COMMISSION STAFF WORKING DOCUMENT

on the findings of the review of the rules on roaming fair use policy and the sustainability derogation laid down in the Commission Implementing Regulation (EU) 2016/2286 of 15 December 2016
1 INTRODUCTION

In October 2015, the European Parliament and the Council adopted Regulation (EU) 2015/2120 which mandated the end of retail roaming charges in the Union from 15 June 2017, subject to a fair use policy and a sustainability derogation. These new roaming rules are widely known as "Roam-Like-At-Home" (RLAH).

For RLAH to be provided in a sustainable manner throughout the Union, the co-legislators have agreed to have in place the following measures:

- substantially reduced wholesale roaming price caps;
- the possibility for operators to apply a fair use policy to prevent abusive or anomalous use of roaming services at domestic prices, such as the permanent use of a SIM card in other Member States than the Member State of the roaming provider that issued the SIM card;
- an exceptional and temporary derogation system for operators to be used only if authorised by the national regulator, under strict circumstances when the abolition of roaming charges in a specific market could lead to domestic price increases for the customers of the operator in question.

In accordance with the mandate given by the co-legislators, the Commission adopted, on 15 December 2016, the Commission Implementing Regulation (EU) 2016/2286 laying down detailed rules on the application of fair use policy and on the methodology to be used for submitting and assessing a request for a sustainability derogation (hereinafter referred to as the 'Regulation (EU) 2016/2286').

The above set of rules has been applicable in the EU/EEA since 15 June 2017. On 12 December 2018, the Commission adopted an interim report on the implementation of those rules over the first 18 months (hereinafter "the Commission interim Report") which indicated that the demand for mobile consumption while travelling in the EU/EEA has rapidly and massively increased since RLAH was introduced and provisionally concluded that the

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3 Commission Implementing Regulation (EU) 2016/2286 of 15 December 2016 laying down detailed rules on the application of fair use policy and on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by a roaming provider for the purposes of that assessment.
4 Decisions of the EEA Joint Committee No 173/2012 (available here), 92/2016 (available here) and 105/2017 (available here) respectively add Regulations 531/2012, 2015/2120 and 2017/920 to Annex XI to the EEA Agreement “Electronic communications, audiovisual services and information society”.
safeguards foreseen in the Roaming Regulation\(^5\) to avoid distortions on domestic markets, namely fair use policy and the sustainability derogation, had so far worked adequately where needed\(^6\). Since then, the Body of European Regulators for Electronic Communications (BEREC) published its 22\(^{nd}\) International Roaming Benchmark Data Report showing a 12-fold and 3-fold increase respectively in total data and voice roaming traffic in the EU/EEA in summer 2018 compared to summer 2016 (last summer before RLAH)\(^7\). In June 2019, BEREC also published its Opinion on the functioning of the roaming market\(^8\) (hereinafter the “Opinion on the roaming markets”) to inform the Commission’s review.

In accordance with Article 6d (4) of the Roaming Regulation, the Commission has committed to review the Regulation (EU) 2016/2286 by June 2019\(^9\). After a short summary of the roaming rules in place since 15 June 2017 (see section 2), this document presents the main findings of this review (fair use policy in section 3, the sustainability derogation in section 4) as well as an analysis of the evolution of domestic markets which these two measures aim at safeguarding (section 5).

2  \textbf{THE ROAMING REGULATION’S SCOPE AND MAIN PROVISIONS}

Roaming, in the meaning of the Roaming Regulation, is a service that allows a roaming customer of a Mobile (Virtual) Network Operator (M(V)NO) in one EU/EEA country to have access to mobile services (voice, SMS or data) provided by an MNO via a terrestrial public mobile communications network in another EU/EEA country when travelling\(^10\). The service provider (the mobile operator) ensures that its customers remain connected to a mobile network when travelling abroad while using the same mobile handset (or possibly laptop or tablet in case of data roaming) and the same phone number. The service provider that wants to offer roaming services to its customers ("retail roaming services") in another country has to buy them from an MNO located in the visited country ("wholesale roaming services"). To this end, commercial wholesale roaming agreements between service providers have to be concluded. In practice, when a customer places a call or uses mobile data while roaming abroad, that service is provided by a mobile operator in the visited country. The roaming

\(^5\)In this report, Regulation (EU) 531/2012 as amended by Regulation (EU) 2015/2120 and Regulation (EU) 2017/920 is called the "Roaming Regulation".


\(^7\)22\(^{nd}\) International Roaming BEREC Benchmark Data Report, April 2018 – September 2018, BoR(19)21, March 2019

\(^8\)BEREC Opinion on the functioning of the roaming market, as input to the Commission’s evaluation, BoR(2019)40, June 2019


\(^10\)A roaming service can be provided domestically (national roaming), i.e. a mobile operator uses the network of another operator to provide mobile services to its customers domestically. However, national roaming is not within the scope of the Roaming Regulation. The latter only regulates international roaming in the EU/EEA, i.e. roaming on a foreign network within the EU/EEA.
Customer’s home operator has to pay the visited operator for that service. This is called wholesale roaming charges. The level of those charges is capped by the Roaming Regulation and annually decreasing for data (see below in this section).

Since 15 June 2017 mobile operators have not been allowed to levy any charges in addition to the domestic price for the provision of roaming services (voice, SMS and data) to their customers when they periodically travel in the EU/EEA. In order to prevent abusive or anomalous use of roaming services - such as permanent roaming - at domestic prices that may have detrimental effects on the domestic markets, mobile operators may apply a fair use policy.

Fair use policy aims in particular at ensuring that roaming at domestic price is used when periodically travelling in the EU/EEA. For this purpose, an operator may ask its customers for a proof of residence in, or stable link with, the EU/EEA country where it provides services and issues the SIM card to be used at domestic price when travelling abroad. An operator may also check that the SIM card is used more in its home Member State than abroad. If such a fair use policy is applied and, during a time window of at least four months, the customer has roaming consumption prevailing over domestic consumption or presence in other Member States of the Union prevailing on domestic presence, the operator has to alert the customer to verify whether there is any abusive or anomalous use of roaming services at domestic prices. After a period of at least 14 days from the date of the alert, the operator may apply small roaming surcharges linked to the wholesale price caps if the customer continues to consume mobile services abroad.

In addition, in order to allow for the continuous development of the best data offers on domestic markets (e.g. unlimited data), an operator may apply a volume safeguard on roaming data consumed at domestic prices. Beyond that volume, the operator may apply a small roaming surcharge not exceeding the wholesale roaming price cap on data (see in more detail below in this section).

In any event, even in excess of fair use policy, the sum of the domestic price plus the small roaming surcharge applicable may not exceed the roaming fees in place in the first quarter 2016 (prior to the transitional period that led to RLAH in June 2017)\(^\text{11}\).

In exceptional and specific circumstances, in order to avoid a domestic price increase, an operator may obtain from its national regulatory authority (NRA) a so-called sustainability derogation. For this purpose, the operator must demonstrate that the provision of roaming services without the application of a surcharge would not be sustainable with its current domestic charging model. In that case, the NRA may authorise the operator to apply a small

\(^{11}\) For calls received, the maximum retail roaming surcharge applicable in excess of fair use policy is defined as the weighted average Mobile Termination Rate across Member States and is therefore revised downwards annually by the Commission. It is equal to 0.0085 EUR/min in 2019.
roaming surcharge for one year. In order to prolong such an authorisation the operator must renew its application yearly.

