

**Telecom Italia response to the DRAFT COMMISSION
RECOMMENDATION on the Regulatory Treatment of Fixed and
Mobile Termination Rates in the EU**

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EXECUTIVE SUMMARY

Telecom Italia (TI from here onwards) shares in and welcomes the harmonization effort made by the European Commission to identify common guidelines for the application of cost accounting principles to termination charges.

In particular, Telecom Italia fully agrees with the need to ensure both the harmonisation of the remedies imposed by NRAs across Member States in Europe and the symmetry between the termination rates of operators belonging to the same national market, in accordance with the recent ERG common position paper on this matter.

However, this harmonization effort should be restricted to these two areas and not extended to different markets (fixed and mobile) in the same country.

As regards this last aspect, the Explanatory Memorandum prepared by the European Commission as background to the draft Recommendation on the regulatory treatment of voice call termination, presents a misleading analysis.

The salient differences between fixed and mobile markets must be taken into account in terms of:

- Structure of the markets (for instance, fixed and mobile penetration, number of prepaid and post-paid customers in fixed and mobile markets, features of fixed and mobile offers such as remuneration of handsets, etc.);
- Level of competition within the same market and between adjacent markets (for instance, penetration level of fixed / mobile hybrid offers and degree of substitutability between fixed and mobile offers);
- Topology of network developed (Access and Core Network of fixed and mobile network) and features of the technology adopted (fibre/copper, 2G/3G, etc.).
- License fees: owing to scarcity of spectrum, Mobile Operators have sustained high costs for licences that should legitimately be recovered.

Telecom Italia believes that each of the different previous issues influences the regulatory choices in terms of cost accounting; by ignoring them, the risk of altering the competition balance of the markets, and their natural dynamics, becomes very high.

A forced and persistent harmonisation in this sense, could indeed lead the European Commission to reduce mobile termination costs **artificially, by deleting some cost elements** from the cost items underlying mobile call termination (such as access costs, spectrum costs and so on). TI does not believe that Regulation should pursue its objectives by the massive and unrealistic

approach proposed by the European Commission **which would eliminate subscriber-sensitive costs - in other terms the Access costs- from wholesale services in order to make the mobile perimeter of regulated services equal to the fixed perimeter (separation between Access and Core networks)**. Cost orientation principles in fixed termination costs reflect certain regulated services perimeters, specific technology and specific markets, so the comparison does not always make sense.

In this direction, by diverting a large amount of costs, i.e access costs and spectrum costs, to retail offers aimed at the calling party instead of to mobile termination, **would retard mobile penetration and increase the customer spend**, that is the “**waterbed effect**”, to the detriment, of the same target of the European Commission to enhance competition and lower retail tariffs (see page 3 of Commission Recommendation).

In Telecom Italia’s opinion, this is enough to demonstrate that low termination rates don’t automatically lead to low retail costs and higher consumption, as suggested in the Explanatory Memorandum (see page 6 of the Explanatory Memorandum).

In addition to that, the proposal of Recommendation could cause a vicious circle due to the fact that by ignoring the cost-categories of traditional service, it reduces financial resources for investments in new technology. Only by recognising appropriate level of termination rate will it be possible to push forward on mobile broadband.

It is Telecom Italia’s view that a sudden change of the cost of well established accounting models and a sharp reduction of the fixed and mobile termination rates would discourage (hinder) investments in Next Generation Network.

As far as an **alternative approach** is concerned, TI agrees with the European Commission to give NRAs the chance to define efficient cost orientated prices on the basis of an alternative model that *“results in outcomes consistent with the Recommendation and generates efficient outcomes.”* (see whereas p. 20 of Draft Recommendation). This means that the results obtained by NRAs in such a way are absolutely comparable with those derived from a regulation based on the LRIC model.

On the other hand, TI believes that this alternative approach which may be adopted by NRAs, should not be limited by the use of international benchmark results set by NRAs implementing the recommended cost methodology. This is due to several factors: a) where the specific cost analysis approach is applied (cost orientation), it does not make sense to refer to a generic cost analysis as a benchmark; b) cost orientation can reflect objective cost differences outside the control of the operators (see page 8 of the Explanatory Memorandum), which can generate consistent differences between Member States’ results; c) an international benchmark as rule fails when it does not take into account objective differences such as market structure, competition level,

average customer spend, width of services portfolio, geography and morphology of territory, and so on. In reality these factors are not easily reflected in international benchmarking.

As a final comment on this issue, TI also believes that the Recommendation should allow NRAs to be free in choosing the most appropriate remedies and consequently the most appropriate tools in order to guarantee targeted and proportionate regulation, while the Commission should guarantee adequate harmonization among Member States, as per article 13 of the Access Directive: “ ...in order to ensure that market players in similar circumstances are treated in similar ways in different Member States, the Commission should be able to ensure harmonised application of the provisions of this Directive. National regulatory authorities and national authorities entrusted with the implementation of competition law should, where appropriate, coordinate their actions to ensure that the most appropriate remedy is applied. ...”

