of Internet subscriptions has a minimum download speed of 30 Mbps.

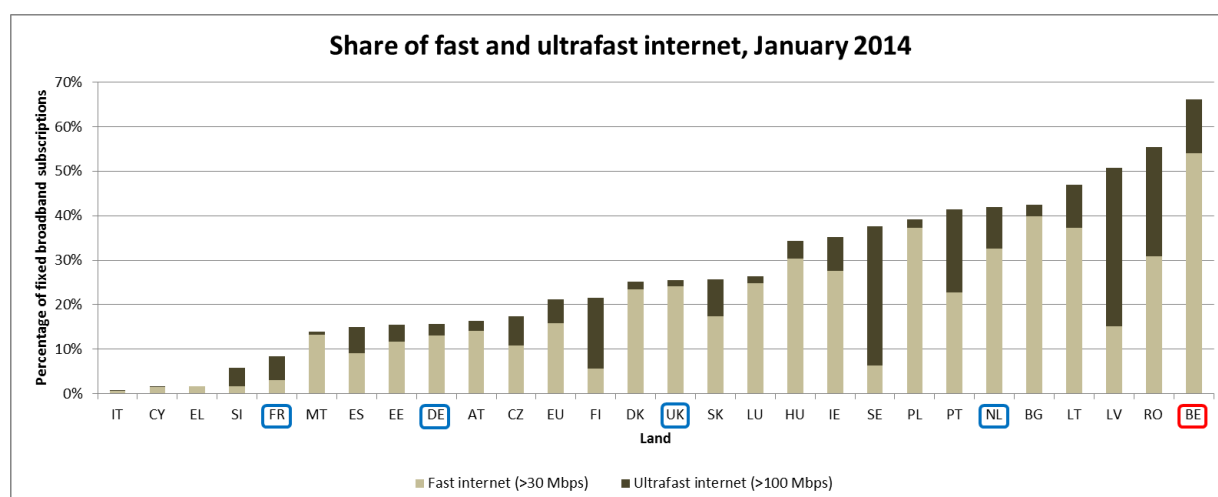


Figure 55: Share of fast and ultrafast Internet, situation January 2014 (Source: European Commission, Digital Agenda Scoreboard).

134. The historical competition between the copper and the cable platforms is the main cause for Belgium's strong position on the broadband market, as regards both the NGA network availability and effective fast Internet penetration.

**Read more ...**

→ European Commission, Broadband markets - Digital Agenda Scoreboard 2014  
<http://ec.europa.eu/digital-agenda/en/scoreboard>

<sup>28</sup> Number of subscriptions as a percentage of the population.

## 13.2 Topic 2: Actual versus advertised download speed

135. The findings referred to in topic 1 are based on the advertised speed of the Internet offers, which does not always correspond with the actual speed. In the tariff plan information the provider mentions the maximum speed of the connection; however, that speed can only be reached in optimum circumstances.
136. A series of factors can have an influence on the connection speed reached by the subscribers in reality. The speed can for instance be influenced by the fading signal strength on xDSL networks when the signal goes through a copper pair; indeed, the signal strength fades as the distance between the subscriber's location and the DSL equipment in the street cabinet/exchange increases. The speed can also vary according to the network load. This has to do with the effect of the shared use of the same bandwidth by various subscribers on the same network. The attainable speed is also impacted by traffic management and network capacity. Consequently differences in performance may occur between various platforms and between operators who are active on the same platform.
137. Other factors not directly related to the ISPs' networks may also have an influence on the connection speed, such as the quality of the home network, the subscriber's computer, the server where the requests are sent to, the quality of the subscriber's wireless network and the simultaneous use of the connection shared by various terminal devices and/or applications. These factors are beyond the operators' control.
138. As commissioned by the European Commission in October 2013, SamKnows Ltd. carried out for the second time a study on the differences between advertised and actual speed of Internet connections. The analysis is based on data collected by means of 9,467 monitoring devices across Europe. The results as shown in the figures below present the actual download speed during peak hours<sup>29</sup> as a percentage of the speed advertised.
139. Across 11 European countries, the actual download speed of cable services averages 89.34% of advertised speed. With its 89.54% ratio Belgium is very close to that average. For Belgium there is hardly any change compared to the previous edition of the study (namely 89.9% in 2012). The European average was higher in 2012 (i.e. 91.9%). In France cable has a very small market share, which is why no results are given for that country.

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<sup>29</sup> In line with common practice in Europe peak hours are defined as the period between 7 p.m. and 11 p.m.

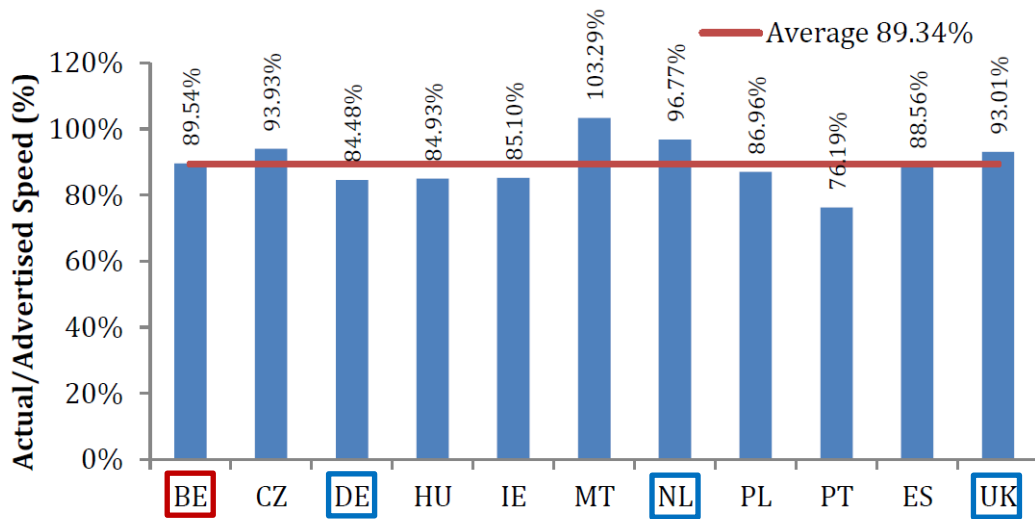


Figure 56: Actual download speed as a percentage of advertised download speed over cable during peak periods, from 7 p.m. to 11 p.m. (Source: European Commission, “Quality of Broadband Services in the EU”, October 2013).

140. As for Internet connections based on the FTTx (including VDSL2) technology the 'actual versus advertised speed' deviation is somewhat bigger (on average 84.56%). With its 83.2% ratio Belgium is just below the average and does not perform as well as Germany and the Netherlands, but it does better than the United Kingdom. France, where mainly ADSL offers were available, again falls outside the scope of the study. The results for Belgium have improved considerably compared to the previous edition of the study. Also the average result for FTTx has progressed since 2012 (was 81.2%), thus significantly narrowing the gap with cable.

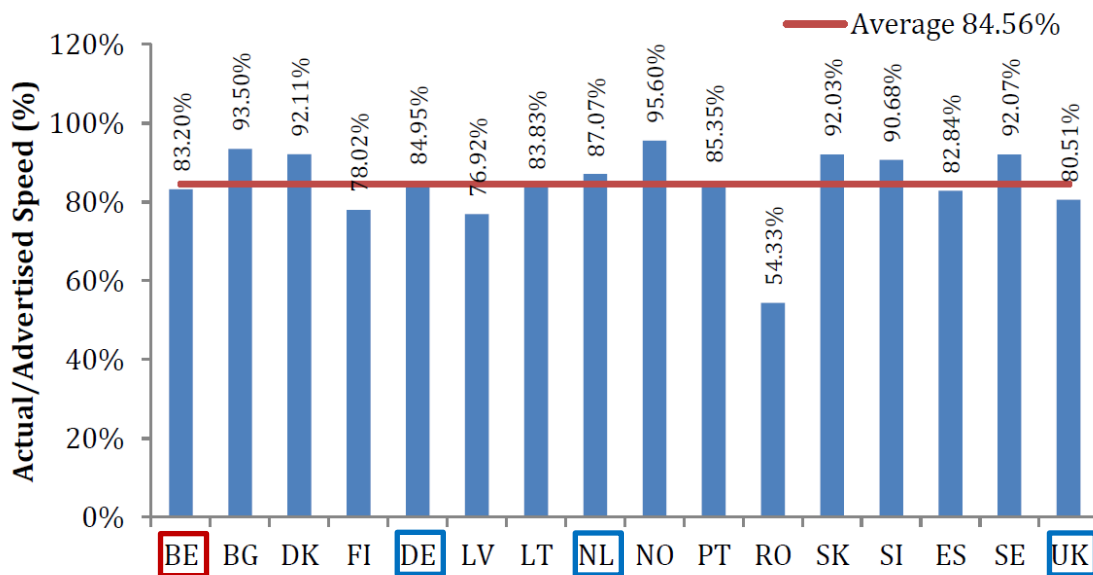


Figure 57: Actual download speed of FTTx technology (incl. VDSL2) as a percentage of advertised speed during peak periods, from 7 p.m. to 11 p.m. (Source: idem).

