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Development of Digital TV in Italy

1998 report

DATABANK

1. Digital TV market overview

1.1 Roll-out of digital services

1.1.1 Satellite digital services

Digital television was introduced in Italy in March 1996, when the analogue pay TV operator Telepiù launched its satellite digital service. In May 1997, Canal + became the majority stakeholder in Telepiù, with a 90% share, while Mediaset, the first Italian commercial TV operator, holds 10%. Change of ownership has reoriented Telepiù's strategy towards the Canal + premium channel model.

The analogue Telepiù services totalled about 800,000 subscriptions at that time, thus still lacking the critical mass to launch digital services. The absence of an analogue cable and satellite market and the aim to gain a competitive advantage over incumbent Telecom Italia and public broadcaster RAI had convinced Telepiù to develop a digital strategy rather than strengthen its position in the analogue market.
Migration to digital was also accelerated by the media regulation. In 1997, the law n.249 was issued providing that a single operator cannot hold more than one terrestrial licence to broadcast encrypted programmes. At that time, Telepiù was broadcasting terrestrially three analogue channels (Tele+ Nero, Tele+ Bianco and Tele+ Grigio). The Pay-Tv operator had to give up a terrestrial channel in April 1998, Tele+ Grigio, that is currently broadcast only via satellite, while it is still allowed to broadcast two analogue terrestrial channels, provided that at least one of the two is also transmitted via satellite or cable. In fact Tele+Nero and Tele+Bianco are both simulcast in analogue terrestrial and in digital satellite.

Telepiù digital offer, called D+, broadcasts from Eutelsat/Hot Bird II satellite.

The second digital pay-TV operator in Italy is Stream, a Telecom Italia subsidiary, that started to offer a digital package over cable in September 1996. At the end of 1997 Stream subscriptions were less than 50,000. Since September 1998, Stream has also broadcasted its ten channels from Eutelsat/Hot Bird II.

Finally, there is a free-on-air digital offer of the public broadcaster RAI. In September 1997 three digital channels were launched, RAISat1, RAISat2, RAISat3. The three channels (Culture, Children, Educational) operate on Eutelsat/Hotbird II.

1.1.2 Cable digital services

Before the law n. 249, July 31 1997 was issued, the installation of cable network for public use was reserved by the State. The law provides that construction of cable networks requires a licence from the Telecommunication Authority; furthermore, it also provides 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 provision was fully implemented in September 1997, with the Regolamento n. 318.

The provision of cable TV services is subject to authorisation from the regulatory body.

Currently, the only nationwide cable network infrastructure is Telecom Italia property, managed and comercialised by the Telecom subsidiary Stream. The network roll out is the result of the digital cable project Socrate, started in 1995 by state-owned telecom holding STET, that would pass 10 million homes by the end of 1998.

The work started in 1996, and until that date Italy had no cable, mainly due to the lack of cable legislation. As a result of that situation, analogue cable does not exist in Italy.

The Socrate project suffered a dramatic slow down during 1997, due to the change of strategy of Telecom Italia after privatisation. Thus, Telecom Italia has reduced the total investment of the project from 13,000 billion lire to about 7,500. The scheduled target of subscribers is now two million households.

The original cable project was driven by Video-on-Demand, that STET subsidiary Stream, would provide to nearly five million subscribers.

In 1996 Stream based its pilot trial about 1,000 homes (500 in Rome and 500 in Milan) on that service, using ADSL technology, while no cable had still been installed at that time. But it became more and more clearer that VOD was no killer application and that the demand for interactivity was driven by the Internet rather than video. Stream and STET adjusted the goals and the cable project plans changed in a three step strategy: a first step was supposed to be cable-supported by HFC (Hybrid Fibre Coax); a second step was high speed Internet, supported by cable modem, and the third was full interactive video, supported by FTTH (Fibre-To-The-Home).

However, the HFC plan is being reviewed, with a substantial reduction in investment for the HFC after 1998, due to the emergence of more efficient solutions based on satellite and ADSL (Asymmetric Digital Subscriber Line).

At the end of 1996 homes passed were less than 800,000 against a schedule of double that amount; at the end of 1997 the broadband infrastructure, based on HFC, 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.

