

# France 24 goes global

Thomson GV and Technicolor in build-out

By Fergal Ringrose

## Bilingual broadcast

Thomson has reached an agreement with FRANCE 24, the global 24-hour satellite TV news channel, in a transaction valued at over €30 million over three years. FRANCE 24 will broad-

cast news in several languages on two different channels, to Europe, Africa, the Middle East, and the East coast of the United States.

Equally owned by the TF1 and France Télévisions Groups, FRANCE 24 will launch its global coverage with a staff of over 170

bilingual broadcast journalists in Paris, as well as correspondents reporting from bureaux around the world.

Thomson will design and build broadcast and technology infrastructure ahead of the network's December launch, and provide a range of operational,

maintenance, and training support services. Under the contract, Thomson's Grass Valley business will design and install a digital studio and master control room. Thomson's Technicolor Network Services unit, through its previously-acquired, Paris-based VCF Thematiques business, will deliver a range of services for the operation and maintenance of the technical infrastructure and will deploy more than 100 technical staff at FRANCE 24's site.

[www.thomson.net](http://www.thomson.net)



**tpc adapts to SHED fibre:** tv production center Zürich (tpc) has equipped its HD-1 outside broadcast truck with 10 sets of SHED (SMPTE hybrid elimination devices) and HDX adapters for its Sony HDC1500 cameras. The Telecast SHED-HDX units replace the bulky SMPTE hybrid fibre/wire cables the cameras are designed to accept with lightweight, standard single-mode fibre, allowing up to 10 times the range of hybrid cable with only 10% of the weight.

"SMPTE 311 hybrid wire/fibre camera cable is falling out of favour with many broadcasters because it is bulky, heavy, prone to damage, and distance limiting. The trend, however, is heading toward using standard tactical fibre cable that is non-metallic, easier to handle, significantly more durable, and compatible with existing venue infrastructures," commented Joe Commare, Telecast vice president of marketing and international sales. "By using fibre and SHED camera adapters, tpc has streamlined its OB operations while maintaining the performance of its Sony HD cameras." [www.telecast-fiber.com](http://www.telecast-fiber.com)

## UN signs monitoring deal

### Video watermark

The UN has announced a long-term arrangement with global media intelligence company Teletrax to monitor output of all its broadcast video products. UNTV, a service of the Department of Public Information, provides live daily news feeds and edited features to news agencies and individual broadcasters across the world.

As part of the multi-year agreement, the United Nations will utilise Teletrax's suite of video watermarking, monitoring and near realtime reporting services to monitor broadcast output of all video products including UNifeed, its global news distribution service, as well as its television series, *UN in Action*, *21st Century* and *Year in*

*Review*. Teletrax's reporting technology will provide detailed analysis on which stories, spots and programmes are aired by broadcasters throughout the world.

"Many international organisations rely on the UN for information on a multitude of global issues, and often we are the only source of news and information coming from some countries," said Susan Farkas, chief of the Radio and Television Service of the United Nations. "The tracking information we receive through Teletrax's reporting tools assists us in assessing which stories and formats are most used by broadcasters. It enables us to adjust our production priorities to ensure that broadcasters have access to the most relevant material to meet their needs." [www.teletrax.tv](http://www.teletrax.tv)

## Observe the Irish Tenors

### Outside Broadcast

By Fergal Ringrose

Irish OB operator Observe has used its new HDTV unit, with full digital audio facilities, to record 10 high definition television specials featuring the Irish Tenors for broadcast on RTE. HD1 is Observe's flagship vehicle, a triple-expander 53ft artic with full studio facilities for live broadcasting, including 24 high definition cameras and a 52-fader Studer Vista 8 digital live audio production console.

The huge OBV spent 10 days at Ardmore Studios in south Dublin, recording performances by Finbar Wright, Anthony Kearns and Karl Scully, and a long list of guest artists.

In addition to the guest soloists, Observe's Head of Sound Colm Flynn has recording a 30-piece orchestra, a five-piece band and a string quartet. The Studer Vista 8 digital audio console has capacity for up to 480 inputs. "We have 80 mic line

inputs built into the truck, plus 40 more in our flight-cased stagebox, and I can bring in additional I/O if I need it," he said. Observe's stagebox, on a fibre optic connection, was positioned inside Ardmore's Studio A, some 100m away from the Observe OBV.

