Committed to Europe

Telecom Networks Regulation

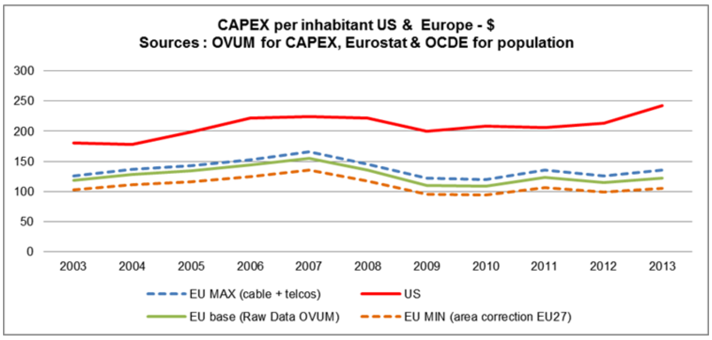
Telecom network regulation in a nutshell: origin and impact on investment in new networks

In the 1990s, a regulatory regime was set up to stimulate competition between telephony service providers, all using the copper lines of telephone networks owned by the former monopoly or ‘incumbent’ in each Member State. The main objective was to encourage competitive prices for traditional telecommunications services, notably for telephone calls. Later, regulators focused on the provision of internet access getting the most use out of the existing infrastructure.

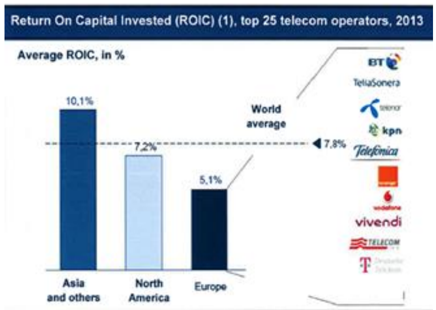
Digital services rely on telecommunication networks and as these services develop exponentially, so does the demand for more data transmission. Whereas in the past traffic demand could be served without changing or upgrading the technology used in the fixed and mobile access[1] infrastructures, today, massively expanding demand requires high and continuous investment to allow network capacity to keep pace and serve consumers efficiently.

In its Digital Single Market Communication adopted May 6, 2015, the European Commission recognised that while network regulation to date had been instrumental in establishing vibrant competition and substantial price decreases – it had also failed to generate the expected level of investment, especially in the much needed transition to ultra-fast networks.

The investment gap between the European Union (EU) and other economies in the area of ultra-fast networks has indeed widened. Whereas in the mid-2000’s, US invested 50 per cent more in telecoms per inhabitant than the EU, today the US invests nearly twice as much, according to all available sources.



This underinvestment, associated in the EU with constantly falling revenues over the last five years, has resulted from the very low return on capital invested. This is at odds with other parts of the world (source: ADL 2013) and is the obvious downside of European network policy.



Most ultrafast network coverage in the EU will result from private operator investment, which will take place if it is profitable. To accelerate and extend coverage, while increasing performance to the levels needed by the European digital economy, it is essential that the regulatory framework better supports those taking the commercial risk of rolling-out new high-speed networks.

Orange[2] believes a substantial shift is needed in the way networks are currently regulated in the EU. As described in this paper, four key changes are required to meet current challenges and restore a positive investment climate, benefiting the overall European economy.

[1] last part of the network serving the end users

[2] In the EU, Orange is both an access provider and an access seeker.

The four key changes required to restore a positive investment climate

Fair infrastructure competition drives network investment and user adoption. Infrastructure owners cannot afford to be left behind in terms of performance and efficiency.

In order to make their investment profitable, competing network owners price their offers so as to attract as many customers as possible to their infrastructure thereby maximizing social welfare, and to generate enough revenues to make the investment profitable. Mobile markets world-wide have been a good illustration of this virtuous circle with infrastructure-based competition taking place since their beginning and a continuous investment in new technologies over the years – from analogue to 2G, 3G, 4G and tomorrow 5G – to the clear benefit of everyone. But this is also now true in the case of fixed networks, where several types of fixed network owner - former telephone providers, cable TV operators and Fibre-to-the-Home (FTTH) operators – compete with each other in the same market.

