Regulation 2.0

This working paper should be seen as a first personal input to a general discussion on how a new regulatory approach in Europe could be designed. The paper was written using economic reasoning and builds on several discussions and other inputs by colleagues and important stakeholders of the industry. While being a high-level analysis, it has to be seen as a living document which needs to be developed further, and some positions/proposals might be modified in further debates.

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Georg Serentschy
CEO Telecommunications and Postal Services

Austrian Regulatory Authority for Broadcasting and Telecommunications

Executive summary

This paper outlines a proposal for a future design of the regulatory framework in Europe, “Regulation 2.0”. The need for changes in regulation policies and regulatory practice arises from quick technological progress and severe changes in the structure of telecommunications markets. The **goal** is to **find new approaches** which **improve investment activities** and **provide more flexibility** while maintaining and even **fostering competition**. The **key aspect of Regulation 2.0**, therefore, is a **more dynamic regulatory framework** which is **based on several focal points**:

- Creating a more flexible environment;
- Promoting an integrated market;
- Granting access and designing clear net neutrality rules;
- Shifting the focus of national regulators towards new challenges (such as quality monitoring);
- Establishing dynamic efficiency and intermodal competition as the centrepieces of regulatory policies;
- Strengthening technological neutrality as a basic principle.

In addition to the new regulatory approach, measures in other policy areas have to be designed to **create a general investment-friendly environment**, for example by **strengthening European Industrial Policy** and by facilitating the **formation of venture capital** to **support new business models**.

Altogether, the **investors’ confidence in Europe’s regulatory system and the telecommunications industry** has to be re-obtained in order to **position Europe among the world leaders** in terms of ICT development.

Paving the way towards a new regulatory approach for Europe

A fast development of new technologies, perceived low investment activities in Europe compared to other parts of the world, the increasing importance of OTT players and a corresponding shift towards all-IP services let us reflect on the European regulatory approach in place. It is almost without controversy that a new interpretation of some regulatory rules is needed in order to increase Europe’s competitiveness. Moreover, other areas of European policy have to contribute to the development of the telecommunications industry to create an atmosphere for reaching the goals of the Digital Agenda. In the following, some points are made which should be considered in future policy discussions.

This **new approach is based** on an **overarching set of guiding principles**:

- Facility based competition is the key driver for a competitive landscape;
- Convincing investment incentives to attract investors;
- A series of measures to strengthen the demand side of the market;
- Focusing on a flexible framework for NRAs instead of regulatory micro-management in order to deal with the specifics of each market;
- Achieving economies of scale and a single market through harmonisation is a necessary pre-requisite, but not sufficient for overcoming current dilemmas.

General structure of the regulatory framework

Creating a more flexible environment

Current regulatory policy in Europe is – in some respect – **very static**. Since the framework directive for electronic communications networks and services of 2002, the industry has changed in many ways, especially regarding technological progress. In contrast, regulatory policies on an EU-scale have only changed gradually with respect to directives (in 2008), but significantly more on the basis of soft law (recommendations, guidelines, etc.) which inherently bears more uncertainty (as a result of being less predictable and not strictly binding for NRAs, etc.). These changes also did not seem to be part of a coherent strategy. Moreover, the fixed three-year interval of market analyses makes it difficult for national regulatory authorities (NRAs) to always keep pace with market developments.

For **Regulation 2.0, a more dynamic approach** must be developed, with tools that **enable the regulator to react faster to changes in the eco-system** (market conditions, technological development, etc.). This does not necessarily imply that the framework as a whole must be re-designed. Rather, a more pragmatic model is needed: if a concept (for instance, the NGA recommendation with its focus on passive infrastructure) does not successfully deliver proof of concept or if it is economically not viable, this concept needs to be revisited. Waiting until the next review of the EU framework might require too much time. Hence, there should be the potential to give new approaches a chance, evaluate them and, in the case of success, harmonise them across Europe with the tools available. To guarantee legal certainty and minimise investment risk, this has to happen within clearly defined boundaries. Sometimes, there exists a conflict between the different targets of harmonisation (across Europe) and deregulation. Harmonisation just for the sake of trans-European offers, economies of scale or a less fragmented regulatory landscape is not worthwhile as long as NRAs are bound to proportionality, the current interpretation of the existing framework and competition law principles.

