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**COMMISSION STAFF WORKING DOCUMENT**

**IMPACT ASSESSMENT**

*Accompanying the document*

**COMMISSION IMPLEMENTING REGULATION (EU) No .../..**

**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**

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## 1. POLICY BACKGROUND

Since 2006 the Commission has taken action to address the high roaming charges paid by consumers for using their mobile phones when travelling abroad in another EU Member State.

In 2015, the European Parliament and the Council completed the process of adoption of Regulation 2015/2120<sup>1</sup>, which entered into force on 29 November 2015 and, inter alia, amended Regulation 531/2012<sup>2</sup> on roaming on public communications networks within the Union. In the rest of the document, Regulation 531/2012 as amended by Regulation 2015/2120 is called the Roaming Regulation. Taking into account the importance for the effective establishment and functioning of a telecom single market of achieving the objective of no differentiation between national and roaming tariffs, the policy makers considered necessary to ensure this objective directly, hence with these 2015 amendments the co-legislators directly mandated the abolition of retail roaming surcharges in the EU from 15 June 2017 for end users periodically travelling within the EU.

Moreover, in order to avoid distortions in domestic and visited markets, the Roaming Regulation allows operators to make the provision of roaming services at domestic prices subject to a *fair usage* of roaming services. The Roaming Regulation further provides for a *sustainability* derogation mechanism applicable in exceptional and specific circumstances, whereby the operator may continue applying a retail roaming surcharge after 15 June 2015.

This new regulatory system for retail roaming services in the EU defined in the Roaming Regulation is referred to as the "roam-like-at-home" (RLAH) in the remainder of the report.

### Wholesale roaming market review

Since a wholesale roaming market functioning properly is a precondition for achieving the RLAH regime at retail level, the Roaming Regulation entrusted the Commission with the task of reviewing the national wholesale roaming markets and make, by 15 June 2016, appropriate proposals to enable the abolition of retail roaming surcharges in the EU from 15 June 2017. In line with this mandate, on 15 June 2016, the Commission adopted a legislative proposal on regulating wholesale roaming markets<sup>3</sup>. The date of application of the RLAH rules, 15 June 2017, is subject to the adoption by the co-legislators of the legislative proposal and its applicability by that date.

### Fair use policy

Article 6b of the Roaming Regulation provides that the operator of the roaming subscriber (s.c. 'home operator') may apply a fair use policy (FUP) to the consumption of roaming services at domestic prices in order to prevent abusive or anomalous usage of roaming services by customers, such as the use of such services by roaming customers in a Member

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<sup>1</sup>[http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2015.310.01.0001.01.ENG&toc=OJ:L:2015:310:TOC](http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.310.01.0001.01.ENG&toc=OJ:L:2015:310:TOC)

<sup>2</sup> <http://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32012R0531>

<sup>3</sup> Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets. The accompanying Review Staff Working Document (SWD) and the impact assessment include an overview of EU roaming regulation since 2007 as well as a description of the evolution of retail and wholesale roaming prices.



State other than that of their domestic provider for purposes other than periodic travel. Any such fair use policy should in any case enable the roaming provider's customers to consume volumes of regulated retail roaming services at the applicable domestic retail price that are consistent with their respective tariff plans.

Roaming traffic consumed in excess to the FUP applied by the operator may be subject to a roaming surcharge in accordance with Article 6e of the Roaming Regulation<sup>4</sup>.

### Sustainability mechanism

Article 6c of the Roaming Regulation envisages a sustainability derogation to the provision of RLAH. According to that article, after the entry into force of RLAH (expected for June 2017), an (home) operator may ask its national regulatory authority (NRA) for an authorization to continue to apply a retail roaming surcharge beyond 15 June 2017. To do that, the operator will have to demonstrate, within the technical parameters established by a specific implementing act, an observable risk that abolishing retail roaming surcharges would undermine the sustainability of its domestic charging model, thus creating a risk of appreciable upward adaptation of its domestic prices (a "waterbed effect"). The expression "sustainability of RLAH" should be understood as referring to this test in the rest of this document.

### Detailed rules on the application of fair use policy and on the sustainability mechanism

In order to ensure the consistent application of the FUP as well as of the derogation mechanism across the EU, Article 6d of the Roaming Regulation confers implementing powers on the Commission to lay down, by 15 December 2016 and after consulting the Body of European Regulators in Electronic Communications (BEREC), detailed rules on the application of fair use policy by mobile operators and on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by an operator for the purposes of that assessment.

### Objective of this impact assessment

This impact assessment seeks to determine:

- (i) the best way to define detailed rules on the application of fair use policy; and
- (ii) the best way to define detailed rules on the methodology for assessing the sustainability of the abolition of retail roaming surcharges and on the application to be submitted by an operator for the purposes of that assessment

According to Article 6d of the Roaming Regulation, when defining detailed rules on the application of fair use policy, the Commission needs to take into account the following:

- the evolution of pricing and consumption patterns in the Member States;
- the degree of convergence of domestic price levels across the EU;

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<sup>4</sup> I.e. up to 0,05€ per minute of calls made, up to 0,02€ per SMS sent, 0,05€ per MB of data, the weighted average of maximum mobile termination rates per minute of call received, in addition to the domestic tariff conditions, provided that the overall amount does not exceed 0,19€ per minute of call received, 0,06€ per SMS and 0,20€ per MB.

- the travelling patterns in the EU;
- any observable risks of distortion of competition and investment incentives in domestic and visited markets.

According to Article 6d of the Roaming Regulation, when laying down detailed rules on the methodology for assessing the sustainability of the abolition of retail roaming surcharges for a roaming provider, the Commission shall base them on the following:

- 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 and a reasonable share of the joint and common costs necessary to provide regulated retail roaming services;
- the determination of overall actual and projected revenues from the provision of regulated retail roaming services;
- the consumption of regulated retail roaming services and the domestic consumption by the roaming provider's customers;
- the level of competition, prices and revenues in the domestic market, and any observable risk that roaming at domestic retail prices would appreciably affect the evolution of such prices.

## **2. PROBLEM DEFINITION**

### **2.1. What is the problem?**

#### **2.1.1. Fair use policy**

With the abolition of retail roaming surcharges in the EU, the same tariff conditions apply for the use of mobile services while roaming abroad in the EU and at home (i.e. in the country of the mobile subscription of the customer). The RLAH rules aim at eliminating divergences between domestic prices and those applying to roaming when periodically travelling within the Union. However the RLAH rules are not meant to enable permanent roaming across the Union, i.e. the situation where customers residing in countries where domestic mobile prices are higher buy services from operators established in countries where domestic mobile prices are lower, with a view to roam permanently in their country of residence.

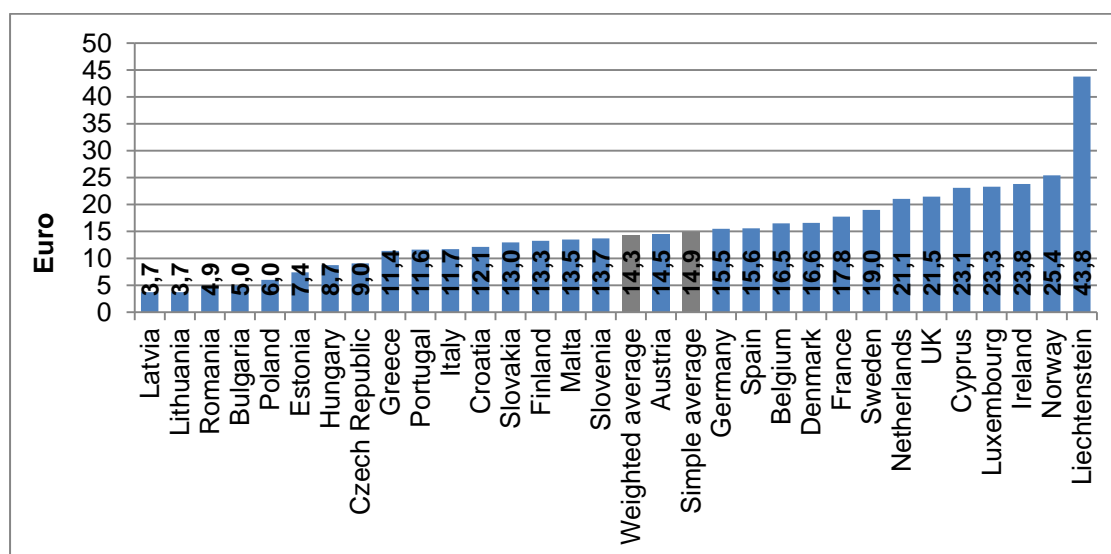
As shown by BEREC in its Report on the wholesale roaming market<sup>5</sup>, the Average Retail Revenue per User (ARRPU) of mobile services and the consumption patterns vary considerably across Member States (Figure 1). This reflects very different levels of retail prices for mobile services in the EU, due to different national regulatory and market characteristics in particular. Within the EU, there is a factor 6.4 between the lowest ARRPU per month (3.7 EUR in Latvia and Lithuania) and the highest one (23.8 EUR in Ireland)<sup>6</sup>.

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<sup>5</sup> BEREC Report on the wholesale roaming market, BoR(16)33, 29 February 2016, see section 2.1.

<sup>6</sup> As a complement to ARRPU as indicator of price levels, BEREC also provides an analysis of consumption patterns in section 2.2 of their report. Also these data, while they cannot be synthesised in one single indicator, allow to confirm a similar magnitude of prices divergences between countries with relatively low ARRPU and relatively high consumption on the one hand (such as EE, LV, and FI) and those with relatively high ARRPU accompanied by relatively low consumption (such as FR, LU, NL).

**Figure 1: Average Retail Revenue per User (ARRPU) in EUR per month**



Source: BEREC Report on the wholesale roaming market, BoR(16)33, February 2016  
Data NRA input, September 2015

The abolition of retail roaming surcharges therefore raises the risk that in Member States with high domestic prices, SIM cards from low-price countries could be used to substitute the more expensive domestic offers, potentially on a systematic basis through arbitrage-based business models.

Such a provision of retail roaming services at domestic prices on a permanent basis may distort both home and visited markets. On the visited market, visited operators would have to compete directly with domestic service providers of other Member States, where prices, costs, regulatory and competitive conditions may be very different, and on the basis of wholesale roaming conditions set close to cost for the sole purpose of facilitating periodic roaming. For the home operator the permanent use of domestic tariffs while roaming may lead to the denial of wholesale roaming services by visited operators, or the provision of restricted volumes, with consequential effects on the home operator's ability to serve its normal domestic clients when they periodically roam. Moreover, the permanent use by end-users of roaming at domestic tariffs would constitute an abusive exposure of the home operator to the costs of providing retail roaming services, which the home operator is entitled to prevent.

Given the large differences in mobile services' prices across Member States, the co-legislators have estimated that the risk of arbitrage via roaming services, possibly scaled up through organised businesses, was high enough to justify the inclusion, in the Roaming Regulation, of a safeguard enabling the home operator to prevent it. That safeguard consists in allowing operators to apply fair use policies (FUP) to the use of retail roaming services at domestic prices. However, in order to avoid that RLAH may actually be jeopardised by the uncoordinated and restrictive application of these FUPs by operators, the Roaming Regulation makes any applicable FUP subject to the criteria laid down in the Roaming Regulation itself and to further detailed rules to be laid down by the Commission.

Operators have an interest in using FUP to limit their exposure to RLAH. In the public consultation, half of the operators are of the view that the FUP time limit should be around the average number of days of EU residents abroad in the EEA per year, which operators claim is between 6 and 12 days per year according to BEREC Report on roam-like-at-home<sup>7</sup>. Some operators in the public consultation propose slightly more generous time limits, but still not covering roaming needs of large proportions of travellers who however cannot be plausibly considered abusive users of roaming.

In addition, a comparison with some of the emerging "fair use policies" applied to RLAH tariff plans, where available, shows a general tendency towards limitation of RLAH consumption to a subset of domestic volumes (in particular with daily limitations) and/or for limited periods, despite the fact that these options are often offered with the more expensive domestic plans.

It is therefore to be expected that in the absence of any more detailed rule on FUP, the market would deliver an excessively restrictive limit to RLAH which would not be compatible with the objective of the Roaming Regulation, a contradiction that might only be resolved by time-consuming NRA enforcement action or consumer litigation which would mean that the expected benefits of RLAH would not be realised in practice from mid-2017.

The problem to be tackled is therefore to prevent any application of FUPs across the EU which may endanger the general objective of the Roaming Regulation<sup>8</sup>, i.e. to abolish retail roaming surcharges for those periodically travelling in the EU, while at the same time guarding against abuses, in particular where a regulated roaming regime that has been designed for Europeans travelling outside their Member State of residence would be exploited to benefit permanently from the domestic prices of another Member State, where costs and competitive conditions may be very different.

**Figure 2: FUP - Parts of the problem, drivers and consequences**

Drivers	Problem	Consequences
<ul style="list-style-type: none"> <li>- From 15 June 2017, retail roaming services must be charged at domestic prices (no more retail roaming surcharges) subject to a fair use of these services (roam-like-at-home (RLAH) rules).</li> <li>- Any application of fair use policy (FUP) is subject to criteria only defined in broad</li> </ul>	<ul style="list-style-type: none"> <li>Too general criteria in defining limits of FUPs meant to prevent anomalous</li> </ul>	<ul style="list-style-type: none"> <li>- <u>If FUP application rules are entirely left to the choice of the operator or if they are too restrictively defined at EU level:</u> Users do not fully enjoy the benefits of RLAH and continue to pay a roaming surcharge in addition to the domestic price during at least part of their travelling time abroad in the EU.</li> </ul>

<sup>7</sup> BEREC, Analysis of the impacts of Roam-Like-At-Home (RLAH)", BoR(14)209, December 2014

<sup>8</sup> The problem is not to assess the risk of abusive or anomalous use of roaming services at domestic price. This risk has been assessed by the co-legislators to be high enough to justify a safeguard in the Roaming Regulation in the form of fair use policy, which operators are explicitly authorised to apply subject to certain conditions. Therefore, the problem to be tackled is not whether the application of fair use policy by operators should be allowed or not. At the same time, the risks that a given possible minimum fair use policy would enable appreciable levels of arbitrage based on permanent roaming are concretely weighed up below when seeking to reconcile the objectives of the regulation.

<p>terms in the Roaming Regulation, namely</p> <ul style="list-style-type: none"> <li>• FUP should allow an operator to prevent abusive or anomalous use of roaming services such as permanent roaming;</li> <li>• FUP should allow the user to consume volumes of roaming services that are consistent with its domestic tariff plan.</li> </ul> <p>- Operators' incentives in designing FUPs according to these general criteria are not fully aligned with users' needs and interests.</p>	<p>and abusive use of RLAH, such as for purposes other than periodic travelling, may lead to overly restrictive FUPs imposed by operators and/or lack of transparency and legal uncertainty for operators and users across EU.</p>	<p>- <u>If FUP application rules are inadequately defined at EU level:</u> The permanent use of domestic tariffs while roaming may lead to wholesale-level consequences for the home operator and ultimately may affect its ability to serve its domestic customers with competitive roaming services when they periodically travel.</p>
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### 2.1.2. Sustainability mechanism

The analysis presented in the impact assessment<sup>9</sup> accompanying the Commission legislative proposal on wholesale roaming markets<sup>10</sup> shows that current wholesale roaming caps (5€/min, 2€/SMS and 5€/MB) would not enable sustainable RLAH in 2017 for a substantial number of operators based in many Member States, i.e. current caps do not enable the sustainability of domestic charging models while abolishing retail roaming surcharges.

To avoid this situation, while at the same time ensuring cost recovery in the provision of roaming services for all EU visited operators, the Commission has proposed to substantially reduce the wholesale roaming caps to 4€/min for voice, 1€/SMS for SMS and 0.85€/MB for data. According to the Commission's analysis, these new caps should greatly limit the cases where an operator would have to increase domestic prices to be able to comply with the new RLAH system.

The Roaming Regulation recognises, however, that an operator may not be able, in specific and exceptional circumstances, and in spite of wholesale price reductions, to recover the costs of providing regulated retail roaming services, thereby undermining the sustainability of its domestic charging model.

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<sup>9</sup> Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

<sup>10</sup> Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

As illustrated in Recital (23) of Regulation 2015/2120<sup>11</sup>, this may be the case, for example, of flat-rate domestic retail models of operators with significant negative traffic imbalances, where the implicit domestic unit price is low and the operator's overall revenues are also low relative to the roaming cost burden, or where the implicit unit price is low and actual or projected roaming services consumption is high.

In order to further avoid the risk of domestic price increases (the so-called 'waterbed effect'), the Roaming Regulation provides that operators, upon authorisation by the NRA, should, in some specific circumstances, be able to apply a surcharge to regulated retail roaming services only to the extent necessary to recover all relevant costs of providing such services.

The Roaming Regulation is rather specific in establishing the characteristics of the sustainability mechanism, but there are also a significant number of elements of a more technical character that need to be clearly defined. In fact, the Roaming Regulation itself asks the Commission to define the contours of a sustainability mechanism in an implementing act.

The problem to be tackled is therefore to prevent any fragmentation or technical problem in the assessment of operator's sustainability applications by NRAs, which might either prevent a widespread application of the RLAH model by granting the application of a surcharge to operators not facing exceptional circumstances, or a waterbed effect in domestic markets by denying such surcharge<sup>12</sup>. If the open issues of the sustainability mechanism as described in the Roaming Regulation are impactful and relevant, then a serious risk of fragmentation would also emerge, as NRAs would in fact be applying different criteria in assessing the sustainability of their domestic operators.

**Figure 3: Sustainability mechanism Parts of the problem, drivers and consequences**

Drivers	Problem	Consequences
<ul style="list-style-type: none"> <li>- From 15 June 2017, retail roaming services must be charged at domestic prices (no more retail roaming surcharges) subject to a fair use of these services.</li> </ul>		If the definition of the sustainability assessment is entirely left to each NRA, this might lead to:
<ul style="list-style-type: none"> <li>- In spite of the Commission proposal to reduce the wholesale caps, in exceptional cases some operators might still face real problems in maintaining their domestic charging model unaltered.</li> </ul>	The risk of too divergent or technically inadequate criteria in the application of the sustainability mechanism by NRAs	<ul style="list-style-type: none"> <li>- Limited application of the RLAH model due to too many derogations being granted.</li> <li>- Waterbed effects due to too few derogations being granted.</li> </ul>
<ul style="list-style-type: none"> <li>- The Roaming Regulation might not be specific enough in defining the</li> </ul>		<ul style="list-style-type: none"> <li>- Fragmentation and</li> </ul>

<sup>11</sup> In this impact assessment, the recitals referred to are those of the amending Regulation (Regulation 2015/2120). As, contrarily to articles, recitals do not become part of the amended Regulation (Regulation 531/2012), they cannot be referred to as recitals of the Regulation.

<sup>12</sup> The problem is not to assess the risk that some operators may have sustainability problems under RLAH. This risk has been assessed by the co-legislators to be high enough to justify a safeguard in the Roaming Regulation in the form of a derogation mechanism subject to ex ante authorisation by the NRA. Therefore, the problem to be tackled is not whether such a mechanism should be foreseen or not.

sustainability mechanism to prevent a fragmented RLAH landscape where NRAs apply different criteria to assess operators' sustainability.

disruption of domestic markets and the Digital Single Market.

### **2.1.3. Link between fair use policy and the sustainability mechanism**

In substance, a more stringent FUP is expected to mechanically reduce the risks that an operator may have sustainability problems and apply for a sustainability derogation.

However, the Roaming Regulation provides that FUP may be applied by an operator to prevent an abusive or anomalous use of roaming, such as permanent roaming; FUP is not intended to be used to limit the exposure of home operators to RLAH and make RLAH more sustainable for them; FUP is not an adjustment variable to increase the sustainability of RLAH.

According to the Roaming Regulation therefore, the question of reducing the potential number of derogations by adjusting the FUP is not to be considered by the Commission. Sustainability is not a criterion to be taken into account by the Commission in laying down detailed rules on FUP and against which FUP should be assessed. In that perspective, in the Roaming Regulation, the FUP and sustainability are not linked. This conclusion is not affected by the fact that the choices made by roaming providers regarding the application of a more or less generous FUP (within the margins determined by the implementing act) may themselves be dictated by considerations of profitability / sustainability.

It is the purpose of the wholesale roaming review to determine the level of the wholesale roaming caps that allows RLAH to be sustainable for most operators while covering non-abusive roaming needs of non-abusive travellers. In that regard, the Commission Services have assessed that with the level of wholesale roaming caps proposed by the Commission (4 ¢cent/minute, 1 ¢cent/SMS, 0.85 ¢cent/MB) RLAH is sustainable for most operators without restricting in any way the roaming consumption already experienced by operators in 2014-2015 and projected in 2017<sup>13</sup>.

## **2.2. Who is affected?**

The application of FUP limits to the amount of roaming traffic subject to RLAH will first of all concern users of mobile services and their ability to fully benefit or not from the abolition of roaming surcharges while travelling across the EU.

Depending on how the criteria laid down in the Roaming Regulation will be applied, moreover, different consequences may derive for home operators. In particular, although FUP is not designed to address this issue, the terms under which FUP may be applied by operators to their domestic customers can determine their degree of exposure to the wholesale and other costs of providing retail roaming services in return for RLAH revenues.

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<sup>13</sup> SWD(2016)202, Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

Finally, the application of FUPs by home operators will also have an indirect impact on visited operators, since FUPs are meant to prevent the diffusion, in the visited countries, of competitive offers from other countries via permanent roaming.

The proper application of the sustainability mechanism will first of all concern users of both domestic and roaming mobile services. Roaming consumers could fully benefit or not from the abolition of roaming surcharges while travelling across the EU. At the same time, domestic users could see their domestic prices being increased appreciably or simply kept at current market levels with a new service being introduced into their tariff plans.

Depending on how the criteria laid down in the Roaming Regulation will be applied by NRAs, different consequences may derive for home operators, who may have to increase domestic prices appreciably if a sustainability derogation is not granted or face domestic and roaming market disruptions.

Both operators and NRAs might face significant technical difficulties if the sustainability mechanism defined in the Roaming Regulation is not specific enough.

### **2.3. What would happen if nothing is done?**

If nothing is done, according to Article 6b of the Roaming Regulation applicable from 15 June 2017, operators will be allowed to apply from that date FUPs to the consumption of roaming services at domestic price with no detailed rules on this application. In the absence of detailed rules on the application of FUP, there would be legal uncertainty on the definition of 'periodic travel', on what could be considered 'abusive' or 'anomalous' usage of roaming services, and on the 'consistency of volumes of roaming consumption with the domestic tariff plan' referred to in Article 6b of the Roaming Regulation. This would result in an inconsistent application of FUP across the EU. In particular, operators may apply restrictive FUPs that would limit the consumption of roaming services to levels that are not in line with the RLAH objective, with the aim either of restraining consumption and/or of earning additional revenues from surcharges on consumption levels in excess of the FUP applied by a given operator. As a result, the absence of more detailed rules on the application of FUP would endanger the overall objective of the Roaming Regulation.

If nothing is done, according to Article 6c of the Roaming Regulation applicable from 15 June 2017, operators will be allowed to apply for a sustainability derogation to their NRAs, who would have no detailed guidelines as to how the application should be assessed. In the absence of detailed rules, there is a risk that significantly divergent criteria will be applied, creating a situation that endangers the RLAH objective and the overall objective of the Roaming Regulation across the EU.

## **3. WHY SHOULD THE EUROPEAN UNION ACT?**

The Roaming Regulation requires the Commission to lay down, by 15 December 2016, detailed rules on the fair use policy that can be applied by operators and on the sustainability mechanism, in order to ensure the consistent application of these provisions across the Union. If these detailed rules are not adopted, the general rules laid down in the Roaming Regulation on fair use and the sustainability mechanism will still be applicable, although the applicable framework would be incomplete, in contrast with the mandate given by the co-legislators.

Indeed, the parent legislation provides for the legal basis of the implementing powers of the Commission, in order to ensure uniform conditions across the Union for implementing the



legislative criteria laid down in the Roaming Regulation, in accordance with Article 291 TFEU.

These uniform conditions are needed, since different approaches in policing and enforcing both the fair use practices applied by operators and the sustainability mechanism across the Union could jeopardise the availability of RLAH across Member States and provoke competitive distortions in the internal market, with EU residents unequally benefiting from RLAH conditions across Member States, on the basis of possible different criteria.

In particular, in the absence of uniform conditions operators could adopt different and potentially very restrictive FUPs, while NRAs could adopt different and inconsistent approaches in enforcing the application of FUP in accordance with the Roaming Regulation. Similarly, with regard to the assessment of the request for a sustainability derogation and the applied methodology, NRAs could adopt different and potentially inadequate and inconsistent technical measures in order to assess the sustainability of provision of RLAH by different operators.

In accordance with the principle of subsidiarity, therefore, national implementation of general limits to FUPs via NRAs' enforcement of the general legislative clause could not be sufficient to ensure the RLAH objective in the Union as set out in the Roaming Regulation. Indeed, such objective could be jeopardised by inconsistent enforcement approaches and/or the effective use of traffic under RLAH conditions across the Union could be hindered by lack of transparency and legal uncertainty as to the FUPs applicable. Similarly, national implementation of general sustainability principles via NRAs could not be sufficient to ensure that the RLAH objective in the Union as set out in the Roaming Regulation is not jeopardised by inconsistent approaches in the assessment of applications, leading to a patchwork of sustainability surcharges being applied across the Union.

On the contrary, a common approach at EU level could establish the necessary detailed rules ensuring that any FUPs adopted by operators across the Union legitimately pursue the objective to avoid competitive distortions within the internal market due to permanent roaming, while still ensuring that these FUPs do not jeopardise the rights conferred to users by the Roaming Regulation to consume roaming services at domestic conditions while periodically travelling in the Union. Moreover, common detailed rules at EU level would ensure that sustainability surcharges are strictly granted only to address waterbed effects and potential competitive distortions due to RLAH in exceptional and specific circumstances assessed on the basis of common criteria and methodologies, while still ensuring that the rights conferred to users by the Roaming Regulation to consume roaming services at domestic conditions while travelling in the Union are not jeopardized.

## **4. POLICY OBJECTIVES**

### **4.1. Fair use policy**

Article 6b of the Roaming Regulation foresees that operators providing retail roaming services may apply a FUP on roaming consumption at domestic prices. The application of FUPs to one or more domestic tariff plans is therefore a faculty of the operator, to be exercised consistently with two overarching objectives:

- A FUP may be applied in order to prevent abusive or anomalous usage of regulated roaming services such as the use of such services by roaming customers in a Member State other than that of their domestic provider for purposes other than periodic travel.

- Any FUP shall enable the roaming provider's customers to consume volumes of regulated retail roaming services at the applicable domestic retail price that are consistent with their respective tariff plans.

In this regard the Commission is empowered to adopt detailed rules to ensure the consistent application of FUPs across the Union. The objectives of these implementing rules are therefore to ensure that, on the one hand, FUPs adopted by operators across the Union enable the roaming providers' customers to consume volumes of traffic at RLAH conditions that are consistent with their respective domestic tariff plans while, on the other hand, still allowing the operator to effectively prevent abusive or anomalous usage of RLAH for purposes other than periodic travel.

This means that non-abusive users of roaming services, in particular users periodically travelling abroad in the Union, should not see their roaming consumption limited by any FUP, any more than their domestic consumption would be limited by the domestic price level. Only abusive roamers, i.e. a marginal share of users, should see FUP as a limitation. According to the Roaming Regulation, FUP is not an instrument to be used by the home operator to limit its general exposure to RLAH, i.e. any RLAH exposure linked to non-abusive travellers. It follows that the costs for home operators to provide RLAH as default to end users who engage in periodic travel, and in non-anomalous mobile roaming use during such travel, are not a relevant factor in considering the detailed application of the legislative text. Any difficulties encountered by operators are addressed through the wholesale roaming review and the sustainability mechanism.

In order to ensure that these two general objectives are met, therefore, the Commission Services are of the view that some specific objectives should guide the design of these detailed rules.

In particular, in order for end-users to be able to consume volumes while roaming that are consistent with their respective tariff plans (second objective of FUP laid down in the Roaming Regulation), FUPs should predictably cover the roaming needs of the vast majority of EU residents while they periodically travel abroad in the EU (coverage of users' need).

Moreover, in order for end-users to be able to consume volumes while roaming that are consistent with their respective tariff plans (second objective of FUP laid down in the Roaming Regulation), users should be able to easily understand the FUP they are subject to. This is why FUP should be transparent and simple (simplicity). This also came as a request from stakeholders, including both operators and consumers, in the public consultation.

Finally, these rules should be effective and flexible enough, in terms of implementation within the wide array of retail tariff plans that exist, in order to enable operators to effectively prevent the risk of permanent roaming, either of individual users/subscriptions or in view of anomalous usage schemes/behaviour of a more systematic character (ability to prevent arbitrage, first objective of FUP laid down in the Roaming Regulation). Flexibility in implementation also came as a request from stakeholders in the public consultation.

**Figure 4: FUP- General and specific objectives used to assess the impact of the different policy options**

General Objective	Specific Objectives
<p><b>Enable home operators to prevent abusive or anomalous usage of regulated roaming services such as permanent roaming</b></p> <p><b>Enable users to consume volumes of roaming services at domestic price that are consistent with their respective tariff plans</b></p>	<ul style="list-style-type: none"> <li>• FUP rules should be flexibly implementable by operators (in section 6, referred to as <i>Ability to prevent arbitrage</i>)</li> <li>• FUP rules should cover the roaming needs while periodically travelling of the vast majority of EU residents (in section 6, referred to as <i>User needs covered</i>)</li> <li>• FUP rules should be customer-oriented, simple and transparent (in section 6, referred to as <i>Simplicity</i>)</li> </ul>

## 4.2. Sustainability mechanism

As described above, the overall objective of the sustainability assessment is to ensure the sustainability of domestic charging models in the RLAH context while fulfilling the general RLAH objectives. The implementing act should give specific guidance to such assessment.

Article 6d(3) of the Roaming Regulation sets out the criteria that the Commission should follow when adopting the implementing acts laying down detailed rules on the methodology for assessing the sustainability of the abolition of retail roaming surcharges for a roaming provider. There are several elements of the sustainability assessment that the Commission Services have derived directly from the Roaming Regulation. In this section we describe the general conclusions reached by the Commission Services on the general approach that should be used in the sustainability mechanism. More detail on the steps that should be followed by operators and NRAs for each of the elements below can be found in Annex 6.