The infrastructure was used to provide about 46,000 subscribers at the end of 1997 with the Stream digital TV package, growing to 70,000 after the first eight months of 1998. During 1998, Stream made a commercial agreement with Telepiù for the carriage in transcontrol on its cable network of Telepiù digital offer (Tele+ Bianco, Tele+ Nero, Tele+ Grigio and Tele+ Calcio).

Satellite seems increasingly a competitor to cable: this is also proved by the Stream decision to broadcast its bouquet via satellite (May 1998).

1.1.3 Situation of MMDS

At the end of 1997 there was no MMDS (Microwave Multipoint Distribution System), infrastructure in Italy. However, an amendment to the law proposal n. 1138 (Reform of the Communication Sector), currently under Parliament examination, 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.

However, it is still lacking the new frequency plan that will assign spectrum shares to these services. The new frequency plan will have to be issued by 31 January 1999.

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

1.1.4 Situation of terrestrial digital television

Digital television in Italy does not exist. However, the recently issued New Frequency Plan (October 30,1998) reserves 4 channels for digital terrestrial transmission (3 in UHF band and one in VHF plan). The Plan, issued by the Communication Authority, put forward as a major objective the quick implementation of digital terrestrial television and indicates the years 2002-2003 as the starting point for digital terrestrial transmissions. However, the transition process is likely to be complex and the plan will probably have a slow implementation, since the channels assigned for digital transmission are currently being used. The regulatory body defined an incentive scheme for the operators willing to free those frequencies in the next two years, but the regulation does not fix a compulsory deadline for it. The Authority suggests that the holders of the new TV licences (issued by January 31,1999) will be allowed to install digital terrestrial facilities to DTT broadcasting. Thus, simulcast of analogue and digital terrestrial programmes should be achieved with a short delay.

The document also fixes economic incentives for the terrestrial operators that start to broadcast in digital before end of 2001.

According to industry experts, the government orientation is to assign one terrestrial multiplex to public broadcaster RAI, one to commercial TV Mediaset and two to other operators, eventual new entrants.

RAI, after several experiments of digital terrestrial broadcasting, is currently slowing down its plans to digitalize terrestrial transmissions. DTT is currently perceived by the public operator as a potential threat to its power in the established dupoly of the Italian TV sector.
Mediaset, the other duopolist, has still not made any official statement concerning its plan for DTT.

Draft Law n. 1138 fixes January the 1st, 2002 as the deadline for all kinds of pay-TV broadcasters (terrestrial, cable and satellite) to shift to digital transmission and abandon the analogue technology. By the end of 2010 all terrestrial TV will be broadcast with digital signal.

1.1.5 Market development

Digital TV in Italy started in March 1996 with Telepiù digital bouquet. In the same year, Stream launched its digital package via cable. Digital TV's penetration at the end of 1997 was very low, with about 220,000 subscribers out of more than 19 million TV households.

The subscribers to the digital cable offer were 46,000 at the end of 1997.

After the first six months of 1998, digital subscribers in Italy totalled 325,000 units.
During the first six months of 1998 D+ raised 85,000 subscriptions totalling 265,000 units and at the end of 1998 the subscriptions reached 544,000 units. The evolution in the number of analogue subscriptions was much less impressive, but still positive, passing from 868,000 subscribers at the end of 1997 to 965,000 at the end of 1998.

The only analogue offer in Italy is Telepiù which was launched in 1991. In 1997, Telepi˘, despite the opportunity of being distributed on terrestrial frequencies, reached only 4% penetration amongst TV households (868,000 analogue subscribers at the end of 1997).

There are two main reasons for the difficulties in digital services success in Italy:

- ✔ On one side, the lack of an adequate commercial strategy on behalf of the two operators at the beginning of their activities (inefficient distributive channels, lack of customer care and the fact that decoders were initially only for sale and not for rent). In particular, for Telepiù the change of ownership occurring in 1997 made more resources available to shift to a rental scheme, and allowed a greater focus on commercial and marketing activities.

- ✔ On the other side, there are the structural drawbacks, arising from a very rich free-on air terrestrial TV offer and a lack of willingness to pay for TV entertainment.