141. The study also showed that the actual speed of any technology drops by two to three per cent during peak hours. This uniformity shows that all technologies are (equally) susceptible to congestion during peak hours.

142. We must also point out that certain aspects of the methodology have an impact on the FTTx results:

- VDSL2 has been categorised as 'FTTx' along with FTTH. The speed of a VDSL2 connection depends on the distance between the subscriber's location and the street cabinet/exchange. That is not the case with FTTH, so that FTTH speed is closer to the advertised speed. In Belgium there is hardly any FTTH;
- In practice the researchers have not made any difference between ADSL, ADSL2+ and VDSL2 so that the measured speed is a mix of three technologies, resulting in a lower value than if only VDSL2 were measured;
- No measurements were made during a traffic-free moment, so that watching digital TV has an impact on the VDSL2 speed measured.

143. In order to offer consumers more clarity about the speed to be expected from their fixed broadband Internet connections BIPT adopted a decision on 4 December 2012<sup>30</sup>, which imposes on operators the obligation to provide in each contract concluded with the consumer the following information based on the subscriber's specific situation:

- the line's upload and download speed during off-peak hours;
- the line's minimum upload and download speed during peak hours;
- the line's maximum upload and download speed during peak hours;
- the download volume subscribed to.

#### Read more ...

→ European Commission, Quality of Broadband Services in the EU (October 2012)  
<http://ec.europa.eu/digital-agenda/en/news/quality-broadband-services-eu-samknows-study-internet-speeds-second-report>

→ BIPT, Decision concerning communication of the speed of fixed broadband connection (2012)  
<http://www.bipt.be/en/operators/telecommunication/protection-of-consumers/bipt-council-decision-of-4-december-2012-concerning-communication-of-the-speed-of-fixed-broadband-connection>

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<sup>30</sup> BIPT Council Decision of 4 December 2012 concerning communication of the speed of fixed broadband connection. The obligation is valid since 1 July 2013.

### 13.3 Topic 3: Mobile Internet (coverage, penetration, use, volume)

144. BIPT has calculated that Belgium had about 5,125,000 active users of mobile data over smartphone or tablet at the end of 2013. Even so, mobile Internet use is still low compared to other European countries: indeed, mobile broadband penetration is only 46% (see figure). On average in Europe, some 62% of the population uses mobile data. Even though Belgium is below the European average we find that mobile broadband penetration has risen significantly over the past two years (16% in 2011 compared to an EU average of 34%). In the meantime the ratio has already risen to 54% (S1 2014).

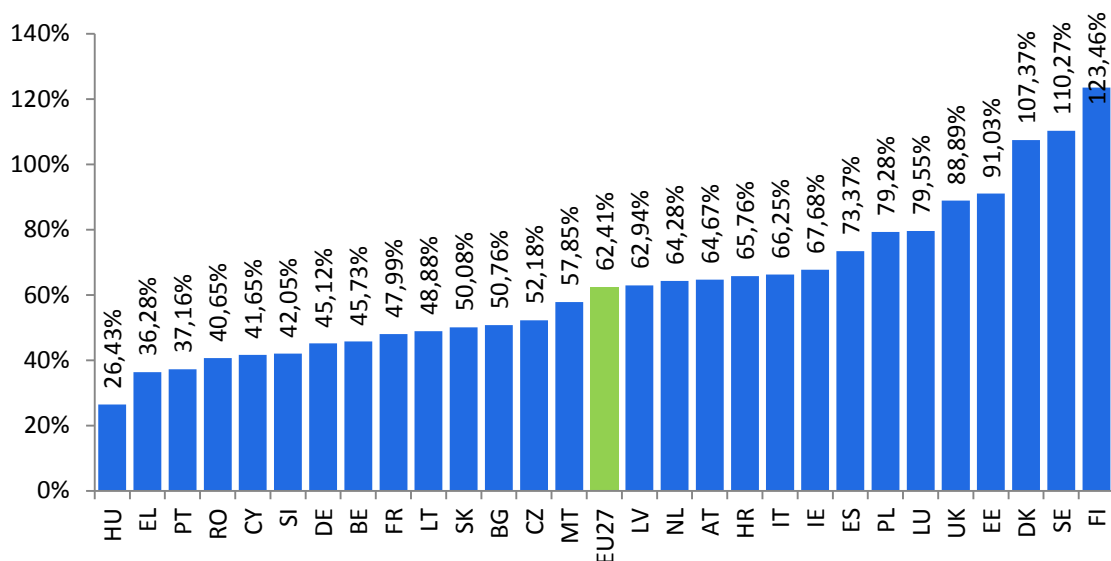


Figure 58: Mobile broadband penetration (Source: Digital Agenda Scoreboard, Take up of mobile broadband (subscription / 100 people), January 2014).

145. In June 2014 BIPT published<sup>31</sup> a study into the causes of the low mobile broadband penetration, which also investigated how the uptake of mobile data can be stimulated. An in-depth analysis was made of numerous factors that influence mobile broadband penetration, such as:

- the availability of spectrum and the allocation of the digital dividend - this factor offers no explanation for the delay in the development of mobile data. The division of spectrum resources among Belgian operators is very fair, meaning that every player has the same means at his disposal to roll out his networks;
- the competitive situation and the price level of mobile data in Belgium in comparison with its neighbouring countries - until 2012 mobile data were relatively expensive in Belgium. The historically high pricing certainly constitutes one of the factors that explain Belgium's lag in mobile broadband penetration. Since the end of 2012 prices for mobile calls (including data) have decreased significantly, a positive trend that boosts the development of mobile broadband.

31 BIPT, Stimulation of the mobile broadband penetration in Belgium, <http://bipt.be/en/operators/bipt/publications/stimulation-of-the-mobile-broadband-penetration-in-belgium>

- the investment efforts made by operators to keep their networks up-to-date - the study showed that HSPA (3G+) coverage in Belgium is generally very good (98.8% of households in 2013). In the past two years operators made great efforts to also expand their LTE (4G) networks (see figure).

146. In addition, the study revealed that there are still many bottlenecks that hinder a smooth roll-out of the 4G network, such as high taxes on mobile infrastructures, strict emission standards and the difficulty to obtain building permits for new installations. Tackling those bottlenecks is one of the recommendations to further stimulate the use of mobile data.