### 4.2.1. Estimating the consumption of regulated roaming and domestic services

Based on the text of the Roaming Regulation, the Commission Services consider that when estimating the consumption of regulated roaming and domestic services:

- The assessment should be based on an analysis of the sustainability of RLAH for a period of 12 months
- The operator shall use at least the defined minimum period of actual data needed after application of RLAH to assess the impact of RLAH on roaming volumes and apply the same proportional increase observed over this period to the remainder of the 12 months assessment
- When projecting future roaming volumes the operator shall take into account the FUP that is likely to mitigate the increase in roaming volumes (and thereby the need for a derogation) to the greater extent

### 4.2.2. Estimating the costs of providing regulated retail roaming services

Based on the text of the Roaming Regulation, the Commission Services consider that when estimating the costs of providing regulated retail roaming services, operators shall use the following formula:

*Costs of providing retail roaming services =  
retail roaming costs +  
wholesale roaming payments for unbalanced traffic (if total wholesale roaming payments >  
total wholesale roaming revenues)*

In addition, operators should take into account that:

- In relation to roaming-specific costs, the operator should only allocate a proportion of these to regulated retail roaming services equal to the ratio outbound/inbound roaming traffic, and
- Operators should only allocate a proportion of these costs to intra-EEA regulated retail roaming services equal to the share of intra-EEA roaming traffic in total roaming traffic
- Operators' estimates of retail costs shall be based on the costs in the previous financial year from its accounts. Only increases in projected costs that are duly justified with proof of financial commitments from operators' accounts shall be considered.
- In relation to retail joint and common costs, they shall be allocated first to roaming (as opposed to domestic services) and secondly to intra-EEA roaming services (as opposed to non-EEA) using the share of traffic.
- The operator shall only take into account the costs associated with wholesale roaming payments for unbalanced traffic
- The operator shall derive these costs using the effective charges paid for unbalanced traffic and the actual and projected volumes

#### **4.2.3. Estimating the revenues from the provision of regulated retail roaming services**

Based on the text of the Roaming Regulation, the Commission Services consider that when estimating revenues from the provision of regulated retail roaming services:

- In case of dual-, triple- or quadruple-play bundles, revenues should be allocated to each service based on the price of each of the services within the bundle (if available), otherwise based on the price of the same or similar mobile service offered on a stand-alone basis
- In the case of per diem tariffs the operator shall allocate to roaming the revenues originated while the user was roaming
- Out-of-FUP revenues should be allocated in full to roaming services
- Out-of-bundle revenues should be allocated to roaming services when they are originated while the end user is roaming
- In-bundle revenues should be allocated to roaming using the methodology described above based on effective roaming volumes and the wholesale roaming prices paid by the operator (to weight each service in the bundle)

#### **4.2.4. Assessing the sustainability of the domestic charging model**

Based on the text of the Roaming Regulation, the Commission Services consider that when assessing the sustainability of the domestic charging model:

- The operator shall estimate the net margin on regulated retail roaming services ("roaming margin")

- When the operator has a negative roaming margin, it shall compare this to the net margin on domestic mobile services, including all mobile voice, SMS and data services other than those considered in the regulated retail roaming margin
- The roaming margin should be compared to the domestic margin to obtain the sustainability percentage using the following formula:

$$\text{sustainability (\%)} = \frac{\text{roaming margin}}{\text{domestic margin}} \times 100$$

The Commission Services describe in more detail the steps that should be followed by operators and NRAs for each of the above elements of the sustainability mechanism in Annex 6 below.

#### **4.2.1. Remaining policy issues for the sustainability mechanism**

In light of the approach described above, the Commission Services concludes that the following policy issues of the sustainability mechanism need to be further considered in this Impact Assessment, namely:

1. Issue 1: The data that operators need to submit in the first sustainability application
2. Issue 2: The financial ratio that should be used to assess the operator's domestic margin
3. Issue 3: The sustainability percentage that should allow for a derogation based on sustainability

In order to assess the impact of the different options considered under each of the Issues 1 to 3 above, the Commission Services consider that the following objectives from the Roaming Regulation, described in Figure 5 below, should be used.

The primary objective of the sustainability mechanism assigned by the Roaming Regulation is to ensure the sustainability of operators' domestic charging model in the RLAH system, limiting the risk of an appreciable effect on the evolution of domestic prices or so-called "waterbed effect". The options need therefore to first be assessed against their capacity to consistently identify the circumstances where the implementation of RLAH may result in a risk to the operator's domestic charging model (first specific objective).

The implementation of each option by applying operators and NRAs should also be considered in the assessment (second specific objective). While the robustness and soundness of the methodology are decisive in the final analysis, any undue complication should be avoided. This also comes as a request from stakeholders in the public consultation.

Finally, in a Digital Single Market, operators applying to the sustainability mechanism should be treated in the same manner by NRAs across Member States (third specific objective). The methodology should be applied consistently across the EU. This specific objective directly stems from the Roaming Regulation's requirement to ensure consistent application of the sustainability mechanism in the EU.

**Figure 5: Sustainability mechanism – General and specific objectives used to assess the impact of the different policy options**

General Objective	Specific Objective
<p><b>Ensure the sustainability of operators' domestic charging model in the RLAH system, limiting the risk of an appreciable effect on the evolution of domestic prices or so-called "waterbed effect"</b></p>	<p><u>Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH:</u> establish a sustainability mechanism that appropriately and consistently identifies the circumstances where the implementation of RLAH may result in a risk to the operator's domestic charging model.</p>
	<p><u>Implementation:</u> ensure a robust, simple and fair application process for both NRAs and operators.</p>
	<p><u>Digital Single Market:</u> ensure a consistent application of the sustainability mechanism across the EU.</p>

## 5. POLICY OPTIONS

### 5.1. Fair use policy

In this section the different options considered for defining rules on FUP are simply described. As agreed by almost all respondents in the public consultation, FUP policy may be defined in terms of time and volume limits.

The rationale behind the different values of the time and volume parameters defining each FUP option are explained in more detail in section 6. In particular, Options 2 to 4 include three different time limits based on three possible criteria for periodic travel whose impacts, in terms of user needs covered (second objective) and ability to prevent permanent roaming (first objective), are assessed in section 6.

These time limits correspond to the three objective criteria that could possibly identify periodic travelling, in view of the replies to the public consultation and of the statistical analysis of travelling patterns:

- average annual number of days abroad of EU residents travelling at least once in the year (12 days, Option 2),
- time period above which a Member State may have registration requirements for citizens residing on its territory (3 months, Option 3),
- average duration of annual paid holidays in the EU (35 days, Option 4).

Options 2 to 4 thus allow testing the impact of three sufficiently different annual time limits, in particular their ability to prevent permanent roaming (first objective). Testing further intermediary values of time limits in between the three time limits considered would not add value to the impact assessment as these limits would have less differentiated impacts. Considerations on higher annual time limits than 3 months per year are included in the assessment of Option 3 in section 6.

The ability for the user to consume volumes while roaming that are consistent with their respective tariff plans (second objective) is to be ensured with the appropriate annual time limit (to cover the traveling time) and with the appropriate volume limit. Different volume limits are associated to each annual time limit across the options. They are assessed in section 6.

Finally, there are various ways to structure and express a FUP. Each of the envisaged options is an occasion to test a different FUP structure. While the most systematic way of presenting the options would be to scan all possible combinations of values of parameters for each FUP structure, this would lead to an unnecessary multiplication of the FUP options and to many repetitions. Therefore, for the sake of conciseness and clarity, and without affecting the analysis of the impacts, each option combines a particular FUP structure and values of parameters, in order to show, through each option, the pluses and minuses of a given FUP structure and at the same time the quantitative impact of a particular set of values of the time and volume limits. This is possible because the respective advantages or shortcomings of the different FUP structures and the impacts of different values of the parameters are largely independent<sup>14</sup>.

#### **5.1.1. Option 1: baseline scenario: no action at EU level**

The Commission does not adopt any implementing act on fair use policy. Operators may apply a fair use policy to the consumption of roaming services at domestic prices according to the directly applicable terms of Article 6b of the Roaming Regulation, with no detailed rules on its application.

#### **5.1.2. Option 2: EU FUP defined as a time limit based on the average number of days abroad of EU residents travelling abroad**

In the public consultation, about half of the responding operators express the view that FUP should cover no more than the average roaming needs of occasional travellers. According to BEREC<sup>15</sup>, the average annual number of days abroad in the EEA per year of EU residents travelling at least once in the year is 11.6 days.

On that basis, in Option 2, the minimum EU FUP is defined as a time limit expressed in terms of a pre-defined number of days freely available during the year equal to 12 days. During this period, the user would have access to his/her domestic tariff plan, without surcharges, on the same terms as if he/she had stayed at home, e.g. consuming at metered domestic unit prices, or consuming from a defined or "unlimited" domestic volume of voice minutes, SMS or data.

#### **5.1.3. Option 3: List of banned practices in applying any FUP**

The Commission defines a cumulative list of prohibitions that the operator shall comply with when defining any FUP. The list articulates the following cumulative temporal and volume criteria:

*Temporal criterion to avoid arbitrage:*

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<sup>14</sup> For instance, the 12-day limit considered in Option 2 is assessed as too restrictive in section 6. This assessment is valid whether it is presented alone (Option 2) or in combination with a volume limit which may only further reduce the FUP. So it suffices to demonstrate the too restrictive character of this time limit in Option 2, without having to repeat it in an additional option which would combine the 12-day time limit with a volume limit.

<sup>15</sup> See Table 19 in Annex 4. Average number of days abroad within the EEA per year, 2013 (including one-day visits): 5.7 days per year for all residents, 11.6 days per year for residents who travelled at least once in 2013. Data from: BEREC, Analysis of the impacts of "Roam-Like-At-Home", BoR(14)209, December 2014, based on Eurostat and Eurobarometer.

- Operators may not limit the maximum roaming duration to a period less than 90 days per annum, corresponding to the period requested to register in another Member State in view of a stable presence, i.e. 3 months<sup>16</sup>;
- Operators may not limit the maximum number of consecutive days of roaming to less than 30 days<sup>17</sup>;
- Roaming at domestic prices on any day with log-on to the domestic network must not be counted against the FUP periods above.

*Volume criterion to ensure consistency with the domestic tariff plan:*

- Limited volume flat-rate offer: operators may not impose any volume limit (other than the limit of the domestic offer);
- Open flat-rate offer<sup>18</sup>: operators may not impose any volume limit less than average aggregate monthly consumption of all subscribers on this domestic offer<sup>19</sup>;
- Metered offer: operators may not impose any volume limit.

*Ancillary measures for pre-paid cards:*

- Operators may not impose any additional general restriction exceeding a minimum domestic consumption requirement before using roaming, amounting to at least one month of average national ARRPU.

In addition, operators may take appropriate measures to prevent manifestly anomalous or fraudulent behaviour:

*Additional measures to stop abusive use of roaming services:*

- Operators are allowed to apply a roaming surcharge in other cases if they have evidence of anomalous/abusive/fraudulent use of roaming services (such as multiple registration of SIMs, SIMs with no or insignificant domestic consumption, etc...) if, after having alerted the customer, the abusive practice continues. In case of disputes, the customer concerned has the possibility to use the existing out-of-court dispute resolution mechanism. For instance, operators may react to anomalous use patterns

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<sup>16</sup> In accordance with Directive 2004/38/EC.

<sup>17</sup> This criterion aims at preventing the permanent use of a subscription abroad. As it will be shown in section 6, only 1.8% of stays abroad in the EEA by EU residents are longer than 30 consecutive days. Therefore that time criterion accommodates more than 98% of those trips, while constituting an effective obstacle to permanent roaming. As it will be shown in section 6, in view of the total possible duration of RLAH per year under that option (3 months) and the large differences in retail mobile prices across Member States, that second time criterion is necessary to effectively prevent permanent roaming.

<sup>18</sup> In this impact assessment, an open flat-rate offer means a tariff plan for the provision of one or more mobile retail services which does not provide any limit to the amount of mobile retail services available against the payment of a fixed periodic fee or for which any limit provided is indeterminate in character or reached by an insignificant portion of end-users in the tariff plan

<sup>19</sup> This ensures the consistency of the roaming volume with the volumes normally consumed on the open tariff plan of the subscriber. While the period of calculation should have more limited impact in view of the aggregate nature of the average over all the subscribers of the open tariff plan, a reference period of 12 months seems reasonable in view of possible general seasonal variations and to limit the frequency of changes of the parameters.



such as domestic login with minimal domestic use, followed by a long period of inactivity, followed by intensive roaming use.<sup>20</sup>

#### **5.1.4. Option 4: EU FUP defined as a combination of time and volume limits**

Since the vast majority of trips abroad in the EEA by EU residents are for personal purposes (88%<sup>21</sup>), an annual time limit that encompasses the holiday time within one year is likely to cover the vast majority of trips abroad in the EEA by EU residents. The annual holiday time is given by the annual paid holidays in Member States. An objective criterion to define periodic travels is therefore the average number of days of annual paid holidays across Member States: 35 days per year<sup>22</sup>.

Alternatively, in order to match the billing period of operators (usually a month), the FUP could define a number of billing periods (months) per year available for RLAH. Given the number of trips abroad per year per traveller by EU residents (between 1 and 2, see Table 16 and Table 18 in Annex 4), three different billing period in the year are expected to cover the needs.

A minimum EU FUP is therefore defined based on the following cumulative criteria:

*Temporal criterion to avoid arbitrage* (two alternatives to be chosen by the operator):

- Average number of days of annual paid holidays across Member States: 35 days available during the whole year<sup>23</sup>;
- or
- 3 billing periods (e.g. 3 months).

*Volume criterion to ensure consistency with the domestic tariff plan:*

- Limited volume flat-rate offer: 50% of the domestic volume<sup>24</sup>;
- Open flat-rate offer<sup>25</sup>: average aggregate monthly consumption of all subscribers on this domestic offer<sup>26</sup>;
- Metered offer: no volume limit.

*Ancillary measure for pre-paid cards:*

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<sup>20</sup> Such a practice would tend to suggest the presence of an arbitrage trade in SIM cards being initially / periodically logged on to the domestic network of the low-price home operator and then used sequentially abroad.

<sup>21</sup> Eurostat

<sup>22</sup> World Bank/EURES, see Figure 7 in Annex 4.

<sup>23</sup> Ibid.

<sup>24</sup> 92% of trips abroad in the EEA by EU residents are shorter than 2 weeks, hence could be considered to be covered by the availability of half of the monthly volume.

<sup>25</sup> Same definition as in Option 3.

<sup>26</sup> Same limit as in Option 3. This ensures the consistency of the roaming volume with the volumes consumed on the open tariff plan of the subscriber. While the period of calculation should have more limited impact in view of the aggregate nature of the average over all the subscribers of the open tariff plan, a reference period of 12 months seems reasonable in view of possible general seasonal variations and to limit the frequency of changes of this parameter.

2-month activation and minimum credit available on the card (lowest average national ARRPU, i.e. 3.7 EUR)

### **5.1.5. Discarded options**

The following options have been discarded (see Annex 5 for more details).

#### *Option of imposing no FUP limit at all on roaming consumption at domestic prices*

Although defended by some of the consumers and consumer associations which responded to the public consultation, this option would not be compliant with Article 6b of the Roaming Regulation, which grants the possibility for operators providing retail roaming services to apply a FUP on roaming consumption at domestic prices.

#### *Options using other parameters than time and volume limits*

The public consultation showed a general consensus on the fact that any FUP should take the form of time and/or volume limits on the level of consumption of roaming services at domestic prices<sup>27</sup>. No other alternative formulation emerged from the replies to the public consultation. Therefore the option of using other parameters than time and volume limits to define FUP has been discarded.

#### *Option of defining a unique FUP to be applied to all domestic tariff plans by all operators*

A unique FUP (i.e. both minimum and maximum) applicable to all domestic tariff plans would be defined as a unique set of pre-defined FUP time and volume limits, expressed in absolute terms, on roaming voice, SMS and data consumption at domestic prices (for instance: an annual volume limit equal to the annual EEA average consumption of voice, SMS and data services).

Imposing a unique set of pre-defined, absolute time and volume limits to all domestic tariff plans would not be compliant with Article 6b (1) of the Roaming Regulation, as it would, per definition, not enable subscribers to consume volumes of roaming services at domestic prices that are consistent with their respective domestic tariff plans. This option received little support in the public consultation.

Therefore the option of defining a unique FUP to be applied in the EU to all domestic tariff plans by all operators has been discarded.

#### *Option of defining country-specific minimum FUPs based on travelling patterns abroad of residents in each country*

A country-specific approach in the Roaming Regulation would change the EU-wide approach followed since the EU started to regulate roaming prices. It would discriminate between EU citizens and introduce inequalities between Member States, would be less transparent to the users, and would increase the risk of arbitrage based on the differentiated levels of FUP across countries. This option received little support in the public consultation.

## **5.2. Sustainability mechanism**

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<sup>27</sup> Except for the few respondents (few individuals replying in their own capacity) calling for no limit at all.

### **5.2.1. Option 1: Baseline scenario: no action at EU level**

This option means there is no implementing act harmonising the methodology of the sustainability mechanism across the EU. The definition of the sustainability mechanism would therefore be left to each NRA, based on the text of the Roaming Regulation.

### **5.2.2. Option 2: Harmonisation of sustainability mechanism at EU level**

In this option the Commission defines the sustainability mechanism based on the provisions of the Roaming Regulation and determines the approach that needs to be used by operators regarding the issues left open by the legislation, described below.

#### **5.2.2.1. Issue 1: The data that operators need to submit in the first sustainability application**

In section 5.2.3 above, the Commission Services explain that the Roaming Regulation foresees that a sustainability application can only be submitted after the date of entry of the Roaming Regulation, and that the period of assessment is 12 months, including actual and projected data. The Roaming Regulation however does not specify the actual data that the operator has to submit in the first sustainability application.

Below the Commission Services have considered three options regarding the number of months of actual data after the implementation of RLAH that should be included in an operator's first application for a derogation based on sustainability. In making the option choices (0, 1.5 and 3 months), which are assessed in section 6.2.2 below, the Commission Services have considered both stakeholder preferences and the specific temporal circumstances of the entry into force of RLAH, which coincides with the summer period. Given the intense roaming activity, this is on the one hand positive in terms of the value of actual data for the projections, but negative in terms of potential operator losses. As it will be further explained below, basing the assessment entirely on projections (0 month, no real RLAH data) would minimize operators' losses but would be less reliable given the uncertainty on the projected roaming volumes. Moreover, the Commission Services consider that periods of real RLAH data beyond the 3 summer months would add little value to the reliability of the projections, unless this period comprises or is close to the whole year (a discarded option as operator's losses over such a long period of time could potentially generate a significant risk of waterbed effect). While comprising data from two distinctive summer months, 1.5 months is the middle point between the two other considered options, which makes an overall reasonable menu of options to be assessed.

##### **5.2.2.1.1. Option 2.1.1 – No actual RLAH data (12 months of projected data).**

The application assessing the sustainability of RLAH for that operator would be based entirely on the operator's projections for the next 12 months. In its projections, the operator will have used the fair use policies defined in the FUP implementing act, in particular, the FUP that would be likely to mitigate sustainability issues for the operator to the greatest extent. NRAs might take up to one month to assess the initial application, but nothing prevents a quick response, which would allow an unsustainable operator to enter the vacation period already applying a roaming surcharge. In case of phase-1 rejection, amended applications should include all the available actual data in the RLAH context at the moment of resubmission.

**5.2.2.1.2. Option 2.1.2 -1.5 months of actual RLAH data (10.5 months of projected data)**

Under this option, operators would have to provide 1.5 months of actual RLAH (as defined in the Roaming Regulation) data. Operators should base their 12-month projections on this actual data, and apply the same proportional increase observed over the same period in the previous year to the remainder of the 12 months assessment. A potentially quick, positive assessment of the NRA would allow an operator to apply a surcharge already during the active month of August and September, while data from two distinctive summer months (June and July) would be particularly useful to establish more solid projections.

**5.2.2.1.3. Option 2.1.3 - 3 months of actual RLAH data (9 months of projected data).**

The option is the same as option 2.1.2, but 3 months of actual data in the RLAH context have to be included in the first application. Unless the operator has applied RLAH (as defined in the Roaming Regulation) before its entry into force, roaming surcharges could only be applied during autumn 2017.

**5.2.2.2. Issue 2: The financial ratio that should be used to assess the operator's domestic margin**

The assessment of sustainability is a two-step process, where operators shall first establish that they are unable to recover their overall retail roaming costs from their overall retail roaming revenues and, subsequently, that this failure to recover their retail roaming costs has the effect that the sustainability of their domestic charging model would be undermined (Article 6c(3)).

Accordingly, the assessment of sustainability requires NRAs to assess the magnitude of an operator's negative roaming margin and compare this to the operator's domestic margin to determine the potential impact of RLAH on its domestic charging model (as explained in section 4.2 above). There are several financial ratios that could be used to estimate the operator's domestic margin. In this section the Commission Services briefly describe the financial ratios that have been considered. It should be noted at the outset that for any financial ratio considered below, the operator should only include costs and revenues from the normal operation of its mobile telecommunications activities. In other words, the purpose of the exercise is to show the normal profitability of the operator's activities and should therefore exclude any extraordinary expenses or revenues.

**5.2.2.2.1. Option 2.2.1: Earnings Before Interest Tax Depreciation and Amortisation (EBITDA)**

EBITDA is an accounting measure that is commonly used to measure a company's profitability. It is widely used among financial analysts to assess the performance of a company, particularly, to compare the profitability between different companies. Comparability is facilitated because this accounting measure ignores the effects of differences between companies in the form of capital financing (as it excludes interest payments), differences in taxes between jurisdictions (as it excludes taxes), and differences in the accounting depreciation and amortization rules used by companies (as it excludes both depreciation and amortization).

Under this option, the operator would use its EBITDA for mobile operations as a proxy for the domestic margin. Where this is not available, the operator should use its total EBITDA

(e.g. including operations other than from mobile services) and divide it by its total operating revenue to obtain a percentage EBITDA margin. The domestic margin would then be obtained multiplying this percentage EBITDA margin by the domestic revenues obtained using the approach described in section 4.2.3 above.

#### **5.2.2.2.2. Option 2.2.2: Earnings Before Interest and Tax (EBIT)**

EBIT is a measure of a company's profitability that excludes expenditure on interest and taxes. This measure is sometimes referred to as "operating profit", as it ignores tax and interest expenses, it measures the profit that a company generates from its normal operations (ignoring variables such as the tax burden and capital structure to finance its operations).

Under this option, the operator would use its EBIT for mobile operations as a proxy for the domestic margin. Where this is not available, the operator should use its total EBIT (e.g. including operations other than from mobile services) and divide it by its total operating revenue to obtain a percentage EBITDA margin. The domestic margin would then be obtained multiplying this percentage EBIT margin by the domestic revenues obtained using the approach described in section 4.2.3 above.

#### **5.2.2.2.3. Option 2.2.3: After-tax measure of profitability**

The third option would rely on an after-tax measure of profitability. The most commonly used measure of after-tax profitability is the Net profit or Net earnings of a company. The Net profit estimates a company's profit after subtracting total expenses (including operating expenses, interest and tax).

Under this option, the operator would use its after-tax measure of profitability for mobile operations as a proxy for the domestic margin. Where this is not available, the operator should use its total after-tax profits (e.g. including operations other than from mobile services) and divide it by its total operating revenue to obtain a percentage after-tax profit margin. The domestic margin would then be obtained multiplying this percentage after-tax profit margin by the domestic revenues obtained using the approach described in section 4.2.3 above.

#### **5.2.2.3. Issue 3: The sustainability percentage that should allow for a derogation based on sustainability**

In section 4.2.4 above the Commission Services have described the formula that should be used by operators to assess the sustainability of their domestic charging model in accordance with the Roaming Regulation. Accordingly, the operator should, first, assess the net margin (revenues minus costs) of regulated retail roaming services (the "retail roaming margin"). Second, when the operator has established that this margin is negative, the operator should then estimate the net margin on its domestic mobile services, which should include all mobile voice, SMS and data services other than those considered in the regulated retail roaming margin (the "domestic margin"). Finally, the operator shall compare the negative retail roaming margin against the domestic margin to assess the potential impact on the evolution of the operator's domestic charging model using the formula described in 4.2.4. In a nutshell, the sustainability percentage obtained using this formula reflects the proportional magnitude of the negative retail roaming margin when compared against the domestic margin of each operator.

The Commission Services have considered two options for the level of the sustainability percentage that should trigger a sustainability derogation in accordance with the Roaming Regulation. In particular:

**5.2.2.3.1. Option 2.3.1: A sustainability percentage representing a specific proportion of the domestic margin.**

Under this option the negative roaming margin should be above a certain percentage of the domestic margin for the operator to be entitled to a sustainability derogation. In addition, in order to take into account specific domestic circumstances, the NRA assessing the application should rely on other factors characterizing the level of competition in the domestic market such as, *inter alia*, the level of market concentration (e.g. through the use of the Herfindahl-Hirschman Index – HHI), the level of domestic retail prices when compared to the level of wholesale roaming prices paid by the operator, etc. These are likely to inform the likelihood of a waterbed effect from regulated retail roaming services to domestic prices.

**5.2.2.3.2. Option 2.3.2: A sustainability percentage representing a variable proportion of the domestic margin depending on the magnitude of the domestic margin.**

In the same way as in the previous option, the operator would compare the negative retail roaming margin against the domestic margin to derive the sustainability percentage in accordance with the formula described in section 4.2.4. However, in contrast to the previous option, the percentage level that would trigger a sustainability derogation would vary with the magnitude of the domestic margin, with proportionally higher domestic margins requiring a higher sustainability percentage (and vice versa).

Under this option the Commission would have to define bands for different proportional domestic margins and associate to each of these a sustainability percentage that would trigger a sustainability derogation. For the purposes of illustration, a hypothetical example of the bands that the Commission could define would be as follows:

- A domestic margin between 10-20% would require a negative roaming margin in excess of 3% of the domestic margin for a sustainability derogation;
- A domestic margin between 21-30% would require a negative roaming margin in excess of 5% of the domestic margin for a sustainability derogation;
- A domestic margin between 31-40% would require a negative roaming margin in excess of 10% of the domestic margin for a sustainability derogation;
- etc.

In addition, similarly to the previous option, the NRA assessing the application should also rely on other factors characterizing the level of competition in the domestic market that are likely to inform the likelihood of a waterbed effect from regulated retail roaming services to domestic prices.

**5.2.3. Discarded options**

The Commission Services have discarded options for the sustainability mechanism that may have been supported by stakeholders in their responses to the public consultation on

roaming<sup>28</sup> but that the Commission Services consider are not consistent with the provisions in the Roaming Regulation, in particular:

- Not defining any sustainability mechanism
- Assessing the sustainability mechanism at levels other than the operator (e.g. tariff or country level)
- Allowing a first application for a sustainability derogation before the entry into force of the Roaming Regulation
- Considering any loss on regulated roaming services sufficient to trigger a sustainability derogation
- Excluding revenues and costs from alternative tariffs in sustainability calculations:
- Defining the methodology to determine cost-oriented surcharges

In Annex 5 the Commission Services describe in detail the rationale for discarding these options.

## **6. ASSESSMENT OF THE IMPACT OF THE DIFFERENT POLICY OPTIONS**

### **6.1. Fair use policy**

The assessment of the different policy options is based on the capacity to fulfil the general and specific objectives laid down in section 4.1:

- a) users' needs covered by RLAH having regard to the travelling and usage patterns (see section 6.1.1 and Annex 4);
- b) capacity, in terms of simplicity and transparency, to ensure effective use/awareness by consumers and monitoring of compliance by NRAs;
- c) capacity for the operator to effectively prevent permanent roaming (arbitrage) and limit distortion of domestic markets, taking also into account price differentials across the Union (see section 2.1 and Annex 4). In this latter regard, while the Roaming Regulation does not require the adoption of FUPs and therefore their implementation costs are not directly imposed by EU law, such costs may have an impact on the capacity to effectively prevent permanent roaming.

Points a) and b) represent the impact of each policy option on consumers (user needs covered and simplicity of FUP).

Point c) represents the impact on operators (implementation flexibility), indistinctly of their size. As noted in section 4.1, FUP is not an instrument to be used by the home operator to limit its general exposure to RLAH: the costs for home operators to provide RLAH as default to end users who engage in periodic travel, and in non-anomalous mobile roaming use during such travel, are not a relevant factor in considering the detailed application of the legislative text. The cost of a FUP option in terms of RLAH exposure of operators is therefore not to be

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<sup>28</sup> Public consultation on the review of national wholesale roaming markets, fair use policy and the sustainability mechanism referred to in Roaming Regulation 531/2012 as amended by Regulation 2015/2120, held between 26 November 2015 and 18 February 2016, available [here](#).

assessed as such in this impact assessment. That aspect has been addressed by the proposed reduction in wholesale roaming caps<sup>29</sup>.

Finally the impact on Member States is mainly the impact on NRAs, which is linked to point b) (simplicity of FUP).

### 6.1.1. Main characteristics of travelling patterns in the EU

In 2014, 30% of EU residents made at least one trip of at least one overnight stay abroad for personal purposes.

**Table 1: Number of residents who made at least one trip of at least one overnight stay abroad for personal purposes in 2014 as % of total population, EU total**

	2014
EU	30%

Source: Eurostat

This data is broken down by country of residence (i.e. of origin) in Table 11 (Annex 4).

EU residents travelling abroad primarily travel within Europe and in particular within the EU. In 2014, 85% of trips abroad of EU residents were in Europe (75% within the EU, 76% within the EEA). Therefore, characterising travelling patterns abroad (including to other non-EU countries) of EU residents is chiefly characterising their travelling patterns abroad within the EU/EEA.