As far alternative arrangements for the exchange of terminating traffic, EC believes that Bill and Keep “*leads to lower retail prices and for call origination and appears to increase usage due to the price elasticity of demand*” (see pag 6 of Recommendation). These statements are not supported by any sort of analysis or empirical evidence. While outgoing charges might indeed be lower in RPP countries this does not necessarily imply improved consumer welfare **since the consumer surplus increase associated with lower outgoing prices might be more than offset by the loss of consumer surplus attributable to the charges levied on calls received.**

Mobile penetration rates are higher in CPP countries than in RPP countries.

Higher market penetration is achieved through a progressive enlargement of the customer base towards individuals with lower spending propensity and thus toward subscribers with lower usages¹. The larger the customer base the more it includes consumers with lower spending propensity. Thus the higher usage rate of RPP countries might rather be due to a selective and higher spending customer base than to the affordability of outgoing calls.

TI hopes that the EC will take due account of all the factors outlined above since they will profoundly influence the future of the telecoms sector and, more broadly, the economic fortunes of the member states.

¹ This claim is supported by the evidence emerging from the comparison of the minutes of usage of early subscribers to mobile services (e.g. ETACS subscribers) with the minutes of usage of the individuals having subscribed to mobile services in more recent times.

1. Rationale for regulating fixed and mobile call termination market

The main target of the European Commission is to reduce the termination level among Member States in both fixed and (overall) mobile markets. TI recognises the EC statement that: *“the main potential competition concern common to both fixed and mobile termination markets is that of excessive pricing, implying that operators may extract excessive profits at the wholesale level”* (see page 6 of Explanatory Note). However, TI stresses that:

- most NRAs have imposed cost orientation price as the remedy in the termination market, even subject to external auditing, so consequently it seems inappropriate to define the current regulated termination tariffs as excessive.
- furthermore, as shown by benchmarking on ROCE, the European mobile industry is only making a return on capital that is just sufficient to cover its capital costs: 9% on European average.² This means, as explained in the following pages, that either other prices will need to rise to compensate for the losses, or mobile operators will face reduced returns and reduced incentives for ongoing investments.

We also do not agree with the idea that this Recommendation needs to regulate the convergent offers: *“...furthermore, with the evolution of fixed–mobile hybrid services and a move towards convergence, a different regulatory treatment of fixed and mobile termination rates raises a possible inconsistency issue.”* (see page 6 of Explanatory Note). It cannot represent a relevant cause for Recommendation as convergent offers are compliant with the appropriate termination tariff: mobile tariff if calls are terminated on the move, and fixed tariff if terminated at home. In addition to that, the level of penetration of fixed-mobile offers is so negligible that it cannot require Regulation.

So TI does not see any cross-subsidy risk from fixed market to mobile market and any distortion consequent to the evolution of fixed-mobile hybrid services.

In the Explanatory Note we read (page 7) *“Cost orientation addresses both productive- and allocative-efficiency concerns. From a productive-efficiency perspective, low termination rates facilitate low retail call charges and higher consumption [...]”* So it has been recognized that cost orientation can guarantee allocative efficiency and productivity, but what it is not clear is the reasoning behind the statement that: *“It is also important that the relevant price is based on the*

² AT Kearney, Report on European Mobile Industry, p.41.

costs of an efficient operator. If the regulation of termination charges was based on the actual costs of the operator, this would not provide the right incentives for operators to innovate and increase efficiency, as their inefficiency would be covered by their competitors. This will also give rise to allocative-efficiency concerns as customers of other operators would ultimately bear the costs of the inefficient operators.” Against this we note that: 1) in a perfect competitive market (such as the Mobile market in many countries) the level of cost is efficient by definition, 2) the level of efficient costs is guaranteed by cost orientation imposed by NRAs through a network-cap which defines a path of efficiency for company costs in a certain period, not necessarily defined on the basis of a theoretically efficient operator model (such as the LRIC model).

So TI cannot agree with the proposition that actual costs are inefficient by definition and that the LRIC model can be the only appropriate model to use.

TI agrees with the European Commission to give NRAs the chance to define efficient cost orientated prices on the basis of an **alternative model** that “*results in outcomes consistent with the Recommendation and generates efficient outcomes.*” (see whereas p. 20 of Draft Recommendation). This means that the results obtained by NRAs in such a way are absolutely comparable with those derived from a regulation based on the LRIC model.

On the other hand, TI believes that this alternative approach which may be adopted by NRAs, should not be limited by the use of international benchmark results set by NRAs implementing the recommended cost methodology. This is due to several factors: a) where the specific cost analysis approach is applied (cost orientation), it does not make sense to refer to a generic cost analysis as a benchmark; b) cost orientation can reflect objective cost differences outside the control of the operators (see page 8 of the Explanatory Memorandum), which can generate consistent differences between Member States’ results; c) an international benchmark as rule fails when it does not take into account objective differences such as market structure, competition level, average customer spend, width of services portfolio, geography and morphology of territory, and so on. In reality these factors are not easily reflected in international benchmarking.

