

# EUROPEAN RESPONSES TO BOTTLENECKS IN DIGITAL PAY-TV: IMPACTS ON PLURALISM AND COMPETITION POLICY

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## I. INTRODUCTION

The media landscape in Europe, and particularly in the broadcast sector, is suffering an upheaval with the development of digital television. As of yet, only the transmission has been digital, but soon the television sets will be digital, too.<sup>1</sup> However, it is not only the technology which is changing. The markets and economics of the broadcasting sector are also changing because of the consolidation of a new model of television. If the seventies were the golden age of the European television public service model, and the middle of the eighties saw the start of the commercial one, the nineties has seen the birth of a new one: pay-TV (first by analogical transmission and now by digital standards). The reason for its emergence is related to economics of television; more specifically to the amount of channel choice. Until there are many channels, it is more profitable for television networks to compete for a share of the mass audience. But there is a limit to the number of channels that can succeed with mass appeal programming, especially with the limited publicity available. At some point, it is more rational for the programmer to attempt to desegregate the audience by creating a specialty service based more on a direct pay basis.<sup>2</sup> The successive rise of this new model has not involved the extinction of old ones. They coexist and are under the same regulatory regime, but it is evident that the newcomers raise additional challenges for the sector and for the regulator, and even more so if the digitalization multiplies the number of channels in an exponential function

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<sup>1</sup> In the United States, the FCC "has set a target of 2006 as a reasonable end-date for NTSC service." *News Release: Commission Adopts Rules for Digital Television Service* (visited Apr. 6, 1998) <[http://www.fcc.gov/Bureaus/Mass\\_Media/News\\_Releases/1997/nrmm7005.html](http://www.fcc.gov/Bureaus/Mass_Media/News_Releases/1997/nrmm7005.html)>.

<sup>2</sup> For a thorough discussion of the question, see BRUCE M. OWEN & STEVEN S. WILDMAN, *VIDEO ECONOMICS* (Harvard Univ. Press 1992).

factor. At the beginning of 1996, there were scarcely a dozen television satellites channels with the MPEG-2 standard in Europe; by January 1997, there were 330, and in November they exceeded 700.<sup>3</sup>

Beyond the commercial success or failure of this kind of service in Europe, some media policy problems arise from the existence of certain so-called bottlenecks. The combination of technological, economic, and contractual factors allow an operator of digital pay-TV to control consumer and content service provider access to his network more strictly. From the point of view of competition and pluralism, conditional access systems ("CAS"), subscribers management services ("SMS"), and electronic program guides ("EPG") are some of the main concerns, and even more so if the operator is also provider of content, as it happens in the majority of European digital pay-TV firms.

How has the European Union ("EU") managed the competition and pluralism problems relating to this issue? How has this been applied in EU members states? How has regulation, both national and European, impacted the market and sector? How does this influence media ownership regulation and competition policy? The answers to these questions are not easy, but we will try to outline them in order to offer some conclusions. In the first place, however, it is important to review the technological and economic aspects of this sector in Europe.

This Article examines European responses to the regulation and management of bottlenecks in the digital pay-TV sector. A review is made of the technological and economic aspects of this sector. In particular, an analysis is made of problems relating to CAS, SMS, and EPG. These issues are shown to have a direct relationship to issues of competition and pluralism arising from convergence between telecommunications and audiovisual. The second part of this Article will examine these wider relationships. Following an analysis of the EU position, the development of United Kingdom regulatory approaches is compared to the situation in Spain, to illustrate the complexity of overcoming bottlenecks in digital pay-TV. The Article concludes with the way in which these specific regulatory responses impact on the larger issues of competition, policy, and pluralism.

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<sup>3</sup> ANDRÉ LANGE, LA REDEFINITION DES ALLIANCES EUROPÉENNES À L'HEURE DE LA TÉLÉVISION NUMÉRIQUE, (Eur. Audiovisual Observatory) <<http://www.obs.coe.int>> (forthcoming 1998).

## II. EUROPEAN DIGITAL PAY-TV TECHNOLOGY AND MARKET OVERVIEW

The so-called digital-TV is bound, for the moment, to the transmission of digital signals of broadcasting. As television sets are still analogical, an integrated receiver decoder ("IRD"), also known as a set-top-box, is needed to translate digital signals into analogical understandable signals for television sets. Broadly speaking, IRDs function in the opposite way to modems. Indeed, they are more like computers, because they include powerful microprocessors which specialize in the decompression, demultiplexing (splitting the different channels received by the IRD), and demodulation of digital signals. They also have to monitor customer access for the services for which they have paid, the so-called conditional access. They also need RAM memory, a modem, and slots to link with other home devices. So they are complex and expensive to develop, and, like computers, need to be mass produced to curb their high cost.<sup>4</sup>

Digital signals may reach the terminal by wave (satellite or terrestrial frequency), or by wire (cable). At this point, it is satellite which has been chosen by the dominant pay-TV European operators to provide digital broadcasting services. Its flexibility and fast availability has been instrumental in its success. It is important not to forget that the terrestrial and cable networks will soon be able to transmit these same digital signals and compete with satellite distribution. However, their main disadvantage will be their late entry into the market. Either they will have to develop and sell a specific set-top-box and CAS (expensive and complex), or negotiate the licensing of decoders and CAS with the digital satellite operators.

This brings us to the question of compatibility and the market structure of digital-TV in Europe. In the early 1990s the dominant operators in analogical pay-TV (Canal +, BSkyB, and Nethold) with the newcomers (Kirch), started to develop, in association with the main consumer electronics firms, their own digital IRD and CASs. As every company wanted to protect their initial investment and national market, they chose to make their system proprietary, accessible to other operators only by prior agreement. And as in analogical pay-TV, only those who paid could see the new channels. As a result, the European digital pay-TV market is now fragmented (See below Table 1).

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<sup>4</sup> For instance, Kirch sold his IRD to receive their digital-TV service (DF1) for \$700, before changing the strategy and starting to rent it.

Table 1. Digital access technologies in Western Europe<sup>5</sup>

Company	Country	Architecture	Decoder - CAS
Vía Digital	Spain	Multicrypt	Echostar Nokia
Canal Satélite Digital	Spain	Simulcrypt	Seca-Mediaguard
Kirch (DF1)	Germany	Simulcrypt	Irdeto-D-Box
BSkyB	UK	Simulcrypt	Videoguard
Telepiu	Italy	Simulcrypt	Seca-Mediaguard Irdeto*
Canal Satellite Numerique	France	Simulcrypt	Seca-Mediaguard
Télévision par satellite (TPS)	France	Simulcrypt	Viaccess
AB Sat	France	Simulcrypt	Viaccess

\* After the purchase of Nethold by Canal +, Telepiu also started to market the Seca-Mediaguard, more reliable in the pay-per-view transactions.

As we can observe, the incompatibility of IRDs is not only a question of the decoders or programs which run on it, but it is also a question of the architecture of the system, in particular the specifications of the conditional access technologies: the multicrypt and simulcrypt dilemma. This directs us to the problem of how the European regulation of digital TV was developed.

### III. THE REGULATION OF DIGITAL-TV. THE SIMULCRYPT VS. MULTICRYPT DEBATE<sup>6</sup>

To understand the position of the EU on this issue, it is necessary to know of its failure on the High Definition Television ("HDTV") policy in the early 1990s. At that time, the EU tried to impose on the satellite market an analogical norm for HDTV, the MAC standard. The idea was to present an alternative to the MUSE, the standard Japanese system. However, the analogical HDTV made no sense after the United States decided to adopt the digital approach. The satellite operators did not follow the guidelines of the EU. As a result, the perceived failures of this political interventionism "weighed heavily on the Commission's mind as it approached the framing of the Advanced TV Standards directive."<sup>7</sup> Rather than trying to force the industry to accept a digital-TV stan-

<sup>5</sup> David Levy, *The Regulation of Digital Conditional Access Systems. A Case Study in European Policy Making*, 21 TELECOMM. POL'Y at 661-76 (1997).

