CERRE CENTRE ON REGULATION IN EUROPE

Convergence, consolidation, uncertainty: future-proofing electronic communications regulation

Policy paper

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This policy paper has been prepared within the framework of a CERRE Executive Seminar which took place on 26 September 2013 and which has received the financial support of a number of stakeholders in the electronic communications industry, including CERRE members. As provided for in the association's by-laws, it has been prepared in complete academic independence. Its contents and the opinions expressed in the document reflect only the author's views and in no way bind either the CERRE Executive Seminar sponsors or any member of CERRE.

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1. Introduction

By forcing everyone in the industry to revise their strategy and go back to the drawing board, the current economic crisis has made the future of electronic communications in Europe more open than it has ever been in the last decade. Strategies currently being established carry more uncertainty than before. Technological evolution is open. As a consequence demand is less predictable than it used to be since there are potentially many ways to satisfy customer needs, and the success of a new offering might depend as much on timing and marketing as on the strength of the underlying technology. The industry structure on the supply side is also more complex than before. So-called OTT players are competing more and more directly with the more traditional industry members, i.e. the network operators, and fixed/mobile convergence is on the horizon (starting with bundled offers).

In addition, there is a widespread perception that the EU is now lagging behind the US as regards electronic communications. For sure, a number of indicators show a gap in recent years between the two sides of the Atlantic, for instance as regards the deployment and penetration of 4G networks or the profitability of the industry. Other indicators, including end-user prices, point in the other direction. The welfare effect is less clear, to the extent that supply-side indicators might not take into account differences in demand between both sides of the Atlantic, for various reasons (economic or cultural). Furthermore, whether regulation is the main cause, or even a cause, or such a gap is also not established: the global economic crisis is having a longer and deeper impact in Europe, which might depress demand for ICT.

On 11 September, the Commission issued a proposal for a Regulation on a Connected Continent, which would modify and complement the current regulatory framework for electronic communications.[1] Ahead of a long legislative procedure, instead of joining the discussion about the details of the proposal, we find it preferable to use the opportunity to take a longer view,

[1] Proposal for a Regulation laying down measures concerning the European single market for electronic communications and to achieve a Connected Continent, COM(2013)627 (11 September 2013).

both backward- and forward-looking, and to reflect on the proposals in the light of the experience with the current regulatory framework and of potential upcoming trends.

Guiding principles

The analysis conducted in this paper rests on the following principles of good governance.

First of all, any legislative or regulatory action should rely on a good understanding of the issues to be addressed and of the policy objectives to be attained. In particular, one should beware of blending together lines of analysis that do not necessarily coincide.

Secondly, previous legislative and regulatory actions should be fully taken into account, as regards not only the specific outcomes, but also the principles laid out therein. In any event, if the authority intends to abandon some of these principles, it should signal this clearly.

Thirdly, law and regulation should aim to be sustainable, in the face of technological, demand and supply uncertainty. This would imply that, for instance, the regulatory framework should not be rendered ineffective or obsolete if the market develops in one specific way or another. This would also mean that, as much as possible, choices as to where the market goes and how it goes there should be left to be driven by market forces, more specifically by consumer demand (especially in a time of austerity where private and public money must be wisely spent).

2. The multiple aspects of the internal market – Innovation and industrial policy

The Commission's stated objective is to achieve the Digital Single Market; in legal terms, its proposals are based on Article 114 TFEU. Yet when it comes to electronic communications, there are many different aspects of the internal market, which do not always follow the same line of analysis.

First of all, we have the more 'boiler-plate' or usual internal market aspects, for instance the ability of a telecom provider from Member State A to establish itself in Member State B (and its

corollary the ability of customers in Member State B to purchase services from that provider). Establishment of providers into another Member State has taken place in mobile, but not to the same extent in fixed (except as regards services for corporate users). It is not clear what would be gained by increasing the prevalence of cross-border establishment of telecom providers. For fixed providers, especially, greenfield establishment is not that attractive, and the alternative is cross-border consolidation, which could raise serious competition law concerns.

