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Digital terrestrial television roll-out policies in Spain and the changing television scene in the context of analogue switch-off

Abstract
This article describes and analyses the digital terrestrial television roll-out polices developed and applied in Spain by conservative and socialist governments (Partido Popular [1996–2004] and Partido Socialista Obrero Español [2004–2010], respectively) from the end of the 1990s until the analogue switch-off in April 2010. It also considers, from national, regional and local perspectives, the implications of this digitalization process for the terrestrial television scene in Spain. Finally, it points to a number of pending public policy issues and potential market trends. As a result of this process, Spain has become one of the first large Western European countries with a predominantly terrestrial television model to switch off analogue broadcasts.

Keywords:
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Spain was one of the first large Western European countries with a predominantly terrestrial television model to switch off analogue broadcasts. The official switch-off date was chosen to coincide with the renewal of analogue terrestrial television licences (3 April 2010). Consequently, at the end of 2007, a decision was taken to implement the switch-off process in three phases (June 2009, December 2009 and April 2010), which was in fact achieved with relatively few problems. Even so, on 24 May 2010, the Communication Users Association (AUC 2010) issued a public statement denouncing a number of issues, such as the lack of new features and innovation in digital terrestrial television (DTT) content, the absence of planning in terms of users being able to get hold of the right equipment in order to enjoy high-definition (HD) or three-dimensional broadcasts, and the poor use of satellite to cover 'shadow' areas.

According to the Government of Spain, having an earlier analogue switch-off date than other European Union countries meant that Spanish companies would be able to install DTT infrastructures in Germany, France, the United Kingdom, Finland, Norway, etc. In fact, the government claimed that Spanish companies in the DTT business sector had positioned themselves strategically in order to service future markets, such as Latin America, Asia and Africa (Ministerio de Industria, Turismo y Comercio 2010a).

This article summarizes the main DTT roll-out policies developed and applied in Spain between 1998 and May 2010. At the same time, it analyses the changes that, as a consequence of this process, the Spanish television scene has experienced.

Given the complexity of this scene, policies and changes impacting on national, regional and local broadcasts shall be dealt with separately. From this point onwards, when reference is made to the regional context, it should be understood as being synonymous with coverage in the territory of one of the seventeen autonomous communities into which, since the restoration of democracy in the late 1970s and early 1980s, the territory of Spain has been divided.

At the end of the document, and by way of a conclusion, the article considers pending policy issues, such as the introduction of HDTV and mobile DTT. It will also point to potential trends in the evolution of the DTT market.

1. Some contextual considerations

In Spain, television broadcasts have traditionally been terrestrial. Analogue cable broadcasts had always been very marginal (except in the Region of Murcia) until cabling was carried out for third-generation networks and triple-play services were offered – mainly in urban centres – in the 2000s. In 2010, the cable business – and digital cable television in particular – is controlled by a company called Ono, which enjoys a *de facto* monopoly, even though the sector was deregulated in 2005. When analogue terrestrial television was switched off, there were around 1.3 million cable subscribers in Spain, out of a total of more than 17 million television households.

Meanwhile, the digital satellite television sector, which was liberalized in 1995, is experiencing a major crisis because the only existing platform, Digital+ (created following a merger in 2003 between Canal Satélite Digital and Via Digital), has lost its football broadcast rights. Moreover, Digital+ is the main cause of the highly complex financial situation in which its promoter and current owner, the PRISA group, now finds itself. Indeed, that group has been trying to divest itself gradually of Digital+ for some time (Almiron 2007). That said, at the end of 2009, Digital+ had more than 1.8 million subscribers.

In any event, despite the evolution that new platforms (satellite, cable and IPTV) have experienced over the last decade, at the beginning of 2010, terrestrial television had the strongest presence by far in Spanish homes.

However, this presence was even stronger in 1998, when the initial measures aimed at rolling out DTT were adopted. At the end of the 1990s, five analogue terrestrial television channels with national coverage were being broadcast: two public channels (TVE1 and TVE2, launched under Franco's dictatorship), two private free-to-air channels (Antena 3 and Telecinco) and one private pay-TV channel (Canal+). The three private channels' broadcasts began in 1990. At that time (the turn of the century), the private channels had major shareholders like Telefónica (Antena 3), Mediaset (Telecinco) and PRISA (Canal+). In addition, there were six regional public television operators. Three of them – those in Catalonia, the Basque Country and the Valencian Community – had two channels each. These regional public television operators competed for audience share with the national public television operator's first channel (TVE1) and the two national private television operators' free-to-air channels (Antena 3 and Telecinco).

The situation for local television was very different. A bill had been passed in 1995, setting out that each municipality could have one local public television station and, if frequencies were available, one local commercial television station. However, the Government of Spain never approved the required technical plan for frequencies for local analogue terrestrial television, and, consequently, the regions were never able to grant broadcasting licences. Town or city councils and private companies that chose to provide a local television service (741 in 1999 according to the Asociación para la Investigación de Medios de Comunicación) did so in a situation of major legal uncertainty until the advent of DTT.