At wholesale level, the price caps have been substantially reduced in 2017 by Regulation (EU) 2017/920\(^{12}\), in particular for data traffic whose price caps are programmed to further decline every year until 2022, in order to ensure that market players can benefit from wholesale rates that allow for the provision of roaming services to their customers without levying any charge on top of the domestic price. The wholesale roaming price caps also ensure that wholesale costs are fully recovered by the operator providing the wholesale roaming service.

As established by a Regulation, the roaming rules are applicable in all EU Member States and EEA countries. The Roaming Regulation entrusts NRAs with the task of monitoring, supervising and enforcing the roaming rules in Member States. In order to ensure a consistent approach of all NRAs, the Body of European Regulators in Electronic Communications (BEREC) issued Retail Roaming Guidelines\(^{13}\) in March 2017 and Wholesale Roaming Guidelines\(^{14}\) in June 2017, prepared in close collaboration with the Commission and after consulting stakeholders. While not binding in themselves, BEREC Guidelines support the NRAs in the monitoring, supervision and enforcement of the new roaming rules in practice. BEREC Guidelines also serve as detailed guidance for mobile operators on how to implement the new roaming rules in their various offers.

3 FAIR USE POLICY

Regulation (EU) 2016/2286 laid down detailed rules to ensure a consistent implementation of fair use policies (FUP) that roaming providers may apply in order to avoid anomalous or abusive use of regulated retail roaming services under RLAH that could have detrimental effects on domestic markets. In this regard, the Commission and BEREC jointly surveyed EU/EEA NRAs, Mobile Network Operators (MNOs) and Mobile Virtual Network Operators (MVNOs) in March 2019 on the extent of the application of FUPs by operators. The NRAs of the 28 EU Member States replied to the survey, as well as the NRAs of Norway and Liechtenstein (EEA). 91 MNOs, i.e. most MNOs in the EU/EEA, and 89 MVNOs replied to

\(^{12}\) In 2019, the following wholesale roaming price caps are applicable: 0.032 € /minute for calls made, 0.01 €/sms, 4.5 €/GB. From 1 January 2020, the new cap for data will be 3.5 €/GB. It will then decrease to 3 €/GB in 2021 and 2.5 €/GB in 2022. In comparison, those caps were 0.05 €/minute, 0.02 €/sms and 50 €/GB until 15 June 2017.


the survey. The analysis presented in this section is based on the results of these surveys\(^{15}\) and on the BEREC Opinion on the roaming market.

### 3.1 Most mobile operators have implemented fair use policies

The vast majority of operators have applied a FUP (Table 1).

**Table 1: Operators applying a FUP**

<table>
<thead>
<tr>
<th>Share of operators applying FUP</th>
<th>MNOs</th>
<th>MVNOs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>95%</td>
<td>78%</td>
<td>86%</td>
</tr>
</tbody>
</table>

Source: Joint Commission BEREC survey to NRAs (March 2019)

The share of MVNOs applying a FUP has been somewhat lower than that of MNOs. This suggests that MVNOs have been generally less inclined than MNOs to invest in fair use policy measures. Furthermore, as indicated in the Commission interim Report, the share of operators applying FUP is substantially higher in outbound countries than in inbound countries\(^{16}\).

In terms of the types of FUPs applied, Table 2 below shows that a significant majority of operators have relied on the open data bundle limits\(^{17}\), albeit slightly less so in the case of MVNOs. This fair use policy allows operators to set limits to the mobile data consumed by their customers while roaming at domestic price, based on the prices of their bundles and the regulated maximum wholesale roaming tariffs applicable at the time\(^{18}\).

Operators have made a more modest use of the other available FUPs. Around half of them have used the residence/ stable link criterion. Almost half of the MNOs have used the 4-month window, while only 37% of the MVNOs have done so. The volume limit on roaming...

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\(^{15}\) The Joint Research Centre (JRC) of the Commission provided the necessary support in collecting the data from NRAs, MNOs and MVNOs and in extracting the results from the replies. The JRC carries out research on behalf of the Commission in order to provide independent scientific advice and support to EU policy (see its website [here](http://jrc.ec.europa.eu)).

\(^{16}\) An outbound country has mobile subscribers who consume more mobile services abroad than those consumed by the subscribers from foreign countries in that country. In other words, an outbound country “sends” out more roaming traffic abroad than it receives roaming traffic from abroad on its own mobile networks. Conversely, an inbound country has a population of mobile subscribers who consume less mobile services abroad than those consumed by the subscribers from foreign countries in that country. Due to tourist flows, typically, Northern European countries are outbound countries of roaming traffic, whereas Southern European countries are typically inbound countries of roaming traffic, although there are some exceptions.

\(^{17}\) A mobile bundle is a subscription to a package of mobile services, usually including voice calls, SMS and data services. An ‘open data bundle’ is defined in the Regulation (EU) 2016/2286 as including unlimited data or a volume of data greater than the volume obtained by dividing the retail price of the bundle (excluding VAT) by the maximum wholesale roaming price (€4.5/GB in 2019).

\(^{18}\) For a more detailed description, please refer to the Regulation (EU) 2016/2286 ([here](http://eur-lex.europa.eu)) and the Commission’s Q&A on Roaming (available [here](http://ec.europa.eu)).
data for pre-paid cards is the least used FUP. Finally, operators rarely use mechanisms based on other objective indicators than the 4-month window, such as long inactivity of SIM card with use mostly while roaming or subscription and sequential use of multiple SIM cards by same roamer (around 10% of them do so).

Table 2: Percentage of operators applying each type of FUP

<table>
<thead>
<tr>
<th>Residence/ stable link criterion</th>
<th>MNOs</th>
<th>MVNOs</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>Roaming customers should be either normally residents or have any other stable link entailing frequent and substantial presence in the territory, where the operator is established</td>
<td>52%</td>
<td>44%</td>
<td>48%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>4-month window</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>A 4 month window to assess prevailing domestic consumption over roaming consumption or prevailing domestic presence of the customer over presence in other MS of the Union</td>
<td>41%</td>
<td>26%</td>
<td>33%</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>open data bundle limits</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roaming customer shall be able to consume volumes equivalent to at least twice the volume resulting from dividing the domestic retail price by the max. wholesale caps</td>
<td>87%*</td>
<td>80%*</td>
<td>84%*</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>pre-paid limits</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Roaming customer shall be able to consume volumes equivalent to at least twice the volume resulting from dividing the credit available by the max. wholesale caps</td>
<td>32%**</td>
<td>33%**</td>
<td>33%**</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>other mechanisms</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Other objective indicators such as long inactivity of SIM card with use mostly while roaming or subscription and sequential use of multiple SIM cards by same roamer</td>
<td>12%</td>
<td>7%</td>
<td>9%</td>
</tr>
</tbody>
</table>

Source: Joint Commission/BEREC survey of NRAs (March 2019).

* % of responding operators offering open data bundles (90% of MNOs, 57% of MVNOs, 74% of all operators).

** % of responding operators offering pre-paid tariff plans (71% of MNOs, 30% of MVNOs, 51% of all operators).

The majority (73%) of the operators using the 4-month window use it for all services (voice, SMS and data). However, a substantial part (18%) use it only for data services. Less than 2% use it for services not including data. In addition, 76% of the operators that offer zero rated tariff plans have implemented FUP data limits on such tariff plans.

