

ETNO Reflection Document on ERG consultation on Regulatory Principles of NGA ERG (07) 16

Executive Summary

- **Next Generation Access (NGA) networks will create an enabling environment for high-speed applications and services of all kinds, allowing new forms of competition.** Many operators investing in NGA currently consider developing business-driven wholesale products for different retail services on a commercial basis to attract end-users to their networks and promote new high-bandwidth services jointly with other partners and in competition to alternative broadband platforms.
- **NGAs are still at an early stage of development in Europe. A main challenge for regulation is to not disincentivise private investment in NGA.** It is regrettable that this issue is not addressed in the consultation which treats the roll-out of NGAs as a *"fait accompli"*. ETNO would welcome that sound regulatory principles are developed so that timely investment decisions in NGA deployment can be made with full knowledge of the regulatory risks involved.
- **The consultation document does not address existing and prospective inter-platform competition and the resulting deregulatory potential.** ERG should further examine the important interaction of innovation, platform-competition and regulation.
- **The regulatory treatment of geographical areas that allow for inter-platform competition must be different from that of geographies with no foreseeable potential for sustainable competition.** The ERG takes the first step by recognising regional differences, without the logical second step of recommending a differentiated regulatory treatment and deregulation in geographies where sustainable competition can emerge.
- The ERG's suggestions on market definition are not based on a profound analysis of future market boundaries and are in themselves technology-specific. **A sweeping extension of the scope of market 11 to high-speed broadband access is not justified in view of the 3 criteria test and the guidance for defining markets under the NRF.**
- Before imposing any obligations regarding duct access or backhaul, the lack of technical and commercial viability of using or installing com-

peting facilities (Art. 12 (2) a) Access Directive) **has to be established**. To limit the analysis to ducts “used for electronic communication purposes” as envisaged by ERG is in not in line with EU law.

- **NGA roll-out plans by private operators are the sole responsibility of the investing company.** ETNO members support a clear and predictable regulatory framework before investing in NGA. However, the EU Framework does not provide for “ex-ex-ante regulation” aiming at influencing roll-out decisions before a concrete analysis of an existing market including NGA has been completed. Economically, such an approach could reduce efficiency and affect timely investment.
- Some of the hypotheses in the consultation document appear to contradict the ladder theory. ETNO invites ERG to **acknowledge that the ladder concept is inadequate in an NGA context** and to no longer follow a mechanical ladder approach as adopted in the consultation document and previous ERG documents.

Table of contents ⁱ

I.	Introduction	1
II.	The ERG approach – main limitations	1
	1. No discussion of conditions for NGN investment	1
	2. Insufficient consideration of inter-platform competition	3
	3. Conclusions on differentiated regulation due to geographically different market conditions is missing	3
	4. ERG analysis does not start from real markets, but from envisaged wholesale products	4
	5. Conclusion on the general approach	4
III.	Relevant roll-out scenarios for NGA	4
IV.	Conclusions on economics and business case.....	5
V.	Regulatory implications	5
	1. ERG suggestions on market definition.....	5
	Market 11	5
	Market 12	8
	2. Geographical differences.....	9
	3. ERG suggestions on remedies for FTTC and FTTH.....	9
	a) Duct Sharing.....	9
	b) Intervention in the roll-out of Fibre networks / PON unbundling	10
	c) Migration.....	11
	d) Multicast capabilities	11
	4. Approach to the ladder of investment	12

ⁱ BT and TDC do not support this document

I. Introduction

ETNO welcomes the opportunity to comment on the crucial topic of regulatory principles for Next Generation Access (NGA).

ETNO Members are committed to making the next generation of access networks a success for Europe. The Member companies in ETNO will contribute a significant share of the investment and innovation associated with these networks and many have begun to build-out or plan next generation access networks. NGAs, already present in business markets, will bring immense opportunities for consumers and small businesses in the coming years. They will create an enabling environment for high-speed applications and services of all kinds, allowing new forms of competition. Many of our Members, who have begun to invest in NGA, already consider developing wholesale products for different retail services on a commercial basis in order to attract end-users to their networks and to promote new high-bandwidth services jointly with other partners.

