



Generalitat de Catalunya  
Departament de Governació  
i Administracions Públiques  
**Secretaria de Telecomunicacions  
i Societat de la Informació**

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General Director of Networks and Telecommunication Infrastructures

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Response of the **Generalitat de Catalunya**  
to the Public Consultation of the  
**European Commission**

on the Next Generation Access Networks  
(NGA).



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## 1. Background to the response to the Consultation

The Generalitat de Catalunya is in full agreement with the Commission on the significance and strategic importance of the next generation access networks. We believe that in the next few years the key to the evolution of the economies of the area towards segments of more added value must necessarily involve an intensive use of the new technologies and services, which will require new networks with greater capacity.

In particular, we think that these networks will favour outsourcing services, the applications that incorporate image and video, or large scale access in real time.

While in the past it has been possible to balance the territories through wireless technologies,<sup>1</sup> now this new fibre optics framework will determine the territories connected that will only have a capacity of a few Mbps; new competitive areas will be formed which will condition the implementation of new businesses or the emerging economy.

We are not referring to a short term scenario, although these driving forces of the new economy are already being formed today, and establish an even more differentiated breach between the conurbations and the rural world which concerns us greatly. Therefore, as a Government, one of our priorities is to establish a balanced map of communications that allows the sustainable development of our territory.

Therefore, these new networks must define new “maps of connectivity”, redrawing borders and differentiating connected areas from areas with a poor quality connection. **This could define a new digital breach.** Anticipating this new scenario, as a Government, the Generalitat de Catalunya considers regulation and planning to be absolutely necessary in order to define a future territorial balance and one of equality of opportunities for advanced applications on electronic communications.

In a territory like Catalonia, dominated by the Barcelona conurbation, with areas of difficult access such as the Pyrenees or low population density areas (whether small populations, such as in the Terres de l'Ebre; or populations spread such as Central Catalonia), the problem of the new roll-outs is an important obstacle. Catalonia concentrates in a small territory many (if not all) the difficulties that can be found in other areas.

Therefore, aware of the importance of these and other similar consultations in the future development territory, we wish to actively participate by contributing our vision of the problem and the solutions that we are implementing, while enriching ourselves with the proposals of others, which we will analyse and endeavour to implement and enhancing our country project.

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<sup>1</sup> In our view, wireless technologies are a good access alternative, but not a substitute for fibre optics.



## 2. Executive summary

**The Generalitat de Catalunya shares the position of the Commission in its approach to the new generation access networks. However, it considers that to achieve a realistic image of the broadband market in a territory a joint analysis of Markets 4, 5 and 6 is necessary. The influence of Market 6 is decisive for analysing the entry barriers in the whole of the territory and it has an impact on the network roll-out and the configuration of the supply.**

Recently, the CMT<sup>2</sup> presented its public consultation on the analysis of Markets 4 and 5, and therefore updated information on the case of the Spanish state is available. The analysis includes the regulatory recommendations of this authority and the Generalitat considers that the threshold marked of 30 Mbps should not be the limit of the regulated market, given that speeds of 50 Mbps are still envisaged in networks based on copper technologies inherited from the period of state monopolies. Therefore, thresholds closer to 100 Mbps are considered much more appropriate as they clarify the market and clearly distinguish that the innovative or emerging services not subject to regulation are those derived from the new networks rather than the networks inherited from the old monopolies.

The Generalitat, as a public authority, seeks to facilitate the network roll-out incorporating in all public works ducts, access points and reservation of spaces for electronic communications networks, sharing with other authorities this same initiative and making these new infrastructures available to the market.

In this respect, we believe that the European Commission should encourage similar processes and support these initiatives especially where the market does not reach by itself, making arrive territorially the new services beyond the foreseen one for the performance only of the private initiative and facilitating at the same time and fostering the deployment of the competition.