<sup>6</sup> In this part, I follow Levy, *supra* note 5; Martin Cave & Campbell Cowie, *Regulating Conditional Access in European Pay Broadcasting*, 23 COMM. & STRATEGIES at 119-42 (1996).

<sup>7</sup> Levy, *supra* note 5, at 664.

dard, the new approach was to go with the market and fast moving technologies.

#### A. *The DVB Forum*

In this case the EU chose the Digital Video Broadcasting ("DVB"), an international body composed of more than 200 organizations with interests in the broadcasting industry. It was implemented in late 1993, with the grand ambition of producing technological standards for the European digital-TV industry. Their first steps were promising. They quickly defined the digital standard for transmission (MPEG-2 rule) and the "common scrambling algorithm."<sup>8</sup> However, when the contentious issue of conditional access to the DVB's arose, consensus decision-making failed to impose a common standard. The interests of existing analogue pay broadcasters in extending their control of proprietary CAS to the digital market were opposed to the interests of other broadcasters who would access this new market. Once the key operators (Canal +, BSkyB, and Kirch) had made their opposition to any standardization of CAS clear, debate within the DVB turned to two main alternative solutions— simulcrypt and multicrypt.

The simulcrypt option involves the creation of proprietary encryption systems. Canal +, Kirch, and BSkyB, main supporters of this technology, proposed the segmentation of Europe, with different proprietary systems within each geographic area. Broadcasters or other service providers who wanted their services delivered to a particular decoder population would negotiate access terms with the provider of conditional access services for that particular territory. Once the agreement was achieved, the operator who owned the propriety system would send an uplink signal to satellite with two flows of data, one for each operator. A decoder would pick out the information it needed and ignore the other codes. In short, simulcrypt is simply a way of transmitting two or more encryption signals with each scrambled transmission.

The multicrypt technology, favored by the majority of non pay-TV operators, comprises a detachable conditional access module (identical to the PC cards of laptop computers) connected to the IRD via a common interface. The definition of this common interface is vital as it enables the host IRD to interact with a wide variety

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<sup>8</sup> The "common scrambling algorithm" is a powerful tool to make possible the secure scrambling of transport streams or program elementary streams. This system is not disclosed to the public in detail, due to its peculiar nature.

of conditional modules.<sup>9</sup> This systems allows access to different broadcasters services without prior agreement between operators. If the customers want to change their service operator, they only have to buy a PC card from another operator, and not a new IRD.

Table 2. Advantages and drawbacks of both approaches:

	<b>Advantages</b>	<b>Drawbacks</b>
<b>SIMULCRYPT</b>	Technically simple. No need for further specification. No impact on the decoder.	Need of commercial agreements. The global security is the security of the weakest system.
<b>MULTICRYPT</b>	Low cost decoder because wide distribution. Decoder may be integrated in the TV. Allows evolution of CA or introduction of a new CA in the system. The Common Interface can be used for other applications.	Cost of the module. Equipment not available amply until recently (at the moment IRD fully compliant with the Common Interface specification are only used in Spain by Vía Digital).

After a great deal of heated discussion, and the employment of some contentious voting procedures,<sup>10</sup> the DVB approved the use of both systems with no support for the mandatory inclusion of the common interface in all European decoding equipment. The lobby of non-pay-TV broadcasters exerted their pressure on the EC Council. Up until then, both bodies of the EU had delayed regulatory proposals in the hope that consensus agreements in the DVB might make them unnecessary.

B. *The 95/47 EC Directive on the Use of Standards for the Transmission of Television Signals*

The European Commission Draft Directive on the use of standards for the transmission of television signals broadly agreed with the DVB proposals, and accepted both systems to avoid a new MAC fiasco. However, this was amended by the European Parliament in order to protect the rights of other operators using proprietary

<sup>9</sup> Common standard definition was not completed by DVB until August 1997, and only Spanish operator Vía Digital is using it.

<sup>10</sup> Levy, *supra* note 5, at 668-69.

CAS. The amendment requires operators of conditional access services to offer other broadcasters access to their systems on a fair, reasonable, and non-discriminatory basis. The final text also obliged them to keep separate accounts and to publish tariffs. CAS must allow cost effective transcontrol at cable head ends, allowing cable television operators to fully control access to their services. Intellectual property rights to conditional access systems must be granted to manufacturers of consumer equipment on fair, reasonable, and non-discriminatory terms, and member states must establish dispute resolution procedures. The responsibility for ensuring these conditions was given to the Member States. It is the national regulatory agencies that have the responsibility for formulating the exact terms of market access. They must establish the national regulatory framework, within the Directive's broad principles of fairness, reasonableness, and non-discrimination.<sup>11</sup>

Nothing is mentioned about SMS, EPG, or API. The EU regulatory framework for digital television is formed only by a few general principles. It does not dictate a specific common CAS, nor does it provide for the mandatory inclusion of an open interface in CAS. By so doing, the Directive in effect favors the proprietary simulcrypt system and largely supports the existing market structure. However, it is important to remember that at this time there was no specification of the common interface standard. The question remains: how can the operators be persuaded to include one function still to be defined by the DVB?

As the same EC has recently declared, "the Directive takes a deliberately balanced position for the start-up phase of this new industry. Its requirements are light enough to encourage innovation and investment in a rapidly evolving technical and commercial environment, and strong enough to protect fair competition and consumer welfare."<sup>12</sup> The success of the first part of the previous sentence is evident in the take off of digital-TV services in Europe. The protection of fair competition and consumer welfare is more controversial because Europe now has a playing field similar to that desired by the first pay-TV operators: a national marketplace share between big operators with different decoders and different proprietary CAS. Up until now, the only agreement between digital

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<sup>11</sup> Directive on the Use of Standards for the Transmission of TV Signals, Directive 95/47, 1995 O.J. (L 281) at 51-54.

<sup>12</sup> EUROPEAN COMMISSION, GREEN PAPER ON THE CONVERGENCE OF THE TELECOMMUNICATIONS, MEDIA AND INFORMATION TECHNOLOGY SECTORS, AND THE IMPLICATIONS FOR REGULATION TOWARDS AN INFORMATION SOCIETY APPROACH 28 (Mar. 12, 1997) COM (97) 623 [hereinafter *Convergence of the Telecomm.*].

pay-TV operators, has been registered in France with Canal+ Satellite and AB Sat.

#### IV. SOME BOTTLENECKS IN DIGITAL-TV AND THEIR IMPACTS ON COMPETITION

This section discusses the potential for anti-competitive conduct arising in this particular sector of broadcasting industry, and particularly, of using control over one part of the market to gain a competitive advantage in a related market. In this case, the bottlenecks analyzed are CAS, SMS, EPG, and API.<sup>13</sup>

##### A. *Conditional Access Systems ("CAS")*

CAS are seen as the main bottleneck in the digital-TV sector. The control of this service through proprietary standards can lock out service suppliers and consumers from the delivery network. The CAS owners, who are in powerful market positions, can abuse this in a number of ways:<sup>14</sup>

- Services that are viewed as potentially competitive may be flatly denied access;
- There exists a fear that gatekeepers may exert undue pressure on entrants to join the service provider's own bouquet;
- Gatekeepers may only allow access on unfavorable terms to dissuade potential competitors;
- Even with a strictly enforced rule requiring non-discriminatory pricing, the gatekeeper may simply charge all users a monopoly price;
- There may be pressure on the entrant to accept subscriber management services and conditional access services on a bundled basis;
- There may be contractual restriction on flexibility, preventing entrants from switching to rival packages.

