

A profusion of packages for European television

Digital television is no longer just a project, it is well and truly under way in the United States (especially with the burgeoning success of DirecTV) as well as in Europe. Some television channels were broadcast in digital compression, individually and on a trial basis, as early as 1994. Some broadcasters, such as Multichoice, BSKyB and CanalSatellite, foresaw, in analogue broadcasting, the logical advent of digital technology packages. Drawing up and launching digital packages is the current vogue and the new European stage for digital television became clearer in spring 1996. A whole string of alliances between both public and private competitors sprung up, some unexpected and some best described as stormy. While the scene remains patchy in parts, with a number of new partnerships in perspective, we thought it would be useful to give as detailed an overview as possible of digital television, as it stood in July 1996.

AT - AUSTRIA

Digital television is still in its study phase in Austria. A trial digital broadcast on the cable network was undertaken in late 1994 by Telekabel, the country's main cable distributor, on the Klagenfurt network. ORF, the Austrian public broadcasting corporation, has joined up with Post und Telefon Austria AG to look into the possibilities of digital technology.

There has so far been no announcement as to the marketing of German digital packages in Austria.

BE - BELGIUM

The introduction of digital television in Belgium has to allow for the high rate of penetration achieved by cable television in the country.

The French and German speaking communities in Belgium

The question of bringing digital television to Belgium's French-speaking community is going ahead amid a somewhat unsettled climate, where existing agreements are coming under fire (restructuring of the CLT, internal crisis over the relationship between the press and the CLT within RTL-TV), the break-up of the TVB agreements regulating the advertising market between the RTBF, RTL-TV and Canal +, as well as the announcement of a review of the status and scope of action of the Audiovisual Supervisory Board, etc.).

The various parties involved in the audiovisual sector in the French and German speaking communities have come together under an umbrella association, called "Titan". Apart from the two communities, the association also includes the broadcasters (RTBF, Canal + Belgium, RTL-TV and the local and community television stations), the main cable companies and RTD, their professional fed-

eration, Belgacom, the national telecommunications company, manufacturers (Philips, Alcatel, Gillam, SEE, IBM), the press (Audiopresse), the Mediathèque of the French speaking community of Belgium, as well as university and private research centres.

Titan's plan is to introduce, on an experimental basis, between 4 000 and 10 000 multimedia digital terminals into homes in the two communities.

However, it is quite clear that, behind this consensual project, other strategies are being prepared. Canal +, along with cable companies, is examining the possibilities of bringing the Canal-Satellite digital package onto the French speaking community's cable, in which the Belgian version of Canal + would replace the French version. The RTBF would also be invited to join the Canal + package, which could equally well include a "civil channel" (made up of programming from local and community television stations and news from parliament), which the Executive of the French speaking Community has been looking to start up. The alliance between Canal + and the cable distributors brings up the question of possible access problems for other French-speaking packages (such as those of AB Production or the possible packages of CLT and TF1).

The deregulation of telecommunications and cable-television services in Europe has brought Belgacom, the national telecommunications company, to look at the possibility of competing with cable distribution networks by introducing microwave-broadcast digital television (MMDS).

Flemish community

Negotiations are under way in the Flemish community between Nethold Benelux and the cable companies, to try to set up a joint-venture that would allow Nethold's Dutch package to be broadcast over the Flemish

cable. The VT-4 channel (currently broadcasting from London and run by the SBS group) reiterated its desire to take part in Nethold Benelux's Flemish package. Negotiations are being held between VTM and BRTN. Apart from the general-interest channels, Nethold would also offer its three basic channels (FilmNet, Supersport and Hallmark) as well as the American channels (see the chapter below on the Netherlands). The package would also feature near-video-on-demand services. Viewers would have to buy a decoder for 27 000 BEF. Monthly subscriptions would cost around 1 000 BEF.

Besides this, the Scandinavian Broadcasting System group's channel VT-4 has been broadcasting to the Flemish cable networks from London, over the Kopernicus DFS-1 satellite.

CH - SWITZERLAND

SSR - SRG

SSR-SRG, the Swiss public broadcasting corporation, confirmed in April 1996 that it would be broadcasting its 4 terrestrial channels (DSR, TSR, TSI and Schweiz 4 / Suisse 4 / Svizzera 4), in the MPEG-2 standard, through the Eutelsat Hot Bird 3 satellite, as from 1 June 1996.

AB Diffusion

In March 1996, the French company AB Diffusion (see below, under France) announced that it intended to buy a repeater on the Eutelsat II satellite to launch a digital package of TV channels in Switzerland. It should be on offer to some 240 000 cabled households in French-speaking Switzerland. An agreement has been signed with Pay-TV, a joint venture of the main French-speaking Swiss cable distributors. The digital signal will be received by the headends, converted into the PAL analogue signal and coded by the Nagra-vision access control system, itself developed by Canal +.