Furthermore, TI believes that the Recommendation should allow NRAs to be free to choose the most appropriate remedies and consequently the most appropriate tools in order to guarantee targeted and proportionate regulation, whereas the Commission should ensure adequate harmonization among Member States, as set out in article 13 of the Access Directive:” *In order to ensure that market players in similar circumstances are treated in similar ways in different Member States, the Commission should be able to ensure harmonised application of the provisions of this Directive. National regulatory authorities and national authorities entrusted with the implementation of competition law should, where appropriate, coordinate their actions to ensure that the most appropriate remedy is applied. ...*”

2. Common principles for regulating termination markets

TI does not agree with some proposals in the EU Recommendation concerning the common principles to be followed in the regulation of termination markets.

Firstly, the model recommended by the EC is focused on an efficient network of a theoretical Operator which rolls out its network in a green field scenario, and is by definition efficient. As a consequence of this, investments made for propaedeutic technologies to the hypothetical innovative network are totally ignored.

Secondly, this model estimates only direct costs related to volume-relationships, in other terms, only investments justified on the basis of traffic demand.

Telecom Italia rejects such an approach because it implies **cutting a large amount of strictly service-related cost (with reference to all services, including termination)** . This approach is even more detrimental for **Mobile Business**, because:

- Mobile networks are characterized by a high rate of innovation as a result of, *inter alia*, the demand for personalized customer services, value-added services, security and quality investments. In this context Mobile Operators invest huge amounts for the development of innovative networks, a process which is clearly un-related to the volume of traffic demand. In other words, a large percentage of costs cannot be represented by a bottom up LRIC model. Even the Recommendation has recognised that “*BU models may understate the costs where technologies are rapidly changing and operators cannot instantaneously change their technologies* (Explanatory Note page 13).
- The Recommendation could cause a vicious circle due to the fact that by ignoring the cost-categories of traditional service, it reduces financial resources for investments in new technology. Only by recognising appropriate level of termination rate will it be possible to push forward on mobile broadband.
Allocating all the common and joint costs to other non-regulated retail services (for instance, data services or call origination) as proposed on pages 15 and 19 of the Explanatory Memorandum, instead of a part of these costs on mobile call termination, would reduce customer interest in innovative services (such as mobile broadband) which would risk becoming too expensive, to the detriment of investments undertaken by the operators for new IP-based networks (see page 26) and of the same targets of the European Commission on the digital divide;

- Excluding for mobile call termination the network externalities mark-up which subsidizes the addition of marginal subscribers (to the called network) to induce consumers to join its network (with associated benefits for all consumers calling this network - see page 14 of the explanatory note) does not allow the welfare of its subscribers and also the welfare of the other operators' subscribers to increase.

- Excluding for mobile call termination the Access Network costs because they are considered as traffic-sensitive components means, as further explained later on (par. 3 of this paper), cutting substantial costs without justification from the technological and commercial point of view.

TI notes that it appears quite easy to pursue reductions in termination rates by cutting costs in order to reach a certain level of TR. This would not necessarily lead to Operators becoming more efficient. If costs are considered as inevitable in managing a company, the question is how to cut them and how to recover them. We are referring mainly to: **spectrum costs, common costs, non-traffic-sensitive costs, commercial costs**, and so on. As regards **handsets and SIM cards**: they are necessary elements in carrying calls both in origination and termination.

Furthermore, as a general rule and in respect of the cost-orientation and cost causation principles assessed by the European Commission, Telecom Italia believes that regulatory policy should mainly allow operators **to recover in every case all the costs sustained** in offering the telephone service, in accordance with the general principle that: revenues from all services contribute (proportionately) to cover all business costs (indirect network costs, overheads, etc).

Diverting a large amount of costs, i.e access costs and spectrum costs, to retail offers aimed at the calling party instead of to mobile termination, would retard mobile penetration and increase the customer spend, that is the “waterbed effect”, to the detriment, of the same target of the European Commission to enhance competition and lower retail tariffs (see page 3 of Commission Recommendation).

In Telecom Italia's opinion, this is enough to demonstrate that low termination rates don't automatically lead to low retail costs and higher consumption, as suggested in the Explanatory Memorandum (see page 6 of the Explanatory Memorandum).

The idea that the waterbed effect cannot occur in the Mobile market owing to the strength of competition at the retail end is not valid. Business sustainability forces such an effect. An IDEI report by Toulouse³ Network economists recognizes that “There has been a consistent disbelief

³ Report #2 July 2008

from regulators that the waterbed effect is effective and needs to be accounted for. This is surprising because this amounts to a disbelief that costs matter for prices. Or to put it in another way, neglecting the waterbed effect amounts to postulating that the only driving force of competition on the mobile telephony market is the unit cost of calls, and that fixed subscription costs do not matter (this would include handset subsidy, advertising, fixed origination and termination costs...). Even for a monopoly, costs drive prices”.

3. The application of cost-based remedies: fixed and mobile networks

Referring to the cost accounting models, TI agrees that the lack of harmonisation in the application of cost-accounting principles to termination markets to date, demonstrates a need for a common approach which will provide greater legal certainty and the right incentives for potential investors, and reduce the regulatory burden on existing operators that are currently active in several Member States (Commission Recommendation pag 2).

In particular, Telecom Italia fully accepts the need to grant both the harmonisation of the remedies imposed by NRAs across Member States in Europe and the symmetry between the termination rates of operators belonging to the same national market, in accordance with the recent ERG common position paper on this matter.

