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Development of Digital TV in Europe

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1 Digital TV market overview

1.1 Roll-out of digital services

1.1.1 Satellite Digital Services

Italy was the first European country to introduce digital television. Since November 1995, Eutelsat 2 started broadcasting via DTH satellite the 3 already existing terrestrial Telepiù channels. Using Hot Bird1 satellite, Telepiù, the main Pay-TV operator, launched in March 1996 an original dedicated satellite bouquet. In May 1997, Canal Plus became the majority stakeholder in Telepiù, passing from a 45% to 90% stake. Change of ownership reoriented Telepiù's strategy towards the Canal Plus premium channel model, which proved more successful. In June 1999 there were 772,000 subscribers to Digital TV services, of which 600,000 were customers of Telepiù's digital bouquet D+, broadcast through Eutelsat/Hot Bird II satellite.

When Telepiù launched its digital services, its analogue terrestrial subscribers totalled about 600,000-650,000 real subscriptions, thus still below the critical mass needed for break-even. Analogue cable TV was practically non-existent. In the other markets usually the launch of digital services came after full development of the analogue services, either cable or satellite. Telepiù instead chose to proceed faster to digital services, in order to anticipate the threat posed by the alliance between incumbent operator Telecom Italia and public broadcaster RAI, who had announced a common digital platform (that deal later fell apart and RAI is now allied with Telepiù). Telepiù also faced the perspective to have to free some of its terrestrial frequencies, but in the longer term: this problem was not the dominating factor in the decision to launch digital services.

The second digital Pay-TV operator in Italy is **Stream**, a Telecom Italia subsidiary, which started to offer a digital package over cable in September 1996. Since September 1998, Stream has also broadcast its bouquet from Eutelsat/Hot Bird II.

Stream suffered from a lack of strategy and commitment from Telecom Italia during the first two and a half years of its life. During 1998 there were continuous talks and negotiations about its possible sale between the incumbent telecom operator and numerous other parties, such as public broadcaster RAI, Murdoch's News Corporation, Italian commercial broadcaster Cecchi Gori Group and others. Decisions about Stream's future were also hampered by the tumultuous process of Telecom Italia privatisation, followed by the successful bid for the majority of the company by Olivetti, through a major stockmarket battle.

In May 1999, the deal founding the Stream relaunch was finally agreed and Telecom Italia sold 65% of its capital to a joint venture led by Rupert Murdoch's News Corp. Europe. At the end of 1998, Stream totalled 110,000 subscribers, including 50,000 to the satellite package; by mid-1999 the satellite subscribers had doubled to 100,000, while its cable subscribers stagnated.

Finally, main free-to-air broadcasters (RAI, MEDIASET, TMC, MTV) offer a group of free-to-air satellite digital channels. Most of them are simulcast of the broadcasters terrestrial channels.

1.1.2 Cable digital services

Before the law n. 249, of July 31st, 1997 was issued, the installation of cable networks for public use was reserved to the State. The law provided that construction of cable networks requires a licence from the Telecommunication Authority; furthermore, it also provided that the roll out of telecommunication networks on public properties has to be authorised by the means of operating licences granted by the municipalities to the operators. The law was fully implemented in September 1997, with the Regolamento (implementation measures) n. 318.

The provision of cable TV services is subject to authorisation from the National Regulatory Authority (Autorità Garante delle Comunicazioni e dei Media).

Currently, the only nationwide cable network infrastructure is owned by Telecom Italia, but it is managed and commercialised by its subsidiary, Stream. It is a digital cable network. There are no analogue cable networks in Italy, because of the previous legal restrictions on network building, but also because the overabundant offer of free-to-air TV services discouraged potential investors.

The Stream network was launched in 1995 by Stet (the state-owned holding then controlling Telecom Italia) within the ambitious “Socrate” project, which aimed at cabling a large part of Italy, passing by 10 million homes in 3 years. Many problems plagued the network building from the start, and in 1997, after Telecom Italia privatisation, the project strategy was revised completely and the planned investment substantially reduced (*see 1998 report for details*).

At the end of 1997 the broadband infrastructure, based on HFC (Hybrid Fibre Coax), extended to 54 cities, passing approximately 1,5 million households, of which 1 million had been equipped with the necessary transmission equipment and the wiring backbone to receive advanced telecommunication services, cable television broadcast and multimedia applications.

No further network building is presently planned, as Telecom Italia has chosen instead to develop DSL-based services for residential broadband access. The reorientation of Stream’s strategy toward satellite services resulted in a substantial slow-down in the growth of cable subscribers, who at the end of the first semester 1999 only numbered 72,000 (70,000 in 1998).

