

**BEREC report on the public consultation on the draft
BEREC report on impact of fixed-mobile substitution in
market definition**

24 May 2012

1. INTRODUCTION

On 9 January 2012 BEREC launched a public consultation on the draft BEREC report on impact of fixed-mobile substitution (FMS) in market definition (draft Report). The notice of the public consultation was published on the BEREC website, inviting stakeholders to send their answers up to 10 February 2012. A total of 8 contributions from the following stakeholders were received in response to the consultation:

- ECTA (European Competitive Telecommunication Association)
- ETNO (European Telecommunications Network Operators' Association)
- VATM (Verband der Anbieter von Telekommunikations und Mehrwertdiensten)
- ONITELECOM
- Telecom Austria Group
- Telecom Italia
- Telefónica
- WIND

BEREC welcomes this feedback and thanks the respondents for their efforts and submissions. The draft Report has been modified, taking the relevant stakeholders' comments into account and providing some clarifications. The most common views expressed in the contributions relevant to the draft Report are summarised below, together with brief explanations on how they were taken into account.

The respondents generally welcome the work in regard to FMS undertaken by BEREC and find it important in the context of conducting a market analysis, assessing significant market power and determining appropriate remedies. There are, however, significant differences in the views expressed in the contributions.

Some respondents state that fixed and mobile services are clearly substitutes and thus claim that there is already strong evidence of significant FMS in European markets, which should be taken into account by the NRAs when reassessing current regulatory obligations. These respondents claim that convergence and rapid development of new mobile platforms (i.e. LTE) are further blurring the traditional differences between fixed and mobile services. They conclude that these factors should be considered by the NRAs in different stages of market and think that even if the result of FMS assessment is not the definition of a joint market combining fixed and mobile services by the NRA, FMS should certainly have a significant effect in later stages – SMP assessment and imposition of appropriate remedies.

On the other hand some respondents view fixed and mobile services as clear complements rather than substitutes and warn against NRAs prematurely lifting or amending the current regulatory obligations based on FMS findings. These respondents claim that the differences in capabilities between fixed and mobile services are significant and that they will only further

diverge in the future. They conclude that NRAs should not define markets which combine fixed and mobile services and that if any effect of FMS is to be considered at all, it should be considered only when assessing the imposition of appropriate remedies.

As shown above, some of the responses contain diametrically opposing views on the conclusions about the existence of FMS and its effect on results of market analyses (market definition, SMP assessment, imposition of remedies) conducted by the NRA, which the contributors feel the report should contain. As explained in the draft Report itself, its main objectives are to present generic information of the current situation in the EU Member States regarding FMS, to provide guidance on the information that may be used by the NRAs to analyse the possible integration of fixed and mobile services in the same market and to present a generic analysis on the potential impact of FMS on traditional fixed markets failures, without making specific recommendations to individual NRAs on how to address the very heterogeneous FMS state in specific Member States. It is not a goal of the report to reach any definite and specific conclusion regarding the existence or inexistence of substitution between fixed and mobile services. That is why the draft Report wasn't significantly changed in that regard.

Several respondents have also expressed the need to further emphasise the forward looking approach to be used when conducting market analyses and assessing FMS in the relevant markets. Those comments were taken into account and the need to examine future trends and potential conditions in the relevant time frame of the market analysis, such as potential technology and platform differences and evolution (e.g. FTTx, LTE), operators' investment plans, consequences of potential significant migrations from fixed to mobile etc., were emphasised in different parts of the draft Report.

Some additional clarifications in the draft Report were added, taking into account comments by the respondents in regard to specific points made in the report (e.g. importance of bundles, temporary strategies of the operators).

There were specific comments that were already considered in the draft report that did not lead to the introduction of any change (e.g. consideration of FMS in business markets). The comments that were out of the scope of the report were discussed but not considered for the purpose of including changes in the report.

Contributions by individual stakeholders are summarized below, while the full responses are available on the BEREC website.

2. SUMMARY OF RECEIVED RESPONSES

2.1. ECTA

2.1.1. FMS and retail market definition by NRAs

Product characteristics, functionality and quality

ECTA noted that the draft Report identifies an extensive list of factors that NRAs have broadly taken into account when considering the definition of the relevant market and its scope. ECTA believes that in order to have a consistent approach to FMS and market definition across Europe it is necessary for NRAs to analyse and take into due account some of key factors (identified by BEREC), otherwise divergent regulatory approaches risk fragmenting the single market by treating similar circumstances differently and distorting the conditions of competition, especially in fixed markets, by a flawed analysis leading to erroneous conclusions.