Public broadcasting initiatives

Since 31 December 1995, ARD-1 and ZDF have been the first German channels to broadcast in MPEG-2. The uplink to the Astra-1E satellite's repeater 71 comes from the SES station in Betzdorf (Luxembourg), after being converted to analogue signal. ARD and ZDF are currently renting repeaters on the Astra 1F satellite, while awaiting access to digital repeaters on the Astra 1G satellite, the launch of which is scheduled for May 1997.

Deutsche Welle, the international public broadcasting channel, is negotiating the broadcasting of a digital package targeting Asia and the Pacific, through the Asiasat 2 satellite, launched in late 1995. The package could also include other European (RAI, TVE Internacional, MCM, etc.) and Asian (Star TV) channels.

Other channels already broadcasting digitally

RTL Television and VH-1 Germany are already broadcasting in MPEG-2 via the Eutelsat II F1 and Orion 1 satellites, respectively.

Kirchgruppe's DF 1 project

The launch of the DF1 package is due for 28 July 1996. It will be operated by a new company, under the control of the Kirchgruppe DF1 GmbH & Co KG. The digital package will be broadcast through the Astra satellite and can be viewed using a decoder developed by BetaTechnik, a Kirchgruppe company and in association with Nokia and C-Quibe, the "d-box".

The DF1 package will include:

- two documentary channels: Leonardo and Discovery Channel Deutschland (resulting from a 50-50 joint venture between the Kirchgruppe and Discovery Channel);
- two advertisement-free children's programmes: Junior, for the under-8's and Clubhouse (8-14 years old);
- a cartoon channel (K-toon);
- nine mainstream film channels (Filmpalast, Star Kino, Cine Royal, Cine Thriller, Cine Action, Cine Comedy, Romantic Movies, Western Movies, Heimatkanal);

- four series channels (Krimi & Co, Herz & Co, Comedy & Co and Western & CO);

- two sports channel (DSF plus and DSF Golf);

- a news channel (DF1 Infokanal);

- American channels (MTV, VH-1, NBC and CNBC);

- the thirty radio services from Digital Music Express' American package (DMX);

By year end, there will also be:

- thirty or so theme-based services;

- the Cinedom video-on-demand service.

The basic price will be 20 DEM per month, which will cover a package of fourteen channels, the thirty DMX radio services, the news channel and a programme magazine, as well as "Toni" (Tele-Online-Navigations Instrument), a service to help choose programmes. Subscription to the sports programme will come to 10 DEM per month, while access to a film from the video-on-demand service will cost 6 DEM. The basic cost of the decoder will amount to between 1100 and 1300 DEM.

DF1 forecasts some 200 000 subscribers by late 1996, increasing to 700 000 by the end of 1997 and three million by the year 2000. In comparison, the Premiere pay channel currently has a million subscribers.

On 7 April 1996, the Kirchgruppe signed an agreement with the American group, Viacom, involving the broadcasting of MTV-Europe and VH-1 in the DF 1 package, along with segments of Nickelodeon. In return, the Kirchgruppe agreed to offer access to broadcasting rights for Germany for encrypted and unencrypted broadcasting of all Paramount-produced films and TV programmes, as well as a large number of broadcasting rights to other Western European countries. This agreement could also be extended to include the Spanish company, Gestevisión Telecinco.

The MMBG project

On 7 March 1996, Bertelsmann, Canal +, Havas and News Corp. announced the setting-up of a joint platform to launch digital television in Germany. The

project involved forming a new company. The agreement also allowed for the setting-up of a programme-publishing subsidiary, the role of which would be to produce German versions of CanalSatellite's theme-based channels (Planète, Ciné-Cinéfil, Canal Jimmy) and a "Hunting, Fishing, Nature" channel. The subsidiary was to be split up between Bertelsmann (25%), BSkyB (25%) and Multithématiques (itself held 33% by Générale d'Images, 33% by Canal + and 33% by TCF).

The terminal (Mediabox) sales should be handled by the Multimedia Betriebsgesellschaft (MMBG) consortium, which is 51% held by Deutsche Telekom, 11% by the CLT, 11% by Bertelsmann, 5.5% by Canal +, 5.5% by RTL, 5.5% by ARD, 5.5% by ZDF and 5% by Debis (a subsidiary of the Daimler-Benz group).

In May 1996, a European Commission spokesman announced that the Commission, which had prevented the set-up in 1995 of the MSG Media consortium, between Deutsche Telekom, Bertelsmann and the Kirchgruppe, would not stand in the way of the new venture, inasmuch as it taken heed over the criticisms voiced over the MSG Media question. However, stories began appearing in the press at the beginning of June on Rupert Murdoch's intention to withdraw from the platform. The planned merger between Bertelsmann's audiovisual activities (UFA) and the CLT, announced on 2 April 1996, along with the difficulties the CLT and Canal + were having over the French market were thought to be behind Mr Murdoch's dissatisfaction.