Figure 1 depicts when MNOs and MVNOs started to apply the different FUP mechanisms by year (2017, 2018 and 2019). Table 3 presents the total number of FUP mechanisms implemented by all responding operators per year of initiation. Table 3 shows that most FUP

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19 Zero-rated data services are data services whose consumption (for instance, social networks) is not counted against the data allowance of the subscription.

20 The year on that figure is the year of starting the implementation of each FUP mechanism. Their implementation may then continue over the following year.
mechanisms started to be implemented in 2017 and less than 2% in 2019 (data until March 2019).

**Figure 1: Distribution of FUP mechanisms implemented, per year of initiation**

![Distribution of FUP mechanisms implemented, per year of initiation](image)

Source: Joint Commission/BEREC survey of NRAs (March 2019).

**Table 3: Number of FUP mechanisms implemented, per year of initiation**.

<table>
<thead>
<tr>
<th></th>
<th>2017</th>
<th>2018</th>
<th>2019</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FUP</strong></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-month window (MNOs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4-month window (MVNOs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data limit on your open data bundles (MNOs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data limit on your open data bundles (MVNOs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data limit on pre-paid tariff plans (MNOs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Data limit on pre-paid tariff plans (MVNOs)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>162</td>
<td>37</td>
<td>3 **</td>
<td></td>
</tr>
</tbody>
</table>

Source: Joint Commission/BEREC survey of NRAs (March 2019).

* Refers to the following FUP mechanisms: 4-month window, data limit on open data bundles and data limit on pre-paid tariff plans.

** Refers to the period 1/1-31/3/2019.

Finally, 16% of MNOs (but only 1% of MVNOs), which have implemented any FUP for EU/EEA roaming, have also implemented FUP on roaming in the rest of the world. The majority (63%) have applied a single FUP for both EU/EEA and third countries, while 19% have applied a separate FUP for third countries.

**3.2 FUP-related surcharges are applied but the share of subscribers and roaming traffic concerned is limited**

Fair use policy is transparently communicated to roaming customers. Almost all operators applying open data bundles limits inform their customers about the actual value (in Giga Bytes, hereafter referred to as ‘GB’) of the limit and the remaining volume available. They
also alert them when they reach that limit.\textsuperscript{21} When applied, the 4-month window control mechanism is part of the customer's contract.

The overwhelming majority of roaming customers however stay abroad for much shorter time periods and therefore do not need to worry about the control mechanism. As Table 4 indicates, 30\% of operators that implemented the 4-month window mechanism did not dispatch any alerts, while for 43\% of these operators effectively less than 1\% of their subscribers were subject to an alert for having a prevailing roaming presence or consumption\textsuperscript{22}. Subscribers effectively subject to a roaming surcharge after being alerted are even less numerous, with 75\% of operators either not imposing a surcharge or imposing one to less than 1\% of their subscribers.

Table 4: Operators which sent an alert and operators which imposed a surcharge to their roaming subscribers, under the 4-month window mechanism.

<table>
<thead>
<tr>
<th>Operators who sent an alert</th>
<th>%</th>
<th>Operators who imposed a surcharge after the alert</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>No alert</td>
<td>30</td>
<td>No surcharge</td>
<td>35.6</td>
</tr>
<tr>
<td>To &lt;0,5% of their subscribers</td>
<td>25.0</td>
<td>To &lt;0,5% of their subscribers</td>
<td>30.5</td>
</tr>
<tr>
<td>To 0,5%-1% of their subscribers</td>
<td>20.0</td>
<td>To 0,5%-1% of their subscribers</td>
<td>10.2</td>
</tr>
<tr>
<td>To 1%-3% of their subscribers</td>
<td>11.7</td>
<td>To 1%-3% of their subscribers</td>
<td>20.3</td>
</tr>
<tr>
<td>To 3%-5% of their subscribers</td>
<td>5.0</td>
<td>To 3%-5% of their subscribers</td>
<td>1.7</td>
</tr>
<tr>
<td>To &gt;5% of their subscribers</td>
<td>8.3</td>
<td>To &gt;5% of their subscribers</td>
<td>1.7</td>
</tr>
</tbody>
</table>

Source: Joint Commission/BEREC survey of NRAs (March 2019).
All figures are % of operators who apply the 4-month window mechanism (33\% of all respondents).

As noted by BEREC in its Opinion on the roaming market, MNOs that have responded to the Joint Commission/BEREC survey of March 2019 have alerted in total approximately 0.6\% of their subscribers and have imposed a surcharge after the alert to half of them (i.e. approximately 0.3\%). On the other hand, permanent roaming by some of their subscribers has been detected by 70\% of the responding MNOs but by only 22\% of the responding MVNOs. Such permanently roaming subscribers represent about 1\% and 0.85\% of all active subscribers of these MNOs and MVNOs respectively.

Figure 2 depicts the development of EU/EEA retail roaming traffic subject to a surcharge in excess of FUP, as a percentage of total EU/EEA retail roaming traffic. This includes

\textsuperscript{21} BEREC Report on Transparency and Comparability of International Roaming Tariffs, BoR(18)220, December 2018.
\textsuperscript{22} For the rest (27\%), the percentage of subscribers, who received an alert ranges between 2\% and 15\%. 
surcharges applied on roaming data usage beyond the FUP limit in the case of open data bundles.

**Figure 2: Share of total EU/EEA retail roaming traffic which is subject to the surcharge in excess of FUP(%)**

![Graph showing the share of total EU/EEA retail roaming traffic which is subject to the surcharge in excess of FUP(%).](image)


After the initial increase probably linked to the gradual implementation of FUP measures by operators (in particular as regards the 4-month window, the sole FUP measure available for voice and SMS which took more time to implement than the volume limit on data), voice, SMS and data roaming traffic beyond FUP (i.e. surcharged traffic) follow different patterns: FUP-surcharged SMS traffic has been declining sharply, FUP-surcharged voice traffic has remained relatively stable, but FUP-surcharged data continues on an increasing trend. The higher level of FUP-surcharged traffic for data than for voice is due to the fact that two FUP measures may be applied to roaming data consumption (the volume limit applicable in the case of open data bundles and the 4-month window control mechanism) while only one FUP measure is applicable to voice and SMS (the 4-month window control mechanism). As to the slightly increasing share of FUP-surcharged data traffic while the volume limit has increased in 2018 compared to 2017, it is likely to be due to outliers in data consumption and an increased confidence in RLAH, whereby an increasing number of users, not worrying any more about the volume of roaming services consumed, may more often reach the data volume limit.

23 Due to the decrease in the wholesale roaming price cap on data which is used at the denominator in the calculation of this volume limit.
It is noticeable that the share in roaming traffic subject to a surcharge in excess of FUP (in the range of 2% to 4%, see Figure 2) is substantially higher than the share of subscribers who are subject to an alert or surcharge (typically 1%, see Table 4). This is likely to be explained by the following observations: (a) only a fraction of total subscribers roam abroad, (b) FUP-surcharged traffic is not only linked to the 4-month window mechanism but also to the data volume limit applicable to open data bundles, and (c) operators impose surcharges on subscribers who make an abnormally high use of roaming services.

3.3 Main issues in FUP implementation

Operators' views on the effectiveness of the various FUPs

Figure 3 shows that operators seem to be convinced of the necessity of FUP measures (less than 15% assess any of the first three FUP measures as unnecessary). The data limit on open bundles is the measure which is most widely seen as effective (73% of the respondents perceive it as effective or partially effective while only 16% as ineffective). This is also consistent with its extensive use by both MNOs and MVNOs (Table 2 above). On the other hand, responding operators are more critical of the 4-month window control mechanism and the stable link criterion (49% and 53% citing them as effective or partially effective while 43% and 34% as ineffective respectively).