In this context, and shortly before signing the Chester 1997 Agreements for the coordination of spectrum policies on an international scale, the Government of Spain, whose governing party at that time was the conservative Partido Popular, decided to turn Spain into one of Europe's pioneering countries in terms of DTT roll-out. In fact, alongside the United Kingdom and Sweden, Spain will be one of the first European States to plan the DTT spectrum.

Powers for communication policy in Spain are shared between the State and the autonomous communities. Among other things, this means that the State has exclusive powers over radio-electric spectrum planning for terrestrial radio and television broadcasts, whereas the granting of licences depends on the operators' coverage (national, regional or local). Consequently, central government grants licences for national coverage and the regional governments – the Catalan Audiovisual Council (CAC) in Catalonia – grant licences for regional and local coverage, with considerable room for manoeuvre when it comes to setting the criteria for granting them.

2. National DTT

In the process of rolling out DTT with national coverage in Spain, there are two clearly identifiable phases: the first, basically promoted from 1998 by the Partido Popular conservative government, which opted for pay-TV as the driver of digitalization, which ended in failure; and the second, beginning when the socialist government gained power in March 2004, which initially opted for free-to-air DTT, which led to a successful switch-off in April 2010. However, as we shall see later, the latter was not devoid of contradictions.

The following sections deal with the most significant traits of the policies developed and applied in these two phases. They particularly underscore the implications of policies that overturned restrictions on mergers between companies with DTT capacity. Such measures may considerably affect television pluralism, as indicated by the proposed acquisition of PRISA's DTT business by Gestevisión Telecinco (Mediaset).

2.1. Failure of the conservative Partido Popular's policies: Quiero TV bankruptcy

With the approval of the National Technical Plan for DTT in 1998, five multiplexes (twenty programmes) were set aside for broadcasts with State-wide coverage. Of these five multiplexes, one was for operators providing an analogue service: two public channels (TVE1 and TVE2) and three private channels (Antena 3, Telecinco and Canal+), which would find it very hard to coexist in one multiplex with a capacity for four programmes plus added-value services. Therefore, crammed into this multiplex were the most experienced companies in the sector (including the public operator), while fourteen programmes (three and a half multiplexes) were set aside for a multichannel pay-TV platform (Quiero TV) and the two remaining programmes were set aside for the granting of free-to-air DTT licences (Veo TV and Net TV). The multichannel pay-TV platform and the two new free-to-air DTT licence-holders could only broadcast using digital technology (Bustamante 2008; García Leiva 2008).

Thus, the first distribution of DTT multiplexes with national coverage in Spain was as follows:

Multiplex	Programmes			
Channel 69	Quiero TV	Quiero TV	Quiero TV	Quiero TV
68	Quiero TV	Quiero TV	Quiero TV	Quiero TV
67	Quiero TV	Quiero TV	Quiero TV	Quiero TV
66	Quiero TV	Quiero TV	Veo Televisión	Net Televisión

57–66*	TVE1	TVE2	Antena 3	Canal +	Telecinco

*Note: The multiplex set aside for historic operators is the only one that allows for regional opt-outs; hence, it requires several radio frequency channels.

Quiero TV's major shareholder was Retevisión (49 per cent). Veo TV was owned by Unidad Editorial, the Spanish subsidiary of RCS Mediagroup, and by the Recoletos group (bought out by Unidad Editorial in 2007). Net TV belonged to Prensa Española (now Vocento) and to the Árbol group, which is now part of Imagina Media Audiovisual.

Consequently, between 1999 and 2000, an essentially pay-TV DTT model was created, and broadcasts began in May 2000. This was a highly controversial decision since, at that time, there were two multichannel satellite pay-TV platforms (Canal Satélite Digital and Vía Digital) with the same business model as the terrestrial platform. They had been considering merging the two for quite some, since it was clear that there was no room in the market for both. In addition, Retevisión, the reference shareholder of Quiero TV, had significant shareholdings in the cable business, which was another competitor for the multichannel terrestrial pay-TV platform (Fernández Alonso 2004).

All of this was set within a context in which the stakeholders involved in the process of DTT roll-out (the Government of Spain, television companies, receiver manufacturers, aerial fitters, etc.) were not properly coordinated to simultaneously take the new technology forward. For example, DTT promotion campaigns were not carried out well enough, and the citizens – who were not used to having to pay to watch television – bought very few set-top boxes. As a result, the manufacturers were left with a considerable stock of these products sitting in their warehouses. Meanwhile, television companies did not produce specific content for DTT because the business seemed unviable. Consequently, they did not contribute to raising customer demand. Confronted with this situation, in the spring of 2002, Quiero TV (which only had 90,000 subscribers) went bust and handed back its licences, and, in 2004, the Partido Popular conservative government decided to make the licence contract conditions more flexible for Veo TV and Net TV (for example, their shareholding stability obligations were removed and the commitment to prioritizing national and European Union audio-visual production was postponed). Although the remit of these two was limited to rebroadcasting content produced for other platforms, they lost quite a lot of money because they had to pay for the costs associated with the broadcasting of the signal (Bustamante 2008; García Leiva 2008).

