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RESPONSE BY TELEFÓNICA TO THE PUBLIC CONSULTATION ON A

REVIEW OF THE FUNCTIONING OF REGULATION (EC) NO 544/2009 (THE "ROAMING REGULATION")

-- Non Confidential Version --

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1. Executive Summary

Telefónica would like to thank the European Commission for the opportunity to react to this public consultation.

This paper is divided in five parts. This section gives a summary view of the Telefónica position. Next there is a general assessment of the various structural solutions suggested by the European Commission. The third section contains ideas how Telefónica believes the current regulation could be changed or adapted – an alternative solution. The fourth section contains our answers to the specific questions the Commission posed. And finally, in a confidential annex we have described how we expect retail and wholesale rates to develop in the data roaming market.

The Telefónica position can be summarised as follows:-

1. **No structural solution is satisfactory.**
   None of the structural solutions proposed in the consultation document can guarantee that the roaming price will fall to the level that is set as a goal in the "Digital Agenda". Some are actually disproportionate and could severely distort the national mobile markets (which are competitive). Many of the proposed technical solutions are also extremely complicated and costly to implement. Telefónica is opposed to such solutions, which cost a lot but might then still prove to be ineffective.

   We fear that by selecting a structural solution we might end up with the worst of both worlds. After implementing a costly structural solution we would still require additional price regulation, because the EU won't be willing to accept the market outcome. Some of the structural solutions might be more acceptable if we could be guaranteed that no further regulation would be imposed when a legal market outcome were not to lead to the political target defined in the "Digital Agenda", however Telefónica has worked on the basis that such political guarantees are just not feasible.

2. **Voice and Data are different**
   Voice and data have different dynamics and require different regulatory solutions. Telefónica strongly believes that the data roaming retail market is (prospectively) competitive and regulation isn't required. The rapidly growing use of smartphones and dongles is fundamentally changing the demand for mobile broadband services. There is profitable price elasticity so it is in operators' interest to decrease retail rates, something we have already started seeing happening. In 2011 and 2012 we will see substantial further price declines in both wholesale and retail.

   Therefore, Telefónica suggests forbearance with regard to data roaming. We need a chance to demonstrate that this market is changing.

3. **Any Regulatory solution should be simple and lasting**
   The Roaming III regulation, Telefónica accepts the political reality of there having to be one, should be understandable for customers, and easy to administer and implement for operators and regulators. There should be no risk that we would have to revise

regulation very soon again because policymakers don’t like the outcome. No solution should distort domestic mobile markets as they are already effectively competitive.

4. Telefónica’s proposal

It appears to Telefónica and, we note, BEREC that no structural solution is wholly satisfactory. Most have serious drawbacks. It comes down to selecting a solution that under the circumstances balances the various requirements best. None of the solutions suggested by the Commission strikes this balance. Consequently Telefónica believes that the Commission (and BEREC) should give active consideration to the following:-

- If in 2015 the Commission determines that the market is still not sufficiently competitive the following new mechanism should be used from that point onward.
- BEREC would annually calculate the average blended domestic price level in the EU. For intra-EU roaming MNOs are then allowed to charge this rates plus a mark-up of 20%. The maximum wholesale rates are set on the basis of this average domestic rate minus 20%.[1]
- No retail regulation for data services should be introduced, as this market is (prospectively) competitive and because regulatory intervention is even more complex and risky than for voice. The current wholesale regulation should be withdrawn, as this market is competitive (acknowledged by BEREC). The price cap is superfluous, as wholesale rates have fallen well below the regulated rate.
- For SMS to leave current safety caps in place or withdraw them over time given the competitive dynamic caused by instant messages and other data services. Roaming rates are already below the price level in some Member States.
- Between 2012 and 2015 a glide path would be set, by using the above methodology. The target price for 2015 would be the average EU blended rate plus 20%.
- After 2015 the market has to be assessed at regular intervals and regulation has to be withdrawn as soon as the Commission determines that the market is prospectively competitive.

The advantages of this solution are:-

(i) This would represent the last legislative intervention and present a long lasting and simple solution.
(ii) Transparency is high, as only a single harmonised price needs to be established.
(iii) Technical implementation is relatively cheap.
(iv) A single price is easy to understand for customers.
(v) It achieves the political objective from the Digital Agenda of the difference between roaming rates and domestic rates approaching zero.
(vi) It keeps distortion of national markets relatively small.
(vii) This is forward looking and proportionate given the competition in the wholesale markets.

[1] Telefónica believes variations to this mechanism are also possible, such as call set-up charges instead of a mark-up.

2. Assessment of structural solutions

2.1 None of the structural solutions are satisfactory

Telefónica wholeheartedly supported the idea of Commissioner Kroes to look for a structural solution. We would also prefer a solution whereby the market takes care of itself without any further periodic regulatory intervention. However, after considering in detail all the possible solutions that have been put forward by the Commission as well as others, Telefónica has come to the conclusion that unfortunately none of them are satisfactory. We note that BEREC is similarly of this view. There are various reasons why.

2.1.1 Technically complicated

We fear that most structural solutions are very complicated to implement technically without any guarantee that they will deliver the desired result (namely that the difference between roaming and domestic rates approaches zero by 2015). Telefónica believes the worst outcome of the revision of the roaming regulation would be that operators are forced to invest in a costly and complex technical solution which a few years later is made redundant because the political aims were not satisfied and price regulation is reintroduced.

We have to be aware that implementing structural solutions come with opportunity costs. The transparency measures from the Roaming II regulation have verifiably delayed price innovation in data roaming. Therefore, structural solutions should only be contemplated if regulators are ready to accept the outcome; it should not be used in an attempt "to see what happens".

2.1.2 Consumer unfriendly

Currently roaming is extremely simple. The way it works is, from a consumer point of view completely transparent. No user intervention is required and it has proved to be very dependable and of high quality. Several of the structural solutions would seriously compromise this ease of use. This would mean either a step backward or it would mean that the solution would remain underused. We expect that users would initially blame operators' implementation poor customer experience, but that other commentators may view the root causes of the degradation of the roaming experience somewhat differently.

2.1.3 Structural solutions do not negate price regulation

The main problem we see with most of the structural solutions is that it is uncertain whether they will achieve the aims of the Digital Agenda. The attraction of a structural solution is that it would discipline the market and that there would be no need for price regulation; the market would eventually determine the price within the structural construct imposed by any future regulation. There are inherent risks for policymakers in allowing the market to determine prices in this way. Policymakers cannot guarantee that prices will achieve their political objective of "approaching domestic prices".

Telefónica hopes that there is the political will to accept such a risk and policymakers can once again place faith in the market outcome (within the structural construct imposed by regulation). If there is not this political will, then policymakers may be tempted to combine any structure solution with further price caps, to secure the political objective in the Digital Agenda. In Telefónica's view, the inclusion of such caps would completely undermine the rationale, proportionality and objective justification for any structural solution.

Policymakers need to resolve this dichotomy. Policymakers can either regulate prices and secure a desired outcome, or they can structure a market driven outcome and submit to the uncertainties of the market. Proportionate regulation cannot secure these potentially mutually exclusive objectives.

2.1.4 Disproportionate and Unproven

Telefónica believes that some of the structural solutions are disproportionate; the cure would be worse than the disease. Others are theoretical and their effect unproven. We have to remember that most mobile markets are considered to be effectively competitive and that profit levels are not deemed to be excessive. We must therefore guard against remedies in the roaming market that undermine the national mobile markets. For example, the idea to grant MVNO access would in Telefónica's view be disproportionate. Under the regulatory framework an NRA can only apply such a remedy after a market analysis and when for SMP has been proven. It is a very intrusive remedy that has not been used very often. Therefore, to mandate MVNO access to solve a problem in the roaming market is disproportionate. There would be too many undesired spill over effects. Other remedies, such as the idea of a Spot Market, are innovative but unproven. We don't know what the effect or effectiveness of such a remedy is, or of the side effects. It would be very risky to completely overhaul the functioning of the roaming market by mandating such an unproven remedy.