Figure 4 reflects the perception of those operators that actually apply each mechanism. In this case the overall outlook is substantially more positive.

Figure 3: Operators’ views on the effectiveness of some FUP mechanisms

Source: Joint Commission/BEREC survey of NRAs (March 2019).
Operators' feedback on possible improvement of FUP

In the Joint Commission/BEREC survey of March 2019 operators had the opportunity to comment on the FUP mechanisms and more generally on the wording of the Regulation (EU) 2016/2286 and to propose improvements. Approximately 24% of operators provided suggestions for alternative FUP mechanisms while 27% of operators provided other remarks on the FUP. Overall, approximately 65% of the respondents did not comment at all on the FUP mechanisms. On the other hand, 33% of the respondents offered suggestions for general improvements of the FUP rules while only 24% refer to specific weaknesses. The comments made by those operators, ordered by decreasing number of occurrences, are:

- The most recurrent suggestion is to shorten the 4-month window;
- A number of respondents consider the FUP rules unclear or too complex to explain (internally and to their customers), in particular the 4-month window control mechanism and the residence/stable link criterion;
- A few MNOs and MVNOs ask for measuring only roaming usage, and not presence abroad, for the purposes of the 4-month window control mechanism.
- A few MNOs would like to remove the factor 2 in the calculation of the limit on the RLAH data volume applicable to open data bundles, or in general reduce that data volume.²⁴

²⁴The Regulation (EU) 2016/2286 provides that the volume data limit applicable in roaming in the case of ‘open data bundles’ should equivalent to at least twice the volume obtained by dividing the overall domestic retail price...
A few MNOs ask for a volume cap on voice, similarly to data, or a fixed period (per year) limit.

MVNOs mainly (but also few MNOs) ask for further reducing the wholesale roaming price caps, which is outside of the scope of the FUP rules.

A few respondents ask for reducing, or even abolishing, the 2-week alert period; some argue in favour of introducing alternative ways of surcharging beyond FUP (including blocking the roaming services instead of surcharging, or imposing retroactive surcharges over the full time-window period).

**NRAs' feedback on possible improvement of the FUP rules**

In its Opinion on the roaming market, BEREC considers it necessary to clarify the rules applicable when the formula for calculating a FUP for open data bundles yields a higher volume than the domestic allowance. For such cases, BEREC recommends the rule to set the roaming allowance to be equal to the domestic allowance.

The number of zero-rated offers has increased over the last years in various domestic markets in the EU/EEA. NRAs, in the context of the BEREC International Roaming Expert Working Group and in coordination with the Commission services, have agreed on a common approach to enforce the rules laid down in the Regulation (EU) 2016/2286 on such offers. According to NRAs, applying the same domestic charging mechanism while roaming like at home implies that the consumption of zero-rated services not be counted against the domestic data allowance while roaming in the EU/EEA, as it is the case at home. However, a fair use data volume limit can be applied while roaming in the EU/EEA, in accordance with the formula provided in the Regulation (EU) 2016/2286 for open data bundles. Consumption of normal (non-zero-rated) services and of zero-rated services can be counted against this fair use limit. In its Opinion on the roaming market, BEREC proposes to revise its Retail Roaming Guidelines accordingly, in order to facilitate a common approach on the assessment of zero-rated tariffs within the EU.

**Infringement proceedings**

In the Joint Commission/BEREC survey of March 2019, NRAs have reported 10 infringements of the FUP rules, in 5 Member States, namely:

- non-inclusion of applied FUP in contracts with consumers;

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25 This interpretation, followed by the German telecom regulator BundesNetzAgentur, has been confirmed by different courts in Germany, namely the Verwaltungsgericht Köln on 20 November 2018 (see the judgement here) and Landgericht Düsseldorf on 19 June 2019 (see the judgement here).

– Lack of quantified information of how FUP is applied;
– Lack of at least 2 weeks notice with the 4-month mechanism;
– Applying fair use data roaming limits that were lower than the minimum permitted;
– Applying surcharges for EEA roaming that were higher than the maximum permitted;
– Blocking access to roaming instead of applying a surcharge, in cases where the customer could not provide documentation of stable link;
– Prevalence of presence or consumption characterised in FUP terms and conditions as alternative rather than cumulatively conditions to apply surcharge.

Overall, as noted by BEREC in its Opinion on the roaming market, operators generally comply with the legal provisions when applying a FUP. In the few cases where breaches of those rules have been observed, operators have corrected their offer as requested by the NRA 27.

**Fraud**

FUP measures have been foreseen and designed in RLAH rules in order to prevent possible abusive or anomalous usage of RLAH by individual subscribers. In contrast, fraud activities need to be fought against by specific ad-hoc measures to be taken by operators in concertation with NRAs.

Fraudulent use of SIM cards in voice and/or SMS messages in the EU/EEA has been observed by 24% of operators (34% of MNOs and 15% of MVNOs). The most important cases of such fraudulent use are the following:

– Resale of SIM-cards in other EEA countries. This is reported by operators that have indications about resale of their own SIM cards as well as by operators that have indications about resale of foreign SIM cards in their countries. As noted by BEREC in its Opinion on the roaming market, less than 7% of the responding MNOs have observed organised resale of their SIM cards in other EU/EEA countries for permanent roaming.

27 BEREC Opinion on the roaming market also records its findings on infringements of the Roaming Regulation overall. According to it, half of the NRAs have reported initiating formal proceedings against operators for potential violations of the EU roaming rules. For 14 NRAs the number of infringement cases ranges between 1 and 9 for a total of 52 cases. The most common cases concern the application of different charging mechanisms for roaming services than for domestic services and higher prices for roaming services compared to domestic services. The majority of cases were concluded with the operator correcting their practices and without the imposition of any penalties. One NRA has recorded 42 cases. As explained in BEREC Opinion on the roaming market, “according to the national legislation of the specific member state, when an administrative violation is established, the penal body shall issue penal provisions which shall impose on the offender a respective administrative penalty. 42 is the total number of the penal provisions issued during the period 15.06.2017 - 18.03.2019 for violations of the Roaming Regulation. The types of violations are 10 (some of the violations repeat)” Specifically, 34 cases were filed until 15.6.2018 while only 8 were filed since then. These cases mainly concern failure to provide the customer information including inter alia restrictions to roaming usage in the contract sheet, personalised tariff information, notification about reaching the financial limit etc.
– International Revenue Share Fraud, which concerns the artificial generation of traffic towards international destination ranges (within the EEA) with high termination rates that are subject to revenue share. This may concern calls to value added and premium rate services as well as to operators charging high interconnection costs.

– Abusive use of SIM cards (typically pre-paid), where the entire voice or SMS allowance was used in a very short time frame (often a few hours or even minutes) e.g., for marketing or for SMS messages sent from applications to persons (A2P), for roaming conference calls, etc.

Some operators also refer here to subscribers circumventing the FUP restrictions, to use RLAH for non-periodic travel, which however should be considered primarily in relation to organised resale of SIM-cards, as explained in the first bullet above.

From the MNOs that expressed awareness of such abusive use, 71% have taken measures to solve the problem and 61% have also taken measures to avoid it happening again, while 35% have also reported it to the NRA. According to the MNO responses, in few cases this helped them address the abusive use, but in many cases it did not have any result. From the MVNOs that expressed awareness of such abusive use, more than 92% have taken measures to solve the problem but only 3% have also taken measures to avoid it happening again and only 1% have reported it to the NRA.