The Socialist government elected in March 2004 was therefore forced to reconsider how to allocate the spectrum freed up after Quiero TV surrendered its licence. Because Quiero TV was the main DTT operator, this required a plan to re-launch the whole DTT platform.

2.2. Contradictions in the socialist government's DTT policies

In December 2004, the socialist government approved a plan to promote DTT, which led to a number of different actions. Of these actions, some of the most noteworthy were the coordination of all stakeholders involved through the Monitoring Commission for the Transition towards Digital Terrestrial Television, administered by the Spanish Ministry of Industry, Tourism and Trade from February 2005; the creation, at the end of 2005, of Impulsa TDT, an association bringing together public and private television operators – both national and regional – and the network operator Abertis in order to promote DTT in collaboration with various public authorities; the redistribution, throughout 2005, of the spectrum freed up after Quiero TV went bust; and, of course, the three-phase switch-off plan mentioned earlier, which was approved in December 2007 (Fernández Alonso 2008).

The redistribution of the spectrum was firmed up with the reform of the 1998 National Technical Plan for DTT. Thus, Royal Decree 944/2005 outlined a scenario for the transition period (2005–2010) and another scenario for the post switch-off period. For the transition period, it first set aside five programmes for the State public television operator TVE. Second, it set aside one for each of the five private operators holding terrestrial television licences that were actually broadcasting (simulcasting or digital broadcasting only). Third, it announced a new tender to grant two new DTT programmes to one company. This amounted to a total of twelve programmes. Therefore, there were another eight still available from the original twenty programmes planned in 1998.

After tough negotiations with the companies (and on the basis of the provisions that Royal Decree 944/2005 set out for distribution), these eight programmes were distributed by the Spanish Council of Ministers on 25 November 2005. The Council agreed to grant two additional programmes to each of the three private analogue terrestrial television companies (Gestevisión Telecinco, S.A.; Antena 3 de Televisión, S.A. and Sogecable, S.A.), and one additional programme to two DTT-only companies (Sociedad Gestora de Televisión NET TV, S.A. and Veo Televisión, S.A.). The same Council of Ministers agreed to grant two new DTT programmes (free-to-air, like all the previous programmes) to Gestora de Inversiones Audiovisuales La Sexta, S.A., with a special feature in the new licence enabling the licence-holder to broadcast one of its channels using analogue technology.

In order to take this decision, it was first necessary to reform the 1988 Private Television Act, which only allowed for the existence of three private analogue terrestrial television channels with national coverage. Therefore, the socialist government, arguing that it would foster pluralism, authorized a fourth private analogue terrestrial television channel (free-to-air) at the height of the digital transition process. The beneficiary of this concession was an emerging communication group (Imagina Media Audiovisual), which was essentially taking shape around two large production companies, the Catalan-based

Mediapro and the Madrid-based Globomedia. Ideologically speaking, the group was more left wing than the PRISA group and closer than PRISA to the socialist government (Bustamante 2008; Fernández Alonso 2008).

In order to understand the new DTT map following the 2005 reforms, account needs to be taken of another political decision: the modification of the contract signed in 1989 between central government and Sogecable to allow PRISA to switch from offering terrestrial pay-TV services (Canal+) to offering free-to-air services on the same frequency (Cuatro). This decision – explained by a change in PRISA's commercial strategy – was taken by the Council of Ministers on 29 July 2005, arguing, once again, that it would foster pluralism. Thus, the only terrestrial pay-TV offering that existed in Spain after Quiero TV went bust disappeared from the television scene, and a completely free-to-air model was formed, with five channels offered by the public operator and fifteen channels offered by six private companies. Of these six, three (the historical ones, which had licences to provide analogue services) had three channels each, while the other three (the terrestrial television licence-holders in the DTT roll-out context) had two each. As we shall see later, this situation would even itself out after the analogue switch-off, when each licence-holder had a multiplex carrying four programmes.

To the contradictory decision taken in 2005 of authorizing a new analogue channel when Veo TV's and Net TV's applications for analogue channels had been rejected (both channels being very critical of the socialist government), a further two measures taken in 2009 should be added, the main protagonist of which was also the Imagina group. First, when it seemed that Spain had opted for a free-to-air DTT model, in 2009 the socialist government once again chose to give the green light to a pay-TV DTT model (in principle, with a maximum of one programme per licence-holder). This decision was embodied in a decree-law, a measure that the Spanish Constitution only foresees for situations of extraordinary and urgent need. A few weeks later, the Imagina group, which had gradually bought most of the broadcast rights for La Liga (First Division of the Spanish Professional Football League), launched Gol TV, a pay-TV DTT channel.

Second, a few months earlier, in February 2009, using the same decree-law method, the Government of Spain had made the regulations for media concentration more flexible. This allowed companies holding licences for DTT with national coverage to merge their businesses on condition that the total audience figure for all of their channels did not exceed 27 per cent of the share, that they did not have more than two national multiplexes, and that there were at least three licence-holders. This was exactly the same number of licence-holders that, in 2005, was considered insufficient to guarantee pluralism, and the reason why the Private Television Act was modified to allow La Sexta to offer analogue broadcasts.