2.2 Lasting and simple remedies

Telefónica would submit that any structural solution adopted should be simple and lasting. It should be simple to understand for consumers, simple (and cost-effective) to implement by operators and simple to administer for regulatory authorities. It should be lasting, in the sense that at the first assessment of the Roaming III regulation we don't find ourselves having to change everything again because regulators don't like the outcome. Any solution should be proportionate to what we are trying to achieve and not interfere or distort the domestic mobile markets that are functioning well and are competitive. Regulation should ideally complement, not replace, competition. It should leave ample margin for competition and differentiation at retail and wholesale level.

2.3 Voice and Data are different

Voice and data have different dynamics and require different regulatory solutions. In fact, Telefónica believes that the data retail market is (prospectively) competitive and regulation isn't required.

The mobile data roaming market is largely underdeveloped. In the past there was very little demand for data roaming. With the proliferation of smartphones the demand for mobile data has increased dramatically. However, due to the perception of relatively high prices (the old pricing structures for WAP still apply) most smartphone users don't use the data facility when abroad because they rightly fear what this could cost. They simply switch data roaming off. The growth of smartphones and also dongles means that there now is a lot of unmet demand. This demand is likely to grow further as penetration of smart phones increases.

Moreover, Telefónica is convinced that there is profitable price elasticity. We cannot overstate the importance of this. It means that it is in the interest of operators to lower prices because they can do so profitably. Lower prices leads to more demand and, in the case of mobile data roaming, more profit.

Over the last 18 months the wholesale rates for mobile data roaming have fallen substantially. They are now well below the regulated rate. Retail rates have now started to follow and this trend will continue in 2011 and beyond. We can say this very categorically because within Telefónica such decisions have already been made, and because new retail offers have already started to appear in the market. A more detailed description of retail and wholesale price trends can be found in (the confidential) Annex 1.

Given these developments we believe it would be a mistake to introduce retail regulation for mobile data roaming; it could stifle a developing market.

2.4 Overview of Advantages and Disadvantages

Table 1: This table gives a summary assessment of the structural solutions suggested by the European Commission. More detailed comments about each of the solutions can be found in the questionnaire section.

Structural solution	Advantages	Disadvantages
Current approach	+ Easy to implement + Can predictably achieve Digital Agenda objectives. + Possible transition measure	- Causes market paralysis and "legal collusion". No innovation. - May not be possible legally given ECJ judgement. - Requires continuous intervention. - Continuous change has opportunity cost.
Wholesale & Transparency measures	+ Would drive more product innovation + No retail regulation	- Wholesale market is not a problem, it functions well - Risk of cost-based wholesale rates which is not justified given competitive wholesale market - Uncertain to achieve Digital Agenda aims.
Regulation of retail data prices		- Market is prospectively competitive - Regulation will stop competition and innovation - Unclear how to regulate because domestic market and prices still in flux. - Could distort national data market and stop domestic market finding efficient equilibrium.

Roam-Like-At-Home	+ Easy to understand for consumers + Can predictably achieve Digital Agenda objectives.	- Possibly strong distortion of national markets. - Wholesale rates may have to be offered below cost to avoid margin squeeze. - Wholesale remedies unjustified and could distort national markets and national MVNO arrangements.
Roam-Like-A-Local	+ No distortion of national markets + Retail-minus solution + Consistent with single market, and Digital Agenda objectives	- Asymmetric wholesale rates difficult to implement. - Confusing for customers - Unclear what benchmark rate to use - Goes against the current zone-pricing which requires IT changes.
Separate sale of roaming services	+ Possibly no retail price regulation (although unlikely)	- Difficult for customers to understand and operate - Cost of implementation - Uncertain to achieve digital agenda objectives - May still require price regulation (backstop)
Spot Trading	+ Real structural remedy aimed at roaming market only. + No spill over into other market segments.	- Unproven - Not feasible with a heterogeneous offer - May still require retail price regulation (backstop) - Disincentive for pan-european operators, or consolidation - Insufficient liquidity unless group companies are required to trade individually which is inefficient.
Access-based approaches	+ Possibly no retail price regulation (although unlikely)	- Causes strong distortion of national markets. - Not proportional: impact on domestic market - Not in line regulatory framework. - Uncertain to achieve Digital Agenda objectives. - Little market impact. Roaming MVNOs already exist and have negligible impact. No mass market appeal. More MVNOs only attracted by high margins.

3. Telefónica proposals

Obviously Telefónica would prefer there to be no regulation. For the record, Telefónica believes that the only real solution to forging a single market in roaming is for companies with European scale and footprint to emerge. We don't believe consumers will create the market incentives for a single market to emerge. Large consolidated pan-European operators could and would do this. Innovation in the roaming market comes from larger groups, not small operators. The European Commission should stimulate this but the roaming regulation has not provided these incentives; quite the opposite. In this paper we won't further elaborate that idea but it is one of our core beliefs.

We don't believe that roaming prices would go up absent of regulation. A price increase would result in high post-pay churn because customers are allowed to terminate their contracts. Neither is there is a price squeeze problem because wholesale markets overall function well. No operator has to offer roaming rates at very small or negative margins. Finally, the lessons operators are learning and applying in the area of data roaming (such as tailor made bundles and packages etc.) could also be applied to voice and we are confident that they would be applied if given the space and stability.

As mentioned before, Telefónica believes that none of the structural solutions suggested by the European Commission are adequate. Telefónica has tried to develop and put forward an alternative that we believe, although not perfect, on balance is better. We worked on the basis that the Roaming III regulation should be understandable for customers, and easy to administer and implement for operators and regulators. There should be no risk that we would have to revise the regulation very soon again because it wouldn't achieve the desired outcome. Also, very importantly, the regulation should cause minimum distortion to domestic mobile markets, as they are already effectively competitive.

The solution Telefónica wants to propose isn't ideal either. It also has drawbacks, which we find hard to accept. But ultimately it strikes the best balance between political and regulatory requirements, market needs and little distortion and implementation costs. The proposal isn't fully mature either and Telefónica sees it as the basis for further discussion.

3.1 An Alternative Solution

The structural solution that Telefónica would like to propose is not based on a technical implementation of some kind but rather it is a price control. It requires an annual decision by BEREC.

We would suggest that every year (or another timeframe that is reasonable) BEREC calculates the average blended domestic revenue per minute in all the mobile markets of the EU and EEA. We would suggest to use off-net prices as this is the type of traffic that more closely resembles roaming traffic: roaming implies by definition the use of another network, and the eurotariff is available to all customers irrespective of their traffic consumption.

This average blended rate is then taken as a benchmark to calculate the maximum retail rate mobile operators can charge for intra-EU roaming calls, and to determine the maximum wholesale rate.

The precise calculation of the average blended rate needs to be further discussed and fine-tuned to get a rate that is easy to calculate, representative as a benchmark and causes as little distortion as possible.

3.1.1 Maximum Voice Retail Rate

The political aim set in the "Digital Agenda" is that the difference between domestic rates and roaming rates should approach zero by 2015. Telefónica thinks that by linking the roaming rate to the average European blended domestic rate this can be achieved.

The maximum price mobile operators should be allowed to charge for intra European roaming calls from 2015 onward should therefore be the average European rate (average revenue per minute) plus a mark-up of 20%.

Providing roaming services does carry extra costs so a reasonable mark up is justified. Telefónica believes a mark-up is necessary as roaming services carry extra costs. These costs are caused by, amongst others: (1) negotiation and implementation of the roaming agreements; (2) set-up and implementation of the necessary elements in the international signalling network; (3) management of the roaming billing chain including relationships to clearing houses; (4) management of fraud control specific for roaming; (5) in some cases, it is necessary a specific network investment to provide coverage and capacity in areas with high (although time limited) roamers concentration. These costs remain the same. In the past a 15% mark-up was used on top of a higher roaming rate. With a low roaming rate equal to domestic prices we feel that a 20% mark-up is justified.