Similarly, the ability of customers in Member State A to purchase services from a telecom provider in Member State B – another 'boiler-plate' internal market aspect – realistically only concerns large corporate users purchasing pan-European services. For individual consumers, market competition typically takes place locally. Indeed this is one of the main difficulties in electronic communications policy making: from the perspective of individual and small business users, markets tend to remain local (i.e. at Member State level). Accordingly, providers develop local business strategies, designed for the specificities of each local market. EU electronic communications regulation, with its decentralized implementation and enforcement, reflects this reality, and might of course in return reinforce it. The causal link is not as one-directional – regulation causing fragmentation – as it is sometimes made out to be, however.

While the 'boiler-plate' aspects set out above may not seem very convincing, the analysis can be refined by looking at less frequently invoked aspects of the internal market. For instance, the internal market also implies the ability of customers in Member State A to use services while in Member State B, which is a feature of mobile communications (and usually involves roaming). These services consumed abroad include not only mobile services as such, but also any services provided using mobile data communications, hereinafter "content provision".[2]

Indeed, once data communications and content provision are factored in, it is conceivable that high changes for data consumption abroad create an externality on content providers. When customers reduce their consumption of mobile data while abroad, they are affecting not just

[2] Content provision being construed broadly to include the provision of content as such (YouTube, etc.), but also services (e-mail, search, browsing) and applications (social networks, cloud computing, etc.), i.e. the whole content/service/application layer sitting atop the networks.

their own welfare and that of other customers, but also that of content providers. In clear, customers refrain from browsing, using search services, consulting maps, downloading or streaming music and video, doing e-banking or e-commerce, etc., with content providers (wherever they location) suffering losses from this. Since the content providers are not involved in the transaction between the mobile subscriber and its mobile provider, where high data roaming charges are imposed, there could be an externality. In an ideal world with no transaction costs, content providers might make a side-payment to mobile providers to reduce roaming charges and thus stimulate data consumption when abroad, but this does not happen in real life.

Once content provision is factored in, another internal market aspect appears, namely the ability for customers in Member State A to do business with content providers from across the EU, using electronic communications services, and conversely the ability of content providers to conduct business with customers across the EU, using electronic communications services. From the customer side, this brings the network neutrality cluster in the picture. Yet from the content provider side, this aspect of the internal market can go beyond the mere ability to serve customers across borders. Content providers might also want to offer pan-European services, which not only cross borders but also present a uniform 'look and feel' across the EU. This is where fragmentation across the EU begins to matter.

Similarly, as regards electronic communications services to corporate users in particular, electronic communications service providers themselves also seek to deploy pan-European offerings, going beyond the mere ability to offer services cross-border, to encompass the ability to offer a definite set of services across the EU.

When the internal market analysis include a pan-European aspect, it also begins to connect with industrial policy and innovation policy: the ability of providers – existing ones and perhaps more importantly emerging ones – to scale up their offerings to a pan-European level is a crucial factor in stimulating competitiveness and innovation.

In our view, the core aspects of the Commission proposals are not the 'boiler-plate' internal market aspects, but rather the less standard ones, namely the externalities on content provision created by restrictions on consumption abroad and the difficulties in scaling up to put on the market pan-European offerings. It is an internal market analysis which is closely linked with the Digital Agenda.

3. Fragmentation and convergence – a paradox

In the light of the above, we face a paradox when assessing the extent of the problem caused by regulatory fragmentation and the extent of the benefits which would be brought about by regulatory convergence.

From a bottom-up perspective, literally starting from the wires in the ground and the cell towers, it seems clear that Member States would and should reach differentiated regulatory solutions. After all, they do not have the same geography (territory, population) and they do not share the same history of telecom development. There is much path dependency at work: for instance, Member States where cable TV networks were widely deployed before liberalization have a different starting point than those where the incumbent telecom network was the sole available network upon liberalization. Even within Member States, a measure of geographical differentiation in regulation is now accepted.