In NGA, new players in the market have opportunities to invest and reach end-users with fibre networks comparable to those of former incumbents. NGA investments are by definition new investments. Therefore, in the regulatory debate on NGA, all types of NGAs are relevant, irrespective of the type of technology/platform and irrespective of the parties investing. ETNO is happy to contribute to a fair and enabling regulatory framework for this new chapter in electronic communications networks and services.

II. The ERG approach – main limitations

The approach taken in the consultation lacks three fundamental elements that any discussion of NGA regulation should take into account.

- (1) the influence of regulation on the incentives for investment in NGA deployment,
- (2) the impact of and interaction with inter-platform competition in relation to regulation of new fibre networks and
- (3) the consequences of regionally different market conditions on possible regulation.

Furthermore, the ERG analysis does not start from real markets, but from envisaged wholesale products (4).

1. No discussion of conditions for NGN investment

A main subject of the debate of NGA regulation so far has been how (access) regulation should be adapted, or whether it should at all apply, to the new situation that major risky investments are required to bring NGA to the end-customer, whether the investor is a former incumbent or an alter-

native operator.¹ Simplified, the investor now has a choice to either invest or not (or later), whereas the legacy copper infrastructure was largely 'inherited' by former incumbent operators from monopoly times.² All participants in the debate agree that regulation influences the business case underpinning this decision and that regulators should prevent regulation becoming a disincentive for NGN investments, carefully balancing this aim against other regulatory objectives. Thus, regulation among other factors influences whether and when European consumers will be able to benefit from high-speed broadband services.

NGAs are still at an early stage of development. The latest available data for the EU show that only 820.000 fibre lines (FTTx) were activated in June 2006, a far smaller proportion than in other economic regions.³ Two thirds of these lines in Europe have been built by public authorities or utilities.⁴ In this situation, a regulatory policy that would chill or deter private investment in NGA would come at a high cost for the European consumer.

There is a short and inconclusive discussion of the incentives for investment in NGA in the consultation document (p. 24), but none of the paper's conclusions and recommendations is reflecting this concern. The document thereby falls short of other analyses on the subject, e.g. those by EU regulators such as Ofcom in the UK and OPTA in the Netherlands.⁵ ETNO invites ERG to review the relevant economic literature and empirical evidence on this issue before presenting any conclusions of this consultation or responding to requests for advice on NGA by third institutions.

We would like to underline that legal certainty and predictability of regulation is of high importance. To enable investors to make their decisions on a sound basis, the regulatory regime including implications for access pricing where applicable should be clear and predictable.

Changes in the way access is priced alone - and even such changes are not discussed in the consultation document - are not sufficient to take account of the fundamentally different situation that is posed by NGA investment.⁶ Studies and expert advice have repeatedly pointed to the tremendous difficulty of taking into account the increased ex-ante risk of NGA investment in a concrete access price.⁷ Ofcom⁸ has considered, but also pointed to the risk of, relying on some form of risk-premium on the cost of capital:

¹ Cf. Ofcom, Regulatory challenges posed by next generation access networks, Public discussion document, November 2006; CMT, CONSULTA PÚBLICA SOBRE REDES DE ACCESO DE NUEVA GENERACIÓN, 10 May 2007, http://www.cmt.es/cmt/centro_info/publicaciones/pdf/ConsultaNGaNs.pdf

² IDATE and LECC for the Brussels Round Table, "Telecoms in Europe 2015," January 2007, p. 99 ff.

³ IDATE/FTTH Council press release, June 2006, "The FTTH situation in Europe", p. 1

⁴ Idem

⁵ OPTA, <http://www.opta.nl/asp/besluiten/consultatiedocumenten/document.asp?id=2062>; Ofcom, idem

⁶ Cf. ETNO Reflection Document RD233 (2006/01)

⁷ Indepen, Risk, reward and efficient investment in access networks, Paper for Ofcom European seminar on regulatory challenges posed by next generation access networks, Brian Williamson, 27 March 2007, p. 9 f.; IDATE and LECC for the Brussels Round Table, "Telecoms in Europe 2015," January 2007, p. 99 ff.