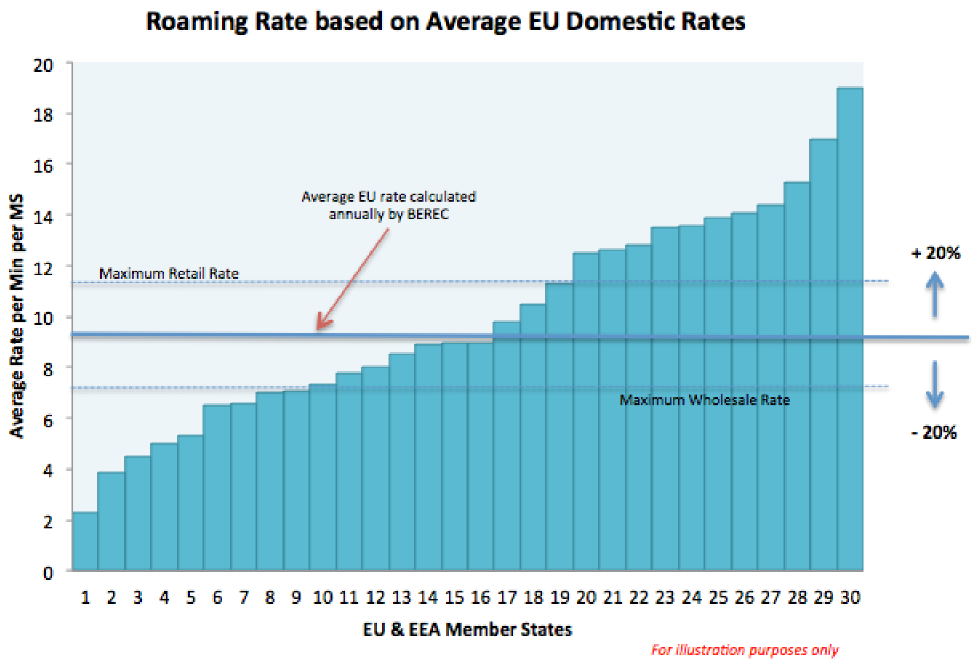
3.1.2 Maximum Voice Wholesale Rate

The roaming wholesale market in the EU is working well. In each Member State several operators are offering wholesale roaming access. It cannot be argued that the wholesale market is not functioning or that there is a monopoly. Cost-regulation is therefore not necessary nor would it be proportionate. There is plenty of evidence that operators of all sizes can currently benefit from fair and competitive roaming wholesale rates[2].

Telefónica therefore proposes that the wholesale rate be set using the retail-minus methodology with the average EU pre-paid retail rate as its basis. Mobile operators would not be allowed to charge more to other EU operators than the average EU retail rate, as determined by BEREC, minus 20%. Of course, operators may negotiate lower rates and given the competition in the wholesale market often will. The difference between the wholesale rate and the maximum retail rate guarantees a reasonable margin and scope for price competition.

Since most mobile originating calls[3] are calls back to the home country of the caller, the visiting network incurs higher costs for those calls than domestic calls. The wholesale rate must be allowed to reflect this. This is another reason why the retail minus methodology is fair.

[2]Telefónica is willing to share its evidence of that with the Commission on a confidential basis.
[3] More than 80% of all roaming MO calls are back to the home country of the caller. 15% are calls within the visiting country and the remainder is calls to third countries.



3.1.3 Receiving calls

Mobile termination when roaming is a real cost to operators. A call to a roaming subscriber has to be forwarded to a network abroad and this involves MTR and call conveyance costs, not taking into account the fixed common costs of providing the roaming service. By 2015 we expect these costs to fall as MTRs come down but there will always be a cost that mobile operators should be allowed to recoup. The question is how best to recoup these costs?

Paying for receiving calls abroad is probably the least popular aspect of roaming for most customers as they are not used to this (the RPP system). Telefónica therefore wants its costs covered but is happy with minimal margins. We need to find a practical and simple way of recouping these costs.

At the same time, setting the price for receiving calls at zero would change calling behaviour (people would only receive calls) and this would lead to roaming becoming loss making as operators would not be able to recoup the costs for the international conveyance.

There are a few possibilities, and we currently haven't a strong preference for one or the other:-

- *The current system of a per minute RPP charge.* As this rate has to reflect international conveyance plus MTR this rate can probably be lower than the current rate.
- *A per-call set-up charge*. This formula is currently already in use with some operators and works well. In order for this to work, this set-up charge would have to be higher than the current 30 second limit in the Roaming II regulation.
- *A single daily charge* to cover all incoming calls. For example, in 2015 a €1 charge would probably cover 20+ minutes of incoming calls.

In some countries, domestically, call set-up charges are common, so such a system could work in terms of customer experience and IT implementation. In other countries a per-minute system is more prevalent. Therefore, ideally the regulation should give flexibility to operators opt for the most appropriate system.

3.1.4 Possible variations and details

As mentioned before, this proposal should be seen as a basis for further discussion and many aspects can be changed or improved. Whilst developing it Telefónica discussed a number of variations, or left aspects undefined. Some of these are:-

- **What average?** Telefónica has not been explicit about what kind of average BEREC should calculate. This requires further thought and a price should be chosen that works best as a benchmark in terms of comparability with roaming, ease of calculation and minimisation of market distortion. Some weighting per country should also be considered, for example by population size, or on the basis of the number of roaming minutes generated or received by that country. Also, the exact blend would have to be discussed and established.

- **Off net prices:** Telefónica believes that off-net calls are probably the most comparable with roaming calls because roaming is by definition off-net; it is guest use.

- **Call set-up charge**: the 20% mark-up could be replaced by a call set-up charge. We know from market research and experience that many customers value a solution whereby domestic rates are charged with a per call set-up charge. Telefónica believes that this is a very good alternative but for that to work the set-up charge should be allowed to be sufficiently high. The current limit in the roaming regulation is clearly unworkable because it would not allow operators to recoup their costs.

- **Time interval**: the proposal states that BEREC should calculate and publish the benchmark rate annually. This could also be a different interval. In fact, every two years should also be contemplated as this longer interval would mean that companies would use fewer resources on implementing regulatory price changes. It would free up capacity within roaming teams to innovate.

3.1.5 SMS

Telefónica believes that there are few, if any, structural problems in the SMS market. The current regulated rates are often already below the domestic rates and we don't think there is any need to further reduce them. In fact, Telefónica believes that by 2015 or even before this market can be deregulated.
For SMS there are number of competing services and technologies that provide competitive constraints. The Blackberry messenger has become very popular especially amongst text heavy teenagers. IM applications and Skype are also used extensively and increasingly. All these applications are strong substitutes for SMS and an alternative means of sending short messages.
Telefónica therefore believes that the SMS market requires little further intervention. Existing price caps can be maintained as a safe-guard or even withdrawn (the latter would solve distortions in some domestic markets).

3.1.6 Data roaming

Telefónica believes that regulation of the retail data market at this juncture would be a serious mistake. We believe that the market is prospectively competitive and that regulation could stop competition in this market from developing. Furthermore, domestic data markets are still in flux and the market is trying to find a new balance. Roaming regulation could distort and constrain the domestic market in finding the right price and price plans.

BEREC has acknowledged that the wholesale market is already developing positively. But it also concludes that retail prices remain high. We think that this is only a temporary phenomenon, which has already started to change. New price plans have already been introduced and Telefónica itself has taken decisions to compete vigorously.

As mentioned before, there is positive price elasticity in data roaming. Operators can get higher revenues and profits by lowering their retail rates, thus increasing demand and getting more volume. In other words, it is in the operators' interest to lower prices and this is the best guarantee the market will develop.