ECTA notes major differences between fixed and mobile services (download and upload speeds, restrictions on data volumes, technological capabilities, latency, jitter, packet loss) and draws conclusions on (im)possibility of mobile services to substitute certain services traditionally offered through fixed access (high quality internet access, streaming media of adequate quality, downloading media within an acceptable timeframe, videoconferencing, online gaming, TV services on standard screen size TV sets etc.). ECTA furthermore claims that with the advent of NGA it is clear that the relative capabilities of fixed and mobile networks (intrinsically shared networks in the access segment) will further diverge going forward and believes that this would merit more focus in the final Report and a more detailed analysis of the capabilities and limitations of fixed and mobile technologies both from consumers' and businesses' perspectives.

ECTA also states that fixed access markets are characterized by enduring and non-replicable bottlenecks and that NRAs should consider that the lack of effective competition might have withheld the dynamic and competitive development of the market, suppressing consumer demand and distorting the consumer's experience and perceptions. This aspect is particularly important where copper networks have been partially upgraded and there is a widespread coverage by FttX but higher speeds are not being offered or they are offered at high, non-competitive retail prices resulting in very little take-up, and/or wholesale access to the bottleneck inputs is not made available, is not fit for purpose, or is subject to discriminatory or dissuasive wholesale charges. ECTA believes that in such cases, NRAs should take into account the intrinsic capability of the fixed network and the type of speeds and services that would be offered if the market was competitive or more effectively regulated.

ECTA concludes that these significant and increasing differences show that, in terms of offer characteristics, service functionality and quality, fixed and mobile data offers cannot be considered substitutes (perhaps with the exception of very low end 1-2 Mbit/s basic, single broadband offers).

Market structure, strategy and trends

ECTA feels that in addition to product characteristics, NRAs should also take into due account the existing and foreseeable structure of the market, the strategic behaviour of the operators and market trends. ECTA notes that the presence and behaviour of integrated fixed and mobile operators can be an important indicator of the complementarity rather than substitutability of fixed and mobile services. In ECTA's opinion the fact that an integrated operator offers fixed and mobile services in one bundle, also demonstrates complementarity of fixed and mobile services (if fixed and mobile services were viewed as substitutes they would not be offered in one package and consumers would not take up such offers). ECTA also stresses that when assessing FMS on a forward looking basis, NRAs should also take into due account investment plans to deploy FTTx networks, since such investment plans are essential in the assessment of FMS not only in case of an integrated fixed and mobile operator, but also indicate that further divergence in the capabilities of fixed and mobile services can be expected.

Bundles

In ECTA's opinion NRAs should also examine the presence and take-up of fixed triple play offers and where the market trend shows that consumers tend to subscribe to triple play services, should not consider mobile services as substitutes for such bundles, because they cannot effectively be provided over a mobile network. Furthermore ECTA feels that the prevalence of triple play and quadruple play offers in a market should be taken into account by NRAs when considering both demand and supply side substitutability, and that the analysis of the retail market should not be confined to broadband Internet access. On the supply side, in ECTA's opinion NRAs should assess whether such bundles can be readily provided by competitors taking into account the regulatory, technical and pricing barriers to the replication of bundles.

2.2. Wholesale market definition and potential impact of FMS on fixed market failures

Wholesale market should be properly analysed even if FMS is found on the retail market

ECTA states that if a thorough demand and supply side substitutability analysis is carried out taking due account of all the relevant factors, the conclusion of NRAs should be the acknowledgment of the fact that fixed and mobile services are not substitutes but complements. Even in the event that an NRA considers that fixed and mobile services might be perceived as substitutable at the retail level, a comprehensive analysis of the wholesale access market should be conducted to cross-check the conclusions reached in respect of the three criteria test in the retail market and particularly to ensure that there are no undue barriers to entry and expansion for innovative firms serving or planning to serve the retail market. Furthermore if an NRA proposes a market definition that leads to withdrawal of regulatory obligations relating to a market that is included in the Recommendation on Relevant Markets, ECTA believes that conducting the three criteria test and a full market analysis at wholesale level should in be required in any case.

ECTA also points to the asymmetry between fixed and mobile market entry, as mobile operators can enter the fixed market easily where there is ex ante regulation, whereas fixed operators cannot so easily enter the mobile market because of the entry barriers due to spectrum scarcity and discrimination in call termination pricing between own-use and third party operators, giving MNOs a structural advantage.