Taking a top-down perspective, i.e. looking at the sector from the vantage point of a content provider whose services are carried on electronic communications networks, might lead to the opposite conclusion, however. When such a content provider seeks to offer cloud computing services across the EU (and worldwide), it would seem natural that electronic communications services (which serve as inputs for its cloud computing services) are supplied under uniform conditions across the EU.

Both convergence and differentiation/fragmentation can be justified, depending on the perspective. In order to solve this paradox, policy expectations must be made explicit. At first

sight, we find it unrealistic to expect, for instance, price uniformity across the EU, or a specific industry structure across the EU (a given number of number of pan-European providers). Indeed no serious reflection has been undertaken as to how that industry structure would be like. Yet a number of precedents are available: 'managed' pan-European restructuration, starting from a landscape of national champions, has been attempted in the banking, air transport and media sectors, for instance. In the banking sector, whilst pan-European operators have appeared in commercial and investment banking, retail banking has by and large remained structured along national lines. Greenfield entry has occurred in a limited number of cases, and cross-border consolidation in retail banking has floundered with the financial crisis. In air transport, cross-border consolidation and alliance building have borne three major pan-European alliances, whose footprints are centred on different areas of the EU, however. In the media sector, pan-European groups have emerged in content production and to some extent in broadcasting and content distribution, next to a large number of public and private actors whose business remains essentially national. All in all, these three examples should be cause for caution about the prospects for cross-border consolidation in the electronic communications sector, certainly if held against a preconceived ideal of pan-European operators competing across the EU.

A more reasonable assumption would hold that some level of differentiation will and should remain, because of different facts on the ground. The crucial point is whether the ability of national regulators to pursue differentiated routes also extends to policy considerations, as they are reflected in the remedies imposed on SMP operators, for example. Calls for some regulatory experimentation to be allowed within EU electronic communications regulation were resisted, and in practice not much experimentation occurs. The pattern of regulatory implementation so far has not been characterized by learning-by-doing on the heels of experimentation led by maverick NRAs from smaller jurisdictions. Rather, larger NRAs have been taking a leading role in developing solutions that are then extended throughout the EU. Despite the risks associated with regulatory experimentation, the inherent lack of prior knowledge regarding the regulation of a highly innovative sector would justify leaving NRAs some leeway. Yet, from a top-down perspective, such experimentation can be seen as a threat to pan-European offerings.

In that respect, the proposal to introduce pan-European harmonized input offerings might offer a way out of the paradox, by creating a basis for content providers (and providers of electronic communications services to corporate users) to operate at an EU scale, whilst otherwise leaving some leeway for NRAs to fashion regulation according to the situation of their jurisdiction. Having put in place harmonized offerings, perhaps there would even be more room for regulatory experimentation, and for incentivizing operators voluntarily to improve upon the regulated harmonized input offerings. This would require, however, a clear articulation of the rationale for these pan-European harmonized input offerings: they would then be not so much a feature of the SMP regime, but rather a measure to achieve the internal market by offering a solution to the convergence/differentiation paradox.

4. The mirage of single EU authorization

Against the above, doubts are allowed on the real significance of a system of single EU authorization in electronic communications, and on its appropriateness. Single EU authorization, as put forward in the Commission proposal, is an answer to the 'boiler-plate' internal market aspects set out above, which might not be the really important aspects at this juncture.

As for its significance, a single EU authorization will not displace the need to obtain scarce resources (spectrum, numbers, rights of way) in each Member State, one by one. So electronic communications providers seeking to operate in another Member State will still face significant challenges in establishing themselves, unless they proceed by way of acquisition, or they enter partly or entirely on the basis of wholesale inputs procured from incumbent firms (MVNO, etc.).

