Telecom Italia response to

BEREC public consultation on the

Broadband Promotion Report

(23 January 2012)

Executive Summary

Telecom Italia (TI) welcomes the opportunity to contribute to the Public Consultation on the BEREC "Broadband Promotion Report" and to present its view on how to foster the development of broadband in Europe.

The European Commission, through The Digital Agenda, has set ambitious targets for the development of broadband in Europe: basic broadband coverage for all EU citizens by 2013 and 30 Mbps coverage for 100% of EU citizens and 100 Mbps subscription for 50% of the EU households by 2020. Achieving these goals requires a cooperative effort by all stakeholders to find out the best policy measures and regulatory solutions.

BEREC, through this report, is contributing to set the stage for this discussion and is suggesting a balanced approach to broadband deployment and adoption, asking for assessment of measures on both the supply and demand side.

There is a broad consensus on the role that broadband is playing as a general purpose technology[1] not only to generate economic growth, to increase productivity and to spur innovation but also to improve quality of life and to allow geographical and social inclusion. However, TI believes that, under appropriate conditions, direct public intervention has a positive role in funding and deploying Next Generation Access Networks (NGAN) in "white areas". On the other side regulatory measures should be flexible enough to create the best conditions for private investment to flourish both in "grey and black areas". Direct public funding requires rigorous assessment and should carefully avoid a crowding out of private investments and a distortion of competition.

The analysis of the impact on productivity of ultra-broadband investments sheds some light on this issue. While numerous studies have shown the positive impact of broadband on economic growth[2], there is not yet clear evidence of a wider effect on productivity from the deployment of faster broadband infrastructure (e.g. fiber based) relative to the widespread deployment and use of standard technologies (e.g. ADSL)[3]. Indeed, while the shift from narrowband to broadband, characterized by always on connections and faster speed, was perceived by customers as a

[1] OECD (2009), The role of communications infrastructure investment in economic recovery, DSTI, Paris

[2] Qiang C.Z.W., Rossotto C.M. (2009), Economic Impacts of Broadband, Washington (DC), World Bank, LECG (2009), Economic Impact of Broadband: An Empirical Study, Final Report per Nokia Siemens Network

[3] Results from the literature are mixed. See Howell & Grimes (2010) "Productivity Questions for Public Sector Fast Fiber Network Financiers, Communications & Strategies n. 78 , Kenny & Kenny (2010) "Superfast: Is It Really Worth a Subsidy" Communications Chambers, Ericson (2011)

significant improvement, the increase of speed *per se*, related to ultra-broadband technology, does not seem to bring similar results. Furthermore, measuring issues and lack of ultra-broadband applications make difficult to detect and evaluate the real existence of productivity gains.

Therefore, these results suggest a selective approach to investments by the private sector (areas in which returns must be granted) and a subsidiary role by the public sector. Indeed, on the government side, the success criterion relates not only on the scale and return of public investment but on the scale and return to all investment: the role of public investment in leveraging private investment is the key.[4]

The NRAs can play an important role in facilitating the development of BB and ultra BB markets. To this aim, the NRAs should:

1) mandate a flexible approach to architectures that guarantees technological neutrality and flexibility in the choice of fibre architecture and technology,
2) design symmetric regulation for access to bottleneck infrastructures (e.g. entries to buildings and in house fibre wiring)
3) allow price flexibility to SMP operator, through a correct definition of wholesale price control mechanisms and retail offer assessment.

In order to foster the development of the BB also in the rural areas, NRAs should implement **geographic segmentation** both at the wholesale and retail level, to allow different regulatory obligations between areas with different degrees of competition. In the case the construction of broadband networks in rural and peripheral areas is supported by public funding, NRAs should ensure that infrastructures are open to all operators.

The real supply side obstacle to broadband promotion is the **low expected return on investment.** The Governments and NRAs should incentivise Telecommunication (TLC) Operators to invest through several interventions aimed at increasing expected revenues, at reducing start-up investments, at reducing the cost of capital.