Pro Sieben

In April 1996, Pro Sieben (a company controlled by the Rewe group and by Leo Kirch's son) set up a subsidiary, Pro Sieben Digital, to prepare for the launch into digital television. The company announced it would be using the "d-box", developed by Beta-Technik. They have rented three repeaters on the Astra satellites in preparation for the launch of 16 channels in late 1996. No details have as yet been given, but the package is thought to act as an extension of the Home Order channel (HOT), a near-video-on-demand channel and several news channels.

RTVE

RTVE, the public service broadcasting company, already has the technical equipment needed for digital signal compression, used to distribute the two Mision America channels to Latin America, broadcast by the Hispasat satellite.

Antena 3

Cable Antena, a subsidiary of Antena 3, broadcasts a package of 5 channels in MPEG-2 through the Hispasat 1A satellite. The service has been marketed over the cable networks since January 1996. Marketing of a 20-channel package to Spanish households with individual antennae should begin in late 1996. The package should include pay-per-view and near-video-on-demand services. It is also intended to set up a pay-per-view service showing the matches of the Spanish football championship. Antena 3 has already signed agreements in this respect with a number of independent channels.

Canal + España

Sogecable, a subsidiary of Canal + España, has been using the Astra 1B satellite to market Canal-Satellite, the analogue package, since 1995. The package includes 5 channels: Cinemania (colour films), Cine Classics (black and white films), Documania (Documentaries), Minimax (children's programmes) and Sportmania. These should shortly be joined by a news and a music channel; a channel aimed at young viewers and an extra sports option. The company forecasts 100,000 subscribers by late 1996.

In April 1996, Canal + España announced it was considering launching a digital package for individual antennae for 1997. The package would include 100 channels, including 20 exclusively for the platform, while the others could be the same as those already offered on the cable networks of Cable Vision, the joint subsidiary of Canal + and Telefonica, the national telecommunications company.

Telecinco

In May 1996, Telecinco announced it was setting up a subsidiary for the launch of digital services, but gave no details as to how it

would be broadcast or the type of programme planned.

TV-3

TV-3, the television of the Catalan-speaking community, is preparing a package of 5 digital Catalan channels, with broadcasting to begin in late 1996.

Multicanal / TPS

Multicanal/TPS is a company jointly held by ABC Broadcasting and Cable International, UIH, Grupo Urbina and Multitel. Since 1994, it has been broadcasting in MPEG-1 a package of 4 theme-based channels for cable: a children's channel (Canal Panda) a Latin-American music channel (H-TV), a film channel (Canal Hollywood) and a travel channel (Odisea). The package is distributed through a hundred or so cable networks in Spain and Portugal. MPEG-1 was replaced by MPEG-2 in Spring 1996.

Televisa

The Mexican communication group, which already broadcasts the Galavision channel to Spain, has announced that it would be using the PanAmSat satellite to distribute an 80-channel digital package, as from the second half of 1996.

Working party on terrestrial digital television

In June 1996, the Dirección General de Telecomunicaciones and Retevisión, the public broadcasting corporation, announced the setting-up of a working party to study the penetration of terrestrial digital television in Spain. Channels 66 - 69 in the UHF waveband have already been given over to the future network, which should be broadcasting between 8 and 16 channels. RTVE announced that it was interested in taking part in the working party and the other Spanish channels have followed suit.

FI - FINLAND

FTV

YLE, the public service corporation, announced on 27 June 1996 that it had signed an agreement with Norwegian satellite operator Telenor Satellite Services AS (TSS) to broadcast the FTV channel (which will also include programmes from YLE1, YLE2 and commercial channel MTV 3). The channel will be broadcast to Europe for two years over a

Eutelsat satellite and then over a Telenor satellite.

Terrestrial digital television projects

Consultant Jouni Mykkänen's report, made in January 1996 for the Ministry of Transport, recommended prompt action to lay down the basic principles and outline a strategy for the establishment of radio and television digital services. The report suggested drawing up a shortlist of companies which might be interested in digital broadcasting. It also considers that existing broadcasters (YLE and MTV) 3 would need to work together, but that it would also be necessary to speed up the whole process by attributing franchises to new private broadcasters within a fairly short time. The Minister of Transport has already received a number of applications for franchises.

In the discussions following the publication of the Mykkänen report, it became clear that the timetable had erred on the optimistic side. A working party was set up and its conclusions were published in late May 1996.

F - FRANCE

CanalSatellite

Since 1992, CanalSatellite, a subsidiary of Canal + (70%), the Chargeurs group (20%) and the CGE (10%), has been broadcasting a package of ten channels in analogue mode through the Telecom2A and Telecom2B satellites. CanalSatellite had over 320 000 subscribers by spring 1996. CanalSatellite has also started to market a digital package and by mid-June 1996, there had been 60 000 orders for digital terminals. The company forecasts sales of between 150 000 and 200 000 by the end of 1996.

