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**Public Consultation on an EU Initiative to Reduce the Cost of Rolling Out
High Speed Communication Infrastructure in Europe**

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This document does not represent an official position of the European Commission, but is intended to stimulate debate on the part of stakeholders and the public. It does not prejudge the form or content of any future proposal by the European Commission.

Public Consultation on an EU Initiative to Reduce the Cost of Rolling Out High Speed Communication Infrastructure in Europe

What is the issue?

High-speed Internet is an essential infrastructure underpinning all sectors of a modern, innovative economy. It is the infrastructure of the future, the backbone of the single market, a major and still to a large extent untapped source of growth, and a key factor for the EU's competitiveness. Studies show that a 10% increase in broadband penetration can result in a 1-1.5% annual GDP increase¹. A better use of information communication technologies that run over high-speed Internet accounts for a significant part of productivity growth. The OECD suggests that a 10% higher broadband penetration in any year correlates with a 1.5% increase in labour productivity over the following 5 years. Furthermore, high-speed broadband roll-out is a major source of job creation: based on national studies², the Commission services have estimated that broadband-driven innovation at enterprise level could result in a potential gain of 2 million jobs by 2020, including jobs in related sectors, for example content provision and in equipment manufacturing.

This potential has already been recognised outside Europe. Investments in high speed broadband are taking place more quickly in parts of Asia and in the United States. Europe must not fall behind. In the Digital Agenda, one of the flagship initiatives of the Europe 2020 Strategy, Member States have endorsed ambitious broadband targets aiming for 100% broadband coverage by 2013 for all Europeans and increased speeds of 30MBps for all, with at least 50% of the European households subscribing to Internet connections above 100MBps by 2020. However, for these targets to be achieved, investments will need to be stepped up.

One of the often cited reasons for investment shortfalls are high costs in today's difficult financial climate. According to current estimates, it could cost more than 200 billion EUR to bring high speed Internet to all Europeans in line with the agreed Digital Agenda targets. However, several studies³ suggest that up to 80% of total investment costs are related to civil infrastructure works. Moreover, a substantial part of this high cost (possibly up to 30%) can be attributed to inefficiencies in the roll-out process, for example because of a lack of coordination of civil engineering projects, insufficient re-use of existing infrastructure, a lack of cooperation between utilities. Faster roll-out can be further impeded by lengthy, non-transparent and often cumbersome procedures for clearing rights of way and obtaining all necessary permits at national or local level.

The 2012 March Spring European Council underlined the importance of broadband and asked for steps to be taken to achieve costs savings as part of efforts to complete the Digital Single Market by 2015. The Commission has therefore started work on exploring ways to achieve such costs savings in order to improve the business case for high-speed broadband and so help achieve the economic and social benefits for Europe as set out above.

Experience from Member States shows that practical measures can be taken to make investment happen in a much more efficient, less costly - and at the same time competition-enhancing - way. Costs can be significantly reduced by a series of simple and relatively

¹ Czernich et al. - University of Munich, 2009

² Katz, 2011; Liebenau, 2011.

³ WIK, 2008, Francisco Caio's report, 2008, Analysys Mason, 2008

inexpensive measures, such as a more intensive use of existing ducts, including those belonging to other utilities (e.g. transport, sewerage, energy, etc.) or a better coordination of civil engineering projects. Moreover some of the inefficiencies in the process can be removed by means of improved information and by lowering the administrative burden on companies willing to invest particularly across Europe.

Why is EU action required?

The Digital Agenda for Europe⁴ calls on Member States to take measures that facilitate broadband investments. Several such measures are already being adopted in Member States and can serve as good practice that can be scaled-up further across Europe to achieve greater gain. The main types of efforts aim at mapping of ducts and access to ducts, involving the local authorities in order to streamline the administrative procedures needed for rolling out networks, and coordinating civil engineering works, including public works. Few member states passed national legislation concerning in-house wiring.

However, these practices remain scarce and scattered, and sometimes they apply only on a regional or even local basis. None of the Member States has undertaken measures covering all these mentioned fields. Moreover, when present across several Member States, the measures are implemented in different ways: for example, duct mapping and access to ducts are imposed either on telecom and/or non-telecom operators. The recent Commission Report on National Broadband Plans (SWD(2012)68 final) provides an overview of the most current practices.