Indirect competitive constraints

ECTA points out that NRAs should take a cautious approach when analysing any potential indirect competitive constraints and including self-supply in the relevant market, because in ECTA's opinion these indirect constraints are in most cases only theoretical and in the absence of concrete evidence of sufficiently strong constraining effects, the inclusion of self-supply will predetermine the SMP assessment and hence risk understating the real market power of the dominant operator in the wholesale market. ECTA then cites and criticises a few cases where NRAs considered indirect constraints from cable, saying that the indirect constraints were only assumed, in reality they were weak and were incorrectly considered at the early stage of market definition rather than during the SMP analysis. ECTA also points out that the ability of mobile broadband services to indirectly constrain the pricing behaviour of dominant fixed operators is even weaker and far more remote than in the case of cable broadband services, as mobile broadband services have very different characteristics in terms of speeds, quality, product functionality, volume restrictions, prices and geographic

coverage compared to fixed broadband services. ECTA furthermore notes that where the predominant or increasingly relevant retail products are bundles including TV, mobile broadband will not have a constraining effect on them.

ECTA points to the fact that in nearly all Member States, the fixed incumbent operator also has a mobile arm, which is often largest mobile operator in the market. In such cases, mobile broadband services cannot have any remote disciplining effect on the pricing behaviour in the fixed wholesale market, since any potential switch to mobile broadband would only increase incumbent's own retail mobile revenues, which are likely to be higher than the lost fixed wholesale revenues.

ECTA concludes that NRAs should exercise significant caution if they analyse and assess potential indirect pricing constraints from mobile services and should rigorously follow the self-supply test set by the European Commission (i.e. 1. Internet service providers (ISPs) would be forced to pass a hypothetical wholesale price increase on to their consumers at the retail level based on the wholesale/retail price ratio, 2. There would be sufficient demand substitution at the retail level to retail services based on indirect constraints such as to render the wholesale price increase unprofitable; 3. The customers of the ISPs would not switch to a significant extent to the retail arm of the integrated hypothetical monopolist, in particular if the latter does not raise its own retail prices).

2.3. ETNO

2.3.1. Market Trends

ETNO notes that both from a demand and supply side perspective, there are clear indications that the substitution between mobile broadband and the different variations of fixed broadband vary widely between member states. ETNO therefore shares BEREC's finding that it is necessary to investigate the substitution between mobile broadband and the different fixed infrastructures.

ETNO recognises that convergence is increasingly blurring the borders between fixed and mobile services in many markets and that the difference is becoming less relevant for end users. In regard to the trend of faster growth of mobile broadband than of fixed broadband (p. 20 of the draft Report), ETNO warns that regulators and policy makers should be careful not to draw definitive conclusions on the direction the market is taking and points to future improvements (brought by data offloading from mobile networks onto fixed and by the deployment of FTTx and LTE) that will make the analysis more complex in terms of competition, substitutability and consumer behaviour.

2.3.2. Effects on market analysis and ex-ante obligations

ETNO states that NRAs should be proactive in monitoring the market and its dynamics and as a result adapt regulation where necessary, applying a forward-looking approach. In cases

where fixed-mobile substitution leads to a one-sided weakening of a regulated operator, NRAs should take account of increasing competition and assess lifting regulatory obligations to ensure a regulatory level playing field.

ETNO believes that a strong fixed sector is essential in order to boost investment in next generation access networks and reach the Digital Agenda broadband targets for 2020. In ETNO's view, being still subject to comprehensive regulatory obligations (often on both retail and wholesale markets), fixed network operators increasingly face difficulties to compete with other market players and run the risk of turning into low-revenue traffic carriers in the internet value chain.

Furthermore ETNO notes that market reviews are made generally once in a three-year period which can create late responses to a rapidly changing market. ETNO believes that ending the regulation of retail markets and taking appropriate steps towards the deregulation of wholesale markets will help to unleash growth, network investment and innovation potential in Europe.

ETNO's view is that if FMS is sufficient to define a single retail market for fixed and mobile services, then competition between mobile and fixed network will reduce any market power of the fixed incumbent operator at the retail level. Even if the analysis may not lead to the definition of a joint fixed-mobile market, the competitive effects of FMS should be considered when analysing significant market power (SMP) and, if SMP is found, when determining appropriate remedies, as the degree of competition/substitution may solve traditional market problems observed in fixed markets.

ETNO concludes that according to the draft Report, the BEREC questionnaire revealed that NRAs tend to use a qualitative approach when performing FMS analysis. ETNO believes that quantitative studies should not be neglected when assessing the market situation and that this view should be highlighted in BEREC's final report.