The CanalSatellite basic service costs 98 FRF per month and offers eleven television channels (Canal J, Canal Jimmy, Eurosport France, LCI, la Chaîne Météo (the weather channel), MCM, Monte Carlo TMC, Paris Première, Voyage, C: Direct and Télézoom) and ten radio stations. Five extra options are available:

- cinema option (55 FRF per month) (two film channels, Ciné-Cinéfil and Ciné-Cinéma, each film shown separately three times as well as Ciné-Cinéma's 16/9 version);

- music option (30 FRF per month) (Muzzik - a music channel - and twenty radio stations);
- downloading option (50 FRF per month): the C: Direct channel allows computer programmes to be downloaded;

- pay-per-view service: Kiosque: film and sports programmes (from 29 to 387 FRF per session);

- service Canal +.

TPS

The Télévision par Satellite project (TPS) was first announced on 11 April 1996 and brings together TF1 (25%), France Télévision Entreprises (25%), M6 (20%), the CLT (20%) and the Lyonnaise des Eaux (10%). The five partners signed the statutes on 19 June and drew up a shareholders' agreement. France Télévision's holding, approved on 27 June by the Boards of France 2 and France 3, was eventually lowered to 8%. France Telecom, the public telecommunications corporation, will be taking up a 66.66% holding in France Télévision Entreprises. This means that its Viaccess decoder will be used by TPS. France-Telecom's decision has also guaranteed TPS' place on a Eutelsat satellite. The project should come on stream in the final quarter of 1996.

Forty channels will be offered. To begin with, the package will feature existing channels (TF1, France 2 and France 3, M6, France Supervision, TV5 and possibly other French-language channels such as RTBF and TSR), news channels (Euronews, LCI) and theme-based channels (the history channel, set up jointly by the INA and France-Télévision, a drama channel also prepared by France-Télévision, a women's channel prepared by M6, Canal Assemblée Nationale (Parliament), TF1's Hyper Kid and Hyper TV channels and the Série Club and RTL channels, controlled by the CLT and the Lyonnaise des Eaux). The other French public broadcasting channels (La Sept/Arte, and La Cinquième), along with the Festival project, could also join the package, but they have also received an offer from CanalSatellite.

The CLT puts the basic subscription price at just under 100 FRF per month.

The CLT forecasts 100,000 subscribers during the first year of operations.

It should also be noted that TF1 has already carried out MPEG-2 broadcasts through the Eutelsat II F1 satellite.

AB Sat

Ripples of surprise ran through the industry in late 1995 with the announcement that production and distribution group AB Production were launching a digital package. Its subsidiary, AB Sat, has been using the Eutelsat II F1 satellite to broadcast the AB Channel 1 channel since 7 December 1995 and five other theme-based channels since 2 April 1996. Marketing should begin in autumn 1996.

GB - UNITED KINGDOM

Satellite digital broadcasting

BSkyB

BSkyB currently offers a package of twenty analogue broadcast channels, for a monthly fee of £10.99: Sky One, Sky News, Sky Soap, Sky Travel, TLC, QVC, The Discovery Channel, Bravo, MTV, VH-1, CMT, The Family Channel, UK Gold, UK Living, TCC, Nickelodeon, EBN, The History Channel, The Sci-Fi Channel, Paramount TV. Also available are the "premium" channels (Sky Movies, The Movie Channel and Sky Sports) and the "premium bonus channels" (Sky Movies Gold, The Disney Channel, Sky Sports 2, Sky Sports Gold). BSkyB already has some four million subscribers. The first pay-per-view sports event (the Tyson-Bruno boxing match), was broadcast on Sky Sports 2 on the night of 16-17 March 1996.

In December 1995, BSkyB and Granada Communications announced they were setting up a new channel in 1996, to be called Granada Sky Broadcasting Ltd., with the aim of producing eight new channels using the Granada and LWT catalogues: Granada Gold Plus (broadcasting notably episodes of *Coronation Street*), theme-based channels (Health and Beauty, Home and Gardening, Food and Wine, Granada Good Life, Granada Men and Motoring, Granada Talk TV, Granada TV Shopping Guide). The GSKyB package will come as part of the Sky Multi-Channels offer. The main aim of the undertaking is to attract women viewers over to satellite channels by using the Manchester-based group's chain of retail stores (sale and rental of electrical

goods). BSkyB itself should also be adding four analogue channels to its package by year-end, using the Astra 1D satellite.

In May 1996, BSkyB announced it had reserved fourteen repeaters on the new ASTRA 2A satellite, in position 28.2° East. Launch is scheduled for spring 1997. Altogether, the packages could offer some 500 channels. BSkyB is planning on launching its digital packages around the end of 1997. Near-video-on-demand services should be included for broadcasting films as well as the likelihood of a pay-per-view in association with the English Premier League (football).

The Parliamentary Channel

The Parliamentary Channel broadcasts parliamentary news in MPEG using the Intelsat 601 satellite.

Discovery Europe

In April 1996, Discovery Europe, the European subsidiary of the American Discovery Communications, announced it was preparing five digital channels, along the same lines as those set up by the parent company. The channels would include a European version of Animal Planet, launched in the States this year, a children's channel and a channel on technology. The channels are due to be launched together on the BSkyB package.