The main demand side obstacle is the **lack of perceived need to adopt broadband**. TI believes that demographics and lack of services that create a high demand for bandwidth are the major factors to explain this phenomenon. To solve the issue of lack of services that creates a high demand for bandwidth, the government should promote public digital services and on on-line transactions

[4] See on this Cave & Martin (2010), " Motives and means for public investment in nationwide next generation networks", Telecommunications Policy , Volume 34, Issue 9

such as e-commerce, e-government, etc. This result can be achieved by improving trust in e-commerce and digitalizing the contacts with the users in the public sector.

These activities should be complemented by digital literacy initiatives targeted to particular age groups, unemployed and people with disabilities.

TI does not consider the price of broadband to be as an obstacle to the broadband access adoption decision due to the strong competition at the retail level that is continuously pushing down retail prices as well as to the availability of bundled offers. On the other side, in order to promote price flexibility, the possibility to make use of promotional offers should be emphasized by adequate regulatory measures (for instance by getting rid of price floors established by the current regulations in matter of replicability.

Also the operators can play an active role in improving the BB diffusion. TI implemented several actions to promote the development and the take-up of the fixed and mobile broadband by improving offer transparency, quality of services and customer care services.

Regarding the public-private partnership (PPP), TI believes that this tool should be used only for the development of the network (both BB and ultra BB) in not profitable areas (white areas). Moreover, the parties participating in the PPP should be free to choose the forms of network access (fixed and mobile) on a technologically neutral basis.

BEREC could play a key role in promoting a regulatory framework fostering broadband and ultra-broadband services elaborating new proposals and giving guidelines to NRAs on geographical differentiation of market analyses for NGANs, symmetric access obligations for NGAN and prize squeeze test for NGAN products.

TI answers to the specific questions raised by BEREC are provided in the following.

Answers to questionnaire

Question 1 (section 5): What elements do you consider essential for the successful definition and implementation of governments' strategies to promote broadband:

a) Overall at the national level? What role, if any, could NRAs play to enhance the effectiveness of those strategies?

b) Specifically at rural and peripheral areas? What role, if any, could NRAs play to enhance the effectiveness of those strategies?

In recent years, there has been a significant involvement of Public Administrations at different levels (national, regional and local) in the promotion of broadband, the most relevant reasons being equity, industrial policy and economic recovery. In this context, public institutions are playing different roles aimed at:

a) incentivizing investment;

b) regulating networks;

c) financing operators;

d) building new infrastructure in areas of market failures;

The first role public institutions are playing implies removing the barriers on the demand side, that may hinder the take up of the services and the profitably of the new networks.

The role of regulator is focused on the State trying to ensure a competitive marketplace by means of telecommunications' regulation.

The role of financer is concerned with the use of public funds to incentive and complement private support to investments though grants, loans, tax incentives etc.

Finally in particular circumstances, the State may play the role of builder of new networks - actually investing in new networks.

Over all the different roles, it is essential that public policies provide legal and regulatory certainty, remove barriers to entry and to investment, facilitate a cost effective networks roll out and ensure that new services can develop leaving it to the market to the greatest extent possible to develop networks and markets.

As a general rule, public intervention in the market should be as minimal as possible. If governments do invest in new networks, they should determine to what extent this is necessary because of market failure and only invest to correct this failure.

In this context it is important to recall that any policies geared toward the "broadband for all" objective should not rely on Universal Service Obligations and that increasing broadband network roll out and take up in unprofitable areas should be object of "ad hoc" public funding.

1a) NRAs' role

NRAs have the fundamental role of creating the best enabling environment to facilitate the market in delivering broadband and ultra-broadband networks.

First, they should **guarantee legal and regulatory certainty** to investors through certainty and predictability of policy and regulatory measures to be defined in the various market analysis cycles.

Second, NRAs should mandate a flexible approach to architectures that guarantees **technological neutrality and flexibility in the choice of fibre architecture and technology**. The NRAs should leave TLC Operators the choice of the technological solution and fibre architecture more appropriate to geographic features, customers' type (residential, business, industrial districts), as well as the proper assessment of the risk related to the forward-looking development of alternative technologies.