2.4. VATM

VATM agrees that an assessment of FMS should take into account several criteria (using the SSNIP test), which should relate in particular to national circumstances, as NRAs need a great amount of flexibility to adjust to the characteristics of national markets. VATM states that NRAs also have to consider shared medium effects when they look at mobile and fixed networks in the process of defining broadband markets, SMP and remedies. VATM agrees with BEREC's opinion, that due to their actual different characteristics, their applicability and their use, fixed and mobile services are not interchangeable and therefore at present belong to different markets.

Furthermore VATM feels that NRAs should not consider FMS in the market definition phase, but rather, if at all, when defining remedies, since that would allow NRAs more flexibility than an altered market definition or SMP assessment. VATM thinks that fixed and mobile services should be very carefully considered in direct relation in the “3 criteria test”, to avoid a misjudgement of the necessity of regulation.

In regard to wholesale market situation and the possibility that the integration of operators that are active both on wholesale and retail level could increase the market pressure towards the SMP operator, VATM states that in principle, this could be the case, if one functionally separated operator is active only at the wholesale level. VATM notes that in Germany the vertically integrated incumbent Telekom Deutschland possesses significant market power, so the above is not a solution for the German telecommunications market. Applying the SSNIP test could conceivably result in a non-foreseeable transfer of market power in favour of the incumbent, as Telekom Deutschland opposed to the wholesale prices would not have to increase or reduce internal prices. As retail price regulation does not take place and also margin squeeze tests are not carried out effectively, these effects could not be stopped and the strong position of the incumbent on the retail market would persist. VATM feels that at this time there is not enough competition to deregulate the German incumbent in presently still regulated markets and that FMS plays a negligible role on these markets.

Based on the criteria and figures listed by BEREC in the draft Report, VATM understands that BEREC’s conclusion is that FMS shouldn’t play a major role in market definition at this time (“BEREC is not in favour for a substitution”). VATM supports this evaluation and feels a strict separation of the respective markets is needed, due to the fact, that a significant substitution is not presently viable in the German market.

2.5. ONITELECOM

Being an operator focused on non-residential markets, ONITELECOM regrets that these markets are not adequately addressed in the draft Report. ONITELECOM feels that FMS is very important in corporate retail markets, where large clients usually seek integrated fixed-mobile solutions. This puts purely fixed operators at a disadvantage compared to integrated operators. Therefore FMS in non-residential markets can create adverse competitive conditions, where only those operators capable of providing both fixed and mobile solutions can survive.

The issue described above is especially problematic in those countries where MVNO offers specifically adapted to the requirements of corporate markets are not available. In such

cases, purely fixed operators are incapable of complementing their fixed offers with mobile services supported on a virtual operation.

ONITELECOM believes that a market analysis, finding FMS in the corporate retail markets, where only integrated operators are able to provide solutions to the end users, should lead to the imposition of regulated MVNO offers adapted to the requirements of the said corporate retail markets. Otherwise, competition will be severely limited and only integrated operators will be able to survive. ONITELECOM suggests that BEREC complements the report with a discussion of FMS in corporate retail markets and its impact on market definition and regulation. ONITELECOM also urges BEREC to analyse this subject further in a specific report.

2.6. Telecom Austria Group

Telecom Austria Group (TAG) is convinced that the trend towards increased use of smartphones and other “on the go” access devices (laptops, ultra books, pads etc.) is rapidly increasing FMS effects in data services, especially in countries where mobile penetration is high and tariffs of mobile services are moderate compared to fixed services. In addition TAG feels that other services substituting fixed voice (VoIP, VoB etc.) need to be assessed when making a substitution analysis, as not only FMS but all substitution effects and competitive constraints of all services influence market conditions. TAG also points out that not only residential, but also business customers are changing their communication behaviour (e.g. being online everywhere at every time) and that when taking this development into consideration in a forward looking way, it no longer seems appropriate to continue to differentiate between residential and business users.

TAG expresses its opinion that the draft Report presumes that FMS is mainly perceived as a retail issue, which might in certain cases affect the wholesale level as well. TAG states that alternative, competitive wholesale offers from different platforms/technologies (mobile, DSL, cable) are available in a sufficient dimension which would justify FMS analysis at wholesale level and provides an Austrian example to support that view. Therefore TAG feels that FMS effects or at least the competitive constraints it has at wholesale level must not be ignored in case of market definition and analysis.

TAG agrees that not in all circumstances the analysis may lead to the definition of a joint retail market for fixed and mobile services, however, it thinks that all competitive constraints and pressures mobile services have on fixed operators (influencing their price, positioning and product policy) need to be considered when analysing SMP or when determining remedies. Moreover TAG encourages NRAs to incorporate these findings at an earlier stage when performing the 3 criteria test, as FMS has influence (and will even more in the future)

in the assessment of the first and second criteria “existence of high and non-transitory entry barriers” and “the absence of tendency towards effective competition”. In both cases FMS or just competitive pressure from mobile services (as well as other services substituting fixed voice like VoIP, VoB) should lead to the decision that the 3 cumulative criteria are not met and therefore the respective market should not be subject to ex-ante regulation any longer.

