

# Digital Regulation Forum 2017

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## **Boosting growth and competitiveness through digitalisation: the model and the role of the wholesale only fiber company**

When the telecommunications sector was liberalized about 30 years ago, opposition from the incumbent telecom operators was exceptionally weak. On the contrary, many operators even supported liberalization. In retrospect, this may appear astonishing looking for example at the current opposition of taxi-drivers against Uber.

The explanation is however quite simple. Since its 1987 Green Paper, the Commission promised that liberalization would not encompass 'line of business' restrictions. With other words, telecom operators would not be prevented to be active at all levels: wholesale, retail and even new markets. Therefore, despite the entry of new operators, the incumbent operators could retain a huge competitive advantage: their network, their physical presence over the whole territory.

Since then, we have witnessed a succession of battles to ensure that the new entrants could get access to incumbent's networks. The main beneficiaries of these battles have been competition lawyers and consultants, who billed their clients impressive amounts to prove margin squeezes and design margin squeeze tests.

### **The British Case**

The British OFCOM was among the first to understand the difficulty to ensure non-discriminatory treatment of new entrants using BTs network. This led to the creation of Openreach.

In the context of deployment of fiber networks, it appeared however that **functional separation was not sufficient** to prevent the retail arm of BT to obtain privileged access to the network and to avoid that the incumbent's deployment strategy is delayed by the legacy of the past (the copper network). Competing operators continued complaining. For example, last year CityFibre alleged that BT refused granting access to its ducts and poles. Ofcom confirmed that Openreach "still has an incentive to make decisions in the interests of BT, rather than BT's competitors, which can lead to competition problems".

Second, functional separation did not foster network investment. The owners of BT could continue to prefer short-term returns and delay investments in fibre where only long-term returns can be envisaged.

In conclusion: OFCOM took a courageous initiative. Its success is however not guaranteed. Legal separation and wholesale-only are not sufficient to incentivise fiber deployment. What is needed is that the wholesale company is controlled by investors

- who do not own a legacy network,
- have no interest in the retail markets and
- are committed to long-term and stable returns.

Legal separation of incumbent players is nevertheless helpful in as much as it constitutes the groundwork for the emergence of a fully independent wholesale-only operator.

## **Two different business models**

As you know, the law of increasing functional specialization and division of labor, which is at the core of the evolution theory in natural sciences, also applies in the business world. Deploying fibre networks means committing substantial capital and other resources without short-term guaranteed revenues. This is a completely different DNA – if you allow me to continue using the terminology of natural sciences – than providing high-speed internet access services, video content or mobile communications services. In the latter cases, the expectations of the investors is that ARPU increases year on year. Such expectations are at odds with fibre investment. Fiber investment will translate in higher ARPUs on the retail market only after several years, when the user's

availability to pay for enhanced quality will have increased, thanks to new applications and usage patterns.

Deploying fiber network is a relatively secure investment, but long-term. It belongs to the asset class of the investment in infrastructures, not to the asset class of the supply of telecommunications services. The distinction between the two business models has increased over time, due to the financial crisis and to the recent changes in prudential and accounting regulations (Basel III-CRD IV, Solvency II, IFRS etc.) Different are the investors, different are the lenders, different are their expectations. That is the reason why the wholesale only business model – as the EU Commission highlighted - can be more “attractive to potential financial investors in less volatile infrastructure assets and with longer term perspectives on deployment of very high capacity networks”.

This approach to the problem is crucial from the point of view of public policies. Most European countries, and Europe as a whole, do not have today only a problem of fiscal consolidation. First of all they have the problem of strengthening the growth, the productivity and the competitiveness of their economies. By enhancing growth and productivity they will also achieve a sound reduction of the debt/GDP ratio, by the denominator side. Of course, for enhancing growth, productivity and competitiveness, they need to increase investments, and especially long-term investments, favoring those that have a more rapid and long standing effect on productivity, such as the investments in infrastructures, R&D, technologies, education and high-productivity companies. First of all, the investments in digital infrastructures, digital economy, artificial intelligence and hi-tech innovative companies.

Measures to boost the digital infrastructures and the digitization of economy and public administration have therefore a central place in the government policies. Smart cities, internet of things, cloud computing, robotics, big data, artificial intelligence, data-driven scientific research, smart cars, e-banking and e-payment systems, e-health services etc., all require a rapid deployment of the fiber network. Even for the mobile communications, access to pervasive fiber networks becomes increasingly crucial. Data usage on mobile communications networks is skyrocketing and the only way for mobile operators to cope, is to expand their high capacity fiber backbone, or to buy passive network elements from a fiber company. 5G and its small cell technology, will even require more capillarity from the underlying backbone fiber network. This capillarity is

required to enable connecting the thousands of transmitters that the mobile operators need to install at short distances from each other to ensure higher capacity and lower latency. So, what should we go for?