**Table 2: Number of trips of at least one overnight stay abroad of EU residents within EU, EEA and other European countries as % of total trips abroad of at least one overnight stay, 2014**

	2014
EU	75.2%
EEA	76.4%
Other European countries	8.7%
Total Europe	85.1%

Source: Eurostat

This data is broken down by country of residence (i.e. of origin) in Table 12 (Annex 4)

The vast majority (88%) of trips abroad of EU residents are trips for personal purposes (i.e. holidays). Professional (business) trips represent 12% of the trips abroad of EU residents. This is even more marked in terms of number of nights spent abroad (92% for personal purposes vs 8% for professional purposes). This is because professional trips are on average shorter than trips for personal purposes.

**Table 3: Number of trips of at least one overnight stay abroad by purpose (personal or professional/business) as % of total number of trips abroad, EU total, 2014**

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<sup>29</sup> Proposal for a Regulation of the European Parliament and of the Council amending regulation (EU) No 531/2012 as regards rules for wholesale roaming markets, COM(2016)399final



	Personal	Professional
EU	88%	12%

Source: Eurostat

This data is broken down by country of residence (i.e. of origin) in Table 13 (Annex 4)

**Table 4: Number of nights spent abroad by purpose (personal or professional/business) as % of total number of nights spent abroad, EU total, 2014**

	Personal	Professional
EU	92%	8%

Source: Eurostat

This data is broken down by country of residence (i.e. of origin) in Table 14 (Annex 4)

Due to the seasonal character of trips for personal purposes (e.g. holidays) which constitute the large majority of trips of EU residents, travelling patterns abroad of EU residents are best characterised on an annual basis. Travelling patterns abroad of EU residents may be characterised by three main variables:

- (i) the total number of days spent abroad by an EU resident per year,
- (ii) the length (or duration) of a trip abroad, and
- (iii) the number of trips of an EU resident per year.

When possible, a distinction is made between abroad-in-the-EU/EEA vs abroad (including countries outside-the-EU/EEA).

*Total number of days spent abroad by an EU resident per year*

The distribution of EU residents travelling abroad (hereinafter 'EU travellers') by number of days spent abroad in one year (variable (i)) is not available<sup>30</sup>. In other words, existing data on travels by EU residents do not allow knowing how many EU travellers spend 1-3 days, 4-7 days, 8-13 days, etc. abroad per year. The availability of this distribution would have allowed precisely determining the percentage of EU travellers that spend less than any given number of days abroad per year envisaged in any option.

The data that best approaches this distribution is provided by the Eurobarometer<sup>31</sup> showing the number of holiday trips away from home made by respondents in 2015 by duration of stay as % of total respondents (Table 5). The data however do not distinguish between domestic holiday trips, i.e. within the country of residence, and holiday trips abroad. Both are therefore included in Table 5.

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<sup>30</sup> According to BEREC, the average number of days abroad within the EEA in 2013 (including same-day trips) was 11.6 days per resident who travelled at least once in the year (Table 19, based on BEREC, Analysis of the impacts of "roam-Like-At-Home", BoR(14)209, December 2014, based on Eurostat and Eurobarometer). While this is a useful reference, the average alone does not allow describing the full distribution.

<sup>31</sup> Flash Eurobarometer 432, March 2016

**Table 5: Number of holiday trips away from home made by respondents in 2015 by duration of stay, as % of total respondents (Eurobarometer)**

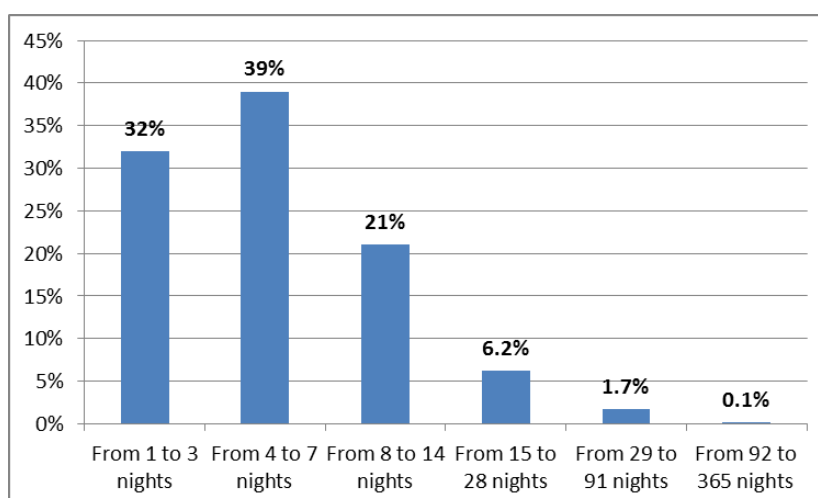
	None	once	twice	3 times	4 or 5 times	6 to 10 times	more than 10 times
Short-stay trip (up to 3 consecutive nights away)	35%	20%	15%	9%	9%	7%	4%
Holidays between 4 and 13 consecutive nights away	29%	31%	19%	9%	7%	4%	1%
Holidays with more than 13 consecutive nights away	57%	29%	8%	3%	1%	1%	1%

Source: Flash Eurobarometer 432 (March 2016)

### Length of a trip abroad

Figure 6 shows the distribution of overnight trips abroad in the EEA by duration. 71% of those trips have a duration of less than 1 week and 27.2% have a duration between 1 and 4 weeks. Only 1.8% of those trips have a duration of more than 4 weeks.

**Figure 6: Number of trips of at least one overnight stay abroad within the EEA of EU residents by duration of stay as % of total number of trips abroad within the EEA, 2014**



Source: Eurostat

This data is broken down by country of residence (i.e. of origin) in Table 15 (Annex 4)<sup>32</sup>

### Number of trips per year

<sup>32</sup> Table 15 in Annex 4 shows this data per country of residence, however it does not isolate trips abroad within the EEA from all trips abroad. As a consequence, the EU values in Table 15 are slightly larger than in Figure 6 because Table 15 includes trips to non-EEA countries which include more long-distance trips of a longer duration.

Dividing the total number of EU residents' trips abroad by the EU population which travelled away from home at least once in the year (including within the country of residence, i.e. not necessarily abroad)<sup>33</sup> results in an average of 1.04 trips abroad per inhabitant who travelled away from home (including domestically) at least once in the year (Table 6). The total population of the EU countries whose average number of trips abroad within the EU of their travelling residents is greater than 2 trips in one year<sup>34</sup> (Table 16 in Annex 4) represents only 3% of total EU population (Table 7).

Dividing the total number of EU residents' trips abroad for personal purposes<sup>35</sup> by the number of EU residents travelling abroad for personal purposes results in an average of 1.9 trips abroad for personal purposes per EU resident travelling abroad for personal purposes (Table 18).

The number of trips per traveller per year therefore differs according to the data considered. 1.04 trips abroad per traveller (Table 16) is likely to be an under-estimation since the number of travellers considered in the denominator includes residents travelling within the home country, as well as population aged below 15, while the number of trips abroad considered in the numerator does not include domestic trips and includes trips of residents above 15 only.

**Table 6: Number of trips abroad within EU of at least one overnight stay abroad per inhabitant who travels at least once a year, 2014**

	2014
EU	1.04

Source: Eurostat, Flash Eurobarometer 432 (March 2016)  
This data is broken down by country of residence (i.e. of origin) in Table 16 (Annex 4)

**Table 7: Population of Member States whose number of trips abroad within the EU per inhabitant who travels at least once per year is > 2 trips, < 1 trip, 1 < trips < 2, as a % of total EU population<sup>36</sup>**

	2014
>2 trips	3%
<1 trip	50%
1 < trips < 2	47%

Source: Eurostat, Flash Eurobarometer 432 (March 2016)

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<sup>33</sup>The share of the population of a Member State which travelled away from home at least once in the year including within the country of residence, i.e. not necessarily abroad, is calculated by applying the percentage of respondents to the Eurobarometer that travelled away from home at least once in 2015 to the population of that Member State.

<sup>34</sup> i.e. number of trips abroad within EU of at least one overnight stay abroad per inhabitant who travels at least once a year

<sup>35</sup> Only the number of tourists *for personal purposes* is available at Eurostat. Therefore, only the number of trips *for personal purposes* may be considered in the numerator as well.

<sup>36</sup> Of the total population of the EU countries where this data is available, i.e. 28 Member States minus Greece, Slovakia, Sweden, UK

### Same-day visits abroad

According to Eurostat, the total number of same-day visits abroad (the EU/non-EU destination breakdown is not available) of EU residents equals 75% of the total number of trips of at least one overnight stay abroad of EU residents (Table 20 in Annex 4). At EU level, the breakdown 'personal purposes vs professional/business purposes' of the same-day visit (92% vs 8%, Table 21 in Annex 4) is similar to that breakdown for trips abroad of at least one overnight stay (88% vs 12%, Table 3).

For the sake of simplicity, one can therefore assume 1 same-day visit abroad in the EU for each overnight trip abroad in the EU on average. This over-estimation<sup>37</sup> makes the number of trips (including same-day) abroad within the EU equal to 2 or 3 per traveller according to the number of trips per traveller considered (Table 6 or Table 18). At Member State level (Table 16 and Table 18 in Annex 4), adding the same-day visits abroad to the overnight trips abroad makes the total number of trips (including same-day) abroad within the EU equal to more than 5 per traveller in Luxembourg (7.1 or 8) and in the Netherlands (4.7 or 6.7).

Statistics on same-day visits abroad do not include those of frontier workers commuting every day. There are about 2 million frontier workers (cross-border commuters) in the EU, representing about 0.4% of the EU population.

**Table 8: Number of outgoing cross-border commuters in millions and as % of the population, EU, 2015**

	Number of commuters (millions) 2015	as % of the population
EU	2	0.39%

Source: Eurostat

This data is broken down by country of residence (i.e. of origin) in Table 22 (Annex 4)

#### **6.1.2. Option 1: baseline scenario: no action at EU level**

Overall, this option would not be in line with the mandate given to the Commission in the Roaming Regulation. As it is a legal obligation for the Commission to act, this is not a valid policy option and merely serves as a reference scenario for the impact analysis.

In the absence of detailed rules, the compliance with the criteria set out in the Roaming Regulation is left to the individual decisions of the operators and ex post enforcement of NRAs.

a) User needs covered: In the absence of detailed rules spelling out the criteria included in the Roaming Regulation, the possibility to cover users' needs is randomly left to the choice of the

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<sup>37</sup> This is an over-estimation because (i) on average in the EU, there is 0.75 (not 1) same-day visit abroad per overnight trip abroad in the EU, and (ii) the number of same-day visits abroad includes visits to non-EU countries, so that there is less than 0.75 same-day visit abroad in the EU for each overnight trip abroad in the EU.

operators, whose incentives may not be necessarily aligned with those of the users, as shown in the public consultation (see Annex 2). While operators might cover the basic or average travelling needs of users, they might not apply FUP which would address the vast majority of Europeans (i.e. including more frequent travellers, or those travelling for longer periods, who cannot merely for that reason be considered to be engaging in anomalous or abusive practices). Moreover, such FUP may markedly vary from one operator to another. Thus, the capacity for the vast majority of end users to effectively use RLAH in accordance with their consumption and travelling patterns may be jeopardised.

b) Simplicity: In the absence of detailed rules and a patchy application of different FUPs across tariff plans, operators and countries, highly differentiated application of the Roaming Regulation criteria, without any concrete reference points, will affect the simplicity and transparency of available options to consumers and, in addition, may hinder monitoring and enforcement by NRAs.

c) Ability to prevent arbitrage: In the absence of detailed rules, operators may try to adopt FUPs limiting as much as possible RLAH roaming consumption in general. While this is likely, as a result, to minimise the risks of permanent roaming usage, this risk could be used simply as a pretext by operators to limit their exposure to wholesale roaming costs and/or to increase their revenues via surcharges, contrary to the objectives of the legislation. In addition, different interpretations of the general criteria laid down in the Roaming Regulation by operators and/or NRAs may actually distort competition among operators and/or create legal uncertainty and litigation. In this regard, it could be noted that this option was not really considered by stakeholders in the context of the public consultation.

### **6.1.3. Option 2: EU FUP defined as a time limit based on the average number of days abroad of EU citizens**

Under this option, a general minimum floor would be provided across the Union in terms of days based on the simple yearly average of the number of days abroad in the EEA of EU residents travelling at least once in the year. In the public consultation, this time limit is the most favoured of operators, but also widely rejected by consumers (see Annex 2)

a) User needs covered: While the fact that any domestic volume is fully available would ensure that the user can confidently replicate its domestic consumption during the days covered, such an option would cover the travelling time abroad in the EEA (and hence the roaming needs) of approximately only half of EU residents who travel at least once in the year<sup>38</sup>. A significant proportion (on the order of half) of users periodically travelling would therefore fail to benefit from RLAH in line with their normal usage and travelling patterns.

b) Simplicity: The application of such an option ensures maximum simplicity and transparency for the end-users, since it is based on a single and simple criterion and dimension, and corresponding ease of monitoring for NRAs.

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<sup>38</sup> As explained in section 6.1.1, the full distribution of travellers per annual number of days abroad (variable (i)) is not known. Since this distribution might be expected to be skewed to some extent with a long tail of high values (travellers spending large numbers of days abroad), the average is expected to be somewhat higher than the median. Therefore the average may be splitting the population of travellers into two groups of slightly unequal size, namely a somewhat smaller population of travellers above than below the average.

c) Ability to prevent arbitrage: Such an option would ensure a common understanding across operators on a common interpretation of FUPs compliant with the criteria set out in the Roaming Regulation, in order to minimise competitive distortion and legal uncertainty. At the same time this option reduces the amount of potential maximum RLAH usage to levels that minimise the risk of permanent roaming distorting domestic markets, taking also into account that it would allow using RLAH only for approximately 3% of the overall yearly availability of the domestic offer and would require very complex churning schemes to replicate permanent roaming. Indeed this amount is by far below levels which could make arbitrage commercially interesting, given the general price differences that can be inferred from ARRPU across Member States<sup>39</sup>. In other words the risk of permanent roaming alone does not justify by itself the annual time limit in roaming consumption at domestic prices set under this option. If this option were adopted customers travelling for more than the short annual period foreseen would suffer from undue restriction of RLAH.

In terms of implementation, the absence of flexibility in implementing the yearly time limit (e.g. no monthly implementation) may require some implementation costs that could be avoided with more flexible implementation rules.

#### **6.1.4. Option 3: List of banned practices in defining FUP**

Under this option, the list of prohibited practices that the operator shall comply with when defining any FUP establishes maximum restrictions that can be applied by the operator to the consumption of roaming services at domestic prices.

##### a) User needs covered

*Operators may not limit the maximum roaming duration to a period less than 90 days (3 months) per annum*

In accordance with EU law, Member States can impose registration requirements only for citizens residing more than 3 months in their territory<sup>40</sup>. Such a period therefore can be considered an objective criterion to identify the upper level of overall time abroad, beyond which the movement across the borders crystallises in a more stable presence and centre of interests in a given place (taking into account that the concept of residence does not need to be necessarily for an indefinite period and does not exclude the possibility of temporary absence) justifying the registration requirement, rather than mere periodic travelling. Moreover, only 0.1% of the trips abroad by EU residents within the EEA have a duration of more than 92 nights (Figure 6 in section 6.1.1).

As explained in section 6.1.1, the full distribution of travellers per annual number of days abroad (variable (i)) is not known. As a consequence, the exact percentage of EU travellers that spend individually less than 90 days abroad cumulatively in a year is not known.

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<sup>39</sup> As shown in

Figure 1, the highest ARRPU is approximately 6 times the lowest one (excluding in particular outliers).

<sup>40</sup> In accordance with Articles 6 and 8 of Directive 2004/38/EC on the right of citizens of the Union and their family members to move and reside freely within the territory of the Member States. During this period only the general rights to entry and exit the Member States apply, without the possibility to impose any other formality or condition on the staying.

However, it can be estimated as being marginal. According to the best proxy available (Table 5 in section 6.1.1), in 2015, only 1% of respondents made 10 or more holidays with more than 13 consecutive days away from home and 1% of respondents made 10 or more holidays between 4 and 13 consecutive nights away from home which are mostly 1-week trips. As these figures include domestic holidays (i.e. made inside the country of residence), the share of EU residents making more than 90 days of holidays away *integrally* outside their country in the EU is marginal.

This shows that *virtually all* EU residents travelling away from home (including inside their country of residence) for personal purposes (holidays) are covered by a periodic travel time of 90 days per year abroad in the EU. A periodic travel time of 90 days per year in particular fully covers the maximum paid holiday time within the year in all Member States<sup>41</sup>.

This time period also covers trips abroad of travellers for professional purposes up to 90 days per year, i.e. 7.5 days (or one and half working weeks) per month on average. This presumably covers most of the needs of businesses, in particular those of SMEs and self-employed professionals<sup>42</sup>. Business users travelling more than 90 days a year normally benefit from business tariffs tailored to their specific needs.

*Operators may not limit the maximum number of consecutive days of roaming to less than 30 days*

Only 1.8% of overnight trips abroad in the EEA have a duration of more than 29 nights (Figure 6). Therefore, in more than 98% of the cases, the EU traveller comes back to his/her country within 30 days. A limitation of roaming to 30 consecutive days, if introduced by the operator, would therefore cover more than 98% of all overnight trips abroad made in the EEA.

*Roaming on any day with log-on to the domestic network must not be counted against the FUP periods above*

This means that frontier workers that may commute across the border every day for work, and in general inhabitants of border areas spending part of the day in the neighbouring Member State on a regular basis, would pay roaming at domestic prices in those days and these days would not be counted against the FUP minimum periods of 90 roaming days in total / 30 consecutive roaming days.

There are about 2 million frontier workers (cross-border commuters) in the EU, representing about 0.4% of the EU population. Their frequent travel in a neighbouring country for professional purposes cannot be regarded as anomalous or abusive, as it is quite legitimate for them to wish to use the same mobile device, subscription and number throughout the day.

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<sup>41</sup> The sum of the maximum number of days of annual paid holidays in the EU (41 days) and the associated week-ends (16 days) amount to 57 days in the year.

<sup>42</sup> In case of more frequent business travellers abroad whose total duration of successive business trips abroad exceed 90 days in one year, the business travelling time in excess of these 90 days would not be covered by a FUP based on that time limit. Although no statistics are available to quantify this, this presumably represents a very small share of business trips abroad, a very small share of business travellers, and in any case an extremely small share of total trips abroad since business trips abroad represent only 12% of trips abroad of EU residents.

Nor can it be seen as a form of permanent roaming; on the contrary, their travel, though frequent, is clearly "periodic".

Moreover, while the costs for home operators to provide RLAH as default to end users who engage in periodic travel, and in non-anomalous mobile roaming use during such travel, are not in principle a relevant factor in considering the detailed application of the legislative test, it can be remarked that home operators' exposure to such costs for frontier workers is unlikely to give rise to sustainability problems, due to the small share of the population concerned. An estimation of the total cost incurred on average in a month by operators of a given country for providing retail roaming services to the outgoing cross-border commuters of that country in 2017 may be obtained by multiplying the number of outgoing cross-border commuters in the country by the average daily consumption of mobile services in that country over 20 working days in the month, and deducting the domestic wholesale/network costs avoided by virtue of those cross-border commuters not consuming domestically during the same period<sup>43</sup>. This is shown in Table 23 in Annex 4. In Table 24 that total extra wholesale RLAH cost of cross-border commuters is compared to ARRPU and added to the estimated RLAH cost of occasional travellers estimated in the impact assessment accompanying the Commission proposal on wholesale roaming markets<sup>4445</sup>.

These estimates of the total extra wholesale cost of cross-border commuters per country are likely to be over-estimates. First of all, the estimates include all outgoing cross-border commuters of a country, including those commuting to non-EU countries (for those Member States neighbouring non-EU countries) where RLAH is not applicable. Second, in the absence of inflow data, the cost estimates do not take into account the inflows of cross-border commuters which in each country balance out, at least partially, the outflows of cross-border commuters. Thus, unlike in the impact assessment accompanying the Commission proposal on wholesale roaming markets<sup>46</sup>, the cost estimate of RLAH for cross-border commuters is not a *net* wholesale cost due to an excess of outbound over inbound roaming traffic, but simply the wholesale cost of the total outbound roaming traffic of the cross-border commuters. Finally, this total cost itself is largely over-estimated. It is based on the assumption that the full daily average consumption is consumed abroad by each and every commuter, 20 days every month in the year. In addition, the cost is estimated at the level of wholesale roaming caps. All those assumptions are very conservative since part of the daily consumption is likely to occur domestically, and it is unlikely that the entire population of commuters crosses the border 20 days every month of the year. In addition, operators may benefit from lower wholesale roaming prices than the caps.

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<sup>43</sup> Under the hypothesis that the cross-border commuters use their mobile phone fully abroad, they do not cause wholesale/network costs on their domestic network. Those domestic costs need therefore to be deducted from the wholesale costs of the roaming services. In other words, in the case of a cross-border commuter, for the operator the domestic wholesale/network cost is replaced by the RLAH wholesale cost. It is common practice to estimate the domestic wholesale/network cost at half of the retail domestic revenue.

<sup>44</sup> SWD(2016)202, Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets.

<sup>45</sup> The RLAH cost estimate at country level in the impact assessment does not include daily trips across the border of frontier workers. This is because the statistical definition of trips includes the notion of "outside their usual environment". So the same-day trips data in Eurostat data do not include those of cross-border commuters. They are statistically mutually exclusive and should be added up.

<sup>46</sup> SWD(2016)202, Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets



Table 24 in Annex 4 shows that, despite their considerable over-estimation, home operators' exposure to such costs for frontier workers is, in most countries, unlikely to give rise to sustainability problems. This is structurally due to the small share of the population in each country who commute cross-border (from 0.07% in FI to 2.72% in SK, see Table 22 in Annex 4).

In a few countries however, the cost of RLAH for cross-border commuters may not be negligible compared to ARRPU (in particular in Austria, Hungary, Romania and the Baltic States, see Table 24). For these countries and their neighbours, cross-border commuters outflow data at NUTS 2 level allow a more detailed analysis of the possible balance of inflow/outflow of cross-border commuters (Table 25 and the related analysis in Annex 4). Although these data do not allow a precise quantification of the bilateral flows of commuters between pairs of countries, they show a reasonable amount of balancing between countries so that no country manifestly remains with an excessively large imbalance of commuters. In the case of Romania for instance, a significant share of the commuters commute to Ukraine and Moldova, where RLAH is not applicable. Altogether, the net extra wholesale RLAH costs of cross-border commuters are therefore much more limited than the total extra wholesale costs of the full outflows shown in Table 23 and Table 24.

*Limited volume flat-rate offers: operators may not impose any volume limit (other than the limit of the domestic offer)*

The domestic volume available at any time of consumption is usable in a roaming situation as it is usable at home. In other words, on each of the 90 RLAH days, the non-consumed part of the domestic subscription at this point in time within the month is fully available to the roaming customer as it is available on every domestic day within the month. Once the domestic volume is reached, any roaming consumption in excess is subject to the same domestic out-of-bundle fee as at home.

Prohibiting any volume limit below the volume of the domestic offer ensures full consistency of the consumption of roaming services with the domestic tariff plan. This enables the user to consume mobile services while roaming in the same way as they are consumed at home.

The same is true of metered domestic offers where no volume limit may be imposed.

*Open flat-rate offers: operators may not impose any volume limit less than average aggregate monthly consumption on the domestic tariff plan*

The average monthly volume consumed domestically by subscribers of a given domestic open tariff plan represents a volume that is consistent with that domestic tariff plan. It is therefore in line with the objective of FUP. This average monthly volume should therefore be made available to the user in each month he/she is abroad in the EU, for as long as the total number of days over the year remains below 90. The operator may apply a roaming surcharge to roaming consumption in excess of that volume, in accordance with Article 6e(1) of the Roaming Regulation.

*Conclusion on roaming needs covered*

Respecting the prohibited practices outlined in this option in designing any FUP covers the roaming needs of the vast majority of users. Roaming needs that may potentially not be fully covered are those of the business users very frequently travelling abroad in the EU (more than 90 days cumulatively per year) and long-stay travellers that move temporarily to another Member State for longer periods.

Users who travel very frequently for business purposes typically have access to specific, ad-hoc, contracts that suit their particular needs. These contracts are different from those of the consumer mass market. Long-stay travellers that move temporarily to another Member State for several months are covered by any FUP over three months as long as they come back to their home country once a month (a limit of 30 consecutive RLAH days may be imposed by the operator). Beyond three months, the traveller is meant to register as a resident of the foreign Member State and may therefore not be considered to be periodically travelling.

A time criterion of 3 months or less is supported by half of the consumers in the public consultation and no volume restrictions on fixed-volume domestic tariff plans by more than 80% of the consumers. In contrast, only about 10% of the operators support a time criterion of 3 months or longer and 12% the absence of volume restrictions on fixed-volume domestic tariff plans (see Annex 2).

Finally same-day log-on exclusion from FUP ensures that frontier workers and more generally inhabitants of border areas crossing the border are fully covered as long as they cross the border back and forth on the same day.

b) Simplicity: The list of prohibited practices in applying any FUP is based on simple and transparent criteria that allow a normal use by the vast majority of subscribers of its subscription. In addition, since most users travel far less than the possible time limits that an operator may be allowed to apply, most users will not need to remain aware of the particular FUP applied by their operator. They will only keep the peace of mind that they are very unlikely to reach any FUP limit and never pay any surcharge while roaming in the Union.

Finally, since the list of prohibitions is based on simple criteria, NRAs can easily monitor compliance with these minimum safeguards. That option minimizes the number of time and volume criteria to be used in view of ensuring simultaneously the ability of FUP to prevent permanent roaming (i.e. 3 months per year and 30 consecutive days criterion) and the ability of users to consume roaming volumes at domestic price that are consistent with their respective tariff plans (i.e. 3 months per year, no volume limit on fixed-volume bundles, volume limit only on open bundles).

c) Ability to prevent arbitrage: For the operator, the list of prohibited practices allows a lot of flexibility in adopting measures preventing permanent roaming depending on the type of tariff plans at stake and the billing systems adopted. The exclusion of daily log-out/log-on from FUP may imply some implementation costs.

The option allows operators to effectively tackle the risk of arbitrage while complying with the list of prohibited practices: the total roaming duration may be limited to one fourth of the year and the operator may impose monthly log-ons to its network. This implies that the maximum amount of RLAH per year with one SIM card is only 8.3% of the subscription if the user stays permanently abroad without logging-on to the network owning the SIM card. This is much less than the ratio between the highest and lowest price Member States (as a proxy, the lowest average monthly ARRPU, i.e. 3.7 EUR in Latvia and Lithuania, represents about 15.5% of the highest one, i.e. 23.8 EUR in Ireland (see Figure 1 in section 2.1). In other words, buying a SIM card from a Latvian operator and using it permanently in Ireland, the user may pay only about 15.5% of the price of the SIM card of an Irish operator, but would be able to consume only 8.3% of the Latvian SIM card if the user did not travel to Latvia within the year. In order to consume 25% of the SIM card, the user would need to travel 3 times in the year to the Member State of the SIM card (i.e. 3 domestic log-ons).

The number of SIM cards needed to replicate a yearly usage is 12 with no domestic log-on (1 SIM card every 30 days), and 4 with 12 domestic log-ons (1 SIM card every 3 months with a domestic log-on every 30 days). In other words, a user would need to buy 4 SIM cards from a low-cost Member State and travel 12 times per year to that Member State<sup>47</sup> to permanently roam in another (more expensive) Member State and use fully that subscription. While such arrangements might be more easily undertaken in order to use a SIM card of a less expensive Member State in a more expensive *contiguous* Member State, from which frequent trips to the "domestic" Member State could be envisaged, the price differences between contiguous Member States are much less significant than between the Member States with the highest and lowest ARRPU (Ireland and Latvia respectively). In fact, these differences do not in any case exceed a ratio of 2:1. The gain in return for an inconvenient and artificial pattern of SIM swapping and cross-border travel would be highly unlikely to outweigh the burdens from the point of view of most end-users.

Since such an abusive circumvention of FUPs, whether in the case of neighbouring or more distant Member States, would in any case require the need to use special devices (double or multiple SIMs devices) and/or deviation from normal usage (multiple subscriptions, frequent SIM-churning), these are likely to be very unattractive/unprofitable for the users.

In addition, in case an operator has evidence of anomalous/abusive/fraudulent use of roaming services (such as multiple registration of SIMs, SIMs with no or insignificant domestic consumption, etc.), the operator would be allowed to apply a roaming surcharge if, after having alerted the customer, the abusive practice continues. For instance, operators would be able to react to anomalous use patterns such as domestic login with minimal domestic use, followed by a long period of inactivity, followed by intensive roaming use.<sup>48</sup>

Regarding the additional measures for pre-paid cards, a minimum domestic consumption equivalent to 1 month of average national ARRPU consumption before using any RLAH traffic may act as an effective safeguard against an abusive use of pre-paid cards for roaming purposes only. In particular, this measure would hinder business models/intermediaries based on resale of foreign pre-paid SIMs, since it will require activation as well as actual usage of the SIM in the home country before RLAH is made available. This would render more expensive, impractical, as well as unsafe (in view of the unknown activation as well as usage<sup>49</sup>), the abusive use of pre-paid SIMs in visited countries, even where SIM registration is not required. At the same time, the requirement appears to be in line with a normal usage pattern and the reference to consumption, rather than to a simple time limit, allows to limit any potential temporal restriction to switching stemming from this FUP.

While under this option, any operator may choose to allow its subscribers to benefit from RLAH for a longer total duration than 90 days in a year, or even to not apply any FUP to

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<sup>47</sup> By using in sequence the 4 SIM cards, the user could reduce the number of travels to the Member State of the SIM card to 3 per year. The user could also mail his/her SIM card by post to a correspondent in the Member State of the SIM card. This however also represents an obvious obstacle contributing to reduce considerably the interest in such arbitrage practices.

<sup>48</sup> Such a practice would tend to suggest the presence of an arbitrage trade in SIM cards being initially / periodically logged on to the domestic network of the low-price home operator and then used sequentially abroad.

<sup>49</sup> The user would become the customer of an abusive business SIM intermediation scheme and may not know what the use of a second-hand anonymous SIM card was, nor by whom the card was used.