⁸ Ofcom, Regulatory challenges posed by next generation access networks, November 2006, pt. 4.6.3

“The temptation therefore will be for future regulators to return to regulating assets using a cost-based approach assuming lower levels of risk and hence a lower cost of capital. If operators anticipate that this might happen, this will affect their incentive to invest.

A ‘legacy-regulation’ approach relying on the ‘ladder of investment’ (s. below) and price regulation cannot be expected to deliver efficient and timely investment. ETNO invites ERG to reconsider this issue and in particular explore the potential of commercial arrangements between the NGA operator and access seekers in an NGA environment.

2. Insufficient consideration of inter-platform competition

ERG should assess more in-depth the possible competitive situation in NGA with regard to inter-platform competition.

On the one hand, the document describes the economic benefits of full infrastructure-based competition whether between platforms (e.g. cable and FTTH) or of different networks of the same technology (p. 24). On the other hand, the authors of the consultation document state in the introduction that they will mainly focus on wireline fibre networks, i.e. not take into account wireless, cable or powerline *“given the current extent of the rollout of technologies like wireless and cable in most Member States”* (p. 2).

ETNO maintains that a regulatory approach to NGA cannot be developed without accounting for the evolutions of other platforms, wireless and cable in particular, next to the evolution of the copper access network to fibre. Business decisions of operators are determined by competitive threats of competing platforms but also by opportunities of these technologies for their own network development.

Cable already plays an important role in many EU Member States and will present a direct competition to new fibre networks.⁹ Wireless solutions, given their potential costs advantages and consumer demand for seamless mobility, will also play an important role in the future competitive landscape for high-speed broadband access.

ERG should take particular account of the potential negative impact access regulation can have on the roll-out or upgrade of alternative infrastructure and foresee a deregulatory approach where inter-platform competition exists or is possible.

3. Conclusions on differentiated regulation due to geographically different market conditions is missing

ETNO shares the ERG’s finding that market and economical conditions for NGA differ not only between Member States but also between different geographical regions, inter alia determined by density and the degree of inter-platform competition. Whether NGA could be replicable or not in the future will be determined locally, not at national level.

⁹ S. assessment of economic issues relating to KPN’s potential investment in an All-IP Network, a report for KPN; RBB Economics, 07 November 2006, p. 8: OPTA has acknowledged the convergence of these two networks e.g. in its issue paper on all IP

To take account of the deregulatory potential presented by the degree of inter-platform/end-to-end infrastructure-based competition in a given geography, the regulatory treatment of highly competitive areas or areas that permit inter-platform competition must be different from that of geographies with no foreseeable potential for sustainable competition. The ERG document takes the first step, recognising regional differences, without taking the logical second step to recommend deregulation in geographies where competition exists or is foreseeable (s. below, V. 3.).

4. ERG analysis does not start from real markets, but from envisaged wholesale products

Any analysis of a need for ex-ante obligations in NGA should start from the 'real' market conditions on high-speed broadband retail markets. Considerations of the wider market context are missing in the consultation, e.g. limitations of market power of telecoms operators in the context of TV and content markets, relation to convergence, demand uncertainties (s. V. 1).