However, **this harmonization effort should be restricted to these two areas and not extended to different markets (fixed and mobile) in the same country.**

As regards this last point, the Explanatory Memorandum prepared by the European Commission as background to the Recommendation on the regulatory treatment of voice call termination shows a misleading analysis.

The salient **differences between fixed and mobile markets need to be taken into account**, in terms of:

- Structure of the markets (for instance, fixed and mobile penetration, number of prepaid and post-paid customers in fixed and mobile markets, features of fixed and mobile offers such as remuneration of handsets, etc.);
- Level of competition inside the same market and between adjacent markets (for instance, penetration level of fixed /mobile hybrid offers and substitution degree between fixed and mobile offers);
- Topology of network implemented (Access and Core Network of fixed and mobile network) and features of the technology adopted (fibre/copper, 2G/3G, etc.).
- License fees: owing to scarcity of spectrum, Mobile Operators have sustained high costs for licences, which should legitimately be recovered.

At a deeper level, TI needs to underline some relevant factors that mark the difference between the fixed and mobile markets:

- **Widespread coverage:** whereas fixed access networks are designed around specific fixed customers to be connected in a permanent geographic area, dedicated to them, mobile

access networks cannot be selected in terms of coverage differently from fixed network. Nor does it depend only on the incremental traffic capacity to be served, but also on the coverage to be provided everywhere for mobile customers. The importance of coverage for the mobile market (defined by Recommendation at page 11 as the capability or option to make a single call from any point of the network at any point in time) has also been argued on page 16 of the Explanatory Memorandum where the European Commission recognizes that scale-economy plays a bigger role in mobile networks due to coverage requirements, considering the fact that fixed operators have the opportunity to build their network in a particular geographic area and focus on higher density routes.

- **Overlapping mobile network:** whereas fibre will be a substitutive technology for copper in some segments of the fixed access network, replacing it in certain geographical areas, 2G and 3G technologies (see pag 4 of Recommendation) will co-exist longer in mobile access networks (see page 21 of the Explanatory Memorandum “some very important differences remain”) and will produce additional permanent costs which a pure cost-incremental model risks ignoring, in accordance with what is suggested in the Explanatory Memorandum. In Telecom Italia’s opinion, the model of an efficient mobile operator should also consider both the transition phases in the updating of its network (real costs sustained for 3G licenses and re-farming included) and the peculiarities of the mobile market which induce the mobile operator to extend the coverage of its network as much as possible to grant connectivity to its customers everywhere (mobility).
- **Economies of scale:** mobile networks cannot easily aim for economy of scale owing to both specific technology (no individual link with customers) and to legal obligations to cover areas and population indifferently; as suggested in the Explanatory Memorandum, *“fixed operators have the opportunity to build their networks in a particular geographic area and focus on higher density routes. Consequently, fixed operators can potentially achieve low unit costs at low levels of output and thereby reduce the impact of economies of scale”* (page. 20)

In the few countries (North America, Hong Kong, Singapore) **where fixed and mobile call termination rates are practically aligned**, this has been consequent to the adoption of the RPP system in consideration of the two-sided nature of call termination as described in the Explanatory Memorandum (see page 15 and 22). The RPP system, chosen in these Countries for other reasons beyond the scope of this Recommendation⁴, permits operators to recover the overall costs of the

⁴ Numbering Plan without differences between fixed and mobile numbers

call, but on the other hand it has favoured less the development of mobile, as witnessed by the lower mobile penetration in these countries as compared with Europe and the recent decision taken in China to move from the RPP system to the CPP system in order to facilitate further the rapid growth of the emerging Chinese mobile market. In any case, the same European Commission considers not viable at the present time an RPP approach for Europe and in TI's view this approach has very little consumer appeal.

Telecom Italia believes that each of the different previous options influences regulatory choices in terms of cost accounting; by ignoring them, the risk of altering competition balance in the markets, and their natural dynamics, becomes very high.

A forced and persistent harmonisation in this sense could, indeed, lead the European Commission to reduce mobile termination costs **artificially, by deleting some cost elements** from the costs list underlying mobile call termination (such as access costs, spectrum costs and so on). TI does not believe that Regulation should pursue its objectives by the massive and unrealistic approach the European Commission proposes **by eliminating subscriber-sensitive costs - in other terms the Access costs- from wholesale services in order to harmonize the perimeter of regulated mobile services with that of fixed services (separation between Access and Core networks)**. Cost orientation principles in fixed termination costs reflect certain regulated perimeter services, specific technology and specific markets, so the comparison does not always make sense.

Furthermore TI agrees that in a competitive environment, operators have to compete on the basis of current costs and would not be compensated for costs which have been incurred through inefficiencies (see par. 1 of this paper).

Nevertheless some accounting principles recommended by the Commission feature several critical factors that TI needs to highlight.

The Commission states that in an LRIC model all costs become variable, therefore LRIC models include only those costs which are caused by the provision of a defined increment. Therefore, it is justified to apply a pure LRIC approach whereby the relevant increment is the wholesale call termination service supplied to third parties and which includes only avoidable costs.

Furthermore the Commission states that avoidable costs are the difference between the identified total long-run costs of an operator providing its full range of services and the identified total long-run costs of that operator providing its full range of services except for the wholesale call termination service supplied to third parties (i.e. stand-alone cost of an operator not offering termination to third parties).

