# NEXT-GENERATION REGULATION OF ELECTRONIC COMMUNICATIONS

Speaking notes by
Prof. Jens Arnbak, Chairman of the Commission of OPTA[1]

## 1. Introduction

It is indeed a pleasure for me to address, once again, the GCC here in London, the capital of a country where telecom liberalisation has been pursued since 1984. I must confess that when approached a couple of months ago to discuss the subject of *EU regulation and convergence*, I construed it as yet another invitation to consider the regulatory issues which arise from the convergence of different networks and services in the area of electronic communication and multimedia.[2] "Not so", the organisers told us invited speakers by e-mail a fortnight ago. They had a rather different convergence in mind, namely, the confluence of sector-specific regulation with the application of general competition law.

In this brief presentation, I will take up this challenge to this afternoon's speakers. I shall begin with - and finish by making a few personal recommendations about - the ongoing Review of the Open Network Provision (ONP) Directives in the European Union. Then I will turn to regulation of networks with distinctively different economic features, both from the classical markets for which competition law was originally designed, and from each other. This will allow us to discover where needs may arise for making specific regulatory efforts to reap the desired fruits of liberalisation, namely consumer choice between competing suppliers. In a number of cases, this may require third-party access (TPA) to the major network(s) on conditions sufficiently predictable to establish a viable business case for competitors. Finally, I turn to two topical institutional and convergence issues, *viz.*

(i) interfacing general and sector-specific regulators for the purpose of convergent rulings, and
(ii) harmonising regulatory practices in the internal market of the EU according to the ONP rules and the best practices of their implementation by National Regulatory Authorities (NRAs)

## 2. ONP and Competition Law

From the presentation by the European Commission's Director of Telecommunications, Mr. Argyris, it is clear that the ongoing Review of the Open Network Provision (ONP) Directives in the EU includes proposals for alignment of the sector-specific rules to more general market definitions familiar from competition law. I am very much in favour of this. Technological innovation and roll of networks are accelerating so rapidly that the relevant product and geographical markets simply cannot be prescribed in law, as in the current ONP directives. Mostly, these directives were drafted about the mid-nineties and focussed on the conventional markets of fixed voice telephony and low-speed leased lines, so they do not address most challenges for national *regulators* now, just a few years later. Thus, in most EU member states the NRAs are not empowered to resolve consistently new market problems such as pricing of internet access or calls from fixed phones to mobile terminals at home and abroad, let alone the exorbitant - or at best inconsistent - roaming prices confronting GSM-users as soon as they leave their home country.

So why have such new market issues not been resolved by the general *competition authorities,* either in member states or Brussels? Certainly not because the competition experts were unable to define the relevant markets, using the well-established general principles in case law, but simply because most intervention instruments of classical competition law are binary: they require the difficult choice of the competent authority between complete *laissez faire* and imposing heavy fines, determined *ex post.* Intervention by punishment is brought to bear in the rather few cases (typically against offenders with at least 50% market share) where cartel behaviour or misuse of dominance are likely to be provable in court.

Arguably, the most successful case of invoking the doctrine of misuse of power in the European telecommunications sector was the Commission's telex-case *versus* British Telecom two decades ago - not exactly in a market of great economic importance at the time, nor with much future dynamics! The more significant case brought against Microsoft on yonder side of the Atlantic for tying its Internet Explorer

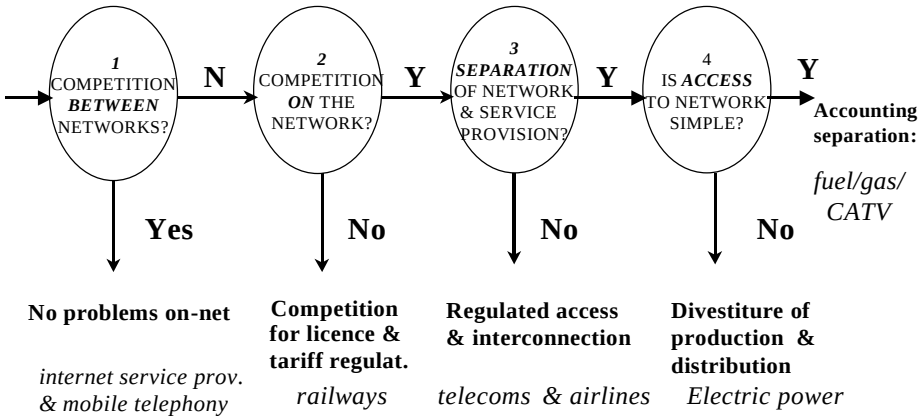
browser inseparably to its dominant Windows-95 operating system has yet to be resolved, half a decade after the alleged misuse of market power against competitors such as Netscape.