Third, NRAs should design **symmetric regulation for access to bottleneck infrastructures** (e.g. entries to buildings and in house fibre wiring), in order to promote fair competition and avoid wasteful duplication of investments.

Finally, NRAs should allow **price flexibility** to SMP operator, through a correct definition of wholesale price control mechanisms and retail offer assessment. Indeed, NRA should just define a wholesale safeguard price cap (based on efficient cost of service provision, inclusive of an adequate risk premium), below which the SMP operator is left free to set fair and reasonable price, according to the competitive market context. In fact, wholesale and retail prices have to incentivise innovative services' demand, fostering the take-up of NGAN services to ensure investment recovery. NRAs could monitor SMP operator behaviour in the retail market by assessing the replicability (absence of margin squeeze) of its NGA retail offers.

1b) Regulation impact on rural and peripheral areas NGAN deployment

A flexible choice of NGAN architecture and efficient mix of technologies such, including mobile technologies as LTE, is required to provide ultra-broadband in rural areas where public funding are most needed.

If the construction of broadband networks in rural and peripheral areas is supported by public funding, NRAs should ensure that infrastructures are open to all operators.

NRAs should implement **geographic segmentation** both at the wholesale and at the retail level, to allow different regulatory obligations between areas with different degrees of competition. Indeed, today in Europe there are vibrant ULL markets, networks intermodal competition and significant geographical variation of competitive conditions across geographical areas. It follows that, continuing adopting national markets definitions could be particularly harmful to competition.

Question 2 (sections 6 and 9):

Among the main supply-side obstacles to broadband promotion, NRAs have perceived the low expected return on investment, the lack of access to financial resources and the access to spectrum. In addition, NRAs have considered, among the main demand-side obstacles to broadband promotion, aspects such as the citizens' lack of perceived need to adopt broadband, the high price of broadband, the fact that NGA is still in an initial stage of the product life cycle and, mostly in rural areas, the lack of choice between operators.

2.1. What of the above mentioned factors, if any, would you not consider as obstacles? And what other factors, if any, would you add to the list of main obstacles to broadband promotion? Please reply with specific regard to:

a) Supply-side obstacles;

b) Demand-side obstacles.

2.2 Taking into account namely your assessment of the existing and potential obstacles to broadband adoption, what elements do you consider essential for the successful definition and implementation of NRAs' strategies, in particular from a demand-side viewpoint, to promote broadband?

When replying to question 2.2 above, please mention also what core strategic differences, if any, should be weighted regarding the consideration of those elements in rural/peripheral areas and in urban areas.

Supply-side obstacles

TI deems that **low expected return on investment** is a real obstacle to broadband promotion and that several measures could be taken by Governments and NRAs to incentivise Telecommunication (TLC) Operators to invest in NGAN instead of adopting a "wait & see" approach.

To that end, TI believes essential to preliminary analyse what are the relevant investors' decision factors and to explain why NGA investments have not yet taken off, even in apparently remunerative contexts.

An operator decides to invest in a project on the basis of its expectations on:

- project profitability: a given project is profitable if its Internal Rate of Return (IRR) is higher than the cost of capital, i.e. the cost of financial resources acquisition for the entire project's payback period;
- project risk: the variability of the project's key variables such as future Capex and Opex, demand penetration, time to market, ARPU, cost of capital.

Typically an operator will invest in all those opportunities having an IRR (Internal Rate of return) higher than the regulated cost of capital (WACC). Therefore, the high risk that characterises NGA investment projects strongly affects the take-off throughout Europe.