As a consequence of the policies described, this was the map of DTT with national coverage in Spain after the analogue switch-off (April 2010):

Licence-holding company (major shareholders)	**Programmes**	**DTT audience share, March 2010** according to Kantar Media
Televisión Española, S.A. (TVE – public operator)	La 1 La 2 Canal 24horas Clan Teledeporte	16.8% 3.6% 0.9% 3.8% 0.9%
Antena 3 de Televisión S.A. (Planeta de Agostini (44.58%))	Antena 3 Antena Neox Antena Nova	12.4% 2.4% 1.4%
Gestevisión Telecinco S.A. (Mediaset Investimenti, S.P.A. (50.14%))	Telecinco FDF La Siete	14.2% 1.5% 1.4%
Sogecable S.A.U. (PRISA (100%))	Cuatro CNN+ 40 Latino	6.8% 0.7% 0.4%
Veo Televisión, S.A. (Unidad Editorial (100) – subsidiary of RCS Mediagroup)	VEO 7 SET en VEO	1.0% 0.6%
Sociedad Gestora de Televisión Net TV, S.A. (Vocento (55%), Intereconomía (25%), Disney (20%))	Intereconomía Disney Channel	1.2% 2.8%
Gestora de Inversiones Audiovisuales La Sexta, S.A. (Imagina Media Audiovisual (51.66%), Televisa (40.52%))	La Sexta Gol TV*	7.6%

*Gol TV was the only pay-TV channel at the time of switch-off.

Royal Decree 944/2005, as referred to earlier, set out that, after the switch-off, DTT offerings with national coverage would increase: Televisión Española would have two multiplexes (eight programmes) and each private licence-holder would have one full multiplex (four programmes).

2.3. Negotiations between the main television companies

When analogue terrestrial television was switched off (April 2010), a number of business operations were being negotiated between the owners of private television companies with national coverage that, if concluded, would significantly transform the map of the television sector.

As mentioned earlier, in March 2006, there were six operators in Spain holding licences for DTT with national coverage, broadcasting fifteen different programmes. In 2009, coinciding with Act 7/2009 of 3 July, which enacted the Government of Spain's decree-law on concentration referred to earlier, news began to emerge of negotiations between the DTT licence-holding companies to join forces. This would allow them to offer advertisers significant audience ratings and, at the same time, relieve the pressure being placed on them by their creditor banks. PRISA, for example, paid the consequences of a calamitous bid to takeover Sogecable (Almiron 2007), and Imagina lacked sufficient own funds to cover the losses made by some of its business units (Perspectivas del Mundo de la Comunicación 2010). PRISA and Imagina Media Audiovisual are the most politically progressive of Spanish national groups.

2.3.1. Gestevisión Telecinco and PRISA

In December 2009, the boards of directors of the companies Gestevisión Telecinco, S.A. (in which Mediaset Investimenti S.P.A. has a 50.14% shareholding) and Promotora de Informaciones, S.A. (PRISA) announced that Gestevisión would buy the business for DTT with national coverage from the PRISA group and 22% of its digital satellite television platform Digital+ (Gestevisión Telecinco S.A. and Promotora de Informaciones SA., 2009). The agreement implies the creation of a new company that would be 100% owned by Gestevisión, which would manage two of the eight multiplexes planned for DTT in 2011.

On 14 April 2010, the master contract was signed, which set out the procedure, timelines and other terms and conditions for implementing the agreement of December 2009 (Gestevisión Telecinco SA and Promotora de Informaciones SA, 2010a). This document specifies the consideration that PRISA will receive for the sale of its DTT business and 22% of its digital satellite television platform. Firstly, it will receive €491.128 million in cash and, second, newly issued shares in Gestevisión equivalent to 18.37% of its share capital, giving PRISA the right to have two out of fifteen board members on Gestevisión's board of directors (Expansion.com 2010b). In addition, in its first year as a shareholder, PRISA will be able to appoint a vice-chairman and a director of news services (Expansion.com 2009). PRISA is bound not to sell its shareholding in Gestevisión for one year. However, it would have the option to sell its shareholding to Mediaset at the end of that period (Expansion.com 2009). Faced with this constraint, PRISA's CEO, Juan Luis Cebrián, said that Gestevisión Telecinco would be very profitable and that they had no intention of leaving (Expansion.com 2010a).

In December 2009, it was announced that Gestevisión would have to increase its capital in order to be able to fund the operation. The capital increase was approved by the company's shareholders at the general meeting held on 14 April 2010. This explains why the contract referred to earlier, between the parties involved in the operation, could not be signed until that date. The total amount of the capital increase is €61,660,464, which can be implemented in one or several stages within a maximum five-year period (Gestevisión 2010b). Gestevisión's current shareholders have preferential subscription rights in the capital increase, and Mediaset Investimenti S.P.A., an Italian group linked to the Berlusconi family, has committed to subscribing to the whole of its share in this increase in order to keep its current shareholding percentage, which is 50.14%.