The most commonly used measures, to solve the problem or to avoid its recurrence, are:

– Blocking or suspending SIM and/or roaming;
– Barring abusive number ranges;
– Introducing or extending the use of fraud detection and monitoring;
– Amendments to tariffs/ contractual provisions/ terms & conditions, including limits to the number of active prepaid cards per subscriber and/or the number of SMSs allowed per hour;
– Restricting the use of conference calls while roaming;
– Measures intended to combat the organised resale of SIM cards include a new contract requirement to activate SIM cards domestically prior to roaming abroad, disabling or blocking resold SIM cards, or informing customers about additional charges.

Less frequently operators report resorting to criminal prosecution, GSMA\textsuperscript{28} guidance, cooperation with the NRA in pursuing investigation for cross-border cases and even use of FUP or derogation. Some operators have also proposed establishing a European database of Value Added Services (VAS) numbers.

3.4 Consumer perception

\textsuperscript{28} The global mobile operators association, of which more than 750 mobile operators are a member worldwide.
In the absence of a new Eurobarometer survey, the observations included in the Commission interim Report published in December 2018\(^ {29} \) are still valid. As it results from this report, the RLAH reform is widely recognised and appreciated by Europeans. One year after the introduction of RLAH, a Eurobarometer survey showed that 62% of Europeans were aware that roaming charges had ended in the EU/EEA and 69% thought that they, or someone they know, benefit or will benefit. Awareness of the new rules rises to 81% amongst those who had travelled during the preceding 12 months\(^ {30} \). The feedback received from consumer associations since June 2017 is overall positive.

The joint Commission/BERE\( C\) NRA survey of March 2019 indicates that the volume of roaming-related complaints has not increased in 2018 (31% of NRAs find them much lower than in previous years, 38% comparable to previous years and only 15% much higher than in previous years).

Figure 5 indicates the importance of various topics of complaints concerning roaming received by NRAs. The most important ones have been inadvertent roaming\(^ {31} \) in a non-EU/EEA country, the functioning of the cut-off limit for data, and incorrect billing of roaming volumes, which are among the top complaint topics for close to or more than 25% of the responding NRAs, which actually receive complaints about roaming.

\(^{30}\) Flash Eurobarometer 468, The end of roaming charges one year later, June 2018, available here.  
\(^{31}\) Inadvertent roaming happens near the border between two countries when the mobile phone of an end user located in one country captures the signal of the network of an operator of the neighbouring country.
As to customer complaints to the operators themselves, less than half of the responding operators to the joint Commission/BEREC survey of March 2019 reported having received complaints related to FUP implementation. According to the BEREC Opinion on the roaming market, the total of such complaints received by operators is negligible compared to their customer base (0.002%).

### 3.5 Conclusion
The overwhelming majority of operators have utilised FUP to address abusive or anomalous use of roaming services at domestic prices (such as permanent roaming) by individual customers.

The analysis shows that FUP measures have overall enabled operators to do so successfully, although this entails some costs and complexity. Operators that, with a FUP designed in accordance with the Regulation (EU) 2016/2286, have faced or would have faced levels of roaming usage that threaten their domestic charging model have been granted a sustainability derogations (see section 4). As to fraud activities using roaming services, they can be tackled by specific appropriate measures that do not fall under the scope of FUP.

As regards zero-rated offers, the Commission services take note of BEREC’s proposal in its Opinion on the roaming market to update the BEREC Retail Roaming Guidelines on zero-rated offers in accordance with the data volume limit applicable on open data bundles.

Regarding the case where the applicable FUP volume limit on open data bundles is higher than the domestic data allowance of the bundle, it should be recalled that the operator is free to choose to not apply any FUP to such bundles. In such case, the subscriber can use the domestic data allowance, be they at home or abroad in the EU/EEA, and pay for additional data beyond that volume at home or abroad in the EU/EEA for the same price.

Based on this analysis, the Commission services observe that the evidence available would not support at this stage a change in the scope of FUP - be it the duration of the time window, the level of volume limit on data or the introduction of a volume limit on voice.

4 SUSTAINABILITY DEROGATION

4.1 The derogation mechanism has acted as an effective safeguard against possible distortions on the few domestic markets where such a risk had been identified

Mobile operators that have demonstrated that they are not able to recover their actual and projected costs of providing regulated roaming services without increasing their domestic prices in order to provide RLAH have been granted a sustainability derogation by the NRA, at their request. The derogations granted are strictly in order to recover their costs of providing roaming services to their customers and avoid any domestic price increase (see section 2). Table 5 below presents the number of derogations that have been granted during the first two

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33 Bundles that include a volume of data greater than the volume obtained by dividing the retail price of the bundle by the maximum wholesale roaming price (€4.5/GB in 2019) are open data bundles according to the definition of an ‘open data bundle’ in the Regulation (EU) 2016/2286.
years of RLAH (June 2017 to June 2018, June 2018 to June 2019), per Member State, split by type of operator (MNO and MVNO).

Table 5: Sustainability derogations granted by NRAs during the first two years of RLAH (June 2017-June 2019), split by MNOs and MVNOs

<table>
<thead>
<tr>
<th>Derogations granted in the first RLAH year</th>
<th>Derogations granted in the second RLAH year</th>
</tr>
</thead>
<tbody>
<tr>
<td>MNO</td>
<td>MVNO</td>
</tr>
<tr>
<td>AT</td>
<td>0</td>
</tr>
<tr>
<td>BE</td>
<td>0</td>
</tr>
<tr>
<td>DK</td>
<td>0</td>
</tr>
<tr>
<td>EE</td>
<td>3</td>
</tr>
<tr>
<td>ES</td>
<td>0</td>
</tr>
<tr>
<td>FI</td>
<td>3</td>
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<td>FR</td>
<td>0</td>
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<tr>
<td>IT</td>
<td>0</td>
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<tr>
<td>LT</td>
<td>3</td>
</tr>
<tr>
<td>PL</td>
<td>4</td>
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<tr>
<td>RO</td>
<td>1</td>
</tr>
<tr>
<td>SI</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>14</strong></td>
</tr>
</tbody>
</table>

Sources: Commission's survey of NRAs, June 2018 Joint (first year), Commission/BERC survey of NRAs, March 2019 (second year)

As expected, MVNOs are the primary users of the sustainability derogation given their specific situation on the wholesale roaming market. Over the first year of RLAH, about 2/3 of the derogations have been granted to MVNOs (30 vs 14). Over the second year of RLAH, more than 60% of the derogations have been granted to MVNOs (23 vs 14). Still, this is a small fraction of the more than 330 MVNOs existing in the Union. Most of the providers that were granted a derogation have a small market share in their respective countries.

As regards MNOs, there are four Member States in which all MNOs have obtained a sustainability derogation, namely, Estonia, Finland, Lithuania and Poland (in the latter only since 2018). Romania's smaller MNO was also granted a sustainability derogation. These countries are characterised by particularly low mobile data prices and high net outbound

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MVNOs do not have their own mobile networks and therefore cannot host roaming traffic from foreign operators’ subscribers. As a consequence, in bilateral wholesale roaming negotiations, where the price of wholesale roaming traffic is negotiated (below the regulated wholesale price cap set in the Roaming Regulation), MVNOs cannot exchange roaming traffic with their counterpart. They have to buy the full roaming traffic that their subscribers generate on foreign operators’ network.
roaming traffic (i.e. operators in these countries have much more roaming traffic by their customers abroad than they receive roaming traffic from foreign users on their networks). Operators in these countries were therefore the most likely to have resort to the derogation foreseen in the Roaming Regulation in order not to affect the level of domestic prices on these markets. Conversely, as expected no derogation has been granted to MNOs in Member States which are net recipients of inbound roaming traffic.