TAG also states that NRAs should be proactive in monitoring the market and its dynamics, applying a forward-looking approach. If FMS or even competitive pressure from mobile services weakens the market position of a regulated fixed operator, NRAs should not hesitate to adapt or lift regulatory obligations and ensure a regulatory level playing field. Otherwise the regulatory approach within a country risks not being technology neutral and regulation itself could lead to market distortions.

TAG observes the draft Report states that the effect of fixed mobile substitution on the market until now has been mainly a loss of voice and data traffic and /or subscribers by fixed networks. TAG points out that substitution effects and competitive constraints do not only occur in voice and broadband markets but also in access markets and gives Austrian examples to support that view (2,8 million fixed access lines including cable and nearly 11 million activated SIM cards, mobile only households are substantially growing and take a significant share - 48,8 % in 2011, low fixed penetration compared to other countries). TAG states that the draft Report notes that fixed and mobile access technologies and services are widely used in parallel but are not substitutes. TAG sees clear indication for the opposite and fears that the report could ignore the replaceability of fixed and mobile services in a broader context. TAG challenges a narrow approach, which risks to be biased and would favour unwarranted continuation of fixed access regulation at retail level in Europe in order to keep control over former incumbent operators concerning retail access services and prices.

TAG believes that if the 3 criteria test and the analysis of FMS effects would be performed thoroughly, taking into consideration all electronic communications services offered at retail level together (access, voice, broadband), sector specific regulation of any single retail market would need to be completely reconsidered in many Member States. TAG points to the recent European Commission decision regarding universal service obligation that recognizes the FMS effects from a consumer’s point of view (universal service operator designated to provide access to telephony services shall no longer be obliged to implement/realize the access via fixed technologies – mobile technologies are seen as equal in regard to fulfilling the end users’ needs) and wonders why these obvious FMS effects do not trigger a new assessment of the current regulatory regime for fixed access.

TAG also feels that the draft Report puts little focus on the establishment and application of additional important criteria when assessing fixed-mobile substitution, such as the assessment of:

- fixed net penetration rates and the direct comparison to
- mobile penetration rates together with
- number/percentage of 'mobile only' households
- price levels and positioning of comparable fixed and mobile services/offers within a grid (e.g. bubble charts showing price level, positioning and included download volume).

TAG believes that in order to reach the Digital Agenda targets for 2020 it remains vital to drive growth and innovation in both mobile and fixed sectors and to boost investment in next generation networks where only a combination of fixed access and mobile (LTE) technologies will lead to significant improvements. TAG concludes that more than 13 years after liberalization, current market forces and competitive trends clearly prove the need for further deregulation, especially the deregulation of retail markets and that if leading fixed operators continue to be subjected to rigid obligations on both retail and wholesale markets 2020 targets could be put at risk.

2.7. Telecom Italia

2.7.1. Assessment of FMS

Telecom Italia (TI) points to the Commission guidelines on market analysis and the assessment of significant market power, which set out the principles of examining demand and supply side substitutability with the use of the SSNIP test. The market of the relevant product/service includes substitutable or sufficiently interchangeable products/services based on their prices, features, competition conditions and "customers typology". TI observes that trends of mobile access/usage vs. fixed access/usage seem quite similar across most Member States, although the effect of the huge take-up of wireless services at the expense of fixed services may vary according to the national deployment of fixed and mobile infrastructures, customers' habits, and consumption patterns. According to TI market observation shows both a "cut the cord" approach (customers previously having both fixed and mobile access choose to relinquish their fixed line access and exclusively use mobile services) and a "straight to mobile" approach (users have their first and only experience of communications through mobile services).

TI shares BEREC's view on the need of a "deep understanding of local characteristics in each Country", which takes into account the level of deployment of fixed infrastructures and mobile coverage at the national level, the interdependence between fixed and mobile price trends, the consumption patterns and the intended use of fixed and mobile services, the

existence of switching costs and the deployment of new mobile technologies, such as LTE, which can make the performances and the features of services on fixed and mobile networks even more similar.