As we have seen, to avoid these concerns the EU included a clause dealing specifically with terms of access to digital encryption systems in the Advanced Television Services Directive. Access is to be provided on "fair, reasonable, and non-discriminatory terms." If this clause protects the new entrants, it also points out two practical problems. In the first place, the transposition and enforceability of

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<sup>13</sup> For a complete enumeration of bottlenecks or monopolization possibilities see Martin Cave, *Regulating Digital Television in a Convergent World*, 21 TELECOMM. POL'Y 581, 581-89 (1997).

<sup>14</sup> *Id.* at 587.



this principle depends on individual governments. Differences can easily arise. In the second place, costs mitigate against the plurality of offer. Only the high-end decoders support multiple card readers and multiple CAS. The experience of analogue satellite pay television illustrates that the cost of STB may potentially vary by a factor of one to three, depending on the technical capability in terms of CAS and the number of card slots (See Table 3).

Table 3. The price of competition in the satellite TV market<sup>15</sup>

Conditional Access Systems	Card slots	Satellite Platforms	Installed cost (US\$)
1	1	1	250
1	2	1	412
1	2	2	700
2	2	1	760
2	2	2	900
2	2	2+	1400

In practice this means that aspiring pay-TV broadcasters must make choices on the basis of the common denominator configuration: one card, one slot, one delivery system. It therefore becomes essential to ensure carriage on the dominant service provider's card or to have interoperable cards. It anticipates a lot of potential commercial problems between the operators. One of these is the control of consumer data, the so-called subscriber management services.

#### B. *Subscriber Management Services ("SMS")*

What is Subscriber Management Services ("SMS")? In fact, it existed already with analogical pay-TV and included two different functions. The first is to create and distribute the smart cards or other devices to subscribers who have paid. In digital systems with directly addressable IRDs there is no necessity for hardware devices to control the authorization: you only need to send over-the-air control streams to embedded chip-sets in the decoder. The second, also called Subscriber Authorization Services, enables or disables the access to broadcasting services. This function is also used to control the pay-per-view services to switch off subscribers who cancel services packages or default on payment terms.

<sup>15</sup> Dermot Nolan, *Bottlenecks in Pay Television: Impact on Market Development in Europe*, 21 TELECOMM. POL'Y 602 (1997).

There is general agreement that entry barriers in this area are not as insurmountable as the conditional access systems. For instance, in the United Kingdom, BSkyB operates the largest SMS service, Sky Subscriber Services Ltd., while the cable operators provide their own SMS services.

### C. *Electronic Program Guides ("EPG")*

Like Netscape Navigator or Microsoft Explorer Internet browsers, the EPG are video navigation services which help the viewer in tuning, finding, selecting, and recording digital television services. They are also able to assist in buying other future electronic services and in connecting to the Internet if the IRD has a built-in modem. Their key role is evident in an environment with a choice of 100-500 channels. In practice, EPGs tend to be operated by service providers or digital operators.

EPGs are the point of strategic control in digital television environments, as they are the first service which the viewer sees when a digital receiver is switched on. They are used to display and sort lists of available services on the particular delivery systems.

A gatekeeper might close the market with the program exclusion, the discrimination, the cross-promotion, and the proprietary branding/advertising. At this moment, a standard specification (DVB-SI, ETS 300 468) has been established for Service Information in Digital Video Broadcasting Systems to cover the issue of navigation systems. But it only covers the interoperation, and again the cost would work against the plurality of EPG services.

As Nolan says,<sup>16</sup> there are practical problems to providing competing EPGs offered by rival broadcasters. First, their provision at high quality levels can extensively utilize available digital capacity. Second, competing EPGs require double the amount of memory in the IRD. As memory is a major cost component in digital receiver equipment, the implementation of competing EPGs is difficult. As in the analogue environment, consumer cost considerations are leading to lowest common denominator implementations: a single EPG, a single CAS and, for the present, a single delivery system is the norm (See table 3).

### D. *Application Program Interfaces ("API")*

The connection of digital broadcasting applications with telecommunications networks for the provision of interactive applica-

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<sup>16</sup> *Id.* at 604.

tions requires the development of an API. The API is used to control the presentation to the consumer of information transmitted to the IRD, and so it can be used, in open systems, to control access and to build up EPG, for instance. It also provides a specified interface for the development of applications by third-parties. The foreclosure opportunities by the gatekeeper include software exclusion, the refusal to allow required IRD upgrades, or the withholding of necessary technical details.

The common API is deemed essential to create an open and competitive market for broadcast related interactive services and to ensure economies of scale in receiver production. Development of a common API insures interoperation of receivers, which enables a free market to develop in the hardware supply chain.

As the European Commission has recently declared:

At the time of writing there are a number of different APIs used in set-top boxes in Europe, risking fragmentation of the market and problems of interoperation. Furthermore, the combined use of proprietary APIs together with EPGs and conditional access leads to the increased risks of abuse by operators controlling access to services.<sup>17</sup>

In the next section, I consider in-depth the problems raised by the combined use of these bottlenecks.

#### E. *Impacts on Competition Policy*

At supra-national level, we have seen that the EU has managed the problem of bottlenecks with a market-led approach. The short-term has been privileged, giving a boost to the difficult birth of digital pay-TV. The imposition of a long-term vision, for example, a mandatory common interface for the IRDs of all operators, was refused in Directive 95/47. The supporters of simulcrypt technologies argue that it would have destroyed all their investments and that it would have delayed the take-off of digital services in Europe for many years. However, the facts show that there was only a difference of seventeen months between the entry of the first simulcrypt decoder and the first multicrypt decoder.<sup>18</sup> If the early investors lost their money, with an open standard the industry might have developed it quicker and more broadly, and for a minor cost.

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<sup>17</sup> Convergence of the Telecommunications, *supra* note 12, at 29.

<sup>18</sup> Canal Satellite (France) started its broadcasts in April 1996, and Via Digital began in September 1997.

More convincing is the argument that with the multicrypt architecture, the decoder cost is supported by the user. Since the possibility of changing the operator is easier than with simulcrypt, no firm is inclined to subsidize the IRD. The common interface option pushes the full cost immediately onto the consumer. The key question is: is the development of the digital pay-TV market possible when it is the consumer who must pay for all of the IRD?<sup>19</sup> With the mandatory common interface, would the EU be better able to protect consumer interests? In fact, there are other possible solutions. *Vía Digital*, the only operator of this type of decoder in Europe, subsidizes their decoders by renting them for \$85/year. If an operator wants to use them with his PC-Card, *Vía Digital* can do nothing, because there is another and independent access control to it. It is evident that there is no additional charge to customers. *Vía Digital* receives the same rent revenues while the attractiveness of the decoder increases with more operators. Hence the loss of potential income for sharing the IRD is compensated for in an intangible way.

Despite this market-led regulation, the EU was aware of problems of traditional competition law in dealing with the new gateways of audiovisual digital services. The inclusion into the Directive 95/47 of the Open Network Provision ("ONP") principles, developed in the telecommunications world (fairness, reasonableness, and non-discrimination interconnection) prove that. The question is, will these measures be sufficient to form an adequate regulation framework to resolve the complex issues of digital television?