The cost model should be based on efficient technological choices, considering that those technologies should be available in the timeframe considered by the model and have to ignore legacy costs and costs which are common across all services and which do not increase in response to an increase in wholesale termination traffic: these common costs – according to the Commission - should not be allocated to the regulated voice call termination service.

To facilitate accurate identification of avoidable costs that should be attributed to the wholesale call termination service, the operators' costs have to be allocated in the first instance to business segments/services other than wholesale voice call termination, with only the residual cost being allocated to the wholesale call termination increment.

Therefore, this approach leads to the allocation of all joint and common costs to business segments/services other than wholesale voice call termination services supplied to third parties increasing the cost of services excluded by the increment.

According to the Commission, setting a common approach based on an efficient cost standard and the application of symmetrical termination rates would benefit end-users in terms of lower retail prices.

TI does not agree with the conclusion of the Commission for the following reasons: the Commission identifies the relevant increment with a “marginal” approach, considering that the increment is related only to wholesale call termination services **supplied to third parties**.

Therefore this approach considers **only** the wholesale traffic volume generated by external parties (third parties) and does not include the wholesale traffic volume produced by the internal party: only traffic originating from customers of other networks is included in the relevant increment; on the other hand the traffic originating from customers of the network providing the termination service are excluded from the increment.

In the opinion of TI, this approach is clearly **against the principle of equal treatment and non-discrimination**, providing different costing for the same wholesale service: call termination service. Therefore, according to the definition of “avoidable cost” provided by the Commission, internal cost termination services will be higher than the external termination service, causing a significant divergence in the regulatory treatment of end users (retail markets).

Higher internal termination rates will ultimately be recovered through higher call charges for the customers of the network providing the termination service, with a different treatment compared to the customers of other networks.

This scenario produces an advantage for end users of other operators and in particular this is evident for new entrants (and their customers) that have a high probability of terminating their calls on the incumbent network and with customers of the incumbent provider.

Considering that new entrants are able to provide an end to end service with call- originating costs equivalent to the call-originating costs of the incumbent, the higher probability of terminating their calls on the incumbent's network, paying a lower call termination charge based on the above mentioned principles (supplied to third party, avoidable cost, pure LRIC), gives to the new entrant a strong advantage that - in the best case - could amount to a competitive advantage in reducing prices for their end-customers, but that – on the other hand – could also produce extra profit.

In TI's view, in order to assure equal treatment and the principle of non-discrimination, the approach suggested by the Commission would be acceptable only in an equal-volume exchange context among TLC operators, where the competition is based on efficiencies of own-production costs and not on differences of volume exchange and related costs.

Nevertheless, considering that operators have to cover all their costs (in order to ensure company profit), the operator costs allocated to business segment/services other than wholesale voice termination will rise in price (or, in the best scenario, stay at the same price) for these other business segment/services provided to the same customers, without any evident benefits to end users. This effect could be amplified considering that the Commission's intention is to **ignore legacy costs** on call termination services to third parties. Certainly these costs are not relevant for new entrants, while they represent an evident risk of sunk cost for "older" operators. Therefore the Commission's approach provides further advantage to new entrants, which do not face legacy costs and may thus avoid raising prices.

Finally, according to the Commission the cost model should be based on efficient technological choices, considering that **those technologies should be available in the timeframe considered by the model**. Hence, a bottom-up model built today should assume that the core network for fixed networks is Next-Generation-Network (NGN)-based. The bottom-up model for mobile networks should be based on a combination of 2G and 3G employed in the access part of the network, reflecting the expected situation, while the core part is assumed to be NGN-based.

Nowadays, the TLC environment is assisting in strong development in terms of new services and new technologies. The TLC environment is moving from traditional technologies to new generation networks. Huge amounts of investment are required to drive on towards new generation networks and new/innovative services; high risk has to be managed due to the uncertainty in the future

marketing framework and the development of new technologies is proceeding all across EU member states, sometimes slowly and in different ways.

TI's position is that, in the current context, it is not possible to define a common and single approach in terms of technologies and, above all, because of the related risks, it is quite impossible to ignore legacy costs in view of the significant amount that these costs still represent.

3.1. Fixed networks

The current perimeter of Access fixed services has been modified as consequence of development of Next generation Network. It implies that the first point of traffic concentration could move from the current *exchange / MDF* to the next street cabinet level, whereas the implementation of active premises like DSLAM / MSAN make street cabinet a part of the Core Network. This approach would change a part of a network from a subscriber driven component to a traffic driven one:

“The default Access/Core demarcation point should be where the first point of traffic concentration occurs. In a PSTN network this is normally deemed to be the upstream side of the line card in the (remote) concentrator. The broadband NGN equivalent is the line card in the DSLAM/MSAN⁵. Where the DSLAM/MSAN is located in a street cabinet, then it needs to be considered if the former loop between the cabinet and the exchange/MDF is a shared medium and should be treated as part of the Core, in which case the Access/Core demarcation point will be located in the street cabinet” (see Annex of Recommendation).