5. Conclusion on the general approach

In the absence of a full analysis, the detailed discussion of access points and business cases for access-based competitors in the consultation document becomes a mechanistic exercise that is likely to lead to a disproportionate and un-reflected continuation of the current regulatory approach to legacy networks to new generation access. This should not be the purpose of ERG work on NGA, as recognised by individual NRAs in their approaches. For instance, CMT states in its recent NGA consultation:

*"[...] it would be adequate to reflect about whether the regulatory model applied during this last ten years in Europe has to be projected to the future ... we are facing an unavoidable technology and services revolution, and the measures used to regulate historic ex-monopolies and its copper legacy networks may not be the most adequate for the challenges ahead."*¹⁰

III.Relevant roll-out scenarios for NGA

ERG lists the main possible roll-out scenarios for a typical incumbent with a copper network that deploys fibre in the access network. ETNO Members have observed that FTTB solutions should not be regarded as a sub-case of FTTH-solutions, as they still involve the copper loop, so technically are more linked to FTTC than to full FTTH.

¹⁰ CMT, CONSULTA PÚBLICA SOBRE REDES DE ACCESO DE NUEVA GENERACIÓN, 10 May 2007, http://www.cmt.es/cmt/centro_info/publicaciones/pdf/ConsultaNGaNs.pdf, p. 15

IV. Conclusions on economics and business case

ETNO welcomes that ERG strives to gain a good understanding of the economics underlying NGA deployment.

The consultation document acknowledges the uncertainty of business development in NGA and its implications on the economics of access networks. The chapter describes possibilities (“*may*”...) and ERG recognises that it is based on limited information. This signals already that in most respects it is too early to base regulatory conclusions on this relevant but uncertain set of assumptions which will moreover vary from one Member State and geography to another. The value of delivering regulatory Recommendations for a largely hypothetical situation, necessarily presented with a number of caveats as in the consultation document, and hampered by the lack of a full competition analysis, is questionable.

The choice of sources for the NGA consultation document is limited and important research on innovation and investment in new generation networks and on market definition is missing.¹¹ It is moreover interesting to note that the economic studies referred to in this chapter, with the exception of the Analysys study for OPTA, deal with the business case for fibre roll-out of the NGA operator making the initial investment, and not focus on the access-based competitors. This is in contrast with the limited focus of the consultation on business-plans of access-based competitors.

V. Regulatory implications

1. ERG suggestions on market definition

Market 11

ETNO encourages the Commission to not extend the scope of the current market 11 of the Recommendation on relevant markets to all types of high-speed local loop infrastructure. Such an extension would be the consequence of a deletion of the word “metallic” in market 11 as suggested by ERG. The resulting wholesale market would not fulfil the criteria of the framework for defining and identifying markets for the purpose of ex-ante regulation.

The proposal by ERG for a change to market 11 in the Recommendation by removing “metallic” from the market definition does not reflect the competition situation and is in itself not “technologically neutral”. ERG did not carry out any deeper analysis of market definition and an assessment of the three criteria for (next generation) fixed access markets. In particular ERG does not analyse the relevant retail markets which are the starting point for the Com-

¹¹ Cf. Cave Stumpf Valetti, a Review of certain markets included in the Commission's Recommendation on Relevant Markets subject to ex ante Regulation, an independent report, July 2006; Indepen, Risk, reward and efficient investment in access networks, March 2007; M. Cave, The regulation of access in telecommunications: a European perspective, revised April 2007; IDATE and LECG for the Brussels Round Table, “Telecoms in Europe 2015,” January 2007

mission's market definition in the Recommendation on relevant markets and does not take into account the deregulatory potential of competing platforms.

a) Applying the 3 criteria for the timeframe of the next Recommendation

Different from the first Recommendation the scope of which was largely determined by an Annex to the Framework Directive, any inclusion of a market in the Recommendation this time around requires a rigorous assessment of the three criteria for identifying markets for ex-ante regulation on a clearly defined market.

That fibre access will constitute a persistent monopolistic bottleneck - which would strongly indicate a need for regulation under the three criteria - is mentioned by ERG as a possibility in the consultation document:

“In particular the presence of assets that are not replicable in the foreseeable future may result in the emergence of an enduring economic bottleneck”.