Equally important, but at market level, is the EU follow-up on mergers and alliances through Regulation 4064/89. In the audiovisual sector, there has been much activity. DG IV, the branch of the EC charged with competition issues, has annulled seven operations since 1989, three of them from the audio-visual sector (MSG, Nordic Satellite Distribution, and Veronica).<sup>20</sup> The final, yet to be concluded episode, has been the decision of EC to open an in-depth investigation into the Bertelsmann / Kirch / Premiere alliance.<sup>21</sup> The intention of these three groups to merge around the

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<sup>19</sup> The same question is presented in GSM wireless telephony: would the development of this market have been possible without subsidizing the cost of the terminal with the potential future traffic receipts? The failure of Kirch-DF1, who started to sell the IRD and not to rent it, probably indicates a negative answer.

<sup>20</sup> Jean-François Pons, *La Politique De Concurrence Européenne Dans Le Domaine Audiovisuel*, 21 COMPETITION POL'Y NEWSL. 6 (DGIV, Eur. Commission 1996).

<sup>21</sup> See *Commission Opens Indepth Investigation in the Bertelsmann/Kirch/Premiere Case*, European Commission Press Release (No. IP/98/77, Jan. 22, 1998).

Premiere analogue pay-TV channel to develop its digital version is considered to be a dominant position in certain markets (content rights, in the case of Kirch, and technical services, in the case of CA operator BetaDigital). In general, the EC warns that "it must be feared that after the merger, Premiere could permanently become the only pay-TV broadcasting and marketing platform in Germany, which would be in a position to determine the conditions under which other broadcasters could compete with Premiere on the German Market." The final decision will show the real power of competition policy to fight against vertical integration.

According to EU doctrine, the vertical integration of essential facilities<sup>22</sup> had to be justified to be allowed. The key question here is whether CAS, EPGs, APIs, and SMS are essential facilities. At first glance, it seems strange that these bottlenecks should be considered essential facilities. The possibility of creating independent EPG and SMS from a technical point of view are viable, though expensive. The fair buying of licenses of APIs and CAS are protected by the Directive.<sup>23</sup> However, the ownership of all of them by one of the service operators can be dangerous because of the potential elimination of competition in a new market. The necessary infrastructure must be open to other providers. The vertical integration content-delivery network-CAS may only be accepted in a market with competition. For the Commission, the option is clear: "The acceptability of vertical integration will always depend on the degree of horizontal competition. This is what makes the full liberalization of telecommunications in 1998 so central."<sup>24</sup> The problem is, what happens when the market is unexplored? Would the EU allow the vertical integration to develop a new market, like digital pay-TV? In the MSG case (1995), the answer was no; in 1998, we will see the policy coherence of the EC in the Kirch/Bertelsmann/Premiere case.

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<sup>22</sup> An essential facility is defined as follows: "a facility or infrastructure without access to which competitors cannot provide services to their customers."

<sup>23</sup> Directive on the Use of Standards for the Transmission of TV Signals, Directive 95/47, 1995 O.J. (L 281) at 51-54. "[W]hen granting licences to manufacturers of consumer equipment, holders of industrial property rights to conditional access products and systems shall ensure that this is done on fair, reasonable and non-discriminatory terms." In fact, the agreement between Canal Satellite, France, and ABSat has implied the sale of the Viacces CAS of France Télécom.

<sup>24</sup> Herbert Ungerer, Regulatory Aspects of the Information Society, Speech at Annual General Meeting of European Multimedia Forum (Nov. 19, 1996) (visited Apr. 6, 1998) <<http://www.emf.be/>>.

## V. BOTTLENECKS AND PLURALISM IN DIGITAL PAY-TV

With regard to pluralism, the two big issues in digital-TV are first, the impact of firm alliances and mergers on the diversity of media messages, and second, the control over the service providers, the "upper gateway."<sup>25</sup> In digital pay-TV, firms attempt to follow a strategy of alliances because of the need for large resources,<sup>26</sup> and because of the need to control different abilities away from the traditional broadcasting sector. For instance, the need of a return path may create a scope for alliances between satellite and telecommunications operators against cable television. Another specific European factor is the need for local partners. The entry into a European national market without a local ally is nearly impossible because of political and cultural factors.

Mergers such as Canal + Nethold, or alliances such as Bertelsmann-Kirch in the German market, are signs of this tendency, and raise fears regarding competition and pluralism. In Italy and Germany, there is just one platform in action or design. In France and Spain, competition exists between platforms, but the rumors of mergers are insistent. In the United Kingdom, digital-TV will exist by air-terrestrial broadcast and secondarily by satellite. In this process, one of the main events has been the entry of telecommunications operators into the broadcasting sector (France Telecom in TPS, Telefónica in Vía Digital, and BT in association in BSkyB with the BIB project).

The potentially dominant position of digital pay-TV operators may be very similar to that of analogue subscription television. But dominant position is a competition term which makes little sense in the pluralism debate. First, it is necessary to define the context. The weight of this form of multi-channel television in media consumption is small.<sup>27</sup> The plurality of offer is multiplied by these digital platforms; therefore one of the conditions of pluralism, the plurality of offer, is better served by digital television. However, pluralism also needs plurality in content messages. The number of suppliers in a market is a very important factor, but not an absolute indicator of pluralism. Likewise, as the commercial model of the eighties has shown, more channels might imply more of the same content. The heterogeneity of output is also significant.

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<sup>25</sup> So called by Sophia Kaitatzi-Withlock, *The Privatizing of Conditional Access Control in the European Union*, 25 COMM. & STRATEGIES 91, 122 (1997).

<sup>26</sup> Usually through the purchase of programs, decoders, and expenditure of marketing.

<sup>27</sup> In the United States, the world's most developed market, satellite digital-TV was 4.9% of multichannel television in October 1996. 1997 FCC ANN. ASSESSMENT OF THE STATUS OF COMPETITION IN THE MARKET FOR THE DELIVERY OF VIDEO PROGRAMMING 3.

The question now is whether the mergers and alliances in the digital television market will reduce the plurality of ideas, while the plurality of offer grows. The media companies merge and make alliances mainly to share knowledge in management and technical issues and to share risks and benefits. In a consortium with multiple partners, an uni-vocal ideological tendency is less likely to develop, but the possibility still exists. In fact, the potential threat would have to be analyzed on a case by case basis because "the implication of cross-media ownership for diversity output depends largely on whether or not any economies of scope which arise include cost-efficiencies gained through consolidation of editorial function or recycling of what is essentially the same product content."<sup>28</sup> The process may be difficult to verify objectively by governments, and this control may also be used as an instrument of political pressure to harness the media.

A more concrete problem is the "upper gateway" question: the control exercised by operators of digital pay-TV services over the selection of providers. Even if the decoders in service in the European market were open and interoperable, this "does not guarantee fair access or freedom of choice or pluralistic information effectively, because the encoding gateway may be or become *de jure* or *de facto* open only to one supplier, or to a cartel or oligopoly of suppliers."<sup>29</sup> The issue of exclusive agreement over content rights becomes central.

In a context of separation between content provision and delivery systems, the offer of new content on one delivery system would be allowed on an economic basis: if a new channel is more pleasing to the public, then it may be possible to enter onto a digital platform. However, if the propriety of the delivery and CAS is also a content provider, the economic criteria of selection, a theoretically neutral theory, disappears. As they need to protect their investments in the content area (purchase of programs and production), they will favor their channels. The danger of foreclosure is real. We can expect to see relations between suppliers and customers—formerly equal competitors for the same type of service—develop.

How may the legitimate entrepreneurial interests of control be harmonized with the development of a brand of audiovisual services within the general interests of the protection of pluralism?

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<sup>28</sup> GILLIAN DOYLE, *MEDIA CONSOLIDATION IN EUROPE: THE IMPACT ON PLURALISM* 15 (1997).

<sup>29</sup> Kaitatzi-Withlock, *supra* note 25, at 93.

Other policy instruments are available, such as supporting public broadcasting services on the digital platforms on a "must carry" basis, or setting special regulatory requirements to the media output.