By 2015 retail rates will likely have fallen to national levels through competition.
Telefónica would therefore urge the Commission not to propose data roaming retail regulation and phase out the current wholesale regulation, as it has proven not to be necessary.

3.2 Timing and entry into force of the proposed solution

The aim of the "Digital Agenda" is to reach roaming price levels approaching domestic rates by 2015. In order to avoid sudden price shocks, Telefónica proposes that a glide path is set using the above methodology for the period 2012 - 2015.

In 2012, after adoption of the possible Roaming III regulation, BEREC would calculate the average domestic blended rate plus 20% and sets that as the target rate to be reached in 2015. That rate can then be reached in equal steps over the next 4 years.

The proposed solution would enter into force by 2015 but only after a market analysis has determined that the voice roaming market is still not competitive. Such an assessment is in line with the judgment of the European Court of Justice[4].

After that, Telefónica proposes that BEREC calculates and publishes the average rate at least 3 months in advance of the new rates having to enter into force.

3.3 Advantages of the proposed solution

The Telefónica proposal is by no means perfect – it should be seen as a draft aimed for further discussion. For example, it still sets a price cap, which in the past operators gravitated towards. Nevertheless, we believe that despite that it strikes the best balance because it also has many advantages.

Consistent with the "Digital Agenda". Because an average of domestic European prices is used, the difference between domestic rates and intra-EU roaming would be approaching zero.

[4] Case C-58/08. Final judgement of the Court of 8 June 2010.

It is simple and lasting. BEREC only needs to establish a single price for voice, which the market has set. There are no complicated and potential divisive cost-calculation issues because there is no need for complicated cost-modelling. Legislation is simple too.

No complicated technical implementation because it is a pricing measure only. The price for the next year would have to be known well in advance. The benchmark rate (as calculated by BEREC) would have to be published by early October at the latest.

It is easy to understand for customers as there will be a single, easy to understand price. The exact price level is actually less relevant. Because it will be roughly in line with domestic rates, there is little chance of bill shock. But the fact that it differs from the exact domestic rates is actually an advantage, customers will know their roaming tariff as a single, uniform call rate different from the rest of their domestic package, that often includes different rates for off-net, weekend, etc.

Little distortion of domestic markets. One of the big problems of regulation is spill over into other competitive markets. This could easily happen with badly designed roaming regulation. Telefónica believes that its proposed solution has few of such distortions; this in contrast with most of the structural solutions in the consultation paper.

Proportionate. Parts of the roaming market may have some structural problems; however one cannot argue that there are natural monopolies. The wholesale market functions well because operators compete for inbound traffic. Because of this, cost oriented regulation would be disproportionate. The Telefónica proposal tries to strike a better balance.

Forward looking. The Telefónica proposal, in particular with regard to retail data pricing is forward looking. It doesn’t risk destroying competition in a developing market.

4. Questionnaire

4.1 Question 1

To what extent do you believe that the current regulation achieved its objectives in terms of:

(a) Contributing to the single market for roaming services?
(b) Ensuring consumer protection?
(c) Promoting competition?

Please explain and substantiate your responses with data where possible.

(a) <u>Contribution to the single market for roaming services</u>

What the roaming regulation has shown, and what the European Commission acknowledges in its consultation paper, is that there is no real internal market with regard to mobile services. Networks are national, and licensing is national. But more importantly customers make their buying decisions with regard to mobile services purely on a national basis.

Fundamentally, the Roaming Regulation tries to establish a single market for mobile services and seeks to ensure that this market functions correctly, without any evidence that there is in fact a single market or that it can sustain itself. The shortcomings of the Regulation arise directly from this fundamental issue with imposing a harmonising measure on a service that is provided on a national basis within national markets.

The lack of innovation in roaming reflects its "Cinderella" status when compared to price innovation in national markets. International roaming is a marginal service for the vast majority of consumers. The Regulation distorts the functioning of national markets by consuming investments to implement the Regulation, when such investments would have been used to either:

(1) Implement international roaming products, absent regulation; and
(2) Implement innovations in the domestic market.

The regulation has stopped most marketing of roaming services by operators because as an operator it is difficult to differentiate yourself from the competition. This has led to roaming only being in the news when the Commission lowered rates and that publicity was usually negative and only confirmed in the customers' mind that roaming rates are very high. In that sense the regulation has worked negatively as well.

(b) <u>Ensuring consumer protection</u>

Telefónica believes that the regulation's contribution to consumer protection is mixed. Of course, consumers will perceive the lower rates as positive and the transparency measures are also well intentioned. However, we feel that whilst the transparency measures have been helpful to consumers and operators alike (by reducing or removing the need to credit customers exposed to "bill shock") the rigidity of the regulatory solution has led to foreseeable negative consequences for some consumers.

Important is also to mention opportunity costs. Most of our businesses had to postpone product development because the transparency measures took up significant IT capacity and IT spend. This stopped other roaming tariffs and products from being developed. We believe retail roaming prices would have come down significantly in 2010, were it not for the lack of IT resources and budget. We have also seen operators suspending data services for pre-pay customers as a result of the transparency requirements.

(c) Promoting competition

The EU Roaming regulation has done little or northing for competition; in fact we believe that the design of the roaming regulation has suppressed all forms of competition. The fact that there is only one default rate proved to be very rigid and the transparency measures were very difficult and costly to implement which slowed down developments in the retail data market. Telefónica is convinced that more roaming tariffs would have been developed if there had not been any regulation.

Telefónica warned before the first roaming regulation that setting price caps would lead to operators coalescing their prices around the cap. The main reason for this is that because of the limited price elasticity in the retail market, any price decrease will results in a loss of revenue. So there is no obvious upside in lowering rates. Other factors that played a role are that regulation took away management focus and because it is very complicated to develop a price plan

This problem is not unique to the telecom sector. Another good example where price caps led to similar prices are the UK's university tuition fees. Here the government set a maximum price that universities could charge and the result was that the universities all charged the maximum.

There never was much upside in advertising roaming services because of the limited demand. But as mentioned above, the regulation made it more difficult for operators to differentiate and therefore there was very little above the line advertising since the introduction of the roaming regulation.

Even though the Regulation didn't promote competition what is unclear is whether absent of regulation the market would have behaved differently especially given customer demand and behaviour? This we don't know. What we do think is that if regulation were to be abandoned now, the market now would not revert to its pre-regulation and that we could expect more price and product innovation.

4.2 Question 2

Do you consider that regulatory intervention for roaming services is needed beyond June 2012? Please consider voice, SMS and data roaming services separately. In particular, if you consider that the Roaming Regulation should expire in June 2012, please explain why, and describe how you consider that the market for roaming services will evolve in the absence of regulation.

Voice: Telefónica has always maintained that even absent specific regulation, market trends would have introduced competitive dynamics in the voice roaming market. Even though roaming regulation has been effective in bringing down roaming voice prices faster than the market would have done, the market has changed too since the introduction of the regulation and would facilitate lower roaming rates. We feel that the current regulation has become a hurdle to competition - the market has changed over the last few years. A lot of creativity of operators is now going into data roaming (hopefully something we will see the results of in 2011) where we are starting to face real competitive pressure from instant messaging and data services. Operators are introducing combinations of national subscriptions with data roaming, various bundles etc. This thinking and innovation can easily be extended to voice roaming

SMS: Telefónica believes that there are few, if any, structural problems in the SMS market. The current regulated rates are often already below the domestic rates and we don't think there is any need to further reduce them. In fact, Telefónica believes that by 2015 or even before this market can be deregulated. For example, in some Member States the rates for sending an SMS when roaming are below domestic rates. The domestic market is deemed to be competitive. For SMS there are number of competing services and technologies that provide competitive constraints. The Blackberry messenger has become very popular especially amongst text heavy teenagers. IM applications and Skype are also used extensively and increasingly. All these applications are strong substitutes for SMS and an alternative means of sending short messages. Telefónica therefore believes that the SMS market therefore requires little further intervention.