To extend market 11 now and include all forms of fibre access into the scope of the market, however, should be based on reasonable certainty that fibre access will in principle fulfil the three criteria. Considering the lifespan of the next Recommendation, it would be a major error to make this assumption now because of the economics of NGA roll-out:

- fibre roll-out will first happen in the areas of highest density. In these areas, typically cable is often already present even in countries with low cable penetration / upgrade. Moreover, in these areas the economics of fibre roll-out are such that a duplication also of FTTH networks may be possible, as for example investment announcements of alternative operators in France indicate. Scope for sustainable infrastructure competition exists at least in these areas. Experience with the first roll-out phase should therefore be examined before making judgements on economics in lower-density areas where fibre may arrive (or may not) at a later stage.
- NGA investors do not plan to immediately phase out the copper network. Depending on the decision of network operators, copper will stay as an alternative infrastructure in the ground for a transitional period in the medium term. Fibre in this period is an alternative platform, adding competition opportunities to the market.

To which degree fibre access will constitute a persistent monopolistic bottleneck should therefore not be assumed in advance but be analysed once the market structure for high-speed broadband is established or at least visible, based on experience in high density areas. In this context, the lack of analysis of the deregulatory potential of full infrastructure-based competition becomes relevant. It remains unclear why ERG does not discuss the potential of alternative high-speed infrastructures to overcome barriers to entry and/or provide for dynamic competition behind existing barriers to entry (criteria 1 and 2 of the Recommendation).

For the lifespan of the next Recommendation, the general need for regulation of new fibre access networks based on the three criteria has not been demonstrated. The Commission should keep the scope of ex-ante regulation re-

stricted and allow for well-reasoned exceptions if NRAs believe that they can already define and identify for regulation a stable fibre access market.

As a general remark, ETNO would like to recall that the current regulatory framework has been designed to capture new developments through a forward-looking market analysis. It would be highly inappropriate to modify these rules by including “unforeseen” new developments in the scope of regulation in order to allow NRAs to intervene, in particular in a context where market players have based their business plans on the existing framework.

Moreover, as shown by entrants’ investments or investment announcements in Europe¹², fibre access networks can be built by alternative operators and incumbents alike. A legacy advantage which was one *raison d’être* for ex-ante regulation, is no longer present. This applies in particular to FTTH solutions. The apparent exception to this, the incumbents’ existing ducts, should be assessed in light of existing alternatives (s. below).

b) Market definition has to start from high-speed broadband retail services

The starting point for any market definition has to be the **relevant retail markets**. The relevant Commission study on the revised Recommendation states:

“It is appropriate that the methodology [...] for the purpose of identifying relevant markets starts with an identification of problems likely to arise in retail markets for electronic communications services (ECS) in a representative Member State in the absence of regulation [...]. The purpose of this is to ensure that regulation is only applied in those circumstances where there is a significant benefit to final consumers that cannot be achieved under competition law.”¹³

The creation of an all-encompassing wholesale unbundling market by deletion of the word “metallic” would imply that there will be a common retail market for all current, and future high-speed broadband services. In reality, retail markets for high-speed access and services are likely to be more diverse than supposed by ERG.

For example, the expert study carried out for the Commission on the Recommendation has raised the issue of distinguished demand for specific high-speed services which could lead to separate wholesale markets for access, with the high-capacity part of the market being qualified as either new or not fulfilling the 3 criteria for regulation. Remedies may then have to be limited to the lower-speed part of the market. In this logic, M. Cave asks in a recent Article

“what if the new network supplies both ‘old’ and ‘new’ end-user services, and is dominant in the provision of wholesale input for the former? In these circumstances it may be appropriate to conceive the NG access network as bundling two wholesale inputs – one at conventional speed and subject to regulation, the other at higher speed, providing services for an emergent [retail]

¹² As by Fastweb in Italy, or recent announcements of Iliad and Neuf Cegetel in France

¹³ Cave, Stumpf, Valetti, p. 3

*market. In principle, only the former can be subject to mandatory access [...]*¹⁴

Some of the reasons for the distinction regularly made between narrow- and broadband access could also apply for next generation broadband in its relation to current broadband speeds in use: high-speed access brings a multiplication of speed in particular for data upload, as recognised by ERG:

“Whereas download speeds increase by a factor of 2,5 only, upload speeds are multiplied by 5 to 10, enabling new applications run by the individual user, allowing a multiplication of peer to peer exchange. Also, the transmission of multiple HDTV channels is only possible over VDSL. (p. 8)”

Also the fact that customers will switch to high-speed broadband in order to access new services or capabilities, and do not switch because of pricing reasons, is recalling the distinction between narrow- and broadband-markets.