RLAH at all, there is a risk that obliging all operators to allow for a longer duration of RLAH than 90 days a year may prevent some of them to effectively tackle permanent roaming through arbitrage, given the large price (proxied as ARRPU) differential between Member States pictured in Figure 1 in section 2.1. These differences can be used as proxy for the incentives for business and individuals to arbitrage. In that respect, the number of SIM cards and the number of domestic log-ons (i.e. travel to the country of the SIM card) required constitute the main obstacles to arbitrage. The longer the allowed total RLAH duration in the year, the higher the risk of arbitrage. The less frequent the required log-ons, the higher the risk of arbitrage. A combination of 90 days per year and log-ons every 30 days together constitute a solid obstacle to arbitrage while, in light of actual travel patterns, it does not impinge on the roaming needs of the vast majority of users while periodically travelling in the EU.

Finally, while the costs for home operators to provide RLAH as default to end users who engage in periodic travel, and in non-anomalous mobile roaming use during such travel, are not in principle a relevant factor in considering the detailed application of the legislative test, it can be remarked that home operators' effective exposure to such a FUP is well below the maximum amount of RLAH potentially available under this option: the effective amount of RLAH consumed is self-limited by the effective travelling patterns of the home operator's subscribers, taking into account that the possibility to use RLAH is by no means a determinant of travelling. Hence, in accordance with the given travelling patterns (see section 6.1.1), only a very small minority of users will be likely to fully or substantially use the amount of RLAH traffic potentially available under this option. This is particularly the case in countries with the lowest ARRPU, which have in general also among the lowest indicators of travelling patterns or in any case are below the EU average (such as LU, LV, RO, BG, PL). As long as arbitrage may be effectively prevented through any FUP under this option, the effective travel patterns of legitimate users constitute in themselves a powerful protection of home operators against intensive RLAH-driven exposure to wholesale costs.

#### **6.1.5. Option 4: EU FUP defined as a combination of time and volume limits**

a) User needs covered: The time limit of 35 days does not cover the full annual holiday time in about half of the Member States (see Figure 7 in Annex 4); in addition it does not include the associated week-ends which are included within the holiday periods. In the public consultation, almost one third of the operators support a time criterion based on annual paid holidays or longer, and the same proportion of the consumers supports this time criterion or shorter (see Annex 2).

As explained in section 6.1.1, the full distribution of travellers per annual number of days abroad (variable (i)) is not known. As a consequence, the exact percentage of EU travellers that spend individually less than 35 days abroad cumulatively in a year is not known. According to the best proxy available (Table 5 in section 6.1.1), in 2015, 6% of Eurobarometer's respondents made 3 or more holidays with more than 13 consecutive days away from home and 12% of respondents made 4 or more holidays between 4 and 13 consecutive nights away from home, which are mostly 1-week trips. As these figures include domestic holidays (i.e. made inside the country of residence), the share of EU residents making more than 35 days of holidays away *integrally* outside their country in the EU is smaller than the mere sum of these figures. Nevertheless, the number of travellers for personal purposes who are potentially not covered by a time limit of 35 days a year is likely to be non-negligible. And yet those travellers may not be qualified as abusing roaming services.

This time period also covers trips abroad of travellers for professional purposes up to 35 days per year, i.e. 2.9 days (or slightly more than half of a working week) per month on average. Although it cannot be precisely quantified, this presumably covers a fair share of the needs of businesses, though not all by far.

The time limit does not cover long-stay travellers nor frontier workers and more generally border areas' inhabitants.

The limited number of billing periods (3 periods) available for RLAH in the year does not accommodate travel patterns made of regular short-stay trips, including same-day visits, and thus reduces flexibility in the use of roaming services at domestic prices throughout the year. One short-stay trip (same-day visits, 2- or 3-day trip) would "consume" one month of entitlement to RLAH. If three such short trips are repeated before a longer holiday trip abroad is made (this is a frequent situation for residents of smaller countries), the latter would not be covered by FUP but would fall fully under the roaming surcharge regime. In 2015, 20% of EU residents (up to 49% of FI residents<sup>50</sup>) made more than three short-stay trips away from home (including trips within their country of residence and trips to non-EEA countries), 12% of EU residents (up to 20% of FI residents) made more than three times 4 to 13-night trips, and 3% of EU residents (up to 11% of HR residents) made more than three trips of more than 13 nights (see Table 5 in section 6.1.1). Although this includes (presumably numerous) domestic trips and trips to non-EEA countries, and not only trips abroad in the EEA, this indicates that the proportion of travellers travelling more than three times a year abroad in the EEA is not residual.

In addition, the volume limit of 50% of the domestic fixed-volume flat rate offer that may be imposed by the operator arithmetically limits the roaming consumption of travellers staying more than 2 weeks consecutively abroad. According to available statistics (Figure 6), this represents about 8% of overnight trips in the EEA. The 50% volume limit may represent an additional restriction even on those, much more numerous, who travel for shorter periods (e.g. 1 to 2 weeks), as domestic consumption patterns are not necessarily perfectly regular throughout any given month – there is no evidence that roaming use will in aggregate exceed domestic use over the same period, but it should be possible at the individual level.

Therefore, in addition to not fully covering all users travelling for personal purposes (let alone business travellers, long-stay travellers and frontier workers), this option does not cover fully the roaming needs of a non-negligible part of them. In addition, such a volume limit may be considered as not fully in line with the objective of enabling users to consume volumes of roaming services at domestic price that are *consistent* with their respective tariff plans. For some of the users, applying a 50% volume limit would enable them to consume volumes of roaming services at domestic price that are *consistently below* that of their respective tariff plans. In the public consultation, a 50% volume limit or any lower volume limit is supported by more than half of the operators as a means to limit exposure to RLAH costs, while it is widely rejected by consumers.

b) Simplicity: The minimum FUP of this option is based on simple and transparent criteria, easy to understand by the user. However, the justification of the volume limit may not be understood by the users whose expectation is to be able to consume volumes of roaming

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<sup>50</sup> Flash Eurobarometer 432, March 2016.

services that match that of their domestic tariff plans. The monthly implementation (3 months per year) may also be perceived as a rigid limitation to the number of trips abroad within the year. The user has to count and remember any time he/she crossed a border in the Union in a given year and be aware if several of these border crossings happened within the same billing period (month) of his/her mobile contract, in which case only one RLAH month covers them.

c) Ability to prevent arbitrage: In terms of implementation, the annual time limit (35 days) and the volume limit (50% of the domestic volume, usually a monthly volume) may not be straight-forward to articulate; such a combination would probably require a daily volume limit (e.g. 1/30 of the monthly volume), which does not allow a flexible use of roaming services at domestic prices, as it considerably limits the possible variation of roaming consumption (at domestic prices) from one day to the other.

Due to the limited annual duration and the additional volume limit, any FUP designed according to this option can effectively tackle the risk of permanent roaming: the maximum potential amount of yearly RLAH usage compared to average domestic usage is only about 5% with the 35 days limit<sup>51</sup> and 12% with the 3-month limit<sup>52</sup>, i.e. below the largest price difference observed in the market on the basis of ARRPU (Latvia's ARRPU represents about 15% of Ireland's ARRPU, see Figure 1 in section 2.1). Altogether, since fraudulent circumvention of FUPs would in any case require the need to use special devices (double or multiple SIMs devices) and/or deviation from normal usage (multiple subscriptions, frequent SIM-churning), these are likely to be very unattractive/unprofitable for the users.

Regarding the additional measures for pre-paid cards, a minimum activation period of 2 months may act as an effective safeguard against an abusive use of pre-paid cards for roaming purposes only. This however may also act as a time-rigid deterrent to switching operator, in particular in Member States where the market is based to a significant extent on pre-paid cards, while not fully ensuring against fictional activation of the card for the purposes of resale. Given the wide range of ARRPU across Member States (see Figure 1 in section 2.1), a single minimum credit for pre-paid cannot be a relevant and appropriate safeguard in all Member States. If that minimum is set at the level of the lowest ARRPU, this does not act effectively as a safeguard in Member States with the highest ARRPU. If that minimum is set at a higher level than the lowest ARRPU, this would act as a barrier to roaming to users in those Member States. In addition, the minimum credit could be left for an indefinite amount of time and the card still be passively used (received calls only).

## 6.2. Sustainability mechanism

The assessment of the different policy options is based on the capacity to fulfil the general and specific objectives laid down in section 4.2.1 above:

- 1) Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH: establish a sustainability mechanism that appropriately and consistently identifies the circumstances where the implementation of RLAH may result in a risk to the operator's domestic charging model.

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<sup>51</sup> 50% of the domestic bundle over 35 days (about 10% of the year).

<sup>52</sup> 50% of the domestic bundle over the full 3 months allowed (25% of the year).

- 2) Implementation: ensure a robust, simple and fair application process for both NRAs and operators and
- 3) Digital Single Market: ensure a consistent application of the sustainability mechanism across the EU.

In general terms, it needs to be pointed out that the impact of the design of the sustainability mechanism is by definition highly circumscribed to those operators who are likely to apply for a derogation (see also Section 7) and to their respective customers, even though wider market effects could also be expected if the policy design is unsatisfactory or too fragmented (i.e. sustainable operators are able to apply and get a derogation in certain Member States). Given the calculations presented below and the conclusions of the impact assessment accompanying the Commission proposal on wholesale roaming markets<sup>53</sup>, the Commission Services expect non-sustainable operators that truly risk bringing a waterbed effect to their domestic markets to indeed be limited in practice to exceptional cases, mainly to some small MNOs with highly imbalanced roaming traffic and low ARRPU and some MVNOs. This will in turn have an effect on their customers by virtue of the surcharges they would be entitled to impose on consumption of regulated retail roaming services. Bigger operators will be able to sustain RLAH with the new wholesale roaming caps and their capacity of negotiation (as well as intra-group on-net provision in some cases), so the Commission Services do not expect any major impacts of the different options of the sustainability mechanism on these bigger market players.

### **6.2.1. Option 1: Baseline scenario: No action at EU level**

As it is a legal obligation for the Commission to act, this is not a valid policy option and merely serves as a reference scenario for the impact analysis.

#### **6.2.1.1. Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH**

This Option entails a serious risk of fragmentation of the RLAH context, endangering the overall objectives of the policy. NRAs would decide individually in relation to the open issues in the Roaming Regulation, including the proportion of actual and projected data to be delivered by the operators and the ways in which domestic and roaming margins are assessed. This would in principle allow for a greater adaptability to domestic conditions. However, given the scope for differing interpretations of the Roaming Regulation, this could mean that some operators that would not be considered sustainable under harmonized conditions could apply a roaming surcharge. The opposite could also be the case: reasonably unsustainable operators facing exceptional circumstances could be denied the derogation, while similar operators in other Member States would be able to apply a surcharge. There is then no guarantee that this option would avoid a waterbed effect, nor that significant asymmetries and disruptions would not emerge in the market.

#### **6.2.1.2. Implementation**

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<sup>53</sup> SWD(2016)202, Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

While in principle easier to implement than Option 2, this Option runs the risk that NRAs initially apply different interpretations of the Roaming Regulation, including those sections or issues that the Commission Services consider are already well described in the text. This would not only increase even further an initial risk of fragmentation, but also bring complexity to the process, as corrections, potentially backed by legislative action, would have to be done during the implementation. Depending on NRAs' decisions, the implementation costs for operators could diverge significantly, contributing to disrupt telecom markets.

### **6.2.1.3. Digital Single Market**

This Option could trigger an artificial division not only at the operator level, but also within Member States, where some countries would enjoy widespread RLAH while others facing similar economic conditions would not. This entails a risk of fragmentation and threatens the level playing field necessary to achieve the Digital Single Market.

## **6.2.2. Option 2: Harmonisation of the sustainability assessment at EU level**

### *Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH*

As mandated by the Roaming Regulation, this Option, which would entail the elaboration of an implementing act, would significantly reduce the risk of fragmentation, as the implementation of the sustainability mechanisms would be made homogeneous across the EU. NRAs would have clear guidelines to follow in both the implicit and the open issues described in the Roaming Regulation. This would reduce, if not eliminate, the divergences in the assessment of sustainability applications. The RLAH system would then be evenly widespread and the risk of a potential waterbed effect would be assessed in a proportionate manner in every Member State.

### *Implementation*

The Option would give clear guidelines to NRAs, assessing any potential implementation issues in accordance with the Roaming Regulation. The risk that NRAs give different interpretations to the text of the Roaming Regulation is virtually eliminated. The implementation costs for operators would be similar across the EU.

### *Digital Single Market*

Option 2 significantly reduces the risk of fragmentation between operators and consumers, thus expanding the ways in which RLAH can contribute to establish a well-functioning Digital Single Market.

## **6.2.3. Assessment of the impact of policy issues within Option 2: Harmonisation of the sustainability assessment at EU level**

### **6.2.3.1. Issue 1: How much actual data do operators need to submit in the first sustainability application?**

#### **6.2.3.1.1. Option 2.1.1 – 0 months of actual RLAH data (12 months of projected data).**

### *Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH*

This option is the one that minimizes potential roaming-specific losses in the RLAH context for unsustainable operators. However, no actual data in the RLAH context would be provided



by the operator at the time of the first submission, which could introduce a great degree of uncertainty and variability in the way that operators calculate their projections, and NRAs assess them. The RLAH rules are a new context to which mobile costumers might react in different ways. This uncertainty in actual volume consumption, which is recognized by the very same operators and other stakeholders, will not be properly captured with projections, thus risking that applications are accepted based on unrealistic grounds, limiting the diffusion of RLAH, hampering the consumer, and extending surcharges to non-exceptional cases.

Limits on how to calculate the projections could be set (e.g. taking domestic consumption as referent), but this assumption could be misleading, especially during the initial period of applicability (e.g. because it might take time for consumers to build up confidence in the international use of their devices, even in a heavily publicised RLAH context). Moreover, since it is not excluded that an equivalent level of service to those available domestically may not be always available whilst roaming, this can also make projection-based applications highly unrealistic as regards the volumes likely to be consumed.<sup>54</sup>

Another element to be noted is that the lack of actual RLAH-data from the specific operator could extend over time. In the case that an operator is quickly granted a derogation, this operator would have no actual data even at the time when the application needs to be revised and renewed (12 months after the derogation is granted according to the Roaming Regulation).

Another degree of uncertainty that would not be properly incorporated in this option is how the wholesale market is going to react to the entry into force of the RLAH rules. In the public consultation, 70% of mobile operators (including MVNOs) anticipate that the RLAH obligation will affect the functioning of the wholesale roaming market. However they have different and opposite views as to what this effect will be. The Commission has set the 2017 wholesale caps in its legislative proposal to account for this uncertainty and minimize the number of unsustainable operators. It was also taken into account the observed (but limited) market and organizational dynamics, which could ultimately bring wholesale prices below the regulated caps. The shorter the operator's exposure to the RLAH rules, the greater the negative incentive on operators to properly re-negotiate wholesale prices on the basis of new volumes.

### Implementation

Even within a harmonizing context, the implementation of this option could be highly fragmented due to the different criteria that NRAs might apply in assessing the projections, which will have an effect throughout the whole sustainability equation. Moreover, given the Roaming Regulation, which requires that an operator provides both "actual and projected data" in the application, this option could generate uncertainty for both operators and NRAs. Other than that, the option does not entail greater implementation complexity than the alternatives. Operators whose application is accepted would minimize the period in which they would have to re-adapt their tariff model (introducing a sustainability exception will be commercially easier than in the other options).

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<sup>54</sup> For example, if domestic customers accustomed to 4G use at home travel in a rural area where only 3G services are available to roaming providers, this is likely to restrain their usage pattern.

### Digital Single Market

A mechanism based solely on projections risks yielding more surcharges and fragmentation. In turn, it would also risk jeopardising the benefits to the Digital Single Market of a RLAH system that is applied consistently across the EU. RLAH derogations might be obtained by many operators based on differences in the approaches used to project future RLAH volumes, especially in some Member States, creating a situation where fewer consumers would benefit from RLAH, and triggering a division within the EU where some countries enjoy RLAH and others don't.

#### **6.2.3.1.2. Option 2.1.2 -1.5 months of actual RLAH data (10.5 months of projected data)**

##### Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH

Unsustainable operators (which, the Commission Services expect, will only be relatively small MNOs with highly imbalanced traffic and low ARRPU and some MVNOs) would incur a minimum of 1.5 months of roaming-specific losses in the RLAH context. Given the new wholesale caps regulation, however, it is highly unlikely that this short period would trigger a waterbed effect on domestic prices, particularly if the operator expects to be granted a derogation. One should also consider that, according to different sources, roaming accounts, in general terms, for less than 5% of operator's revenues, so it would be very unlikely that a short roaming-specific loss prompts an operator to increase prices in the domestic market, from which it derives at least 95% of revenues.

In this option, operators would be obliged to provide at least 1.5 months of actual RLAH data. Any projections would then have to be based on the actual and current behaviour of the operator's customers when using RLAH, which could be significantly different from that of the previous year/summer. For this reason, projections would be more robust, they would limit uncertainties as regards the assumptions made by operators and NRAs on the impact of RLAH on demand and costs. This option would also avoid fragmentation across the EU if NRAs adopted differing views as to the impact of RLAH on volumes and would reduce disruptions and unjustified surcharges. Subsequent applications could be based on this actual data, which would give a measure of the specificities of the operator, together with broader RLAH market data. This option would also provide greater incentives for operators to negotiate better deals in the wholesale market, which could ultimately improve their sustainability.

##### Implementation

Given that NRAs will count on actual data to assess the application, the implementation from the regulator point of view is made easier. On the other hand, operators who are granted the surcharge might have to change their roaming tariffs again only a few weeks after the RLAH tariffs have been implemented, but presumably not beyond the summer months. Marketing strategies could then be adopted after/before the summer months, thus limiting the impact on both operators and consumers. However, since operators will have to update their application every 12 months, this issue might be considered inherent in the RLAH system.

### Digital Single Market

With the inclusion of actual RLAH-data in the application, this option significantly reduces the risks that the Digital Single Market may be distorted due to unduly justified differences in

the assumptions made by operators and NRAs in their applications for a sustainability derogation.

**6.2.3.1.3. Option 2.1.3 - 3 months of actual RLAH data (9 months of projected data).**

Sustainability Objective

Operators would be obliged to provide 3 months of actual RLAH data which they can hand over to the NRA. They can base their projected costs on this data, and thus make their application more robust and easier to assess by the NRA. On the other hand, an unsustainable operator with no negotiating power in the wholesale roaming market could experience a maximum of 6 months of roaming-specific losses. Given that this period could include almost the entire summer period, the risks that these losses are passed-on to domestic prices is still low but higher than the previous alternatives. Furthermore, it seems unnecessary to require such a level of actual RLAH data when 1.5 months would already provide a sufficient degree of certainty on the likely impact of RLAH on demand and costs.

Implementation

The implementation would be made more robust and harmonized for NRAs, but harder for unsustainable operators, who would have to deal with losses and potentially tariff switches.

Digital Single Market

With the increase probability of a waterbed effect, this option might create certain disruptions in the Digital Single Market.

**6.2.3.2. Issue 2: The financial ratio that should be used to assess the operator's domestic margin**

**6.2.3.2.1. Option 2.2.1: Earnings Before Interest Tax Depreciation and Amortisation (EBITDA)**

Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH

There are advantages and disadvantages associated with any profitability measure. EBITDA is the most commonly used measure to assess the profitability of companies. Compared to the other measures of profitability considered, it could be argued that EBITDA may result in a higher profitability margin. However, EBITDA has several advantages over the rest of financial measures as regards the assessment of profitability, namely, because it does not account for:

- debt interest payments, which depend largely on the company's management decision as regards their choice of capital financing;
- taxes, which can vary significantly depending on acquisitions and/or losses in prior year, which can distort the assessment of the net income of the company when operating on a business as usual basis;
- depreciation and amortisation, thereby removing the arbitrariness and subjective judgments inherent in the company's decision as regards the approach towards calculating depreciation and amortisation in its accounts (e.g. the lifetime of the assets, their residual values and the depreciation approach).

Implementation

EBITDA is the most commonly used measure to assess the profitability of a company. This is likely to facilitate the assessment of sustainability by the operator and its review by the NRA.

In terms of the complexity of the sustainability assessment, no particular financial measure presents advantages over the others, as all would be used in the same way.

#### Digital Single Market

EBITDA is not defined in the Generally Accepted Accounting Principles (GAAP), which means that companies may estimate it using different approaches, which can lead to inconsistent treatment both between operators and across Member States.

However, EBITDA removes several potential sources of differential treatment between companies and Member States, ensuring greater consistency across Member States, namely, differences in (i) capital financing, (ii) the treatment of taxes (and tax-deductible losses), and (iii) the treatment of depreciation and amortisation. There is a risk that these sources of divergences could otherwise lead to an inconsistent treatment of companies in objectively similar circumstances, which could in turn distort the Digital Single Market.

#### **6.2.3.2.2. Option 2.2.2: Earnings Before Interest and Tax (EBIT)**

##### Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH

EBIT is similar to EBITDA but the former includes depreciation and amortisation. It could be argued that EBIT may provide a better approximation of the true profitability of the company, however, the Commission Services considers that including depreciation and amortisation, whose treatment may vary significantly between companies, can distort the company's true profitability and may similarly distort the sustainability assessment. Potentially, it could result in different sustainability outcomes for companies with similar conditions.

##### Implementation

Although it could be argued that EBITDA is the most commonly used measure to assess the profitability of a company, and this may facilitate its application by operators and review by NRAs, in terms of the complexity of the sustainability assessment, the Commission Services do not favour any particular financial measure, as all would be used in the same way.

#### Digital Single Market

EBIT is not defined in the Generally Accepted Accounting Principles (GAAP), which means that companies may estimate it using different approaches, which can lead to inconsistent treatments both between operators and across Member States.

EBIT would be similar to EBITDA, however, EBIT does not remove one of the potential sources of differences between companies, namely, the potential for a differential treatment of depreciation and amortisation between companies. There is a risk that this could lead to an inconsistent treatment of companies with similar conditions, which could in turn distort the Digital Single Market.

#### **6.2.3.2.3. Option 2.2.3: After tax measure of profitability**

##### Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH

An after-tax measure of profitability may distort the true profitability of the company, as it would include interest on debt, taxes, depreciation and amortisation, whose treatment may vary significantly between companies, as described above.

### Implementation

Although it could be argued that EBITDA is the most commonly used measure to assess the profitability of a company, and this may facilitate its application by operators and review by NRAs, in terms of the complexity of the sustainability assessment, the Commission Services do not favour any particular financial measure, as all would be used in the same way.

### Digital Single Market

As discussed above, an after-tax measure of profitability would not remove several sources of differential accounting treatment between companies. There is a risk that this could lead to an inconsistent treatment of companies with similar conditions, which could in turn distort the Digital Single Market.

#### **6.2.3.3. Issue 3: A sustainability percentage representing a specific proportion of the domestic margin.**

In this section we assess the preferred approach as regards the sustainability percentage that should allow for a derogation based on sustainability.

##### **6.2.3.3.1. Option 2.3.1: A sustainability percentage representing a specific proportion of the domestic margin.**

#### Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH

The level of the sustainability percentage has as its overall objective to avoid that the implementation of RLAH results in a waterbed effect on domestic prices. The Roaming Regulation assumes that, if wholesale roaming maximum rates and/or market mechanisms are subject to appropriate revision and if the Commission lays down optimal criteria for the sustainability mechanism, the risks of such waterbed effects will be largely eliminated and derogations will be limited to specific and exceptional circumstances.

By definition, lower sustainability percentages (5% or below) are likely to further limit any residual risk that the implementation of RLAH might have an effect on domestic prices, but they might also hamper the natural diffusion of RLAH offers by permitting the granting of derogations beyond those operators truly facing specific and exceptional circumstances in the new regulatory system, generating an *observable* risk of domestic retail price increases.

Therefore, the most appropriate assessment strategy is, first, to estimate a safe sustainability percentage that sufficiently reduces the risk of a waterbed effect, starting by assessing a low percentage that would have a limited impact for operators. The assessment will then seek to verify whether application of such low percentage would result in the sustainability cases being in fact exceptional, as anticipated by the co-legislators when adopting the Roaming Regulation.

In relation to the objective of avoiding a waterbed effect from losses on regulated retail roaming services onto domestic prices, the Commission Services note the following.

In the public consultation, the Commission services asked respondents to answer the question on the sustainability percentage. The options ranged from 5 % (lowest) to 20 % (highest).

While the results are inconclusive, many operators provided qualitative answers arguing for the lowest possible percentage, including 0%.

Would very low percentages below 5% or even 0% represent a credible waterbed risk? There are three areas of enquiry that will help answering this question: economic theory, relative importance of roaming revenues and empirical research.

### *Economic Theory*

Economic theory has identified factors that may affect the relationships between cost changes (e.g. such as an increase in the wholesale costs of providing regulated retail roaming services due to the expected increase in demand for roaming services under the RLAH system) and price changes. In particular, firms are assumed to maximise their profit given their level of marginal costs and the degree and nature of competition they face. On this:

- it would be expected that the greater the degree of competition the greater the pass-on of any change in underlying costs onto prices; and
- there is a distinction to be made between firm-specific and industry-wide changes in costs. An industry-wide change in underlying costs is more likely to be passed-on to prices than a change affecting a single firm competing in the market.

The Commission Services note that domestic retail mobile markets in the EU have been considered competitive, however, it is unlikely that all retail mobile markets in the EU can be considered to function under perfect competition conditions currently. This means that it should be expected that operators would not pass-on in full to domestic prices any change in its underlying costs due to the implementation of RLAH. To the contrary, it is more likely that operators would absorb some of the change in their underlying costs and this would depend on the level of competition present in their domestic retail mobile markets.

In addition, it should be noted that prior to any sustainability derogation, the changes imposed by the RLAH system would affect all mobile operators in the EU, in other words, the changes would be industry-wide. However, the impact that these changes will have on individual operators is likely to vary depending on the subscribers of each individual operator and the traffic flows of these subscribers (e.g. whether the operator is a net receiver/sender of roaming traffic or the level of roaming traffic of the operator's subscribers). Again this is likely to mitigate any pass-on of changes in costs onto domestic prices. For example, the Commission Services have observed that in several Member States there are operators that are net receivers of roaming traffic whereas other operators active in the same national market are net senders. This could mean that, absent other effects, some operators are likely to increase their profits while others could suffer losses from the implementation of RLAH. In this situation, if operators suffering losses tried to compensate these through increases in domestic prices, it is likely that this attempt would be neutralised by the switching of their subscribers to the operators that have experienced an increase in profits due to RLAH (as these are unlikely to increase domestic prices). Overall, this means that operators suffering losses may be better off by absorbing these small losses or changing the wholesale negotiation strategy than trying to compensate them through increases in domestic prices, as noted above.

### *Relative Importance of Roaming Revenues*

Moreover, the Commission Services also note that the wholesale roaming review showed that for 80% of the operators, intra-EEA retail roaming traffic represents less than 2% of their

total traffic for voice and data. While this proportion is expected to increase under RLAH, in particular for data, the sustainability threshold should be in line with the relative importance of retail roaming traffic in total traffic, a proportion which might also have a significant effect on the risk of a waterbed effect.

### *Empirical Research*

While there is no robust empirical research on domestic price increases related to roaming, the above considerations are consistent with the studies conducted to assess the potential for a waterbed effect associated with regulation of mobile termination rates. Ceteris paribus, reductions in termination rates would have been more likely to lead to a waterbed effect, given that they represent a much greater proportion of operators' revenues than roaming services.

In light of the above, the Commission Services consider that **a low sustainability percentage of 5%** is a safe percentage that would avoid the risk of appreciable effects on the domestic charging model of operators implementing the RLAH system. While, in the Commission Services view, higher percentages would also pose relatively minor risks of a waterbed effect, one can have greater confidence in reaching the conclusion that a 5% percentage would avoid domestic prices being increased due to higher roaming costs. Neither economic theory nor empirical evidence on waterbed effects and the relative importance that roaming revenues have for operators would justify the consideration of lower percentages.

In the following paragraphs, the Commission Services show that, as predicted by the Roaming Regulation, a 5% sustainability percentage would limit the number of derogations to exceptional and specific circumstances.

Indeed, in the impact assessment accompanying the Commission legislative proposal on wholesale roaming markets<sup>55</sup>, we conducted a sustainability assessment based on the wholesale price caps proposed by the Commission of €4c/min; €1c/SMS; €0.85c/MB. We explained that we had modelled three different scenarios:

- **Scenario 1-Low sustainability scenario:** the scenario that is likely to produce the lowest sustainability, as it assumes a low 10% domestic retail margin; reduces the estimated domestic retail prices by 20% and increases the outbound roaming traffic forecast by 20% while reducing the forecast domestic retail volumes by 20%;
- **Scenario 2-High sustainability scenario:** the scenario that is likely to produce the highest sustainability, as it assumes a high 50% domestic retail margin and reduces the forecast outbound roaming traffic by 20% while increasing the forecast domestic retail volumes by 20%;
- **Scenario 3- Base case scenario:** the scenario to which we attach the highest probability given its underlying assumptions of a 30% domestic retail margin; the retail prices derived using the DG CNECT study and the volume forecast derived using BEREC data;

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<sup>55</sup> Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

Based on the wholesale price caps proposed by the Commission and the evidence gathered by the Commission Services from operators in Member States, we estimated the share of the operators in our sample that would have:

- Positive sustainability (i.e. RLAH does not result in a negative retail roaming margin)
- Negative margin on retail roaming services and the percentage of operators in the sample that have a negative margin:
  - Below 1% of the domestic retail margin
  - Between 1-3%
  - Between 3-5%
  - Greater than 5%

Using the sustainability analysis in the Commission's IA of the wholesale review we can derive the proportion of operators in our sample that would be eligible to obtain a sustainability derogation (assuming other qualitative criteria were also fulfilled in the market in question) if we set the sustainability percentage at each of: (i) 1%, (ii) 3%, and (iii) 5%, given the wholesale price caps proposed by the Commission. We present these results under each of the three scenarios modelled using the format [x%-y%] (z%) in Table 9 below, where:

- x% is the percentage of operators under Scenario 1 (Low sustainability);
- y% is the percentage of operators under Scenario 2 (High sustainability); and
- z% is the percentage of operators under Scenario 3 (Base case scenario).