Data: Telefónica believes that the data market is potentially competitive. Telefónica believes that the data market is different from voice, in particular that there is greater price elasticity. We believe that operators can lower rates profitably and given this commercial incentive prices will come down as they already have. Retail roaming rates would have come down earlier were it not for the implementation of the transparency measures from the Roaming II regulation. They were costly and complex to implement and they diverted scarce IT resources away from product innovation.

As BEREC acknowledges, the wholesale market has proved to work well and wholesale rates have fallen quickly to well below the regulated cap. Retail prices have started to fall too and in 2011 further price declines are to follow. In some countries we have seen data prices come down by 50% or more in the last year. We have seen special offers for smartphone users, for example allowing them to use their domestic data bundle abroad[5]. These are all innovative offers and the fact that operators are innovating and competing but data pricing policy is still in its infancy.

Data roaming is developing into a good news story and we would STRONGLY WARN AGAINST regulatory intervention. Regulation at this juncture could stop this process.

A clear structural change to this market is the increase of smartphones and mobile broadband dongles being sold. The growing proliferation of these devices is changing the market and operators have to adjust their pricing strategies. We can see this happening at this very moment and we would urge the European Commission to analyse these changes and take them into consideration.

[5] Example of competition: Vodafone Ireland now allows iPhone customers to use their 2GB bundle abroad. This has prompted a competitive reaction from the other operators such as Telefónica O2, who were forced to dramatically lower their data roaming rates. O2 Ireland now has average rates of around 50ct/Mb, which is more than 200% cheaper than the rate of only 6 months ago. Similar examples can be found elsewhere.

4.3 Question 3

Do you consider that the current model of regulation would be effective in the future in light of the desired objectives? Will this approach ensure adequate consumer protection and help stimulate competition? Is it efficient and coherent with EU policies?

One of the key arguments developed by the claimant U.K. mobile operators in the case C-58/08 before of the European Court of Justice was that the European Union was breaking the principle of proportionality by setting retail price regulation in addition to regulating wholesale prices and transparency requirements.

In its final judgement the Court (8 June 2010) accepted that retail price regulation was not disproportionate within the whole context, but both the Court and the Advocate General took into account the fact the temporary nature of the measure and its ability to have immediate effects.

In this sense, the paragraph 69 of the Court Judgement underlines that:

> *"(an) intervention that is limited in time in a market that is subject to competition, which makes it possible in an immediate future, to protect consumers against excessive prices, such as that at issue, ..is proportionate to the aim pursued".*

The opinion of the Advocate General was even more explicit regarding the relevance that the retail price regulation had a temporary nature for accepting it as proportionate. In assessing this issue the Advocate General said that:

> *"price controls are one of the most intrusive forms of intervention in the market and constitute a particularly strong limitation of rights to property and the freedom of economic initiative".*

Finally he accepted the price regulation as proportionate taking in account the relationship between wholesale and retail prices and mainly its short-term duration:

> *"The Community legislature's use of price controls is not intended to achieve long term regulation " (paragraph. 4).*

And he continues saying that:

> *"Moreover, the existence of a sunset clause reduces its impact on the rights of the economic operators. Such clauses ensure that the community legislature will periodically reassess its interventions in areas, such as roaming, that are undergoing rapid social and economic change.* ***If the Community legislature were to extend the price controls or make them permanent, that decision would also need to be proportionate and additional reasons would need to be present to justify"***

From a legal point of view, therefore, it is not possible to simply extend the retail price regulation for a third time using the same old reasoning.

4.4 Question 4

If this model is suitable in principle, what modifications may be required in order to achieve a well functioning single market for roaming services? Should this approach be combined

with other options?

Telefónica does not believe that currently a single market for roaming services is something one can force by some pricing policy. It will remain “forced” and “unnatural” and therefore it is unlikely to be well functioning.

The most natural route for a single market to come into existence is for Pan-European operators or alliances to emerge, which can compete at a European wide basis. However consumer behaviour, licence policy, spectrum policy and indeed the roaming regulation are currently all at odds with consolidation. The roaming regulation helps small operators to compete with operators that have achieved advantages of scale. There is therefore less incentive on large operators to exploit their scale, or for operators to increase their footprint.

However, Telefónica would also like to warn against exaggerating the problems that currently exist. We are already reaching domestic price levels in most roaming services. SMS pricing levels are below domestic levels in many Member States already. In 2011 we will be nearly at cost levels with MT and we will be at domestic price levels with voice origination in 2012! By 2012 we predict that data prices will have also dropped to very low levels because operators want to stimulate usage for their new data devices also in roaming. We also see that roaming rates are approaching domestic price levels because domestic voice rates are no longer anti-inflationary and are currently increasing with the rate if inflation in several Member States.

4.5 Question 5

Would regulation of wholesale prices charged to MNOs, combined with transparency measures, be effective, efficient and coherent in light of the single market objective? Would the benefits of regulated wholesale rates be passed through to consumers?

This option sounds very interesting because it would mean the lifting of retail regulation. Telefónica has always been in favour of deregulation and we think the market would be invigorated by more retail flexibility.

The current retail regulation is quite rigid and the outcome is a “one price fits all” roaming offer everywhere. We believe that operators would use the greater retail pricing freedom by making a variety of offers. We don’t think that the average roaming price would go up (because that could lead to large numbers of contract terminations), but that there would be a range of offers for an individual customer to choose from. Telefónica believes that retail price flexibility would allow pricing innovation to enter the roaming market in a similar way as operators are currently thinking about data roaming offers.

However, what the Commission is proposing isn’t deregulation. The withdrawal of retail regulation would be accompanied by strong cost-oriented regulation of the wholesale rates. This, Telefónica believes, would be completely unjustified. The wholesale market is functioning well. In each Member States there are up to five operators offering roaming access and vying for traffic. There are few other examples where network competition is so fluid and where changing operator is so easy. There are no access problems or issues of dominance. Prices are established though competition.

Wholesale rates are a reflexion of the retail rates; not the other way around. If the wholesale rates are not as low as the Commission would like them to be, it is because the retail market doesn't provide the right incentives, and this is because customer demand does not yet force operators to lower their retail roaming rates down that far that lower wholesale rates are required to maintain margins. Lower retail rates will force down wholesale rates. Lower wholesale rates by themselves don't guarantee lower retail rates.

Telefónica believes that it would be completely unjustified, given the competition in the wholesale market, that heavy cost regulation would be introduced. It would mean that we would destroy the market that exists. It would be disproportionate and not in line with the principles of the regulatory framework.

Therefore, Telefónica cannot support this solution in its current form. We believe it is based on the wrong assumptions and on promises from small operators to lower retail rates when they would get low wholesale rates. In the past this has proven not to work this way. And if operators want to lower their retail rates, we are confident that the appropriate wholesale rates can be negotiated.

4.6 Question 6

Do you consider that retail regulation of data roaming prices is necessary? If not, what are the likely market developments post-June 2012?

Please also see response to question 2 and Annex 1.

Telefónica believes that the data market is potentially competitive. Prices have already started to fall and further price declines are to follow. We would STRONGLY WARN AGAINST regulatory intervention with regard to retail data roaming because it could stop this process of market development.

The data market (domestic and roaming) is currently undergoing massive structural changes. The demand for this service is growing rapidly because of the increased use of smartphones and dongles. In order for operators to satisfy this demand pricing needs to change. In this market there are also a number of (partial) substitutes, such as WiFi.

Telefónica believes that in the data <u>roaming</u> market there is substantial price elasticity. Operators can and will lower rates profitably and given that commercial incentive prices will come down. Prices have already started to come down in order to meet the rapidly growing demand in particular of smartphones.

Telefónica submits that retail roaming rates would have come down earlier were it not for the implementation of the transparency measures from the Roaming II regulation. They were costly and complex to implement and they diverted scarce IT resources away from product innovation.