In this context, Governments and NRAs in order to make viable and profitable for TLC Operators NGA investment plans, should work towards reducing the uncertainty regard:

- future positive cash flows: interventions should aim at increasing expected revenues in order to increase the probability to achieve an appropriate IRR on the investment plan
- future negative cash flows (both capital and operational expenditures): interventions should aim at reducing start-up investments by favouring cheaper NGA deployment solutions in order to increase the probability to achieve an appropriate IRR on the investment plan
- acquisition of financial resources to invest in the NGA plans: interventions should aim at reducing the cost of capital in order to make more profitable investing in NGA projects. Indeed, an Operator will decide to invest (instead of adopting a "wait & see" approach) in a NGA project only if the project shows a high probability to achieve an IRR higher than the cost of capital.

  All the measures previously mentioned should go in this direction.

As far as access spectrum is concerned, the allocation of the 800 MHz frequency band for mobile broadband is offering new opportunities for supplying high speed mobile broadband services and helping in reaching the target of the EU Digital Agenda. In Italy the auction was quite successful for the government and now the operators, given the substantial economic burden of the licenses are choosing the right mix of technologies to get the most out of the investments. Regulators should guarantee regulatory flexibility to allow the recoup of the investments.

Demand-side obstacles

On the issue of **lack of perceived need to adopt broadband**, TI believes that demographics and lack of services that create a high demand for bandwidth are the major factors to explain this phenomenon. For instance, a recent study from the OECD[5] shows that age and economic inactivity are by far the most relevant variable for not having ever used a computer or the internet. Italy is a case in point. Although broadband through ADSL is available to the majority of the population (more than 97%), household broadband penetration is 52% and the percentage of individuals aged 16-74 who have never used the internet is 39%[6]. Lack of computer skills, an aging population with early retirement are among the major reasons for low broadband take up.

To solve the issue of lack of services that creates a high demand for bandwidth, the government should promote public digital services.

In order to foster demand take-up, the Government could:

- create a more favourable environment to the development of e-commerce introducing rules for the liberalisation of on-line transactions and improving network security;
- play the "role model" in the adoption of broadband applications for government services.

This can be done in two ways:

- offering on line services currently offered off line;
- developing content for on line services using public sector information also in partnership with the private sector. Two sectors that look particularly promising for these applications are health and transport.

[5] OECD(2011), "Digital divide: from computer access to online activities :a micro data analysis ", DSTI

[6] EUROSTAT (2011)
http://europa.eu/rapid/pressReleasesAction.do?reference=STAT/11/188&format=HTML&aged=0&language=EN&guiLanguage=en

This activity should be complemented by digital literacy initiatives targeted to particular age groups, unemployed and people with disabilities.[7]

As regards the **price of broadband**, TI does not consider this as an obstacle to the broadband access adoption decision, also due to the strong competition at the retail level that is continuously pushing down retail prices. Service bundling is also playing an important role in this direction.

TI does not share the report's view that there is a lack of choice between operators in rural areas. In fact, when the broadband fixed access service is launched in a digital divide area, all the alternative operators have the possibility to provide their retail services using the SMP operator's underlying wholesale access services (e.g. bitstream).

Question 3 (section 7): What elements do you consider essential for the successful definition and implementation of operators' strategies, in particular from a demand-side viewpoint, to promote broadband, with regard to

a) Fixed broadband?

b) Mobile Broadband?

c) NGA Broadband?

When replying, please mention what role, if any, NRAs could play to enhance the effectiveness of those strategies.

[7] Telecom Italia is promoting ad hoc digital literacy initiatives targeted to old people . The project is called "Internet Saloon" and lately received the first prize by the European Alliance on Skills for Employability Awards – in the category "Active Aging" being considered one of the "most advanced and best conducted projects in Europe aiming at keeping seniors active through learning and the use of technologies". The initiative is aimed at over 50 interested in getting exposure to information technology to explore the vast world of the Internet. Internet saloon was launched in Milan in 2000 and is totally private and free. The project was designed and managed by AIM - Association of Metropolitan Interests, with the participation of Gruppo Credito Valtellinese, HP - Hewlett Packard, Microsoft Unlimited Potential-CTS and Telecom Italia. Since 2000, this experience has involved more than 40,000 people making Internet Saloon the most successful experience in the digitalization of seniors. Nowadays, this experience is growing not only in scale but also in scope. Indeed, the teaching includes not only basic Internet but also advanced Internet, office packet, the use of security software, digital photography, home banking, as well as social networks (such as Facebook).