This emerging patchwork of rules at national and sub-national levels perpetuates fragmentation of the single market and leads to investments costs which are much higher than they ought to be. For a company operating on cross-border basis, such a patchwork of rules, procedures and practices at national, regional and even local level drives up costs to a point of challenging the profitability of investments and as such constitutes an important barrier. It is likely to negatively impact companies' ability to invest and reduce any economies of scale in this investment. Inevitably, this reduces competition and reduces consumers' benefits who will end up paying more for their high-speed Internet connection.

In contrast, measures at EU level aiming at optimising existing infrastructure and better deployment of new networks, by telecom and non-telecom operators, could yield significant efficiency gains in network deployment. This could not only attract investment in new networks, not least cross-border, but also ensure equal opportunities for operators seeking access to (passive) infrastructures, in line with sector specific rules, where these exist, as well as with antitrust and state aid rules. The broadband guidelines⁵ are currently being revised and will be looked at carefully in order to ensure the most efficient use of public funds in this area. Finally any such measure would have an important direct positive impact on citizens. In addition to all benefits accruing from access to high speed infrastructure and services, more coordination of civil engineering work would mean less disruption to their everyday lives (for instance as roads may have to be dug up less often).

⁴ Such measures have been further discussed in the context of the Broadband Communication (COM(2010)472) and of the eCommerce Communication and its comprehensive Action Plan (COM(2011)942).

⁵ Community Guidelines for the application of State aid rules in relation to rapid deployment of broadband networks (OJ 235, 30 September 2009, page 7, currently under revision).

In view of the above, and in order to respond to the European Council request, the Commission services are analysing the potential of a coherent set of measures at EU level aimed at significantly reducing the cost, and bringing out efficiencies in the process of rolling-out high-speed communication infrastructure across Europe. The main areas of action could be enhancing the re-use of existing (passive) infrastructure, improving transparency and facilitating the coordination of civil engineering works, streamlining administrative procedures involved in permit granting, and ensuring that new buildings are equipped with open, next generation access.

Against this background, the Commission is conducting this consultation asking the public for its views on the most promising actions to reduce the cost of roll-out and to bring out efficiency gains in the deployment of high speed networks throughout the EU. The results of the consultation will feed into the further works on impact assessment of potential measures at EU level on reducing the costs of broadband roll-out in line with the principle of subsidiarity. The objective of the consultation is therefore to confirm the nature of the problems faced, assess the need for action at EU level and collect information on what are the best practices in Europe and most appropriate ways to address the issue. Your input to the reflection process is very valuable and we would like to thank you in advance for your contribution.

Please note that the results of this questionnaire will feed into an Impact Assessment. Please be aware also that parallel consultation efforts are undertaken through targeted expert groups, through online discussion in the context of the preparations of the Digital Agenda Assembly (21-22 June 2012, http://ec.europa.eu/information_society/digital-agenda/daa/index_en.htm). A dedicated workshop on High Speed Connections at this Assembly will provide an opportunity to discuss the results of the online contributions as well as the contributions received on this consultation, to the extent that they come in early.

The deadline for sending your contribution is 20 July 2012. Please send your contribution either by mail or by email, using the contact details below:

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Please also refer to the privacy statement enclosed.

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I. Background information

This consultation is addressed to a broad public, as it is important to get the views and input from all the interested parties and stakeholders. In order to best analyse the responses received, there is a need for a limited amount of background information about you as a respondent.

- Please indicate your role for the purpose of this consultation:
 - company (electronic communications sector / energy sector / transport sector / water & sewerage sector / financial sector / equipment manufacturers / civil works / other sector – pls. specify)
 - central government authority
 - regional / local government authority
 - national regulatory authority (pls specify the sector)
 - university / research institution
 - consumer (association)
 - individual citizens
 - civil society (please specify)
 - other (please specify)
- Please indicate the country/countries/region(s) where you are located or operating
- Please provide your contact information (name, address and email-address)
- If you are answering on behalf of an organisation, is your organisation registered in the Interest Representative Register (http://europa.eu/transparency-register/index_en.htm)?
- If you are answering on behalf of an organisation, how many members of your organisation/association have directly approved your contribution?

II. Making a better use of existing infrastructure

A number of studies suggest that significant cost savings in the deployment of high speed communications infrastructure could be achieved, inter alia, by a more intensive use of existing infrastructures. Such savings and efficiency gains can be made both for fixed and wireless networks, in particular by:

- Increasing the use of existing so called passive infrastructures of electronic communications operators, such as ducts, conduits, masts or antennae:

Whereas under EU law, national regulatory authorities for electronic communications (NRAs) may decide to make access available to passive infrastructure of operators, regardless of their market position, to other electronic communications operators, little such sharing is currently taking place in Europe.

