

High definition television is reaching a tipping point in 2005-2006, claims a recent report from *Screen Digest*. "In North America and Asia-Pacific, after four to seven years of implementation but slow penetration, HDTV is now set for mass market take off. In Europe, after pioneering services and trials over the last two years, many launches and massive marketing of HDTV services will take place in 2006," it predicts.

This assertion has been borne out by recent announcements by the BBC, ITV, Channel 4 and five and pay-TV giants BSkyB and Canal+ of their intentions to launch trial or commercial services, with cable networks in the UK and the Netherlands also launching HDTV offerings.

With sport – in particular the World Cup football tournament in Germany in June 2006 – being used as an example of the benefits high definition can bring, is there a risk that producers and broadcasters are not adopting HD production in sufficient volume to make the consumer proposition sufficiently attractive beyond high-profile sports action, and a limited amount of drama and documentary programming? Is there an 'HD surcharge' that might deter such involvement?

COST PRICE. According to Laura Frankel, SVP, Content Support Services and GM, Discovery HD, Discovery Networks International, HD is increasingly becoming the norm for production. "Accordingly, costs are generally factored into production on our end." She suggests that production costs are in general 10% to 15% higher in high definition.

Seetha Kumar, the BBC's head of HDTV, says that the BBC has found that the incremental extra costs depend entirely on the genre and nature of the production. "Something with a lot of CGI or post production is going to cost more in HD," she says. "The BBC is planning to migrate its production to HD by 2010, and once that digital production infrastructure is in place HD will be largely cost neutral. I strongly believe that we shouldn't take those short cuts with quality because it will sell the audience short."

Hilary Perchard, head of product management at Sky HD, talks of a 20% figure, but acknowledges that this is reducing over time, "as HD becomes the *de facto* recording standard." He acknowledges that Sky has made a significant investment in sport: "There won't be any short cuts. It's all about delivering a quality product."

PRIZE MONEY. Craig Thompson is development director at the Banff World Television Festival. For 2006, the Festival is reflecting the growth of HD production by offering the NHK President's Prize for the Best HDTV Programme. This \$25,000 (CDN) award is presented to the best programme produced or post-produced in HDTV. All HD programmes nominated from the 18 competition categories are eligible for nomination.



HD: Re

With HDTV set to break into the consumer mainstream, are broadcasters and producers geared up to satisfy the demand for programming? Colin Mann puts the issues in focus.

Thompson agrees with Frankel's assessment. "HD has already raised production costs by at least 10 to 15% both in terms of the cost of shooting and in the post-production process. Those costs have had an impact on production budgets and both broadcasters and producers have had to make a significant investment in HD."

According to Thompson, nowadays, in order to compete and capture audience interest, a production has to be offered in HD. "Even if all viewers don't have HD receivers, production in HD is an investment in the future. As more viewers adopt HD, they will become savvy to



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**Hilary Perchard,
Sky HD**



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recognise anything less than the best. Eventually, the cost of HD will become the norm as new technology lowers the shooting, storing and post-production costs."

HIGH END. Greg Moyer, GM, VOOH HD Networks at Rainbow Media, talks similar numbers, and suggests that once HD production was at the high end, but now is heading to the low-end. "Most producers are getting equipped," he notes. "Once there was a scarcity of equipment, but that's not the case now. Studios and facilities are becoming more competitive. At this point, price is not the biggest issue. You should be future-proofing," he advises.

Jason Power, market development manager, Dolby Laboratories, points out that it is increasingly expected that HD programming will be supplied complete with a 5.1-channel surround soundtrack to immerse the viewer in sound and maximise the HD experience. "However, as a great deal of premium post-produced programming is already made with 5.1 audio with subsequent DVD release in mind, additional audio production costs should not be significant for this kind of programme," he says. "Producing live coverage such as sports does require some

additional infrastructure to carry the encoded 5.1-channel sound through the broadcast chain – but given the importance of sport in HD programming line-ups, broadcasters such as Sky have decided to make this investment."

With digital switchover still a long way off in certain territories, is there a risk that those not subscribing to digital satellite or cable packages will not receive any or much HD at all? According to Kumar, it is very important to the BBC that this doesn't happen. "The BBC's stance is that we can see a future for HD as a universally available standard, available free to air on some platforms including DTT. That's why we want to see HD on Freeview as one of the services made possible by the 'digital dividend' of spectrum freed at switchover. Otherwise we risk DTT becoming a second class platform."

TRUE PARTNER. Frankel points out that throughout Discovery's history, the broadcaster has always worked as "true partners" with its platform providers in order to develop services that help meet their needs. "Discovery HD, our international HD network, helps drive tier penetration and renews the immersive power of the television-viewing experience for viewers and platform providers alike," she claims.