So general competition law and jurisprudence can establish only rather wide outer boundaries of acceptable behaviour by any dominant player. The uncertainties and delays inherent in this approach are not conducive to new entry into unregulated networked markets with powerful incumbents. Maximum predictability is a vital factor for rational investments, in particular for the business decisions and sustainability of capital-intensive companies such as those operating in the telecom, media & technology (TMT) markets. Appropriate *ex-ante* rules and instant publication of decisions by regulators (including financial regulators) contribute to more stable markets. While competition authorities, too, may deliver specific *ex-ante* decisions on request in the special case of substantial mergers (in terms of market share, such as mergers or acquisitions involving incumbents), smaller players and new entrants have to turn to the sector-specific regulator for pro-competitive *ex-ante* rulings on matters of interconnection and third-party access.[3] Liberalisation is nice to have, but difficult to get.

This is particular true in the EU. Presumably for reasons of political feasibility, Europe adopted a common approach to telecom liberalisation, based on allowing the (state-owned) incumbents to continue their vertical integration of network operation and service provision as practised in the days of monopoly. This approach was made subject to the *behavioural* rules for granting interconnection and third-party access now enshrined in the ONP directives, to be enforced by national regulatory authorities which must be independent from (state) ownership interests. Given competition from the new GSM networks, the incumbents were also allowed to continue operation of mobile phone networks. These liberalisation arrangements differed fundamentally from the *structural* rules imposed by the antitrust authority in the USA[4].

### 3 Third-party access arrangements in different network sectors

The figure belows summarises some characteristic regulatory and competition problems inherent in a number of the key network sectors (often described as 'public utilities'). The economic and physical characteristics of the various networks result in rather different regulatory regimes in order to




appropriately address specific market failures or generic public-policy requirements such as safety, integrity, universal service, addressing of users or terminals, and plurality of information. So despite the fact that general competition law spans all of these sectors, it will often not be able to address all specific economic issues of a sector, particularly not where targeted prescriptions with an economic impact are required *ex-ante* to ensure appropriate network (co-)operation.

Modern digital information and communications technologies (ICT) offer a unique combination of features and options with substantial economic significance:

1. transport with the speed of light (unlike pipelines, rails, roads, etc.);
2. transport without loss of quality and value (unlike the dissipation in electric power transmission);
3. instant copying/broadcasting, bundling and re-routing/refiling of information (unlike the mail, printing and publishing sectors);
4. complementary customer-access options – choice between wired access (with strong economies of scale, scope and/or density) and wireless networks (with area-coverage abilities, e.g. cellular mobile networks, broadcasting with or without conditional access);
5. lightweight/portable terminal devices (unlike sea, air and rail networks).

In particular, the increasing dynamics of technology costs require special attention in the communications sectors. Novel approaches to switching, such as the suite of Internet Protocols (TCP/IP), and to transmission change network economics radically from inside. Where sufficient economies of scale can be achieved with optical cables, the marginal cost of long-distance transmission tends to zero. This 'death of distance, in turn, reveals the increasingly dominant cost of the local networks providing access to individual customers. When traditional benefits and costs are shifted to different user communities, or to other parts of communication networks, requirements for modifications of the regulatory framework for public control of tariffs and access obligations are likely to arise. In the terminology of competition law, the relevant product and/or geographical markets may have to be investigated frequently and, if necessary, (re-)adjusted.

Such a regulatory re-adjustment of relevant markets from time to time is catered for in the Commission's proposals for the ONP Review, and calls for a new combination of the skills of empirical market analysts known from competition law with rapid, but measured regulatory responses. Such responses are likely to range from interventions where new bottlenecks emerge, to forbearance from previously imposed obligations where new technologies offer satisfactory alternatives.

As an example of the such new alternatives, prepaid mobile telephony may become a remedy to the classical universal service issues raised by the full re-balancing of fixed-telephony tariffs required by EU policy, which is hardly consistently implemented in the internal European market. Tariff re-balancing (removing the incumbent's bundling of fixed and variable telephone rates by raising the phone subscription to a cost-oriented level, in return for lower call rates) is still controversial in most EU member states, but is necessary in order to remove entrance barriers for new network operators. By removing the access deficit charges from KPN's interconnection tariffs, OPTA induced the incumbent to rebalance its retail tariff by July 1, 1998, at a time where prepaid mobile phones had started to remove the increased phone costs for low usage. At present, the fixed USO phone subscription in the Netherlands ('Belbudget') is preferred by only a small fraction of those consumers who would, in principle, benefit from it.