**Table 9: Percentage of operators in our sample that would obtain a sustainability derogation at different sustainability percentage levels given the wholesale price caps proposed by the Commission**

		Sustainability %			
		Positive roaming margin	1%	3%	5%
% of operators		[81%-91%] ( <b>88%</b> )	[14%-6%] ( <b>8%</b> )	[9%-2%] ( <b>6%</b> )	[8%-0%] ( <b>2%</b> )

Table 9 above shows that with the wholesale price caps proposed by the Commission and the evidence from operators gathered by the Commission Services for the impact assessment accompanying the Commission legislative proposal on wholesale roaming markets<sup>56</sup>:

- 88% of operators in the sample would have a positive roaming margin under our base case scenario (81% in the case of the scenario with the assumptions resulting in the lowest sustainability and 91% with those resulting in the highest sustainability);
- with a sustainability percentage at 1%, 8% of operators would be eligible to obtain a sustainability derogation under our base case scenario (14% in the lowest sustainability scenario and 6% in the highest sustainability scenario);

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<sup>56</sup> Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets



- with a sustainability percentage at 3%, 6% of operators would be eligible to obtain a sustainability derogation under our base case scenario (9% in the lowest sustainability scenario and 2% in the highest sustainability scenario); and  
with a sustainability percentage at 5%, 2% of operators would be eligible to obtain a sustainability derogation under our base case scenario (8% in the lowest sustainability scenario and 0% in the highest sustainability scenario).

As shown in section 6.1.4, the possibly greater use of roaming services by cross-border commuters under Option 3 of fair use policy, is not expected to lead to major additional sustainability problems, due to the small size of the population concerned and the compensating traffic flows of those commuters.

In sum, a sustainability percentage of 5%, which in the view of the Commission Services' would eliminate the risk of appreciable effects on domestic prices or waterbed effect, is also consistent with the prediction of the Roaming Regulation that the number of derogations from RLAH would be exceptional. A higher percentage (in the public consultation, the Commission considered percentages of up to 20%) would not only increase the risk of a waterbed effect, but make the possibility of a sustainability derogation highly unlikely for operators facing difficult economic circumstances. The Commission Services consider, in contrast, that sustainability percentages lower than 5% would make derogations more likely in cases where the risks of an appreciable waterbed effect are negligible, and thus increase the risk that additional derogations would be granted to operators whose specific circumstances do not justify this, having regard to the objectives of the Roaming Regulation. For these reasons, the Commission Services consider that the most appropriate sustainability percentage to avoid the risk of an appreciable waterbed effect is 5%.

### Implementation

In terms of the implementation of the mechanism, the Commission Services consider that the choice of a particular sustainability percentage is unlikely to affect the complexity or robustness of the mechanism itself.

However, choosing higher sustainability percentages than 5% would be likely to lead to a very limited number of applications for derogations based on sustainability, while lower sustainability percentages would have the opposite effect. This is likely to render unnecessarily burdensome the review of operators' applications by NRAs and could potentially reduce the scope and quality of the scrutiny of operators' applications by regulators. The Commission Services believe that it is important that NRAs ensure that the sustainability mechanism is applied consistently and robustly across the EU.

In light of the above, the Commission is of the view that the objective of a correct implementation of the sustainability mechanism suggests that a sustainability percentage of 5% is likely to be the most appropriate.

### Digital Single Market

In relation to the objective of achieving the Digital Single Market, to which the implementation of RLAH throughout the EU is closely bound, the Commission Services note that lower sustainability percentages are likely to increase the number of unjustified sustainability derogations. The Commission Services have however noted above that a sustainability percentage of 5% is likely to limit the number of sustainability derogations to only exceptional and specific cases, where risks of domestic waterbed effects become more

tangible. On this basis, the Commission considers that the Digital Single Market objective could already be largely achieved with a sustainability percentage of 5%.

**6.2.3.3.2. Option 2.3.2: A sustainability percentage representing a variable proportion of the domestic margin depending on the magnitude of the domestic margin.**

*Avoid waterbed effect while ensuring consistent and maximum applicability of RLAH*

An alternative to having a fixed sustainability percentage, would be to consider a sustainability percentage that varies with the magnitude of the domestic margin, with lower domestic margins requiring lower sustainability percentages for the operator to be granted a derogation from the Roaming Regulation.

On this, the Commission Services note that a fixed sustainability percentage that is expressed in proportional terms (i.e. in percentage terms) as the one discussed under Option 2.3.1 already takes into account the relative magnitude of the domestic margin. This can be shown with the hypothetical example presented in Table 10 below.

**Table 10: Example of how a fixed value sustainability percentage accounts for the relative magnitude of the domestic margin**

		30% domestic margin	20% domestic margin	10% domestic margin	formula
(a)	Domestic revenues	1000	1000	1000	
(b)	Domestic margin	300	200	100	
(c)	% domestic margin	30%	20%	10%	$[(b)/(a) \times 100]$
(d)	Sustainability percentage	5%	5%	5%	
(e)	% of total domestic margin	1.5%	1.0%	0.5%	$[(c) \times (d)]$
(f)	Absolute share of total domestic margin	15	10	5	$[(a) \times (e)]$

The example in Table 10 presents the hypothetical case of an operator with €1000 revenues and a domestic margin of respectively 30%, 20% and 10%. The example shows that if we used a fixed value sustainability percentage equal to 5%, then the level of losses that would trigger a sustainability derogation would decrease the lower the domestic margin:

- with a 30% domestic margin (€300) a roaming loss corresponding to 1.5% of the total domestic margin (€15) could trigger a sustainability derogation;
- with a 20% domestic margin (€200) a roaming loss corresponding to 1.0% of the total domestic margin (€10) could trigger a sustainability derogation; and
- with a 10% domestic margin (€100) a roaming loss corresponding to 0.5% of the total domestic margin (€5) could trigger a sustainability derogation.

In other words, a fixed value sustainability percentage (such as the one discussed in Option 2.3.1) already takes into account the relative magnitude of the domestic margin. For this reason, the Commission Services do not consider it necessary to further decrease the sustainability percentage in line with the level of the domestic margin. To the contrary, the approach discussed in Option 2.3.1 already accounts for the relative level of the domestic

margin and consequently also accounts to a large extent for the level of competition, prices and revenues in the domestic market. It would in addition be for the NRA considering a derogation request in a case where the defined threshold of roaming losses has been reached, to assess other factors relevant to the specific operator and market in order to reach a final conclusion on the likelihood of a waterbed effect in the absence of a derogation. For this reason, the Commission Services consider that **Option 2.3.1 and Option 2.3.2 would similarly achieve the objective of avoiding a waterbed effect while ensuring a consistent and maximum applicability of the RLAH system.**

### *Implementation*

In terms of implementation, an approach based on varying sustainability percentages would be more complex to implement than the approach with a fixed value. In particular, the Commission or the NRAs would need to find an appropriate benchmark to define a specific sustainability percentage for each of the bands of domestic margins defined. It seems difficult to find criteria that would justify the choice of a specific sustainability percentage associated with each level of domestic margin. This level of additional complexity seems unnecessary, given that a fixed-value sustainability percentage already takes into account the relative size of the domestic margin (as discussed above), which seems the main objective of adopting Option 2.3.2. For this reason, the Commission Services consider that **Option 2.3.1 would be preferable to Option 2.3.2 as regards the objective of a simple implementation mechanism.**

### *Digital Single Market*

In relation to the objective of achieving the Digital Single Market, the Commission Services consider that an approach based on sustainability percentages that vary with the magnitude of the domestic margin could have similar results to one based on fixed-value sustainability percentages as regards the objective of achieving the Digital Single Market. This would depend entirely on the exact definition of the domestic margin bands and their associated sustainability percentages. Therefore, the Commission Services have a **neutral position between Option 2.3.1 and 2.3.2 as regards the objective of achieving the Digital Single Market.**

## **7. COMPARISON OF OPTIONS**

### **7.1. Fair use policy**

The four options are compared against the three specific objectives outlined in section 4.1. As it is a legal obligation for the Commission to act, Option 1 (baseline scenario) is not a valid policy option and merely serves as a reference scenario for the impact analysis.

### *Ability to prevent arbitrage and flexibility in implementation*

Any FUP should enable the home operator to effectively prevent an abusive use of the SIM cards of that operator in another Member State than that of the SIM cards via the roaming access in that other Member State. In that regard, all the options considered in sections 0 and 6 should enable the home operator to effectively prevent permanent roaming, since all of them include the possibility to apply a temporal limit that would make any attempt to permanently roam with one or several SIM cards complex, unattractive and uneconomic. Among all the options considered, Option 3 is the option that includes the largest temporal limit while not affecting the ability of the option to act as an effective safeguard against permanent roaming.

In addition, while by definition leaving effectively less flexibility in FUP implementation by operators than Option 1 where no rules at all are imposed, Option 3 does leave the freedom to operators to design FUP that fit their particular implementation constraints as long as they do not go beyond the maximal restrictions laid down in this option. In particular, Option 3 defines a list of banned practices rather than imposing a specific structure to FUP and allows adopting additional measures, after contacting the user, in order to tackle specific cases where evidence of anomalous and abusive use is found, it leaves more flexibility to the operator than Options 2 and 4 in designing any FUP tackling abusive or anomalous usage.

All types of operators, independently of their respective sizes and including MVNOs, will be able to apply FUP in accordance with the proposed option. The actual implementation costs will depend on the implementation modalities chosen by the operator wishing to apply a FUP while respecting the rules defined in the proposed option.

### Users' needs covered

The impact of FUP on the users is the extent to which FUP covers their roaming needs, i.e. their travelling patterns and volumes of roaming services while on travel that are consistent with their respective domestic tariff plans. While operators may be trusted for designing FUP that enable them to prevent permanent roaming with their SIM cards, Option 1 is not in line with the mandate given to the Commission in the Roaming Regulation. In the absence of detailed rules on FUP, the possibility to cover users' needs is largely left to the choice of the operators, subject to considerable uncertainty as to how the directly applicable provisions of the Roaming Regulation (periodic travel, consistency with users' domestic tariff plans) would be interpreted. Since this option leaves it to the discretion of operators to define FUPs, it is not possible to quantify the proportion of EU travellers whose roaming needs would possibly not be covered. However, as operators' incentives are probably not fully aligned with the interests of users, that proportion of uncovered EU travellers is likely to be high, thus endangering the effective and consistent application of RLAH.

Option 2 is the preferred options of operators in the public consultation, as it considerably limits their exposure to RLAH. This option would indeed cover the roaming needs of approximately only half of the travellers for personal purposes, a potentially small part of the roaming needs of business travellers, and none of the roaming needs of long-stay travellers and frontier workers. Such a FUP would therefore not merely allow operators to prevent permanent roaming or abusive use of roaming services, but in addition would restrict the benefit of RLAH for half of the travellers, the vast majority of whom could not plausibly be said to be using roaming services in an abusive or anomalous fashion.

Similarly, although to a lesser extent than Option 2, Option 4 does not cover part of the roaming needs of EU travellers, namely travellers staying two consecutive weeks or more abroad in the EEA, travellers making frequent short-stay trips abroad, frontier workers and more generally residents in border areas.

Option 3 in contrast covers the roaming needs of virtually all travellers for holiday purposes, a large share of business travellers, frontier workers and more generally residents in border areas. Under Option 3, travellers staying more than 30 days consecutively abroad may not always be covered beyond the 30<sup>th</sup> day of their stay. According to the data available, this however represents only 0.1% of the overnight trips abroad (see Figure 6 in section 6.1.1).

### Simplicity for the user

By relying on a few clear temporal and volume criteria, Options 2, 3 and 4 all provide for a simple and transparent design of FUP by operators. Compared to Option 2 and 3, Option 4 presents the shortcoming that users who are likely to travel abroad more than 3 times or more than 35 days in the year (depending on the FUP applied by the operator under that option) need to count their travels (and whether they are in the same billing period) and days abroad in order to anticipate whether they will be within FUP or not. By leaving the design of FUP entirely to the discretion of the operators, Option 1 provides for the least transparent situation for the user who will face many different FUPs of potentially very different amplitudes, with a high likelihood that the desired FUP of the user, if existing at all on the national market, may not be associated with the otherwise preferred domestic offer of that user. Leaving the design of FUP entirely to the discretion of the operators would be likely to lead to consumer enforcement problems by NRAs (consumers' complaints, disputes, inconsistency of treatment, corresponding delays in achieving implementation of the requirements of the Roaming Regulation).

It is not possible to quantify precisely the administrative costs of monitoring each option by NRAs. As Option 2 includes only a time limit it is likely to be easier to monitor, to the detriment of the consistency across the EU (in terms of RLAH volumes available) and to the adequate coverage of the roaming needs of non-abusive travellers. Options 3 and 4 include additional time criteria and volume limits to be monitored, compared to Option 2. Option 3 minimizes the number of time and volume criteria to be used in view of ensuring the objectives of FUP.

### Conclusion

Table 26 in Annex 7 provides a summary comparison of the four options. Option 3 ensures a far better outcome for the user than Options 1 and 2, and a substantially better outcome for the user than Option 4, while still allowing home operators to effectively tackle the risk of arbitrage. Moreover, since Option 3 defines a list of banned practices rather than imposing a specific structure to FUP and allows adopting additional measures, after contacting the user, in order to tackle specific cases where evidence of anomalous and abusive use is found, it leaves more flexibility to the operator than Options 2 and 4 in designing any FUP tackling abusive or anomalous usage.

Finally, while the costs for home operators to provide RLAH as default to end users who engage in periodic travel, and in non-anomalous mobile roaming use during such travel, are not in principle a relevant factor in considering the detailed application of the legislative test, its chief protection against losses from roaming by its normal domestic clientele is neither the temporal limit nor the volume limit in a FUP, but the effective *travel patterns of that clientele*, provided the home operator has sufficient tools to prevent losses that would be incurred through intensive RLAH usage based on arbitrage/permanent roaming. For example, residents of the lowest-price Member States (such as LV, LT, RO, BG) have average travelling patterns abroad below the EU average (see Table 16 and Table 19 in Annex 4). That is why the sustainability simulations done in the Impact Assessment accompanying the Commission proposal on regulating the wholesale roaming market<sup>57</sup> (based on new wholesale caps, extension of domestic use patterns while roaming, average days abroad) did not show

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<sup>57</sup> See Table 6 in Impact Assessment accompanying the Proposal for a Regulation of the European Parliament and of the Council amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

operators in any of these low-price countries to be at significant risk (exposure between 0 and 0.5% of annual ARRPU). As shown in section 6.1.4, the possibly greater use of roaming services by cross-border commuters under Option 3 of fair use policy, is not expected to lead to major additional sustainability problems, due to the small size of the population concerned, the compensating traffic flows of those commuters, and in a number of cases, the presence of the operator on both sides of the border.

## 7.2. Sustainability mechanism

### 7.2.1. Comparison of stakeholders' views on the different options/issues

No stakeholder (including NRAs) has expressed support for the baseline scenario or Option 1 (there is no implementing act harmonising the methodology of the sustainability mechanism across the EU), implying that the generally preferred option is that the Commission defines certain harmonization rules for the NRA to apply (Option 2). As described above, however, there are a significant number of operators, both big and small, that have stated, in the public consultation (PC), their reservations about establishing a sustainability mechanism at all. The Commission Services have discarded this option, as it would not comply with the Roaming Regulation, already established by the co-legislators.

Regarding the operators' PC responses on the different issues considered within Option 2, there is, in general terms, no clear-cut division between big/small/north/south operators, with some exceptions reflected below. There is a significant percentage of "no answers", "don't know" and qualitative comments, reflecting also a view stated by significant number of operators that the sustainability mechanism should not be **too complex or too intrusive**.

**On Issue 1** (How much actual data do operators need to submit in the first sustainability application?), the first thing to note is that in the PC, the most favoured answer is that the period to assess sustainability (using both/either actual and projected data) should be of one year, as it has been the Commission Services conclusion taking into account the derogation's renewal period established by the Roaming Regulation. The few NRAs responding this specific section in the PC agree with this interpretation. Some big and small operators claim that this would be the right timeframe to evaluate seasonality. To a lesser extent, shorter terms are also argued for in order to limit losses.

As for actual data to be reported, the PC raised the question only within the context of an application being done after the entry into force of RLAH, and did not ask specifically for some of the options considered in this report. However, a division of views is already significantly reflected in the answers, with 25% of operators arguing that the assessment should be entirely based on projections (corresponding to Option 2.1.1), 17.5% arguing for 3 months of actual data (corresponding to Option 2.1.3) and 22.5% stating that one year of actual data would be necessary to properly assess sustainability.

Among the arguments of those operators that would like longer actual time series, which are generally large operators and incumbents, there are:

- After the changes introduced by RLAH, the consumer behaviour will not stabilise for several bill cycles.
- The need to take into account the seasonality effects.

Operators who would like shorter series or no actual data to be reported in the application argue that:

- Requiring actual data implies that the operator will incur losses, which is not acceptable.
- Elasticity data could be derived from comparing just after a short period of the introduction of RLAH, or taking into account previous RLAH offers.

**On Issue 2** (The financial ratio that should be used to assess the operator's domestic margin), the majority of operators argue for other options than the ones proposed in the PC (After tax profit, Ebit and Ebitda), which makes the consultation inconclusive in this respect.

Some arguments expressed by operators to discard the options are:

- The proposed measures would not reflect non-telecommunication services that operators might offer.
- Financial measures are published on the whole company level without the mobile service details.
- The cost of capital is not taken into account.
- Not enough granular data.

It has to be pointed out that no clear alternative from the ones proposed emerges from the qualitative answers provided by operators.

**On Issue 3** (The sustainability percentage that should allow for a derogation) the majority of operators prefer other options than the percentages proposed in the PC (5, 10, 15 or 20%). The most widespread argument for discarding the options is that, according to operators, RLAH should be considered unsustainable as soon as the margin for retail roaming services is negative. As discussed above, the Commission Services consider this option clearly outside the scope of the Roaming Regulation, which establishes a two-step process whereby operators have to ultimately demonstrate an impact on the overall domestic charging model.

### **7.2.2. Commission's assessment of the best option**

As it is a legal obligation for the Commission to act, Option 1 (baseline scenario) is not a valid policy option and merely serves as a reference scenario for the impact analysis. The different comparative arguments of each sub-option of Option 2 have been outlined in the tables below. In this introduction the Commission Services simply present the preferred sub-options.

The Commission Services consider that **Option 2** (the elaboration of an implementing act making explicit the details of a sustainability mechanism and resolving the key open issues) is absolutely necessary to fulfil the objectives of the sustainability provision, ensuring a widespread application of RLAH across Europe, limiting the potential cases of a waterbed effect, and ensuring a level playing field in the DSM. The Roaming Regulation envisions the elaboration of such implementing act, which harmonizes the conditions of the sustainability assessment across Europe.

Option 2 requires addressing a series of implementation issues, which are not addressed in detail in the Roaming Regulation.

**On Issue 1** (How much actual data do operators need to submit in the first sustainability application?), the Commission Services consider that 1.5 months of actual data (Option 2.1.2) strikes the correct balance between limiting potential losses for unsustainable operators and limiting the dependency on projections, two concerns shared by both operators and NRAs.

**On Issue 2** (The financial ratio that should be used to assess the operator's domestic margin), the Commission Services consider that EBITDA (Option 2.2.1) is the most appropriate measure, as it is the most commonly used to assess profitability in the financial sector, particularly when comparing companies, and it is agnostic to differences in taxes and debt treatment between Member States and also to differences in rules used by companies as regards accounting treatment of these elements and amortisation in their accounts.

**On Issue 3** (A sustainability percentage representing a specific proportion of the domestic margin).the Commission Services consider that the best option is a sustainability percentage (Option 2.3.1) of 5%. While such percentage avoids the risk of a waterbed effect, our statistical analysis also confirms the Roaming Regulation assumption that derogations from RLAH would be exceptional, potentially limited to only small MNOs in low-price countries with large outbound roaming imbalances and low ARRPU as well as some MVNOs<sup>58</sup>, provided wholesale market mechanisms are the subject of appropriate reforms.

Altogether fully defining the methodology for the sustainability assessment as proposed in Option 2, is expected to have a positive impact on the small perimeter of operators, if any, which are more likely to be in the specific and exceptional circumstances for applying for a sustainability derogation, while being neutral to the vast majority of the other operators that will be able to sustain RLAH with the new wholesale roaming caps.

As regards consumers, the impact of the sustainability mechanism will be only on the customers of the limited number of operators, if any, that will obtain a sustainability derogation and continue applying retail roaming surcharges<sup>59</sup>. The sustainability mechanism will therefore have no impact on most, if not all, consumers in the Union.

The main cost for the operator applying for the sustainability derogation will be the 1.5 months (plus additional time until the derogation is granted by the NRA) of actual RLAH losses that the operator has to go through before it is granted the derogation. The cost, for the operator, of putting together the information necessary to demonstrate the non-sustainability of the domestic charging model, and for the NRA to assess that demonstration, is dictated by the need to adequately determine the costs and revenues related to the provision of retail roaming services. The method for determining these costs and revenues has been defined so that they are appropriately quantified. Only the few NRAs confronted with an application for the sustainability mechanism, if any, will have to bear the cost of examining that application<sup>60</sup>.

Our assessment is summarised in the tables in Annex 7.

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<sup>58</sup> See Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

<sup>59</sup> Ibid.

<sup>60</sup> According to the Impact Assessment accompanying the Commission proposal on wholesale roaming markets (COM(2016)399), at most a handful of Member States may be concerned.



## 8. MONITORING AND EVALUATION

This section presents the monitoring and evaluation mechanism and indicators proposed to assess the progress achieved in both FUP and sustainability vis à vis their intended general objectives: for FUP, to effectively prevent permanent roaming, while ensuring consumption consistent with the tariff plan of the consumer; and for sustainability, to ensure the sustainability of domestic charging models in the RLAH context while fulfilling the general RLAH objectives.

It should first of all be pointed out that monitoring and evaluation obligations and tools are already provided for in the parent Roaming Regulation. In particular, Article 6(d)4 of the Roaming Regulation requires the Commission to "periodically review the implementing acts adopted pursuant to paragraph 1 in the light of market developments".

Regulation 2015/2120 also requires the Commission to submit a report every 24 months, starting from the date of the report on wholesale market that accompanied the "Impact Assessment Accompanying the Document Wholesale Roaming Legislative Proposal", i.e. as from June 2018. The timing and contents of this report, which will include the indicators that refer to FUP and sustainability, have already been discussed in the impact assessment accompanying the Commission legislative proposal on wholesale roaming markets<sup>61</sup>.

As analysed in the latter, the first reporting exercise currently foreseen in the Roaming Regulation may provide an initial overview of the entry into force of the new retail and wholesale regulatory regimes, although it would not be able to take into account data covering an entire year of application of the new regime. For this reason the above-mentioned proposal suggests to align the two-years periodic reporting obligations of the Roaming Regulation to the entry into force of RLAH. Taking into account the link between the entry into force of the RLAH and the implementing acts as well, it is also proposed to align the periodic review of the implementing acts mentioned in Article 6(d)4 of the Roaming Regulation to the general review clause, i.e. each two years from the entry into force of RLAH.

With regard to the *content* of the monitoring and evaluation exercise, some of the monitoring and evaluation indicators considered in the context of the impact assessment accompanying the Commission legislative proposal on wholesale roaming markets are also directly relevant for the implementing acts at stake as they include:

1. Existence or not of specific operators effectively using wholesale roaming access conditions for the purpose of large-scale permanent roaming in a domestic market: domestic market distortions due to operator's abusive use of wholesale conditions for other purposes than the periodic travel of their customers need to be monitored. In case these abuses cannot be prevented by visited operators, appropriate regulatory measures will need to be taken.
2. Number of sustainability requests filed by operators and accepted by NRAs pursuant to Article 6c of Roaming Regulation and impact on domestic and

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<sup>61</sup> Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

roaming markets: this will provide an indication of the operators that effectively demonstrated that provision of RLAH was exceptionally deemed unsustainable, including whether specific types of operators (small, independent, new entrants) are particularly affected.

To this set of indicators, having considered the options and issues reflected in this impact assessment, the Commission proposes to add the following:

3. Usage of roaming services while travelling: the analysis of usage behaviour of roaming services in the past showed the high barrier to fully replicate domestic consumption while roaming due to roaming overcharges<sup>62</sup>. A new analysis of usage patterns under RLAH regime shall provide evidence to assess that fair use policies effectively applied by operators do not still represent a barrier to use RLAH while periodically travelling.
4. Overview of additional fair use policy clauses adopted by operators to tackle specific abusive or anomalous usage following prior contact of the consumer: based on monitoring activity on the implementation of the Roaming Regulation by the NRAs, the amount and kind of additional measures justified to tackle anomalous or abusive usage (as well as the degree of litigation) allows to verify the adequacy of the list of prohibited practices laid down in this implementing act.
5. Cross-border travelling patterns: continuous monitoring of these indicators are meant to ensure that the vast majority of travelling patterns currently covered by the list of prohibited practices are still ensured in view of developments of mobility within the Union.
6. Number of derogation requests authorised that have been renewed after the first 12 months of validity: this will provide an indicator on the maintenance and/or gradual disappearance of the exceptional circumstances justifying the initial derogation applications.
7. The specific level and distribution of the sustainability surcharges being applied by operators. While, as discussed above, the implementing act will not give specific indications on these issues, there are a series of limited risks that are worth monitoring regarding the application of the sustainability surcharges (e.g. surcharges that are in excess of wholesale roaming caps, surcharges differing significantly between operator's tariff plans, potential bill shocks associated with surcharges, etc.)
8. Number and comparative pricing of alternative RLAH tariffs. Given the behavioural economic issues associated with roaming, it is necessary to regularly monitor the existence and conditions of alternative roaming tariffs in the EU, in line with previous reports on the issue produced by BEREC.

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<sup>62</sup> See in particular e-Communications Household Survey and Telecom Single Market Survey Roaming Results (Special Eurobarometer 414).

With specific regards to the tools for monitoring and evaluation, NRAs are under a general obligation to strictly monitor and supervise the application of fair use policies and the measures on the sustainability of abolition of retail roaming surcharges and to inform annually the Commission on the application of Articles 6b and 6c, as well as on the detailed rules provided for under Article 6d of the Roaming Regulation. Hence the Roaming Regulation empowers NRAs and the Commission to gather most of the information needed to perform evaluation and monitoring of indicators sub 2, 4, 6 and 8 above. This can be completed with the overall monitoring and reporting tasks provided for in the Roaming Regulation with regard to indicators sub 1 and 7, while indicators sub 3 and 5 can be fulfilled in the regular monitoring and statistical data gathering exercises of the Commission.

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## **ANNEX 1: Procedural information concerning the process to prepare the impact assessment report and the related initiative**

### **1. Information and data gathering**

For the purposes of the wholesale roaming review conducted until June 2016<sup>63</sup><sup>64</sup>, the Commission Services gathered data and information about pricing and consumption patterns in collaboration with BEREC.

For the purposes of this impact assessment, the Commission Services gathered, in addition, relevant statistics on travels by EU residents from the two main sources providing such data, namely Eurostat and the Eurobarometer.

The analysis made in this impact assessment benefited from regular exchanges with the BEREC International Expert Working Group from March to June 2016.

### **2. Public consultation (see Annex 2)**

On 26 November 2015 the Commission Services launched a wide-ranging 12-week public consultation to gather views on the detailed rules needed for the application of fair use policy to the consumption of roaming services at domestic prices, and on the appropriate content and design of the methodology for assessing whether the abolition of retail roaming surcharges would undermine the sustainability of the domestic price model of a given operator<sup>65</sup>. The public consultation was closed on 18 February 2016. The Commission received 92 responses to the consultation<sup>66</sup>.

### **3. Commission's inter-service group**

The Commission inter-service group established for the wholesale roaming review further supported the preparation of this impact assessment report. The following Commission services participated in the group: Secretariat General, Legal Service, Competition, Internal Market, Industry, Entrepreneurship and SMEs, Justice and Consumers. The group met on a regular basis throughout the wholesale roaming review process and the preparation of this implementing act.

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<sup>63</sup> See section 2 in Commission Staff Working Document accompanying the Report from the Commission to the European Parliament and to the Council on the review of the wholesale roaming market

<sup>64</sup> See Annex 1 in Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

<sup>65</sup> In addition, the public consultation included one set of questions related to the review of the wholesale roaming market. See Annex 2 in Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

<sup>66</sup> In addition, three respondents sent their replies by e-mail and two respondents sent separate position papers . BEREC published the BEREC Report on the wholesale roaming market (BoR(16)33) on 29 February 2016.

## ANNEX 2: Stakeholder consultation

### 1. Methodology of the public consultation and of this report

The Commission Services ran a consultation on fair-use policy and the sustainability mechanism for 12 weeks from 26 November 2015 to 18 February 2016 for 12 weeks. The purpose was to gather views on the detailed rules needed for the application of fair use policy to the consumption of roaming services at domestic prices, and on the appropriate content and design of the methodology for assessing whether the abolition of retail roaming surcharges would undermine the sustainability of the domestic price model of a given operator. Contributions will be taken into account in the Commission's implementing act on fair use policy and the sustainability mechanism, provided for in the Roaming Regulation as amended in 2015<sup>67</sup> (hereinafter the Regulation). The replies of contributors who agreed to publication are available on [Digital Single Market website](#). This report analyses the replies to the public consultation.

All online contributions were analysed for the purposes of this report<sup>68</sup>. The consultation targeted mobile operators, national regulators, public authorities, civil society organisations, businesses and citizens.