According to TI, **residential broadband demand** can be met through:

- addressing new customers' targets through "internet literacy" actions towards new user categories, i.e. elderly people (60% of Italian households lacking a fixed internet connection states not to use a fixed broadband line for not being able to operate a PC; households without a PC are around 9.7 million);
- making the offer simpler and more integrate with multimedia contents and new devices (Connected TV, tablet, smartphone) via fixed broadband represents an important driver for the creation of broadband usage opportunities;
- harmonizing the rules governing the behaviour of the various actors (operators, Over the Top, Service Provider) to compete in a fair way in the marketplace.

To date, TI's competitiveness is strongly conditioned by the regulation of the fixed broadband market segment, since the price floors established by the current regulations in matter of replicability reduce the possibility to make use of promotional offers, excluding the option to tailor the offer according to customers and cut down substantially the chances of geographical and per channel diversification, as well as the offer's time to market.

In short, this regulation doesn't favour customers and a real competition, as it limits a more efficient price competition, despite the fact that 63% of Italian broadband fixed households states that price is the main driver when choosing a Telco operator (Source: Between, May 2011).

As to the **business market,** it is clear that this is influenced by the economic situation the country is going through: Italian small and medium-size enterprises are having economic difficulties and, in order to improve their competitiveness, they are focusing more and more on the reduction of internal costs such as ICT expenditure. Therefore, there is the need to:

- increase offer flexibility;
- outline tailored offers;
- support the development and diffusion of converging fixed/mobile offers and fixed + value added services;
- define rules of conduct for OTT too in order to achieve equity in market regulation and investment planning;
- ensure traffic control for a better guarantee of customer service.

The main actions implemented by TI to favour the development and the success of the **fixed broadband** take-up are:

- **Transparency**
    - Website to measure access speed.
    - Transparency on coverage levels.
    - Introduction of the possibility for the contractor to terminate the contract or to transfer the subscription to another operator without time constraints.
- **Quality of service**
    - Use of probes to measure on-net traffic.
    - Quality indicators (KPI) to assess the network availability and accessibility for Voice services.
    - Measurement of transmission speed and packet loss for data services.
- **Customer Care Services** – Tailored high value Caring offers with dedicated toll-free telephone numbers and reduced times of failure intervention compared to standard.

As to **Broadband Mobile** market, the main actions implemented by TI are aimed at increasing coverage and quality and easiness of the offer, with particular reference to:

- **Transparency**
    - Implementation of a real time captive website in order to provide clients with the correct information on the state of the line (residual credit, data bundle, expiring dates, etc.)
    - Expenditure certainty: removal of bill shock causes due to an over-bundle through the implementation of monitoring/caring mechanisms.
- **Quality of service**
    - Quality of network infrastructure: evolution of the broadband mobile offer through the use of broadband platforms (currently up to 42 Mbps) and further evolution towards LTE platforms.
    - access quality optimisation: shaping traffic measures aimed at alleviate the network from excessive traffic volumes.

- **Customer Care Services**
    - Introduction of simple offer schemes: e.g. TI added a yearly fully prepaid offer with usb key included (Internet pack) to traditional prepaid packages and subscriptions;
    - increase of the variety offered: building of offers tailored to clients' needs, from "pay per use" solutions to all inclusive data options for heavy users;
    - strong simplification of offer and customer experience in a context of a robust smartphone penetration growth also through the introduction of daily offers or weekly prepaid offers (TIM x smartphone) and product-included subscribers' offer ("Tutto compreso" and "Tutto smartphone").

In the next years, we expect an increase of the number of smartphone accesses (micro-browsing) and a development of demand thanks to the use of broadband platforms (currently up to 42 Mbps) and further evolution towards LTE platforms.

As to **NGAN** market, it is fundamental that regulation does not hinder investments, thereby slowing infrastructure deployment, also in the light of demand uncertainty.