1.1.3 Situation of MMDS

An amendment of the law proposal n. 1138 (Reform of the Communication Sector), under Parliament examination in 1999, provides that terrestrial frequencies will be assigned to the following broadband services: MMDS, MVDS, LVDS, LMDS. Those technologies can be exploited in broadcasting and interactive services, on a local basis.

A new frequency plan (which should assign spectrum shares to these services) is scheduled for July 1999 but is likely to be delayed.

Public broadcaster RAI is currently running an experimental transmission using MVDS (Multipoint Video Distribution System) systems within a European project

1.1.4 Situation of Digital Terrestrial Television

Digital Terrestrial Television is not yet operational in Italy. The Communications Regulatory Authority, in the Report accompanying the Audiovisual Frequency Plan (issued on October 30, 1998), defined the quick implementation of DTTV as a crucial objective for the TV industry in Italy. The Report recommended a starting date for transmissions no later than 2002-3, or possibly even earlier, given the need of a 6 to 8 year period for households' transition from analogue to digital reception.

The Draft Law n.1138, still waiting for Parliament approval, in the last revision anticipated from the year 2010 to the year 2006, the proposed date for the turn-off of analogue broadcasting. The Frequency Plan envisaged in the Draft foresees an extended analogue simulcasting period, until the majority of households have been converted to digital reception.

The Draft Law states also that broadcasters committed to convert to digital within three years of being awarded a TV licence for analogue and digital broadcasting, will be exempted from paying a digital transmissions fee to the Italian government for six years; they will also be granted a 50 per cent reduction in the analogue transmission fee. These operators however will have to post, as a guarantee for the government, bonds worth 6 million Euros, if they have national coverage, and 600,000 Euros if they are local. The bonds are required to guarantee the ability of broadcasters to sustain the economic obligations or eventual fines imposed by the national Competition and/or Communication Authorities.

Prospects for a rapid transition to digital TV, as envisaged in the Draft Law, seems limited. Opposition parties (and some members of the majority coalition) are not favourable to forcing analogue broadcasters to migrate quickly. Broadcasters themselves complain of problems concerning the lack of frequencies and the need for very high investments with uncertain returns. Furthermore, operators Mediaset and Telepiù, who are supposed by a previous law to migrate their analogue channels Retequattro and Telepiù Grigio to digital satellite as soon as the market takes off, are reluctant to comply to this obligation.

The lack of frequencies is an historical problem in Italy, which is notorious for its overcrowded airwaves. There are 12 terrestrial TV channels and more than 600 local TV channels. In order to allow analogue-digital simulcasting in the transition period, additional frequencies would be needed besides those already in use.

The Communication Authority Report suggested to reserve 4 bands for DTTV (three in UHF, bands 66-67-68, one in VHF band 9). But there are doubts that the 4 allocated bands would allow even 4 multiplexes (the minimum requested for national simulcasting, given the overcrowded situation). The bands then would have to be either shared between the national analogue terrestrial broadcasters (i.e. RAI, Mediaset, Telepiù, TMC, and another operator still to be named by the Authority); or split between national and local broadcasters. It is assumed that 3 bands at least are needed to guarantee local and regional coverage of 90% of the country. In any case there does not seem to be room for new entrants.

The investment problem for Italian broadcasters is aggravated by the fact that they own their transmission infrastructure. This is unlike most other countries, where the transmission network has either been privatised or is in the hands of separate carriers. While carriers are able to spread infrastructures costs across their customer base, the main Italian broadcasters will have to finance their own simulcasting operations themselves.

Besides, recent industry estimates suggest that in order to transmit in digital mode, nearly 80% of local TV companies would have to sustain an initial cost three to five times greater than their average annual income, for no additional return in revenue. The nature of the transmission costs problem for national broadcasters is underlined by RAI's announcement in late February 1999 that it was looking for private investors, prepared to acquire a share of and participate in the management of its transmission sites across Italy.

One possible scenario is a shake-out among local broadcasters during the transition period, because of their inability to face the necessary additional investments. The reduction in the number of operators would then free more frequencies for simulcasting.

The Government is also studying possible measures or incentives to persuade local broadcasters to free up some frequencies, avoiding compulsive provisions. This approach could be extended also to Mediaset and Telepiù, who need to be encouraged to migrate their analogue channels to digital satellite as foreseen by a previous law.

Public broadcaster RAI has announced the organisation of DTTV pilot trials, planned for the end of 1999, covering 30% of the Italian population. RAI plans to extend coverage to 60% of television households over a four year period. Telepiù and Mediaset too (through Elettronica Industriale, the group subsidiary operating the transmission network) have started transmissions tests. Telepiù has launched an operational test in a small town of southern Italy.