It is noticeable that operators applying for the derogation generally obtain it, which could be interpreted that the detailed methodology laid down in the Regulation (EU) 2016/2286 and further explained in actual tables in Annex to the BEREC Retail Roaming Guidelines together give a high level of predictability as regards the outcome of the procedure.

No new derogation, other than the renewal of already granted derogations, has been granted in the second year of RLAH. In France, a few derogations, and in Denmark and Spain the only derogation, have not been renewed. In the other Member States, the derogations that have lapsed have been renewed by NRAs after examination of the new applications submitted by operators. In most cases, the new maximum surcharges allowed by NRAs are lower than those of the first derogations, mainly due to the decreased wholesale roaming costs for data roaming. The assessment of the applications for a second renewal of the derogation for the third year of RLAH (starting on 15 June 2019) is being conducted by NRAs while this report is being prepared. According to the joint Commission/BEREC survey of March 2019, NRAs are expecting to grant in total around 30 derogations in 2019 and around 20 in 2020.

The concentration of derogations in a few of the low-data price Member States with large outbound roaming imbalances shows that this safeguard foreseen in the Roaming Regulation has effectively and successfully been used to avoid possible negative effects of RLAH on these domestic markets. This has allowed operators in these markets to keep their competitive domestic charging model and in particular their very low price level for domestic mobile data services, while allowing end users to still greatly benefit from the roaming reform (sections 4.2 and 4.5).

4.2 Operators authorised by the NRA to apply a surcharge still largely offer RLAH

Operators have used the derogations with some parsimony and introduced surcharges only in a subset of their tariff plans, so that the majority of the outbound roaming traffic from these countries still benefits from RLAH, except in Lithuania (see Figure 6 for data). In Poland for instance, the roaming surcharge is applied only to pre-paid customers and new

35 During the first RLAH year, the applications of one MVNO in its various Member States of operation were rejected by the NRAs concerned. In the second RLAH year, three applications were rejected.
36 See section 3.2 in BEREC Report on Transparency and Comparability of International Roaming Tariffs, December 2018, BoR(18)220.
37 10 of the 14 derogating MNOs have replied to the joint Commission/BEREC survey of March 2019. 7 of them apply the surcharge only in specific offers, and 3 of them apply it in all offers. 9 of the 15 responding MVNOs with the derogation apply the surcharge only in specific offers, while 6 of them apply it in all offers.
post-paid customers. In Lithuania, on the contrary, the surcharge is applied to old tariff plans, while many of the new tariff plans include RLAH. In Estonia, the surcharge is used mainly for pre-paid cards. In Finland, the derogation granted to two operators concerns data only. As noted by BEREC in its Opinion on the roaming market, overall, “operators granted a derogation still strive to apply RLAH as far as possible in order to remain competitive in the market”.

As a result of this limited use of the surcharge, in Poland, Finland and Estonia, only 5% to 7% of the retail (outbound) roaming data traffic was subject to the surcharge due to the derogation in summer 2018 (see Figure 6). This proportion reached 30% in Lithuania. For voice, 4% to 9% of the retail (outbound) roaming traffic in Estonia, Poland and Romania was subject to the surcharge to the derogation in summer 2018. This proportion reached 16% in Finland and 52% in Lithuania.

Figure 6: Percentage of retail data roaming services Q3 2018

![Figure 6: Percentage of retail data roaming services Q3 2018](image)

Source: 22nd International Roaming BEREC Benchmark Data Report, covering April 2018 – September 2018, BoR(19)21, March 2019

Finally, in all cases, the maximum surcharges allowed by the NRAs are at or – sometimes even significantly – below the wholesale roaming price caps, so that, when a surcharge is applied, the customers concerned pay only a small fraction of what they used to pay for roaming services before June 2017 (less than 10% for data).

As a result of the partial application of the surcharge and its modest level, increases in retail roaming traffic by subscribers from Finland, Lithuania, Estonia and Poland are comparable to that observed in the other Member States (see Figure 7 for data).
Figure 7: Retail roaming data traffic index, Q3 2016, Q3 2017, Q3 2018*

*Reference period: Q3 2012= 100, Croatia: Q3 2014= 100
Source: 22nd International Roaming BEREC Benchmark Data Report, covering April 2018 – September 2018, BoR(19)21, March 2019

4.3 Issues encountered by NRAs while assessing operators' applications for a derogations and clarifications sought in Regulation (EU) 2016/2286

The Roaming Regulation entrusts NRAs with the full responsibility of assessing the applications for a sustainability derogation filed by their operators and deciding whether to grant such derogation or not to a given applicant. NRAs must conduct this assessment following the detailed methodology laid down in Regulation (EU) 2016/2286. To facilitate the filing of the application by the operators and the NRA’s assessment and to ensure a consistent approach across the Union, the BEREC Retail Roaming Guidelines include an annex specifying the data to be provided by the applicant in pre-formatted tables. This common template for supplying the data to support the application has been used by all applicants. To further strengthen a consistent approach to the assessment by NRAs, the Commission services have been in close contact with the NRAs concerned while they were assessing the derogation applications submitted to them.
Also, the 2019 joint Commission/BEREC survey to NRAs requested explicit feedback from them on any clarifications or corrections they would consider necessary in Regulation (EU) 2016/2286 based on their actual experience of the first rounds of derogations.

According to that survey, the vast majority of NRAs (27 out of 30) do not think there is a need to amend Regulation (EU) 2016/2286 to clarify the text as regards the sustainability derogation.

One point made concerns the methodology to forecast the retail roaming volumes of the following year. According to the methodology included in Regulation (EU) 2016/2286, such forecasted volumes for prolongation requests should be based on the average daily domestic use of the mobile services per user, multiplied by the number of roamers and the average number of days abroad. However, in some specific cases, this forecast methodology has proven to significantly overestimate the retail roaming volumes over the following period, as the daily use of roaming services has remained significantly lower than the daily use of domestic services.

It is the responsibility of the NRA to verify the plausibility of the forecasted volumes provided by the applicant. On the basis of information provided to the Commission, for that purpose, some NRAs have compared actually observed volumes of roaming consumption during the preceding period to the projections made the year before. The methodology included in the Regulation (EU) 2016/2286 for forecasting retail roaming volumes is based on the assumption that an end user would consume mobile services while roaming like they use at home, since RLAH rules ensure the end user that there is no difference in price. This may take some time to materialise as changes in end users' behaviour are not immediate. But it is expected that roaming and domestic consumption will progressively align.

On the basis of information provided to the Commission, verifying the plausibility of the roaming volumes forecasted by the applicant using the methodology included in the Regulation (EU) 2016/2286 for applications for a derogation renewal, has led to the conclusion that adjustments need to be made to that methodology in order to reconcile the forecast with past observations of domestic and roaming usage. As it results from information provided by the NRAs, the number of roamers and the average number of days abroad, used in this forecast methodology, need particular scrutiny from the NRA, as consistency between monthly and yearly estimates of these numbers need be ensured and in line with the travel patterns of the country's residents as reported by Eurostat.