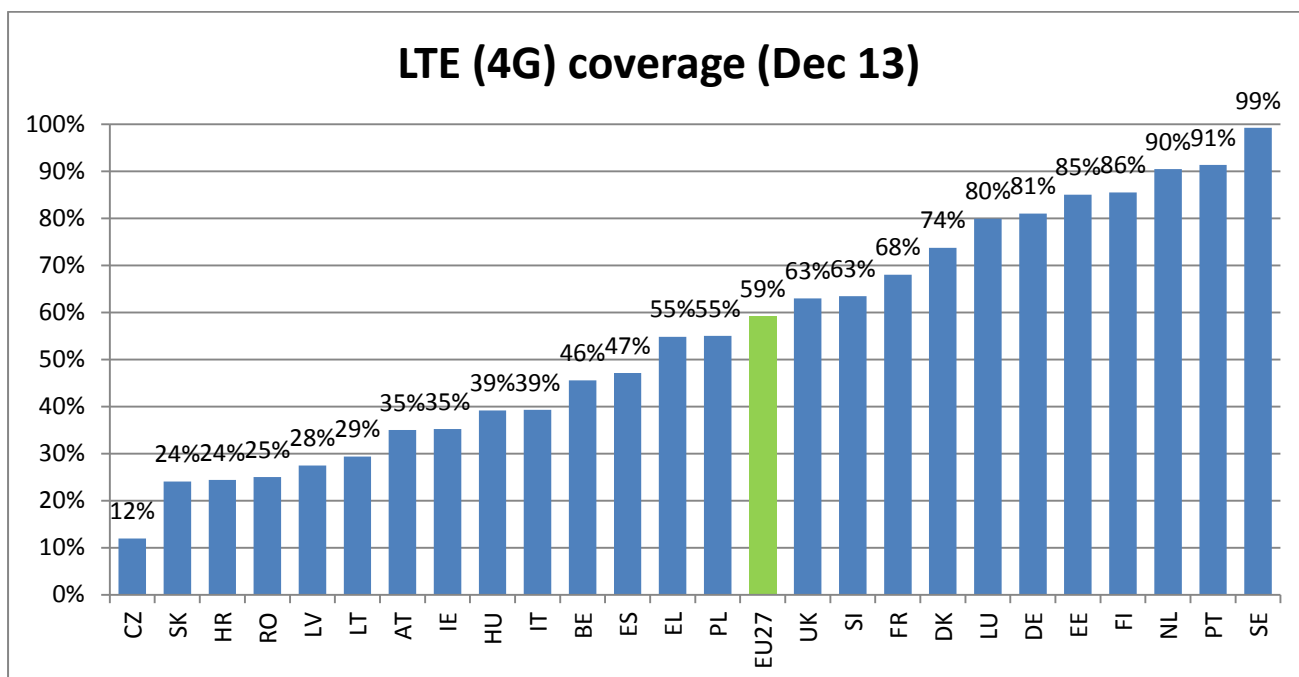


Figure 59: LTE (4G) coverage (Source: Digital Agenda Scoreboard, 4G mobile broadband (LTE) coverage (as a % of households), January 2014).

147. In the study, smartphone penetration in Belgium was observed to be lower than in its neighbouring countries: up to now Belgians have benefited less from the positive effect of handset subsidisation for smartphones - which is more popular abroad. Another remarkable finding was that the main operators in Belgium have a dense hotspot and homespot network. The extensive availability of Wi-Fi access could - at least in part - be a substitute for a mobile data subscription.

**Read more ...**

→ BIPT, Stimulation of the mobile broadband penetration in Belgium (2014); <http://bipt.be/en/operators/bipt/publications/stimulation-of-the-mobile-broadband-penetration-in-belgium>

→ European Commission, Digital Agenda Scoreboard (2013): <http://ec.europa.eu/digital-agenda/en/scoreboard>

### 13.4 Topic 4: Bundle penetration

148. A survey held among 27,739 respondents - commissioned by the European Commission - shows that in Q1 2014, 46% of European households purchases a bundle<sup>32</sup> of electronic communications services. Over a five year period the importance of bundles has risen significantly (going from 38% to 46%), but in the short term the increase is rather modest (was 45% in 2013). Purchasing a bundle is most common in the EU-15 countries, including the five countries discussed in this price study.

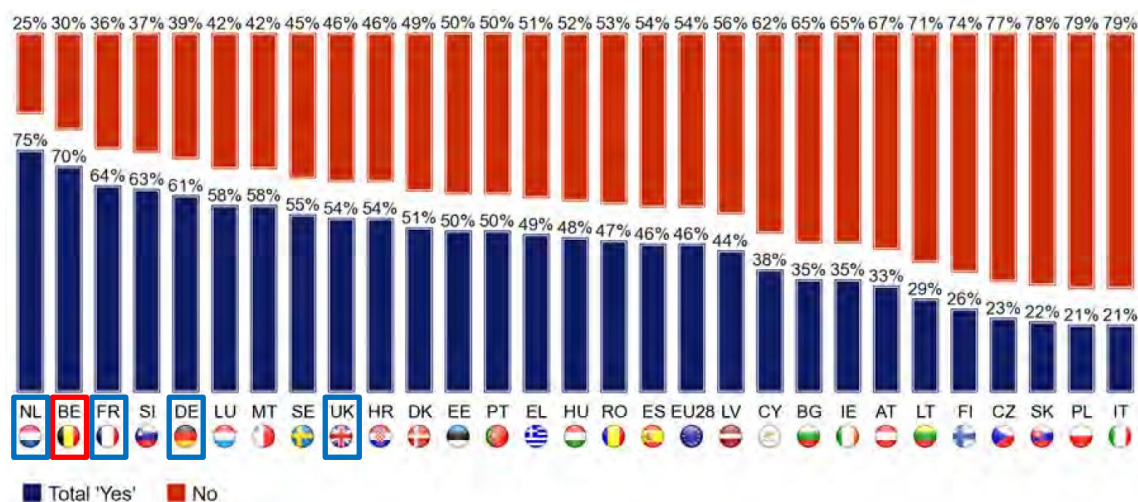


Figure 60: Did your household buy two or more of the following services as part of a bundle? (Source: European Commission, 2014, E-Communications Household Survey, p. 67).

149. In Belgium and its four neighbouring countries the number of households purchasing a bundle is above the EU-28 average: among Belgian respondents 70% of the households buy telecommunications services in a bundle and as such Belgium takes second position in the European pack - a remarkable evolution since the previous edition (at the time Belgium held the fifth position in the ranking with 62%).

150. The tendency towards bundles<sup>33</sup> in Belgium is confirmed by BIPT figures based on the operators' input. At the end of 2013, 59.7% of Belgian households purchased several telecom services from the same provider, as opposed to 57% in 2012 and 49% in 2011. The spectacular growth as seen in earlier years seems to be over. As shown in the figure below triple play is still the most popular bundle combination, but the bundle type that includes a mobile component (quadruple play) shows the strongest growth.

<sup>32</sup> An electronic communications services bundle is defined as a combination of at least two communications services from the same provider, at an overall price.

<sup>33</sup> A bundle is understood to mean the purchase of several products from the same operator. Typically these bundles are invoiced on a single bill. It is not a necessary condition for there to be a price reduction as opposed to buying these products separately.

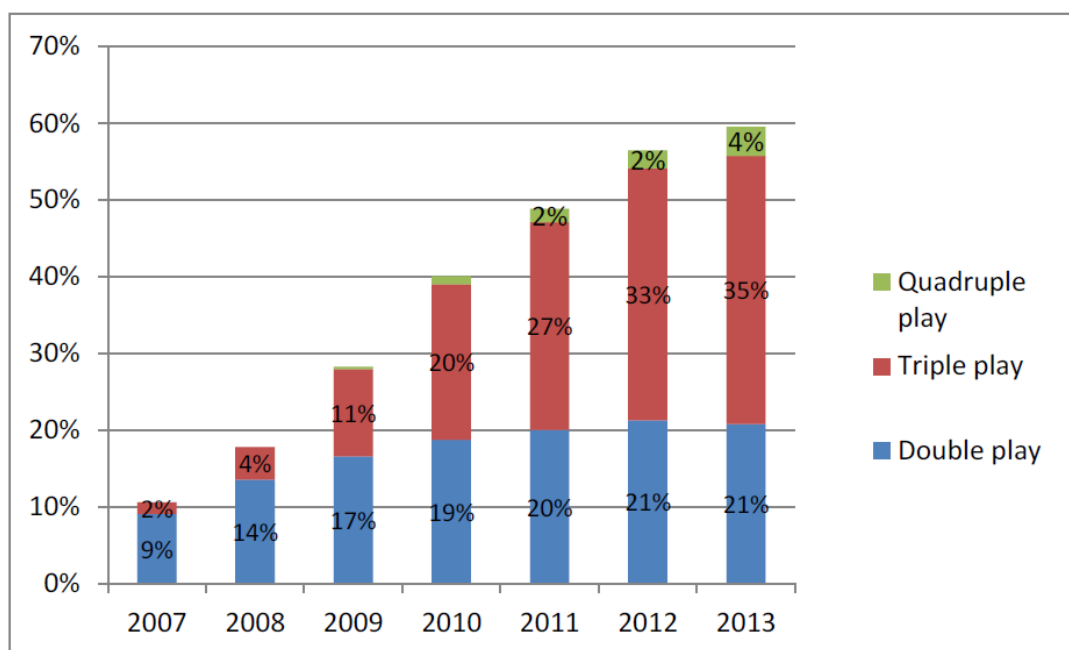


Figure 61: Evolution of the number of residential subscribers in Belgium per type of bundle, end of 2013 (Source: BIPT, Situation of the electronic communications sector 2012, p. 58).