1.1.5 Market development

In 1998, Pay TV in Italy (including both analogue and digital services) represented only 10% of the total TV market revenues (493 Million Euros vs 4,8 Billion Euros). Digital TV revenues counted for 263 Million Euro in 1998, up from 83 Million only at the end of 1997. The rapid growth of digital TV revenues is counterbalanced by the stagnation of analogue TV ones, a trend confirmed in the first semester of 1999.

Pay-TV development difficulties in Italy are tied to the very peculiar characteristics of the market. When Digital TV (Telepiù satellite and Stream cable packages) was launched in 1996, terrestrial broadcasting represented the only method of reception for 95% of the population (and is still the most common one).

The TV market is dominated by the duopoly RAI (public broadcaster)-Mediaset (the private one), which broadcast three national channels each (in 1996 they accounted together for more than 80% of revenues and approximately 90% of the audience share).

The high number of local broadcasters - some allied in near-national networks - has led to the development of a rich offer of thematic free-to-air channels, as well as channels dedicated to home shopping. Videomusic, CNN, MTV, Euronews, and channels dedicated to sports or local news were already available to the Italian audience in 1996 without Pay-TV. Faced with this rich programming offer, Telepiù analogue Pay-TV services met with very limited success.

Therefore the characteristics of the Italian Pay-TV market at the launch of digital services were as follows:

- ✓ a limited base of 650,000 analogue services subscribers ;
- ✓ a limited range of analogue satellite dishes;
- ✓ a very limited penetration of cable.

In 1997 Canal+ acquired the majority of Telepiù, reorienting its strategy towards a premium channels business model, increasing also its commercial aggressiveness. This strategy achieved some important results:

- ✓ a high rate of acquisition of new subscribers (more than 80% of digital subscribers are new ones);
- ✓ a stronger offer through the development of pay-per-view services;
- ✓ a stable number of analogue subscribers, due to limited migration to digital, compensated by new entrants (still 650,000 in June 1999).

The analogue services are not actively marketed, but customers appreciate them, because the premium package is cheaper than the digital one, and does not require any new equipment purchase and installation.

Digital Satellite TV dominates the Pay-TV market: its subscribers grew from 220,000 in 1997, to 552,000 in 1998, to 700,000 at the end of the first semester 1999. The migration of football matches from free-to-air to Pay-TV has been a key driver for subscriptions growth. Penetration (on approximately 20 million TV households) is still rather low.

Stream digital cable subscribers are stagnating (72,000 in June 1999 vs 70,000 at the end of 1998), because of the limited diffusion of the network and of the scarce marketing effort by the company (see par.1.1.2). Until May 1999 Stream was constrained by ongoing negotiations for its ownership and therefore uncertainties about its strategic goals. However the company is gaining more visibility, and signing up new digital satellite customers, thanks to an aggressive marketing and promotional campaign.

Table 1: DTV pay-TV platforms in Italy

<i>Name of the service</i>	<i>Ownership</i>	<i>Date of launch</i>	<i>Nb subscribers</i> <i>1rst 1999 semester</i>
Tele+	Canal+ (90%) Fininvest (10%)*	March 1996	600,000
Stream	Telecom Italia (35%) News Corp Europe (35%) Cecchi Gori Group (18%) SDS (12%)	September 1996	100,000 satellite 72,000 cable
Total			772,000

(*) In May 1999, the Fininvest board decided to exit from the digital platform, taking up the option to sell its 10% stake back to the French group.

1.1.6 Barriers to competition or market development

One of the main barriers to competition in the Italian Pay-TV market seems to be the concentration of premium content rights in the hands of the dominant operator, Telepiù (see following tables). Since Telepiù did not have in Italy a substantial analogue satellite customer base, the digital services marketing strategy had to focus from the start on the quality and exclusivity of content, in order to win new customers. Telepiù did this with remarkable success, signing exclusive deals with most of the Hollywood majors and especially exclusive six-years deals with 10 leading football clubs (including the main three, which account for more than 50% of the supporters). These deals expire in 2005.

Competition for content rights between the two satellite platforms became a major issue during 1998-1999. In February 1999 Stream filed a complaint with the Italian Antitrust Authority, querying the exclusive deals signed by Telepiù for premium sports and film rights. The Italian Authority started an investigation which should be concluded in January 2000. One of the main complaints made by Stream is that Telepiù holds both Pay-TV and Pay-per-

view rights for the football matches. The complaint says that Telepiù took an unfair advantage of its monopolistic position in the analogue Pay-tv market to close these deals.