Because data is not a homogeneous market (smartphones, dongles, M2M, etc.) we believe that operators are starting to provide various tailored packages. It won't be a single one price fits all solution. We expect that up to 2012 average data price will come down to below 30ct per MB (retail) and 10ct per MB for wholesale. Post-June 2012 this trend is likely to continue and the idea that by 2015 retail rates are close to domestic rates seems very realistic.

Some of the statements above are illustrated in the confidential Annex 1.

4.7 Question 7

If retail regulation of data roaming prices was necessary, what would be an appropriate model for such regulation?

Telefónica doesn't believe that retail regulation of data roaming is necessary. In fact we fear it could be an irreversible process.

However, in case the EU were to decide otherwise we would warn against the use of the regulatory formula used for voice roaming. A single low default rate per MB would seriously hamper product development and competition. Because data is not a homogeneous market (smartphones, dongles, M2M, etc.) a one price fits all would harm the development of the market. Regulation would have to allow differentiation between customers so that the market can produce different offers tailored to a customer's needs and demands. The EU would have to accept a wide range of retail rates.

4.8 Question 8

Please indicate the advantages and disadvantages of these approaches, relative to each other and to the current model of price capping, considering also competition aspects such as the possibility of margin squeeze?

(i) Roaming prices based on domestic prices in the home market

The advantages are plain: easy to understand for the customer as the home rate also applies in other Member States. And secondly, this option is more likely to achieve the Commission's "Digital Agenda" target. But the disadvantages of "Roam Like At Home" make it impossible for Telefónica to support this option.

As BEREC and the Commission have noted, the domestic retail rates vary significantly between Member States. This could be the cause of huge distortions. In order to avoid a price squeeze problem the lowest retail rate in EU would determine the wholesale rate. BEREC thus concludes[6] that this option requires wholesale rates to be set at a very low level.

As explained above in the answer to question 5, Telefónica believes that there is no justification for such harsh cost-based regulation as the wholesale roaming market is competitive. In each market there are several operators competing for inbound traffic. Cost-based regulation would therefore be disproportionate.

BEREC correctly identifies that setting the roaming rate at the same value as the domestic rate, without a mark-up, will either cause price squeeze issues or it will force some operators to offer wholesale rates below cost. Extremely low wholesale rates would also lead to very high retail margins in countries where retail rates are relatively, and, perversely, low margins where the market is more competitive and domestic rates are lower. This can't be the intention of regulation.

(ii) Roaming prices based on domestic prices in the visited country

[6] International Mobile Roaming Regulation, BEREC Report, December 2010, p.17-18.

The interesting aspect of this option, according to Telefónica, is that it doesn't have the same risks of margin squeeze that typifies the "Roam Like At Home" solution. As BEREC has also mentioned[7], wholesale prices can be derived by using retail-minus using the visited county as the benchmark. This would avoid a margin squeeze and another advantage of retail-minus is that it also does more justice to the competition in the wholesale market.

"Roam Like A Local" is consistent with the single market and it could lead to prices in line with the Digital Agenda objectives. However, the solution also has many challenges. The various price levels will be more difficult for consumers to understand; transparency would suffer.

Since 2000 operators' strategies regarding roaming retail pricing have been geared towards simple tiered pricing per region. "Roam Like A Local" would be a return to mark up pricing, which confused all our customers. Reintroducing per-country pricing would also require substantial changes to the billing engines of operators. This isn't insurmountable, of course, but the IT modifications shouldn't be underestimated.

This solution should only be contemplated if the wholesale rates would be set on a retail-minus basis. However, we would have to accept that this will result in asymmetrical rates between operators. Also, this solution would only work if the basis of the local rate would be a single national reference price for intra-EU calls. It would be too complicated to replicate all the domestic price plans. Billing systems are not capable of replicating the national price plans of all operators in the EU.

Noting the positive aspects, on balance, Telefónica asks the Commission to abandon this idea and consider how some of the positive aspects of this idea have been used in the Telefónica proposal.

4.9 Question 9

In general, would these decoupling approaches be effective in terms of stimulating greater competition for roaming services? Would all customer segments be able to benefit? Would such increased competition be sufficient to give consumers an effective choice of roaming services at (near) domestic prices?

Telefónica is afraid that these approaches would be expensive and difficult to implement and in the end might not give the competitive constraint the Commission is looking for. If the EU is willing to accept the market outcome of this solution a difficult technical implementation could be acceptable. But for Telefónica the worst outcome is a technically challenging and costly implementation and then, after two years, having to change again because the EU isn't happy with the competitive outcome. The required outcome seems to be a given and we can't predict whether this solution is going to deliver.

Our biggest concern with decoupling is that it isn't very customer friendly. Telefónica has looked into a number of options that are currently available from vendors.

4.9.1 Carrier Pre-select in the domestic market

This solution would allow the customer to select the roaming plan offered by another home MNO or MVNO that most suited their travel arrangements. It would require a procedure

[7] Ibid, p.19, paragraph 76.

enabling temporary mobile number portability only for roaming services (we believe a new system would need to be designed).

Decoupling in the home country is technically very problematic. It requires that the provider of the SIM makes available relevant confidential information to its competitors which all MNOs would be reluctant to do. To do that without it infringing competition law would be another problem. Telefónica believes that there are significant technical barriers and operational complexities to be overcome with billing systems and agreements between carriers.

The solution requires users to have a dual IMSI-SIM. Telefónica currently operates a Dual-IMSI SIM roaming solution amongst some of its operating businesses. We believe it is a fairly typical solution available at this moment. It would however be unusable for the roaming solution the Commission is describing. The reasons for this are:-

- The solution works because of the application on the SIM card that needs to interact with both networks. This is very specific and in Telefónica's case defined by Telefónica to ensure network integrity.
- The home operator still operates the traffic steering, not the roaming operator.
- In Telefónica's case it works because we dare to share encryption algorithms (embedded in the SIM card) between operating businesses. We wouldn't do this with 3rd parties.
- It only operates with fixed combination of two MNOs – changing is difficult.

The Dual IMSI card would need to have the right combination of operator identities. In the case of 3 operators, there are six possible SIM configurations (A+B, A+C, B+A, B+C, C+A, C+B). When operator "A" sells its service to a customer it must know which roaming operator this customer intends to use in order to supply the correct SIM. This means that a SIM supplied by operator A must also have the algorithms of the other operator on it. At the time of sale the customer therefore must know which operators he/she wants to use for both services. Telefónica fears that with more operators the possible operator combinations increase exponentially until it becomes virtually unworkable.

Commercially, this solution causes issues. The home operator would have to sell its own service and send the customer to the outlet of a competitor for the roaming service. How many customers will be willing to do this? Operators would have to establish new and complex commercial arrangements regarding billing, traffic steering (in our experience the home operator maintains this ability), customer care, etc. with the other operators. This appears to be an enormous task if all operators and MVNOs in Europe are entitled to this form of access.

What should also be born in mind is that you can not separate voice and data services for roaming. This would be important for some services such as Blackberries. We also fear that in-advertent national roaming could take place.

All the above makes us fear that the implementation costs of this solution will be very high, take a long time, and that ultimately it is unworkable and consumer unfriendly.

4.9.2 Carrier-selection in visited country

Several vendors sell solutions of this kind. It is being used by operators in, for example the Middle East and South Africa. However, there are a number of drawbacks to this solution:-

- For a customer it isn't very transparent and easy to switch between profiles – when abroad between the home operator and the local operator. Also when arriving back home, to switch back to the home operator.
- You can't receive calls on both profiles (domestic and visiting) at the same time.
- Customers won't know what local operator to opt for as they are not familiar with the local operators. Marketing in multitude of languages by these operators for visitors isn't easy and won't happen which will dampen competition.
- Why would local operators spend much money on marketing this retail service if they can more easily get the traffic via the wholesale channel?
- This solution may not work for specialised services such as Blackberries.
- We fear that there is a large potential for customer complaints and conflicts among operators and the home operator won't be able to help in many instances. Also it isn't clear which NRA is responsible for conflict resolution.
- It would be operationally very difficult if the home operator were to be obliged to charge on behalf of the roaming operator.