Indicators of FMS

TI deems that in order to assess FMS a quantitative analysis based on economic principles is of the utmost importance to provide a clear guidance which will lead to the harmonisation of the regulatory treatment of such an important issue across Europe. When assessing FMS, NRAs (as shown in the analysis of market 5 by RTR) should put emphasis on the SSNIP test mentioned in the draft Report, but not fully emphasised, due to an assumed difficulty in implementing it. TI considers that while it is true that the SSNIP test is a “hypothetical monopolist test”, the evaluation of trends as per cross- elasticity of both fixed and mobile communications, the consumption patterns and the in- depth analysis of prices trends, can provide a trustworthy proxy. TI cites data from the draft Report (changes in amount of voice call minutes by network and telephone access, p. 17 of the draft Report) as evidence of FMS process at EU level. In addition to that data, TI states that consumption patterns can give further FMS evidence, as shown in developments on the Italian voice and broadband market. In TI’s opinion FMS assessment should be crossed with an in- depth evaluation of prices trends in order to analyse the interdependency of the fixed and mobile services. Observing the fixed operators timely reaction to changes in prices by mobile operators, TI feels there is clear evidence of the competitive pressure the latter are exerting on the former.

Market definition

TI feels it is of the utmost importance to base the assessment of FMS on a correct definition of the concerned relevant markets. The increasing penetration of double- play offers (voice + data) and the technological evolution towards “all IP” networks increasingly blur the past clear- cut boundaries not only between fixed and mobile markets, but also between voice and broadband markets.

According to TI, two different segments can be identified within the broadband access market - a market for residential customers and small and medium enterprises (SME) – without very high bandwidth needs – and a market for large business with need for very high speeds and particularly reliable network performances for specific applications, which are currently unavailable on mobile networks.

TI is looking forward to the next Commission Recommendation on relevant markets and expects that FMS in voice access will make current market 1 effectively competitive and consequently not susceptible to ex ante regulation. Furthermore TI thinks that FMS is

making mobile broadband access a viable alternative to the fixed one (at least for residential and SME customers), which could lead to the exclusion of this segment from the current market 5.

2.7.2. Impact of LTE on FMS

TI observes that the comparison between fixed and mobile speeds provides evidence of the role (current and predicted in the future) LTE can play in FMS in regard to data services and that in the next few years also voice (VoLTE) will be available on LTE (currently voice is provided over 3G). Most operators consider both VDSL vectoring/FTTC and LTE technologies as possible solutions to extend the broadband coverage to meet the 2020 Digital Agenda targets, with LTE networks requiring substantially fewer investments than fixed NGA networks. Although mobile networks have several constraints such as spectrum availability, access speed depending on the number of simultaneous connected users and propagation conditions, in TI's opinion LTE broadband services will tend to be equivalent or will be perceived as equivalent by most customers. In addition, TI states that LTE network capacity could be easily scaled up to compensate the increase in the number of users. Moreover, LTE networks will be deployed faster than wired networks, will require much lower Capex for the same coverage (about 5 times less compared to FTTCab and 20 times compared to FTTH) and will allow demand- driven capacity expansion. TI points out that consequently LTE broadband and ultra-broadband coverage is a viable alternative to the deployment of fixed network not only in rural areas but also in urban ones and gives some examples to confirm this view (Vodafone in Germany, Verizon in the US and satellite providers).

2.7.3. Evidence of FMS in Italy

TI points out that Italy is one of the Member States, where the existence of FMS can be better observed both in voice telephony and broadband services and provides a preliminary analysis of voice (access and calls) and broadband access developments in Italy.

Voice access and calls

Fixed voice telephony is showing a declining path both in terms of revenues and volumes, while mobile voice telephony is reporting increasing revenues and volumes and according to analysts' forecasts, these trends are expected to continue in the future.

According to TI, the evolution of percentage of "mobile- only" households clearly demonstrates that mobile services in Italy are seen as a viable alternative to fixed services. FMS is further confirmed by the constant decrease of fixed voice lines between 2006 and 2011, compared to a contemporary increase of mobile voice lines. TI also observes the

competitive pressure put in place by prepaid pricing of mobile voice offers, which cost much less than fixed voice offers that include the cost of telephone fixed access. Based on these general findings and on the described evolution of access market TI concludes, that in Italy fixed and mobile access could increasingly be considered as substitutes.

TI furthermore points out that total voice traffic originated from fixed access has constantly decreased from 2006 to 2010, while voice traffic originated from mobile access has increased (from 38% in 2006 to 57% of total voice traffic in 2010) and also mentions the increase of competitive pressure as a result of mobile offers recently including unlimited traffic towards fixed geographical numbers at lower cost than fixed offers. In addition TI notes that the perceived quality of voice calls on fixed and mobile networks is practically the same (as shown by quality KPI measured and published by mobile operators) and concludes that these market developments suggest that there has been an increasing and significant substitution from fixed to mobile calls and that market dynamics towards a full FMS seems not to be slowing down.