Since ownership of football and film rights is a key competitive advantage in the Italian Pay-TV market, this concentration of rights in the hands of the dominant operator represents a high barrier for new entrants.

In March 1999 the Italian Senate approved a law setting an antitrust limit to the ownership of TV football rights. The law caps ownership of pay TV football rights to 60 per cent of teams (the threshold is not based on the number of supporters, therefore Telepiù deals fall within the limit). Earlier talks between News Corp. and Telecom Italia for a joint venture in the Italian market fell apart after this decision. It is indeed likely that Murdoch's group considered crucial for Stream success the sole ownership of the championship league rights, and therefore believed that the antitrust limit was undermining the chances of the potential joint venture with Telecom Italia.

The situation changed again when SDS (Società Diritti Sportivi, the venture set up by four first division football clubs) signed a 308mEuros deal to sell Stream six-year pay TV rights to the matches of the company's four backers. This fact probably represented an important reason in News Corp. decision to change its mind again and acquire in May 1999 a substantial minority share in Stream (as outlined in par.1.1.1).

The film rights market in Italy

<i>Major</i>	<i>Telepiù</i>	<i>Stream</i>
Columbia Tristar	•	
Disney Buena Vista	•	
Dreamworks	•	
MGM/UA	•	
Paramount	•	
20th Fox	•	
Universal		•
Warner Bros	•	
Estimated Market Share	70%	5-7%

Source: Italmedia Consulting, 1999

The football rights market in Italy, Premier League

<i>Club</i>	<i>Telepiù</i>	<i>Stream</i>
Juventus	•	
Milan	•	
Inter	•	
Lazio		•
Roma		•
Parma		•
Fiorentina		•
Bari	•	
Cagliari	•	
Bologna	•	
Perugia	•	
Piacenza	•	

Source: Italmedia Consulting, 1999

1.2 Detail of services

1.2.1 Number and type of services

The two Pay-TV platforms, Telepiù and Stream, broadcast about 50 different channels of various genre. The majority of thematic channels are produced abroad and are normally dubbed for the Italian audience. Only some news channels (Italia Network News for D+, Team TV and EuroNews for Stream) and Stream interactive channels are produced in Italy. In this situation there are few opportunities for national independent producers to serve the Digital TV market.

Public broadcaster RAI has a free-to-air digital satellite offer which includes three channels launched in September 1997: RAISat1, RAISat2, RAISat3 (Culture, Children, Educational). More recently RAI launched a free-to-air thematic sport channel (Rai Sport Sat) and an all news channel (Rai News 24, also available over the Internet). Since 1999 RAI supplies thematic channels to Telepiù D+ package.

**Structure of the Italian-speaking thematic TV market
(End of June 1999)**

<i>Themes</i>	<i>Number of TV channels</i>
“Barker” Channel/TV guide	
Movie	5
Knowledge – Culture	8
Sport	5
Music	6
Entertainment	8
“Mini” generalist	-
Information	4
TV- shopping	6
Weather forecasts	1
Pay-per-view services	3
Others (Games, Employment, fashion,...)	2

1.2.2 Details of the DTV offers

Currently there are two competing Digital Pay-Tv services packages offered in Italy: D+ by Telepiù, and Blue Stream by Stream. D+ offers a wider choice than its competitor in terms of premium and optional programmes, including first division football matches and Formula One races, while Stream basic package represents a cheaper alternative.

D+ (Telepiù)

D+ basic bouquet includes 17 channels. Only four of them are Italian-originated. The basic package is large because the Italian market has not so far shown an interest in minipackages. Its diversity helps Telepiù to compete with the free channels which, while numerous, offer rather similar programming.

D+ Offer

Offer	Description	Monthly Fee
Basic Bouquet	17 channels	15 Euros
Premium Bouquet	Tele+Nero, Tele+Bianco (analogue channels diffused in simulcasting) and Tele+Grigio, "Best of" the former two: broadcast also in 16:9	28 Euros
Calcio	Subscription to the full season of the football championship	200 Euros (whole season)
Pay-per-view	Palco (movies, 12 channels); includes hit movies three to six months after video release thanks to an agreement with Hollywood majors (excluding Universal)	4.5 Euros for Premiere movies, 3 Euros for ordinary titles
	Calcio (individual football matches)	18 Euros each

Telepiù has a packaging model very similar to that used by the parent company Canal Plus in other European countries. Subscribers can take a basic package of thematic channels and/or Telepiù premium channels for access to a selection of extended tiers, pay per view and single premium channels. Like Canal Plus in France, the Telepiù premium channels are offered at a reduced rate to those also taking the thematic package.