Question 4 (section 8): What elements do you consider essential for the successful definition and implementation of public-private partnerships strategies, in particular from a demand-side viewpoint, to promote broadband? What role, if any, could NRAs play to enhance the effectiveness of those strategies?

TI believes that a public-private partnership (PPP) for both broadband and ultra-broadband networks should be considered only in the case of not profitable areas (white areas). This is the only way to allow deployment of NGAN and adoption of NGAN services in areas at risk of market failure. In black or grey areas, state intervention is not allowed/required, and other forms of partnership with the Public Administration are difficult to be achieved, considering the different roles/targets of public and private investors.

In order to implement successful public-private partnership strategies TI considers essential the following main points, in compliance with the Commission's State aid guidelines and technological neutrality principle.

- The approach must be **technologically neutral** and the parties should be free to chose the forms of network access (fixed and mobile) which better suit the local/regional circumstances;
- **The subject of PPP should only cover non-profitable areas** (white areas). The methodology to be used to identify white areas should take into consideration not only the network development plans of TLC operators but also more objective criteria like social economic development, population density and existing infrastructures.
- Possible demand and supply side subsidies should consider only ultra-broadband services with a bandwidth of at least 30 Mbps.
- No copper line switch off should be tied to demand side incentives because:
    a) It is in contrast with EC policies on State aid because the demand side incentives shouldn't impact on incumbent's copper infrastructure.
    b) It damages Telco operator entrepreneurial freedom and discretion to decide if overlay or total replacement phases should occur.

In particular, in order to foster ultra-broadband services demand, TI considers the following possible demand-side policy:

- Subsidies or tax credit for ultra-broadband line activation: as an example the 50% of the total line activation cost (access gateway, ONT, etc.) could be provided to customers in the form of direct subsidy or tax credit.

Other possible strategies could be:

- Partial ultra-broadband line monthly fee refund: tax credit or direct subsidy to final customer in a fraction of 20-30% of the total ultra-broadband services monthly fee for the first year of subscription (as an example);
- VAT (Sales tax) reduction on ultra-broadband services monthly fee (for a given time period, i.e. first year).

In conclusion, NRAs have an important role to foster competition and NGAN adoption. In order to accomplish this role, NRAs should promote:

- a clear definition of white areas, based not only on TLC operators future plans but also on more objective criteria like urban density, social economical parameters and existing

infrastructures. Moreover small white areas (white pockets) can be funded into wider grey or black areas.

- symmetry in the access remedies to infrastructures and bottlenecks
- ultra-broadband access pricing and VULA/Bitstream pricing scheme adoption compatible with PPP business plans and with a right internal rate of return for the PPP investors considering risk premium.

Question 5 (section 10): In addition to the initiatives already taken by BEREC with regard to the promotion of broadband from a supply-side perspective, what other initiatives do you perceive it is important that BEREC develops in the future from that perspective?

BEREC could play a key role in promoting a regulatory framework fostering broadband and ultra-broadband services elaborating new proposals on the following issues:

a) a common set of agreed upon rules to disaggregate the national markets by implementing deaveraged geographical market analyses;

b) a symmetric regulatory framework aimed at avoiding the possible creation of new monopolies in the fiber access network roll out (vertical and horizontal cabling);

c) a price squeeze test model especially oriented to detect anticompetitive behavior in the NGAN newly emerging markets characterized by much higher uncertainty and risk than copper legacy networks.

a) Geographical differentiation of market analyses for NGANs

The transition from copper to fiber networks paves the way to a geographic approach in the market analyses for NGAN. The guidelines on the geographic application of the market analyses have been set mainly with regard to the copper networks. The emergence of NGAN will change completely the traditional scenario: the new fiber networks have different topological structures in comparison with copper ones. Regulators should address the application of geographic remedies through new approaches. Telecom Italia deems that BEREC is in the right position to provide further guidance on this fundamental issue giving to the NRAs clear and harmonized guidance.

b) Symmetric access obligations for NGAN

The roll-out of fibre access networks by local players other than the SMP-operator will create non-duplicable bottlenecks, in particular in the vertical cabling of buildings and in the horizontal drop.