Broadband access

TI notes that although in the period 2010- 2011, overall Internet access in Italy increased by 9.4%, this was the first period without increase in fixed broadband penetration, while mobile broadband penetration increased significantly (+16.3%) and the percentage of the population accessing the Internet via mobile network increased even more significantly (+55.4% in the last year). On top of that, data traffic is also growing significantly (both on fixed and mobile networks) and the ratio between broadband traffic on fixed and mobile networks is expected to decline significantly in the next years.

TI also states that data cards (Internet keys) can be regarded as a substitute for fixed broadband because they can replace fixed network in accessing the Internet through in-house PC. According to TI, data from TI mobile network, confirmed by the European benchmark reported in the BEREC document, shows that most of mobile broadband traffic is due to USB keys and only to a limited extent this traffic depends on smartphones and tablets.

TI acknowledges the existence of some differences between fixed and mobile services (price, bandwidth etc.) but states that the end-user's preferences, consumption patterns and intended use of services make these differences not relevant for the majority of broadband customers. Likewise, the "mobile coverage", at least in Italy, cannot be considered as a

factor able to influence broadband choice towards fixed broadband services (HSDPA coverage is more than 95% and ADSL coverage is 96%). Similarly, the inclusion of TV services in some fixed broadband bundles does not justify a substantial differentiation of fixed broadband offers from mobile offers in countries like Italy, where the IPTV platform has a negligible (less than 3% of the broadband lines) and declining penetration.

TI concludes that as a consequence of the market developments and strong competitive pressure by entry level mobile broadband offers in mid- 2011, 14% of households with Internet access (3.2 million out of 14.2 million households with broadband access) only used mobile networks to access the Internet, which is in line with the Austrian data represented in the market 5 notification to the European Commission (12% at the end of 2009), leading RTR to recognize an actual FMS of data services for residential customers.

2.8. Telefónica

Telefónica thinks it is important for market players to have a clear set of principles on how FMS is going to be assessed in market analysis and recognises the draft Report as a good starting point to achieve this aim. Telefónica believes that FMS is important in all phases of market analysis, and not only in the market definition phase and welcomes that BEREC recognises the possibility of FMS also influencing SMP analysis or the imposition of remedies. Telefónica states that substitution in retail access markets needs to be assessed as a matter of urgency, as there is increasing evidence that mobile services are exerting competitive pressure in fixed services in a number of markets.

Telefónica notes that draft Report is rather general in regard to guidelines and principles that NRAs should follow when taking account FMS in regulatory practice. Telefónica supports the view that FMS should be examined on a case by case basis and needs a deep understanding of market characteristics at a national level, however also states that the growing trend to find substitution in access markets needs to be included in NRAs analysis in more cases than that is done at present and that market players would welcome more certainty and consistency in that regard.

Telefónica adds that the level and impact of FMS also depends on the different geographic areas within a country, and that it is necessary to look at this issue from a geographically disaggregated point of view. The same way that the average situation at EU level does not allow a correct assessment of the situation in each specific member state, the average situation at national level does not allow a comprehensive assessment of the competitive situation in all geographic areas of a certain member state, which is especially true for member states with geographically heterogeneous conditions. Telefónica concludes that

geographic assessment needs to be taken into account in all phases of market analysis and not only in market definition.

Telefónica observes that the draft Report deals almost entirely with FMS at the retail level and that the influence of FMS on the wholesale markets is mentioned only briefly and mostly in reference to BEREC report on self-supply. But since most retail markets are not regulated anymore, the only reason to review FMS is in relation to retail fixed access or indirect effects on wholesale broadband markets. Telefónica thinks that taking into account indirect constraints and inclusion of self-supply is essential in the market analysis process. The draft Report (in line with the BEREC report on self-supply) takes a neutral position on the indirect constraints and self-supply issues, making no (or very little) difference between taking them into account in the market definition phase or taking them into account later on in subsequent SMP designation and remedies imposition phases. Although (theoretically) it should not matter in what phase they are taken into account, the outcomes of relevant market analyses made by NRAs, support the conclusion that not including indirect constraints and self-supply into relevant market definition, artificially dwarfs their impact on the analysed wholesale market and significantly affects the outcome of the analysis. Taking into account indirect constraints/self-supply at later phases leads to narrower market definition, higher market share figures and inevitably to underestimation of impact of indirect constraints/self-supply on the competitive situation in the relevant market. Telefónica concludes that application of consistent approach to indirect constraints/self-supply by NRAs is therefore an issue of paramount importance.