The uptake of digital offer in Italy was also hampered by the uncertainties arising from the single digital platform negotiations, lasting during the whole 1997 and still not at an end.

In fact, during 1997 a Memorandum of Understanding was signed between Telecom Italia, RAI, Telepi˘, Mediaset and Cecchi Gori Group in order to create a single digital platform. However, negotiations came to a standstill and the European Commission declared itself against such a plan. Since then, the possibility to create a single platform has faded away. RAI signed an agreement to enter in Telepiù capital with a 10% of share.

On the other side, Mr Murdoch started a negotiation to buy 80% of Stream from Telecom Italia, the French TF1 also participating in talks for the re-launch of the second digital platform. The main issue conditioning the entrance of Mr Murdoch in Italy is the possibility to acquire the whole football championship matches rights, while Telepiù has already concluded an agreement to buy the rights for six years from the main Italian teams.

The Italian government expressed its intention to regulate the market of football rights with an antitrust limit of 60%, variable at the discretion of the competition authority.

1.2 Detail of services

Currently there are two competing offers of digital pay-Tv in Italy: D+, the digital package of Tele+, and Blue Stream, the package offered by Telecom Italia subsidiary.

D+ offers a wider choice in terms of premium and optional programmes, including championship football matches and Formula One, while Stream represents a cheaper alternative with its basic package. Moreover, Stream is currently pursuing a strong marketing campaign: for Christmas 1998 the new subscribers were given a six month free subscription.

D+ basic bouquet includes 17 channels and only four of them are Italian production. The basic tier is sold for 15 ECUs per month. The premium offer includes two channels simulcasting the two analogue services Tele+ Nero and Tele+ Bianco, plus a third channel that is leveraging the contents of the two former in a ìbest offî formula. This channel, Tele+ grigio, is also broadcast in 16:9. The price for the premium bouquet is 28 Ecus per month.

The subscription to the full season of the football league championship costs 30 ECUs. Currently, Tele+ is still holding the sole rights to broadcast the league championship matches. However, the right expires this year, and Tele+ has so far reached an agreement with seven major football teams to secure the rights to broadcast their matches until 2005. However, the Italian lega still has the option to decide to sell all the rights of the championship bundled, thus making void Tele+ contract void.

Football rights seem to be one of the main drivers of the digital offer in Italy.

Concerning the turn off from analogue to digital, it is worth underlining that analogue subscription during 1998 still showed a positive trend, but much weaker than the digital subscriptions. The marketing campaign and the commercial activities are currently totally supporting the digital offer, which allows a much wider choice of options than the analogue one.

Blue Stream offers 12 channels and, differently from the D+ basic tier, it include a cinema channel, with the films of Universal Studio. The price for the Stream basic package is 9,8 ECUs per month. The second pay-TV operator offers two pay per view channels (Magic Movie and Magic Pay Per View). The cost of subscription for each event is 3 ECUs.

A peculiarity of the Stream offer is the development of data broadcasting based services such as weather forecast and interactive services for language learning: the TVL interactive channel offers interactive exercises of English language, while the Interactive travel channel broadcastes additional, personalized information to the viewer. The Stream bouquet also includes a shopping channel (DSN). Currently the viewer can order the items calling a telephone number, but the order via remote control is already planned.

The Stream strategy is more interactivity-oriented than D+: the Stream web site contains channels companion to those broadcast on TV.

Since September 1998, Stream bouquet has been broadcast via satellite along with cable distribution; at the end of the first 1998 semester digital subscribers amounted to 60,000

In general, the majority of the channels broadcast by the two pay-Tv operators are produced abroad and are normally dubbed for the Italian audience. The channels produced in Italy are some news channels (Italia Network News for D+, Team TV and EuroNews for Stream).

Public broadcaster RAI currently offers four digital channels free-to-air: RaiSat1 (culture), RaiSat2 (children), RaiSat3 (educational) and Nettuno (distance learning channel). An all news channel is planned. The RAI board has already decided that two free-to-air channels will become part of a new pay-TV digital bouquet.

No DTV platform is currently offering Internet services.