It must be recalled in that regard that the Roaming Regulation itself establishes a strict cost recovery principle. Article 6c(1) of the Roaming Regulation provides that "[t]hat surcharge shall be applied only to the extent necessary to recover the costs of providing regulated retail roaming services …". It results from this provision that NRAs have to ensure that the retail

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38 Joint Commission/BEREC survey of NRAs, March 2019.
roaming losses are not overestimated, which implies that the forecasted retail roaming volumes are not over-estimated.

One NRA notes that the costs of providing the balanced part of wholesale roaming services are not taken into account in the methodology laid down in Regulation (EU) 2016/2286 (Article 7). The latter takes into account Article 6d(3) point (a) of the Roaming Regulation, which defines the “determination of the overall actual and projected costs of providing regulated retail roaming services by reference to the effective wholesale roaming charges for unbalanced traffic (…)

As it results from the information provided to the Commission, NRAs have noted the following

- additional scrutiny is needed as regards the projection of wholesale (inbound) roaming volumes. Underestimated inbound roaming volumes lead to overestimated unbalanced outbound roaming volumes. In that regard, since inbound wholesale roaming to a given Member State is coming from various Member States, it seems reasonable to apply to the observed inbound roaming volumes the same growth rate as that observed for the EU average domestic use of mobile services;
- the wholesale roaming prices used in the application need to be supported by evidence from wholesale roaming contracts, projections need to take into account the decreasing price levels for the next period;
- operators that are part of a group do not always demonstrate in their application a certain capacity to internalise wholesale roaming costs; a group subsidiary whose roaming customers are hosted in large part on the group’s network abroad is not expected to encounter sustainability issues requiring a derogation;
- estimates of the revenues deriving directly from traffic of mobile retail services originated in a visited Member State (i.e. revenues from the roaming surcharge applicable once fair use policy is exhausted) in the absence of the derogation need to be appropriately supported by evidence and explanations on how they were calculated; in particular, revenues from roaming data consumption beyond the fair use volume limit in the case of open data bundle need to be duly taken into account.

The Commission services will discuss with NRAs and BEREC about the need and opportunity to develop BEREC Retail Roaming Guidelines on (some of) these points.

4.4 Feedback from MNOs and MVNOs regarding the provisions of the Regulation (EU) 2016/2286 on the sustainability derogation

The 2019 joint Commission/BEREC survey to MNOs and MVNOs requested explicit feedback on any problems they may have identified in the regime provided in Regulation (EU) 2016/2286 concerning the sustainability derogation. Only 5% of the MNOs and 11% of

39 Joint Commission/BEREC survey of MNOs and MVNOs, March 2019
the MVNOs responding to the survey have identified such problems. However, none of them specifies any identified specific problems as regards the provisions of this regulation.

The problems raised by MVNOs are mainly the general complexity of the methodology to apply for a sustainability derogation which is demanding for small operators. The analysis undertaken when the act was adopted showed the need for all such information for the declared purpose.

One comment notes that the methodology is not clear about new entrants' application. As it results from recital (24) of Regulation (EU) 2016/2286, NRAs should ensure that the assumptions used are consistent, by taking into account the commercial positioning and customer bases. Such assumptions are able, therefore, to be adapted to the specific situation of new entrants, by taking account of its intended commercial positioning on the market and targeted customer base of such a provider.

Finally, a couple of comments made by MNOs on the provisions of Regulation (EU) 2016/2286 concern some of the basic principles of the derogation mechanism and of consumer protection, such as counting a relevant share of domestic retail revenues as retail roaming revenues\(^{40}\), and the right of the customer to withdraw from the contract when the operator introduces the surcharge. However, the former point is at the core of the RLAH principle: roaming services in the EU/EEA are not charged separately from domestic services. As to the latter point, namely the right to withdraw, this is not a right enshrined in Regulation (EU) 2016/2286, but it is provided in the Universal Service Directive\(^{41}\) and remains in the new Code\(^{42}\).

4.5 Consumer perception

In June 2018, a Eurobarometer survey\(^{43}\) showed that in Finland, Lithuania and Estonia where all MNOs had been granted sustainability derogations since 15 June 2017\(^{44}\), the derogation, used with some parsimony by operators, did not alter the recognition by consumers of the benefits of the reform, which is even above the EU average in those countries: in Lithuania, Finland, and Estonia, respectively 80%, 77% and 76% of the respondents thought that they or someone in their family or among their friends benefit or will benefit from the end of the roaming charges when travelling in the EU/EEA, compared to 69% for the EU average.

\(^{40}\) Namely the share of outbound roaming traffic in the EU/EEA in total domestic + outbound EU/EEA and non-EU/EEA roaming traffic.


\(^{43}\) Flash Eurobarometer 468, The end of roaming charges one year later, June 2018, available here.

\(^{44}\) In Poland, derogations to 3 of the 4 MNOs were granted in 2018 and surcharges started to be applied on prepaid SIM cards and new post-paid contracts from mid-2018 only.
4.6 Conclusion

Sustainability derogations have been granted by NRAs to operators that were expected to be likely candidates for the derogation due to their particular situation, i.e. some MVNOs in some Member States and MNOs in some of the very low-data-price Member States with high roaming imbalances and/or low revenue per user (Estonia, Lithuania, Poland, Finland). The sustainability mechanism has therefore been applied as intended by the co-legislator and adequately worked as a safeguard to avoid distortions on domestic markets where needed. In its Opinion on the roaming market, BEREC notes that it has been a useful tool for some operators to achieve the overall sustainability of the RLAH.

In addition, the derogation has not prevented the concerned end users to massively benefit from the new roaming rules. First, despite the derogation, due to competitive pressure, many MNOs and MVNOs still offer large volumes of roaming services without surcharges to their subscribers in order to remain competitive on their domestic market. Second, where they apply the allowed roaming surcharge, the latter is drastically reduced compared to before 15 June 2017 (by more than 90% for data), so that the concerned customers do substantially benefit from a massive decrease in roaming prices even in such cases. In all cases, the surcharges authorised by the NRA and applied by the operator are below, and often well below, the wholesale roaming price cap, in accordance with the rule whereby any surcharge should be applied only to the extent necessary to recover the costs of providing regulated retail roaming services which could otherwise provoke a domestic price increase.

The Commission services are closely monitoring the derogations granted and renewed by NRAs to ensure compliance with the Roaming Regulation and consistency in the application of the Commission Implementing Regulation (EU) 2016/2286 across the Union. In its interim Report, the Commission has invited NRAs to exercise the same acute scrutiny when reviewing derogation applications. NRAs have the power to reconsider their decisions during the validity period of a granted derogation in view of new developments and/or new information regarding the situation of the operator.

As stated in its interim Report, the Commission expects derogations to gradually disappear, as further declines in regulated wholesale roaming price caps for mobile data services take effect, improving the sustainability of RLAH in these countries. In its Opinion on the roaming market, BEREC notes that the derogation mechanism concerns a small and shrinking part of the market and that NRAs too expect the number of derogations to decrease in the coming years.

As a consequence as it results from the analysis above, the Commission services observe that the evidence available to date would not support at this stage a change in the rules on the assessment of sustainability applications.

5 Evolution of Domestic Markets

As noted by BEREC in its Opinion on the roaming market, operators report to have maintained the overall availability of their tariff plans under RLAH. According to BEREC,
the overall domestic tariff structure remains in most cases unchanged. Tariff plans which have been removed are mainly legacy tariff plans, as this happens on a regular basis.