151. Fixed broadband is the telecom service least bought as a stand-alone product. In 2013, no less than 81.6% of residential customers purchased this product as part of a bundle. For digital television and fixed telephony this was 63.4% and 71.7% respectively.
152. On the one hand bundling telecom products often gives a financial advantage to the customer as opposed to buying the products separately (from the same provider). On the other hand consumers having a bundle are less inclined to switch to another provider. In fact the consumer is afraid that it would be too complicated to migrate all products to a new provider smoothly.

#### Read more ...

→ European Commission, Quality of Broadband Services in the EU (October 2013)  
<http://ec.europa.eu/digital-agenda/en/news/quality-broadband-services-eu-samknows-study-internet-speeds-second-report>

→ BIPT, Decision concerning communication of the speed of fixed broadband connection (2012)  
<http://www.bipt.be/en/operators/telecommunication/protection-of-consumers/bipt-council-decision-of-4-december-2012-concerning-communication-of-the-speed-of-fixed-broadband-connection>

### 13.5 Topic 5: Qualitative tariff plan characteristics

153. Distinction between offers is not purely based on price level - quality aspects also play a role. As mentioned in the methodological section however, those quality aspects are not taken into account in the price comparison. If a specific product A appears to be cheaper than another product B, it does not automatically mean that product B is less advantageous for the customer, because certain qualitative aspects of product B may be of use to him.
154. In the table below we list a number of quality characteristics related to a fixed broadband subscription (as part of a bundle or not), i.e. the use of mobile data over the 3G/4G network, the possibility to store data in the cloud, and the availability of Wi-Fi hotspots and Wi-Fi homespots. The table is compiled on the basis of information available in August 2014. Therefore, the situation may have changed since then.
155. The characteristics 'mobile data 3G/4G' (free/optional) and 'data storage in the cloud' were indicated per operator, but there can be differences at the tariff plan level. If the aspect involved does not apply to all tariff plans offered by the operator, the indication is 'Sometimes'. If the quality element is only available at a surcharge, this is indicated in the table as 'Optional'. Cloud storage is increasingly offered in the residential market, but it is too early to consider it to be common practice. This quality element is most established in Germany. Only a few operators offer mobile data as part of a fixed broadband product. Germany seems to be the leader in this area too.

		Mobile data 3G/4G included	Cloud included	wifi hotspots	wifi homespots
BE	Belgacom	Yes	Yes	no	930.000
	Telenet	no	no	1.500	1.000.000
	VOO	no	no	no	1.200.000
	SNOW	no	no	no	no
	Numericable	no	no	no	no
	Scarlet	no	no	no	no
NL	KPN	Optional	no	2.300	1.300.000
	Ziggo	no	no	no	1.200.000
	UPC	no	no	no	500.000
	Tele2	no	no	no	no
UK	BT	no	Yes	Yes	Yes
	Virgin Media	no	no	no	no
	Sky	no	no	20.000	no
	Talktalk	no	no	no	no
FR	Orange	no	Yes	30.000	Yes
	Free	no	no	no	no
	SFR	no	no	no	no
	Bouygues	no	Yes	no	no
	Numericable	no	no	no	no
DE	Deutsche Telekom	no	Yes	12.000	Yes
	Vodafone	Sometimes	Yes	no	no
	Unitymedia	Sometimes	Optional	no	no
	1&1	Yes	no	no	no
	O2	no	Yes	no	no

Figure 62: Selection of qualitative tariff plan characteristics related to product type broadband, situation August 2014 (Source: websites operators, August 2014).

156. For both Wi-Fi hotspots (access points in public places such as stations and airports) and Wi-Fi homespots (access points over end-user modems/routers) the number of national locations is indicated per operator. When that number cannot be determined unequivocally based on the available information, the availability is simply indicated as 'Yes'. Some operators use other operators' hotspots or conclude partnerships with FON for instance, a global Wi-Fi community. The system implies that customers (of partners) of the operator share a part of their bandwidth with other FON users - and vice versa - so that the number of available access points increases enormously. The approach is based on a system of double access to wireless networks. In the countries analysed the incumbents Proximus (Belgium), SFR (France), Deutsche Telekom (Germany), KPN (the Netherlands) and BT (UK) are FON members. However, Wi-Fi access is also made available by a large number of alternative operators, mainly in Belgium, the Netherlands and France.

## 13.6 Summary of quality aspects

### **Topic 1: Broadband Internet (coverage and penetration)**

157. In 2013, nearly all Europeans had broadband access over fixed technologies at their disposal. The availability of that offer - as to quality of the connection and download speed in particular - can differ strongly from one country to another, though. Also within one country considerable regional differences can occur. By now broadband with a minimum download speed of 30 Mbps ('fast Internet') is available to 62% of European households - supported by the continuing roll-out of NGA networks, mainly in urban areas.
158. With its NGA availability of more than 98% Belgium ranks in the European top three, closely followed by the Netherlands and preceded only by Malta. In France NGA networks have hardly been rolled out yet. Also when considering actual purchase of fast Internet, Belgium scores significantly better than the EU average. In our country the share of fast Internet in the total number of Internet subscriptions amounts to over 66%, which places Belgium distinctly at the top.

### **Topic 2: Actual versus advertised download speed**

159. Generally speaking consumers experience a download speed that is lower than the (maximum) speed advertised. The size of that difference depends on the technology used - FTTx (incl. VDSL2) or cable. Moreover, considerable differences can be observed between countries. A study commissioned by the European Commission has shown that the difference between actual and advertised speed is generally larger with FTTx than in the case of cable. The actual download speed for those technologies is respectively 84.56% and 89.34% of the advertised download speed.

### **Topic 3: Mobile Internet**

160. Despite the Belgian 3G network's general coverage mobile Internet penetration is remarkably low compared to the rest of Europe. Yet, the situation has been evolving positively in the last two years: the number of people taking mobile data in Belgium is rising increasingly fast.

### **Topic 4: Bundle penetration**

161. The tendency towards bundles was also confirmed in 2013 but the growth rate seems to weaken slightly. BIPT data show that in 2013, almost 60% of Belgian households purchases several telecom services from the same provider, as opposed to 57% a year before. Bundles that include a mobile telephony component grow fastest.
162. On the one hand a bundle often gives a financial advantage to the customer as opposed to buying telecom products separately (from the same operator). On the other hand consumers having a bundle are less inclined to switch to another provider. In fact some consumers are afraid that it would be too complicated to migrate all products to another provider smoothly.

### **Topic 5: Qualitative tariff plan characteristics**

163. Within the framework of this study a number of quality characteristics related to fixed broadband (as part of a bundle or not) are listed. Those elements have not been taken into consideration in the actual price comparison.
  
164. Cloud storage is increasingly offered in the residential market, but it is too early to consider it to be common practice. This quality element is most established in Germany. Only a few operators offer mobile data as part of a fixed broadband tariff plan. Germany seems to be the leader in this area too. The incumbents in the five countries of the study all offer extensive access to Wi-Fi hotspots through the FON partnership. Many alternative operators follow suit however, mainly in Belgium, the Netherlands and France.