Even though the authors consider it too soon to be able to draw any conclusions from this operation, it is worth pointing out that the new television company plans to control 45.1% of advertising revenue in the Spanish television market, in a context where the public television operator (TVE) stopped broadcasting advertising in January 2010 (Expansion.com 2009). (Inspired by the French policy, this measure means that since

January 2010, the Spanish national public broadcaster has been funded essentially from State subsidies and part of the operating revenues of private television companies and telecommunications operators, even though EU competition authorities have yet to decide whether or not this model is valid).

In 2009 *The Financial Times* reported that Mediaset was the big winner in this agreement. It consolidated its position in Spain at a cash cost of €500 million. It was not clear, however, what the results for PRISA would be. Even though its strategic position had improved, the company still needed to re-finance debt of €5 billion. While PRISA believed this to be possible, it would more than likely need to sell more assets or increase capital to do so (Lex Column FT 2009).

After the analogue switch-off in Spain, this operation was pending approval by the Spanish regulatory and competition authorities (Gestevisión Telecinco SA and Promotora de Informaciones SA 2010a)

While these negotiations were taking place, PRISA seemed to be taking decisions to take advantage of the opportunity of pay-TV DTT with national coverage. According to the terms of the agreement between both companies, PRISA would manage the pay-TV offering of the merged group. The group has a lot of experience in the multichannel pay-TV business segment and, therefore, it may try and take advantage of the edge it has to finally make a profit.

Shortly after the analogue switch-off, there was some news suggesting that PRISA might launch a pay-TV DTT channel in September 2010, which might be marketed under the Canal+ brand. Paradoxically, throughout 2009, PRISA was the main opponent to pay-TV DTT, since it was damaging to Digital+ (Montalvo and Morán 2010).

2.3.2. Antena 3 de Televisión and Gestora de Inversiones Audiovisuales La Sexta

The Spanish media have repeatedly published news about another buy-out operation. In this instance, Antena 3 de Televisión, S.A. (in which the Planeta de Agostini group has a 44.58% shareholding and the Bertelsmann group has a 20.49% shareholding) would buy Gestora de Inversiones Audiovisuales La Sexta, S.A. (in which the Imagina group has a 51.66% shareholding and the Televisa group has a 40.52% shareholding).

As at the date of the analogue switch-off in Spain, there was no official information about this operation. Of the two companies involved, only Antena 3 de Televisión, S.A. is quoted on the stock exchange. Therefore, it is the only one that has a legal obligation to publicly announce negotiations of this type. In December 2009, Antena 3 de Televisión notified the Comisión Nacional del Mercado de Valores(Spanish National Commission of the Stock Market) that it had been holding talks with various operators to explore potential ways of integrating its audio-visual businesses, including La Sexta, although no verbal or written agreement had been reached with any of them at that time (Antena 3 de Televisión 2009). Since then, Antena 3 has not announced any changes in this respect.

At the end of April 2010, the economy and finance newspaper *Expansión* (RCS Mediagroup) contained a comment made by the financial director of Antena 3 TV, which suggested that the operation would not take place in the short term because it was very complex and the parties had differing interests (Expansion.com 2010c). The CEO of La Sexta had also stated that talks between both companies were difficult (Expansion.com 2010d).

If the business operations described above are concluded (Gestevisión Telecinco and Sogecable on the one hand, and Antena 3 de Televisión and La Sexta on the other), they will both benefit from two full DTT multiplexes when digital dividend reassignment is firmed up.

3. Regional DTT

At the height of Spain's transition towards democracy, the 1978 Spanish Constitution laid the foundations for the creation in Spain of a highly decentralized political system divided into autonomous communities (newly created) and municipalities (already in existence). The autonomous communities (the 'regions') progressively formed their respective governments and parliaments, and have gradually taken on wide-ranging powers, including powers for the media. The 1978 Spanish Constitution sets out that the State has exclusive authority for basic norms on media issues, 'without prejudice to the faculties which in their development and execution belong to the Autonomous Communities' (article 149.1.27). In practice, and in the specific instance of television, this means, for example, that there has been ever-greater leeway to promote public operators (and to regulate their organization and operation) and to grant broadcasting licences to private operators.

In Spain, regional television was authorized in 1983 by Third Television Channel Act 46/1983, and regional television stations were exclusively publicly owned until 1998. This Act allowed regions to have their own public television stations, and those who decided to do so gradually set them up. The first ones emerged in territories where nationalist feelings were more deep rooted: the Basque Country, Catalonia and Galicia. In these cases, television was conceived as a tool for 'national reconstruction' and language standardization, which, given that it was at the service of these initiatives, was as politicized as State-wide public television, which was at the service of the government in office. The way in which TVE was politicized was copied by television stations in the regions.

When analogue terrestrial television was switched off, there were thirteen regional public television stations, meaning that all regions had a public operator apart from Cantabria, Castilla y León, La Rioja and Navarre. The main reason why these regions did not have public television stations was the high level of funding they require. In fact, regional public television stations generally have high deficits, despite the fact that they are able to broadcast advertising and receive public subsidies.