Thompson suggests that, at first, there will be a wide digital divide, but over time that gap will shrink as more consumers adopt HD technology. "Reducing this gap will be hastened once the costs of HD start to diminish and manufacturers and retailers pass those savings on to consumers. In the

interim, most broadcasters have created a window of several years before drawing the curtain on the analogue era. It's predicted that by 2010 we will see more than 100 million HDTV sets in consumer's living rooms around the world– that's three times the 2005 figure."

Power awaits the results of the BBC's trial of HD terrestrial broadcasts in the London area with interest. "At the moment, it certainly seems that satellite and cable will have a significant head-start with HD services. HD will not be available via analogue, and even those who have bought current HDTV sets with integrated Freeview receivers will not be able to receive any future digital terrestrial services," he notes. Perchard, says that for BSkyB, the issue is one of choice. "We present all the choices. Our experience is that over time, more and more people join in. That's been the case with Sky+."

SCREEN SIZE. Assuming a viewer is equipped with the right subscription, set-top box and HD Ready display, to what extent does HD matter on screens smaller than 32" or outside the genres of movies, sport and natural history? According to Frankel, various industry reports have indicated that the move from standard definition to HD is



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**Greg Moyer
ZOOM HD**

not as prevalent on display screens less than 32 inches, but she suggests that Discovery's US experience has shown that early adopters of HD are willing to invest in larger screens in order to maximise the immersive viewing experience.

Thompson advises that there are several different formats of HD each with different frame rates, compression and quality level. “There is also HD for the consumer market. Ultimately HD will become the accepted format for all visual presentations, whether they are designed for home theatre or a mobile phone. Viewers will expect the same high quality no matter what device they are using to view the programme.”

“Our recommendation is clear,” states Perchard. “Twenty-six inches or larger.” He reveals that discussions with the consumer electronics industry indicates that the ‘sweet spot’ of screen size for retail TV sales has risen to 36 inches. You only have to walk into a high street retailer to see the size of set that's being offered,” he observes. For Perchard, other genres will undoubtedly benefit from HD, such as drama. “We're offering (general entertainment channel) Sky One in HD, as well as Artsworld. It's about presenting a complete package to customers.” Power adds the reminder that HD doesn't just bring improvement in picture quality. “It also offers immersive 5.1 surround sound. This benefit can be enjoyed whatever the screen size, helping to draw the viewer into the action,” he claims.

WATCH WORD. The Screen Digest report - *High Definition Television: Global uptake and assessment to 2010* – sees the migration to HDTV as an inevitable process in the long term, for several reasons: “First, because of consumers' perception. Even if ordinary viewers today cannot see much improvement on a small-to-medium sized sets compared to a good digital SD picture, HDTV picture resolution, 5.1 sound and widescreen aspect ratio will progressively heighten viewer's visual acuity and picture quality expectations. So that SD will soon become virtually ‘unwatchable’, at least for some content like movies and sport,” it states.

A second reason, according to the report, is that broadcasters and production service companies are upgrading all equipment to HDTV standards. Finally, HD uptake will be fuelled by harsher competition

between pay TV operators across three platforms (digital cable, DTH, IPTV), in which the ability to offer HD is bound to become a crucial aspect.

LIBRARY BOOKS. The role of libraries will be vital if broadcasters are to maintain meaningful HD offerings. In Thompson's opinion, as HD continues to expand, libraries will follow suit by offering HD content to clients. “Many people think of archives or libraries as the keepers of film stock from eras gone by when in fact most of their business comes from the sale and licensing of contemporary images. There is a challenge for producers and broadcasters for developing a style for using archive footage in HD productions and there are many ways of shooting and post-production methods that can be used to accomplish this. If image quality is an issue it can be boosted using software suites such as Teranex to process the footage.”

Frankel reveals that Discovery HD offers HD content from Discovery Networks' entire portfolio of programming, representing more than 27 Discovery television brands, in addition to original content that is commissioned specifically for its HD services. Since 2002, Discovery has amassed a library of more than 1,000 hours of HD content. “Library-based services simply cannot match the breadth, diversity and quality of a service like Discovery HD,” she states.

Moyer is bullish on the need for producers to go out and make more content, to arrive at a figure of over 50% of material that airs on the channel, and notes the increased availability of content. “When we started screening HD at MIPCOM in 2004, there was just a few dozen hours available; now there's 300 to 400 hours licensed on the international market. There's certainly more and more producers in the game. People are saying ‘Why not?’”