Viacom

On 10 April 1996, the SES announced that it had rented out two digital channels on the Astra 1F satellite (launched the previous day by the Russian Proton rocket) to the American group Viacom. While waiting for them to come on stream, Viacom launched two digital channels on 15 April: MTV Europe and Nickelodeon Germany. The group's other channels should soon be following, in different languages: VH 1, Nick at Nite, The Paramount Channel, The Sci-Fi Channel, Comedy Central, etc.

Viacom is also developing the Gulf DTH project in partnership with Kuwait investment company KIPCO, which has been broadcasting the Networks Showtime package (MTV-Europe, VH-1, Nickelodeon, Paramount, TV Land, The Movie Channel, Bloomberg Information TV) from London to the Middle

East. The channels' content has been adapted so as not to offend Arab sensibilities. Other channels are planned by the end of the year. The package can be received using the same IRD access control system as the Multichoice package marketed in the Middle East by FilmNet.

Terrestrial digital television projects

The latest broadcasting bill, which should become law this Summer (see Stefan Verhulst's article), prepares the ground for the launch of digital television and anticipates up to 21 channels. Current terrestrial broadcasters (BBC, ITV, Channel 4 and S4C), as well as Channel 5, which will start up on 1 January 1997, will automatically be granted places on the new networks. Teletext (which currently attracts 16.7 million viewers), has been allocated 3% of the multiplex space given to ITV, Channel 4 and S4C, but has lodged a protest with the Department of National Heritage, claiming that the small allocation it has been given will not allow it to compete properly with the other broadcasters, in particular BBC's Ceefax (thirteen million viewers).

In May 1996, BSkyB confirmed that it was still considering the possibility of taking part in the launch of terrestrial digital television, on top of its investments in satellite broadcasting. It has been looking into joining up with the BBC, Virgin and Granada.

BBC

In early May 1996, the BBC presented *Extending Choice in the Digital Age* and announced it would be launching digital television services around 1998.

The BBC plan is based on the two following projects:

- Terrestrial digital television
 - BBC 1 and BBC 2 on wide-screen;
 - flexible use of the digital bandwidth to provide complimentary BBC 1 and 2 programmes at certain times of the day. For example, when *Pride and Prejudice* is shown on BBC 1, a theme evening on Jane Austen could be shown on the complimentary channel;
 - a news channel combining international, national and regional news, along with live coverage of parliament, etc.;

- development of the potential of digital television for regional news.

• Satellite and cable

- The BBC's terrestrial channels could also be broadcast over cable and satellite, with free access;

- various subscriber theme-based channels (arts, music, education, everyday life, but not sport). These channels would also be broadcast abroad to compliment BBC World and BBC Prime;

- a near-video-on-demand service giving access to the BBC archives.

• Radio

The BBC is a pioneer in digital audio broadcasting (DAB) and currently runs five digital radio stations. New international, national and regional services would also be launched.

The BBC's international channels (BBC World and BBC Prime) should also be broadcast digitally. Free digital versions of BBC 1 and 2 will be broadcast from 1998 onwards.

ITV

Although the broadcasting bill has, right from the start, given them broadcasting space on the future terrestrial broadcasting network, the ITV companies are still dubious about the commercial future of the new system. The KPMG consultancy group, which is acting for several ITV channels, has made a cash-flow projection for the digital services. The most pessimistic forecast shows negative cash-flow until the year 2004, with no chance of breaking even until twelve years after receiving the broadcasting licence. A more optimistic forecast (assuming the consumer does not have to pay for the installation of the terminal), shows no positive cash-flow before the year 2002 and a modest 16% internal rate of return (IRR). Without ruling out his company's involvement, Granada Media Group's Chairman, Charles Allen, made known his doubts over whether it was possible to come up with a viable offer in terrestrial digital television that could compete with cable and satellite. He also declared his unease over the real possibility that a government could put an end to analogue broadcasting and finished by expressing his puzzlement over

the idea of bringing together the current broadcasting companies (BBC, ITV, Channel 4 and the future Channel 5), so as to put forward a co-ordinated offer. Bruce Gyngell, Managing Director of Yorkshire Tyne-Tees Television, in his talk to the Royal Television Society (19 June 1996) claimed that terrestrial digital television had no future, adding that he thought the straight-jacket effect of the law, coupled with the limited number of niche channels that could viably exist, provided the main obstacles to the development not only of terrestrial but also satellite and cable digital television.

Channel 4

In May 1996, Channel 4 set up an editorial working party to look at which extra channels the company might be able to launch. Channel 4 is probably moving towards simulcast broadcasting of its current output, as well as a pay-television channel.

IE - IRELAND

RTE, the Irish public broadcasting corporation, has drawn up a report on digital television for the Ministry of transport.

BSkyB's digital package will be marketed in Ireland.

