High Definition TV in Europe: Where do we stand?

By Charles Bebert and Adrian Scott

Kane started at the beginning of 2004 to investigate HD launch around the world.
A group of Technical Managers including Francis Héricourt of France2 were worried that Europe may see the train of HD passing without reacting (again).
The idea was to make a benchmark on how HD was launched in other countries and to inform the French Regulation Authority CSA and broadcasters in France.
The CSA was in front of a dilemma to start at last DVB-T in France for 2005:

- Either to put priority on delivering to the public a higher number of free SD channels as the project was initially built. In France cable and satellite only represented 36% of households.
- Either to feverish the launch of HDTV through DVB-T by betting on MPEG4, a brand new technology, which may delay again the DVB-T launch. Furthermore, the HD option was only possible restricting terrestrial spectrum to a smaller number of channels, in fact to existing premium channels for the sake of incumbent TF1, FranceTV, M6.

Modernity against diversity. The Rich (HD option) against The Poor (Multiple SD channels). One can imagine how passionate was the debate in France.
Kane was asked in April by CSA and France Television as well as by Sony to investigate HD world: Japan, Korea, USA, Australia, China, Canada, and to cover all aspects of HD production, broadcast, and reception.
Kane discovered that the debate “diversity against HD modernity” was present in each market, and that each time the national regulation authority has imposed HD against opening DVB-T spectrum to outsiders. In the USA, Japan, Australia, Korea, and China the regulation authority has imposed or firmly advised terrestrial incumbent to start HD against free licences, against the advantage not to open terrestrial to competition.
And HD was imposed/feverish by numerous additional decisions (plug & play, HD tuner act in the USA, minimum HD broadcast obligations in Australia, Korea and Japan).
The second driving factor for the HD start was clearly competition between terrestrial and cable/satellite.
As HD was imposed on terrestrial by each regulation authority, satellite and cable operators were forced to start HD not to loose any market share.
In NTSC countries as well as in Pal ones (Australia), HD experience seems sufficiently attractive to viewers to create changes.
Competition between distribution channels plays everywhere a driving role (DirecTV, Comcast in the USA, Sky in Korea, Australia, …).
Kane also discovered pitfalls of HD regarding diversity of norms, increasing with the time due to progress of compression and MPEG4 AVC emergence. Kane also unveil that capture, production, broadcast and receiver formats are very different, creating a tremendous multi-conversion process. Especially they were no 1920 x 1080 TV sets at the beginning of 2004 although norm of broadcast was most often 1080i.

A risk for Europe (and for France) is that there will be an additional barrier for exporting content, the fact that US and Asian markets currently requires HD masters. The danger is real although, Discovery, NHK allow on the contrary many European producers to start HD: the fact that they enter a co-production means additional money and covers twice the additional costs of shooting and post-producing in HD for an opera capture for instance.

On the other hand, manufacturers were not as cool as producers. HD has an impact on the biggest manufacturers in a market which is driven by offering and technology. HD has a major impact on revenues for 100% of top10 manufacturers, and still 68% of top 100.

As a result HD production and broadcast means additional investments and cost for broadcasters. Investments for an HD installation vary from +20% to +70% compared to SD installations and production costs for a live show are +20% to 50% as it is +5% to +15% for a stock production. In both case however, these differences are decreasing with time and are not the principal (Building and artists costs are higher).

For that reason (in october 2004), numerous were the TV stations in Europe who adopt a “wait and see attitude”. I remember someone in France Televisions remarking that the looser was the one who start first to invest in HD.

In the meanwhile, the CSA and the French Government have chosen in France to feverish DVB-T in SD rather than in HD.

They have kept from our study that HD experience impact a very weak proportion of the public (less than 10%) in all of 6 pioneer countries. They thus chose that HD will be developed through pay TV satellite and cable model rather than a DVB-T free of charge model.

As Kane was updating its study we interviewed beginning of 2005 the 20 most important broadcasters in Europe. In spite of DVB-T “difficult future with HD”, 4 groups TF1/TPS, Canal+/Canal Satellite, Premiere, BSkyB announced their decision to start HD on satellite and through pay TV between October 2005 and end of 2006. It surely prove their ambition to remain leaders, and their financial capabilities even if it is a dangerous step for them, and for HD in Europe. This challenge is big for TF1 as well as for Canal+ who already have the Football addition to bare (WM2006 for TF1, French League 2005-2007 for Canal+). The same for BSkyB and Premiere. In Europe, HD is not feverished by regulation authority under the lobby of manufacturers, it is an additional charge to football rights created by competition issues in the 3 biggest countries and economy: France, UK and Germany. HD is an additional charge for premium channels and HD is the new battlefield to remain leaders in each country.

There are 3 different strategies in term of launching HD channels among the most important broadcasters in Europe.

- Pay TV-satellite/premium private groups: early adopters such as the 4 previously mentioned groups, plus BeTv, Euro1080 in Belgium. They will start in 2005 or in 2006
- Premium National broadcasters in danger because their main competitors are among early adopters : France2, ZDF, ORF, BBC. they will start between 2006 and 2009. France 2 will start in 2006 on TPS platform. For the 3 others it is Kane's estimation.
- Premium channels with a "wait & see" strategy. The rest of them including TVE, Rai, Antena3, RTL, ARD. They will start after 2010. At least it is their current position.

In a global economy, no European broadcaster leader can afford to be 10 years late in terms of technology.