Through the 1998 National Technical Plan for DTT, referred to earlier when talking about DTT with national coverage, central government, whose governing party at that time was the conservative Partido Popular, also outlined the design for regional DTT. The most significant novel aspect of the model was that it authorized the creation of regional private television stations.

The plan allocated one multiplex carrying four programmes to each region as from 31 October 1999. Of these four programmes, two were set aside for public television stations using analogue technology for their broadcasts so that they could either start simulcasting or create an additional channel if they only had one analogue channel. The other two programmes could be awarded to private companies by public tender.

In the first phase of DTT roll-out (1998–2005), only four regions granted broadcasting licences to the private sector: Madrid, La Rioja, Navarre and Catalonia.

Madrid led the way in this process. The analogue public channel Telemadrid began simulcasting on digital, and a second digital-only public channel La Otra was started. In November 1999, the government granted two licences to private companies: one to Prensa Española, S.A. (now part of the Vocento group) and one to Onda Digital, S.A., the company that owned Quiero TV. The Prensa Española television station began operating and is still broadcasting under the Onda 6 brand, but Onda Digital's regional television station never commenced.

La Rioja and Navarre did not have regional public television stations and their respective governments had repeatedly stated that they had no intention of setting any up. However, they took advantage of DTT to allow private television stations to operate in their respective territories. La Rioja granted two licences for DTT with regional coverage to the Vocento group and another two to the COPE group (owned by the Catholic Church), but when analogue terrestrial television was switched off, both licence-holders were only broadcasting one channel each. There was a similar situation in Navarre, where the winners of the two licences (four programmes in total) were the PRISA group and the Promecal group (a regional group from another region of Spain).

Catalonia was also involved in the launch of regional DTT from the outset. A special feature of this early involvement was that it awarded a full multiplex (planned by central government) to the public operator and awarded a second full multiplex (not planned, though its situation was regularized in 2005) to a Catalan private group, Grupo Godó, which had not managed to complete the four-channel offering by May 2010.

Meanwhile, the Basque Country also opted for a policy that, from the outset, also deviated from the idea put forward in the 1998 National Technical Plan for DTT (two public channels and two private channels). In fact, the Government of the Basque Country chose to set aside the whole multiplex for the public sector and to limit private television offerings to the local setting.

In this very diverse context, the reform of the 1998 National Technical Plan for DTT referred to earlier, which was carried out by the socialist government in 2005 (Royal Decree 944/2005), set out that there would be a second multiplex for each region after the switch-off, or before if technically feasible. In addition, regional governments would have the authority to decide whether regional television stations were going to be managed by public or private companies. An exception to this rule was that public television stations already broadcasting had to have the same number of programmes set aside for them as before, so that they could simulcast. This analogue and digital simulcast situation continued until the analogue switch-off.

In short, for regional DTT, there were very few novel aspects in terms of design in this second DTT roll-out phase (2005–2010): the regions were given greater broadcasting capacity, and the option of television stations being public or private was made more flexible.

The results (based on data for television stations actually broadcasting, and not on licence-holders as a whole) up to April 2010 are as follows: regional DTT is being broadcast via 62 programmes (34 are publicly managed and 28 are privately managed, and they are all free-to-air); of the privately managed programmes, seventeen are connected with big communication groups in the Spanish market, such as Vocento (six), COPE (five), Godó (four), PRISA (one) and Unidad Editorial (one); and there is only one region that does not have DTT for its territory, which is Cantabria (Mundoplus.tv 2010; ImpulsaTDT 2010).

To end this section, it is worth pointing out that the Vocento group is the private group that has made the clearest moves to position itself in regional DTT. Shortly after the analogue switch-off, it brought together its six stations under one brand, called La 10. Before that, in 2009, it had signed an agreement to offer free-to-air broadcasts of Viacom content (Nickelodeon, MTV and Paramount Comedy) on its regional television stations. Therefore, it buys the content, whose production is the most costly part of the television business, and is in charge of marketing it, while designing advantageous packages for its advertisers.

The PRISA group's case is very different. Due to its difficult financial situation, it decided to surrender the licences it had been granted for regional DTT, except for its television station in Navarre, which it is trying to sell.

4. Local DTT

As pointed out in Section 1, since its emergence in the 1980s, local terrestrial television in Spain had existed in a situation of major legal uncertainty (broadcasting without any licences) until the process for the introduction of DTT got under way. It was in 2004, after the approval of the Technical Plan for Local DTT Frequencies, when the regions began to start the process of tendering to grant the first broadcasting licences (Corominas et al. 2007).

The digitalization model for local terrestrial television was designed by the second Partido Popular conservative government (2000–2004) and adopted – with minimal reforms – by the socialist government, after the Partido Socialista Obrero Español had regained power. This model involved a clear modification of the local television concept, which, until that time, had been synonymous with television having municipal coverage (whose public television stations were managed by the councils of the respective municipalities).