The analysis was conducted by type of respondents and centres on the two main themes of the consultation:

1. Detailed rules on the application of fair use policy to the consumption of roaming services at domestic prices
2. Methodology for assessing the sustainability of the domestic price model after the abolition of retail roaming surcharges, subject to fair use, in the EU

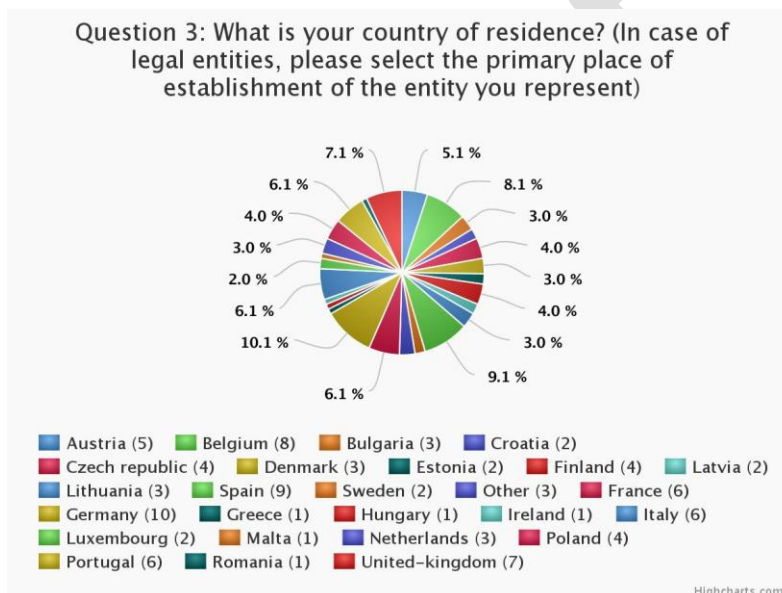
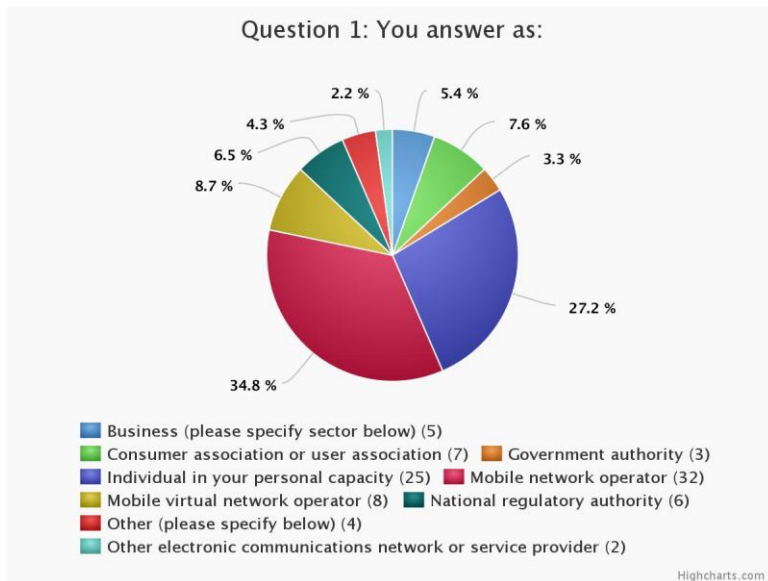
### 2. Respondents' profile

A total of 92 replies came through the online questionnaire; 3 by e-mail; 2 respondents sent position papers. The response rate is comparable to the Commission Services' last public consultation on roaming in 2011 (90 replies). Respondents came from 25 EU Member States and Norway.

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<sup>67</sup> Regulation EU 531/2012 of 13 June 2012 on roaming on public mobile communications networks within the Union, as amended by Regulation 2015/2120 of 25 November 2015

<sup>68</sup> The three contributions received by e-mail and the two positions papers received fed into the qualitative analysis but are not included in the statistics. In addition, the Body of European Regulators for Electronic Communications (BEREC) published its [analysis of the wholesale roaming market](#) on 29 February 2016. While this analysis has served as an input to the wholesale roaming review conducted by the Commission, it is not reflected as such in the present Synopsis report, which focuses on the analysis of the replies to the online questionnaire.



Among the 32 mobile network operators (MNOs) that replied to the public consultation, the 9 group operators<sup>69</sup> which operate mobile networks in at least 3 EU countries responded as a group i.e. 1 reply per group. Only one affiliate of one of these nine group operators contributed separately in addition to the group. Therefore, 22 independent MNOs (operating in one or two Member States) replied to the public consultation. Since the 9 group operators represent in total 64 operators in the 28 Member States plus Norway, the responses to the public consultation cover a total of 86 MNOs, plus 8 mobile network operators (MVNOs), thus covering most of the telecom sector in the EU plus Norway (the total number of MNOs and MVNOs is approximately 140; those not having responded are among the smaller operators).

<sup>69</sup> Deutsche Telecom, Hutchinson Europe, Orange, Tele2, Telefonica, Telekom Austria, Telenor, TeliaSonera, Vodafone.

Citizens and consumers' associations responded mainly to the questions related to fair use policy, and only marginally to the questions related to the sustainability mechanism. 6 national regulators and 3 government authorities replied to the questions.

### 3. Fair use policy (FUP)

**Individual consumers defend the most generous fair use policy possible, that would accommodate the roaming needs for tourism/holiday and business, as well as roaming needs in border regions (such as daily border crossing).**

**Mobile operators argue that fair use policy for EU-wide RLAH should apply for occasional travellers i.e. tourism/holiday needs throughout the EU. According to them, more intensive roaming needs for business purposes and border regions are dealt with through specific tariff plans addressing the specific needs of those customers.**

#### 3.1. Consumers and users' associations<sup>70</sup>

Consumers and user associations defend the most generous fair use policy possible, that would accommodate the roaming needs for tourism/holiday, as well as roaming needs in border regions, in particular inadvertent roaming (84% of consumers, 6 out of 7 user associations). There is slightly less, but still massive, support for covering roaming needs for professional purposes (76% of consumers, 4 out of 7 user associations). Consumers consider that FUP should address only very exceptional abuses of roaming services, which however they do not characterise. A few consumers are of the view that there should not be any limitation at all to RLAH. One user association is of the view that a different approach is needed for business users with contracts covering multiple devices based in multiple Member States and being used across the EU (and beyond). Two user associations are of the view that any limitation should occur only for well justified exceptions where proven, additional, unavoidable and significant costs are incurred by the operator in relation to the consumers' own individual consumption patterns, and never in relation to national averages or similar alternatives. The same two user associations are of the view that FUP should in any case be a temporary measure to allow for the market to make its transition to a fully RLAH-based market. FUP or any other type of limitation to RLAH plans should disappear entirely once wholesale caps have been reduced. For now, almost all responding consumers (96%) defend the definition of FUP at EU level, and a large majority (64%) do not suggest that FUP should take other forms than time and volume limits.

Consequently consumers prefer the long duration definitions of periodic travel proposed in the consultation<sup>71</sup> (i.e. the definitions referring to half a year, to the number of working days in the year, to the time period for establishing a residence in a Member State), while references to the annual number of days abroad in the EU of EU residents or to paid holidays period to define periodic travel are chosen by a minority (8% and 16% respectively). A substantial proportion of consumers (36%) think that intermittent travelling time (travels for less than 24 hours) should not be counted against the time limit. Consumers and user associations massively support the view that 100% of a fixed-volume domestic tariff plan should be available while roaming (76% of consumers, all user associations replying to that

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<sup>70</sup> Users' associations include consumers' and business users' associations.

<sup>71</sup> Question 47.

question (4 out of 7)). For open domestic tariff plans, massive support is given to applying on roaming the same fair use policy as at home (72% of consumers, all user associations replying to that question (2 out of 7)). Consumers (68%) and user associations (3 out of the 4 replying to this question) are of the view that FUP should not address the issue of using pre-paid SIM cards for receiving calls only while roaming.

### 3.2. Mobile operators

There is a general consensus on the fact that FUP limits should be expressed in terms of time and/or volume limits (70% of responding operators): time limit and volume limit, or volume limit only. In practice, the volume limits discussed and proposed by operators are always linked to a time period of consumption (day, month or year) so that in every FUP formulation, both time and volume limits are in fact present.

Operators call for simple, customer-oriented, easy to understand and communicate, FUP. At the same time, many operators call for a high level of flexibility allowing a wide range of combinations of time and volume limits, possibly adapted by tariff plan. Some of these operators are of the view that this flexibility should in particular allow differentiating the FUP for the mass market customers and business customers, for pre-paid and post-paid customers. The requested flexibility also concerns the implementation itself, in particular the time period over which FUP is applied. In that regard, alignment of the FUP formulation over the billing cycle (usually the month) is seen by many operators as the easiest and least costly way to implement FUP, as well as the most understandable and easy to communicate to the customer. In contrast, a few operators call for a unique minimum FUP applicable to all subscriptions throughout the EU.

About half of the operators are of the view that a minimum FUP should be set at EU level, allowing operators to go beyond and compete on more generous FUP terms than the minimum. Almost one quarter of them think it should be defined at Member State level and the same proportion thinks FUP should be entirely left to the operator. An overwhelming majority (almost 80%) of operators consider that FUP should cover roaming needs of occasional roamers EU wide, while roaming needs of business customers and customers in border regions should be addressed by targeted offers covering the specific needs of these roamers (e.g. geographical coverage, other conditions than pricing).

Operators are more divided as regards the relevant duration of travel to be considered for occasional roamers. About half of the operators consider that the concept of "periodic travel" in the EU is well covered by the average annual number of days abroad in the EU of EU residents (i.e. of the order of 7-10 days per year). However, the other half is of the view that "periodic travel" refers to a longer time period within the year, covering the travelling time abroad in the EU of a larger share of roamers than the simple average (e.g. 20 days, 2 weeks, 70<sup>th</sup> or 80<sup>th</sup> percentile, annual paid holidays).

Operators' views on the volumes to be covered by FUP are scattered. None of the alternatives proposed in the consultation<sup>72</sup> prevails among the operators' replies. Operators have in

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<sup>72</sup> Question 51 for domestic tariff plans with limited volumes: 100% of the domestic tariff plan, 50%, less than 50%, % share depending on the domestic tariff plan. Question 52 for domestic tariff plans with unlimited volumes: domestic fair use volume, average domestic consumption on the domestic tariff plan, largest fixed volume domestic tariff plan.



addition suggested a number of distinct other alternatives. One of the more commonly used principles in the replies is that during the defined periodic travel time of the FUP, roaming consumption at domestic prices should in any case not be (much) higher than domestic consumption; it should at most be similar.

This principle is used by operators to justify both that 100% and 50% or less of the fixed volume of a domestic tariff plan should be available without any surcharge to the roaming customer during the defined periodic travel time of the FUP. If the defined periodic travel time of the FUP is less than 6 months in a year, 100% of the domestic fixed volume represents less than 50% of the domestic tariff plan. If no travel time limit within the year is applied, 50% or less of the domestic fixed volume available throughout the year represents by definition no more than 50% of the domestic tariff plan.

For domestic tariff plans with open volumes, each of the three alternatives proposed in the consultation<sup>73</sup> is considered as the easiest to implement and understand and the fairest to customers by a few operators. In contrast, a few operators suggest applying the same volume limit to both limited and open offers, or even to all subscriptions.

A large majority (almost 90%) thinks that FUP should also apply to incoming calls. Some of them think that FUP for incoming calls should be more restrictive than for the other services, even null (retail roaming surcharge to be applied for each call received while roaming) for a few operators. Some operators suggest that a minimum activation period and usage at home and/or a minimum credit available on a pre-paid card for receiving calls should be mandated.

### 3.3. Governments and National Regulatory Authorities (NRAs)

Those NRAs and governments which responded favour the definition of a common minimum FUP at EU level rather than at Member State level. They do not suggest other parameters than time and volume to define FUP.

These NRAs and governments consider that the scope of the Regulation is roaming while on travel in the EU for personal purposes. This covers the roaming needs of the vast majority of the users. More intensive users of roaming, like in the business sector, have access to specific tariff plans to meet their roaming needs. Roaming needs in border regions (inadvertent roaming, cross-border workers) are very particular and each of them only concerns at most 2 or 3 countries simultaneously. They cannot be used set the standard for an EU-wide regulation which is of general application. In fact, roaming needs in border regions are daily needs, therefore close or equal to permanent roaming needs which are explicitly considered beyond the scope of the Regulation. Roaming-related issues in border regions need specific measures and solutions provided by market players which are not within the scope of the Regulation.

Respondent NRAs and governments favour making 100% of a fixed-volume domestic tariff plan available for roaming at domestic prices<sup>74</sup>. In case of open domestic tariff plans, the domestic FUP and the FUP allowed in the largest fixed-volume domestic tariff plan of the

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<sup>73</sup> Question 52 see previous footnote.

<sup>74</sup> The one responding 'less than 50%' chose that option in isolation of the time limit, on the ground that roaming consumption at domestic prices should be less than domestic usage. Any time limit below half a year combined with 100% of the domestic fixed volume (instead of 50%) would ensure this.

operator are preferred as being at the same time the closest to the user's need and the simplest to implement for the operator and to understand for the user.

In a nutshell, NRAs and governments are closer to the operators' majority view as regards the scope and objective of FUP (roaming while on travel for personal purposes, holidays, tourism) and thus on the definition of periodic travel, while they are closer to the users' majority view as regards the volumes from the domestic tariff plans to be made available for roaming at domestic prices. On the definition of periodic travel however, NRAs and governments on the one hand and operators on the other hand are not fully aligned since the former favour longer time periods to fully cover the roaming needs of personal travel, while the majority of operators think that shorter time periods (for instance based on an EU average of days abroad) are enough to cover those needs.

#### 4. Sustainability mechanism

**A widespread view among respondents (mostly operators) is that this mechanism should not be overly complex. Individual stakeholders have provided detailed feedback on the different steps it should comprise.**

##### 4.1. Mobile operators

There is a significant percentage of "no answers", and "don't knows", reflecting the view, also expressed in the qualitative answers, that the sustainability mechanism should not be too complex. A number of both big and small operators express reservations about establishing a sustainability mechanism at all.

Most operators favour that the period to assess sustainability (i.e the length of the data series to be reported to the NRAs) should be of 12 months duration, regardless of the proportion between actual and projected data. Some big and small operators claim that 12 months would be the right timeframe to evaluate seasonality. To a lesser extent, shorter terms are also argued for in order to limit losses. On the quantity of actual data that operators need to submit in the first sustainability application, operators are more divided, with 25% of operators arguing that the assessment should be entirely based on projections, 17.5% arguing for 3 months of actual data and 22.5% stating that one year of actual data would be necessary to properly assess sustainability.

The main arguments of those operators that would like longer actual time series, which are generally large operators and incumbents, are that after the changes introduced by RLAH, consumer behaviour will not stabilise for several bill cycles, together with the need to take into account the seasonality effects. Operators arguing for shorter time series maintain that requiring long periods of actual data implies that the operator will incur losses, which is not acceptable, and that the new data on roaming elasticity could be already deduced after a short period of the introduction of RLAH, or taking into account previous RLAH offers.

On the financial ratio that should be used to assess the operator's domestic margin, the majority of operators argue for other options than the ones proposed in the PC (After tax profit, Ebit and Ebitda), which makes the consultation inconclusive in this respect. Some arguments expressed by operators to discard the options are that the proposed measures would not reflect non-telecommunication services that operators might offer or that they would not include enough granular data. However, no clear alternative to the financial ratios proposed emerges from the qualitative answers provided by operators.

In reference to the sustainability percentage that should allow for a derogation, the majority of operators prefer other options than the percentages proposed in the PC (5, 10, 15 or 20%). The most widespread argument for discarding the options is that, according to operators, RLAH should be considered unsustainable as soon as the margin for retail roaming services is negative.

Other questions covered in the PC refer to the sources of information to be used in the sustainability assessment (52.5% of operators agree that the operator's accounts would be a good general source) and the method to calculate wholesale roaming costs (50% of operators agree that they should be based on unbalanced traffic, as reflected in the TSM Regulation). Overall, there is more divergence on how to take into account in-bundle revenues, and the danger of waterbed effects, reflecting the also stated argument that the extent of this problem might depend also on domestic circumstances.

#### 4.2. Other respondents

On the sustainability section of the consultation, there are too few answers from non-operator respondents to get meaningful comparative results. One consumer association, for example, answered that 6 months of actual data would be optimal to assess the sustainability of an operator, but this contrasts with 6 non-answers from the same category of respondents.

A slightly higher number of NRAs and government agencies provided answers on some of the key issues of the sustainability assessment. 1 government authority answered that 1 full year of data was necessary for the sustainability assessment, while 2 NRAs were of the same opinion.

On the optimal financial ratio to be used in the sustainability mechanism, Ebitda was supported by 1 NRA, while 1 other NRA supported an After Tax measure. 1 NRA supported a 10% sustainability margin as the optimal margin to avoid waterbed effects, while 3 others opted for other percentages, arguing that no negative margins should be tolerated.

### ANNEX 3: Who is affected by the initiative and how

<b>Who is affected</b>	<b>How</b>
<b>Member States</b>	<p>National regulatory Authorities (NRAs) will have to monitor and supervise compliance with the rules detailed in this implementing regulation:</p> <ul style="list-style-type: none"> <li>– NRAs will have to monitor that fair use policies (FUPs) designed by operators do not impose restrictions on roaming consumption at domestic prices that go beyond the maximum restrictions set out in this implementing regulation.</li> <li>– NRAs will have to assess the sustainability derogations that may be filed by operators according to the methodology set out in this implementing regulation.</li> </ul>
<b>Mobile Network Operators (MNOs) and Mobile Virtual Network Operators (MVNOs)</b>	<p>Operators wishing to apply any FUP to the consumption of retail roaming services at domestic prices will have to design FUPs that do not impose any more stringent restriction than the maximum restrictions set out in this implementing regulation.</p> <p>Operators wishing to apply for a sustainability derogation to their NRA will have to support their application with the data requested in this implementing regulation, and according to the methodology set out therein.</p>
<b>Consumers and Users</b>	<p>Consumers and (business) users of mobile services will benefit from roaming services at domestic prices provided they do not abuse of these services as defined in this implementing regulation. This is the case of virtually all EU travelers, with the possible exception of the most frequent business travelers (abroad in the EU for more than 90 days per year) and long-stay travelers moving temporarily abroad in the EU (and staying more than 30 consecutive days abroad).</p> <p>Customers of operators that obtain a sustainability derogation may continue to pay a retail roaming surcharge in addition to the domestic price. That surcharge is however unlikely to be higher than the new wholesale roaming caps applicable from 15 June 2017, which the Commission has proposed to set at 0.04 EUR per minute of outgoing call, 0.01 EUR per SMS, 0.0085 EUR per MB.</p>
<b>Small and Medium Sized Enterprises (SMEs)</b>	<p><u>Online businesses and start-ups</u>: like consumers, online business and start-ups will benefit from roaming services at domestic prices provided they do not abuse of these services as defined in this implementing regulation. This will have a significant positive impact on these enterprises: the usage of their services while roaming in the EU will grow, which means more opportunities for them to provide services to consumers when they travel in the EU. This will promote cross-border use of connected devices/services/mobile apps, favouring innovation.</p> <p><u>SMEs</u>: like consumers and online business and start-ups, will benefit from roaming services at domestic prices provided they do not abuse of these services as defined in this implementing regulation. This will have a significant positive impact for SMEs since the bills for mobile services will be substantially reduced for their employees periodically travelling in the EU for business purposes.</p>

## ANNEX 4: Statistics on travelling patterns of EU residents

Table 11: Number of residents who made at least one trip of at least one overnight stay abroad for personal purposes in 2014 as % of the total population, by country of residence

	2014
EU	30.0
Belgium	51.8
Bulgaria	2.9
Czech Republic	41.3
Denmark	60.1
Germany	53.1
Estonia	45.7
Ireland	54.7
Greece	5.6
Spain	11.9
France	24.8
Croatia	19.1
Italy	13.5
Cyprus	39.6
Latvia	28.4
Lithuania	30.1
Luxembourg	82.1
Hungary	19.0
Malta	36.7
Netherlands	58.5
Austria	57.1
Poland	16.4
Portugal	9.2
Romania	1.6
Slovenia	49.6
Slovakia	27.3
Finland	56.7
Sweden	50.1
United Kingdom	:
Norway	:

Source: Eurostat

Table 12: Number of trips abroad of at least one overnight stay within the EU as % of total trips abroad of at least one overnight stay, by country of residence, 2014

	2014
Belgium	85%
Bulgaria	60%
Czech Republic	85%
Denmark	77%
Germany	73%
Estonia	74%
Ireland	85%
Greece	57%
Spain	69%
France	71%
Croatia	65%
Italy	69%
Cyprus	82%
Latvia	69%
Lithuania	70%
Luxembourg	87%
Hungary	83%
Malta	89%
Netherlands	81%
Austria	82%
Poland	82%
Portugal	79%
Romania	94%
Slovenia	86%
Slovakia	:
Finland	82%
Sweden	:
United Kingdom	:
Norway	:

Source: Eurostat

Table 13: Number of trips abroad by purpose (personal or professional) as % of total number of trips abroad, by country of residence, 2014

	Personal	Professional
EU	88%	12%
Belgium	92%	8%
Bulgaria	94%	6%
Czech Republic	93%	7%
Denmark	87%	13%
Germany	88%	12%
Estonia	72%	28%
Ireland	88%	12%
Greece	89%	11%
Spain	84%	16%
France	88%	12%
Croatia	73%	27%
Italy	84%	16%
Cyprus	83%	17%
Latvia	88%	12%
Lithuania	80%	20%
Luxembourg	83%	17%
Hungary	91%	9%
Malta	80%	20%
Netherlands	93%	7%
Austria	80%	20%
Poland	93%	7%
Portugal	71%	29%
Romania		
Slovenia	85%	15%
Slovakia		
Finland	81%	19%
Sweden		
United Kingdom		
Norway		

Table 14: Number of nights spent abroad by purpose (personal or professional) as % of total number of nights spent abroad, by country of residence, 2014

	Personal	Professional
EU	92%	8%
Belgium	95%	5%
Bulgaria	96%	4%
Czech Republic	95%	5%
Denmark	91%	9%
Germany	92%	8%
Estonia	78%	22%
Ireland	94%	6%
Greece	89%	11%
Spain	86%	14%
France	94%	6%
Croatia	65%	35%
Italy	88%	12%
Cyprus	88%	12%
Latvia	92%	8%
Lithuania	86%	14%
Luxembourg	91%	9%
Hungary	94%	6%
Malta	81%	19%
Netherlands	97%	3%
Austria	87%	13%
Poland	93%	7%
Portugal	79%	21%
Romania	100%	:
Slovenia	90%	10%
Slovakia	87%	:
Finland	84%	16%
Sweden	:	:
United Kingdom	:	:
Norway	:	:

Source: Eurostat



Table 15: Number of trips abroad by duration of stay as % of total number of trips abroad, by country of residence, 2014

	From 1 to 3 nights	From 4 to 7 nights	From 8 to 14 nights	From 15 to 28 nights	From 29 to 91 nights	From 92 to 365 nights
EU	29.4%	35.2%	24.0%	8.7%	2.6%	0.1%
Belgium	31.8%	32.8%	24.1%	9.3%	2.1%	
Bulgaria	35.7%	45.8%	13.8%	4.6%		
Czech Republic	25.6%	46.3%	25.2%	2.9%		
Denmark	39.3%	37.4%	15.1%	6.9%	1.2%	
Germany	22.5%	35.5%	30.6%	9.0%	2.5%	
Estonia	50.8%	28.8%	15.1%	3.3%	2.0%	
Ireland	32.3%	29.9%	24.1%	11.0%	2.6%	
Greece	18.1%	44.9%	17.7%	11.4%	7.9%	
Spain	35.3%	32.6%	15.7%	9.8%	6.3%	0.4%
France	26.6%	36.6%	23.0%	11.2%	2.6%	
Croatia	53.7%	30.3%	8.0%	3.5%	4.5%	
Italy	31.7%	37.4%	20.6%	10.4%		
Cyprus	19.6%	43.1%	18.4%	12.5%	6.4%	
Latvia	39.7%	35.7%	19.6%	5.1%		
Lithuania	34.3%	38.5%	21.2%	4.1%	2.0%	
Luxembourg	45.4%	31.7%	15.1%	6.4%	1.4%	
Hungary	49.1%	31.2%	15.7%	2.5%	1.3%	0.1%
Malta	25.5%	54.6%	12.4%	5.0%	2.5%	
Netherlands	24.1%	30.4%	26.2%	16.2%	3.1%	
Austria	38.9%	38.5%	16.1%	5.1%	1.4%	
Poland	18.7%	39.2%	30.5%	6.5%	4.8%	0.4%
Portugal	35.0%	36.4%	16.1%	7.2%	5.2%	
Romania	7.3%	56.1%	20.3%	11.8%	4.5%	
Slovenia	53.1%	28.4%	14.1%	3.4%	0.9%	
Slovakia						
Finland	52.7%	30.3%	12.2%	3.5%	1.3%	
Sweden						
United Kingdom						
Iceland						
Norway						

Source: Eurostat

Table 16: Number of trips abroad within EU of at least one overnight stay abroad per inhabitant who travels at least once per year, by country of residence, 2014

	2014
EU	1.04
Belgium	1.16
Bulgaria	0.25
Czech Republic	0.93
Denmark	2.09
Germany	1.59
Estonia	1.50
Ireland	1.77
Greece	
Spain	0.64
France	1.30
Croatia	1.98
Italy	0.51
Cyprus	1.50
Latvia	0.74
Lithuania	0.94
Luxembourg	3.64
Hungary	0.95
Malta	0.94
Netherlands	1.37
Austria	1.88
Poland	0.57
Portugal	0.35
Romania	0.13
Slovenia	1.42
Slovakia	
Finland	2.87
Sweden	
United Kingdom	
Norway	

Source: Eurostat, Flash Eurobarometer 432 (March 2016)

Table 17: Population of Member States whose number of trips abroad within the EU per inhabitant who travels at least once per year is > 2 trips, < 1 trip, 1 < trips < 2, as a % of total EU population<sup>75</sup>

	2014
>2 trips	3%
<1 trip	50%
1 < trips < 2	47%

Source: Eurostat, Flash Eurobarometer 432 (March 2016)

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<sup>75</sup> Of the total population of the EU countries where this data is available, i.e. 28 Member States minus Greece, Slovakia, Sweden, UK

Table 18: Number of trips for personal purposes of at least one overnight stay abroad per traveller abroad for personal purposes, by country of residence, 2014

	2014
EU	1.9
Belgium	2.0
Bulgaria	3.1
Czech Republic	1.4
Denmark	2.6
Germany	2.0
Estonia	2.0
Ireland	2.6
Greece	1.2
Spain	1.9
France	1.8
Croatia	2.9
Italy	1.4
Cyprus	3.5
Latvia	2.5
Lithuania	1.9
Luxembourg	4.0
Hungary	2.7
Malta	2.1
Netherlands	2.0
Austria	2.1
Poland	1.8
Portugal	1.3
Romania	3.8
Slovenia	2.6
Slovakia	
Finland	2.7
Sweden	
United Kingdom	
Norway	

Source: Eurostat

Table 19: Average number of days abroad within the EEA per year, per country of residence, 2013 (including one-day trips)

	All residents	Residents who travel at least once a year
EEA Average	5.7	11.6
Austria	11.2	14.3
Belgium	10.9	14.6
Bulgaria	0.9	4.1
Croatia	5.4	12.2
Cyprus	12.1	30.4
Czech	5.1	9.5
Denmark	12.6	16
Estonia	6.4	11.8
Finland	11	19.7
France	4	8.3
Germany	8.9	14.7
Greece	0.8	3.2
Hungary	2.5	15.5
Iceland	5.7	12.4
Ireland	10.9	19
Italy	2.2	8.4
Lithuania	5.1	18.4
Luxembourg	27.1	30.1
Netherlands	15	17.3
Norway	12.6	19.2
Poland	3	12
Portugal	1.5	6.3
Romania	1.4	3.5
Slovakia	5.9	8.6
Slovenia	6.9	8.3
Spain	1.8	8.9
Sweden	12.1	15.9
UK	7.6	15.6

Source: BEREC, Analysis of the impacts of "roam-Like-At-Home", BoR(14)209, December 2014, based on Eurostat and Eurobarometer

Table 20: Ratio between the number of same-day-visits abroad and the number of trips of at least one overnight stay abroad by EU residents, by country of residence, 2014

	Total
EU	0.75
Belgium	:
Bulgaria	0.29
Czech Republic	0.42
Denmark	0.74
Germany	1.21
Estonia	0.83
Ireland	0.03
Greece	0.32
Spain	0.17
France	0.15
Croatia	0.68
Italy	0.08
Cyprus	0.00
Latvia	0.36
Lithuania	1.40
Luxembourg	0.95
Hungary	1.62
Malta	0.11
Netherlands	2.34
Austria	0.23
Poland	2.45
Portugal	0.63
Romania	:
Slovenia	1.00
Slovakia	:
Sweden	:
Finland	:
United Kingdom	:
Norway	:

Source: Eurostat

Table 21: Number of same-day visits abroad by purpose (personal or professional) as % of total number of same-day visits abroad, by country of residence, 2014

	Personal	Professional, business
EU	92%	8%
Belgium	:	:
Bulgaria	96%	4%
Czech Republic	96%	:
Denmark	83%	17%
Germany	95%	5%
Estonia	68%	32%
Ireland	44%	56%
Greece	100%	0%
Spain	92%	8%
France	73%	27%
Croatia	88%	12%
Italy	100%	0%
Cyprus	17%	83%
Latvia	84%	16%
Lithuania	93%	7%
Luxembourg	83%	17%
Hungary	97%	3%
Malta	86%	14%
Netherlands	87%	13%
Austria	84%	16%
Poland	98%	2%
Portugal	79%	21%
Romania	:	:
Slovenia	85%	15%
Slovakia	93%	7%
Sweden	:	:
Finland	85%	15%
United Kingdom	54%	46%
Norway	:	:

Source: Eurostat

Table 22: Number of outgoing cross-border commuters in thousands and as % of the population, per country, 2015

	Number of commuters (thousand) 2015	as % of the population
EU	2,001.9	0.39%
Belgium	106.9	0.95%
Bulgaria	29.3	0.41%
Czech Republic	47.2	0.45%
Danmark	13.4	0.24%
Germany	286.1	0.35%
Estonia	20.4	1.55%
Ireland	12.1	0.26%
Greece	:	
Spain	66.1	0.14%
France	437.9	0.66%
Croatia	30.1	0.71%
Italy	121.6	0.20%
Cyprus	:	
Latvia	12.3	0.62%
Lithuania	:	
Luxembourg	5.8	1.03%
Hungary	111.1	1.13%
Malta	1.3	0.30%
Netherlands	44.6	0.26%
Austria	62.8	0.73%
Poland	154.5	0.41%
Portugal	31.6	0.30%
Romania	121.5	0.61%
Slovenia	17.1	0.83%
Slovakia	147.2	2.72%
Finland	3.6	0.07%
Sweden	47.7	0.49%
United Kingdom	65.4	0.10%

Source: Eurostat



Table 23: Total wholesale roaming cost of cross-border commuters (frontier workers) per month, per country (EUR)

	Domestic daily min 2017 <sup>(1)*</sup>	Domestic daily sms 2017 <sup>(1)*</sup>	Domestic daily MB 2017 <sup>(1)*</sup>	Number of commuters (thousand) 2015 <sup>(2)</sup>	Total extra RLAH cost of commuters per month (MILLION EUR)**
Austria	4.9	1.0	133.8	62.8	1.230
Belgium	3.6	5.6	22.7	106.9	-0.037
Bulgaria	4.3	0.3	25.5	29.3	0.157
Croatia	5.3	1.9	51.0	30.1	0.218
Cyprus	9.1	4.8	161.2		
Czech Republic	4.6	1.8	25.2	47.2	0.179
Denmark	4.6	3.0	136.5	13.4	0.257
Estonia	4.9	0.7	173.2	20.4	0.607
Finland	4.7	1.0	360.9	3.6	0.211
France	6.3	8.2	51.2	437.9	2.833
Germany	3.1	0.6	45.9	286.1	0.764
Greece	6.3	1.0	18.0		0.000
Hungary	3.8	0.3	30.3	111.1	0.432
Iceland	0.0	0.0	0.0		0.000
Ireland	6.3	4.0	117.9	12.1	0.169
Italy	5.0	1.4	57.6	121.6	1.003
Latvia	4.4	1.6	91.9	12.3	0.216
Liechtenstein					
Lithuania	5.4	4.6	54.3		
Luxembourg	3.5	2.8	86.8	5.8	0.038
Malta	3.5	2.4	44.6	1.3	0.005
Netherlands	3.7	0.6	36.0	44.6	-0.061
Norway	6.0	2.7	94.6		
Poland	4.2	2.6	51.1	154.5	1.482
Portugal	4.3	4.2	39.3	31.6	0.164
Romania	8.0	2.3	15.1	121.5	0.844
Slovakia	4.9	1.1	25.4	147.2	0.286
Slovenia	5.2	3.0	39.1	17.1	0.079
Spain	4.4	0.1	42.2	66.1	0.194
Sweden	5.5	2.6	266.2	47.7	1.940
UK	4.8	3.7	65.7	65.4	0.327
EEA total					13.537

Data: (1) BEREC Report on the wholesale roaming market, BoR(16)33, February 2016

(2) Eurostat

Values in blue italics are imputed.