Also, general competition law alone might be sufficient for some markets (with the focus on passive infrastructure access) and, therefore, sector-specific regulation can be withdrawn in these cases. Nevertheless, it would be preferable if the close monitoring of these markets remained at the hands of the NRAs, because they already have the required know-how to fulfil this task.

Promoting an integrated market

The formation of a single European telecommunications market is to some extent still at an early stage, even though the structure of the industry is “harmonised” increasingly with respect to transnational companies and standardisation issues. There are two opposite developments going on right now: First, service markets are becoming more international or to some extent even global; second, network infrastructure markets are becoming more and more fragmented, as the roll-out of new infrastructure, to which a different set of regulation applies, is going to happen regionally. Regulation 2.0 has to take into account these developments. In some areas, more harmonisation in regulatory policies throughout Europe (e.g. universal service, numbering, spectrum management, authorisation, end user provisions, etc.) or a one-stop-shop approach might be sought.

The creation of a single European market has the additional positive effect that more integrated firms will be in a better position to develop working OTT services than national companies. It is the OTT and service layers which will be decisive in the future and which need to be addressed by coherent and long-term industrial policy in Europe.

Fulfilling the need for IP access and net neutrality rules

“Skype” and “WhatsApp” are some of the first envoys of an all-IP based future. Such over-the-top players (OTTs) are changing the telecommunications industry towards a more clear-cut structure, where vertically integrated firms will be the exception rather than the rule: Network operators will focus on operating their networks (with different qualities) and service providers will – based only on broadband interconnection – connect the end users by messaging and telephony services. What is needed for service providers is a basic standardised IP access product which is able to deliver a multitude of services (designed as close as possible to LLU, and not necessarily a multitude of service-specific access products). Private users, on the other hand, need open access to the Internet and an underlying infrastructure with appropriate quality characteristics which could be defined by a single regulatory/political approach instead of approaches from different areas (universal service, net neutrality/minimum quality, etc.). In this context, net neutrality rules should also guarantee OTTs the provision of their services.

Shifting the focus of national regulators

While some tasks will not be necessary anymore under a new framework, national regulators will not shed their full range of duties. The main tasks will still be the regulation of physical access to network infrastructure and spectrum allocation (where this is within the remit of the NRA). However, as OTT players take over, NRAs will no longer be required to concentrate on traditional voice and interconnection issues. At the same time, new challenges for NRAs will emerge:

(i) Providing end users with detailed information about quality characteristics of their broadband connections;

(ii) Spurring investments on a national scale while not tempting to grant as much access as possible;

(iii) New requirements of interoperability in the face of the rising importance of OTT players – this might be an issue better be covered by competition law (as it might focus on structural measures) and on the European scale (as OTTs tend to be multinational);

(iv) A shift in the general focus (for example, also towards supporting the goals of the digital agenda while maintaining technological neutrality).

Concrete challenges for regulation

Dynamic efficiency should become increasingly important

Today, the focus of telecommunications regulation in Europe is to some extent on promoting static efficiency. Low prices for consumers are widely seen as the ultimate goal. However, there are a few drawbacks that arise from this approach. The main downside is that firms – especially incumbents – can hardly earn the profits needed for broad investment in new infrastructure. The entrants, on the other hand, have only few incentives to invest in their own infrastructure, because they can easily access the incumbent's networks (option value). The "ladder of investment" concept, which tried to combine static and dynamic efficiency, failed in this respect and today it seems somehow more appropriate that competitors get a less deep but broader footprint when customers' demand moves towards quadruple play offers and one-stop-shopping for electronic services.[1]

One needs to realise that the ultimate goal of regulation – to favour end users – depends not only on prices, but also on higher quality in the long term and, thus, on investment. Therefore, the focus of regulation has to shift from static efficiency towards a much more dynamic approach, which should also be reflected in the toolbox at hand (but which in the end might conflict with harmonisation goals). A step in this direction would also be to concentrate on intermodal competition, as described below.

Setting the focus on intermodal competition

Mobile operators increasingly compete with fixed line services, and cable companies, which concentrated more and more on digitalisation and the provision of high speed broadband, became the most impulsive competitive force in telecommunications markets in recent years.[2] Especially when it comes to broadband services, the implementation of LTE and full adoption of DOCSIS 3.0 will sharpen the competitive pressure from mobile and cable networks.