As concerns new services, demand is likely to focalise around specific high-speed services such as (IP-)TV, resulting in clearly distinguishable separate services markets, possibly covering services provided over several platform (DSL/fibre, cable, satellite ...). Without further reflection, ERG apparently takes the view that ex-ante regulation could be applied to these markets at wholesale level under markets 11 and 12 (p. 35). ETNO maintains that such a market would not qualify for ex-ante regulation as it is just developing and, if analysed in the future, would not fulfil the three criteria.

These two exemplary considerations underline that a thorough analysis of retail markets enabled and created by high-speed next generation access would need to be carried out before a new or extended wholesale market is created under the Recommendation. ETNO therefore encourages the Commission to not preclude this relevant analysis but keep the market restricted to the current scope and, in the light of experience with notifications from NRAs over the next, e.g. 18 month, evaluate the market structure created by next generation access.

Market 12

The suggestions on the definition of markets 11 and 12 illustrate that the ERG approach is itself driven by technical considerations and not technologically neutral. The “market definition” proposed by ERG, divided into “physically” unbundled “layer 1” access for market 11 and bitstream access at layer 2 and 3, would on the one hand treat LLU at the MDF and unbundling of copper at the building in an FTTB scenario - which would require massive additional investments by an altnet - as substitutable, whereas an unbundling of optical fibre at the ODF (which for ERG would fall into market 11) and bitstream access at almost the same point in the network would not be substitutable from the perspective of the access seeker, though both forms of access would allow provision of broadband services to the end-customer at comparable quality.

This example illustrates that considerations on “market definition” in the consultation document appear to be motivated rather by ensuring that NRAs

¹⁴ M. Cave, The regulation of access in telecommunications: a European perspective, revised April 2007, p. 29

have discretion to impose access obligations on all parts of a new NGA network than by a genuine considerations of market boundaries.

2. Geographical differences

ETNO shares the observation by ERG that different market conditions and different technologies present in different Member States and regions will lead to diverging regulatory outcomes. This is a logical result in case the principles of the framework such as the three criteria test, market definition and analysis and, where appropriate, the selection of proportionate remedies are applied in a harmonised way to relevant markets.

Geographical differences will inter alia be determined by density and the degree of inter-platform competition. Whether next generation access networks will be replicable in the future will, as said above, be determined locally, not at national level.

A different regulatory treatment of highly competitive areas / areas that permit inter-platform competition from that of geographies with no foreseeable potential for sustainable competition is practicable, widely discussed¹⁵ and would benefit the consumer in those areas where deregulation would take place, by allowing the main operator nationally to act under full market conditions and unhampered by regulatory obligations in areas of high competition density.

In areas with a potential for inter-platform competition, regulation should not act as a disincentive to reaching this objective. An undifferentiated regulatory treatment can undermine incentives for the further deployment of networks, limiting the areas where inter-modal competition can develop to the benefit of the end-user.

3. ERG suggestions on remedies for FTTC and FTTH

a) Duct Sharing

ETNO maintains that any obligation on duct sharing needs to take into account all existing ducts that can be used for the purpose of NGA roll-out. This approach is already mandated by Art. 12 (2) b) of the Access Directive, which says that any NRAs in evaluating possible access obligation shall take into account the technical and economic viability of using or installing competing facilities

To limit the analysis to ducts used for electronic communication purposes is therefore not in line with EU law. It would also lead to disproportionate obligations. Especially in urban areas where fibre roll-out will take place first there are multiple ducts by energy companies, water utilities, the municipali-

¹⁵ <http://www.ofcom.org.uk/consult/condocs/wbamr/summary/>, pt. 1.18; Cave, 2007, p. 24

ties themselves etc., some of them already used for electronic communications purposes.¹⁶

The proposal made by ERG to define a market for ducts “used for electronic communications purposes” is ill-conceived for another reason. Ducts are not electronic communications services and as such cannot constitute a separate electronic communications market.