### **The Italian example**

The Italian example illustrates the way forward. A large set of measures to boost the digital infrastructures and the digitization of economy (Industry 4.0) and public administration have a central place in the Italian government policies of these last years.

As regards the network infrastructure, the Government approved in 2015 a National Ultra-Broadband Plan aiming inter alia to enable, by 2020, an high speed access network assuring to 85% of population a symmetric coverage at >100Mbps and to 100% of population a symmetric coverage at >30Mbps. To achieve its objectives the Government's Plan allocated 6.9 billion euro coming from the European Structural Funds awarded to Italy or to Italian regions. 50% of the funds available have been allocated for NGA coverage of the market failures areas (so called white areas: around 25% of the population and two third of the national territory; for these areas, investors selected via a public tender will deploy publicly owned fiber networks, available to all service providers. The investors (preferably not vertically integrated with the supply of telecommunications services) will enjoy public twenty years concessions, during which they can recover their CAPEX with the revenues generated by providing wholesale access to the fiber network to telecommunications operators.

The remaining 50% of the available funds will be used to incentivize the deployment of next generation networks in cities and in general in the black and grey areas, giving priority to the most future proof solutions, and thus to the fiber to the home or to the building networks. The types of incentives that will be provided depend on the negotiations with the European Commission (DG Competition and DG Connect), but I think that the incentives which will be allowed, at the end of the day, will be by vouchers for families (to be used to activate their subscription to new generation networks – support for demand) and guarantee schemes on loans obtained from the EIB or from the banking system, in the framework of the Juncker Plan.

The rationale behind this strategic choice is the conviction that the objectives set by the European Digital Agenda are now being overtaken by the speed of technological change. In fact, we are going towards a Gigabit society.

After a long public debate, the Italian Government gave up the choice to impose by law the structural separation of Telecom Italia's wholesale network operation from its downstream retail services. Instead, the government decided to take a broad set of measures, acting on the demand side as well as on the supply side, aimed to incentivize the investment in the digital infrastructure and, consequently, to favour the emergence of new, specialized 'wholesale only' operators willing to launch a competitive challenge to the incumbent.

This policy has in fact contributed to produce some significant developments in the scenario of the Italian telecommunication sectors. The two most important are represented by the entry into the market of the telecommunications infrastructure of two important new players, Enel (the Italy's former state owned company, leader in the production and distribution of electricity) and Cassa Depositi e Prestiti (CDP, the Italian Promotional Bank); and by the decision of the incumbent, TelecomItalia (TI), to increase the investment in new generation fixed networks, in order to face the new competitive challenge and to intercept the growing demand for connectivity produced, inter alia, by the measures adopted by the Government. Enel decided to explore and exploit all possible synergies with the electricity distribution networks owned by the group and with the planned installation of the smart meters in houses and offices; TelecomItalia is trying to translate from copper to fiber its dominant position in the fixed telecommunications market; CDP bought a large stake in Metroweb Italia, an unlisted joint stock company, which had deployed a dark fiber network covering nearly all the Milan metropolitan area and the cities of Turin and Bologna, based on FTTH technology.

One year ago, both TI and Enel proposed a merger to Metroweb, valued also for its consolidated know-how in the design, construction and management of FTTH networks.

The competition for the acquisition of Metroweb was won by Enel which, in December 2016, formed with Cassa Depositi e Prestiti, a new company Open Fiber SpA (OF). In the black and grey areas, OF currently connects 1,2 million units with FTTH network and will provide FTTH coverage to approximately 9.6 million homes in the 2016-2021 period, which represents an investment of around € 4 billion. Meanwhile OF will try to win the tenders for the construction and the commercial exploitation of the state-owned network in the white areas. Few weeks ago, OF has in fact won the first tender, concerning six Regions, and seems well placed for the others (not yet awarded).

The business model of the new company is deploying and exploiting over the long term, a future-proof fiber network in Italy, providing access to telecom operators and large business. OF has no legacy network and no interest in blocking access. On the contrary, OF is in dialogue with all operators, listening to their needs and examining how to deal with them to expand its client's portfolio. The economics of Fiber to the Home is large fixed and sunk costs of passing homes but comparatively low marginal costs when it comes to connecting additional subscribers. The operating costs are lower than those from copper networks, the reliability is higher and energy consumption lower. This means that in order to recover our initial investments, OF needs to sign in as many as possible customers. OF has for example already entered into agreements with Vodafone and Wind/Hutchinson.