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[1] It is worth noting that the concept of "ladder of investment" was instrumental for opening the market. However, it became obsolete when it comes to fostering investments in a new infrastructure.

[2] According to Cable Europe, in 2013, one out of two households will have access to a 100+Mbps cable broadband connection.

On the other hand, alternative network operators using the incumbent's legacy networks through regulated access, were only to some extent able (or willing) to deploy their own infrastructure to the end user and therefore climb the ”ladder of investment” to the top. To achieve the goal of sustainable effective competition, the focus of every regulatory policy should therefore clearly change from an intramodal towards a more intermodal holistic approach.[3] Competitive forces stemming from developments in the mobile and cable industries should be promoted, while they should also be considered in market analyses. It has to be borne in mind that regulatory measures for legacy networks might also have effects on other infrastructures. For example, lower copper access charges might reduce incentives to invest in cable or mobile broadband, because of a lower overall level of broadband prices.

In this regard, it should be highlighted that, today, regulation often seems to focus too much on details (“regulatory micro-management”), for example, on ensuring consistency between different access products in the value chain, on how costs should be calculated, etc. This creates insecurity and high regulatory costs because of high complexity. Rather, regulatory policy should develop further sound fundamentals of intermodal competition.

Technological neutrality

The focus on technological neutrality, which is somewhat put in doubt in the context of the Digital Agenda targets (favouring fibre deployment), is closely related to the fact that intermodal competition plays an increasingly important role. For the end user it does not matter over which platform a service is provided. Hence, for the definition of end user markets, the underlying infrastructure of service provision should not matter. Similarly, for granting public subsidies, technology should not play a role as, from the demand side and the customer's valuation, it is not at all clear that an enforced move towards a particular technology meets current and near-term requirements. Focusing on demand side measures rather than supply side aid for network deployment would also guarantee more technological neutrality.

Quality monitoring and net neutrality

Bandwidth promised in advertisements often does not reflect real bandwidth as observed by the end user. A main task for regulatory authorities will be to monitor the quality of services provided by network operators to their customers. This is particularly important with regard to the net neutrality debate. Without net neutrality rules, services can be blocked or at least the bandwidth for these services might be reduced. It can be expected that this would have negative impacts on investment and innovation in the services industry and ultimately on the end user. Therefore, clear rules for net neutrality, which facilitate innovation on the service level (both for managed services and for best-effort Internet), have to be developed and need to be ensured.

[3] However, in some areas, the full range of access regulation will remain important, for example, for transnational business service providers and their customers.

More than sector-specific regulation is needed …

Regulation 2.0 must **not only be a buzzword** – rather, the launch of a new regulatory concept should be accompanied by **actions taken in some other policy areas**. Additional measures as described below and a focus on attracting private capital should come along with any new regulatory policies:

- Strengthening European Industrial Policy, in particular for the ICT sector;
- Developing a Venture Capital Ecosystem in Europe;
- Supporting the development of European OTT players (e.g. by provision of venture capital);
- Facilitating technological progress of vendors;
- Increasing digital literacy;
- Assisting private funding; directing public funds only to cover those areas, where otherwise no one would invest, but taking into account the development of the demand side;
- Measures on spectrum policy to assign capacities (that become available, because services such as broadcasting might be all-IP-based in the future) for telecoms services.

Even though Europe is challenged by an extensive debt crisis, new **investments in modern electronic infrastructure will pay back** in the short as well as in the long term. The **telecommunications sector** is well known for its **positive impact on economic growth** not only through the concrete deployment of infrastructure but also through indirect effects, for example by changing production processes and enhancing communication. Therefore, member states of the Union as well as the European Institutions (for example via the European investment bank, EIB) are called on to invest in telecommunications infrastructure. Private capital in turn thirsts for safe havens. The long-term focus of pension funds would fit the investment patterns of the telecommunications industry quite well.[4] Today, however, investors seem not to be convinced to get decent returns from the sector. The **main challenge for regulatory policies** therefore is to **re-obtain the investors' confidence in both, Europe's regulatory system and the industry**.

4 For further discussion on this topic, c.f. "Telco business models at a crossroads – Towards new ways of financing super-fast broadband", a paper recently published by Georg Serentschy.