At the end of 1998 RAI agreed to provide new content to Telepiù: in July 1999 the public broadcaster started providing a package of 5 new thematic channels covering new themes (children, show, classic cinema, archive, art and cooking).

Mediaset instead supplies one thematic channel (the Happy channel), broadcast only by Telepiù.

Telepiù relaunched its pay-per-view service in January 1999, splitting it into two distinct services. (Palco for movies and Calcio for football matches). In the premium tiers, the football option Calcio is a significant boost to the platform's maximum potential revenue per subscriber. After 6 months of operations, nearly half of the 520,000 digital subscribers had bought at least one film in PPV.

Because of its history, Telepiù subscribers are split between users of the Irdeto set-top-box and of the SECA one. This creates some technical problems: D+ subscribers with an Irdeto box cannot access the new interactive PPV services of Telepiù, for the moment reserved to the owners of a SECA box.

Blue stream (Stream)

Blue Stream offers 12 channels in the basic package and two pay-per-view channels (Magic Movie and Magic Pay-Per-View). The cost of subscription for each event is 3 Euros.

During the first semester of 1999 Stream increased its programme offering. Two additional transponders were activated in March and in May respectively to increase the number of channels to 20 for satellite subscribers. Since May 1999, Stream can also count on Cecchi Gori group films library and four major football clubs exclusive TV rights (Roma, Lazio, Parma and Fiorentina).

Additional capacity will be allocated to pay per view services to increase the number of start times of films. Stream claims half of a million PPV requests over the first five months of 1999.

Stream has invested more in innovative programming and has developed data broadcasting based services featuring a limited interactivity with the audience. Currently, it offers a bouquet with 5 interactive channels that is priced separately at 3.6 Euro per month. The company recently launched an aggressive marketing campaign, offering the decoder free of monthly charge for the first year of subscription.

Telepiù signed a commercial agreement with Stream which is currently carrying the Tele+ digital offer over its cable network (Tele+ Bianco, Tele+Nero, Tele+Grigio, Tele+ Calcio). Subscriber control is kept by Telepiù. Stream intends to cancel this agreement, which is under examination by the Italian Antitrust Authority.

Blue Stream Offer

Offer	Description	Monthly Fee
Basic Package	12 channels (including a cinema channel featuring classic films and TV productions by Universal).	9.8 Euros
Pay-Per-View	Two channels: Magic Movie and Magic Pay-Per-View (shows) Football matches	3 Euros for each purchase
Interactive package	5 interactive channels (weather forecasts, language learning, art, travel, horoscope, shopping) based on data broadcasting	3.6 Euros

1.3 Operators and market structure

1.3.1 Concentration of the Pay-TV Market

The Italian Pay TV market is a duopoly dominated by Telepiù, subsidiary of French group Canal Plus, with almost 90% of subscribers at June 1999. Cable and satellite operator Stream, recently acquired by a joint venture led by Murdoch's News group, runs a distant second but is now showing greater aggressiveness. The last two years have seen ongoing negotiations, deals formed and cancelled between Italian and foreign media-telecom operators which have created a continuous uncertainty in the market. At the end of 1999 the situation seems to have achieved a relative stability.

Telepiù is firmly controlled by Canal Plus. Mediaset group, which had an option for 10% of the stock (through Fininvest, the Berlusconi family holding which in turns controls Mediaset) decided to renounce it. Public broadcaster RAI instead acquired 1% of Telepiù's shares and an option to go up to 10%, with an agreement signed in December 1998. RAI's role is to produce quality programming, starting with a package of 5 thematic channels launched in July 1999.

Since Mediaset and RAI are also locked in a very aggressive duopoly competition, Mediaset symmetrically launched a project to provide thematic channels to Stream and may be considering to buy a share of the operator's capital. Mediaset is still producing one thematic channel for Telepiù (Happy channel) but this will certainly not represent an obstacle for a strategy change.

Since May 1999, the ownership structure of Stream is as follows:

- ✓ 35% was acquired by Rupert Murdoch's News Corp. Europe;
- ✓ 18% by film producer and distributor Cecchi Gori Group;
- ✓ 12% by Società Diritti Sportivi (SDS, a newly formed joint venture set up by four football clubs of the first division series, Roma, Lazio, Parma and Fiorentina)
- ✓ 35% remained to Telecom Italia.

Cecchi Gori contributed to the deal its library of film rights, while SDS ensured a six year exclusive deal for the TV rights of the participating clubs.

Concerning market positioning, Telepiù platform has a clear advantage in terms of customers base as well as premium content: the RAI agreement, including access to the Italian broadcaster rich historical archives, has strengthened it even more.