OF's network is conceived as an optical platform for any kind of technology/architecture (FTTH, FTTB, P2P, backhauling for mobile and wireless fixed operators), assuring an open, transparent and non-discriminatory access conditions to all service providers. It delivers wholesale passive fiber services and if needed also active equipment in the network. Following the Metroweb's experience, one of its key assumptions is the re-use of the existing infrastructures owned first of all by local authorities and national or local public utilities (such as energy, gas, water supply, public lighting, traffic lighting and heating networks)<sup>1</sup>. This allows a consistent reduction in digging costs, time of roll-out, and environmental and social costs.

Open Fiber's business model is clear. The question is, however, what the business model of the incumbents will be. We see for example that Telecom Italia and Fastweb have also started deploying Fiber to the Home networks.

The crucial question, however, is: do we have, in Italy, the market space for an infrastructure competition, in which two or more operators can obtain an adequate return on investment?

Duplicating fiber networks clearly involve significant uncertainties and risks. This explains why overbuild is very limited in Europe today. According to the consensus of analysts, fiber network competition would be profitable, in Italy, only in the 10 to 12 major densely populated metropolitan areas of the country.

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<sup>1</sup> Starting from a green field scenario, in Bologna and in Turin, Metroweb re-used the existing infrastructures for more than 50% of the whole track.

Outside these geographic areas, overbuild would not be a sustainable business model. Therefore, we should envisage, for the remaining part of Italy, an agreed or *de facto* partition of the territory between the two major competitors or a divestiture of the fixed network of Telecom Italia, followed by an agreement between Open Fiber and the netco of Telecom Italia, to merge both network companies. The latter scenario could boost the deployment of fiber outside the densely urban areas and prevent a digital divide of Italy. The amounts needed should be substantial.

However, I think that the analysts have not yet adequately considered two specificities of the Italian market.

First, the contribution of the public funding in equity and the incentives - worth about 7 bn euro - recently earmarked for fiber networks. This public funding will significantly reduce the amount of private capital required.

Second, the absence, in Italy, of cable TV networks, able to compete with the telecommunications infrastructures in providing connectivity to households and businesses. This absence is due to regulatory restrictions imposed by the Parliament in the eighties with the aim to protect the television duopoly between the State-owned RAI and the Mr. Berlusconi owned Mediaset. This has been for years a handicap for Italy, given that the incumbent telecom company, Telecom Italia, has not been obliged to invest to cope with the competition of the cable TV networks like incumbents of other countries were compelled to do. . Now the absence of cable TV networks could be an advantage for investors in NGN. In fact, before the end of 2020, or at least 2022, Italy will be obliged, under the European spectrum policy, to allocate to wireless mobile communications services a great number of frequencies now used by the television broadcasters: the so-called second digital dividend. Consequently, the digital terrestrial broadcasting of television programs, which in Italy occupies more spectrum than in other Member States, will be obliged to migrate to broadcasting on the fiber networks, expanding the demand for high quality connectivity on the Italian fixed telecommunications infrastructure.

### **Few final words on regulation**

Let me conclude with a few words on regulation. OFCOM took a courageous initiative, taking into account the current regulatory framework. However, only

divestiture of the wholesale operation can deliver both non-discriminatory access and long term investment incentives.

The ball is now with the EU institutions.

I tried to explain the reasons why the whole-sale only fiber company model has many advantages and produces many benefits in terms of public policies. It allows regulators to better ensure open competition among telecommunications service providers, to ensure that the playing field is indeed level. It favors long-term investments in the construction of new generation infrastructure (FTTH and 5G), key factors for the growth and competitiveness of European economies, and makes it easier for governments putting in place market friendly incentives. The European Commission also seems to share this approach. The Commission highlights that network owners *“that do not have retail market activities and whose business model is therefore limited to the provision of wholesale services to others, can be beneficial to the creation of a thriving wholesale market, with positive effects on retail competition downstream. Furthermore, their business model can be attractive to potential financial investors in less volatile infrastructure assets and with longer term perspectives on deployment of very high capacity networks. (...) The competition risks arising from the behaviour of operators following wholesale-only business models might be lower than for vertically integrated operators, provided the wholesale-only model is genuine and no incentives to discriminate between downstream providers exist”*.

However, the actual EU Commission’s proposal for a European Electronic Communication Code falls short of empowering national regulators to impose structural remedies such as legal separation and requirement of different controlling shareholding of the legally separated entities, powers that are vested to the national competition authorities. The code seeks only to carry over the current rules allowing national regulatory authorities to impose functional separation. While the EU Competition enforcement practice now gives priority to structural remedies over behavioural remedies, the Commission proposes the opposite for the electronic communications regulator, without providing any justification for its inconsistent approach.

Therefore, I think that the 2017 review should give to national regulators the tools to impose ownership separation, when needed, and should ensure that the regulatory treatment of wholesale-only undertakings provides the necessary safeguards for investors. Let us work together to improve the Commission proposal in this sense.