In this sense, the regulation of cable in the United States is interesting. Cable operators are required to grant carriage to programming services in which they have no ownership interest. In the 1992 Cable Act, this mandate is expressed in two ways. First, cable operators may not fill more than 40% of their unconstrained<sup>30</sup> channels with programming in which they have an ownership interest. Second, they must make at least 10% of their channel capacity available for lease to third parties at rates that are to be set by the FCC.

The public interest and capacity set-aside obligations for Digital Broadcasting Satellite ("DBS") providers are set out in detail in section 25 of the 1992 Cable Act. Among other things, this law requires that:

- DBS providers reserve between 4% to 7% of their channel capacity for "non commercial programming of an educational or informational nature";
- DBS providers are prohibited from exercising "any editorial control" over the educational and informational programming provided in the 4% to 7% percent set-aside;
- DBS providers make this capacity available to "national educational programming suppliers, upon reasonable prices, terms and conditions" (no greater than 50% of the total direct costs of making such channels available);
- FCC imposes public interest obligations on DBS providers.

In the context of the use of public airwaves, a similar group of conditions may be imposed on digital operators in Europe by the EU. However, their application may not be so easy due to their lack of competence in pluralism issues and, as illustrated in the following sections, because of the national governments' potential deviations in applying the EU regulation.

## VI. THE UNITED KINGDOM DEBATE APPROACH<sup>31</sup>

The practice of United Kingdom regulation in audiovisual media has tended towards self-regulation since 1926, when the British

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<sup>30</sup> The unconstrained channels are those not filled with services required by the franchise agreement or federal regulation.

<sup>31</sup> In this section I follow Jill Hills & Maria Micahlis, *Digital Television and Regulatory Issues: The British Case*, 21 COMM. & STRATEGIES 133 (1997).



Broadcasting Corporation ("BBC") became self-regulated by a Board of Governors appointed by the government. Other distinctive features of British regulation include a tendency to differentiate regulatory regimes according to technology and the weight of the private sector in policymaking. In our case, the first feature implies the problem of convergence of regulators. For instance, the Independent Television Commission ("ITC") has been charged with controlling EPGs, while the telecommunications body ("OFTEL") has the mission of regulating CAS. However, as the latter considers EPG, a CAS to audiovisual services, OFTEL has started to regulate it. This framework has created a favorable atmosphere for debate and planning, and a new opportunity for market and governmental pressures.

A. *Market Structure: The Dominance of BSkyB*

The United Kingdom will be the last big market to make digital-TV available. This is clearly not due to a technological or market delay, but rather to its maturity. On the one hand, the public authorities want to maintain a tradition of concerted and progressive evolution, and they want to help technological innovation. (The United Kingdom government and broadcasters have been the first to plan the Digital Terrestrial Television ("DTT") in Europe). On the other hand, BSkyB has a near-monopoly in the analogical pay-TV sector and already offers forty-two channels.

In light of the potential domination of BSkyB, the concerns of the terrestrial broadcasters persuaded the Major government to assign OFTEL the task of licensing digital satellite television CAS, and of bringing forward its legislation on terrestrial digital-TV (Broadcasting Act of 1996).<sup>32</sup> OFTEL won the right to regulate CA services because these were telecommunications services that formed part of the infrastructure used to deliver broadcasting services and because these services worked through streams of data sent over a telecommunications system.

The Broadcasting Act of 1996 translated the general principles of the EU Directive into national legislation. It also envisaged six multiplexes, producing thirty-six channels. One was to go to the BBC. A second was to be shared by ITV and Channel 4. Half of one was guaranteed to the Welsh language, Fourth Channel. The remaining three multiplexes were to be made available for commercial bids. The award of the licenses was to take into account the number of people each competitor proposed to serve, how

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<sup>32</sup> Available at <<http://www.hms.gov.uk/acts/acts1996/1996055.htm>>.

quickly they would roll out the service, their ability to establish and maintain it, how widely their programs would appeal, how they planned to encourage people to keep it up, and how to ensure fair competition.

There were two applicants for the digital multiplexes. The first consortium, named British Digital Broadcasting ("BDB"), consisted of BSkyB, the Granada Group (also a shareholder in BSkyB), and Carlton Communications (an ITV company). Its competitor, Digital Television Network, was owned by the American Cabletel, which controlled sixteen cable television franchises (covering two million homes), and also owned the previous ITV transmission network, NTL.

Before the final decision, the ITC and DG IV of the EC invited BSkyB to retreat from BDB because of its dominant position in the analogical satellite sector. After BSkyB sold back its 33% stake to its partners, Carlton Communications and Granada Group, the ITC decided to award licenses for digital terrestrial television to BDB at the end of June. The consortium will launch Europe's first DTT service, which will enable viewers to receive thirty digital channels via ordinary television antennas. BDB has signed a programming accord with the public broadcaster BBC, but BSkyB is likely to remain a leading content provider.

According to the experts, the retreat of BSkyB could change some things, but not much. BSkyB will be a channel supplier of BDB, especially sports and film channels, and would obtain the same quantity of revenues, without risks to shareholders.<sup>33</sup> However, the possibility exists that BDB can compete with BSkyB to buy sports and films rights.

The favorable position of BSkyB after the ITC awarded the license to BDB caused a public confrontation with OFTEL, which feared the dominant position of BSkyB in multichannel television. Their decision was seemingly based on the belief that digital terrestrial television would only work if it included unrestricted access to BSkyB's monopoly rights to sports and movies.<sup>34</sup> Meanwhile, in May 1997, BSkyB presented its plans for Satellite Digital-TV. The launch was planned for Spring 1998, and BSkyB had already reserved fourteen transponders on Astra 2 to broadcast more than 200 channels, although it was waiting for the conclusion of the regulatory process before announcing any firm plans. The competi-

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<sup>33</sup> LANGE, *supra* note 3.

<sup>34</sup> Hills & Micahlis, *supra* note 31, at 96.

tion between different audiovisual delivery platforms was in clear danger.

### B. *The Regulatory Issues*

In the United Kingdom, it is important to remember the omnipresence of BSkyB analogical pay-TV in all parts of the television value chain: rights, program creation, packaging, delivery, and control of customer equipment. This explains why this issue took on a much higher political profile than in either Germany or France. It is also important to note the various temporal digital television developments; first through terrestrial waves (BDB), and later by satellite distribution (BSkyB). These two facts elucidate why the United Kingdom gave the most thought to the questions raised by Directive 95/47.

In the IRD debate, the United Kingdom was divided by the public broadcaster, the BBC (Multicrypt), and the analogue pay-TV BSkyB (Simulcrypt). Although OFTEL acknowledged that customers would prefer a common interface, under EU law, it may not be possible to enforce it. OFTEL was right. When the Spanish government attempted to do it, as we can see below, it encountered strong opposition from the Commission, and finally Madrid had to modify the law to allow proprietary decoders and CAS. For terrestrial broadcasters, a major problem was that BSkyB would be the first to enter into the market with a proprietary IRD. If the latter were incompatible with those required for terrestrial television, satellite digital TV would gain a monopoly. However, the alliance between the BBC and the BDB consortium in the spring of 1997, together with the delayed launch of the BSkyB digital platform "closed" the discussion about decoders.

The British government proposed to regulate conditional access systems through licenses issued under the Telecommunications Act of 1984, by the Department of Trade and Industry ("DTI") and regulated by OFTEL. Although licenses for both could be held by the same company, the licenses were to isolate encryption and scrambling services from subscriber management services.