It is worrying that regulatory authorities, in particular the CMT in the Spanish state, does not take into account the opening of the fibre optics of TESAU<sup>3</sup>, the only operator with significant market power in the state (both Market 4 and Market 5 and which in the last three years has seen its broadband market share increase), arguing that technically, with the technology proposed (PON), it is not feasible. The Generalitat, in agreement with the positions of the Commission, considers methods should be arbitrated so that the alternative operators could have access to the closest point of concentration or use the fibre optics of TESAU to articulate offers in competition, depending on if it is a zone with effective competition or not.

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<sup>2</sup> CMT: [www.cmt.es](http://www.cmt.es), *Comisión del Mercado de las Telecomunicaciones* is the National Regulatory Authority in Spain.

<sup>3</sup> TESAU: [www.telefonica.com](http://www.telefonica.com), Telefónica de España S.A.U., dominant operator and declared SMP (Significant Market Power) by the CMT in Markets 4 and 5.

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### 3. General Considerations

In Catalonia, 47% of homes have a broadband connection (ADSL or cable), according to data for 2007, while 96.4% of companies have Internet connection (95.8% broadband), placing us within the European average. 70% of populations lives at 45 municipalities with more than 20.000 inhabitants.

Aware of the investments involved in the roll-out of new networks, of our difficulties both orographic and of population dispersion, and that if we allow the market to act alone the new networks will be limited to the Barcelona conurbation and a few other points of high economic activity, we have closely analysed the data available in order to incorporate into our public actions everything that can facilitate the new roll-outs and services.

### 4. Markets affected

The coinciding of the current Consultation with that of the analysis of Markets 4 and 5 by the CMT provides us with highly valuable information on retail supply and demand, the existing operators and their current offers. However, we also have information, resulting from the regular contacts of the Generalitat with the telecommunications operators, about the plans and strategies of the main market agents.

In this respect, the current network roll-out map of fibre optics in Catalonia is disappointing. Although this territory has networks that cross the country, these are not available as an end user service. The Barcelona conurbation is almost the only area which has roll-out plans for advanced electronic communications services (vDSL/FTTN/FTTH). However, these plans may be affected by the current economic situation, which does not favour companies running up debt with investments in civil works and forces them to be much more financially conservative.

Outside the Barcelona conurbation the scenario is different. The local loop unbundling competition has a low impact on the share of the dominant operator, TESAU. The CMT analysis of Markets 4 and 5 demonstrates that only when the three local loop unbundling operators are present in a TESAU exchange, or there is one of them and a cable operator (with coverage of more than 60% of the area of the exchange), TESAU's market share falls below 50%. Therefore, the conclusion is that competition by the cable operators is much more effective (in terms of market share) than those of local loop unbundling operators, and it is clear that the local loop unbundling operators have not created significant alternative networks thus far.

The even more worrying data from the CMT analysis is that TESAU, far from losing market share, has increased it in the broadband sector over the last three years.



Focusing on the Catalan territory, where only 18 exchanges of effective competition are detected,<sup>4</sup> the activity of the only cable company is limited to the area of Barcelona and the three or four main Catalan cities. The local loop unbundling operators go further, but still do not reach the major populations of the country, around 50,000 inhabitants.

Faced with this scenario, the question of why alternative operators have not made investments to compete in towns of 70,000 inhabitants with an important business activity such as Manresa<sup>5</sup> (to mention one example) remains. One of the answers received is that transportation from Barcelona to these towns, although it exists, is expensive and invalidates business plans. Although this response may or may not be the most important reason to limit roll-out, the influence of Market 6 is clear in the global analysis of broadband in a territory.

The Generalitat de Catalunya considers that to achieve a realistic image of the broadband market in a territory a joint analysis of Markets 4, 5 and 6 is necessary. The influence of Market 6 is decisive for analysing the entry barriers in the whole of the territory.