## **ANNEX A    TARIFF PLAN SURVEY**

This annex gives a survey of all the tariff plans that have been selected to obtain a weighted country average per segment. A total of 699 tariff plans have been analysed and included in the data base. Yet, not all the tariff plans have been used to obtain a weighted country average.

# Belgium

## Mobile telephony postpaid - profile 1

Tariff plan - contract duration	
Belgacom Easy 15 - 1M	€ 15,00
Mobistar Kangoeroe 8 (web) - 1M	€ 8,00
Base B-9 - 1M	€ 9,00
Telenet King - 1M	€ 15,00

## Mobile telephony postpaid - profile 2

Tariff plan - contract duration	
Belgacom Easy 15 - 1M	€ 15,00
Mobistar Dolfijn 12 (web) - 1M	€ 12,00
Base B-9 - 1M	€ 9,00
Telenet King - 1M	€ 15,00

## Mobile telephony postpaid - profile 3

Tariff plan - contract duration	
Belgacom Smart 15 - 1M	€ 15,00
Mobistar Dolfijn 12 (webdeal) - 1M	€ 12,00
Base B-9 - 1M	€ 9,00
Telenet King - 1M	€ 15,00

## Mobile telephony postpaid - profile 4

Tariff plan - contract duration	
Belgacom Smart 15 - 1M	€ 15,00
Mobistar Dolfijn 12 (webdeal) - 1M	€ 12,00
Base B-9 - 1M	€ 13,50
Telenet King - 1M	€ 15,00

## Mobile telephony postpaid - profile 5

Tariff plan - contract duration	
Belgacom Smart 35 - 1M	€ 35,00
Mobistar Dolfijn 20 - 1M	€ 20,00
Base B-25 - 1M	€ 25,00
Telenet King Supersize - 1M	€ 20,00

## Mobile telephony postpaid - profile 6

Tariff plan - contract duration	
Belgacom Smart 50 - 1M	€ 50,00
Mobistar Panter 25 - 1M	€ 25,00
Base B-25 - 1M	€ 33,00
Telenet King Supersize - 1M	€ 35,00

## Mobile telephony prepaid - profile 1

Tariff plan	
Proximus Pay&Go Easy 15	€ 15,00
Mobistar Kangoeroe 10	€ 12,00
Base B-prepaid 10	€ 10,00

## Mobile telephony prepaid - profile 2

Tariff plan	
Proximus Pay&Go Max 15	€ 18,00
Mobistar Kangoeroe 15	€ 15,00
Base B-prepaid-Base 10	€ 14,75

## Mobile telephony prepaid - profile 3

Tariff plan	
Proximus Pay&Go Max 15	€ 15,00
Mobistar Internet on Mobile 15	€ 15,00
Base Check 15	€ 15,00

## Mobile telephony prepaid - profile 4

Tariff plan	
Mobistar Internet on Mobile 15	€ 15,00
Base B-prepaid 20	€ 20,00

## Mobile internet - category 1

Tariff plan - contract duration	
Belgacom Mobile Internet Pay & Surf (reload) - 1M	€ 10,00
Telenet King Surf - 1M	€ 5,00

## Mobile internet - category 3

Tariff plan - contract duration	
Belgacom Mobile Internet Comfort - 1M	€ 19,99
Mobistar Regular - 1M	€ 15,00
BASE Internet Anywhere 15 - 1M	€ 15,00
Telenet Kong Surf - 1M	€ 10,00

## Mobile internet - category 4

Tariff plan - contract duration	
Belgacom Mobile Internet Favorite - 1M	€ 34,99
Mobistar Unlimited - 1M	€ 35,00
BASE Internet Anywhere 30 - 1M	€ 30,00

## Fixed telephony - profile 1

Tariff plan	
VOO Telefoon Eco Soir & W-E	€ 15,45
Numericable Start Telefonie	€ 18,40
Telenet Freephone Europe	€ 25,27
Belgacom Classic-lijn met 'Happy Time XL'	€ 27,78

## Fixed telephony - profile 2

Tariff plan	
VOO Telefoon Eco Soir & W-E	€ 21,64
Numericable Start Telefonie	€ 22,23
Telenet Freephone Europe met 'Anytime'	€ 28,40
Belgacom Classic-lijn met 'Happy Time XL'	€ 33,90

## Fixed telephony - profile 3

Tariff plan	
Numericable Start Telefonie	€ 22,23
VOO Telefoon Eco Soir & W-E	€ 25,58
Telenet Freephone Europe met 'Anytime'	€ 28,40
Belgacom Classic-lijn met 'No Limit National'	€ 34,95

## Fixed telephony - profile 4

Tariff plan	
Numericable Extra Telefonie	€ 26,24
Telenet Freephone Europe met 'Anytime'	€ 28,40
VOO Telefoon Eco Soir & W-E	€ 30,70
Belgacom Classic-lijn met 'Happy Time XL' en 'No Limit National'	€ 36,87

## Fixed telephony - profile 5

Tariff plan	
Telenet Freephone Europe met 'Anytime'	€ 28,40
Numericable Start Telefonie	€ 28,60
VOO Telefoon Blabla 24h/24h	€ 33,95
Belgacom Classic-lijn met 'No Limit National'	€ 38,01

## Dual play (broadband + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2
Belgacom Pack Internet + Telephony Start 30 - 6M	€ 45,95	€ 52,74 € 58,84
Scarlet Internet & Telefonie/Téléphonie 30 - 6M	€ 39,00	€ 45,44 € 52,32
SNOW 2-pack Internet en Telefoon 30 - 6M	€ 35,00	€ 41,70 € 48,67
VOO Pack DUO NET TEL 35 - 6M	€ 30,95	€ 37,45 € 43,64

## Triple play (broadband + TV + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2
Belgacom Pack Internet + TV + Telephony Start 30 - 6M	€ 57,95	€ 64,74 € 70,84
Numericable Triple Play Start 50 - 6M	€ 49,90	€ 55,00 € 58,83
Scarlet Trio 30 - 6M	€ 39,00	€ 45,44 € 52,32
SNOW 3-pack 30 - 6M	€ 39,00	€ 45,70 € 52,67
VOO Pack TRIO Un Peu 35 - 6M	€ 50,95	€ 57,45 € 63,64

## Triple play (broadband + TV + FT) - category 3

Tariff plan - contract duration	FT P1	FT P2
Telenet Whop 60 - 6M	€ 62,50	€ 66,87 € 71,79

## Triple play (broadband + TV + FT) - category 4

Tariff plan - contract duration	FT P1	FT P2
Numericable Triple Play Extra 100 - 6M	€ 59,90	€ 62,83 € 63,25
Telenet Whoppa 160 - 6M	€ 72,95	€ 77,32 € 82,24
VOO Pack TRIO A La Folie 100 - 6M	€ 80,95	€ 85,95 € 89,70

FT P1 = cost of tariff plan with fixed telephony profile 1  
 FT P2 = cost of tariff plan with fixed telephony profile 2

## The Netherlands

### Mobile telephony postpaid - profile 1

Tariff plan - contract duration	
KPN Budget 100 - 24M	€ 15,38
Vodafone Scherp S - 24M	€ 8,21
T-Mobile Bel en SMS 110 - 12M	€ 10,21

### Mobile telephony postpaid - profile 2

Tariff plan - contract duration	
KPN Budget 300 - 24M	€ 15,38
Vodafone Scherp S - 24M	€ 14,36
T-Mobile Stel Samen 150 - 12M	€ 12,31

### Mobile telephony postpaid - profile 3

Tariff plan - contract duration	
KPN Basis 300 - 24M	€ 20,51
Vodafone Scherp M - 24M	€ 13,33
T-Mobile Stel Samen - 24M	€ 20,51

### Mobile telephony postpaid - profile 4

Tariff plan - contract duration	
KPN Basis 300 - 24M	€ 25,64
Vodafone Smart 500 - 24M	€ 16,41
T-Mobile Stel Samen - 24M	€ 20,51