At the same time (1996-1997), issues such as who would be allowed to recoup a subsidy by charging higher prices to third party channels, and whether the Directive should cover gateways

other than conditional access were all discussed in the consultative papers produced either by the DTI or OFTEL.<sup>35</sup>

The consultative documents sought views on the detailed regulation of four key issues: (1) approaches to subsidy for IRD and pricing of CA services; (2) the regulation of EPG; (3) the availability of smart cards and other CA services; and (4) the insurance of a sufficient capacity for the development of future services.

Finally, in March 1997, OFTEL announced the release of its guidelines to ensure that the introduction of these services would take place on a fair, reasonable, and non-discriminatory basis. The guidelines provide an interesting framework on a number of key issues:<sup>36</sup>

- The pricing of CAS and the circumstances in which subsidies for IRD may be recoverable through charges to broadcasters without having an anti-competitive effect;
- How electronic program guides can be made competitively neutral;
- How the Subscriber authorization potential operation of more than one smart card by competing broadcasters is possible;
- How broadcasters using others' conditional access services can retain commercial confidentiality of their subscriber base.

The price of CAS would be evaluated on the basis of two distinct and inseparable elements: a fair and reasonable element that would primarily look at the relationship between the costs involved in providing the service(s) and the prices offered; and a non-discriminatory element that will primarily look at the relationship between prices offered to others for the same (or related) services and the offer price being evaluated. A special problem is presented by the free-to-air broadcasters. All IRDs are required to receive a broadcast of unscrambled free-to-air services. However, in certain circumstances (e.g., restricting a broadcast to one national territory) free-to-air broadcasters may need to make their broadcasts in scrambled form. In such circumstances, they would require technical conditional access services. OFTEL noted that the charges for the services ought to be made on a non-discrimina-

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<sup>35</sup> DTI, *The Regulation of Conditional Access services for Digital Television: Final Consultation Paper on Detailed Implementation Proposals* (London, Nov. 27, 1996); OFTEL, *Conditional Access. Consultative Document on draft OFTEL guidelines* (London 1996).

<sup>36</sup> OFTEL, *THE REGULATION OF CONDITIONAL ACCESS FOR DIGITAL TELEVISION SERVICES: OFTEL GUIDELINES* (1997) (visited Apr. 6, 1998) <<http://www.oftel.gov.uk/>>.

tory basis. In practice, this is likely to mean that free-to-air broadcasters should support only common costs.<sup>37</sup>

OFTEL used two kinds of tests to determine which subsidies for IRD might be recoverable through charges to third-party broadcasters without having an anti-competitive effect. The first would be to consider whether the proposed subsidy "would have the object or effect of restricting, distorting or preventing competition." If there was an adverse effect on competition, the proposers would be required to demonstrate that it met the second test, based on the approach taken to agreements between undertakings under article 85(3) of the EC Treaty. That is, they would have to demonstrate that the proposed arrangements:

contributed to improving the production or distribution of goods, or to promoting technical or economic progress while allowing consumers a fair share of the resulting benefit; were limited to what was necessary to achieve these objectives; and would not afford the parties involved the possibility of eliminating competition in respect of a substantial part of the market.

Moreover, OFTEL suggested that recovery of subsidy from third parties would likely be most "convincing" with the accomplishment of one or more of the following conditions: "there were no substantial barriers to entry (including any exclusivity agreements and contractual arrangements 'locking-in' the customer); the system was open; and the proposer did not have market power in the relevant markets."

In practice, this would likely mean that where the purchaser of the subsidized IRD was required to take any service as a condition of receipt of the subsidized box, then payments made by third-party suppliers for the use of the set-top box would include a less than proportionate contribution to the recovery of the subsidy. With regard to the duration of this subsidy, "OFTEL's initial view was that it would be reasonable to assume an asset life of around five years."

With regard to EPG, the guidelines note that the "fair, reasonable and non-discriminatory" access prescribed by the Class License would cover not only pricing, but also such matters as the ordering of the display of different programs, the branding of pages within the EPG, the display of channel brands, the ease of "purchasing" pay-per-view ("PPV") options, and the access to information on viewers' use of PPV and other services. Also, the viewers

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<sup>37</sup> For a thorough discussion of the question see OFTEL, *The Pricing of Conditional Access Services for Digital Television* (Consultative Document, Oct. 1997).

who wished to receive free-to-air services, but not subscription services, should have their needs met within the EPG. The possibility of an EPG made by a third party is not excluded. In general, it would fall to OFTEL and ITC to ensure that the provision of this service is accomplished in a competitively neutral manner.

Regarding the potential operation of more than one smart card by competing broadcasters, OFTEL explained that there appeared to be no "serious operational objections" to a scenario where a main card covers the full range of services, while an independent card carries only a limited range of services. So, the independent card should not be ruled out by a conditional access operator. The United Kingdom telecommunications agency considers a single card issuing center preferable, recognizing the difficulties in providing for two or more centers to maintain databases of subscribers. If this were operated by a "trusted third party," independent of any broadcaster, concerns about leakage of commercially sensitive information "would be minimized." In any case, OFTEL does not accept that there are any overriding reasons (such as legitimate concerns about system integrity) for a conditional access provider to maintain a monopoly over subscriber authorization services, as BSkyB advocated.

Concerning commercial confidentiality of subscribers by broadcasters using the same CAS, OFTEL refers to Condition 12 of the Conditional Access Class License. This condition places an obligation on the conditional access operator to take positive steps to ensure this confidentiality (e.g., ensuring that a member of management of sufficient seniority is responsible for compliance; restricting access to such data to a minimum number of staff, etc.).

These guidelines contain a valuable and detailed framework to develop fair competition and to protect the consumer. However, the BSkyB dominant position in digital TV would endanger their application if OFTEL does not receive strong political backing. "Regulation can only be subordinate to, not replace, political objectives."<sup>38</sup> The regulator does not take direct account of the pluralism issue. The 1996 Broadcasting Act cross-media limits are based on audience, and the vertical integration characteristic of the digital-pay-TV United Kingdom television market has been forgotten.

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<sup>38</sup> Hills & Micahlis, *supra* note 31, at 97.

## VII. THE SPANISH POLITICAL APPROACH

In the first place, it is important to remember that Spain is not yet a twenty-year-old democracy. The tradition of the public media as servants of the dictatorship still influences the regulation of television. The thirteen years of state-oriented socialist government has not helped the media to behave like something other than a political instrument. These tendencies have been exacerbated in the regulation of digital pay-TV.

### A. *The Monopoly Market of Pay-TV in Spain*

The Spanish television market is a very limited one. It was liberalized only nine years ago. Unlike the television markets in the United Kingdom or the United States, multichannel television was almost unknown in Spain until the arrival of digital-TV. Cable and satellite audiences were minimal until 1995. The market for pay-TV in Spain has been dominated by Canal + since 1989, with the concession by the socialist government of one of the three private channels. Since then, the growth of this analogical pay-TV channel and its success has been steady.<sup>39</sup> In 1996, before the right-party Partido Popular came to power, Telefónica, which still had a majority of its shares owned by the state, and Canal + formed a joint-venture called Cablevisión. This venture was formed to develop cable and pay-TV services in Spain. But the DG IV vetoed this alliance both because of the dominant position of Telefónica in the field of telecommunications networks and because of the skills of Canal + in the pay-TV market and content. The foreclosure of the market was too important.

### B. *The Spanish Regulation: In the Service of Political Objectives*

After this breakdown, in November 1996, Canal + changed its strategy to satellite. First, on December 24, 1996, it signed an agreement with a private broadcaster, Antena 3, to share the rights to the national soccer championship and to create Canal Satélite Digital ("CSD"),<sup>40</sup> a must-have in the Spanish television market. Second, it obtained the technology and decoders from its French

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<sup>39</sup> At the end of 1996, Canal + España had 1,417 subscribers, a growth of 13.4% from 1995. Canal + Spain is owned by Sogecable, a consortium made up of Canal + France (25%), PRISA (25%) (editor of 'El País' and owner of SER, the most important radio network in Spain), BBV (15%), Group March (15%), Bankinter (5%), and Cajamadrid (5%).