In order to regulate these local bottlenecks and ensure a fair level of competition for the benefit of end-users the NRA must set rules concerning the "vertical access monopolies" of non SMP operators.

Berec can give guidance to NRAs on how to implement the provisions of the "Framework" (Art. 12) and "Access" (Art. 5) Directives for addressing the bottlenecks in the access network in a proportionate, symmetric and effective manner.

c) Prize squeeze test for NGAN products

The NGA Recommendation requires the definition and application of a margin squeeze test for fiber products: "*NRAs should thus verify the SMP operator's pricing behavior by applying a properly specified margin-squeeze test over an appropriate timeframe. NRAs should specify in advance the methodology they will follow for identifying the imputation test, the parameters for the margin-squeeze test and the remedial mechanisms in case of established margin-squeeze*" (par. 26).

For copper access the regulation of the margin squeeze tests is well consolidated in several Member States. TI thinks that price tests for fibre services should be further addressed and calls for a clear definition of such a methodology, including the implementation of the provisions of paragraphs 7 (long term access pricing) and 8 (volume discount) of Annex I to the NGAN Recommendation.

Question 6 (section 10): A list of potential measures was identified, in the present document, that could be adopted or reinforced in order to promote broadband from a demand side perspective.

a) Are there any identified demand-side measures that you consider inappropriate?

b) What other demand side measures, if any, would you consider particularly important to promote broadband?

The current coverage of DSL broadband access in Italy is almost complete: 95% of the population has a broadband connection, 93.5% enjoying a connection up to or more than 7 Mbit/s and 70.5% up to 20 Mbit/s. The cost to bridge the remaining digital divide (estimated in about € 800 Million) and provide all users with broadband services cannot be borned entirely by TI.

TI believes that the elimination of the digital divide doesn't depend only on measures on the supply side. In fact, it is worth noting that the adoption behavior of the consumers in Italy proves to be slower than in other comparable Member States: only the 49% of households have a broadband connection and more than one half (54%) of the users having not a connection to broadband services declare no to have a real interest in the services.

In this scenario, giving priority to supply side policies risks to prove costly and not effective. This indicates clearly that most of the concern and of the resources should be currently dedicated first to the **demand,** since no operator would invest if there is not a business case (in other word a sufficient ARPU). Therefore, TI does not agree with the conclusions of FSR i.e. to give priority to the supply side actions and then to the demand side's unless interventions on the supply side help building the abovementioned business case.

Not all the demand policies fall within the remit of regulators, since in many cases are matter for policy makers. The main effort of a demand side policy should be to create a uniform level of broadband usage by stimulating the demand, say at least 7 Mbit/s for all, and then the users can be brought toward higher speeds 20, 30, 50 Mbit/s according to their needs.

The utilization of ultra broadband services will be successful only if the users will have a perception of their usefulness. A positive perception of broadband can be achieved through many instruments, amongst which:

1) digital alphabetizing the population through adequate Governments education policies;
2) encouraging on line transactions by:

a. creating trust in e-commerce (spamming and frauds are deterrents to the development of Internet. The promotion of e-commerce involves, of course, the legal aspects of the protection of right of the on-line buyers);

b. promoting a policy aiming at protecting privacy and on line identity;

c. digitalization of the contacts with the users in the public sector (payments of taxes, requests of documents and certificates, certified mail);

d. removing any obstacle of bureaucratic nature: as an example in Italy many operations with the Public administration are subject to the payment of a stamp tax. This aspect represents a burden that, when considered from an economic perspective, is relatively small but from the point of view of the development of the services of an on line P.A. is a real deterrent;

3) Improving the "user interface" to facilitate the access to on line services. As an example, for many senior users the interface represented by the common TV set (a "connected tv") could be used to as an alternative to Personal Computer in order to introduce a set of basic broadband services of social relevance.