Following the approval of the National Technical Plan for Local DTT (March 2004), the scope of local terrestrial television coverage became the 'demarcation', which, with the exception of eight cases (consisting of just one municipality), brought together several municipalities (in some cases up to 30 or so), on the basis of technical rather than sociocultural criteria. In general, each demarcation (265 across the country) was allocated one local DTT multiplex, usually with a capacity for four programmes plus added-value services. Initially, under the Partido Popular conservative government, one of the four programmes was for local public television, and the other three were for local private television. A special feature applicable to the public programme was that it had to be jointly managed by the councils of the various municipalities in each demarcation that were interested in getting involved in local DTT. Therefore, a new television model emerged: local public television managed jointly by several town or city councils. In addition, public television was no longer a political priority, as a greater part of the spectrum was set aside for private television. Even though the 1995 Local Television Act was never developed, it set out, as already mentioned, that if a frequency was only available for one local analogue terrestrial television operator in a municipality, then that operator would be public.

Subsequently, between 2004 and 2005, the socialist government made some minor changes to the technical plan, which, in general, responded to the demands of autonomous communities with a stronger local television tradition, such as Catalonia and Andalusia. Consequently, they were awarded an additional multiplex for three and two of their demarcations, respectively. The socialist reform also allowed regions to allocate a second programme of each multiplex to the local public sector (which indeed had a greater presence in the two regions referred to earlier), and involved the planning of ten new multiplexes with island coverage, for the Balearic Islands and the Canary Islands (Corominas et al. 2005; Fernández Alonso et al. 2007).

In this context, the regions began to start the process of tendering to grant local DTT licences to private operators and to negotiate with town and city councils on the creation of consortiums for the management of local public television.

The various processes of tendering have often been marked by a significant degree of politicization, with regional governments giving priority to like-minded media groups. The comparative studies carried out halfway through the process of granting licences (based on the results of completed tenders in the first seven regions to start the process) showed that Spanish media companies like PRISA, Cope or Vocento, which had begun to invest in local television at the end of the 1990s despite the legal uncertainties of the sector at that time, came off well in terms of DTT licence distribution. Two exceptions to this were the regions of Catalonia and the Balearic Islands, where there is a stronger presence of locally based tender winners (Corominas et al. 2007; Fernández Alonso et al. 2007). It should be noted, however, that when analogue terrestrial television was switched off, PRISA had abandoned this business sector due its cost-cutting policy, in an attempt to obtain liquidity and pay off its huge debt.

In any event, the sector's future is very uncertain. The conclusions of a report that the CAC submitted to the parliament of the Government of Catalonia in 2009 provide good evidence of that fact. With the analogue switch-off just around the corner, the report gave a fairly pessimistic prognosis for the future of Catalan local DTT. The study (CAC 2009) is very significant because Catalonia is the region of Spain with the most robust and well-organized local television structure, and the territory where local public television is more likely to prosper (in some regions, not a single local public television station has been set up). Josep Àngel Guimerà, a lecturer at the Autonomous University of Barcelona and the lead author of this report, has gradually updated the data obtained since 2009. In his opinion, the determining factors of the crisis in the Catalan local DTT sector – which we believe can be extrapolated to all the regions of Spain as a whole – can, above all, be found in a model designed by public policies. In a face-to-face conversation with the co-authors, Guimerà pointed out that neither the reality of pre-existing analogue broadcasts nor criteria of a sociocultural nature had been taken into account in the process of transition towards local DTT. First, the fact that several town or city councils have to jointly manage a public channel in each demarcation has prevented most of the channels from being launched due to all sorts of disagreements. Second, four television stations in each demarcation are anticipated, when, in many instances, the market cannot even sustain one or two at most. Finally, broadcasting costs are, on some occasions, particularly high. Confronted with all of this is a sector that has very little financial liquidity and very little or no room for manoeuvre in terms of profit. In short, there are too many hurdles for such a fragile sector. This explains why, when analogue terrestrial television was switched off, only half of the licence-holders in Catalonia were broadcasting.

5. Assessment and outlook

From all of the above, it is possible to conclude that DTT policies in Spain have been somewhat erratic. In the first phase of DTT roll-out, there were important planning and coordination failures, one of the main ones being to opt for a multichannel pay-TV platform as the driver of digitalization. Then, throughout the process, there were measures that tended to benefit like-minded media groups, something that is very characteristic of southern European polarized pluralist media systems (Hallin and Mancini 2004). In addition to the different processes for granting licences, examples of such measures are the modification of the licence conditions for Sogecable (PRISA) which, since 2005, has been able to offer free-to-air television services; and the authorization of pay-TV DTT in 2009 at the request of the Imagina group, which had invested heavily in buying the broadcast rights for major sporting events. Both of these measures, which were adopted by socialist governments, are beneficial to communication groups that are ideologically like-minded, which, as already mentioned, are going through difficult financial times.

In the preamble to the Act that made the regulations for media concentration more flexible, the socialist government recognized that it was necessary to guarantee the financial stability of existing companies in order to ensure that they do not abandon their commitment to DTT on the one hand, and to make it easier for them to be able to attract the necessary financial capital for their viability on the other. This immediately gave rise to business integration operations in which the same groups are involved (PRISA and Imagina), which, for the moment at least, will strengthen Mediaset’s position in the Spanish media market.