MUST CARRY. With the pay-TV majors such as BSkyB and Canal+ betting on HD, is an HD offering a ‘must-have’ for pay-TV broadcasters, and equally, is it essential for non-pay broadcasters to offer an HD service? Frankel suggests that HD is rapidly becoming the new global broadcast standard, and it will become increasingly important for the entire industry to invest in HD services over the next five years. “Based on our experience in the US, where Discovery launched its first HD network in 2002, we know that an HD offering delivers brand

enhancement and viewer loyalty, and also serves the needs of platform providers by driving tier penetration.”

Thompson believes that this is absolutely the case. “HD is essential for both pay-TV and non-pay TV broadcasters. It’s all about having the best offering for viewers and competing for those eyeballs. Many broadcasters are providing a dual offering to viewers – HD and non-HD - to acknowledge those viewers who have upgraded.” Moyer notes that satellite operators are conscious of the need to offer the high ground. “They’re not willing to be left behind by cable or broadcast,” he says. Perchard looks favourably on the BBC’s HD trial announcement. “It’s good to see other broadcasters getting involved. It demonstrates the importance of the medium.”

The *Screen Digest* report asserts that for free-to-air broadcasters, HD is more of a constraint or a defensive move at this point, forced on them under pressure from regulators or competition. “We do not believe that high definition on its own can significantly increase the audience of broadcast television, and therefore increase advertising revenues – although it might allow first movers to generate incremental revenues from the valuable demographic of HDTV early adopter viewers. In Europe, broadcasters cannot expect additional revenues from going HD, therefore they are reluctant to make the change soon.”

QUALITY GAP. According to the report, public service broadcasters would like to wait for content and households to be ready before launching, typically in 2008-2010 but under political and competitive pressure they will have to go faster than that.

“Commercial broadcasters have finally understood that they can no longer afford the widening quality gap between home video and broadcast, and that they risk losing audience at some point if their quality is not upgraded.”

Frankel sees it as inevitable that smaller producers will eventually be obliged to move to HD production. “Given the long-term viability of HD and the recent and upcoming launches of a number of HD platforms in Europe, it is important for all producers to make the investment,” she suggests. “HD’s not just for the big boys,” adds Moyer. “If content has shelf life, then it should be considered. It’s about the business plan behind a particular programme. If it’s a complicated, multi-camera shoot, for something such as reality programming, then it’s probably not a good case.”

Thompson notes that there are different levels of HD being developed and each with different costs attached. “All producers should look at HD as a production option but the ultimate decision rests with the broadcaster who will dictate the shooting and delivery format required.” Yves Paneels, at European HD pioneer Euro1080, makes the point that those same broadcasters and producers were obliged to join the colour TV revolution in the 1970s. “Once the market



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**Laura Frankel,
Discovery**

goes in one direction, it’s the logical way forward,” he asserts.

HIGH STEP. Like many industries, where a good product doesn’t always match market demand, there is some debate as to which is the chicken and which is the egg in terms of creating and satisfying demand: broadcast or production? Frankel says that when the industry was concerned about the lack of HD content, Discovery was one of the first global broadcasters to step-up and offer a 24/7 HD network.

“Discovery Communications’ founder and chairman, John Hendricks, was an early believer in how HD technology would enhance the viewing experience and we were in the financial position to make the investment commitment at a time many companies were not. Our efforts and the rise of high-definition channels like Discovery HD, which has launched in Germany, Austria, Japan, Canada and South Korea and will launch in the UK and Ireland this spring, have encouraged the production commu-

nity to increase its investment in high-definition, and this trend will increase as HD services begin to take further hold in Europe and Asia over the next few years.”

Moyer contends that the production community has led the way, and recognises that until recently, European HD producers have been without any immediate prospect of an outlet for their wares. Thomson says that neither applies. “Technology is the driving force of change. Producers and broadcasters are merely following along.”

VIRTUOUS CIRCLE. According to Power, “we already have our chicken, as the US and Japanese markets are already hungry for quality HD content. This means that many European producers are already having to deliver HD in order to meet the requirements of co-producers. European HD broadcasters also have access to a great deal of US content that is already available in HD. So the ‘chicken and egg’ problem is small now compared with the challenge the US industry faced when originally launching HD some years ago.”

Perchard recalls Sky’s experience with widescreen. “We got in early, and that gave a reason for buying. That way, more content was produced. It creates a virtuous circle. We’re at the beginning if it, but it’s beginning to move quite fast.”

Moyer also sees things are on the move. “There are three trends where the stars are beginning to shine. HD set costs are dramatically falling; there’s the arrival of MPEG-4 as a global compression standard, with chipsets becoming available in set-top boxes; and there’s enough production in HD to make people feel they’re missing something, such as the Olympics, or the forthcoming football World Cup. That way, people can see what’s available. They can see they’re enhancing their experience. In 2006, all three are coming to a head, to help reach a tipping point.”



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**Jason Power,
Dolby Laboratories**