<sup>40</sup> Canal Satélite Digital ("CSD") is owned by Sogecable (85%), Gestora de Medios Audiovisuales (7.5%), and the commercial broadcaster Antena 3 (7.5%), which has been controlled by Telefónica since the end of July 1997.

partner Canal + (SECA-Mediaguard). Third, it decided to use the Astra satellites. It started to broadcast on January 31, 1997.

The government of the Partido Popular disagreed with this overall strategy. The Partido Popular wanted the soccer rights for its backed digital pay-TV *Vía Digital*,<sup>41</sup> which preferred to choose the state owned satellite Hispasat rather than Astra (both with different orbital positions). Therefore, the reception of the two platforms were also incompatible at the distribution network level. The Partido Popular also needed time to launch *Vía Digital*, still on trial in January 1997. Another difficulty stemmed from Canal Satélite's domination by the media group, PRISA, which is very critical of the right wing Spanish government. The issue became more political than economic.

The Spanish government, knowing that *Vía Digital* had chosen the simulcrypt architecture, attempted to stop the commercial progression of Canal Satélite with two legal texts. The first, the instrumental transposition of Directive 95/47, called the "Real Decreto 136/1997,"<sup>42</sup> which was promulgated on the same day of the Canal Satélite launch, imposed the multicrypt architecture. After the approval of the Parliament, the text became normal law: "Ley 17/1997."<sup>43</sup> The second, the so-called "soccer law,"<sup>44</sup> imposed the mandatory sharing of soccer rights between the pay-per-view operators. As *Vía Digital* had not acquired these sports rights, the law favored its interests rather than those of Canal Satélite Digital.<sup>45</sup> The debate became so important that it was called "digital-war," filling the front pages of newspapers and provoking strong debate in Parliament. Both laws were denounced by Canal Satélite Digital and the Socialist Party to the EC.

The first law, "Ley 17/1997," established a different scope from the Directive 95/47. While the latter was designed to establish standards in advanced television services, the Spanish law sought to protect the consumer's right to receive information and

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<sup>41</sup> *Vía Digital* is owned by Telefónica (35%), Televisa (Mexico) (25.5%), TVE (25.5%), Recoletos (5.0%), Telemadrid (4.0%), TVG (2.0%), Canal (9.2.0%), and others, 1%.

<sup>42</sup> In the Spanish Constitution, the "Real decreto" is an emergency law used by the government only in the case of urgent issues and which has to be approved by Parliament after an interim period of 30 days. B.O.E., 29/12/1978, Article 86). The precise reference in this case is "Real Decreto Ley 1/1997, de 31 de enero, por el que se incorpora al Derecho español la Directiva 95/27/CE, de 24 de octubre, de la Comisión Europea, sobre el uso de normas para la transmisión de señales de televisión y se aprueban medidas para la liberalización del sector."

<sup>43</sup> B.O.E. 1997, 108.

<sup>44</sup> Reguladora de las Emisiones y Retransmisiones de Competiciones Deportivas, B.O.E., Ley 21/1997.

<sup>45</sup> Canal Satélite had been paid 15.000 millions pesetas (\$110 million) for these rights until 2003.



to guarantee the pluralistic offer of services. Multicrypt was a synonym of pluralism; it was more open than the simulcrypt technology, which requires a prior agreement between operators.

"Ley 17/1997" stipulated in article 7.a that the simulcrypt architecture of CAS would be authorized only if a written agreement between operators was presented to the "Comisión del Mercado Nacional de las Telecomunicaciones" ("CMT")<sup>46</sup> less than two months from the date of the promulgation of the law. If there were no agreement, it could use decoders with the multicrypt architecture, and the old decoders would have to be changed within six months or would be declared illegal. Since *Vía Digital*, still in trials, had chosen the multicrypt architecture and decided to ignore the situation, Canal Satélite and its simulcrypt decoders were in a situation of near illegality. This very controversial point aroused the protests of the CSD and the Socialist Party, and soon protests from the Commission. The Spanish government wanted to impose a standard in CAS, multicrypt, in spite of the Directive. At this time, the decoders with the common interface existed only as prototypes. Since doubt was instilled in potential customers, the commercial damage to CSD was important. Other points of the law were also very interventionist. The CMT had to establish the tariffs for the use of decoders until January 1, 1998. After this date, the tariff would have to be adapted to costs, and if there was a disagreement between the service providers, the CMT could intervene to fix them. The operators had to reserve 40% of their transmission capacity for independent programmers, and no operator was permitted to control more than 25% of a digital-TV operator until the competition grew. Since Sogecable controlled 85% of CSD, the measure again penalized this group.

Between February and the change of the law in September, the tug-of-war between the Aznar government and the EC was constant. The Telecommunications Spanish Minister, Rafael Arias Salgado, answered the warnings of the Commission by threats or a deaf ear. Finally, after analyzing the law, the Commission initiated formal infringement proceedings against Spain. The Commission sent a letter to Madrid containing the main points of "Ley 17/1997," which were incompatible with the EC law; these could hinder the free commerce of goods and services,<sup>47</sup> and the EC law

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<sup>46</sup> The CMT is a body recently created to control the liberalization of telecommunications in Spain. Their members are appointed by the government.

<sup>47</sup> EC Treaty, arts. 30, 59.

outlawed simulcrypt decoders, while they had been approved and used in other EU countries (France in this case).<sup>48</sup>

The Spanish answers were not convincing. On July 23, the Commission pushed forward with a "reasoned opinion," which stipulated that, within one month of receiving the reasoned opinion, the Spanish authorities might inform the Commission that they had removed those provisions of the Law that violated fundamental Treaty rules.<sup>49</sup> If the provisions were not removed, the alternative was to bring Spain to the Court of Justice of European Communities in Luxembourg. This threat weighed on them, and the Spanish government decided to change the law.

Again, the legal instrument chosen was a "Decreto Ley,"<sup>50</sup> because the thirty-day term imposed by the Commission made it impossible to modify the law in Parliament. The modifications established two main changes. First, the decoders had to be open, either multicrypt-based, or, where the operators had achieved a mutual agreement, simulcrypt-based. Second, there was no term for this agreement, but the law gave powers to CMT to supervise the understandings in order to allow consumers to receive all digital channels with only an IRD according to competition law. Finally, the CMT was given the right to establish, by demand of any operator, the technical, economical, and regulation conditions in order to preserve the offer of services on a fair, reasonable, and non-discriminatory basis. These last two changes have been criticized by the Socialist Party and CSD, because they give much discretionary power to the CMT. But the EC was satisfied with the modifications and decided to file the "infringement procedure" in October, although the Commission did warn the Spanish government that they would monitor the issue closely for infringements.

During this stormy period, there was further upheaval in the Spanish market with the purchase of the main commercial broadcaster in Spain, Antena 3, by Telefónica. The move allowed Telefónica, which already had a 35% share in the Vía Digital consortium, to enter into competitor service. Canal Satélite Digital then had a 15% share (Antena 3 was a 15% shareholder of CSD). It also permitted them to control 40% of Audiovisual Sport, the enterprise with soccer's premier league sports rights. It explains why, after a lot of political and judicial vicissitudes, both operators signed an agreement in November 1997 to share the soccer rights

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<sup>48</sup> See European Commission Press Release (No. IP/97/564, June 26, 1997). The recent press releases are available at <<http://europa.eu.int/rapid/start/welcome.htm>>.