IT - ITALY

Telepiù

In March 1996, Telepiù, the pay-television company (currently controlled by the Kirchgruppe and Nethold) began broadcasting a satellite package using the Hot Bird 1 satellite. The package includes the three Telepiù channels, plus CNN International, Discovery Channel, MTV Europe and soon TNT Cartoon. From September onwards, a pay-per-view service featuring Italian league football matches should also be available (see Augusto Preta's article below).

Stream

Stream is held 75% by the STET, the state telecommunications corporation, and 25% by Telecom Italia. It has been supplying an optical-fibre video-on-demand service to a few thousand Italian households since 1995. Films are available for between 1 500 and 5 000 ITL. Stream signed an agreement with producer-distributor Vittorio Cecchi Gori, giving it access to the main Italian film catalogues. The aim is to achieve a

Sources of information

Magazines

ATM, Broadcast, Cable and Satellite Europe, Cable and Satellite Express, Cine & Télé Informatique, Ecran Total, Le mensuel des nouvelles Télévisions, Marketing & Média, Media Nordic News, Medien Bulletin, Mèdiacanal, Screen Digest, T&I, TV World.

Internet servers & sites

Satellite

Internet sites dedicated to current news on satellite TV

- **European Satellite Information**
<http://www.ri-fak.ub.no/ri/fak/sat/Satfaq.html>
- **Robert's Satellite TV Page**
<http://www.rmsia.com/~roberts/robert.html>
- **SAT-NET**
<http://www.sat-net.com/>
- **SATCO DK - Satellite Chat**
<http://www.satcode.com/>
- **Satellite Europe**
http://ftp.rtd.ch/information/Satellite_Europe/
- **Satellite Journal**
<http://www.rmsia.com/~roberts/sj/sj300.htm>
- **Satellitenquenzen**
<http://www.de.gnd.de/cq/bv/stolabw/engish/tv/frequencies/satellites.htm>
- **Télé-Satellite**
<http://www51.upiu.phym.ac.uk/~sat/telesatellite/>
- **Télé-Satellite on-line**
<http://www.TELE-satellit.com/>
- **The DBS Home Page**
<http://www.dbsdish.com/>
- **The Little DBS**
<http://www.lsgn.docst.dk/~lsvst/>

Major satellite operators on internet

- **Deutsche Bundespost Telekom**
http://www.dtag.de/dtag/bskookm_fr.html
- **Eutelsat**
<http://www.eutelsat.org/home.html>
- **Hispasat**
http://www.hsib.upv.es/asig/57/nt_sep/pract_1/
- **Intelsat**
<http://www.intelsat.int.0360/>
- **Intersputnik**
<http://www.nic/express.html>
- **SES**
<http://www.asa.lu/home.html>
- **Telenor**
<http://www.telenor.no/>
- **Télé-X**
<http://www.sac.su/iso/sites.html>
- **Turksat**
<http://www.mta.gov.tr/grupd/turksat.htm>

International or European organisations involved in the introduction of digital TV

- **UIT (Index)**
<http://www.itu.ch/special/search.html>
- **DVB**
http://www.dvb.ch/dvb_home.html
- **European Radiocommunication Office**
<http://www.ero.it/proc/rtnow.htm#INTRODUCTION>
- **European Commission - Directive on advanced television**
<http://www.ec.europa.eu/infocent/rtg12a/epdty/d93424.html>

Sites dedicated to technical norms and aspects of TV

- **Worldwide TV Standard**
<http://www.en.saftey.ac.uk/Correl/WorldTV>

Sites dedicated to MPEG

- <http://randm.chim.psu.edu/mpeg.html>
- <http://www.crs4.it/~lsg/mpeg/mpegfaq3.html>
- **European Commission: Green Paper on the Legal Protection of Encrypted Services in the Internal Market**
<http://www.isp.cic.be/infococ/legreg/abou/9676en.html>

rate of penetration of 40% of wideband network users, in other words, some 25 to 30% of Italian households.

Orbit

Although little known in Europe, the Orbit Satellite Television and Radio Network is the main architect of MPEG-2 digital broadcasting. It is based in a suburb of Rome, from where it broadcasts its package of twenty four television and twenty four radio channels. Orbit is wholly owned by the Mawarid group. The package should be moving in the second half of 1996 from the Intelsat 704 (66° East) satellite over to the Intelsat 703 (57° East) satellite for the Middle East and Intelsat 709 (18° West) satellite for Northern Africa and Europe.

Orbit is considering marketing part of its package in Europe, with its five million Arab households and in America (1.25 million Arab households), via Intelsat 603. The Orbit package offers five TV channels in Arabic (two original channels, two channels from Egypt's ERTT and the Jordan Satellite Channel), nine English-language TV channels (six original channels, plus ESPN-Sports, Discovery Channel and CNN International) and four French-language TV channels (TMC, Planète, CinéCinéfil and Ciné-Cinemas). Other channels, designed for the different broadcasting areas, will make up the rest of the package, once the change of satellites has been completed.