Another core regulatory burden on operators comes from the SMP regime. It seems that SMP regulation would continue to be administered by each Member State for its territory (as is the case now), with relatively light duties to coordinate with the NRA of the home Member State of a provider holding a single EU authorization, when such a provider is concerned by the SMP regime. In such a situation, the added value of the single EU authorization is fairly limited. In any event, the historical evidence is against NRAs carrying out a proper assessment or supervision of

practices occurring outside their jurisdiction, affecting consumers in other Member States. In the electronic communications sector, the European Commission had to intervene via a special (and controversial) regulation to correct the failure of NRAs to regulate roaming, which is the closest we have come to an instance of home-country control. Furthermore, looking beyond electronic communications, home-country control failed in the financial sector, and is now replaced by centralized supervision, with the Banking Union.

5. A level-playing field

As indicated above, technological and market changes are upsetting well-entrenched assumptions about competitive relationships. For one, the rise of bundled offerings (triple-play, quadruple-play bundles) puts operators that cannot directly offer these bundles at a competitive disadvantage. Quadruple play, in particular, involves the combination of fixed and mobile communications offerings; considering that the number of mobile operators in any given country tends to be superior to the number of fixed operators, one or more mobile operators will not be in a position to offer quadruple-play bundles on their own.

At the same time, classical services offered on a dedicated basis via electronic communications networks – voice telephony and TV distribution – can now also be offered over IP networks with comparable (if not always equal) quality. This creates a new competitive relationship between network operators, which used to offer these services directly with network access, and the so-called Over-The-Top providers, which offer IP-based services riding on the networks of the network operators. More fundamentally, this means that the classical services become a far less significant part of any commercial bundle, since OTT providers offer them for free or for a very low price.

In the long run, these trends can turn network operators into commodity data carriers, with value being generated at higher levels in the chain (content, applications and service provision).

Against this background, a policy debate has arisen on whether intervention is needed to ensure a level-playing field as between competitors. In the case of quadruple-play bundles, this would involve maintaining wholesale fixed regulation to ensure that the maximum number of existing operators can offer competitive bundles. In the case of OTT providers, this would involve ensuring that they face the same regulatory obligations as providers of traditional services, especially as regards universal service, consumer protection, emergency services (in the case of voice over IP) or must-carry and content regulation (in the case of IP-based TV and VOD).

Even if many statements evidence that the Commission is aware of these issues, they are not directly addressed in the proposal.[3] On the basis of the principles set out in the introduction to this paper, a number of recommendations can be made as to how to address level-playing field claims. In line with technological neutrality and reliance on economic analysis, two services which, although differing in the underlying technology, are functionally equivalent and stand in a competitive relationship (as substitutes) should be subject to the same regulatory obligations. Until now, the Commission and other policy makers have relied on a somewhat formalistic analysis, based on the interpretation of legal categories and on technological considerations, to hold that IP-based services do not fall under the scope of the regulation applicable to classical services. That analysis increasingly appears contrived. Instead, it would be preferable to face the issues squarely, and re-examine the policy considerations underpinning the regulation of classical services, to see whether regulation is still justified and whether it should evolve or change as it is applied to a more technologically diverse range of services.[4]

As regards the level-playing field concerning quadruple-play bundles, here it would appear inefficient to allow the lower number of fixed operators to dictate the competitive structure of the market. We are now at a point in time where mobile communications (with 4G) approach

[3] The relationship between OTT providers and traditional broadcasters forms the background to the Commission Green Paper "Preparing for a Fully Converged Audiovisual World: Growth, Creation and Values" COM(2013)231 (24 April 2013).

[4] This is the approach advocated by the Commission in the Green Paper on Convergence, ibid.

the performance level which makes them interchangeable with fixed communications over a broad range of applications (including video), thus opening the door to a new level of fixed-mobile integration in communications. At the same time, the investment incentives of fixed operators should not be disproportionately affected. In this respect, the Commission proposal for harmonized wholesale offerings might offer a solution to this conundrum as well.