4.10 Question 10

Would such 'structural' approaches be efficient? What are the technical implementation issues associated with these approaches?

There are a number of reasons why Telefónica believes a 'decoupling' solution as discussed in question 9 is not efficient and technically, but also commercially, challenging.

1. It would require a multi-IMSI SIM card and for each combination of home operator and roaming operator a different SIM is required. The manufacture, distribution and sale of such cards will be challenging. Operators won't share the security features and encryption mechanisms with each other for obvious reasons, so the manufacture of such cards will be a challenge.

2. A multi-IMSI solution only works on the basis of a signalling protocol. Signalling between a SIM card application and both operators' HLR will make it possible to switch IMSI identity when roaming. This application and the signalling currently are all proprietary (Telefónica owns its own solution for example so do various vendors) and incompatible. We would need to standardise a solution first which will take time.

3. Operators won't act as each others sales agents. So when you have bought a domestic service, you will need to go to a different shop for your roaming service. We fear that for most customers this will be a step too far and that they won't avail of the possibility, undermining the effectiveness of the solution.

4. Operators would have to establish new and complex commercial arrangements regarding billing, traffic steering (in our experience the home operator maintains this ability), customer care, etc.

5. This solution becomes exponentially more difficult when the number of operators increases. So 3 or 4 domestic operators is already complex; with all EU operators and MVNOs being eligible it would be an enormous challenge that would take several years to solve at great expense.

6. All customers would need a new SIM card which would involve costs for either to customer or the operators. Experience from the past tells us that SIM swaps are a difficult process with many customers not inclined to do it.

4.11 Question 11

How feasible/efficient is the establishment of a spot trading market for wholesale roaming? Would this approach lead to competitive wholesale rates? How effective would this approach be in terms of achieving competitive retail rates?

Telefónica doesn't have any extensive experience with spot-trading. We understand the theory behind this solution but we want to stress that this solution hasn't been proven to work. It would require a complete overhaul of the current wholesale market and its existing commercial relationships. This overhaul is not guaranteed to work; implementation would create a significant risk of disruption to the market. Telefónica also fears that implementing this system would have opportunity costs as it would delay new wholesale arrangements that need to be developed for new services such as LTE, Machine-to-Machine and VoIP.

Telefónica doesn't believe the risks involved in implementing a spot-market solution are justified. As explained elsewhere in this paper, the wholesale market is by and large functioning well. We have seen less evidence of the wholesale market finding an equilibrium around regulated price caps, as is the case with the retail market. The problems observed in the retail market are not present in the wholesale market, although the demand curve in the retail market does influence the outcome in the wholesale market (and not the other way around).

For a spot market to work you need a lot of "liquidity" in the market; BEREC also identified this point[8]. Low liquidity markets can exhibit large swings in prices or other behaviours that take advantage of supply constraints or buyer power. Smaller MNOs would be disproportionately exposed to these outcomes. We think that there may not be enough liquidity in the market if large groups, such as Telefónica, do not trade their volumes on the spot market but keep it on-net. Would the spot-market solution therefore require large groups such as Telefónica to dismantle their group based wholesale activities, and start trading as separate businesses again so that all traffic is traded on the spot market?

We fear that such a move would be an unwelcome step backward. These group wide activities, including roaming hubs, are market based evolutions that have made the market more efficient. Prohibiting this would lead to more inefficiency and greater fragmentation of the European mobile market. It would take away incentives for operators to grow economies of scale or to form a pan-European network.

The spot market solution is one advanced mainly by smaller operators who in such a scheme can more easily hide their lack of footprint and network quality. But roaming minutes aren't all equal; roaming isn't a utility with a homogeneous product. Trading on a bilateral basis allows for taking into consideration issues such as coverage, network quality, etc. This is more difficult to do with a spot-market mechanism where we think such essential parameters are hidden.

In conclusion, we fear that the spot-market is too untested, too disruptive and unjustified in the light of other possible approaches.

[8] BEREC report, p. 20

4.12 Question 12

For each of options (i) to (iii) above please indicate whether such approaches can stimulate additional competition for roaming services. In order to achieve significant reductions in roaming prices do you consider that these 'access-based' approaches may need to be combined with other forms of wholesale price regulation (i.e. between MNOs) and/or retail price regulation? Please explain.

Telefónica believes that access measures, in particular option ii and iii are very far reaching solutions, which we would consider disproportionate. The effects of such a solution would more than likely go beyond the roaming market and therefore inconsistent with the regulatory framework.

(i) *MVNO access for roaming only:* Telefónica isn't quite sure what the Commission really means with this option. Are these only MVNOs providing roaming services? Or domestic MVNOs that can extend their service internationally? Are network operators excluded from this option?
Roaming MVNOs already exist but they have remained niche players. Telefónica therefore doesn't believe that this option will drive any significant change in the market. MVNOs tend to have a competitive edge when it comes to retail and servicing niche markets. Most are small operations that do not have the capacity to negotiate a string of roaming contracts and therefore subcontract this to the network operator.

(ii) *MVNO price squeeze* – what the Commission is describing there is that there is a supposed price squeeze issue for existing domestic MVNOs. If that is the issue than local NRAs or competition authorities can do something about this. However, we fail to see how this would invigorate the roaming market. There are many MVNOs that do not suffer from this supposed "price squeeze" and that has not had the market impact the EU had hoped for.
But Telefónica doesn't believe such an issue exists. Most domestic MVNOs compete on the domestic market, often in the discount segment, and roaming services play a very small role in that business. As a result most MVNOs don't want to use scarce resources on negotiating their own roaming agreements and leave this to the host operator. It stands to reason that the network operator is allowed to charge for such a service. However, even if the wholesale rate were to be lowered, we don't expect this to result in lower consumer prices, only in higher margins for the MVNO.

(iii) *Domestic MVNO access* – It cannot be the intention of the regulatory framework or of any roaming regulation that access obligations in the domestic market can be imposed notwithstanding the fact that competition has already been deemed effective in the relevant market. To (ab)use the roaming regulation in such a way would be contrary to (and subvert) the entire purpose of the regulatory framework, which is that such regulation should be *removed* where there is effective competition. Furthermore, the safeguards in Article 8 of the Access Directive – which provide that NRAs shall not impose the obligations set out in

(inter alia) Article 12 on operators which do not have SMP - would be senseless if that were to happen.
So Telefónica believes that legally this option is not possible because it is contrary to the regulatory framework. No access obligation can be imposed in a national market without a finding of SMP.

Telefónica concurs with BEREC's opinion that: *"The implications of this measure go far beyond roaming as any additional competition generated could revolutionise competition in domestic markets […] BEREC is inclined to the view that the measures would be regarded as disproportionate, given that the problem to be solved is high roaming prices."*[9]

4.13 Question 13

In the medium to long term, markets and technologies will possibly evolve to the point where roaming services can be provided by different competing technologies. Such developments seem to be unlikely to be sufficient to eliminate or minimize roaming problems within 5 years. Do respondents share this view? Pleaseexplain.

It is clear that the roll out of LTE will make VoIP over mobile networks solutions work better than on current mobile data networks. Today VoIP generally works well, but in certain conditions it suffers from a loss of quality, especially on the move, because current networks are not designed for voice over broadband. VoIP does send/receive a lot of data but it is a very *delicate* service that requires a quality connection in terms of jitter and delay. This means that this service will often work better on a higher bandwidth connection. With LTE the quality will improve, and it will likely increase competitive pressure, especially on roaming and international services. At this stage, it is not clear to what extent this will provide competitive pressure to minimize roaming problems.