Mediaset

Mediaset came about following the restructuring of Fininvest's business interests and is preparing its stock-market flotation. On 11 June 1996, it published a document for potential investors in which it claimed the company had a head-start in the fledgling Italian satellite television market and that it had reserved a repeater on the Hot Bird II satellite, due to be launched in late 1996 or early 1997. Mediaset is also just completing the digitalisation of the backbone of its terrestrial network.

NL - NETHERLANDS

Nethold / Philips / KPN alliance

In early June 1996, the Philips group, the Dutch telecommunications company KPN and the

pay-television group Nethold (controlled by Richemont, the South African group) announced an agreement leading to the launch of a single digital package in summer 1996 for the Dutch and Flemish markets.

Until the agreement, Nethold, on the one side, and Philips and KPN, on the other, had been fighting it out for control of the Dutch pay-TV market: Nethold had its pay channels FilmNet (350 000 subscribers) and SuperSport (250 000 subscribers) as well as the Multi-choice package (featuring a number of British and German channels), while Philips and KPN were working together on the TeleSelect pay-per-view project (12 000 subscribers).

The agreement gives Philips and KPN 40% of Nethold Benelux shares, while Nethold will be taking a holding in Philips and KPN. The agreement means Nethold will be able to access the cable networks of Casema (subsidiary of KPN, whose 1.2 million subscribers make up 20% of the Dutch cable market).

The agreement is awaiting approval by the Dutch authorities.

Other channels

The music channel, The Music Factory and the V10 Gold channel, both launched in 1995, are broadcast in MPEG-2 using the Eutelsat II F3 satellite.

NO - NORWAY

Telenor

The Norwegian satellite company, Telenor, which runs the Thor satellite, launched a digital channel in November 1995, containing the two Danish public broadcasting channels, DR-TV and TV2, the Norwegian public channel NRK, and the two Swedish public channels, SVT-1 and SVT-2. They can be received through the Oslo cable networks. Telenor already distributed seventeen analogue channels to the cable networks and to individual antennae, using the Thor, Intelsat 702 and TV Sat satellites. Within the next two or three years, Telenor hopes to be able to offer its digital packages as a free service, to allow households to receive the programmes without a terminal.

Telenor also announced, in December 1995, that it would be increasing its broadcasting capa-

city with four to six extra repeaters in 1996 and the launch of the Thor II A satellite in Spring 1997. Telenor hopes to become the third European satellite system, behind Astra and Eutelsat, by using the position 1° West.

NRK

In its strategic paper for the years 1996- 2000, the NRK public broadcasting corporation sets out the decisive role it considers it should be playing in the introduction of digital technology in Norway. NRK has joined up with Norwegian Telecom to look into the possibilities of launching digital television services.

PL - POLAND

The regional channel, Wisla TV (which could become the first link of a network of Polish regional channels) broadcasts in MPEG-2 standard over the Eutelsat II F3 satellite.

RU - RUSSIAN FEDERATION

RTR Network

In late 1995, RTR, the Russian public broadcasting corporation, announced it was setting up a joint venture, called RTR network, with a British partner (probably BSkyB), in order to launch a digital package to be broadcast using the Intelsat 604 satellite. A sports and a film channel were due for Spring 1996, to be followed by other theme-based channels (medicine, business, children), to reach a potential audience of 40 million "collective customers" (cable, SMATV) over the ex-Soviet Union.

SE - SWEDEN AND SCANDINAVIA

Terrestrial digital television project

Following consultant Lars Jeding's report *From Mass Media to Multimedia - The Digitalisation of Swedish Television*, the Swedish government announced its intention of backing terrestrial digital television and presented a bill before Parliament on 13 March 1996. The Government's proposal, backed by the three main political parties, allows for the introduction of eight digital channels by late 1998. It plans to terminate analogue services by the year 2008, by which time it is thought about fifty terrestrial digital channels will be available.

These channels could include new national or foreign channels (especially those from other Scandinavian countries), as well as the existing Swedish channels. The project would need an investment of about 10-20 thousand million SEK (1-2 thousand million ecu) for broadcasting equipment, terminals and new receivers.

Nethold

On 19 April 1996, Nethold announced it would be launching later in the year a digital package aimed at Scandinavian countries. The initial package, broadcast over repeaters 77 and 80 of the Astra 1E satellite, will feature sixteen channels: apart from FilmNet Television's three film channels and sports channel, the following channels will be included: BET on Jazz International, Bloomberg Information TV, Discovery Channel, EBN, Hallmark Entertainment Television, Performance - The Arts Channel, TCC Nordic, Travel, The Weather Channel, NBC's international channels (CNBC, NBC Super Channel, MSNBC and Giga TV).

Three channels of the Scandinavian Broadcasting System (SBS) will also be included in the packages marketed on the national markets: Kanal 2 (Denmark), TV Norge (Norway) and Kanal 5 (Sweden). Swedish channel TV4 is currently negotiating with Nethold. PTV, the Finnish pay channel, will also be available on the Finnish digital platform.