Stream has been forced to compete in terms of price (lower monthly fees) and innovative services (pushing more Pay-per-view options, and some interactive services). So far, however, interactivity does not seem to be a driving factor in customers purchase decisions.

No formal simulcrypt agreement exists between the two satellite operators. However, since D+ is still broadcasting to Seca and Irdeto platforms in order to reach all its subscribers, there is a *de facto* simulcrypt situation, within the Telepiù installed base (see par.1.4.1). During 1998 Telepiù was not adequately supplying the resellers with the Irdeto card, forcing consumers to adopt the Seca system.

1.3.2 Vertical integration

The vertical integration process from service provision to television channel provision has been strengthened by the recent ownership changes in the two platforms. RAI's contribution as content provider will increase the weight of Telepiù internal production/packaging, which was already quite high.

Similarly, the presence of News Corp. and Cecchi Gori Group in Stream will increase its content production activity and therefore its vertical integration.

Table 2: Main TV market players' participation in the Italian thematic TV channels capital

<i>Market player</i>	<i>Controls</i>
Stream	Cult Network Italia, TVL, Canale Viaggi, a., Stream Calcio
Telepiù	Planete, Canal Jimmy, Bet on Jazz, Season, Telepiù Binaco, Telepiù nero, Telepiù calcio
RAI	RaiSat1, RaiSat2, RaiSat3
Mediaset	Happy Channel

1.4 Technical issues

1.4.1 Decoder issues

Two conditional access systems are currently competing in Italy:

- ✓ The Canal Plus SECA system, adopted by Telepiù D+. But Telepiù until September 1997 used the Irdeto system, which some of its subscribers still have. As a result, Telepiù is broadcasting its programmes using simulcrypt, in order to reach both kinds of set-top-boxes. The SECA decoder is offered at a low rent price (7,2 Euros per month, compared to a purchase price of about 520 Euros). The Irdeto set-top-box is still available, for purchase only, but is being phased-out, to be replaced (with no more incentives at this stage) by SECA. The operating system/API used by D+ for Pay-Per-View and interactivity is MediaHighway on the SECA decoder. Therefore, Telepiù subscribers with Irdeto systems cannot access the Pay-per-View services.
- ✓ Irdeto, adopted by Stream, using OpenTV as an operating system. Stream boxes are only offered for rent for a monthly fee of 7,2 Euros.

Table 3 : Specifications of the decoders

	<i>CA Technology</i>	<i>Interactive service technology</i>	<i>Free to air compatibility</i>	<i>16:9 compatibility</i>	<i>Integrated modem</i>
D+	Mediaguard	MediaHigway	Yes	Yes	Yes
Stream	Irdeto	OpenTV	Yes	Yes	Yes

Source: Databank Consulting, 1999

This situation, characterised by *de facto* incompatibility between the two Conditional Access systems, is considered by the government to run counter to consumers' interest. This is particularly relevant for sensitive issues, such as the general public right to have equal access to popular shows such as football matches now transmitted only on Pay-TV.

Recent policy decision have exacerbated the problem. The 1999 law, setting an antitrust threshold to exclusive ownership of football TV rights by the operators, claimed to favour open access and competition. But since football matches rights are divided between the operators, consumers must either buy not only two subscriptions, but also two different set-top boxes, or renounce seeing some of the matches.

The government hopes to solve this contradiction through the obligatory introduction of open digital decoders no later than July 1st, 2000, a deadline set by a government Decree approved by the Senate at the end of 1998.

The Decree establishes that:

“The decoder must allow access to the various offers of digital programmes which use conditional access and the reception of free-to-air digital radio-television programmes through the use of only one set. From January 1, 2000 the sale and distribution of receivers which do not conform with the above characteristics will be illegal. (...)The Communications Authority will have the task of interpreting this provision, and is required to establish standards for Digital TV”.

The Authority will have a delicate task in interpreting how to implement this Decree. It could be satisfied by all platforms agreeing to the use of simulcrypt. But it could also be interpreted to mean that all digital decoders should include a common interface, and that Digital TV operators must agree to port their Conditional Access systems to Multicrypt-compliant PCMCIA plug-in modules. But this interpretation could be contested by the European Commission. The TV standards Directive 95/47 permits use of both Multicrypt and Simulcrypt, which requires prior commercial agreement between operators. An infringement proceeding was opened against the Spanish Government in 1997, because of a very similar provision which was in fact declared against European law and subsequently modified.