2.9. WIND

2.9.1. Overall market scenario

WIND observes that FMS currently cannot be considered a widespread tendency and that it still shows a high level of heterogeneity across Europe and provides data from the Digital Agenda Scoreboard and the E-communication Household Survey to support these claims. WIND also notes that markets show a correlation between the penetration of bundles and presumed FMS patterns, with countries that exhibit an increasing number of mobile only households have the lowest rate of bundle penetration (Finland, Czech Republic) and countries that exhibit high and steady rates of fixed access penetration also have higher rates of bundles penetration (Sweden, the Netherlands and France). The development of quadruple play bundles in certain countries tends to show that mobile and fixed telephony services are regarded (or at least offered) as complements and not substitutes.

WIND states that the preliminary analysis carried out in the draft Report correctly focuses on residential retail markets and that FMS trends are definitively not the same for businesses retail markets, where fixed and mobile services are certainly complements. WIND also points out that RTR concluded that mobile broadband was a substitute for DSL broadband only for residential customers, but not for business customers.

Usage Patterns

WIND highlights that future trends in usage pattern will stress the complementarity of fixed and mobile data services and states that the role of fixed mobile convergence should not be confused with fixed mobile substitution. WIND then states that statement “one service may be provided over a number of different networks” (BEREC Report on convergent services) doesn’t mean a switch of a technology to another but a simultaneous use of two networks to integrate the same service.

WIND also notes that certain bandwidth intensive services and applications (video streaming, cloud computing, TV and TV like services) could be an important obstacle for substitutability of fixed and mobile broadband services.

2.9.2. Additional information for FMS Analysis

WIND feels that, in order to assess the existence of asymmetric substitutability between mobile and fixed services, NRAs should, in addition to criteria identified in chapter 6 of the draft Report, also assess the relevance of other factors described below.

Shared nature of wireless access and forward looking perspective of market analyses

WIND points out that the limited capacity of wireless access is shared by users who use services simultaneously, which means fewer guarantees for a consistent usage capacity to a certain user and that such limitations are much less apparent and more easily mitigated in case of an operator who uses fixed access (easier and much faster possibility to upgrade the network, not reliant on spectrum availability etc).

WIND observes that the concepts of substitutability are typically applied in the framework of the SSNIP test, where inter-changeability is assessed based on non-transitory changes in relative prices and stresses the need for careful evaluation of negative effects that a massive increase in mobile traffic, introduced by increasing use of smartphones, tablets etc. or a move of customers from fixed to mobile services (initially considered as a substitutes) could produce. Substantial traffic increase or customer migration could trigger relevant

performance degradation due to the intrinsic shared nature of the radio access network, which would modify the perception of substitutability. As a market analysis should be forward looking, NRA should be made aware of the technical limitations and the negative effects that mobile shared access limitation can produce if not properly accounted for.

Customer perception of FM substitutability

In WIND's opinion when evaluating substitutability, NRAs should also take into account the influence of customer usage and provides some examples, where users could be reluctant to switch from fixed to mobile services (potential health threats from long mobile calls, reliance of mobile devices on battery duration during prolonged cases of power outages in comparison to traditional fixed lines powered from the central etc). From these WIND draws conclusions on complementary instead of substitutive nature of mobile access and states that in order to evaluate the relevance of such factors in FMS analysis, NRAs should perform statistically relevant surveys.

Retail offers analysis

WIND notes that the draft Report correctly address the issue of market structure, warning NRAs about the need to "consider in their analysis of substitution the existence of aggressive strategies of integrated mobile/fixed network operators to gain critical mass in the market ". Nonetheless in WIND's opinion NRAs should also evaluate that incumbent integrated mobile/fixed network operators could pursue an offer strategy aimed to demonstrate full substitutability between fixed and mobile broadband services in order to get "hands free" on the voice and broadband wholesale market (market 1 and market 6, or WBA).

WIND mentions that considering asymmetric substitution in any stage of market analysis (market definition, SMP assessment, assessment of remedies) could have a strong impact on the incumbent's obligations in the fixed markets (WLR and broadband WBA or Bitstream) and states that NRAs should be properly warned that loosening even some obligations on WBA could hamper alternative operators' capability to contribute to achieving the 2020 goals of Digital Agenda for Europe by reducing their competitiveness on the broadband market or forcing them to limited lifetime investments that cannot be allocated on a more future proof infrastructure like NGA. In WIND's opinion any weakening of the obligations, imposed on fixed Incumbent in the WBA market, could deprive NRAs of tools to control incumbent behaviour, and so compromise the overall level of competition in the WBA market.