While the current regulatory framework allows both infrastructure and service-based competition, it has favoured over past years the latter, supporting short-term retail price decreases based on heavy-handed network access regulation. For too long, regulators have been focused on strictly controlling the price for the access to regulated networks and denying network owners any competitive edge from their investment, rather than be concerned by the risk of under-investment in new networks.

It is now time to re-balance the objectives of the framework to favour more network investment. To this end, mutualising the fixed cost of investment between competing operators, as long as it does not reduce the productive capacity and the ability to differentiate for each market player, can reduce the production cost of the industry thereby optimising output and welfare for a given global level of investment.

1. Focus network access regulation on fixed networks

Broadband markets, fixed and mobile, are increasingly converging as customers use fixed and mobile internet access as complementary services with the spread of smart phones and tablets. To answer these needs, consolidations between fixed and mobile network operators are taking place and integrated operators increasingly sell 'quadruple play' offers combining fixed, mobile, internet and TV services. Conversely, as there is no business case for building as many fixed networks as there are mobile operators, the latter, with no fixed assets of their own, will need some form of access to fixed network(s) to compete. This situation will be the most important case for access regulation in the future.

On the other hand, mobile markets have seen fierce competition for 25 years. Since 2007 and as recently as 2014 the European Commission has recommended not to regulate access to mobile. They may now be safely removed from the scope of sector-specific access regulation and remain subject instead to monitoring under competition law. In parallel, spectrum policy must take a more pro-investment approach, providing legal certainty on the technical and commercial conditions under which mobile networks can operate, including a long-term perspective on license duration and equal conditions for spectrum allocation (no reservation).

Focusing the scope of network regulation on fixed networks would improve the investment climate by identifying enduring bottlenecks; when shared between convergent operators, their utility could then be maximised, thereby supporting investment and competition.

2. Ensure a level-playing field - regulate competing fixed networks in the same way

Access regulation was devised to manage the transition from monopoly to competition by favouring entrant over fixed incumbents. The market situation has since dramatically changed. Competition between fixed networks has become the rule in densely populated areas, providing strong incentive for investment. Often in urban areas there is now competition between the telco incumbent and the cable-TV operator.

Regulators struggle with this situation, as the current regulatory framework was designed to target one “dominant undertaking”, usually the former monopoly. They thus arbitrarily regulated just one of the two infrastructure owners, the incumbent operator, distorting the market as the access regulation inevitably limits the technical and commercial flexibility of the single, regulated player.

Orange believes that in such cases and where regulation is necessary, i.e. where fewer than three owners or co-owners of fixed infrastructures compete effectively in an area, it should apply equally to the competing undertakings, and following the existing regulatory principle that fixed access infrastructure should be shared under fair and reasonable conditions. Such equal treatment would restore fair competitive conditions, while reducing the burden on the regulated businesses. Applying to all fixed infrastructures owners, including cable networks, its proportionality could be assessed following the procedure currently referred to in the Article 5 of the Access Directive. Such regulation could be strengthened where one of the fixed network owners is in a position of significant market power in a given area.

Such an approach based on sharing of facilities takes its roots in the current Framework Directive, article 12, and has also been applied recently within the cross sector Broadband Cost Reduction Directive (2014/61/CE). In case there is no social benefit of duplicating a given fixed cost, neither in terms of productive capacity, technical differentiation or competition, or in terms of investment incentive, sharing the infrastructure directly lowers the production cost for the industry and is consequently welfare enhancing.