1.4.2 Widescreen (16:9)

Sales of 16:9 TV sets accelerated somehow during 1998, thanks to the World championship football matches, that RAI broadcast in this format on digital satellite. Both D+ and Stream operate a digital channel in 16:9. The digital broadcasters are using 16:9 to differentiate themselves from the analogue services and to offer a richer viewing experience to the users.

Table 4 : Penetration of 16:9 sets

TV Households with 16:9 Television sets (millions)	0.005	0.006	0.013	0.027	0.049
<i>TV Households with 16:9 Television sets</i> (% of TV Households)	0.0%	0.0%	0.1%	0.1%	0.3%

1.5 Conclusion

The year 1999 saw the consolidation of the ownership of the second digital operator, Stream, who for the first time seems to be in condition to present a challenge to market leader Telepiù. Stream backers now include an important player such as Murdoch's News Corp.Europe, as well as premium content providers such as Cecchi Gori group and the football clubs joint venture SDS. An aggressive marketing strategy by Stream may accelerate the growth of the Digital TV market, which remains of marginal relevance in Italy (no more than 5% of overall revenues in 1998).

There are still elements of weakness in Stream perspectives, though:

- ✓ News Corp entered in Stream capital with a lower stake (35%) than initially planned (80%), which is likely to reduce its involvement in driving Stream's growth. Moreover, if BSKYB and Canal Plus reach new agreements at the European level (the latter is currently a shareholder at 17% of the former), they may be less interested in competing aggressively in the Italian market.
- ✓ Telecom Italia has already declared that Digital Tv is not part of its core business, and is not interested in making high investments in the operator, on top of the heavy losses generated by Stream in the last years.
- ✓ Telepiù reacted to Stream re-launch aggressively, leveraging its superior premium contents rights patrimony. Its ability to exploit films and football events both through Pay-Tv and Pay-per-View modalities is a definite competitive advantage.
- ✓ On the other hand, the Competition Authority scrutiny of Telepiù dominant position in content rights may restrain the operator's activity in some way, opening opportunities for Stream.

This scenario leads to forecast a likely continuing prevalence of Telepiù in the Italian market in the short-medium term, even if Stream may be able to reduce the present huge gap in market shares. The market future depends also on the following developments, which are likely to become more clear in the year 2000:

- ✓ Stream has just started to explore the potential of interactive services, as a factor of differentiation from Telepiù and a way to attract new customers. Telepiù will no doubt follow suit. Interactivity so far has not appeared to be at the top of consumers' preferences in the TV market. However possible synergies with the Internet revolution and the "saturation" effect of so much conventional television may increase its attraction for consumers, and perhaps help to stimulate overall Pay-TV market growth.
- ✓ New telecom operator Wind is interested in joining Telepiù, a presence which could counterbalance Telecom Italia participation in Stream. Wind would provide substantial financial and expertise support for Telepiù, especially concerning the possible development of interactive services.
- ✓ Mediaset group will have to make a decision on its strategies in the Digital TV market. If the broadcaster decided to join Stream backers, it could play a very important role in reinforcing the second operator's position.

Italian authorities also have some decisions to make in the near future which are likely to shape market developments.

The most important ones are likely to be Parliament's decisions on the Draft Law for the launch of DTTV, and Government decisions about possible call for bids for DTTV licences. If the Government wants to enforce a turn-off date of analogue transmissions by 2006, as written in the Draft Law, these decisions must be taken within the year 2000. But conflicting views among political parties and the operators themselves may also lead to the impossibility of making any definite decisions soon. The Communications Authority too may play a role in accelerating the development of DTTV, either by promoting its development or by finding a solution to the frequency scarcity problem.

The Communication Authority will also have to interpret the Decree concerning the obligation to implement open decoders from July 1st, 2000, a difficult task which may create conflicts with European Law.

The Competition Authority, finally, will have to decide on Stream complaints about Telepiù abuse of dominant position in the Digital TV market.

2 Key figures for the Italian market

2.1 Country fundamentals

	1994	1995	1996	1997	1998
Population (millions)	57.269	57.334	57.461	57.445	57.563
Households (millions)	19.282	19.664	20.053	20.430	20.258
GDP (in Euros billions)	858.306	840.428	967.954	1009.834	1156.471