Kinnevik

The Kinnevik group, which runs its communications business through a subsidiary called Modern Times Group (MTG), had considered extending its digital channel strategy by joining Nordic Satellite Distribution (NSD), in partnership with Norsk Telecom and Tele Danmark. NSD had taken up practically the whole of the satellite capacity for broadcasting to Scandinavia and had planned to distribute the various Kinnevik channels (TV3, TV1000 & Cinema, TV6, Z-TV and TVG, the tele-shopping channel). However, the European Commission, in its decision of 19 July 1995

(OJEC 2.3.1996), declared that the operation failed to comply with the internal market and European Economic Area regulations governing competition.

In May 1996, MTG drew up an agreement with the Société Européenne de Satellites which would allow it to stop broadcasting its channels through the Astra satellites. MTG has not as yet announced any plans for the launch of a digital channel package. Two of the group's channels, TV6 and Z-TV are already broadcast in MPEG-2, using the Tele-X satellite.

In September 1995, the Kinnevik group also announced it would be launching pay-per-view services and had as such decided to quit the Astra platform, to put its channels on the Sirius satellite.

Telia Media and the Alfa project

Telia Media was set up in mid-1995, following the restructuring of Swedish Telecom. It is the focal element of the Alfa project, set up in partnership with the

Egmont (DK) and Schibsted (NO) communication groups. Telia Media is also involved in Svensk Kabel's Bio Hemma project, the first European pay-per-view service, launched in June 1994 and which, since May 1996, has been broadcasting four channels to a potential audience of one million subscribers. Bio Hemma had 100 000 subscribers by spring 1996 and should now be moving towards a genuine video-on-demand service. A trial video-on-demand service has been on stream since February 1995 in 400 households. The Svenska server can stock 400 feature-length films, which should go up to 1 000 by the end of 1996.

Telia Media has reserved 6 repeaters on Eutelsat's Hot Bird 2 satellite, which is due to be launched in August 1996. Twenty digital channels should be available by autumn, for subscribers willing to rent a Svensk Kabel terminal.

Compiled by André Lange
Expert,
European Audiovisual
Observatory.

Digital television : composition of packages (channels in project stage are indicated in italics)

	CanalSatellite	AB Sat	TPS	DF 1	Nethold (Scandinavia)	BSkyB (analogique)
GENERALIST	TMC, Paris Première		IFT, France 2 France 3, M6, TSB	Sat 7, NBC Super Channel	Chânes nationales, NBC SuperChannel	Sky One
CHILDREN'S	Canal J Disney Channel			Junior	TCC	TCC, Nickelodeon
SERIES, TV FICTION	Canal Jimmy	AB Channel 1		Krimi, Herz, Comedy, Western	Hallmark Entertainment	Sky soap, The Family Channel, UK Gold The Sci-Fi Channel
SPORTS	Eurosport France Chaîne hippique			Doutches Sportismachen	SuperSport	Sky Sports Sky Sports 2, Sky Sports Gold
INFORMATION	LCI		Euronews	DF1 Infokanal		Sky News
FINANCIAL INFORMATION				CNBC	CNBC, Bloomberg Information, EBN	EBN
WEATHER	La Chaîne Météo				The Weather Channel	
ROCK MUSIC	MCM	Musique 1		MTV		MTV
CLASSICAL MUSIC JAZZ	Muzik	Musique classique			BET on Jazz	
COUNTRY MUSIC						CMT
TRAVEL	Voyage	Evasion			Travel	Sky Travel
COMPUTER, VIDEO GAMES	C				MSNBC, Giga TV	
OLD FILMS	Ciné Cinéfi			Star Kino, Ciné Royal, Heilmakana		Bravo
CONTEMPORARY FILMS	Ciné-Cinéma	Rires, Polar Romance, Action/Aventure		Comedy, Thriller, Action, Western Romantic		The Movie Channel
RECENT FILMS	Canal +				Filmfest	Sky Movies
AMERICAN FILMS		Hollywood Boulevard				Paramount
EROTIC FILMS		XVI				
PAY-PER-VIEW	Kiosque			Cinédom		
ANIMALS		Animaux				
CARTOONS		Cartoons		K -toon		
DOCUMENTARIES	Planète Histoire	Encyclopédie	Chaîne de Histoire	Discovery Channel Leonardo	Discovery Channel	Discovery Channel, The History Channel
CULTURE	ARTE (?)		ARTE (?)		Performance - the Arts Channel	
AUTOMOBILE		Automobile				
NATURE	in project	Chasse, pêche, terroir				
NOSTALGIA		Nostalgie		WH-1		WH-1
TELESHOPPING	in project					DVC
PARLIAMENTARY CHANNEL	in project					
EDUCATIONAL CHANNEL	La Cinquième (?)		La Cinquième (?)			TLC
WOMEN'S CHANNEL						UK Living
RADIO CHANNELS		30		30 (DMG)	DMX	

Source : European Audiovisual Observatory.