### Mobile telephony postpaid - profile 5

Tariff plan - contract duration	
KPN Alles-in-1 Mobile Instap - 24M	€ 28,21
Vodafone Red Essential - 24M	€ 21,54
T-Mobile Stel Samen 300&1GB - 24M	€ 34,87

### Mobile telephony postpaid - profile 6

Tariff plan - contract duration	
KPN Alles-in-1 Mobile Standaard - 24M	€ 33,33
Vodafone Red - 24M	€ 33,85
T-Mobile Stel Samen - 24M	€ 44,10

### Mobile telephony prepaid - profile 1

Tariff plan	
KPN Prepaid	€ 20,59
Vodafone Prepaid+ 10	€ 10,26
T-Mobile Prepaid	€ 10,15

### Mobile telephony prepaid - profile 2

Tariff plan	
KPN Prepaid	€ 38,36
Vodafone Prepaid+ 20	€ 20,51
T-Mobile Prepaid	€ 15,23

### Mobile telephony prepaid - profile 3

Tariff plan	
KPN Prepaid	€ 30,85
Vodafone Prepaid+ 10	€ 10,26
T-Mobile Prepaid	€ 15,23

### Mobile internet - category 1

Tariff plan - contract duration	
KPN Basis - 1M	€ 15,38
T-Mobile Soms - 12M	€ 10,26

### Mobile internet - category 4

Tariff plan - contract duration	
KPN Standaard - 1M	€ 30,77
Vodafone Basis - 12M	€ 20,00
Vodafone Basis - 1M	€ 30,77
T-Mobile Vaak - 12M	€ 30,77

### Fixed telephony - profile 1

Tariff plan	
KPN BelVrij Weekend	€ 28,18

### Fixed telephony - profile 2

Tariff plan	
KPN BelVrij Weekend	€ 35,17

### Fixed telephony - profile 3

Tariff plan	
KPN BelVrij Altijd	€ 37,95

### Fixed telephony - profile 4

Tariff plan	
KPN BelVrij Altijd	€ 37,95

### Fixed telephony - profile 5

Tariff plan	
KPN BelVrij Altijd	€ 37,95

### Dual play (broadband + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2	
KPN Basis Thuis 50 - 12M	€ 43,59	€ 55,12	€ 78,81
Tele 2 Internet & Bellen 40 - 12M	€ 25,64	€ 37,23	€ 61,00

### Triple play (broadband + TV + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2	
Tele 2 Internet, Bellen & Interactieve TV 40 - 12M	€ 35,90	€ 47,49	€ 71,26
UPC Alles-in-1 Basis 50 - 12M	€ 45,95	€ 57,29	€ 80,60
Ziggo Alles-in-1 Basis 30 - 12M	€ 48,92	€ 60,00	€ 82,85
KPN Alles-in-1 Thuis Standaard 50 - 12M	€ 60,51	€ 72,04	€ 84,61

### Triple play (broadband + TV + FT) - category 3

Tariff plan - contract duration	FT P1	FT P2	
Ziggo Alles-in-1 Plus 90 - 12M	€ 59,18	€ 70,25	€ 93,10
KPN Alles-in-1 Thuis Instap 80 - 12M	€ 51,28	€ 62,81	€ 86,50
Tele 2 Glasvezel Internet, Bellen & TV 60 - 24M	€ 48,72	€ 60,30	€ 84,08

### Triple play (broadband + TV + FT) - category 4

Tariff plan - contract duration	FT P1	FT P2	
UPC Alles-in-1 Power 120 - 12M	€ 57,23	€ 68,57	€ 91,88
KPN Alles-in-1 Thuis Instap Glasvezelpakket 100 - 12M	€ 53,84	€ 65,37	€ 89,06
Ziggo Alles-in-1 Extra 180 - 12M	€ 69,43	€ 80,51	€ 103,36
Tele 2 Glasvezel Internet, Bellen & TV 100 - 24M	€ 56,41	€ 68,00	€ 91,77

FT P1 = cost tariff plan with fixed telephony profile 1

FT P2 = cost tariff plan with fixed telephony profile 2

# United Kingdom

## Mobile telephony postpaid - profile 1

Tariff plan - contract duration	
O2 SIM Only 8 -12M	€ 9,75
Three Sim Only 7 - 12M	€ 8,53
EE Sim Only 10 - 12M	€ 12,18
Vodafone 300 Plan - 12M	€ 10,97

## Mobile telephony postpaid - profile 2

Tariff plan - contract duration	
O2 Sim Only 9 -12M	€ 10,97
Three Sim Only 7 - 12M	€ 8,53
EE Sim Only 10 - 12M	€ 12,18
Vodafone 300 Plan - 12M	€ 10,97

## Mobile telephony postpaid - profile 3

Tariff plan - contract duration	
O2 Sim Only 8 - 12M	€ 9,75
Three Sim Only 7 - 12M	€ 8,53
EE Sim Only 10 - 12M	€ 12,18
Vodafone 300 Plan - 12M	€ 10,97

## Mobile telephony postpaid - profile 4

Tariff plan - contract duration	
O2 Sim Only 9 - 12M	€ 10,97
Three Sim Only 7 - 12M	€ 8,53
EE Sim Only 12 - 12M	€ 14,62
Vodafone 300 Plan - 12M	€ 10,97

## Mobile telephony postpaid - profile 5

Tariff plan - contract duration	
O2 Sim Only 16 -12M	€ 19,50
Three Sim Only 10 - 12M	€ 12,19
EE SIM Only 17 - 12M	€ 20,71
Vodafone Red Starter - 12M	€ 25,60

## Mobile telephony postpaid - profile 6

Tariff plan - contract duration	
O2 Sim Only 20 - 12M	€ 24,38
Three Sim Only 15 - 12M	€ 18,29
EE Sim Only 20 - 12M	€ 24,37
Vodafone Red - 12M	€ 31,70

## Mobile telephony prepaid - profile 1

Tariff plan	
EE Pay as you Go	€ 6,10
O2 Pay as you Go Big Bundle 10	€ 12,19
Vodafone Freedom Freebee 10	€ 12,19
Three Pay as you Go All-in One 10	€ 12,19

## Mobile telephony prepaid - profile 2

Tariff plan	
EE Pay as you Go	€ 6,10
O2 Pay as you Go Big Bundle 10	€ 12,19
Vodafone Freedom Freebee 10	€ 12,19
Three Pay as you Go All-in One 10	€ 12,19

## Mobile telephony prepaid - profile 3

Tariff plan	
EE Pay as you Go	€ 9,75
O2 Pay as you Go Big Bundle 10	€ 12,19
Vodafone Freedom Freebee 10	€ 12,19
Three Pay as you Go All-in One 10	€ 12,19

## Mobile telephony prepaid - profile 4

Tariff plan	
EE Pay as you Go	€ 21,94
O2 Pay as you Go Big Bundle 15	€ 18,29
Vodafone Freedom Freebee 20	€ 24,38
Three Pay as you Go All-in One 15	€ 18,29

## Mobile internet - category 1

Tariff plan - contract duration	
Three Broadband 250M - 1M	€ 6,10
Three Broadband 500M - 24M	€ 6,45
EE Broadband 500 - 12M	€ 6,10
EE Broadband 500 - 1M	€ 6,10

## Mobile internet - category 3

Tariff plan - contract duration	
O2 Pre Data 2 - 1M	€ 15,85
O2 Data 2 - 1M	€ 15,85
EE Broadband Tablet - 24M	€ 6,10
Vodafone 2GB UK - 1M	€ 18,29

## Mobile internet - category 4

Tariff plan - contract duration	
O2 Pre Data 3 - 1M	€ 18,29
O2 Data 3 - 1M	€ 18,29
O2 Data 5 - 1M	€ 30,48
Three Broadband +3 - 1M	€ 24,98
Three Broadband 5GB - 1M	€ 19,49
EE Broadband 3 - 1M	€ 18,29
EE Broadband 3 - 12M	€ 18,29
Vodafone 4GB UK - 1M	€ 24,38
Vodafone Data Pack 20 - 1M	€ 24,38

## Fixed telephony - profile 1

Tariff plan	
Sky Talk Freetime	€ 28,67
BT Weekend	€ 31,38
TalkTalk UK Anytime	€ 32,87