2.2 Equipment

	1994	1995	1996	1997	1998
TV households (millions)	18.886	19.310	19.752	20.184	20.055
<i>TV households (% of total households)</i>	97.9%	98.2%	98.5%	98.8%	99.0%
TV Households with 2 TV sets or more (millions)	7.743	9.386	8.805	9.100	9.516
<i>TV Households with 2 TV sets or more (% of TV Households)</i>	41.0%	49.7%	46.4%	47.9%	49.9%
TV Households with 16:9 Television sets (millions)	0.005	0.006	0.013	0.027	0.049
<i>TV Households with 16:9 Television sets (% of TV Households)</i>	0.0%	0.0%	0.1%	0.1%	0.3%
VCR Households (millions)	9.251	9.852	10.538	11.276	12.215
<i>VCR Households (% of TV Households)</i>	49.0%	52.2%	55.5%	59.3%	64.1%
Digital STB Households (millions)	0.000	0.000	0.058	0.226	0.610
<i>Digital STB Households (% of TV Households)</i>	0.0%	0.0%	0.3%	1.2%	3.2%
IDTV Households (millions)	0.000	0.000	0.000	0.000	0.000
<i>Digital TV Households (% of TV households)</i>	0.0%	0.0%	0.0%	0.0%	0.0%
Digital Households (millions)	0.000	0.000	0.058	0.226	0.610
<i>Digital Households (% of TV households)</i>	0.0%	0.0%	0.3%	1.2%	3.2%

2.3 Access to DTV

Cable

	1994	1995	1996	1997	1998
Home passed (millions)	0.000	0.000	0.800	1.500	1.500
of which digital (millions)	0.000	0.000	0.800	1.500	1.500
<i>Home passed (% of TV households)</i>	0.0%	0.0%	4.2%	7.9%	7.9%
<i>of which digital (% of TV households)</i>	0.0%	0.0%	4.2%	7.9%	7.9%
Analogue Basic Subscribers (millions)	0.000	0.000	0.000	0.000	0.000
Digital package subscribers (millions)	0.000	0.000	0.010	0.046	0.070
<i>Analogue Basic Subscribers (% of TV households)</i>	0.0%	0.0%	0.0%	0.0%	0.0%
<i>Digital package subscribers (% of TV households)</i>	0.0%	0.0%	0.1%	0.2%	0.4%

Satellite

	1994	1995	1996	1997	1998
Satellite households (millions)	0.350	0.475	0.560	0.740	1.200
Satellite households (% of TV households)	1.9%	2.5%	3.0%	3.9%	6.3%
Satellite subscribers (millions)	0.000	0.000	0.040	0.180	0.540
Satellite subscribers (% of TV households)	0.0%	0.0%	0.2%	0.9%	2.8%
of which digital (millions)	0.000	0.000	0.048	0.180	0.540
of which digital (% of TV households)	0.0%	0.0%	0.3%	0.9%	2.8%

Terrestrial TV

	1994	1995	1996	1997	1998
Analogue Pay-TV services					
Pay-TV subscribers (millions)	0.550	0.650	0.650	0.660	0.700
<i>Pay-TV subscribers (% of TV households)</i>	2.9%	3.4%	3.4%	3.5%	3.7%
*Digital TV services					
Homes covered (millions)	0.000	0.000	0.000	0.000	0.000
<i>Homes covered (% of TV households)</i>	0.0%	0.0%	0.0%	0.0%	0.0%
IDTV households (millions)	0.000	0.000	0.000	0.000	0.000
<i>IDTV households (% of TV households)</i>	0.0%	0.0%	0.0%	0.0%	0.0%
Pay-TV households (millions)	0.000	0.000	0.000	0.000	0.000
<i>Pay-TV households (% of TV households)</i>	0.0%	0.0%	0.0%	0.0%	0.0%

2.4 Television market estimates*

<i>Millions Euros</i>	<i>1994</i>	<i>1995</i>	<i>1996</i>	<i>1997</i>	<i>1998</i>
Analogue TV Market					
Public funding	1165.127	1181.653	1207.476	1213.157	1239.497
Advertising	2487.256	2601.393	2798.680	3047.096	3067.754
Subscription	180.760	213.297	213.297	216.912	229.823
Total analogue TV	3833.143	3996.343	4219.453	4477.165	4537.074
Digital TV Market					
Public funding	0.000	0.000	0.000	0.000	0.000
Advertising	0.000	0.000	0.000	0.000	0.000
Subscription	0.000	0.000	18.592	83.666	263.393
Total digital TV	0.000	0.000	18.592	83.666	263.393
TV Market					
Public funding	1165.127	1181.653	1207.476	1213.157	1239.497
Advertising	2487.256	2601.393	2798.680	3047.096	3067.754
Subscription	180.760	213.297	231.889	300.578	493.216
Total TV market.	3833.143	3996.343	4238.045	4560.831	4800.467

* "**Public funding**" comprise grants and licence fees; "**Advertising**" also includes sponsoring expenditures whereas "**Subscriptions**" cover subscriptions to the basic multi-channel package as well as subscriptions to Premium pay-TV services.