Up to now, the success of digital Tv in Italy has seemed more dependent on the transmission of exclusive contents (mainly football matches and box office success films) rather than on the offer of new, interactive services. In September 1998, according to some industry experts, the majority of digital TV subscribers still had the decoder modem not connected to the telephone line. In particular, the Canal+ strategy has been to build up the premium value of channels with exclusive content.

This situation had the result of a dramatic uptake in rights costs for the broadcasters during 1998.

1.3 Operators and market structure

1.3.1 Concentration of the pay-TV market

Tele+, the first Italian pay-TV operator, has been owned by Canal Plus since 1996, which holds a 90% stake, and by Mediaset, holding 10%. Previously, shareholders were Canal Plus (45%), Nethold (45%) and Mediaset (10%).

Canal Plus is the first pay-TVoperator worldwide, while Mediaset owns the first three Italian commercial channels (Canale 5, Italia 1 and Rete 4).

Before the Stream arrival, Tele+ was the only pay-TV operator. Stream is a Telecom Italia subsidiary, set up in 1993. The Stream mission is to promote and commercialise the diffusion of multimedia interactive and diffusive services.

The market is structured as a duopoly. During 1997 Tele+ incumbent and Telecom Italia tried to reach an agreement over a single digital platform. The participation of a former telecommunication monopolist in a pay-TV was allowed under law. 249 of July 1997. However, the European Community cartel office declared its opposition to such a plan. Furthermore, the two parties were not able to reach an agreement over contractual issues, so the most likely evolution is now towards a duopoly: on one side Tele+ and on the other Telecom Italia, with one or more partners from the broadcasting industry. At the time of writing, Telecom Italia was negotiating an agreement with Rupert Murdoch, the media tycoon, and the French operator TF1. RAI, is now in the final stage of negotiations to enter in Tele+ capital.

The Mediaset role in the pay-TV business is still unclear: it may choose to remain with Tele+, with its 10% stake in the first pay-TV operator, but this would mean a peculiar partnership with RAI, its historical competitor in the free-to–air; alternatively, Mediaset could sell its 10% stake and join the second digital platform.

1.3.2 Agreement between satellite and cable-operators

Tele+ signed a transcontrol 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 Tele+.

No simulcrypt agreement exists between the two satellite operators, however, since D+ is still broadcasting in Seca and in Irdeto to diffuse the service to all its subscribers, there is a *de facto* simulcrypt situation, within the Tele+ installed base. However, Telepiù during 1998 was not adequately supplying reseller with the Irdeto card, so forcing consumers to go towards the Seca system. The Tele+ smart card was sold at about 30 Ecus.

1.3.3 Vertical integration

The vertical integration process has taken place from service provision and the TV channel provision: Tele+ produces most of the channels broadcast in its digital bouquet, while Stream produces about 50% of the channels broadcast.

A vertical integration process is also currently being pursued by Telecom Italia, which is expanding its strategy from the carriage of digital signal to other segments of the digital value chain.

1.4 Technical issues

1.4.1 Decoders issues

Two conditional access systems are currently competing in Italy:

- ✔ The Canal+ SECA system, adopted by D+. In September 1997 Tele+ introduced the SECA conditional access system, besides the Irdeto, that was previously the only Tele+ system. As a result, Tele+ is broadcasting its programmes using simulcrypt, allowing both kinds of set-top-box to receive the channels. The SECA decoder is offered at a low rent price (7,2 ECUs per month, compared to a purchase price of about 620 ECUs), while the Irdeto set-top-box is still only available for purchase. D+ set-top-box uses MediaHigway as an operating system for interactive service technology

- ✔ Irdeto, adopted by Stream, using OpenTV as an operating system. Stream boxes are offered for rent only for a monthly fee of 7,2 ECUs.

The Directive 95/47 has not been received in the national law. However, draft law n.1138 (Reform of the Communication Sector) contains an amendment providing that a common interface is required for the decoders offered for sale to the final users, while the decoders that are purchased by the operator and rented to the consumers are allowed to operate under a single conditional access system.

The set-top-box currently used by Stream has the Irdeto conditional access system embedded and it does not allow multicrypt, since the CAM interface is based on a proprietary standard.

RAI also chose OpenTv as an operating system for its free-to-air channels. The manufacturers, Italtel, estimates that 15,000 decoders for receiving RAI free-to-air channels were sold during 1997.