- Using the possibilities offered by infrastructures of other utility companies (e.g. transport, water, sewerage, energy).

Infrastructure sharing between telecom and utility companies exists in some Member States but under very different forms. Only very few Member States have taken legal measures allowing them to mandate access to infrastructures of other utilities for the roll-out of electronic communications networks. As a result operators are faced with a fragmented situation across the EU. Further bottlenecks may exist as a result of specific technical issues, lack of clarity on liability, absence of dispute resolution mechanisms, costing practices and lack of transparency.

- Raising transparency on which infrastructures exist, on their location and ownership.

Effective duct sharing requires transparent, easily accessible, complete and up-to-date information on existing infrastructures, on their exact location, on their availability, and on how they can be accessed. Such a mapping may also be beneficial for other purposes in particular for other construction works and for environmental purposes. Despite the potential advantages such mappings offer, only few Member States have so far introduced them. The current EU rules allow NRAs to gain access to such information and to create inventories. These rules seem however not to be implemented in a consistent way.

Questions

- 1. What are the benefits (including approximate savings) that could be achieved for NGA roll-out by a more intensive infrastructure sharing within the EU, including the infrastructure of utility companies?*
- 2. What are the benefits that could be achieved by a more coherent regime of infrastructure sharing within the EU, including the infrastructure of utility companies?*
- 3. Which are the main bottlenecks (practical, administrative, technical or legal) that operators wishing to deploy high-speed communication networks are confronted with when accessing existing infrastructures?*
- 4. What are the good practices in the EU and in third countries that could be identified and be promoted with respect to achieving a more intensive infrastructure sharing with a view to deploying high-speed communication networks?*
- 5. What would be the main benefits and disadvantages for broadband investment if access to ducts were mandated across infrastructures?*
- 6. What measures could be envisaged to increase the business interest on the side of the utility companies to provide access to their infrastructure for broadband investment?*
- 7. How do you assess the importance of systematic infrastructure mapping / of drawing up consistent inventories of infrastructure? Besides the potential economic advantages for*

electronic communications operators, do you see other advantages that such mapping could entail for citizens, public authorities or other (economic) operators?

9. What information should be included in such maps with a view to facilitating cooperation, infrastructure sharing and broadband rollout? Who should be in charge of such mapping exercises and at what level should it be organised?

10. What would be the approximate cost of introducing systematic mapping?

III. Enhancing transparency and coordination of civil engineering works

Using existing infrastructures is not always possible. As regards new infrastructures, facilitating cooperation in civil engineering works could result in significant savings and could also reduce the various associated public inconveniences. Increasing transparency and coordination could then serve not just economic operators but also (local) public authorities and citizens. More precisely, such benefits may be achieved by:

- Enabling operators to benefit from clear announcements of the planned civil engineering works in a given territory and timeframe. Thus, interested operators could examine possibilities of parallel deploying or co-deploying a (fixed or mobile) electronic communications network or any relevant part thereof.

A few Member States have well run mechanisms of exchange of information between companies concerning civil engineering projects, allowing possible partnerships to be created with the purpose of co-deployment. Yet, this is not the case in all Member States. Moreover, there are large variations on how coordination of civil engineering works is organised.

- Systematically offering possibilities to lay new ducts or other infrastructure when public works are undertaken, such as road construction or maintenance works.

Only in few European regions, ducts are laid in a systematic way when public works are undertaken. This is done either by offering the possibility to private companies to lay their infrastructure, or by having public companies build ducts or dark fibre, which would subsequently be rented out to private operators.

Questions

11. In your view, which substantial benefits would exist in offering possibilities to systematically lay new ducts when undertaking (public) works? In your experience, to what extent would additional potential revenue outweigh the extra costs?

12. What good practices are you aware of concerning transparency and coordination of civil engineering works? Should this be mandatory in the case of publicly financed works?

13. Are you aware of any sources of information concerning planned civil engineering works? To what extent are they comprehensive (for instance covering different types of infrastructure) and easy-to-access? Please specify their scope.

14. To what extent would inventories of infrastructure be suitable for high speed communication infrastructure rollout? What kinds of infrastructures would you consider most suitable for being included in such an inventory? Who should be in charge of such an initiative? Should the obligation to announce planned investments apply only to the public sector, or also to private investors? What time horizon would you consider relevant for the availability of information about individual planned projects, so that this could lead to setting up concrete co-deployment projects? What are in your view the main organisational requirements, including costs, necessary for the establishment and maintenance of such an inventory?