ETNO is open for a debate on a possible promotion of the use of public or other alternative ducts in particular of municipalities or other public entities. Also, symmetrical obligations for facilities sharing are in general preferable and could be an alternative to an asymmetrical approach. Any such new obligation in the framework would need to be justified and proportionate and broadly consulted upon by the Commission, as measures regarding facilities sharing have not been the subject of previous consultations on the review.

b) Intervention in the roll-out of Fibre networks / PON unbundling

Notwithstanding our principle reservations against unbundling of FTTH networks (s. above on market 11), there are reasonable doubts as concerns the economic viability and legal soundness of the considered options of unbundling of optical fibre. ERG expresses that

“[...]the last segment of a PON solution, consisting of point-to-point optical fibre between the last passive optical splitter and the premises of the end user, could be unbundled. [...] So that new entrants might have access not at the level of the last splitter but at the level of the ODF (e.g. at the CO) it would be necessary to evaluate solutions enabling them to bring their traffic from the splitters to the ODF. This could be granted by imposing the SMP operator to provide, as ancillary services, both splitters and dark fibres on the feeder segment. To achieve this, the NRA may need to intervene in the SMP-parties’ network design of a PON (e.g. number of splitters).”

Firstly, without having commissioned a detailed analysis on this issue, the proposed unbundling meets strong doubts as regards the practicability, and reasonableness of such access. Already the absolute costs of enabling such new forms of unbundling will be considerable and might well outweigh any potential benefits.

Secondly, whereas ETNO members support a clear and predictable regulatory framework before investing in NGA, network roll-out plans by private operators are the sole responsibility of the investing companies. There is a priori no legal or economical justification for imposing ex-ante obligations regarding specificities of NGA roll-out based on assumptions and before a concrete analysis of an existing market including NGA is possible.

The logic behind the reasoning of the consultation document is opposed to the facts-based approach of the EU Regulatory Framework which requires an analysis of an existing and clearly defined relevant market for intervention. This seems to be acknowledged by NRAs, cf. the suggestion of the French

¹⁶ A study by Detecon has examined this for chosen MDF sites in two German cities: *Anschlussmöglichkeiten ausgewählter MFGs in Düsseldorf und Berlin*, Detecon, April 2007. The study is available at BNetzA.

regulator Arcep to introduce an “ex-ex-ante regulation” in addition to the current EU rules.¹⁷ For the implementation of the current Framework, the limitations imposed on NRAs regarding interventions without market analysis and on new and emerging markets have to be fully respected.

From an economic viewpoint, ETNO shares ERG’s reservations concerning the efficiency of such ‘ex-ex-ante intervention’ that would likely result in capacities and facilities for regulatory purposes which will then never be used (p. 32). Such an approach would also meet strong reservations under national constitutional law of many Member States.

c) Migration

As a general principle, once legacy products are no longer absolutely necessary in relevant markets their provision should no longer be the subject of regulatory intervention. The EU Regulatory Framework has as objective to encourage efficient infrastructure build-out and innovation, both of which should not be slowed down by legacy considerations, this time linked to legacy assets of access-based competitors.

Where regulation is still justified and a transition to other wholesale products is warranted in line with individual market analysis, equitable commercial agreements will be needed. In particular, the regulated operator should not be expected to indemnify alternative operators for investment risks due to obsolescence, which should be considered a normal commercial uncertainty.

NRAs should bear in mind that the NGN rationalisation and re-architecture process may be years long and the picture for access and interconnection may change in the process in line with technological developments.