Specifications of the decoders

	CA Technology	*Interactive service technology*	*Free to air compatibility*	*16:9 compatibility*	*Integrated modem*
D+	Mediaguard	MediaHigway	Yes	Yes	Yes
Stream	Irdeto	OpenTV	Yes	Yes	Yes
RAI	Irdeto	OpenTV	Yes	Yes	Yes

1.4.2 Sales of 16:9

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

1.5 Conclusion

The Italian television market is characterized by the supremacy of free TV, funded by advertising and licence fees. It accounts for more than 75% of total audiovisual market revenues and for 95% of the TV market. Grown exclusively on terrestrial frequencies with no regulation for 14 years (until 1990 Broadcasting Bill, the so-called Legge Mammi) the Italian television system relies on a market duopoly: Rai, the national public service, and Mediaset, its private competitor.

During last years, however, some important facts have occurred in the TV sector, that are likely to change this familiar scenario. In particular, the business models underlying the operations of the two main players are bound to change. In fact,

1. In 1997 the law n.249 fixed the share of 30% as an antitrust limit on the total resources of the sector (including advertising and licence fees) for each TV operator, thus imposing a limit to the growth of this source of revenues for both operators
2. The licence fees revenues, with which RAI is financed for more than one third, seem to have reached their ceiling, not having increased during the last three years. Moreover, the European Commission has opened a proceeding to investigate whether the licence fees granted to RAI can be considered a form of State aid.
3. The advent of digital pay-TV opened up new possibilities for existing broadcaster of raising new revenues through a directly funded TV model.
4. In parallel, the events rights cost (especially football) increased dramatically last year, thus making new sources of revenues necessary for operators to finance the Tv business.

As a result of all of these elements, RAI moved rapidly toward the digital pay-TV world. It is worth underlining the commitment showed by RAI in the digital satellite activities with the entrance in Telepiù. On the other hand, RAI plans for DTT are still very vague. From this attitude, one can argue that digital satellite is seen by the public broadcaster as a means to increasing its revenues, that risked to be blocked on the advertising side by the new antitrust law and on the licence fees by the U.E; while digital terrestrial is seen as threat to the established power RAI has in the terrestrial transmission.

During 1998 there was a large debate in Italy about digital TV, many players form the media world and other industries were said to be participating in talks to enter in Tele+ capital and in Stream. For Tele+ the Telecom operator Wind (ENI group) and the publishing group RCS repeatedly declared their interest, while in Stream negotiations have been ongoing for months between Telecom Italia, Mr Murdoch and TF1.

However, at the time of writing, all these intentions have not come to any end. In particular, digital pay-TV in Italy is still lacking strong financial partners, that, up to now, have declared their interest but are still restraining from investing.

The lack of funds and the uncertainties arising from the result of negotiations over the second digital platform made 1998 another year of negociation for digital pay-TV in Italy, rather than strong market development.

2. Key figures for the Italian market

2.1 Country fundamentals

	1994	1995	1996	1997
Population (millions)	57.269	57.334	57.461	57.445
Households (millions)	19.282	19.664	20.053	20.430
GNP (billions ECUs)	858.306	840.428	967.954	1 009.834

2.2 Equipment

	1994	1995	1996	1997
TV households (millions)	18.886	18.886	18.976	19.030
TV households (% of TV households)	98%	96%	95%	93%
TV households with 2 sets (millions)	7.743	9.386	8.805	9.100
TV households with 2 sets (% of TV households)	41%	50%	46%	47%
TV households with 16:9 (thousands)	0.008	0.014	0.027	
VCR households (millions)	9.251	9.852	10.538	11.276
VCR households (% of TV households)	49%	52%	56%	59%
Digital STB Hh (millions)	0.000	0.000	0.058	0.226
Digital STB Hh (% of TV households)	0%	0%	0.31%	1.19%
Digital TV Hh (millions)	0.000	0.000	0.000	0.000
Digital TV Hh (% of TV households)	0%	0%	0%	0%
Digital households (millions)	0.000	0.000	0.058	0.226
Digital households (% of TV households)	0%	0%	0.31%	1.19%