6. What is left of the 2002 regulatory framework?

The 2002 regulatory framework not only contained a specific institutional architecture, with the NRAs, the network of NRAs, Commission supervision, the SMP procedure, etc., but it also rested on two central principles, reliance on economic analysis to drive regulatory efforts, and technological neutrality. Technology neutrality, in particular, takes its full meaning as a principle of regulatory sustainability (law and regulation should stay stable over time) and avoidance of technological pre-emption (law and regulation should not make technological choices in the place of firms and, ultimately, of customers).

In practice, the combination of these principles with that institutional architecture resulted in a framework where only the most general regulatory objectives and principles are set out in EU legislation. These objectives and principles are then further developed and implemented through the work of the Commission and BEREC, and eventually through the work of the NRAs.

To some extent, this framework is undermined when policy choices are made directly in EU legislation.[5] That short-circuits the institutional architecture of the 2002 regulatory framework, and it should accordingly come as no surprise that BEREC reacted strongly to the Commission proposal. In addition, that can create more uncertainty: the bounded discretion of the NRA (under supervision by the Commission and national courts) is replaced by unpredictable legislative initiatives.

[5] Certainly the framework is undermined when choices are made by national legislatures instead of NRAs, as the ECJ ruled in a number of cases.

The inclusion of detailed provisions directly in EU legislation is all the more problematic when the resulting policy choices are based on technological categories. This trend was started, for better or for worse, with the Roaming Regulation, and the Commission seems to be intent on continuing it. If the 2002 framework requires so many adjustments via legislation, then maybe it is no longer considered adequate. Should this be the case, then this should be made explicit.

7. Policy trade-offs

Should policy choices be made directly in EU legislation, then these choices should at least be made with the same care and regard for the principles of the regulatory framework as if they were made by the regulatory authorities. In that respect, some trade-offs must be made.

A first trade-off is well known. It opposes, on the one hand, a shorter-term perspective, with a focus on ensuring a high level of competition on the market (through for instance maintaining a number of competitors) so as to lead to low end-user prices. On the other hand, a longer-term perspective would rather emphasize the need to stimulate investment in new infrastructure, and innovation, even at the expense of higher prices in the short term. By most accounts, EU regulation has taken a shorter-term perspective in the last decade, and some readjustment might be needed.

Further, more specific trade-offs must then be made between policy measures. For instance, if access regulation is loosened up – through higher access tariffs or a curtailing of mandated access – the return of investors in next-generation networks will be increased. Yet if at the same time operators of such networks are put under a strict network neutrality rule (no discrimination between traffic whatsoever), then these operators are effectively deprived of the ability to derive additional revenues from content providers as well. In such as case, the Legislature might actually be effecting a questionable wealth transfer from end-users to content providers, letting the former bear the brunt of the extra costs incurred by network operators in investing in next-

generation networks.

In contrast, in return for making access regulation more conducive to long-term investment, one could suggest that network operators should be pushed to be more innovative in their operations and not just invest in fibre or 4G capacity as a form of commodity. In other words, operators could strive to innovate in network management, content delivery, quality of service, etc. In such a case, however, innovation should be incentivized via an appropriate network neutrality rule, allowing network operators to derive revenue from content providers as compensation for their innovation. But if operators do innovate in their respective ways, introducing more fragmentation than now (with best-efforts routing everywhere), the ability of content providers to deploy pan-European offerings might be affected. Such fragmentation in the offerings might be prevented via standardization (of QoS interconnection), but this again has impacts on the incentives to innovate.

Behind these choices lurks a fundamental choice about the fate of network operators in the long run. On the one hand, one could consider that network operators are destined to become mere commodity providers: their main business challenge is then to roll out next-generation networks (fiber and 4G), and innovation is left to other actors (content, applications and service providers). In such a case, interventionist regulation could be warranted, including access regulation and network neutrality. If however innovation is assumed to be unpredictable, and to arise potentially also from the activity of network operators, then a lighter and less prescriptive regulatory approach would be justified. In this context, network operators would do well to establish more clearly how they can contribute to innovation in the broader ICT sector (beyond the roll out of infrastructure).

Such choices are hard to make, and there is reason to believe that they might not be made optimally at the EU legislative level.