3. Increase regulatory certainty and reduce market fragmentation - mandating a unique access level per area for a given fixed network

The main modality of network access regulation has been to assist market entry, by creating wholesale markets where “new entrants”, or access-seekers, were able to reach customers via multiple access points in the network of the incumbent operator. This customisation of wholesale offers suits the needs of access-seekers with varying investments strategies or capabilities and protects their different business models but has negative impacts on the underlying investment in the infrastructure. This approach created a maze of constraints on the network owners without any real possibility of simplifying wholesale offers over the years, despite the continual evolution of the market. While there will be room for market based wholesale resellers and competitive entries, the very purpose of access regulation as such in the future will be to support the activities of existing operators with an established commercial presence, as the objective of regulation should switch from promoting to supporting competition. Those operators now have the resources to use less regulated customised wholesale offers.

Today, the regulated operator is also given the responsibility to maintain the economic profitability of competitors that use its network at various levels. This limits the retail pricing flexibility of the regulated operator if, at the same time, it faces competition from an unregulated infrastructure or has to stimulate the take up of very high broadband services with segmented retail prices. With fewer levels of access and more pricing flexibility, network owners could better adapt to competition and market demand, which is essential to improve the business case for investing in a new fibre network. In addition, each national regulator has imposed its own, different, set of access offers for its national industry landscape, contributing to the fragmentation of the EU, which is another source of industry uncertainty.

To correct those negative side effects, any mandatory access to fixed infrastructure should thus be imposed at only one level of the network per area, notably depending on population density.

4. Restore natural investments incentives - reconsidering "cost-orientation" for new competitive networks, promoting co-financing and risk-sharing

Access to the existing fixed network has been historically mandated “at cost”. This price standard prevented any network monopoly from using possible extra profits to subsidise service activities or to unduly raise its competitor’s costs. Its negative effect on network investment was not considered as a concern as the network was already built. This approach is no longer valid in the current context where there is a clear need for investment in new types of network technology, like FTTH, and there is competition between several infrastructures.

The European Commission has started to take account of this issue in its Recommendation on consistent non-discrimination obligations and costing methodologies, dated 11 September 2013, according to which, under certain conditions, cost-oriented pricing is not suitable for access to new fixed infrastructures. The review of the regulatory framework should ensure that cost-orientation is replaced by an obligation to grant access to fixed infrastructures under fair and reasonable terms. Those terms should guarantee that efficient access-seekers, willing to take a fair part of the fixed cost of infrastructure investment, can replicate the retail offers of the regulated network owner, technically and economically.

In this respect, investment in new fibre access infrastructure can be made more attractive, better financed and so increased, if wholesale access-seekers contribute to the stand-alone investment costs with co-investment or risk-sharing models, which should now be systematically preferred over the existing regulated wholesale regime.

As a résumé

	Today: current framework becoming obsolete	Tomorrow: future proof and investment- friendly amended framework
Context	- one single fixed and already built network - regulatory objectives: incentivize service based competition, relying on strong access regulation, and retail price decreases	- new ultrafast networks under roll out – huge investments are at stake, calling for reducing production costs and maximizing outputs - competition has drastically developed; two or more competing undertakings owning fixed networks in several areas - convergence is the market trend
Mobile networks access regulation	- potentially covered	- mobile networks to be out of the scope of access regulation; competition law is sufficient
Trigger for fixed network access regulation	- fixed access imposed to the sole incumbent network based on a concept of dominance	- mandatory access to fixed infrastructures in areas with fewer than three effective competitors owners or co-owners of fixed infrastructures - mandatory access should apply to all fixed infrastructures independently of dominance - symmetric sharing of facilities when duplication inefficient or impracticable - this regulation could be strengthened in the areas where one undertaking would have significant market power
Conditions for mandatory access to fixed networks	- multiple levels of access imposed on incumbent to cover the various competitors' business models	- mandatory fixed access means one single level of access in a given network per area
Economic conditions for mandatory access to fixed networks	- cost-orientation is the rule - exception recently allowed for high speed networks under restrictive conditions	- cost-orientation has to be abolished - promote co-financing and risk-sharing models - reciprocal sharing of facilities when replicability is inefficient or impracticable - mandatory fixed access to be provided under fair and reasonable terms, ensuring technical and economic replicability