In Spain, the advertising crisis led to a decrease of 11% and 16% in commercial television stations’ revenue in 2008 and 2009, respectively. This seriously affected the profit and loss accounts of the sector’s companies. Telecinco and Antena 3 are much less profitable (between 2007 and 2008, Telecinco’s return on sales fell from 33% to 20%, while Antena 3’s fell from 21% to 12%). Cuatro and La Sexta have not managed to make a profit since they commenced.

If the business integration operations are concluded, the companies will cut their costs and offer advertisers a wider variety of packages for their investment, as well as audience ratings higher than 20%, which can only be achieved by combining the viewers of several channels. Of course, this can only be done if they manage to overcome the clash of business cultures that will undoubtedly occur. For example, the editorial profiles of Cuatro (PRISA) and Telecinco (Gestevisión) are totally different. In addition to this, audio-visual content providers (production companies, rights owners, etc,) will have fewer yet more solvent buyers; this will lead to an improvement in their current situation, which is characterized by falling prices and delays in getting paid, both of which cause serious cashflow problems (Perspectivas del Mundo de la Comunicación 2010).

In the new television scene resulting from digitalization, it is necessary to underscore the fact that new television models will emerge in Spain in the DTT context. Examples of these are private terrestrial television stations with regional coverage and local public television stations managed jointly by several municipalities. That said, regional private DTT stations and, above all, local DTT stations are confronted with an uncertain future. The high number of planned programmes coupled with the particular impact of the crisis in the volume of advertising generated by the property sector (which mainly advertises in local media) is one of the factors that explain this situation. In addition, the winners of regional and local DTT licences have basically been large Spanish communication groups that do not give priority to terrestrial television offerings of limited coverage when it comes to designing their global strategies. In all of this, it should not be forgotten that DTT allows the situation of local operators to be regularized. These operators had experienced two decades of major legal uncertainty because they did not have broadcasting licences.

Looking towards the future, it should be underscored that, in addition to highly unforeseeable market movements and the inevitable adjustments in channel content (themed channels emerging in the digital environment, apart from children's channels, account for about 1% of the share), there are several important pending policy issues. Among these are the redistribution of the spectrum following the switch-off and the introduction of HDTV and mobile DTT.

Regarding the spectrum, the reform of the National Technical Plan for DTT carried out by the socialist government in 2005 set out that, after the switch-off, each licence-holder for private terrestrial television with national coverage would have a full multiplex (in principle, with four programmes). However, that provision has been modified by Royal Decree 365/2010 of 26 March, which sets out two phases for the allocation of digital multiplexes after the switch-off. In the first phase (June 2010 to March 2011), each private licence-holder for DTT with State-wide coverage will be allocated frequencies equivalent to one multiplex, but their programmes (four) will provisionally be distributed across different multiplexes. In the second phase, the aim is to free up the 790-862 MHz sub-band before 1 January 2015 so that it can be set aside for mobile broadband services.

Thus, following the recommendations made by the European Commission, the Government of Spain is determined to free up that sub-band, and, in justifying this decision, asserts that the digital dividend will contribute to greater social cohesion, to the creation of jobs and to the growth of the economy. It estimates that the benefits stemming from the use of these frequencies for mobile broadband services in Spain will be between €12 billion and €16 billion (Ministerio de Industria, Turismo y Comercio 2010b). This is a decision that will undoubtedly benefit telecommunications companies in a context where they have made formal complaints to the European Union about the tax levied on them to make up for the removal of advertising from Televisión Española.

Regarding HDTV and mobile television, the only regulatory provisions that existed when analogue terrestrial television was switched off were those included in the General Broadcasting Act 7/2010 of 31 March, which systematizes and updates complex Spanish legislation on radio and television broadcasting.

With regard to HD DTT broadcasts, this Act only states that they can be made compatible with standard resolution broadcasts, taking account of the established capacity limit (Article 35). With regard to mobile television, the same Act states that to provide the service, it will be necessary to have a licence and that, to obtain a licence, priority will be given to broadcasting service providers with considerable experience. Likewise, it sets out that when it comes to planning the available spectrum, a part of it will need to be set aside for public broadcasting services. It also sets out that channels with content adapted to the specific features of mobile television will be promoted (Article 34). In any event, the Government of Spain has yet to develop the regulations for either HDTV or mobile DTT.

As this article was being concluded, the Spanish Council of Ministers approved Royal Decree 691/2010, of 20 May, regulating the introduction of HD DTT in a significant amount of detail.

The Decree stipulates that operators with a full DTT multiplex can broadcast HD channels so long as they give advance notice to the competent authority that granted them the licence. When two or more operators share a multiplex, agreement between all the parties is a prerequisite.

In order to satisfy complaints made by the Communication Users Association, referred to at the beginning of this article, the Decree also stipulates that televisions with screens larger than 21 inches sold from 3 December 2010 should incorporate an HD receiver.

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