2.3 Television market estimates*

	1994	1995	1996	1997
Analogue TV Market				
Public funding	1 178.104	1 120.444	1 246.443	1 287.170
Advertising	2 678.889	2 510.440	2 939.929	3 230.921
Subscriptions	157.674	182.707	207.999	270.742
Total analogue TV	4 014.667	3 813.591	4 394.371	4 788.833
Digital TV Market				
Public funding	0.000	0.000	0.000	0.000
Advertising	0.000	0.000	0.000	0.000
Subscriptions	0.000	0.000	1.701	65.901
Total digital TV	0.000	0.000	1.701	65.901

** "**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.*

2.4 Distribution mechanisms

Cable

	1994	1995	1996	1997
Homes passed (millions)	0.000	0.000	0.800	1.500
of which digital	0.000	0.000	0.800	1.500
Homes passed (% of TV Households)	0.00%	0.00%	4.22%	7.88%
Of which digital (% of TV Households)	0.00%	0.00%	4.22%	7.88%
Analogue Basic subscribers (millions)	0	0	0	0
Analogue Optional subscribers (millions)	0	0	0	0
Digital package subscribers (millions)	0		0.01	0.046
Analogue Basic subscribers (% of TV Households)	0	0	0	0
Analogue Optional subscribers (% of TV Households)	0	0	0	0
Digital package subscribers (% of TV Households)	0.00%	0.00%	0.00%	0.00%

Satellite

	1994	1995	1996	1997
Satellite Households (millions)	0.482	0.650	0.820	1.000
Satellite Households (% of TV households)	3%	3%	4%	5%
Satellite subscribers (millions)	0.000	0.000	0.048	0.180
Satellite subscribers (% of TV households)	0.000	0.000	0.003	0.009
of which digital (millions)	0.000	0.000	0.048	0.180

3.

Presentation of the major digital services

STREAM

Presentation	
Name	Stream
Date of launch	September 1996 (digital cable) May 1998 (digital satellite)
Shareholders	Telecom Italia 100%

Stream was set up as a Telecom Italia subsidiary in 1993, with the mission to promote and commercialise the diffusion of multimedia interactive and diffusive services, mainly over Telecom Italia digital cable network.

Stream started experimental services (Video-On-Demand) on ADSL in 1995, but the commercialisation of digital services to the public only began in September 1996. During 1997 RAI entered in Stream capital, since Telecom Italia and RAI were at that time negotiating a common strategy for digital services.

Since May 1998, Stream bouquet (Blue Stream) has also been broadcast via satellite Eutelsat/Hot Bird II.

Channel line-up

Offer

The only digital package offered, Blue Stream, includes two film channels, one children channel, two documentary/travel channels, one music channel, four news channels, one shopping channel and one channel for English learning. The subscription fee is 19,000 lire per month (10 ECUs). The Stream offer includes two pay per view channels (Magic Movie and Magic Pay Per View, for each event 3.1 ECUs).
The main film channel is provided by Studio Universal with its movies; four of the twelve channels in the bouquet are produced by Stream or produced on behalf of Stream by Italian external companies. The other channels are imported from foreign producers, and in some case are dubbed.

A peculiarity of the Stream offer is the development of data broadcasting based services such as weather forecast and interactive services for language learning: the TVL interactive channel offers interactive exercises of English language, while the Interactive travel channel broadcasts additional, personalised information to the viewer. The Stream bouquet also includes a shopping channel (DSN). Currently the viewer can order the items calling a telephone number, but the order via remote control is already planned.

At the time of writing, Telecom Italia was negotiating an agreement with Rupert Murdoch, the media tycoon, and the French operator TF1 to sell the majority of Stream.

History of subscriptions

	1996	1997	1998*
N∞ subscript.	10 000	46 000	60 000

*first semester 1998

The growth in the satellite subscription was much quicker than that shown by cable: at the end of 1998 the number of satellite subscription was 40.000, while 7 months after the launch the number of cable subscribers remained at around 60.000.