## Fixed telephony - profile 2

Tariff plan	
Sky Talk Anytime	€ 33,19
BT Anytime	€ 34,40
TalkTalk UK Anytime with 'Mobile Extra'	€ 36,30

## Fixed telephony - profile 3

Tariff plan	
Sky Talk Anytime	€ 33,19
BT Anytime	€ 34,40
TalkTalk UK Anytime with 'Mobile Extra'	€ 36,30

## Fixed telephony - profile 4

Tariff plan	
BT Anytime	€ 38,51
Sky Talk Anytime	€ 39,13
TalkTalk UK Anytime with 'Mobile Extra'	€ 40,77

## Fixed telephony - profile 5

Tariff plan	
BT Anytime	€ 38,51
Sky Talk Anytime	€ 39,13
TalkTalk UK Anytime with 'Mobile Extra'	€ 40,77

## Dual play (broadband + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2
TalkTalk Simply Broadband with Superpowered Fibre 38 - 18M	€ 35,90	€ 53,80
BT BT Infinity 1 38 - 18M	€ 37,78	€ 49,66
Sky Fibre Unlimited 38 - 18M	€ 43,15	€ 54,98
Virgin Media Up to 50Mb broadband + phone 50 - 18M	€ 38,39	€ 53,30

## Triple play (broadband + TV + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2
BT TV Entertainment + BT Infinity 1 38 - 18M	€ 46,31	€ 58,20
TalkTalk Essentials TV, Broadband and Calls with Superpowered Fibre 38 - 18M	€ 61,06	€ 71,96
Virgin Media Big Easy 50 - 18M	€ 43,87	€ 58,78

## Triple play (broadband + TV + FT) - category 3

Tariff plan - contract duration	FT P1	FT P2
BT TV Entertainment + Unlimited BT Infinity 2 76 - 18M	€ 59,72	€ 71,61

FT P1 = cost tariff plan with fixed telephony profile 1

FT P2 = cost tariff plan with fixed telephony profile 2

## France

### Mobile telephony postpaid - profile 1

Tariff plan - contract duration	
Orange M6 SIM - 12M	€ 10,02
SFR RED 2H - 12M	€ 5,00
Bouygues Forfait 2H - 12M	€ 10,02
Free Forfait 2 - 12M	€ 2,01

### Mobile telephony postpaid - profile 2

Tariff plan - contract duration	
Orange M6 SIM - 12M	€ 10,02
SFR RED 2H - 12M	€ 5,00
Bouygues Forfait 2H - 12M	€ 10,02
Free Forfait 2 - 12M	€ 2,01

### Mobile telephony postpaid - profile 3

Tariff plan - contract duration	
Orange M6 Sim - 12M	€ 10,02
SFR RED 2H - 1M	€ 7,01
Bouygues Forfait 2H 9,99 - 12M	€ 11,02
Free Forfait 2 - 1M	€ 2,01

### Mobile telephony postpaid - profile 4

Tariff plan - contract duration	
Orange M6 Sim 500M - 12M	€ 15,03
SFR Carré 2H - 12M	€ 15,03
Bouygues Forfait 2H 9,99 - 12M	€ 12,02
Free Forfait 20 - 1M	€ 20,04

### Mobile telephony postpaid - profile 5

Tariff plan - contract duration	
Orange Zen 500Mo - 12M	€ 31,07
SFR RED 3G - 12M	€ 20,04
Bouygues Forfait 24/24 - 12M	€ 30,07
Free Forfait 20 - 12M	€ 20,05

### Mobile telephony postpaid - profile 6

Tariff plan - contract duration	
Orange Origami Play 3G - 12M	€ 33,07
SFR RED 3G - 1M	€ 20,04
Bouygues Forfait Sensation - 12M	€ 30,07
Free Forfait 20 - 1M	€ 20,05

### Mobile telephony prepaid - profile 1

Tariff plan	
Orange Mobicarte 20	€ 20,05
SFR La Carte 15	€ 15,04
Bouygues 24/24 - 20	€ 20,05

### Mobile telephony prepaid - profile 2

Tariff plan	
Orange Mobicarte 20	€ 20,05
SFR La Carte 20	€ 20,05
Bouygues 24/24 - 20	€ 20,05

### Mobile telephony prepaid - profile 3

Tariff plan	
Orange Mobicarte 20	€ 20,05
SFR La Carte 20	€ 20,05
Bouygues 24/24 - 20	€ 20,05

### Mobile telephony prepaid - profile 4

Tariff plan	
Orange Mobicarte 30	€ 30,08
SFR La Carte 30	€ 30,08
Bouygues 24/24 - 35	€ 35,09

### Mobile internet - category 1

Tariff plan - contract duration	
Orange Prépayé SIM - 1M	€ 9,93

### Mobile internet - category 3

Tariff plan - contract duration	
Orange Prépayé SIM - 1M	€ 20,05

### Mobile internet - category 4

Tariff plan - contract duration	
Orange Let's go 3G - 12M	€ 15,03
Orange Let's go 3G - 1M	€ 19,04
SFR Connecté Partout 5G - 1M	€ 15,03

### Fixed telephony - profile 1

Tariff plan	
Orange Optimale 2H	€ 22,18
SFR Ligne Fixe 2H	€ 23,41

### Fixed telephony - profile 2

Tariff plan	
Orange Optimale 2H	€ 30,07
SFR Ligne Fixe 5H	€ 34,26

### Fixed telephony - profile 3

Tariff plan	
Orange Optimale 2H	€ 30,23
SFR Ligne Fixe 5H	€ 34,26

### Fixed telephony - profile 4

Tariff plan	
SFR Ligne Fixe Illimité with 'Mobile Illimité'	€ 34,99
Orange Optimale 4H	€ 38,86

### Fixed telephony - profile 5

Tariff plan	
SFR Ligne Fixe Illimité with 'Mobile Illimité'	€ 34,99
Orange Optimale 4H	€ 38,86

### Triple play (broadband + TV + FT) - category 2

Tariff plan - contract duration	FT P1	FT P2
Free Freebox Révolution VDSL2 (Zone Dégroupée) with TV 50 - 1M	€ 38,07	€ 41,06
Numericable LaBox Start 30 - 12M	€ 45,01	€ 45,01
Bouygues BBOX Sensation VDSL (zone dégroupée en propre par Bouygues) 50 - 1M	€ 26,06	€ 26,06
Orange Livebox Zen sans ligne fixe Orange VDSL 50 - 1M	€ 35,72	€ 39,73

### Triple play (broadband + TV + FT) - category 4

Tariff plan - contract duration	FT P1	FT P2
Free Freebox Révolution (Zone Fibrée) with TV 1000 - 1M	€ 38,07	€ 38,07
Numericable LaBox Start 200 - 12M	€ 45,01	€ 45,01
Bouygues BBOX Sensation Fibre FTTB 200 - 1M	€ 26,06	€ 26,06
Orange Livebox Zen Fibre 100 - 1M	€ 35,72	€ 39,73
SFR Box de SFR Fibre option TV évolution 1000 - 1M	€ 35,08	€ 39,17

FT P1 = cost tariff plan with fixed telephony profile 1

FT P2 = cost tariff plan with fixed telephony profile 2

# Germany

## Mobile telephony postpaid - profile 1

Tariff plan - contract duration	
T-Mobile Call 50 - 24M	€ 13,89
Vodafone Basic 50 - 24M	€ 13,89
E-Plus Pur Classic - 24M	€ 10,81
O2 Blue Basic - 24M	€ 10,80

## Mobile telephony postpaid - profile 2

Tariff plan - contract duration	
T-Mobile Call 50 - 24M	€ 24,16
Vodafone Smart M - 24M	€ 27,02
E-Plus Smart Classic - 24M	€ 10,81
O2 Blue Basic - 24M	€ 10,80

## Mobile telephony postpaid - profile 3

Tariff plan - contract duration	
T-Mobile XS - 24M	€ 27,52
Vodafone Basic 100 - 24M	€ 21,61
E-Plus Smart - 24M	€ 16,22
O2 Blue Basic - 24M	€ 10,80