5.1 Overall, domestic-only mobile offers are limited and mostly in the pre-paid segment of the market

According to the most recent BEREC IR Benchmark Reports\textsuperscript{45}, the proportion of EU/EEA subscribers that had a roaming-enabled SIM card has remained stable around 96% since summer 2017. SIM cards restricted to domestic use (i.e. SIM cards providing no roaming service abroad at all) are in most cases pre-paid cards serving local communication needs and/or data-only plans or fixed wireless access products that can only be used at a specific location\textsuperscript{46}.

Domestic-only tariff plans have therefore remained marginal, except in Romania, Estonia, Latvia and Bulgaria where more than 10% of the users have taken up domestic-only offers. Between Q4 2017 and Q3 2018, this proportion has declined substantially in Estonia (from 20% to 12.5%), has remained relatively stable in Romania and Latvia but has increased in Bulgaria (from 11% to 17%). From the other Member States, Austria presented a substantial increase in domestic-only subscribers (from 4% to 9% between summer 2017 and the first quarter 2018, mainly MVNO subscribers) and so did Finland (from 1% to 8.5% between Q4 2017 and Q3 2018). On the other hand this proportion has drastically declined in the Netherlands (from 5% to close to 0 between Q4 2017 and Q3 2018).

In general, MVNOs have a higher share (and sometimes a significantly higher share) of domestic-only subscribers than MNOs, which is likely to be attributable in part to the customer segments that they typically target. In all EU/EEA countries however, the proportion of domestic-only mobile subscribers remains well below the proportion of the population that has not travelled abroad over the last year. As stated in its interim Report, the Commission will monitor the evolution of domestic-only tariff plans as the wholesale roaming data price cap continues to decline. The declining trend in domestic prices persists overall in the EU/EEA

According to the study “Mobile Broadband Prices in Europe 2018”\textsuperscript{47}, in the period from February 2017 to February 2018 (i.e. from 3 months before the introduction of RLAH to 9 months after) there is no trend for increasing domestic prices.

On the contrary, between those two dates, the EU average price has decreased for all voice and data baskets as well as for all data-only baskets, as reflected in the following tables:

\textsuperscript{45} 20th, 21st and 22nd International Roaming BEREC Benchmark Data Report, covering respectively April 2017 - September 2017, October 2017 - March 2018 and April 2018 - September 2018.

\textsuperscript{46} BEREC Report on Transparency and Comparability of International Roaming Tariffs, December 2018. Only 17% of operators declared having removed roaming services from some specific tariff plans.

\textsuperscript{47} Mobile Broadband Prices in Europe in 2018, a study conducted for the European Commission by Empirica.
According to this study, only five Member States exhibit an increasing trend in prices for packages that include voice and data (BG, IE, LV, MT, SE) while twelve exhibit a decreasing trend (AT, BE, FR, DE, HU, IT, NL, PL, PT, RO, ES, UK). Prices in the remaining Member States either remain stable or present a mixed trend, decreasing for certain baskets and increasing for others.

The situation is quite similar for data-only packages. Five Member States exhibit an increasing trend (HR, DK, EE, LT, MT) while eight Member States exhibit a decreasing trend (FI, FR, IE, IT, NL, PL, SE, UK).

Such trends do not present major deviations from the ones of previous years, taking also into account the changing maturity level of the data services.

In the same direction, in its Opinion on the roaming market BEREC observes that domestic consumption patterns have remained relatively stable following the introduction of RLAH, and so has the average retail revenue per user (ARRPU).

### 5.2 Increase in mobile broadband take up and 4G coverage continues

The introduction of RLAH does not seem to have influenced mobile broadband uptake in a positive or negative manner nor to have affected mobile operator's investments to expand their 4G networks.

According to the recent Digital Economy and Society Index (DESI) study, mobile broadband uptake continues to increase EU-wide, reaching 96% in mid 2018 compared to 89.9% in mid 2017 and presenting a steady pace of increase compared to previous years.

At the same time, EU-wide 4G population coverage has reached 94.4% in mid 2018 (compared to 90.9% in mid 2017 and 85.5% in mid 2016). In the majority of Member States (see Figure 8), 4G coverage exceeds 90% while in only one it is below 80%. From the Member States where 4G coverage was below 90% in end 2017 (8 in total) the increase achieved during 2018 was in all but two (Germany and Greece) higher than 5%.

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5.3 On average non-EU/EEA roaming prices are decreasing

According to the last BEREC data, between Q1 2017 and Q3 2018 retail roaming prices of EU/EEA mobile operators in non-EU/EEA countries have presented a sharp decline on average: 81% for data services and 46% for calls made. Specifically in the past 12 months (Q3 2017 to Q3 2018) the decline has been 62% for data services and 39% for calls made. Overall therefore, as also observed by BEREC in its Opinion on the roaming market, abolishing intra-EU/EEA roaming prices have not come at the price of higher roaming prices in the rest of the world (so-called "waterbed effect")\textsuperscript{49} In particular, more and more operators include some popular non-EU/EEA destination countries in their RLAH offering or apply a reduced roaming fee to those countries\textsuperscript{50}.

6 Conclusion

As concluded by BEREC in its recently published Opinion on the roaming market, “the abolition of retail roaming charges in the EU/EEA (...) in June 2017 proved to be a clear success and a substantial contribution to the further completion of the single market”. The

\textsuperscript{49} This overall evolution is an average. It does not exclude punctual increases in roaming prices in some non-EU/EEA countries in some tariff plans in some Member States. This may be the case in particular for less visited non-EU/EEA destination countries.

\textsuperscript{50} According to the BEREC Report on Transparency and Comparability of International Roaming Tariffs, BoR(18)220, December 2018, almost half of the operators do so.
rapid and massive increase in mobile consumption while travelling in the EU/EEA has revealed the considerable roaming needs of consumers that were unmet before the RLAH reform. In summer 2018, mobile data consumption while roaming in the EU/EEA was 12 times greater than in summer 2016, the last summer before RLAH\textsuperscript{51}. The volume of roaming voice calls minutes increased by a factor of 3.

The above analysis shows that FUP measures provided for in Regulation (EU) 2016/2286 constitute a complete toolset, which can effectively address the issues linked to the abusive or anomalous usage of roaming services at domestic price beyond periodic travel, as well as consumption of volumes of roaming data at domestic prices that would undermine the provision of the most competitive data offers on domestic markets.

The sustainability derogation mechanism has been relevant only for a small and shrinking part of the market overall in the EU/EEA. It addresses, as intended, objective difficulties due to specific circumstances in some markets combining very low data prices and high roaming imbalances. Operators which have been granted derogations typically make limited use of it in order to remain competitive on the market.

No major impact has been observed on the domestic markets. Overall the availability of operators’ tariff plans and their domestic tariff structures have been largely unchanged.

Therefore, it can be observed from the evidence available to date that both measures have adequately worked as a safeguard to avoid distortions on domestic markets and that this evidence would not support the conclusion that these rules would need to be changed.

The Commission services will continue to assess the functioning of the rules on fair use policy and the sustainability derogation mechanism in the context of the full review of the Roaming Regulation. In accordance with Article 19 (3) of the Roaming Regulation, the Commission has to present a report to the European Parliament and to the Council on the effects of the abolition of retail roaming charges, including an analysis of the wholesale roaming market, by 15 December 2019.

\textsuperscript{51} 22\textsuperscript{nd} International Roaming BEREC Benchmark Data Report, April 2018 – September 2018, BoR(19)21, March 2019.