\* forecasted change in consumption between 2014 and 2017: +16% for voice, +328% for data, -40% for SMS

\*\* at the level of the proposed wholesale roaming caps, with the assumption of 20 working (commuting) days per month and full daily consumption abroad, net of domestic wholesale costs estimated at ARRPU/2

Table 24: Total RLAH cost as % of ARRPU

	Net wholesale RLAH cost of occasional travelers as % of ARRPU <sup>(1)</sup>	Total extra RLAH cost of cross-border commuters as % ARRPU <sup>(2)</sup>	TOTAL as % ARRPU
Austria	3.3	1.5	4.8
Belgium	0.0	0.0	0.0
Bulgaria	0.0	0.6	0.6
Croatia	0.0	0.6	0.6
Cyprus	0.0		
Czech Republic	0.4	0.3	0.7
Denmark	0.4	0.2	0.6
Estonia		6.0	6.0
Finland	2.5	0.2	2.7
France	0.0	0.3	0.3
Germany	0.0	0.1	0.1
Greece	0.0		
Hungary	0.0	1.5	1.5
Iceland			
Ireland	3.2	0.2	3.4
Italy	0.0	0.2	0.2
Latvia	0.2	4.5	4.7
Liechtenstein			
Lithuania	0.5		
Luxembourg	0.0	0.4	0.4
Malta		0.1	0.1
Netherlands	1.8	0.0	1.7
Norway	2.4		2.4
Poland	0.3	0.7	1.0
Portugal	0.0	0.3	0.3
Romania	0.5	1.5	2.0
Slovakia	0.9	0.6	1.5
Slovenia	1.0	0.6	1.6
Spain	0.0	0.0	0.0
Sweden	0.1	0.9	1.0
UK	0.9	0.0	0.9

Data: (1) Table 6 in the Impact Assessment accompanying Commission proposal COM(2016)399 on wholesale roaming markets

(2) Total extra RLAH cost of commuters per month (previous table) divided by the total number of mobile broadband subscriptions, expressed as % of monthly ARRPU

Table 25: Number of outgoing cross-border commuters (in thousands) in NUTS 2 regions of Member States with higher exposure to the related commuters' RLAH costs in proportion to ARRPU (AT, HU, RO<sup>76</sup>), as well as in the NUTS 2 regions of the neighbouring Member States

	Number of cross-border commuters (thousands)	Neighbouring countries
<b>GERMANY</b>		
<b>Bayern</b>	<b>41.7</b>	
Oberbayern	21.8	Austria
Niederbayern	7.6	Austria, Czech Republic
Schwaben	5.5	Austria
<b>HUNGARY</b>	<b>111.1</b>	
<b>Közép-Magyarország</b>	<b>13.7</b>	Slovakia
Közép-Magyarország	13.7	
<b>Dunántúl</b>	<b>63.7</b>	
Közép-Dunántúl	14.3	Slovakia
Nyugat-Dunántúl	37.6	Austria, Slovakia, Slovenia, Croatia
Dél-Dunántúl	11.8	Croatia
<b>Alföld és Észak</b>	<b>33.7</b>	
Észak-Magyarország	13.7	Slovakia
Észak-Alföld	11.6	Romania, Ukraine
Dél-Alföld	8.4	Romania, Serbia
<b>AUSTRIA</b>	<b>62.8</b>	
<b>Ostösterreich</b>	<b>13.1</b>	
Burgenland	:	Hungary, (Slovakia, Slovenia)
Niederösterreich	4.2	Czech Republic, Slovakia
Wien	7.4	Slovakia, Hungary, Czech Republic
<b>Südösterreich</b>	<b>5.9</b>	
Kärnten	:	Slovenia, Italy
Steiermark	3.4	Slovenia
<b>Westösterreich</b>	<b>43.9</b>	
Oberösterreich	10.4	Germany, Czech Republic

<sup>76</sup> The total extra RLAH cost of cross-border commuters in Austria, Hungary and Romania is above 1% of ARRPU (Table 24) and have been selected in this analysis for that reason. This is also the case in Baltic States, but the latter being NUTS 2 regions in themselves, they are not further subdivided at NUTS 2 level. For Baltic States therefore, no finer geographical breakdown of commuters' outflow than national level data is available.

Salzburg	4.9	Germany, (Italy)
Tirol	9.4	Germany, Italy, Switzerland
Vorarlberg	19.2	Germany, Switzerland

<b>ROMANIA</b>	<b>121.5</b>	
<b>Macroregiunea unu</b>	<b>8.2</b>	
Nord-Vest	7.6	Hungary, Ukraine
Centru	:	
<b>Macroregiunea doi</b>	<b>90.9</b>	
Nord-Est	78.4	Moldova, Ukraine
Sud-Est	12.5	Bulgaria, Moldova, Ukraine
<b>Macroregiunea trei</b>	<b>18.3</b>	
Sud - Muntenia	18.3	Bulgaria
Bucuresti - Ilfov	:	
<b>Macroregiunea patru</b>	:	
Sud-Vest Oltenia	:	
Vest	:	Hungary

<b>SLOVAKIA</b>	<b>147.2</b>	
Slovensko	147.2	
Bratislavský kraj	5.3	Austria, (Croatia)
Západné Slovensko	37.2	Czech Republic, Hungary, (Austria)
Stredné Slovensko	47.4	Hungary, Poland, Czech Republic
Východné Slovensko	57.3	Hungary, Poland, Ukraine

<b>POLAND</b>		
Malopolskie	12.1	Slovakia
Slaskie	9.3	Slovakia
Podkarpackie	:	Slovakia, Ukraine

<b>CZECH REPUBLIC</b>		
Jihozápad	13.0	Austria, Germany
Jihovýchod	9.4	Austria, Slovakia
Střední Morava	2.0	Slovakia
Moravskoslezsko	3.4	Poland, Slovakia

<b>IRELAND</b>	<b>12.1</b>	
Border, Midland and Western	8.0	United-Kingdom
Southern and Eastern	4.2	

<b>UNITED-KINGDOM</b>		
Northern Ireland (UK)	7.6	

<b>CROATIA</b>	<b>30.1</b>	
Jadranska Hrvatska	12.9	
Kontinentalna Hrvatska	17.2	Hungary, Slovenia, Serbia, Bosnia-Herzegovina

<b>BULGARIA</b>		
Severozapaden	:	Romania, Serbia
Severen tsentralen	:	Romania
Severoiztochen	9.5	Romania

From the above table, one can infer:

- a relatively balanced situation between Austria and Germany (at most 43,900 commuters from Austria to Germany vs 34,900 commuters from Germany to Austria), which represents up to 70% of Austrian cross-border commuters;
- 65% of the cross-border commuters counted in Romania's data<sup>77</sup> go to Moldova and Ukraine (78,400 in the Nord-Est regions out of a total 121,500 commuters in Romania) where RLAH is not applicable;
- comparable pools of cross-border workers in Slovakia and Hungary;
- Ireland (Border, Midland and Western region) and Northern Ireland are balanced.

The relatively important total extra wholesale RLAH cost of outgoing cross-border commuters in Austria, Hungary and Romania shown in Table 24 is therefore to a large extent balanced by a corresponding inflow of cross-border commuters from their respective neighbouring countries and, in the case of Romania, further reduced by the non-applicability of RLAH to a sizeable share of the outgoing commuters going to non-EU countries.

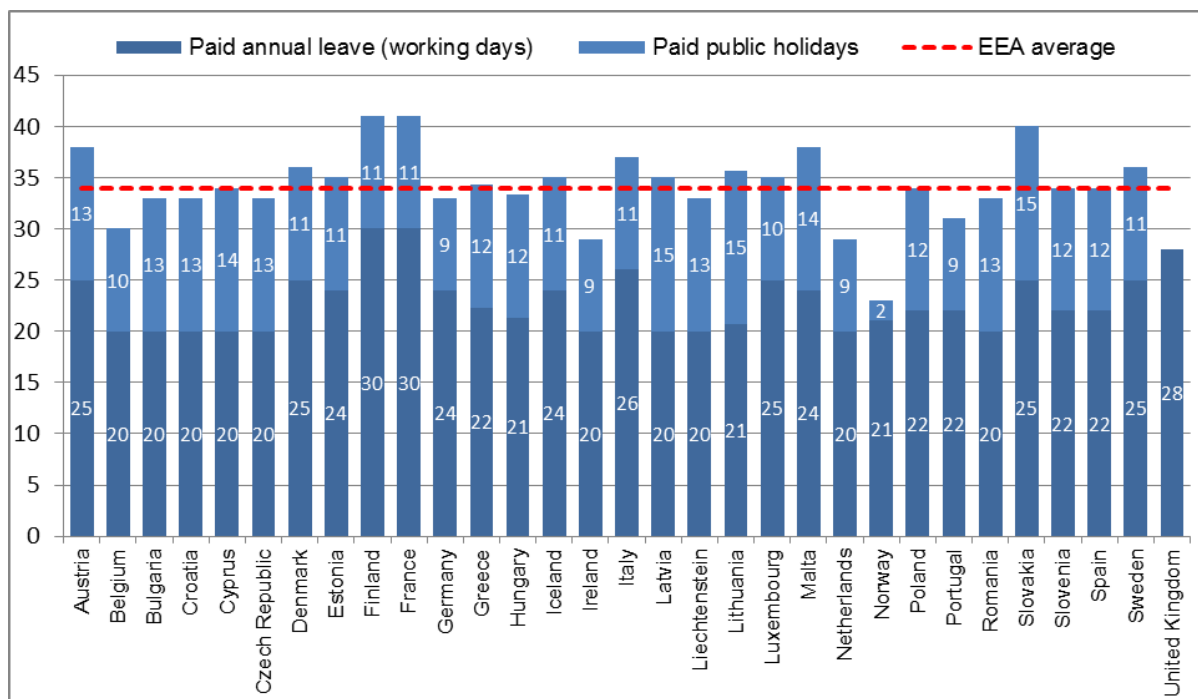
Baltic States are not further divided in NUTS 2 regions. RLAH offers within Baltic countries with no time restriction within the year are already available. The presence of the mobile operators operating in the Baltic countries in two or three of these countries<sup>78</sup> is expected to enable internalising wholesale costs of cross-border commuters. Operators present on both sides of the border do not face wholesale roaming costs at the cap level as estimated in Table 23 and Table 24, as such traffic is effectively on-net for them. It should also be noted that, in Estonia and Latvia, the population of cross-border workers potentially concerned by RLAH is very probably smaller than the number shown in Table 23 since, due to the sizeable share of the Russian population in those two countries, a share of their cross-border workers may commute to Russia where RLAH is not applicable.

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<sup>77</sup> Data are not available in all NUTS 2 regions of Romania.

<sup>78</sup> Only one mobile operator operating in a Baltic country is operating in only one of these three countries.

Figure 7: Annual Paid Leave in EEA countries.



Source: World Bank/EURES

## ANNEX 5: Discarded options

The following options have been discarded.

### 1. Fair use policy

#### Option of imposing no FUP limit at all on roaming consumption at domestic prices:

This option is defended by some of the consumers and consumer associations which responded to the public consultation.

Article 6b of the Roaming Regulation foresees that operators providing retail roaming services may apply a FUP on roaming consumption at domestic prices. Article 6d mandates the Commission to lay down detailed rules on the application of FUP.

While, on any of its domestic tariff plans, any operator is free to apply or not a FUP on roaming consumption at domestic prices according to the Roaming Regulation, the option of imposing on operators not to apply any FUP limit on roaming consumption at domestic prices has been discarded as not compliant with the Roaming Regulation.

#### Options using other parameters than time and volume limits:

The public consultation showed a general consensus on the fact that any FUP should take the form of time and/or volume limits on the level of consumption of roaming services at domestic prices<sup>79</sup>. No other alternative formulation emerged from the replies to the public consultation.

Therefore the option of using other parameters than time and volume limits to define FUP has been discarded.

#### Option of defining a unique FUP to be applied to all domestic tariff plans by all operators:

A unique FUP (i.e. both minimum and maximum) applicable to all domestic tariff plans would be defined as a unique set of pre-defined FUP time and volume limits, expressed in absolute terms, on roaming voice, SMS and data consumption at domestic prices (for instance: an annual volume limit equal to the annual EEA average consumption of voice, SMS and data services).

Imposing a unique set of pre-defined, absolute time and volume limits to all domestic tariff plans was called for in the public consultation by only a few operators, with usually high levels of domestic data consumption by their subscribers. This would however not be compliant with Article 6b (1) of the Roaming Regulation, as it would, per definition, not enable subscribers to consume volumes of roaming services at domestic prices that are consistent with their respective domestic tariff plans.

In addition, there is no reason to limit FUP levels EU-wide if operators are ready to offer higher levels of FUP. Users' interest is that operators are able to compete and innovate on more generous FUP terms better adapted to their periodic travel patterns than the safeguard

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<sup>79</sup> Except for the few respondents (few individuals replying in their own capacity) calling for no limit at all.

EU FUP, provided they do not extend as far as facilitating permanent roaming. Operators should not be prevented to apply more generous FUP terms and conditions, as this is in line with the concept of RLAH and only to the benefit of the users. The vast majority of respondents, including operators, to the public consultation share the view that any FUP defined at EU (or Member State) level should be a minimum safeguard FUP beyond which operators should be allowed to go and compete.

Therefore the option of defining a unique FUP to be applied in the EU to all domestic tariff plans by all operators has been discarded.

Option of defining country-specific minimum FUPs based on travelling patterns abroad of residents in each country:

Such an option is supported by only about one fifth of the operators in the public consultation and by no consumer.

A country-specific approach in Roaming Regulation would change the EU-wide approach followed since the EU started to regulate roaming prices. It would discriminate EU citizens and introduce inequalities between Member States.

A safeguard FUP differentiated in each Member States is less transparent and less easy to communicate to users and would not be in line with the concept of a single market for telecommunications: whatever their country of residence in the EU, subscribers are protected by a harmonised minimum FUP of roaming services at domestic prices. Moreover, the link between such a differentiated approach and the function of FUP as a tool against anomalous or abusive usage is not clear (conditions in visited countries could be argued to be just as relevant as those in the home country).

In the public consultation many operators express the view that an EU level minimum FUP is simpler to implement than country-specific FUPs. As regards the capacity to prevent permanent roaming, there is no real case for defining country-specific safeguard FUPs instead of an EU safeguard FUP. Compared to an EU common safeguard FUP, a safeguard FUP at Member States level increases the risk of fraud and arbitrage based on the differentiated levels of FUP across countries. In particular, should the amount of FUP be based on national travelling and consumption patterns, in countries with low prices and high travelling and consumption patterns the resulting amount of RLAH could exceed any price differential with countries with higher prices; this could be the case, for example, for EE and FI.

## **2. Sustainability mechanism**

Not defining any sustainability mechanism:

Several stakeholders have argued that there should not be a need for a sustainability mechanism. In particular, some MVNOs argue that any sustainability issues should be tackled through the Roaming Regulation of the wholesale roaming market, which should eliminate the need for any sustainability derogation at all. In the view of these operators, a sustainability derogation and the application of a surcharge to roaming services would cause a negative effect on the competitive position of these operators in national markets and create market distortions.

The Commission Services consider that, as foreseen in Article 6c of the Roaming Regulation, a sustainability derogation should still be available for those operators providing retail



roaming services that may, in specific and exceptional circumstances, and under the conditions set by the Roaming Regulation, need to apply surcharges to their roaming tariffs after the RLAH date to ensure the sustainability of their domestic charging model. Furthermore, article 6d mandates that the Commission shall lay down detailed rules on the methodology for assessing the sustainability of the abolition of retail roaming surcharges under a RLAH system.

The Commission Services also notes that according to the calculations presented in the impact assessment accompanying the Commission legislative proposal no wholesale roaming markets<sup>80</sup>, with the proposed wholesale roaming caps only a small percentage of European operators would be likely to require a derogation from the Roaming Regulation to ensure the sustainability of their domestic charging model in the RLAH system. The Commission Services continue to believe that the sustainability mechanism is necessary to ensure widespread application of the RLAH system across the EU, while at the same time safeguarding the business model of specific and exceptional operators that may require a derogation from the Roaming Regulation.

Assessing the sustainability mechanism at levels other than the operator (e.g. tariff or country level):

Several stakeholders have argued that operators should be able to assess sustainability on a per tariff basis or at country level. In this case, operators would be able to obtain a derogation from the Roaming Regulation for specific tariffs or for all the operators in a Member State that was considered "unsustainable".

The Commission Services considers that the Roaming Regulation clearly mandates that sustainability should be assessed at the operator level. In particular, article 6c refers to the situation where "a roaming provider is not able to recover its *overall* actual and projected costs of providing regulated roaming services" (emphasis added). Furthermore, the Roaming Regulation refers to the sustainability of the operator's "domestic charging model", rather than specific tariffs. It is therefore considered that "partial" derogations would not be consistent with the text. Similarly, derogations at Member State level are also inconsistent with the text of the Roaming Regulation. Furthermore, derogations at the Member States level may not necessarily reflect the position of all operators in that Member States, which must apply for the derogation and provide the relevant company-specific evidence in accordance with the Roaming Regulation.

Allowing a first application for a sustainability derogation before the entry into force of the Roaming Regulation:

Several stakeholders suggest that it should be possible to get a derogation from the Roaming Regulation based on sustainability *before* the entry into force of RLAH, for the operator to avoid any potential losses from the implementation of RLAH. The Commission Services however note that article 10(2)(a) of the Roaming Regulation indicates that article 6c is only applicable from the date of entry into force of RLAH. Thus, the possibility of obtaining a

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<sup>80</sup> Commission Staff Working Document Impact Assessment accompanying the Proposal for a Regulation amending Regulation (EU) No 531/2012 as regards rules for wholesale roaming markets

derogation from the Roaming Regulation based on a sustainability assessment before its entry into effect is excluded by the legislative act.

It is considered that, as described in more detail in section 5.2, for the purposes of ensuring an objectively justified assessment of the sustainability of the RLAH system it is necessary that the operator can show the actual impact of RLAH on its costs. In line with this, the Commission Services consider that an operator can be granted a derogation from the Roaming Regulation *on its date of entry into effect* if the operator can gather sufficient actual data (i.e. the prescribed minimum period of actual data) on the actual impact of RLAH (as defined by the Roaming Regulation, i.e. on all its tariff plans) on its costs and revenues before the entry into effect of the Roaming Regulation, as further described in section 5.2.

Considering any loss on regulated roaming services sufficient to trigger a sustainability derogation:

Several stakeholders have favoured this option in the public consultation. It is considered that this would be inconsistent with the text of the Roaming Regulation. In particular, Recitals (23) and (24) of Roaming Regulation clearly state that the sustainability derogation is relevant for those operators with "cost recovery problems, generating a risk of an *appreciable* effect on the evolution of domestic prices" (emphasis added). Similarly, when defining the sustainability methodology the Roaming Regulation indicates in article 6d(3)(d) that the operator shall have regard to "the level of competition, prices and revenues in the domestic market, and *any observable risk* that roaming at domestic retail prices would appreciably affect the evolution of such prices" (emphasis added). In other words, the Commission Services consider that it is not enough for the operator to simply show a loss/negative financial margin in regulated roaming services from the provision of RLAH to be granted a derogation. To the contrary, the operator should prove that the negative margin is such that it may trigger a waterbed effect on domestic prices.

Excluding revenues and costs from alternative tariffs in sustainability calculations:

The Roaming Regulation defines alternative tariffs in Article 6e which refers to the "Provision of *regulated retail roaming services*" (emphasis added). In particular, Article 6e(3) defines alternative tariffs as those where "roaming customers may deliberately choose, a roaming tariff other than one set in accordance with Articles 6a, 6b, 6c and paragraph 1 of this Article, by virtue of which roaming customers benefit from a different tariff for regulated roaming services" (emphasis added). In other words, it is clear from the legal text that alternative tariffs are part of regulated roaming services.

In addition, the articles setting out the mechanism that should be used to assess the sustainability of RLAH, namely, Article 6c and 6d, both refer to "regulated roaming services". In particular, Article 6c refers to "specific and exceptional circumstances [...] where a roaming provider is not able to recover its overall actual and projected costs of providing *regulated roaming services*" (emphasis added). Similarly, Article 6d(3) describes the elements that should be considered in the implementation of the sustainability mechanism and refers to "overall actual and projected costs of providing *regulated retail roaming services*" (emphasis added) and "overall actual and projected revenues of providing regulated retail roaming services" (emphasis added).

In summary, alternative tariffs are part of regulated roaming services (in accordance with Article 6e) and regulated roaming services should be considered in the assessment of sustainability (in accordance with Article 6c and 6d). Thus, when applying for a sustainability

derogation, operators should include the costs and revenues from alternative tariffs within the roaming margin, as described in section 4.2 above.

It should also be noted that alternative tariffs represent a significant share of roaming offers currently. Alternative tariffs represented around 44% of voice calls made, 27% of SMS sent and 45% of data consumption in Q3 2015 in the EU according to BEREC.<sup>81</sup> Thus, it would seem inconsistent with the text of the Roaming Regulation to exclude from the roaming margin such a significant share of regulated roaming services in the assessment of sustainability.

In addition, the Commission Services note that NRAs should not accept applications from operators that include alternative tariffs with losses due to roaming services that exceed those on RLAH tariffs. This is to avoid that operators use alternative tariffs to increase their losses on roaming services beyond those on RLAH offers with the intention to game the system and obtain a sustainability derogation. Where an operator includes in its application for a sustainability derogation loss-making alternative tariffs that exceed the losses on RLAH tariffs, the operator should adjust these to assume per tariff losses equal to those on the most profitable RLAH tariff offered by that operator.

#### Defining the methodology to determine cost-oriented surcharges:

There have been calls from stakeholders for the Commission to define the methodology that operators should use to determine the level of the surcharge that they can apply for roaming services when granted a derogation based on sustainability considerations. The Commission Services consider that this would be out of the scope of the implementing act, as the Roaming Regulation only specifies that the "the surcharge shall be applied only to the extent necessary to recover the costs of providing regulated retail roaming services having regard to the applicable maximum wholesale charges". The Commission Services therefore consider that it is not within the scope of the implementing act to specify the amount of the surcharge, or how it should be applied (e.g. only for some tariff plans or higher for some tariffs than others, etc.).

However, it is noted that, consistent with the text of the Roaming Regulation, operators and NRAs should ensure that any surcharges applied by operators are cost-oriented and be consistent with the applicable maximum wholesale charges. On this, NRAs should take into account the risk that operators design surcharges in such a way that they may recover revenues in excess of their underlying costs. For this reason, NRAs should:

- not allow surcharges that are in excess of the applicable maximum wholesale charges paid by the operator, as their objective may be to recover costs in excess of the true underlying costs of the provision of regulated roaming services;
- take into account the distributional impact that surcharges differing significantly between tariffs may have on end users. For this, operators should duly justify the necessity and the benefits of an unequal distribution of surcharges across the different tariffs offered by operators; and

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<sup>81</sup> BEREC (2016), "*International Roaming BEREC Benchmark Data Report*", April-September 2015, 1 March 2016, BoR (16) 28 Rev.1, available [here](#).

- bear in mind the potential for bill shock on end users when assessing the design of surcharges by operators.

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## **ANNEX 6: Sustainability mechanism: policy objectives from Regulation 2015/2120**

### **1. Consumption of regulated roaming and domestic services**

The first step in the assessment of sustainability is the estimation of actual and projected volumes of regulated roaming and domestic services, as the other elements of the sustainability assessment depend to a great extent on the volumes of domestic and roaming services after the implementation of RLAH. This derives from Article 6d(3)(c) of the Roaming Regulation, which indicates that the Commission should have regard to the consumption of regulated retail roaming services and the domestic consumption by the roaming provider's customers.

In addition, Article 6c(2) indicates that a roaming provider, having submitted an application to the national regulatory authority, shall update and re-submit the information provided every 12 months. Similarly, agreements between roaming partners typically have a lifetime of 12 months and are up for re-negotiation or termination every 12 months. In light of this, the Commission Services specifies that the period over which national regulatory authorities should assess an operator's sustainability should be 12 months. This is also consistent with mobile operators' financial assessments (as financial years run over 12 months).

In section 5.2.3, the Commission Services conclude that the first application for a sustainability derogation should only be once the operator can provide sufficient information showing that in the long term RLAH is likely to undermine its domestic charging model. The Commission Services assess the appropriate minimum period for which a data set should be presented for consideration by the NRA, in respect of actual consumption patterns and their effects on the operator's costs and revenues, after the implementation of RLAH.

In light of the above, the operator shall provide to the NRA information on the volumes of retail roaming services, including at least the defined minimum period of actual data after the operator's implementation of the RLAH rules. These will be used by both operators and NRAs to assess the impact of RLAH on the demand of retail roaming services and, ultimately, the long term impact of RLAH on the operator's domestic charging model. The operator shall use the information on actual volumes to forecast the projected volumes of retail roaming services for the remainder of the 12 months. In particular, the operator shall estimate the increase in volumes of retail roaming services after the implementation of RLAH by comparing the actual volumes of retail roaming services after the implementation of RLAH against the volumes in the same period (i.e. the period covering at least the minimum period of actual data) of the previous year, and assuming, for the projection of the remainder of the year, the same proportional increase in the volumes of roaming services than the one observed.

When assessing the projected volumes of roaming services after the implementation of RLAH, the operator shall have regard to the mitigating impact that the permissible fair use policies (FUPs) may have on future volumes of retail roaming services. In particular, the Commission Services are proposing a FUP based on a black list of items that operators will not be able to do when setting their FUP. This means that operators will have significant flexibility when defining their FUP. Therefore, when assessing the projected volumes of roaming services the operator should assess whether there is an alternative FUP that is likely to limit the future volumes of roaming services further than the one chosen by that operator. Where this is the case, the operator should adjust its projection of future roaming volumes to

reflect the FUP that is likely to limit to the greatest extent future demand for roaming and, accordingly, the likelihood of a sustainability derogation.

#### Summary

- The assessment should be based on an analysis of the sustainability of RLAH for a period of 12 months
- The operator shall use at least the defined minimum period of actual data after application of RLAH to assess the impact of RLAH on roaming volumes and apply the same proportional increase observed over this period to the remainder of the 12 months assessment
- When projecting future roaming volumes the operator shall take into account the FUP that is likely to mitigate the increase in roaming volumes (and thereby the need for a derogation) to the greater extent

## 2. Costs of providing regulated retail roaming services

Article 6d(3)(a) of the Roaming Regulation foresees that the sustainability mechanism shall have regard to the overall actual and projected costs of providing regulated retail roaming services by reference to the effective wholesale roaming charges for unbalanced traffic and a reasonable share of joint and common costs necessary to provide regulated retail roaming services.

In line with Regulation 2015/2120, operators should assess the costs of providing regulated retail roaming services using the following formula:

*Costs of providing retail roaming services*  
= *retail roaming costs*  
+ *wholesale roaming payments for unbalanced traffic (if total wholesale roaming payments > total wholesale roaming revenues)*

In other words, the costs of providing regulated retail roaming services should be the sum of:

- retail roaming costs, including a reasonable share of joint and common costs; and
- wholesale roaming payments for unbalanced traffic, in other words, when total wholesale roaming payments are greater than wholesale roaming revenues.

We describe each of these elements in turn below.

### Retail roaming costs

There are two types of retail roaming costs:

- Roaming-specific retail costs: these are costs incurred by mobile operators exclusively to provide roaming services.
- Retail joint and common costs: these are costs shared between roaming services and domestic services unrelated to roaming.

We discuss each of these categories of costs in more detail below.

### *Roaming-specific retail costs*

In relation to roaming-specific retail costs, there are different categories of costs specific to roaming services, namely:

1. **Operation and management (O&M):** these encompass all business intelligence systems and software dedicated to roaming operation and management: accounting, payment, fraud prevention, revenue assurance, roaming steering and quality assurance.
2. **Data clearing and payment costs:** including both data clearing costs (DCH: Data Clearing House) incurred with the exchange of TAP/RAP files between the home and the visited operator, as well as the financial clearing (payments costs).
  - **Contract negotiation and agreement costs:** costs related to agreeing/negotiating roaming agreements between home and visited operators. These consist of all fees and expenses engaged in the contract negotiation between the home and the visited operator, including external fees (consulting services) or internal expenses (for roaming agreement settlement and contract monitoring, regulatory expenses, etc.).