15. What other best practice examples to improve coordination of civil engineering works are you aware of?

IV. Handling requests to roll-out networks in a more efficient and transparent way

Companies often quote problems related to all kinds of authorisations and permits (such as town planning permits, building permits, rights of way, etc.) as factors deterring investment for both fixed and wireless-networks. They refer, in particular, to long and complex permit granting processes, to the lack of transparency on applicable rules and to the lack of coordination between the competent authorities. While an attempt was made to improve the situation concerning rights of way in the latest review of the electronic communications regulatory framework, among others by introducing a six-month deadline, these rules are often not yet applied in practice and more can be done to reduce the administrative burden. Efficiency gains can be thus achieved in particular by:

- Raising awareness and increasing coordination among the authorities responsible for the permit granting processing as to their role in the rollout of high-speed communication networks.

A few national regulatory authorities for electronic communications have taken an active role in involving the relevant authorities, including the regional and local ones, in the fast rollout of communication infrastructure. Some best practices exist where local authorities have undertaken self-coordination efforts in order to facilitate the rollout of mobile networks. However, these cases are currently rather the exception in the EU.

- Creating a centralised or comprehensive database/information access points concerning the permits, town planning requirements etc.

It seems that in most Member States no centralised or comprehensive database/information access points concerning the permits, town planning requirements etc. is available. Moreover, a multitude of locally specific rules exist, especially with regards to the deployment of mobile networks.

- Creating a one-stop-shop for all the necessary permits.

Only few European regions have undertaken concrete steps towards one-stop-shops for rolling out communication networks. A one-stop-shop solution would involve the

competent authorities including local authorities providing relevant information on applicable rules and conditions to a central body. That body would then act as an intermediary vis-à-vis other stakeholders, by taking in requests and dispatching them, as needed. Such body could be vested with additional powers, such as the power to monitor meeting the deadlines. Depending on the institutional arrangements in each Member State and on the existing resources, such body might also be vested with competences to decide upon (some of the) permits required.

Questions

16. How do you estimate the costs and period of time needed for a company to receive all the necessary permits needed to rollout a high speed electronic communication access network?

17. What measures could help increase transparency and streamline the process of granting such permits? What kind of permits should be covered by such measures?

18. What kind of coordination would, in your view, facilitate the most the permits granting process? How could such coordination be best organised? How far should such coordination go and what would be the benefits achieved of the suggested level of coordination?

19. How do you estimate the costs incurred by any measure suggested?

V. Ensuring "ready for NGA access" buildings

In order to achieve the coverage targets in line with the Digital Agenda for Europe, new buildings would ideally be 'high speed network access-ready', i.e. equipped from their construction with technology neutral and open infrastructure. This is because any subsequent works on existing buildings usually generate much higher civil engineering costs, are subject to additional legal constraints (e.g. owner's consent), and cause inconveniences for inhabitants. Gains for operators and citizens could be thus achieved by:

- Providing guidance to owners and property developers in order to ensure that new buildings come "ready for NGA access".

A few national regulatory authorities for electronic communications have developed specific guidance so that new buildings are provided with adequate equipment, while also securing open access and technological neutrality.

- Ensuring open access to terminating segments of next generation networks, including in-house equipment.

A small minority of national regulators for electronic communications choose to mandate, on a systematic basis and regardless of the party owning the network, access to the terminating segments of next generation networks, including in-house equipment. Such solutions are envisaged by the revised regulatory framework for electronic communications but currently they are rarely applied.

- Ensuring that new buildings are next generation access ready.

A small minority of Member States have passed legislation to ensure that new buildings are equipped with next generation access, while also securing open access and technological neutrality.

Questions

20. What existing requirements under construction laws are you aware of regarding in-building equipment for electronic communication infrastructure? Please specify the Member State, region or municipality.

21. What is, in your view, the most suitable and cost effective way to ensure the existence of adequate and state-of-the-art in-building equipment, while also securing open access for electronic communications providers?

22. What would be the advantages and disadvantages of an obligation to equip buildings with open next generation access? How do you assess the additional costs incurred?

VI. Additional cost-saving measures

Additional question

23. Are you aware of any good practices or measures other than those discussed above undertaken in order to facilitate the deployment of high speed broadband access networks? What has been their impact so far? How would you estimate the cost-saving potential of such measures?

VII. Additional comments (please upload a contribution if you wish so)