4.14 Question 14

Do respondents think that the Commission should pursue measures to accelerate these developments (e.g. to encourage the massive deployment of interconnected Wifi networks? What other measures could be considered? What will the impact be of the transition to an 'all IP' environment on roaming services?

As a matter of principle we think that the Commission should not focus on trying to determine what technologies are possible substitutes, or in sponsoring any technology through State Aids or otherwise. These technologies can change rapidly and any policy to support one over the other is ultimately distortive. IP is only a transport technology. It doesn't say anything about the commercial model used.

4.15 Question 15 & 16

To what extent is the problem of inadvertent roaming still a concern for citizen's living close

[9] BEREC Report, p.20

to borders? What measures could be taken to avoid the adverse effects of inadvertent roaming, whether by means of voluntary co-operation between operators or by means of regulatory or legislative action?

If you are an operator, what measures (technical or otherwise) have you taken to deal with the issue of inadvertent roaming, both to prevent it happening and to compensate for the adverse effects once it has been shown to have occurred? How do you raise awareness of the problem and the potential remedies on the part of your customers?

Inadvertent roaming is a concern for customers in the border area but great strides have been made over the last year in dealing with this problem, and, we want to stress it is a problem only affecting a very small proportion (<1%) of our customer base.

Telefónica's operating businesses use a variety of measures and techniques to avoid or diminish inadvertent roaming. The most important measures are:-

- The name of the operator on the handset so the customer can see he/she is roaming;
- The receipt of a text-message when they log on to a foreign network;
- Advising people on the use of disabling roaming and locking it to the domestic network;
- Tilting of antennas and adjusting power levels so that the signals don't carry too far into the territory of another country.
- The use of 1800 Mhz frequencies in border areas as these signals carry less far;
- Placing equipment across the border pointing back to avoid signal leak – legally not always possible;
- Special tariffs for people in border areas.
- With some operators we have voluntary co-operation agreements to avoid inadvertent roaming. In some cases the national regulators take an interventionist approach. For example, the German regulator is very strict to MNOs therefore our customers are stronger effected than in other EU countries like in France or Luxembourg where operators are less rigid.

Telefónica expects that we will see more offers for markets that are closely linked, or special country pairs where the demand for roaming services is different. For example, between Ireland and the UK domestic rates apply for certain subscribers.

4.16 Question 17, 18, 19 & 20

What has been the impact on mobile users and service providers of the implementation of the Regulation as far as roaming within, from or between the outermost regions is concerned?

What additional measures (if any) have been taken by the Member States or their NRAs to address roaming between the outermost regions and other parts of the EU?

What has been the financial impact (revenues, costs, profits, volumes etc.) on smaller mobile telephony providers of the application of the Regulation since its entry into force on 30 June 2007 and amended in 2009? Please provide financial data and any other information in this respect wherever possible (which will be treated as confidential if so requested).

Has any operator encountered problems when seeking to agree a wholesale roaming agreement with an operator in another Member State? What kind of problems were these (e.g. for SMS interworking)? Were they resolved in the end? Was the issue referred to an NRA? If so, what action has been taken or is in train to address those problems?

Telefónica doesn't have any comments on these questions. With regard to the effects on smaller operators, Telefónica believes that the regulation has given these operators a "regulatory subsidy" by mimicking the advantages of scale. In our view all it has done is to disincentivise consolidation (the best long-term solution for roaming) and given smaller operator better margins. We don't feel that the claim of many smaller operators that they need lower wholesale rates to pass on to customers is born out by evidence.

None of the Telefónica operators have encountered any serious problems trying to come to a roaming agreement. There may be some delays in opening roaming services with certain operators as there are resource limitations that may delay the testing process etc. But in any case, due to the availability of several networks in a country this will never impact the customer experience.

4.17 Question 21

To what extent is the use of traffic steering accompanied by a lower retail price for the roaming customer? Where lower roaming prices are conditional upon the use of a preferred visited network, how effective is the traffic steering in practice in ensuring that the preferred network is used? Please provide detailed data where possible.

The merits of traffic steering were discussed in past Commission inquiries. Traffic steering makes the wholesale market function properly because it allows companies to negotiate a price and deliver a certain volume of traffic. In case an operator cannot get the wholesale rate it wants, it can withdraw its traffic from a particular network by steering it to a competitor network. Traffic steering also allows multi-national operators to keep traffic "on-net". So, in short, it allows us to lower our wholesale costs.

The effectiveness of such traffic steering has improved and at the moment aggressive steering can give you an effectiveness of over 90% depending on the quality if the visited network. If the visited network has sub-optimal coverage then effectiveness of traffic steering understandably goes down, often to 50% or less.

Telefónica has a policy of giving operators a good wholesale rate if such an operator is willing to commit a high portion of its traffic to Telefónica, independent of the volume. This could translate itself in better retail rates for the visiting network.

Telefónica has always worked on the basis that the customer should not be concerned about whether the network he is roaming on is the right one or not in order to have access to a certain price. The Telefonica roaming propositions are network independent, so that the customer has not to care about any setting of his handy. They can see which network they are roaming on by checking their mobile phone.

4.18 Question 22

What techniques are applied to implement traffic steering in practice? Is the roaming customer informed in advance about the steering and does he have the possibility to override it?

Telefónica generally employs two steering techniques: OTA-SIM and SS7.

The former is a dynamic tool that sends the preferential network(s) in the visited country to the customer's handset (to the SIM Card). The latter is a signaling technique that tries to redirect the customer to the best-in-class networks available.

The customer is aware that Telefónica will always try to achieve the best customer-experience in every visited country, and the tariff policies (network independent approach in a country/region...) imply that traffic steering does not have an impact on the customer bill. In any case, the customer can always override it through manual selection.

4.19 Question 23

Have you identified any significant effects on domestic prices or changes in an operator's tariff structure for domestic voice calls or other mobile services introduced after or shortly before the entry into force of the Regulation? If so, please explain providing details of the changes in terms of timing, scope and prices.

The roaming regulation came into effect at a time that most mobile markets were maturing. Over the last 15 years mobile prices have steadily fallen as a result of (infrastructure based) competition. This has now reached a stage where rates of return and profitability are often under a lot of pressure. The recent economic crisis has added to the woes of many operators.

The combined effects of (a) price competition, (b) regulation (MTR, roaming, MVNO etc.) and (c) the economic crisis has meant that operators have started looking at ways and means to stop this trend. In several member states we have seen mergers or operators leaving the market (Netherlands, Denmark, UK). We have also seen price increases.

It is very difficult to say that these price increases are a direct consequence of the roaming regulation. It is a consequence of a combination of factors as described above. The roaming regulation has contributed to it.

However, this shouldn't be seen as a negative consequence. The overall competitiveness of the mobile market is not in doubt; the EU and NRAs have voiced no concerns with overall levels of profitability in mobile markets. Therefore MTR regulation and the roaming regulation are attempts at redressing distributional issues within the market. The EU is forcing operators to rebalance tariffs.

4.20 Question 24

What, if any, has been the impact of the Regulation on reciprocal roaming arrangements between EU/EEA mobile operators and their counterparts in other third countries?

There is anecdotal evidence that roaming rates with third countries have gone up since EU legislation came into force. Telefónica's doesn't have any evidence of that; our roaming agreements with third country operators have not changed or have been adjusted downward.

4.21 Question 25

Have any Community-based providers of mobile roaming services negotiated agreements with third country operators concerning a reduction of wholesale roaming tariffs comparable to those set up in the Regulation?

There are cases where the price levels agreed with third operators outside the Europe region are very similar to the regulated rates. As a competitive market, Telefónica has to provide solutions and prices in line with the expectations of the third parties which are driven by the competitive environment in the region, in order to be an alternative and get the traffic offered. Our experience is that wholesale rates with third countries have come down over the last few years and that the wholesale market is functioning well.

5. Annex: Price Developments in Data Roaming

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