## Mobile telephony postpaid - profile 4

Tariff plan - contract duration	
T-Mobile S - 24M	€ 30,23
Vodafone Smart M - 24M	€ 27,02
E-Plus Smart - 24M	€ 16,22
O2 Blue Basic - 24M	€ 10,80

## Mobile telephony postpaid - profile 5

Tariff plan - contract duration	
T-Mobile L - 24M	€ 60,50
Vodafone Red M - 24M	€ 54,04
E-Plus All-in Plus - 24M	€ 43,24
O2 Blue All-in L - 24M	€ 43,23

## Mobile telephony postpaid - profile 6

Tariff plan - contract duration	
T-Mobile XL - 24M	€ 69,15
Vodafone Red L - 24M	€ 86,48
E-Plus All-in Plus - 24M	€ 43,24
O2 Blue All-in L - 24M	€ 43,23

## Mobile telephony prepaid - profile 1

Tariff plan	
Base Prepaid	€ 24,03
Vodafone CallYa Talk&SMS	€ 16,22
T-Mobile Xtra Card	€ 14,27
O2 Smart M	€ 10,80

## Mobile telephony prepaid - profile 2

Tariff plan	
Base Prepaid	€ 38,00
Vodafone CallYa Smartphone Basic	€ 19,62
T-Mobile Xtra Call	€ 21,57
O2 Smart M	€ 10,80

## Mobile telephony prepaid - profile 3

Tariff plan	
Vodafone CallYa Smartphone Basic	€ 17,87
T-Mobile Xtra Triple	€ 21,03
O2 Smart S	€ 9,21

## Mobile telephony prepaid - profile 4

Tariff plan	
Vodafone CallYa Smartphone Allnet	€ 32,43

## Mobile internet - category 3

Tariff plan - contract duration	
T-Mobile M Eco - 24M	€ 21,57

## Mobile internet - category 4

Tariff plan - contract duration	
T-Mobile L Eco - 24M	€ 32,38
Vodafone Mobileinternet Flat 21,6 - 24M	€ 23,77
Vodafone WebSessions M - 24M	€ 27,02
Vodafone WebSessions L - 24M	€ 37,83
E-Plus Internet XL - 24M	€ 21,62
O2 Go + Surf Flat L - 24M	€ 24,31
O2 Monats Flat L - 1M	€ 27,03
O2 Go + Surf Flat L - 1M	€ 16,21

## Fixed telephony - profile 1

Tariff plan	
Kabel Deutschland Einzelangebot Telefon	€ 20,61
Deutsche Telekom Call Basic with 'Festnetz zum Mobil'	€ 24,36

## Fixed telephony - profile 2

Tariff plan	
Kabel Deutschland Einzelangebot Telefon with 'Option Best Mobile 30'	€ 27,03
Deutsche Telekom Call Basic with 'Festnetz zum Mobil'	€ 30,93

## Fixed telephony - profile 3

Tariff plan	
Kabel Deutschland Einzelangebot Telefon with 'Option Best Mobile 30'	€ 27,03
Deutsche Telekom Call Basic with 'Festnetz zum Mobil'	€ 30,93

## Fixed telephony - profile 4

Tariff plan	
Kabel Deutschland Einzelangebot Telefon with 'Telefon-Flatrate' and 'Best Mobile 30'	€ 32,18
Deutsche Telekom Call Basic with 'Festnetz zum Mobil'	€ 40,29

## Fixed telephony - profile 5

Tariff plan	
Kabel Deutschland Einzelangebot Telefon with 'Telefon-Flatrate' and 'Best Mobile 30'	€ 32,18
Deutsche Telekom Call Basic with 'Festnetz zum Mobil'	€ 40,29

## Dual play (broadband + FT) - category 2

Tariff plan - contract duration		FT P1	FT P2
1&1 Doppel-Flat V-DSL 50 - 24M	€ 32,43	€ 36,74	€ 39,97
Deutsche Telekom Call & Surf Comfort Speed VDSL 50 - 24M	€ 48,54	€ 52,65	€ 55,74
O2 DSL All-in L 50 - 24M	€ 37,84	€ 37,84	€ 37,84
Vodafone VDSL Zuhause M 50 - 24M	€ 46,80	€ 51,17	€ 54,45

## Triple play (broadband + TV + FT) - category 2

Tariff plan - contract duration		FT P1	FT P2
Deutsche Telekom Entertain Comfort 50 - 24M	€ 64,70	€ 68,81	€ 71,89
Unitymedia 3play SMART 50 - 24M	€ 35,69	€ 39,99	€ 43,22
Vodafone VDSL Zuhause Linkl. TV 50 - 24M	€ 57,62	€ 61,99	€ 65,26

## Triple play (broadband + TV + FT) - category 4

Tariff plan - contract duration		FT P1	FT P2
Deutsche Telekom Entertain Comfort 100 - 24M	€ 75,52	€ 79,62	€ 82,71
Unitymedia 3play PLUS 100 - 24M	€ 43,26	€ 47,56	€ 50,79

FT P1 = cost tariff plan with fixed telephony profile 1

FT P2 = cost tariff plan with fixed telephony profile 2

## **ANNEX B      ABBREVIATIONS**

<b>ADSL</b>	Asymmetric Digital Subscriber Line
<b>EC</b>	European Commission
<b>EUR</b>	Euro
<b>FTTx</b>	Fibre to the home/building/cabinet
<b>GB</b>	Gigabyte
<b>LTE</b>	Long Term Evolution
<b>MB</b>	Megabyte
<b>Mbps</b>	Megabit (expressed per second)
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>PPP</b>	Purchasing Power Parity
<b>SMS</b>	Short Message Service
<b>VDSL</b>	Very-high-bit-rate digital subscriber line

## ANNEX C GLOSSARY

### **ADSL (Asymmetric Digital Subscriber Line)**

Variation on xDSL technology, which makes use of high and inaudible frequency ranges with a view to simultaneous transmission of voice and data (see xDSL).

### **Bandwidth**

Indicates the transmission capacity of a transmission link and determines the amount of information (in bits per second) that can be transmitted simultaneously.

### **Broadband**

The collective whole of technologies using either the telephone or the coax cable for high-speed data transmission.

### **Bundle**

An electronic communications services bundle is defined as a combination of at least two communications services from the same provider, at an overall price.

### **Coverage**

Percentage of the territory, households, etc. covered by a specific network.

### **DOCSIS**

Group of technologies enabling the transmission of telecommunications signals through coax cables by using very-high-frequency signals. DOCSIS 3.0 is the latest technology.

### **FTTx**

The term FTTx covers among other things FTTH (Fibre to the Home: optical fibre is installed up to the home), FTTB (Fibre to the Building: fibre is installed up to the basement of the building, the *last mile* between the basement and the end-user is still made up of the interior cabling already present) and FTTC (Fibre to the Cabinet: optical fibre is installed up to the street cabinet and the *last mile* between the street cabinet and the end-user is still made up of the copper wire or the coaxial cable already present).

### **HSPA**

A mobile telephony protocol, a data transmission system which makes 3G transmission possible.

### **Purchasing Power Parity (PPP)**

Exchange rate adjusted as to the difference in price level between two countries. It is a means to compare the purchasing power of two countries.

### **LTE**

A mobile telephony protocol, a data transmission system which makes 4G transmission possible. It is the successor of HSPA.

### **NGA (Next Generation Access)**

The current access network where a copper wire runs between the end-user and the exchange (LEX or LDC) will be entirely or partly replaced by optical fibre in the next years.

**Penetration**

The number of persons or households actually buying a service (differs from coverage, which refers to range, because it also includes non-customers).

**Take-up**

Initial penetration.

**VDSL (Very High Rate DSL)**

Transmission technology offering very high bit rates but over a shorter range than ADSL (see xDSL).

**xDSL (Digital Subscriber Line)**

Group of technologies offering high-speed transmission through one or several copper pairs by using very-high-frequency signals. xDSL breaks down into ADSL, SDSL and VDSL. Each of these subgroups has specific applications and special characteristics.