The perimeter of Access fixed services strongly impacts both on retail markets and on wholesale narrowband and broadband markets. According to TI, the development of next generation network requires to define, in more details and in a harmonized approach all over the European countries, the new access network perimeter. The technological evolution for the new access network (new plants, new services configurations, etc.) will rise the need to ensure the same assets and cost allocation as well as a consistent setting of both wholesale and retail prices.

3.2. Mobile networks

In what is a disruptive approach, the new framework is going to change the perimeter of regulated services in the Mobile Market by introducing a new border-line between Access and Core Networks. The ratio of this distinction is based on defining as *subscriber-driven* all components in the Access Network and as *traffic-driven* all components in the Core part; this leads to allocating only traffic driven costs to Mobile termination rates and as a consequence, to largely ignore Access costs in MTR.

This approach does not make sense from a technical point of view and represents a remarkable threat for both end-user benefits and business sustainability.

➤ **Technical aspects: Mobile customers do not have a static access to the network.**

Radio base station (RBS) resources are shared among several national and international roamers at the same time. In other words Access Network resources have to be designed to satisfy internal and external traffic termination at any time in any place, referring also to traffic coming from OLO/Fixed networks. Furthermore algorithms used for planning and rolling out the network are mainly based on prospective traffic requirements (ERLANG). From the technological and spectrum-usage point of view it is clearly intended that even if a mature mobile **network is already deployed, the need for additional traffic-capacity** (in TI more than half of traffic is external) **implies major redistribution and/or splitting of sites and/or cells**. This means that there is a substantial part of the Access Network that is traffic-driven and, therefore, its costs need to be attributed to termination services.

In addition to that, it must be underlined that the spectrum propagation characteristic plays a fundamental role on cells dimensioning and indoor penetration. And last but not least, cell dimensioning is jeopardized by the “housing” and “environmental” impacts, making the acquisition of additional spectrum necessary.

Moreover, while fixed technology develops in longer-term phases, **mobile technology continuously evolves**, constantly bringing in new features and capabilities. For this reason, the Access part of a Mobile Network needs to be constantly re-engineered and upgraded in order to satisfy the growing traffic requirements.

In other words we can say that **Mobile technology cannot be treated similarly to fixed technology where the local loop is effectively dedicated to singular fixed customers and, for that reason, can be considered as subscriber-driven.**

- **Business model:** by modifying the perimeter of termination service, the Recommendation aims to move the recovery of access costs supported for supplying termination services, from the wholesale market to the retail market. In this sense, retail markets would be regulated indirectly, and at the same time, MNO would be forced to introduce fixed revenue pricing mechanisms.

This assumption impacts strongly on the pricing model of this market without considering the actual implementation and without estimating the real benefits for end customers.

The change of pricing model would inevitably force Operators to recover costs by increasing retail prices (so called waterbed effect)⁵. This is because the Recommendation is putting forward a reduction of MTR by simply moving costs from one service (wholesale) to another (retail), certainly not by targeting cost efficiency.

As consequence of that, every intervention on MTR level has to be considered in a wider market view: a cut on termination rate does not affect solely the wholesale market but both the price of traffic services and the equilibrium prices of other related services such as fixed subscription charges.

This scenario seems to be incoherent with a regulatory strategy that aimed at maintaining a good level of competition and guaranteed social benefits by keeping consumer prices low. That said, as pre-paid customers comprise by far the greater part of the Italian market, the expected increase will surely impact on retail-traffic prices instead of on subscriber revenues, as expected.

In addition to that, a recent intervention by the Italian government regarding Mobile Operators' fixed revenues (prepaid recharge) has influenced the pricing structure towards favouring a traffic pricing policy. As a consequence of that, an increase in subscriber revenues would be even more unrealistic.

- **Spectrum is embedded in Mobile networks** and consequently inseparable from Mobile services. It does not make sense to allocate spectrum costs to retail services mainly, as even a terminated call cannot exist without the utilization of spectrum (coverage and traffic management).

Telecom Italia cannot share the European Commission's view that only the costs due to incremental traffic capacity should be taken into account in determining the mobile termination rate, whilst excluding the costs arising from the implementation of the coverage.

⁵ This effect studied by the economic theory, has been acknowledged by Ofcom and other regulators. Recently it has also been confirmed empirically. Genakos and Valletti (2008)

In addition to that, the value of 3G licenses has been re-calculated artificially, not on the basis of spectrum values which approximate to past real_values, but on auction-values which over-estimated the opportunity represented by the 3G spectrum (see page 9 of Explanatory Memorandum) and on the grounds that future spectrum releases might be cheaper. In Telecom Italia's opinion, even a hypothetically exorbitant outcome of a past auction cannot be assessed *a posteriori* as deriving from an imprudent choice on the part of the mobile operator. In the circumstances that obtained at the time of the sale of 3G licences, operators could only protect their position in the market by participating in that auction.

3.3. Externalities

The provision of subsidies to consumers who would not otherwise join a mobile network, may potentially increase the total consumer welfare because these consumers' decision to join increases the welfare of existing subscribers. However, mobile operators are willing to subsidize the subscription of these incremental consumers only if the interconnection charging regime allows them to internalise, at least partially, the emerging network externalities.