## 5. On technological neutrality and gradation of remedies

The Generalitat has always been a defender of technological neutrality (a concept already envisaged in 2005 in the response to the Consultation of the Universal Service Committee). Nevertheless, the abstract concept and its implementation in the specific regulations by the regulatory authorities is more complicated.

Thus, the CMT envisages a threshold of 30 Mbps to differentiate between innovative services, free of regulation, and regulated services. This limit is justified, in accordance with the arguments of the CMT, by technological neutrality and because the vDSL/FTTN planned offers still do not foresee new services but, basically, replicas of existing services (offers on the threshold of 30 Mbps) and foresees that the services above 30 Mbps can be considered emerging and innovative, therefore making up a new market.

This situation can result in the paradox that services still based on the exploitation of the copper network (although renewed) by the former monopoly can form part of the category of innovative or emerging services of this unregulated market.

The Generalitat considers that the threshold of 30 Mbps should not be the limit of the regulated market, given that speeds of 50 Mbps are still envisaged in networks based on copper technologies inherited from the period of state monopolies. Therefore,

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<sup>4</sup> Data from the CMT analysis. 18 exchanges from a total of around 350 in the Catalan territory. Catalonia represents a market of more than 7 million inhabitants.

<sup>5</sup> Manresa data: <http://www.idescat.cat/territ/BasicTerr?TC=3&V0=1&V1=08113>. Number of inhabitants (2007): 73,140; surface area: 71.40 km<sup>2</sup>; population density: 1,756.1 inhab/km<sup>2</sup>; area: Bages; Comarques Centrals.



thresholds closer to 100 Mbps are considered much more appropriate as they clarify the market and clearly distinguish that the innovative or emerging services not subject to regulation are those derived from the new networks rather than the networks inherited from the old monopolies.

We should bear in mind that this message can encourage SMP operators to increase their investment in network renewal, technological innovation, to dispense with the obligations as former monopolies, thereby invigorating a market which, given the economic situation, could be very slow in terms of investment.

Moreover, we believe that establishing the 100 Mbps thresholds now would also foster security in the sector, lowering investment risk because we would already have a clear horizon in the regulation and besides it makes it more independent of the technology, since we could consider that regulating under 30 Mbps or of 50 Mbps is associated with xDSL and that more that these thresholds in FTTH.

## 6. On regulatory provisions

The Generalitat takes a very positive view of the fact that the Committee considers ducts, dark fibre, civil engineering works, the passive components necessary for the roll-out and operation of the networks between all the telecommunication infrastructures as infrastructures. In this respect, all these elements can form part of the facilitators (or barriers) at the time of the roll-out of the networks.

In this respect, public authorities can play a key role as facilitators in the new roll-outs because they plan and/or carry out civil works such as roads, tunnels, bridges, industrial estates, new housing estates, etc.

On 10 June 2008, the Generalitat de Catalunya approved by Government Agreement that all public works of the Generalitat or funded by it would incorporate in their construction the roll-out of support infrastructures for electronic communications and the reserve of capacity when building them. It also specifies that all public works will include:

- In the information study or draft project phase a consultation with the Telecommunications and Information Society Secretariat (STSI),<sup>6</sup> which will report on the section related to electronic communications.
- In the project phase it will be necessary to articulate the section of electronic communications as well as that of rights of access for those infrastructures (for example, rights of access).

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<sup>6</sup> STSI, the Telecommunication and Information Society Secretariat, is the competent body in terms of electronic communications of the Generalitat de Catalunya, and has among its functions: "To exercise the powers of the Generalitat de Catalunya in terms of planning, management, arrangement, regulation, inspection and sanctioning within the field of the Information Society, telecommunications, electronic communications and the radio electric spectrum. The powers over audiovisual communication services are excluded."



- In the roll-out phase the work promoter, if considered appropriate, will request a report from the STSI on the technical quality and correct execution of the telecommunication infrastructures.