An SMP operator should be allowed to discontinue the supply of an existing wholesale product when there is no longer reasonable demand for the existing SMP product. It would be disproportionate to continue SMP-driven obligations related to wholesale products availed of by a small number of alternative operators, for a small absolute level of demand, or where demand is in rapid decline.

The network operators’ wholesale customers will have a greater incentive to transition to NGN platforms, if there is a reasonable prospect of timely market reviews and a transparent mechanism for withdrawal of legacy products. Committed alternative operators will have an own interest to move to more efficient and higher-value solutions to effectively compete on retail markets.¹⁸

d) Multicast capabilities

ERG has expressly requested comments on the issue of “multicast capabilities” in the context of bitstream access products.

¹⁷ Arcep presentation at Ofcom workshop on NGA on March 27 by Sébastien Soriano, Head of FTTH Unit, AR-CEP; available at <http://www.ofcom.org.uk/media/speeches/2007/03/ngnseminar>

¹⁸ Assessment of economic issues relating to KPN’s potential investment in an All-IP Network, a report for KPN; RBB Economics, 07 November 2006, p. 15 f.

The decision to include multicast functionality appears disproportionate and premature at this early stage of NGA investments and given the uncertainty of the services / applications that will run on these networks. This possibility should not be a result of a mechanistic and expansionist interpretation of market 12, but it should be considered taking into account real competition problems in the appropriate retail markets.

Any possible obligation to provide multicasting capabilities, for instance, for IPTV services should be analysed in the wider context of competition in the TV distribution market, after a proper definition of wholesale markets, which starts from an analysis of retail markets (s. above, 1.).

4. Approach to the ladder of investment

The ERG approach to the ladder of investment is closely linked to the limitations of the general ERG approach (above, II.). ETNO has repeatedly pointed to the inconsistencies and the risk of systematic overregulation resulting from the ERG approach to the ladder. The limitations of this concept become even more obvious in an all-IP environment.¹⁹

Some of the hypotheses in the consultation document directly contradict the ladder theory. When for example the report finds that: *It may be the case that, to some degree and in certain locations, these scale economics mean that there is a natural monopoly in certain areas of the electronic communications value chain (p.20)*, the logic and thus the value of the ladder of investment concept in such circumstances is difficult to see.

ERG repeatedly uses the ideas of the “investment ladder” and a “level playing field” for sweeping statements and without a detailed reasoning, for instance in a conclusion on FTTH (p. 39): “[...]NRAs can grant access to competitors at different levels of the playing field, so as to allow them to climb the ladder of investments”. In other parts of the document ERG observes, however, that in a future fibre environment, alternative operators may move from current LLU solutions to BSA, i.e. step down the investment ladder (cf. p. 35). M. Cave in a recent paper comes to the same conclusion:

“Thus current ADSL competitors will shortly be confronted by the challenge of new network architectures based on IP and fibre. Access options will change, possibly offering a difficult choice between reverting to something akin to resale (which might be withdrawn) or a major investment in a competing fibre [networks]. It would be a mistake for regulators to perpetuate the current known world of bitstream, full loop unbundling etc. in the presence of such a disruptive change.”²⁰

Instead of multiplying access services in the new IP-environment, regulators should focus on a prospective assessment of whether there is a remaining bot-

¹⁹ Cf. Presentation at the Ofcom workshop on NGA on March 27 by Brian Williamson, available at <http://www.ofcom.org.uk/media/speeches/2007/03/ngnseminar>

²⁰ Cave, 2007, p. 29

tleneck. Obligations aimed at granting full replicability at any level of the access network also in a NGA environment would hinder new investments and carry a high risk of being inappropriate, given the still developing retail services markets with regard to high-speed broadband services.

ETNO invites the ERG to clarify the described contradictions and to no longer apply the ladder concept in an all-IP context. The current mechanical interpretation of the concept compromises the ERG's attempts to establish a fact-based approach to regulation in an NGN environment.