Subsidies provided by a mobile operator to induce consumers to join its network increase the welfare of its subscribers and also the welfare of the other operators' subscribers. The internalisation of the latter (i.e. the other operators' subscribers welfare-increase) may be accomplished solely when the other operators' subscribers call the subsidised users. A strict cost orientation, prohibiting any mark-up on termination cost recovery, would preclude mobile operators from internalising any portion of the positive network externalities⁶. This would create the conditions for suboptimal customer bases and it could give rise to economic inefficiencies.

To the extent that subscription subsidies (called for in the interest of economic efficiency) are not recovered through external funds⁷, and need to be financed by MNOs, Telecom Italia believes that it is appropriate that the wholesale mobile termination charges should include a contribution towards the recovery of these subsidies. In the light of the above, Telecom Italia thus believes that a network externality surcharge should be explicitly accounted for in the Commission's cost accounting termination model⁸.

⁶Telecom Italia notes that internalisation of network externalities is explicitly mentioned within the ERG consultation on "Regulatory Principles of IP-IC/NGN Core" as one of the economic criteria which should be adhered to by NRAs when assessing the pros and cons of different charging regimes.

⁷ In fixed telephony the provision of telephony services to non-profitable consumers is funded through the Universal Service Obligation Fund.

⁸ Network externalities surcharges were explicitly accounted for in the OFCOM decision on termination price caps.

4. Forward-looking consideration: Possible alternative approaches

4.1. Bill and Keep

Commission Recommendation considers new alternative arrangements for the exchange of terminating traffic (see pag 6 of Recommendation and section 6 of the explanatory note) which, in the Commission's view, may help to overcome the drawbacks of the current charging regime, namely: 1) Setting termination tariffs requires a long and burdensome regulatory process; 2) It weakens market forces pressure on prices⁹; 3) Benefits of a completed call to receiving parties are not taken into account.

While the strength and associated benefits of the alternative charging regime are accurately analysed, the Commission does not equally examine and comment on the alternative charging regime's weaknesses and drawbacks. Drawing conclusions on the beneficial impact of a move toward a drastic change of the retail and wholesale charging systems requires, as the Commission reckons, cost benefit analysis in greater depth and a comprehensive impact assessment.

Telecom Italia is of the view that some of the arguments and assumptions backing the Commission reasoning are inaccurate.

In paragraph 6.1.2 the Commission claims that operators subject to an obligation to set reciprocal termination rates "... often choose to set termination rates at zero".

To Telecom Italia's knowledge Bill and Keep is the result of either regulatory enforcement or of transparency issues forbidding the introduction of "fixed to mobile" or "mobile to mobile off-net" surcharges. In the US, for example, undistinguished fixed and mobile numbering plans have prevented fixed and mobile operators from differentiating calls prices on a route basis (fixed to fixed, fixed to mobile etc) thus forcing mobile operators to levy termination charges directly from receivers.

The Commission further argues that Bill and Keep allows operators to directly charge their customers for received calls. Telecom Italia notes that the current charging regime allows operators to charge customers to receive calls. Operators do indeed charge customers to receive calls while abroad or under explicit consent of the user (i.e TIM introduced the "pay for me" option)

⁹Termination charges are paid by callers while the network providing the termination service is chosen by the receiver. Termination fees are not levied from receivers and thus they do not influence receivers' purchasing decisions. This is true to a degree since users may be reluctant to call customers of network operators charging excessively high termination fees. Low volumes of calls received resulting from excessively high termination fees may indeed persuade customers to change mobile operator.

In countries which have adopted Bill and Keep arrangements, mobile operators systematically charge customers to receive calls. This strongly suggests that instead of making RPP optional, Bill and Keep actually makes it inevitable.

It is further argued that in addition to obviating the need for regulatory intervention and resolving the termination bottleneck, Bill and Keep *“leads to lower retail prices for call origination and appears to increase usage due to the price elasticity of demand”*.

These statements are not supported by any sort of analysis or empirical evidence. While outgoing charges might indeed be lower in RPP countries this does not necessarily imply a welfare improvement since the consumer surplus increase associated with lower outgoing prices might be more than offset by the loss of consumer surplus attributable to the charges levied on calls received.

Mobile penetration rates are higher in CPP countries than in RPP countries. Higher market penetration is achieved through a progressive enlargement of the customer base towards individuals with lower spending propensity and thus toward subscribers with lower usages¹⁰. **The larger the customer base the more it includes consumers with lower spending propensity. Thus the higher usage rate of RPP countries might rather be due to the selective and higher spending customer base than to the affordability of outgoing tariffs.**

Conversely customer bases of more mature markets include many more individuals with lower spending capacity and thus they are bound to have lower average usages.

The European Commission and some NRAs base their evaluation of Bill and Keep on the evidence emerging from the US. As a matter of fact, the US mobile market is characterized by retail price structures which considerably limit access to mobile services by customers who are usually charged with very high flat offers (all the main market players are aligned on 99\$ monthly unlimited plans). Flat rates lead to average price per minute lower than in the EU, but also exclude from the mobile market many low income consumers. In fact, as a consequence of the pricing model, the penetration of the US mobile market is significantly lower than the EU average (e.g., 85% in the US vs. 154% in Italy). The relationship between customers and the US mobile provider is currently soured by several factors including e.g. excessively high fixed price offers, very high early contract termination fees (under FCC recent audit), pricing or other billing disputes, spotty coverage, poor service quality, locked or finicky phones, problems when another mobile operator gobbles up customers in a merger, confusing monthly statements, long lines and waits at the in-store customer service counter, and more.

