

Introduction to the DVB Project

Creating Global Standards for Digital Television

What is the DVB Project?

The Digital Video Broadcasting (DVB) Project is an industry-led consortium of over 260 broadcasters, manufacturers, network operators, software developers, regulatory bodies and others in over 35 countries committed to designing open interoperable standards for the global delivery of digital media services. As DVB's name suggests, these include broadcasting. Services using DVB standards are available on every continent with more than 150 million DVB receivers deployed.

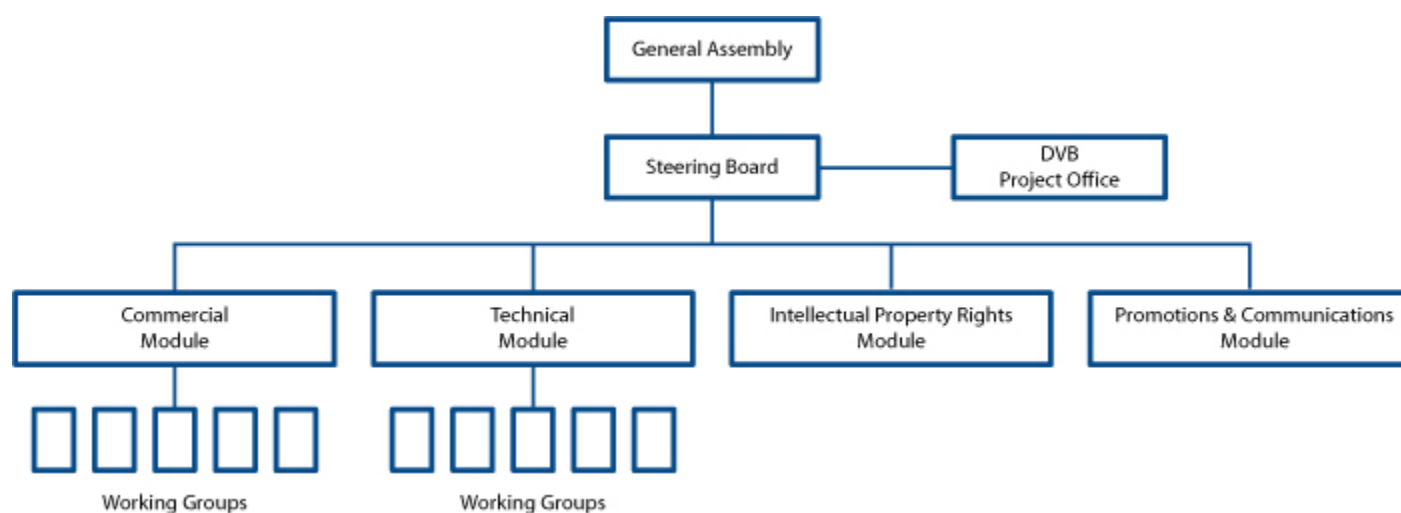
Background

Towards the end of 1991, broadcasters, equipment manufacturers and regulatory bodies in Europe came together to discuss the formation of a group that would oversee the introduction of digital TV. That group, which became known as the European Launching Group (ELG), realised that a consensus-based framework, through which all of the key stakeholders could agree on the appropriate technologies to be used, would benefit everybody involved. A Memorandum of Understanding (MoU) was drawn up, setting out the basis on which competitors in the marketplace would come together in a spirit of trust and mutual respect. The MoU was signed in September 1993 by all ELG participants, and the DVB Project was born. A key report from the Working Group on Digital Television was also central to setting out important concepts that would go on to shape the introduction of digital TV in Europe and far beyond.

How does it work?

The success of the DVB Project is founded on a number of core principles. The **Commercial Module** determines what specifications the market requires, drawing up a set of *Commercial Requirements* for each specification, without considering how such requirements could be met. The **Technical Module** is tasked with drawing up a technical specification which meets these needs. Both the CM and TM has a set of sub-groups focused on each particular work area. Once a draft specification has been reviewed by the CM it is sent to the DVB Project's **Steering Board** for final approval before being sent for formal standardisation, usually by ETSI (European Telecommunications Standards Institute).

There are a number of checks and balances in place to ensure that the work of the DVB Project remains market-driven and that its standards are *implementable*. The MoU signed by all members includes an article devoted to IPR, an aspect of the Project's work that is overseen by the **Intellectual Property Rights Module**. All DVB members agree to license their technology to all implementers on *fair, reasonable and non-discriminatory* terms. To ensure that clear information regarding the work of the DVB Project is available to all interested parties, a **Promotions and Communications Module** works in close cooperation with the DVB Project Office, based at the European Broadcasting Union headquarters in Geneva, Switzerland.



Organisational structure of the DVB Project

The Key Standards

The first phase of DVB's work involved establishing standards to enable the delivery of digital TV to the consumer via the "traditional" broadcast networks. Thus, the three key standards during this phase were DVB-S for satellite networks, DVB-C for cable networks and DVB-T for terrestrial networks. In addition to these, a whole range of supporting standards were required for elements such as service information (DVB-SI), subtitling (DVB-SUB), interfacing (e.g. DVB-ASI), etc... Interactive TV, one of the key advances made possible by through the switch to digital, was enabled through a set of return channel standards and the Multimedia Home Platform (MHP), a set of middleware specifications.

DVB then moved to embrace network convergence through the development of standards using innovative technologies that allow the delivery of DVB services over fixed and wireless telecommunications networks (e.g. DVB-H for mobile TV, DVB-IPTV). The latest phase of DVB's work is a natural progression into areas such as a system for content protection and copy management (DVB-CPCM), and looking at how DVB devices operate in the environment of the home network. DVB is dedicated to constant innovation to keep up with both technological developments and market requirements. Thus we have already seen the publication of DVB-S2, with DVB-T2 and possibly DVB-C2 forthcoming. Work is also proceeding on expanding the scope of DVB-H into the S-band through DVB-SH.

Market Deployment

By any measure the DVB Project has been a success. More than 150 million devices around the world are receiving services that use DVB standards. Of these, about 90 million are satellite receivers and more than 40 million are receiving DVB-T signals. DVB-S forms the basis of digital satellite TV just about everywhere. DVB-C is the most commonly used system for digital cable TV. DVB-T has seen phenomenal growth in the last few years and is likely to build on the successes in Europe and Australia with further adoptions across South East Asia, Africa and possibly Latin America. The economies of scale engendered by such success mean that the prices consumers have to pay for equipment are falling all the time.

Newer services such as mobile TV based on the DVB-H and IPTV based on DVB's latest specifications in this area are in their infancy. Nonetheless, indications are that these too will benefit from the stability and flexibility that comes with all DVB standards.



Joint meeting of the DVB Technical Module and Commercial Module – June 2006

Links

- www.dvb.org – the main website of the DVB Project
- www.dvb-h.org – an informational site dedicated to DVB-H and DVB-IPDC
- www.mhp.org – for all you need to know about DVB's interactive TV solutions
- www.etsi.org – all DVB standards can be downloaded free of charge from the ETSI website