Distribution

Network	Owner
Cable	Telecom Italia
Satellite	Eutelsat

Decoder

Name of the decoder	Set-top-box
CA Technology	Irdeto
API technology	Open TV
Free TV compatibility	Yes
16:9 compatibility	Yes
Integrated modem	Yes
Internet access	No
Available for sale/price	not available
Available for rent/price	14,000 liras per month 7.28 ECUs per month
CA agreements	no

D+

Presentation	
Name	3.1.2..
Date of launch	March 1996 (digital satellite) 1998 (digital cable)
Shareholders	Canal Plus (90%), Mediaset (10%)

Tele+ was first launched in Italy as an analogue terrestrial pay-TV service, with two pay-TV channels. From the beginning of 1997, after the acquisition of Nethold Group by Canal Plus, Tele+ it has been controlled by the French pay-TV company and by the Kirch Group with an equal stake (45%), the rest being in the hands of the Mediaset group. In September 1997, Kirch exited from the Italian pay-TV, leaving Canal Plus with the majority stake (90%).

At that time a radical shift in Tele+ digital strategy took place and the offer (D+) was re-oriented from thematic channels to premium channels. Also, Tele+ introduced the SECA conditional access system, besides the Irdeto, that was previously the only Tele+ system. The pay-TV operator also introduced the rent of the decoder (only the SECA), thus lowering entry barriers for consumers.

Channel line-up

Offer

The basic tier includes three thematic cinema, channels four documentary channels, four music channels, five entertainment channels and five news channels, a total of 21 channels, for a price of 29,000 lire (15 ECUs) per month.

The three premium channels, Tele + Nero (film), Tele+ Bianco (film, magazine and sport) and Tele+ Grigio (the best of Tele+ Bianco and Tele+Nero) are offered for 55,000 lire per month (29 ECUs). An important aspect of the Tele+digital offer for 1998 is that it is the only pay-TV operator to offer football championship matches with Tele+ Calcio, at the price of 600.000 lire for the full season (about 300 ECUs) and offers a specific bouquet on Formula One. The digital offer also includes a 16:9 channel.

Most of the channels, such as Cinema, Season, Jimmy etc., are produced by Tele+ subsidiary MultithÈmatique Italia. The format of the channel is the same as the French ones, even if the Italian subsidiary of MultithÈmatique is responsible for the adaptation to the Italian audience.

History of subscriptions

N∞ subscript.	1996	1997	1998*
	48 000	180 000	265 000

* first semester 1998

Distribution

Network	Owner
Satellite	Eutelsat
Cable	Telecom Italia

Decoders

Name of the decoder	Gold Box
CA Technology	Mediaguard
API technology	MediaHighway
Free TV compatibility	Yes
16:9 compatibility	Yes
Integrated modem	Yes
Internet access	No
Available for sale/price	1,2 millions liras 620 ECUs
Available for rent/price	14,000 liras per month 7.28 ECUs per month
CA agreements	No

RAI

Presentation	
Name	3.1.3 ....
	3.1.4 ....
Date of launch	September 1997
Shareholders	Public Broadcaster

RAI, the Italian public broadcaster, is currently offering four free-to-air digital channels.

In September 1997 three digital channels were launched, RAISat1 (Culture), RAISat2 (Children), RAISat3 (Educational). RAI produces the three channels, while the fourth digital channel, Nettuno, for distance learning, is produced by an external company.

The launch of the three free-to-air thematic channels was supported by a strong marketing campaign, and during the first months after launch about 15,000 consumers bought a decoder to receive RAI programming. However, with the change of the RAI board the digital strategy was strongly reoriented towards pay-TV.

RAI will broadcast a subscription based basic package. Two of the existing free-to-air channels (Culture and Children) will become part of the paying offer.

The public broadcaster has already planned the launch of a ?24 hour news channel.

In December 1998, RAI signed an agreement with Telepiù to enter in its capital with a 10% share. The agreement includes that RAI will provide, as a part of the payment, six thematic channels to D+ over the next three years, and an option for Telepiù to buy from RAI another five thematic channels from year 2000.

Distribution

Network	**Owner**
Satellite	Eutelsat

Decoders

Name of the decoder	
CA Technology	Irdeto
API technology	OpenTV
Free TV compatibility	Yes
16:9 compatibility	Yes
Integrated modem	Yes
Internet access	No
Available for sale/price	1,2 millions liras 620 ECUs
Available for rent/price	n.a.
CA agreements	No