¹⁰ This claim is supported by the evidence emerging from the comparison of the minutes of usage of early subscribers to mobile services (e.g. ETACS subscribers) with the minutes of usage of the individuals having subscribed to mobile services in more recent times.

In paragraph 6.1.2 the Commission further claims that Bill and Keep also brings immediate benefits by decreasing transaction and measurement costs. Telecom Italia firmly rejects the Commission's assertion since Telecom Italia believes that the enforcement of Bill and Keep at wholesale level leads to the RPP regime at retail level thus the introduction of Bill and Keep would rather lead to an increase of measurement and transaction costs (customer payment handling, customer billing, customer complains management) than to a reduction of these costs.

In paragraph 6.1.2, last sentence, the Commission claims that *“a significant reduction of termination rates from current levels might create appropriate incentives for voluntary inter-operator agreements and consequently Bill and Keep type arrangements could evolve naturally”*.

Some EU member States (Sweden and Cyprus) enjoy exceptionally low mobile termination rates and this has not spurred any voluntary moves toward alternative charging systems.

Telecom Italia finds it hard to understand how a reduction of termination rate may change operators' incentive toward a spontaneous change of the charging regime.

The application of a Bill and Keep regime to both fixed and mobile operators would artificially *eliminate the asymmetry between fixed termination rates and mobile termination rates*.

Telecom Italia believes that termination-charge difference between fixed and mobile market is justified by the use of diverse transmission resources and the different costs of the equipment involved in the two termination services.

Telecom Italia firmly believes that lowering European mobile termination rates to zero would neither automatically improve European consumers' welfare nor increase competition.

In paragraph 6.1.3 the Commission comments on the reciprocity principle. Price controls adjusted to the operator's specific conditions (spectrum endowment, market share etc), breaches the reciprocity principle. Reciprocity indeed avoids market distortion and eliminates cross subsidies. If the stand-alone application of reciprocity does not seem to be sufficient it should nonetheless be introduced in combination with other standard regulatory remedies (price control, non discrimination etc).

In paragraph 6.3 the Commission claims that the RPP regime, unlike the CPP, *“recognizes the existence of a positive call externality to the receiving party”*. Call externalities, while they almost certainly do exist, are likely to be internalised and thus do not justify a move toward the RPP regime.

Call externalities are likely to be internalised since callers expect to be the receivers and vice versa. Somehow it is as if the caller is willing to bear the whole phone call cost on the assumption that the call he or she originates will soon prompt the receiver to call back (induce a subsequent call originated from the receiver). In other words, since a high percentage of calls are from known parties, there are likely to be implicit or explicit agreement to split the origination of calls. If internalised, call externalities do not lead to suboptimal market equilibrium quantities and thus there is no potential consumer harm.

In conclusion Telecom Italia believes that the alternative charging regime hinted at in the Commission's view does not constitute a valid substitute for the current interconnection charging regime.

4.2. Migration to IP Interconnection

With regard to the migration to IP interconnection it is argued that, if call termination fees remain at current levels, some mobile operators and some fixed operators might choose not to upgrade their networks to IP-based interconnection because they might perceive the migration as a risk of losing termination revenues.

Telecom Italia firmly rejects the Commission's reasoning. **It is Telecom Italia's view that a sudden change of the cost of well established accounting models and a sharp reduction of the fixed and mobile termination rates would discourage (hinder) investments in Next Generation Network.** Conversely keeping price controls (price caps) unchanged does not undermine NGN roll-out prospects in any way.

The introduction of next generation access networks requires significant upfront investments which do not easily lend themselves to being broken down into a few separate instalments, and thus this causes an enhancement of risks associated. In addition, the return on investment depends to a great degree on customer response to the adoption of new services, such as high-definition television, video on demand, video calls, on-line gaming, etc. The uncertainty of investment yield (connected to the demand and to technology), combined with the uncertainty as to the future regulatory framework governing NGN, is hindering and slowing the roll out of these new networks.

The expectation of a further reduction of the fixed termination tariffs and the mobile termination tariffs together with a much debated transition toward a Bill and Keep regime generates uncertainty among operators on the overall investment profitability and could inhibit the investment process. Faced with financial commitments amounting to several billion Euros at the European level, the incumbent operators, might decide to postpone the investment.

Seemingly alternative operators await NRAs' decisions on NGN regulation to see if the imposed wholesale obligation will allow them to side step significant fixed costs.

Telecom Italia believes the capital employed in fibre roll out should be equally recovered from all services provided on the next generation networks (termination services included).

Finally, NRAs should not impose undue and disproportionate regulation on NGN-related issues but, on the contrary, this regulation should be as light as possible in order to promote investments and innovation.

Furthermore, Telecom Italia believes that the level of WACC applied to all services provided on next generation networks (termination services included) should adequately take into account the level of risk associated with the investment.