<sup>49</sup> See European Commission Press Release (No. IP/97/680, July 23, 1997).

<sup>50</sup> B.O.E. 1997, 221.

in the pay-per-view system for the 1997-1998 championship. The results of this "war" and competition are impressive: at the end of January 1998, Vía Digital had 135,000 subscribers installed and 105,000 subscription applications, because of a shortage of decoders. Canal Satélite Digital had 312,000 installed subscribers and 213,000 on the waiting list.<sup>51</sup> This exceptional take-off, 765,000 subscribers in less than twelve months, may also be explained by the small number of Spanish households with multichannel television (see Table 4).

Table 4. Situation of the TV multichannel in Europe (1996)<sup>52</sup>

Country	Households with CATV	Households with satellite dish	Households with multichannel TV
<b>Germany</b>	48%	29%	77%
<b>United Kingdom</b>	6.2%	16%	22.2%
<b>France</b>	8.7%	5.1%	13.8%
<b>Spain</b>	3.4%	6.3%	9.7%

Within Spanish regulation, there is no place for the rule of EPGs or APIs. The only issue regulated is the CAS. The aforementioned are left to the CNMT, who are charged with controlling the liberalization of telecommunications in Spain. This implies that the regulation of these bottlenecks will be on a case-by-case basis, and there are no rules which predict how this process can be carried out. These bottlenecks may be overcome more quickly and more easily by an official agency, but the danger of politicization is very real, especially considering the fact that all of the members are appointed by the government. At the end of 1997, the Spanish administration announced a further release of new rules to apply to Digital Terrestrial Television, and it is probable that these issues might be included in the new rules.

The pluralism issue has been very prominent in the Spanish debate. One of the reasons why Aznar's government tried to impose its restrictive regulation on digital-TV was the need to maintain the pluralism against the dominance of the PRISA group. In fact, the "Ley 17/1997" established that no enterprise or entity may own more than 25% of the equity of any one digital TV

<sup>51</sup> Press services of Vía Digital and Canal Satélite.

<sup>52</sup> World Telecommunications Rapport 1996/97, International Telecommunications Union (Geneva, 1997).

operator (as in the law regulating commercial television.)<sup>53</sup> Since Sogecable has 85% of Canal Satélite Digital, this directly attacked its interests. But, who owned Sogecable? Sogecable is owned 25% by PRISA, 25% by Canal + France, and the remaining 50% by various banks. Where is the threat to pluralism here? The regulation was accused of political bias by CSD, and at the moment the government has not enforced it. This lack of enforcement may also be because the Vía Digital platform has a 35% share holding in Telefónica.

This Spanish attempt to protect pluralism in digital-TV demonstrates the imperfection of share ownership as means of protecting pluralism in the digital age. To establish these kinds of projects, a large consortium with multiple partners is necessary. Therefore, the possibility of dominance by one political or ideological bias is minor because large consortiums are formed to share financial and management capacity and not to send univocal messages through multiple channels. The potential protection of certain economic interests is more possible.

#### VIII. CONCLUSIONS: IMPACTS ON REGULATION OF PLURALISM AND COMPETITION

Of all recent developments in the audio-visual industry, digital-TV presents some of the most complex and novel regulatory problems. In spite of these difficulties, I will try to conclude with some reflections about competition and pluralism issues.

Both national cases and the European regulation process show how the market structure of analogue pay-TV has impacted on regulation (in the British case), and also how this structure places new ways of controlling the broadcast sector (in the Spanish case) in the hands of regulators. The state has not withdrawn from the sector, but has become, in a sense, an active "re-regulator."<sup>54</sup> In the Spanish case, the intervention has been more politically orientated and on a short-term basis. In the United Kingdom, the intervention has reflected the planning tradition of audiovisual regulation, with a long-term perspective, but also with a strong market influence. Both countries have transposed the same EU directive, but the results are very different.

The differences are, in part, the products of differing administrative cultures and political concerns, but they also reflect the ex-

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<sup>53</sup> B.O.E. 1988, 765 Ley 10/1988 de TV Privada.

<sup>54</sup> PETER J. HUMPHREYS, *MASS MEDIA AND MEDIA POLICY IN WESTERN EUROPE* 306 (Manchester Univ. Press 1996).

tent to which a lack of precision in the Directive has created considerable latitude for national variation. "The directive's limitations have created a risk of two forms of fragmentation within the European digital market: technical fragmentation through the use of rival and incompatible conditional access systems, and regulatory fragmentation as the result of differing approaches to implementation and enforcement across the EU."<sup>55</sup> The possibility that the operators will attempt to become established in the most liberal regulatory environment is not unimaginable.

On competition issues, the EU has developed a market-led policy. The idea was to protect providers from discrimination, and thus to indirectly protect consumers. On the surface, the ONP principles and European competition law are good instruments for dealing with gatekeepers' anti-competitive conduct. But the efficiency of the principles will depend on what the national governments do to apply them. In this sense, as the danger of political intervention is high, the release of clear rules like the OFTEL guidelines would be preferable.

However, the European market has a major structural problem. The business model, adopted by most digital satellite television services providers, has been a simple extension of the current analogue satellite television formula based on the supposition that digital satellite television is essentially a pay-TV business. Whether this assumption will prove to be a costly mistake for a number of service providers, as Nolan says,<sup>56</sup> is still not clear at the moment, except possibly for Kirch DF-1 digital pay-TV. On the other hand, the danger of bottleneck domination is more evident. In the United States, the DBS operators are delivery platforms and not content producers or owners. The exclusive rights of content producers are limited. The contents are available to each delivery system, Cable, MMDS, and Networks.

The problem of owner operation of the conditional access bottlenecks has been tackled in the United States by engineering the vertical separation of the subscription television market with a Third Trusted Party.<sup>57</sup> The analogical SMS and CAS are controlled by M/A-COM, a non-profit organization owned by General Instruments. M/A-COM licenses the technology to producers and manufacturers. No broadcaster is at a disadvantage when trying to access the technology because it is controlled by an operator with no in-

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<sup>55</sup> Levy, *supra* note 5, at 673.

<sup>56</sup> Nolan, *supra* note 15, at 608.

<sup>57</sup> Cave & Cowie, *supra* note 6, at 138-39.

terests in the programming market, and therefore has no downstream interests to protect against rivals.

There are other bottlenecks, not discussed above, which are also important, like the ownership of sports rights. The exclusivity, necessary for the exploitation on a pay-per-view basis, may endanger competition if it is long-term and linked to a determinant content provider with a specific delivery platform. The EC is trying to restrict the period of contract (shorter periods) or to allow a sell back as repeat broadcast.<sup>58</sup>

With regard to pluralism issues, we must find a solution to "the conflicts of interests between the value of diverse information and the economic viability of information providing enterprises."<sup>59</sup> This challenge for policymakers has generally been surrendered in digital-TV. The promise of a large number of new channels solves the pluralism issue in digital-TV. And certainly this is progress. But diversity is different from a greater number of options. At this point, the danger of the "upper gateway" is real. Hence, "must carry" rules, well-defined and proportioned, are desirable. For instance, some rules grant carriage to a certain percentage of programming content in which the pay-TV operators have no ownership interest. In general, the policy-makers would see society constituted not only by consumers, but also by citizens.

Finally, the issue of conditional access is a good example of convergence. This is an area where audio-visual, telecommunications, and competition law are closely linked. The collaboration between different regulators is essential.

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<sup>58</sup> For a thorough discussion of the question see Campbell Cowie & Mark Williams, *The Economics of Sports Rights*, 21 TELECOMM. POL'Y 619 (1997).

<sup>59</sup> Kaitatzi-Withlock, *supra* note 25, at 93.