As an example of addressing emerging bottlenecks by appropriate and timely new *ex-ante* regulations, local-loop unbundling has become instrumental to the development of alternative (broadband) internet access. In settling an access dispute lodged in 1997, OPTA required the incumbent to open its doors to the last mile at reasonable conditions (including a gradual rise from a fixed fee based on fully rebalanced, but historical costs of the subscriber loop to a fixed fee based on current average market costs of the loop). Still, the recent ULL regulation expeditiously addressed many additional issues that a national regulator (or a competition authority) would have to resolve by lengthy dispute settlements and, moreover, contributed to an essential harmonisation and predictability of the internal European market.

**4 Institutional and convergence issues in harmonised regulation of EU communications markets**

In the Netherlands, close co-operation between the sector-specific NRA (OPTA) addressing telecom and cable issues, and the general competition authority (NMa) is enshrined in a jointly developed protocol, published in the Official Gazette. According to this, OPTA is the first port of call in all matters which it can address based on the national implementation of current ONP directives. The NMa complements these with generic instruments and analyses for new relevant markets which are not adequately covered in the present directives, for example the emerging access issues relating to internet and cable television which

will be addressed in the ONP Review. Where necessary, the two authorities have developed policy rules and decisions jointly.

A recent example of this co-operation is the support of the competition authority in the development of a practical price-squeeze test to be used by OPTA when reviewing new tariff proposals from the incumbent. In the event of a challenge of OPTA's legal authority by the incumbent in such matters, OPTA may transfer the case to the sister authority for consideration and settlement.

Rumour has it that the Government is considering a 'take-over' of OPTA by NMa, a development strongly advocated by the incumbent[5]. Possible merits of this institutional convergence should be compared with the alternative option already chosen in the UK, namely, concurrent powers of OPTA to apply, in full agreement with the NMa, general competition rules in those cases where ONP rules and regulations prove inapplicable. In addition, OPTA is an active member of the Independent Regulators Group, comprised of all NRAs in the European Economic Area (EEA), which currently work together to establish principles of implementation and best practice (PIBPs) of present and future ONP rules. This will benefit pan-European operators and cross-border service provision. In this way, convergence of regulatory oversight and experiences in member states of the internal market with the directives and competition policies agreed in EU institutions may indeed become less of a far cry than in many of today's national communication markets.

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[2] That debate has gone on since the Commission's *Green Paper on the Convergence of the Telecommunications, Media and Information Technology Sectors, and the Implications for Regulation*, COM(97)623, 3 dec.1997

[3] Intervention levels are particularly critical in two-way networks: If all paying end-users can be transmitters of traffic (and not merely receivers, such as in CATV and electricity distribution), the operator's turn-over is proportional to the *square* of the number of such end-users ("Metcalfe's law"). This explains why access agreements with larger operators, especially incumbents, will be more difficult to reach on commercial terms for small network operators than in utility sectors with purely distributive networks. Metcalfe's law causes the asymmetry of the bargaining power to be related to the square of the ratio between the subscribers to either network. The operator of the major network loses a much smaller fraction of its traffic revenues than the minor operator, since subscribers of the latter are obviously more likely to communicate off-net than on-net. This effect explains why the traditional peering arrangements ('Bill & Keep') between internet providers gradually appear to be replaced by charges imposed unilaterally by the larger provider on the smaller. The ongoing rapid shake-out of free-access ISPs not affiliated with incumbent phone companies is a related phenomenon.

[4] The anti-trust approach in the USA involved the (horizontal) breaking up of AT&T into a long-distance operator subjected to competition, plus seven regional Bell Operating Companies with no (initial) room for vertical integration of "enhanced" services or horizontal integration with mobile phone networks. While the regional Bell companies have been allowed to re-merge gradually as local competition grew, vigorous long-distance and enhanced service competition developed rapidly.

[5] KPN is not the only incumbent who advocates application of competition law instead of *ex-ante* regulation. Members of the European Parliament involved in reading the new ONP-proposals from the Commission are approached by many incumbents and their joint interest organisations to bring about such a move, which is strongly opposed by pan-European operators and other market entrants.