Bearing in mind that in Catalan territory a high volume of public works are undertaken by the Generalitat or are funded by it, an agreement of this kind seeks to passively increase the existence of ducts for fibre optics in the long term. It is important to note that the Government Agreement envisages, along with the ducts, the regulation of the rights of access and the reservation of spaces (for radio communication towers or network nodes, for example).

The Generalitat aims to put these infrastructures at the disposal of the market to facilitate the future network roll-outs. Moreover, the Generalitat is also in contact with local authorities to share the technical instructions (which envisage standards of passive infrastructures, for example on ducts, the technical characteristics of the access points, etc.) in order to form a coherent public action, both in terms of roads and urban ground and underground works.

The Generalitat, as a public authority, seeks to facilitate the network roll-out incorporating in all public works ducts, access points and reservation of spaces for electronic communications networks, sharing with other authorities this same initiative and making these new infrastructures available to the market.

We consider that the access to the existing ducts helps to the new roll-outs. That's why we believe that the public planning should have access of the data of the infrastructures of different operators to stimulate the deployment of infrastructures and services. Likewise, it is considered relevant to incorporate the companies of the energetic sector, with an important installed basis of optical fibre, into these exchanges of information.

In this respect, we believe that the European Commission should encourage similar processes and support these initiatives especially where the market does not reach by itself, given that they can be measures that enable the new services to reach everywhere and foster competition.

Nevertheless, this action will not have an impact until there is a significant number of ducts. Therefore, it is considered a future rather than a current initiative. Moreover, it is the main action to ensure the territorial and service balance in the country within 10 or 20 years.

Regarding telecommunications infrastructures in the buildings (called Common Infrastructures of Telecommunication –ICTs- in the Catalan regulation), we have a specific regulation that makes it clear that these infrastructures are property of the Community of Owners of the building, both if it is a matter of a building constructed with the new regulations as if it was with former regulations (Catalan civil code in Book 5th), with the that the symmetrical duties to the operators are assured.



## **7. Measures in the different areas with or without competition**

The objective of the analysis of Markets 4 and 5 is to define the areas with one or more networks, with or without competition, and see if the competition is effective or not, in order to identify the SMP and apply regulatory measures or not.

The study of the Catalan case concludes that there are areas of effective competition, such as determined areas of the Barcelona conurbation, where the Generalitat coincides with the Commission criterion in that there must be no public intervention and the market must be allowed to act while monitoring the market shares to validate the effective competition of the actors.

In other areas it is possible to have several networks but if the TESAU market share<sup>7</sup> is above 50% it would be necessary to apply measures such as the opening of ducts to attempt to invigorate the market.

There are also areas where there is a single network, that of TESAU in the Catalan case, where it was not expected to be able to consider, along with the opening of ducts, the functional separation or the access to fibre optics, which nowadays is not considered by Spanish regulator.

And, finally, the areas without a network, where it is necessary to foster new roll-outs (through public administration acts).

It is worrying that the CMT, the Regulating Authority, does not take into account the opening of the fibre optics of TESAU, arguing that technically, with the technology proposed (PON), it is not feasible. The Generalitat, in agreement with the positions of the Commission, considers methods should be arbitrated so that the alternative operators could have access to the closest point of concentration or use the fibre optics of TESAU to articulate offers in competition.

In particular, according to the CMT, it is not possible to articulate any medium of fibre unbundling as done in the copper scenario (unbundling the local loop), and therefore any sharing of street cabinets, access to local sub-loops or similar. For the CMT, the fibre optics market is limited to ducts, dark fibre and commutation nodes.

Although recognising the difficulty of occupying space on public roads for alternative operators when rolling-out (it cannot be feasible to have four street cabinets where it was planned to put only one), we believe that there is a very important qualitative leap from here to ignoring the possibility or imposing a minimum of two, or an intermediate measure (reservation of space for equipment).

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<sup>7</sup> TESAU is an SMP in accordance with the CMT both in Market 4 and in Market 5.