The categories of costs described above have both a wholesale and retail component. In particular, they all involve interaction between the home and visiting operator, meaning that these are costs incurred to offer both a wholesale service to the visiting operator and a retail service to the subscribers of the home operator. For this reason, the cost model developed by TERA Consultants in the context of the Commission's wholesale roaming review already accounted for the share of these costs that should be attributed to the wholesale offering of mobile operators. In particular, the TERA Consultants' model allocated these costs between the wholesale and retail side based on the inbound and outbound roaming traffic (respectively) of the hypothetical efficient operator assumed in each of the 29 Member States included in their cost model.

In light of the above, when assessing the roaming-specific retail costs above, operators should only consider the share of these costs that can be attributed to retail customers (as opposed to wholesale customers). In order to allocate these costs between wholesale and retail customers, operators should use their ratio of outbound/inbound roaming traffic, consistent with the approach used by TERA Consultants in its cost model.

In addition, these costs must however be further distributed between intra-EEA roaming subscribers and non-EEA roaming subscribers. For this allocation step operators should allocate costs using the proportion of traffic expected after the introduction of RLAH (estimated according to the approach described above).

Operators' estimates of actual and projected roaming-specific retail costs shall be based on the retail costs from operators' accounts the previous year. Increases in projected retail costs should be duly justified by financial commitments from operators' accounts. Increases in projected costs that are not backed by proof of financial commitments from operators' accounts (e.g. internal documents simply stating that the company expects to increase marketing costs during the year but that are not backed by actual financial commitment that cannot be cancelled) should not be accounted for.

#### *Retail joint and common costs*

In addition to the roaming-specific retail costs described above, there are several categories of additional retail costs that are shared with domestic services unrelated to roaming. These include:

1. **Billing and collection costs:** these encompass the posting of bills to customers as well as the associated costs of personnel to process, calculate, and produce the actual customer bill.

2. **Sales and distribution costs:** these costs relate to the branch network of shops and the costs of personnel and distribution associated with operating this network of shops. Additionally, costs of contract commissions paid to third-party retailers for selling mobile operators' products.
3. **Customer care costs:** this category of costs mainly relates to the running of customer call centres that make and receive calls to customers in order to help, assist, and service them. They include personnel, building and general call centre operating costs.
4. **Bad debt management:** these costs include the writing-off of debts from customers that are not economically retrievable, and the costs associated with the collection of bad debts that are retrievable. They include personnel and/or any third party costs with external agencies.
5. **Marketing costs associated with roaming services:** these costs include all the expenses associated with attracting customers through marketing and advertising, such as, advertising campaigns or brand sponsorship.
  - **Licence fees (if applicable):** any administrative fees (e.g. fees paid for the operation of the National Regulatory Authority) paid by the MNO.

Operators should allocate these costs to intra-EEA roaming services in two steps. First, operators should allocate costs between domestic and roaming services. Second, they should allocate the costs attributed to roaming services in the first step between intra-EEA roaming services and non-EEA roaming services. In line with specific-roaming retail costs, operators should use the share of traffic after implementation of RLAH to allocate joint and common costs between the different categories of services.

Similarly to roaming-specific retail costs, operators should estimate the actual and projected joint and common costs from their accounts the previous year and increases in projected costs should be backed by proof of financial commitments from their accounts.

#### Summary

- The operator shall estimate the costs of providing regulated retail roaming services in accordance with the formula above
- In relation to roaming-specific costs the operator should only allocate a proportion of these to regulated retail roaming services equal to the ratio outbound/inbound roaming traffic
- Operators should only allocate a proportion of these costs to intra-EEA regulated retail roaming services equal to the share of intra-EEA roaming traffic in total roaming traffic
- Operators' estimates of retail costs shall be based on the costs in the previous financial year from its accounts. Only increases in projected costs that are duly justified with proof of financial commitments from operators' accounts shall be considered.
- In relation to retail joint and common costs, they shall be allocated first to roaming (as opposed to domestic services) and secondly to intra-EEA roaming services (as opposed to non-EEA) using the share of traffic.

#### Wholesale roaming payments for unbalanced traffic

The Commission Services consider that when estimating the costs of providing regulated retail roaming services NRAs should only account for wholesale roaming payments for *unbalanced traffic*, whereas wholesale roaming payments for *balanced traffic* should be excluded. The reason for this is that wholesale payments for balanced traffic are merely a bilateral transfer between operators, with no net cost for any of the parties. Thus, we consider



that the relevant benchmark for wholesale costs is the price for unbalanced traffic and the resulting wholesale roaming payments for unbalanced traffic.

This is also consistent with the text of Article 6d(3)(d), which states that the costs of providing regulated retail roaming costs should be assessed "by reference to the effective wholesale roaming charges for unbalanced traffic". It is similarly consistent with the text in Recital (24) of Regulation 2015/2120, which explains that "the costs incurred in order to provide regulated retail roaming services should be determined by reference to the effective wholesale roaming charges applied to the outbound roaming traffic of the roaming provider concerned *in excess of its inbound roaming traffic*" (emphasis added). In other words, according to Regulation 2015/2120 it is only the unbalanced traffic (i.e. the outbound roaming traffic in excess of its inbound roaming traffic) that is relevant for the purposes of estimating the costs of providing regulated retail roaming services.

Mobile operators typically negotiate the prices for wholesale roaming services on an annual basis. Thus, operators should derive wholesale roaming payments for unbalanced traffic using the effective wholesale roaming charges agreed between operators for unbalanced traffic from operators' accounts. As recognized by both BEREC and other stakeholders, operators' accounts might not be sufficiently granular, but this is also the case for some of the alternatives (i.e. management accounts). Costs could also be modelled on the basis of a hypothetical European operator, but given the availability of operator's accounts and potential complements, this would entail unnecessary complexity. Following BEREC's recommendation, the Commission Services consider that the operator should have the burden of proof that the costs provided in the accounts include only roaming specific costs for EEA roaming and for the roaming traffic. Accordingly, sustainability applications should contain not only the operators' accounts, but also all that is necessary for the required reconciliations with the statutory accounts. The Commission Services note that the use of operator's accounts is in line with the responses to our public consultation, in particular, question 57: out of those answering the question, 61.5% agreed that wholesale roaming payments should be based on the payments for these services obtained from the operator's account (compared to 23.1% of respondents who disagreed with this approach). In line with the implementation of RLAH from June 2017, the wholesale roaming prices for unbalanced traffic used to determine the costs of providing regulated retail roaming services should be consistent with the wholesale roaming price caps adopted by the co-legislators.

In order to derive the total wholesale roaming payments for unbalanced traffic, operators should use the wholesale roaming prices for unbalanced traffic described above and the actual and projected volumes of unbalanced traffic. These volumes should be estimated using the approach described above for actual and projected retail roaming volumes.

#### Summary

- The operator shall only take into account the costs associated with wholesale roaming payments for unbalanced traffic
- The operator shall derive these costs using the effective charges paid for unbalanced traffic and the actual and projected volumes estimated using the approach in section 4.2.1

#### Revenues from the provision of regulated retail roaming services

Article 6d(3)(b) of the Roaming Regulation indicates that the sustainability mechanism should have regard to the overall actual and projected revenues from the provision of regulated retail roaming services.

Retail roaming services in a RLAH setting will be bundled together with domestic mobile services. Thus, in order to estimate the revenues derived from the provision of retail roaming services, it will be necessary to split these from the revenues derived from the provision of domestic services. This is consistent with Recital (24) of Regulation 2015/2120 which states that "revenues from regulated retail roaming services should be determined by reference to revenues at domestic price levels attributable to the consumption of regulated retail roaming services".

In the case of dual-, triple- or quadruple-play bundles (where the mobile services are bundled together with other services such as, for example, fixed line, broadband or TV), the first step would be for the operator to identify the revenues that should be attributed to the mobile services. For this, if prices of each service offered within the bundle are not differentiated, the operator should use the prices of a standalone mobile offering with the same or similar characteristics to the mobile offering included in the bundle. Where this is not available, the operator should have regard to comparable standalone mobile offerings of other players in the market.

In the case of per diem tariffs, operators should be able to identify traffic that was originated by the customer while roaming (as opposed to traffic originated domestically) and should allocate the per diem revenues according to the proportion of traffic that originated while roaming and domestically.

In the case of bundled offers, there are three types of revenue streams from retail roaming services that should be considered for the purpose of assessing sustainability, namely:

- In-bundle: revenues derived from the use of services up to the volume limits allowed by the bundle;
- Out-of-bundle: revenues derived from the use of services exceeding the volume limits allowed by the bundle;
- Out-of-fair use policy: revenues derived from surcharges applied on consumption exceeding the limits allowed by the roaming fair use policy.

In the case of out-of-fair use policy revenues, operators should be able to identify these revenues from their accounts and they should be allocated fully to roaming services. In the case of out-of-bundle revenues, operators should be able to identify whether these were triggered by traffic originated from the customer domestically or while roaming, and should be allocated according to the proportion of out-of-bundle traffic that originated domestically and while roaming, respectively.

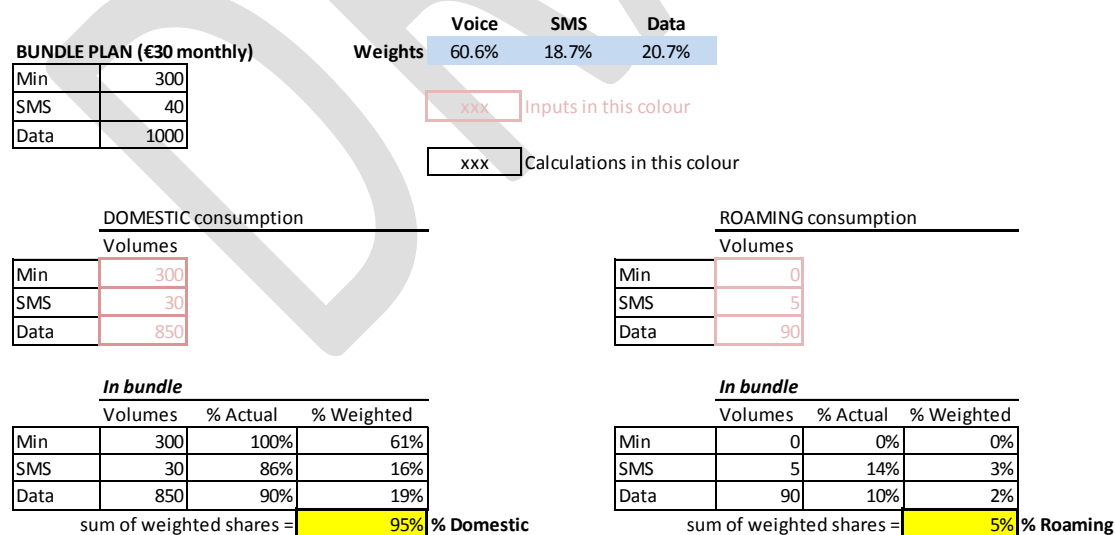
In the case of in-bundle revenues, each tariff plan typically includes certain usage allowances for each of the service in the bundle (i.e. minutes of voice calls, number of SMS, and MB of data). Under RLAH the end-user will be able to consume the in-bundle volumes like at home while roaming, subject to fair use. Operators should first identify the volumes of each service consumed domestically and while roaming. Once this is done, the difficulty in assessing the share of consumption lies in the fact that the level of usage of each service may vary (e.g. an end-user may consume 100% of voice call minutes, 80% of SMS and 50% of total data allowed by the bundle). In order to estimate the share of the in-bundle revenues that should

be allocated to domestic and roaming consumption it is necessary to give weights to each service.

According to economic theory the most efficient way to recover costs, including joint and common costs, through the prices for a group of services is Ramsey pricing. In a nutshell, the Ramsey pricing rule states that a higher proportion of costs should be recovered through the prices of services exhibiting a lower price-elasticity of demand (whereas services with higher price-elasticity of demand should contribute less to the recovery of costs). This rule minimizes the impact on welfare because the reduction in the demand for each service generated by higher prices is smaller the more inelastic the demand for the service. However, there are inherent difficulties in calculating reliably Ramsey prices as these would require the estimation of the own-price elasticity of demand for each service. Instead, it is preferable to rely on the prices set by mobile operators who are more likely to have better information as to the price elasticities of demand of the different services and, thus, the most efficient way to recover costs from each service. For this reason, the Commission Services consider that the most appropriate way to allocate in-bundle revenues to each service is to rely on the effective wholesale roaming prices for each service paid by the operator. For this, operators should allocate in-bundle revenues to each service based on the relative weights of that operator's wholesale roaming prices paid for unbalanced traffic of each service. The Commission Services consider that the wholesale roaming prices paid for unbalanced traffic of each service are likely to reflect the relative price elasticities of demand of the operator's services at the retail level.

In **Error! Reference source not found.** below we provide a simplified example of the allocation approach that should be used by operators. In our example we use for each service a weight based on the average EU wholesale roaming prices for unbalanced traffic: €3.69c/min; €1.14c/SMS; €1.27c/MB for voice, SMS and data, respectively. The relative weight of each service should therefore be 60.6%, 18.7% and 20.7%.<sup>82</sup>

Figure 8: Example of allocation of in-bundle revenues to domestic and roaming services



<sup>82</sup> This has been calculated as the €c price of each service divided by the sum of the prices of all services (3.69+1.14+1.27 = 6.10). For voice: 3.69/6.1=60.6%; SMS: 1.14/6.10=18.7%; data: 1.27/6.1=20.7%.

The actual and projected volumes for each tariff should be estimated using the approach described above for actual and projected retail roaming volumes.

#### Summary

- In case of dual-, triple- or quadruple-play bundles, revenues should be allocated to each service based on the price of each of the services within the bundle (if available), otherwise based on the price of the same or similar mobile service offered on a stand-alone basis
- In the case of per diem tariffs the operator shall allocate to roaming the revenues originated while the user was roaming
- Out-of-FUP revenues should be allocated in full to roaming services
- Out-of-bundle revenues should be allocated to roaming services when they are originated while the end user is roaming
- In-bundle revenues should be allocated to roaming using the methodology described above based on effective roaming volumes and the wholesale roaming prices paid by the operator (to weight each service in the bundle)

### 3. Assessing the sustainability of the domestic charging model

Article 6d(3)(d) foresees that in order to assess the sustainability of the domestic charging model under RLAH, the mechanism should have regard to the level of competition, prices and revenues in the domestic market, and any observable risk that roaming at domestic retail prices would appreciably affect the evolution of such prices.

The approach that should be used by operators to assess the sustainability of their domestic charging model should therefore:

- estimate the net margin (revenues minus costs) on regulated retail roaming services (the "retail roaming margin") following the implementation of RLAH according to the methodology described above; and
- where the retail roaming margin is negative, estimate the net margin on domestic mobile services, which should include all mobile voice, SMS and data services other than those considered in the regulated retail roaming margin (the "domestic margin"); and
- compare the domestic margin to the negative retail roaming margin.

The purpose of the comparison between the (negative) retail roaming margin and the domestic margin is to assess "any observable risk that roaming at domestic retail prices would appreciably affect the evolution of such prices", in line with the Roaming Regulation's Article 6d(3)(d) and Recital (24) of Regulation 2015/2120. It is similarly consistent with the Roaming Regulation's objective of allowing derogations to the Roaming Regulation only in "specific and exceptional circumstances", namely, "in order to avoid the domestic charging model of roaming providers being rendered unsustainable by such cost recovery problems, generating a risk of an appreciable effect on the evolution of domestic prices or so-called 'waterbed effect'" (as explained in Recital (23) of Regulation 2015/2120).

In line with the provisions of the Roaming Regulation, operators should compare the negative retail roaming margin and the domestic margin using the following formula:

$$\text{sustainability (\%)} = \frac{\text{roaming margin}}{\text{domestic margin}} \times 100$$

In other words, the "sustainability percentage" reflects the proportional magnitude of the negative retail roaming margin when compared against the domestic margin of each operator.

#### Summary

- The operator shall estimate the net margin on regulated retail roaming services ("roaming margin")
- When the operator has a negative roaming margin, it shall compare this to the net margin on domestic mobile services, including all mobile voice, SMS and data services other than those considered in the regulated retail roaming margin
- The roaming margin should be compared to the domestic margin to obtain the sustainability percentage using the formula above.

## ANNEX 7: Comparison of policy options: summary tables

### 1. Fair use policy

Table 26: Comparison of options: effectiveness, stakeholders' view and coherence

Option	Effectiveness versus objectives (- negative; 0 neutral; +positive)	Stakeholders' views (- negative; 0 neutral; +positive)	Coherence (- negative; 0 neutral; +positive)
Option 1 - Base line; no EU action	<p>(+) Ability to prevent permanent roaming: Home operators may adopt restrictive FUPs effectively enabling them to prevent permanent roaming</p> <p>(-) User needs covered: Operators have broad discretion to apply a fair use policy</p> <p>Considerable uncertainty as to how the directly applicable provisions of the Roaming Regulation (periodic travel, consistency with users' domestic tariff plans) would be interpreted</p> <p>Operators' incentives are not fully aligned with the interests of users as shown by the public consultation, thus may not adequately cover their roaming needs, effectively endangering the effective and consistent application of RLAH</p>	<p>(+) This option has not been envisaged as such in the public consultation, but it is likely that operators would support this option as this may potentially give them leeway to apply restrictive FUPs as they see fit</p> <p>(-) However, the legal uncertainty associated to that option may also deter operator from supporting such an option; consumers and users' associations do not support this option</p>	<p>(-) Not in line with the mandate given to the Commission in the Roaming Regulation</p> <p>In contradiction with the Roaming Regulation's objective of delivering RLAH to EU citizens from 15 June 2017 in the EU.</p> <p>As it is a legal obligation for the Commission to act, this is not a valid policy option and merely serves as a reference scenario for the impact analysis</p>

<p>Option 2 - EU FUP defined as a time limit based on the average number of days abroad of EU citizens</p>	<p>(+) Ability to prevent permanent roaming: The EU FUP is very restrictive, enabling home operators to effectively prevent permanent roaming</p> <p>(-) User needs covered: The roaming needs of about half of the travellers for personal purposes (e.g. holidays), of most of the travellers for professional purposes, of long-stay travellers, and of frontier workers, are not covered</p> <p>Therefore RLAH is not a reality for about half of EU citizens</p>	<p>(+) This is the preferred option of operators in the public consultation</p> <p>(-) This option is rejected by most consumers and users associations (only 8% of individual support it in the public consultation)</p>	<p>(-) In contradiction with the Roaming Regulation's objective of delivering RLAH to EU citizens from 15 June 2017 in the EU</p>
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<p>Option 3 – List of banned practices in defining FUP</p>	<p>(+) Ability to prevent permanent roaming: The time criteria of this option enable home operators to effectively prevent permanent roaming</p> <p>(-) User needs covered: The roaming needs of virtually all travellers for personal purposes (e.g. holidays), of most of the travellers for professional purposes, and of frontier workers, are covered</p> <p>Therefore RLAH is a reality for almost all EU citizens, except possibly for long-stay travellers temporarily <i>residing</i> abroad in the EU and for the most intensive business travellers who usually benefit from tailored business tariff plans</p>	<p>(+) A time criterion of 3 months or less per year is supported by half of the consumers in the public consultation</p> <p>No volume restriction other than the domestic volume is supported by more than 80% of the consumers in the public consultation</p> <p>(-) A time criterion of 3 months or longer per year is supported by only 3 out of 30 operators<sup>83</sup> in the public consultation</p> <p>No volume restriction other than the domestic volume is supported by only 12% of the operators in the public consultation</p>	<p>(+) In line with the Roaming Regulation's objective of delivering RLAH to EU citizens from 15 June 2017 in the EU</p>
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<sup>83</sup> 30 out of the 40 operators responding to the public consultation replied to the question related to periodic travel



<p>Option 4 – EU FUP defined as a combination of time and volume limits</p>	<p>(+) Ability to prevent permanent roaming: The time and volume criteria of this option enable home operators to effectively prevent permanent roaming</p> <p>(-) User needs covered: The roaming needs of part (on the order of 10%) of the travellers for personal purposes (e.g. holidays), of part of the travellers for professional purposes, of long-stay travellers, and of frontier workers, are not covered</p> <p>Therefore RLAH is not a reality for a non-negligible part of EU citizens</p>	<p>(+) In the public consultation, more than half of the operators support a volume limit of 50% or less of the domestic tariff plan</p> <p>(+/-) In the public consultation: – almost one third of the operators support a time criterion based on annual paid holidays or longer – almost one third of the consumers support a time criterion based on annual paid holidays or shorter</p> <p>(-) In the public consultation, a volume limit of 50% of the domestic tariff plan is rejected by consumers (only 8% support it)</p>	<p>(-) Not fully in line with the Roaming Regulation's objective of delivering RLAH to EU citizens from 15 June 2017 in the EU</p>
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## 2. Sustainability mechanism

Table 27: Comparison of options: effectiveness, efficiency, stakeholder views and coherence

Option	Effectiveness/Efficiency objectives (- negative; 0 neutral; +positive)	versus Stakeholders' views (- negative; 0 neutral; +positive)	Coherence (- negative; 0 neutral; +positive)
<p>Option 1 - Base line; no EU action: Each NRA defines sustainability according to the broad guidelines of the Roaming Regulation.</p>	<p>(-)</p> <p>Risk of artificial fragmentation of RLAH: based on different criteria, some countries and some consumers would enjoy RLAH while others wouldn't</p> <p>Operators facing exceptional circumstances could be denied the derogation, which entails a risk of a waterbed effect.</p> <p>Operators not facing exceptional circumstances could apply a surcharge, thus limiting the widespread applicability of the RLAH system.</p> <p>Risk of legal uncertainty due to divergence of interpretations of the Roaming Regulation.</p> <p>Threatens Digital Single Market level playing field.</p> <p>(+)</p> <p>Potential greater adaptability to</p>	<p>(-)</p> <p>No stakeholder has explicitly supported this option.</p>	<p>(-)</p> <p>Will be in contradiction with the Roaming Regulation's requirement that the Commission defines the sustainability mechanism. As it is a legal obligation for the Commission to act, this is not a valid policy option and merely serves as a reference scenario for the impact analysis</p> <p>(-)</p> <p>Will be in contradiction with the newly harmonized wholesale caps and fair use policy, which imply also a harmonization of the sustainability mechanism.</p>

	<p>domestic conditions.</p> <p>In principle, easier to implement than Option 2.</p>		
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<p>Option 2 – Harmonization of sustainability mechanism at EU level</p>	<p>(+) An implementing act would significantly reduce the risk of fragmentation.</p> <p>Widespread availability of RLAH would be maximized.</p> <p>The risk of a waterbed effect would be minimized.</p> <p>NRAs would have clear guidelines as to how interpret the legislation and decide about open issues.</p> <p>(-) Specific domestic conditions could be overlooked.</p> <p>In the implementation, NRAs will have to adapt to the conditions established in the act.</p>	<p>(+) Stakeholders have an implicit and explicit understanding that the Commission will publish an implementation act on sustainability.</p> <p>(-) Some stakeholders argue for no sustainability mechanism to be in place, which would be in contradiction with both options and with the Roaming Regulation.</p>	<p>(+) Fully coherent with the Roaming Regulation, which asks the Commission to define a sustainability mechanism.</p> <p>(+) Will be fully coherent with the harmonization of wholesale caps and fair use policies.</p>
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**Table 28: Comparison of options Issue 1: Actual Data: effectiveness, efficiency, stakeholder views and coherence**

Option	Effectiveness versus objectives (- negative; 0 neutral; +positive)	Stakeholders' views (- negative; 0 neutral; +positive)	Coherence (- negative; 0 neutral; +positive)
<p>Option 2.1.1 – No Actual RLAH data</p>	<p>(-)</p> <p>Strong degree of variability and uncertainty due to an entirely projections-based application.</p> <p>Does not capture actual consumer behaviour after the introduction of RLAH, which is highly uncertain.</p> <p>Risk that applications are accepted or rejected based on unrealistic grounds.</p> <p>No actual RLAH data will be available when the application is renewed after 12 months.</p> <p>Negative incentive in the wholesale market negotiations</p>	<p>(+)</p> <p>25% of operators, mostly small and MVNOs, support this option in order to minimize potential losses.</p> <p>(-)</p> <p>40% of operators argue for longer periods (3 months or 1 year).</p>	<p>(+)</p> <p>Minimizes operator's losses, which is at the core of the sustainability assessment.</p> <p>(-)</p> <p>Not coherent with legislation, which refers to actual and projected data.</p> <p>(-)</p> <p>Operators could obtain a RLAH derogation with little application of RLAH.</p>

	<p>(+)</p> <p>Minimizes unsustainable operator's potential losses, thus securing the viability of the domestic charging model, but at the cost of giving significantly lesser weight to the RLAH objective.</p> <p>Introducing a sustainability exception will be commercially easier than in the other options.</p>		
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<p>Option 2.1.2.- 1.5 months of actual RLAH data</p>	<p>(-)</p> <p>Operator's might incur losses during a short period of time</p> <p>Lesser degree of variability and uncertainty in the projections.</p> <p>Captures only part of the actual consumer behaviour after the introduction of RLAH, which remains highly uncertain.</p> <p>Reduces risk that applications are accepted or rejected based on unrealistic grounds.</p> <p>Reduced negative incentive in the wholesale market negotiations</p> <p>(+)</p> <p>Reduces unsustainable operator's losses, thus securing the viability of the domestic charging model.</p>	<p>(0)</p> <p>This specific option was not consulted with stakeholders, but it seems to be a good compromise between the two sides of the argument (none vs longer periods of actual data being required).</p>	<p>(+)</p> <p>Generally coherent with legislation.</p> <p>Reduces operator's losses, which is at the core of the sustainability assessment.</p>
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	<p>Some actual RLAH data will be available when the application is renewed after 12 months, ensuring a better balance between reality of waterbed risks and the RLAH objective.</p> <p>(0)</p> <p>Introducing a sustainability exception will be commercially easier than in option 2.1.3.</p>		
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<p>Option 2.1.3 – 3 months of actual RLAH data</p>	<p>(-) Operator's might incur losses during a longer period of time, increasing the risk of a waterbed effect.</p> <p>Captures only part of the actual consumer behaviour after the introduction of RLAH, which remains rather uncertain.</p> <p>Reduced negative incentive in the wholesale market negotiations</p> <p>Lesser degree of variability and uncertainty in the projections.</p> <p>Introducing a sustainability exception will be commercially more difficult than in the other options.</p> <p>(+) Reduces risk that applications are accepted or rejected based on unrealistic grounds.</p> <p>Some actual RLAH data will be available when the application is renewed after 12 months.</p>	<p>(+) 17.5% of operators in the PC chose 3 months as preferred option. Presumably, operators that chose longer options would also agree.</p> <p>(-) 25% of operators, mostly small and MVNOs, would rather argue for option 2.1.1 in order to minimize losses.</p>	<p>(+) Generally coherent with legislation</p> <p>(-) Tolerates operator's losses for longer, which is at the core of the sustainability assessment.</p>
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**Table 29: Comparison of options Issue 2 (domestic margin): effectiveness, efficiency, stakeholder views and coherence**

Option	Effectiveness versus objectives (- negative; 0 neutral; +positive)	Stakeholders' views (- negative; 0 neutral; +positive)	Coherence (- negative; 0 neutral; +positive)
<p>Option 2.2.1 EBITDA</p>	<p>(+)</p> <p>It is the most commonly used to assess profitability in the financial sector, particularly when comparing companies, thus it will be e</p> <p>It is agnostic to differences in taxes and debt treatment between Member States</p> <p>It is agnostic to differences in rules used by companies as regards accounting treatment of these elements and amortisation in their accounts.</p>	<p>(-)</p> <p>In the public consultation, operators generally consider all financial measures as too limited or complex.</p>	<p>(+)</p> <p>Fully coherent with legislation.</p>

<p>Option 2.2.2 EBIT</p>	<p>(+)</p> <p>It might provide better approximation of the true profitability of the company</p> <p>It is agnostic to differences in taxes and debt treatment between Member States</p> <p>(-)</p> <p>Including depreciation and amortisation can distort the company's true profitability estimation, and thus the sustainability assessment.</p>	<p>(-)</p> <p>In the public consultation, operators generally consider all financial measures as too limited or complex.</p>	<p>(+)</p> <p>Fully coherent with legislation.</p>
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<p>Option 2.23 – After-tax measure of profitability</p>	<p>(-) Including interest on debt, taxes, depreciation and amortization can distort the company's true profitability estimation, and thus the sustainability assessment.</p>	<p>(-) In the public consultation, operators generally consider all financial measures as too limited or complex.  (</p>	<p>(+) Fully coherent with legislation.</p>
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**Table 30: Comparison of options Issue 3 (sustainability percentage): effectiveness, efficiency, stakeholder views and coherence**

Option	Effectiveness versus objectives (- negative; 0 neutral; +positive)	Stakeholders' views (- negative; 0 neutral; +positive)	Coherence (- negative; 0 neutral; +positive)
<p>Option 2.3.1 A sustainability percentage representing a specific proportion of domestic margin (5%).</p>	<p>(+)</p> <p>Takes into account the level of competition, prices and revenues in the domestic market.</p> <p>Easier calculation and implementation than 2.3.2.</p> <p>5% margin strikes the right balance between avoiding waterbed risks while avoiding that sustainability derogations from RLAH are granted other than in the specific and exceptional circumstances when this is justified because of such risks (i.e. avoiding both type 1 and type 2 errors).</p>	<p>(-)</p> <p>A significant number of operators consider this option complex, but no clear alternative is proposed.</p>	<p>(+)</p> <p>Fully coherent with the Roaming Regulation.</p>

<p>Option 2.3.2 A sustainability percentage representing a variable proportion of the domestic margin depending on the magnitude of the domestic margin</p>	<p>(+) Takes into account in a more direct way the level of competition, prices and revenues in the domestic market.</p> <p>(-) Much more complex implementation</p>	<p>(0) This option has not been consulted with operators. No operator has expressed explicit support.</p>	<p>(+) Fully Coherent with the Roaming Regulation</p>
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