"Desks like the D950 Mk2 have been in my sights before, but have been outside the budget. When specifying the HD1, after looking at all the leading marques, we decided to go for the Vista 8." HD1 has full 5.1 surround sound capability, although it is not being used on the Irish Tenors recordings.

[www.studer.ch](http://www.studer.ch)



Colm Flynn in HD1: "Vista 8 is the easiest surface to learn for freelance engineers"

## Jordan to air with dB

### Systems Integration

One year after the first brick was laid, independent system integrator dB Broadcast has commissioned Jordan's first independent television station, ATV. Located in the heart of the capital Amman, ATV initially has one channel, on air 24/7, broadcasting a mixture of entertainment and news.

According to dB Broadcast, the main contractor for the project, equipment suppliers such as ENPS, Leitch, Pebble Beach, MSA Focus, Ross and Pixel Power are currently on site carrying out final training, prior to the station going on-air before the end of the year. dB

says that its personnel are also remaining on site until the end of the year to assist with training and to fine-tune the systems.

dB Broadcast, together with sub-contractor Electronic Media Systems (EMS), was responsible for the complete technical installation on this multimillion pound project. These responsibilities included the newsroom, with 70 journalist workstations, the broadcast infrastructure, studios, control rooms, playout system, edit suites, graphics areas and satellite system. The company was also responsible for the design and installation of the IT and telecoms infrastructure within the building.

[www.dbbroadcast.co.uk](http://www.dbbroadcast.co.uk)

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NEWS  
IN BRIEF**Realtime script synch**

SysMedia has developed Speech Follower, a system that achieves realtime synchronisation between the spoken word and the equivalent scripted text – a capability that has so far proved elusive. By reliably tracking the progress of spoken audio through a prepared script, the company claims to deliver previously unseen levels of automation in the prompting and subtitling sectors. It forgives minor delivery errors and small deviations from the prepared script – enough to recover and continue automatically. The first commercial application for Speech Follower is in SysMedia's Teleprompt Speech Control software where the company has provided the technology for the Voice-Plus option in Autoscript's WinPlus product, winner of four awards at NAB2006. Automated speech control of the prompter in this way avoids the need for an operator during short bulletins and allows the presenter to move freely around without the restriction of a foot and/or hand control.

[www.sysmedia.com](http://www.sysmedia.com)

**Polar lands Ciprico**

European distributor Polar Graphics will begin offering Ciprico's complete MediaVault and DiMeda product lines to users in the United Kingdom, Ireland, France, Belgium, Monaco, the Netherlands, Norway, Denmark, Finland and Sweden. The expansion of the product line is significant because Polar Graphics previously only focused on select MediaVault products developed by Huge Systems, which was acquired by Ciprico in 2004. Polar Graphics will support Ciprico with an experienced technical sales force already familiar with the respective territories. This team is complemented by the recent addition of Don McDonnell as Ciprico's vice president of Sales and Marketing. He commented, "The continued march toward 2k and 4k workflow, digital intermediate and VFX applications demands ever more potent and interoperable storage solutions."

[www.ciprico.com](http://www.ciprico.com)

# Up, up and away in high def

**HD production**

Communications production company Impact Image has undertaken a specialist commission to provide aerial photography with the UK's famed Red Arrows aerobatic team shot in HD. The BBC commissioned IWC Media to produce a documentary following the selection process for new pilots into the Arrows.

Bob Hayes, production director at Impact Image said, "The decision to shoot in HD was taken early on. An Ikegami HDL-20 ultra-compact camera was chosen with a Fujinon 4.8mm HD prime lens to record onto a Sony HDW-S280 HDCAM recorder. Camera mounts were engineered to fit either in the cockpit looking at the pilot or in a specially modified pod positioned under the

aircraft, which gave a spectacular rear-facing view of the formation.

"We flew approximately 40 times in two weeks and the equipment experienced G-forces of 2.5G to 8.5G with no problems whatsoever. We were really impressed with the performance of the Sony S280 deck which withstood these unusually extreme conditions," he added.

"All exposures had to be made manually before take off and any camera position change made between flights meant we had to recalibrate the new cable from the CCU Unit. It all had to run like clockwork as the turn-round between flights is very tight during training and the team can't afford to wait for you," Hayes said.

"We were gobsmacked at the clarity of the footage. In an HD wide shot you can see the pilot



Red Arrows in flight: 'With HD you can see the pilot turning his head and the ripples in the ocean hundreds of feet below'

turning his head and the ripples in the ocean hundreds of feet below, at the same time. This technology meant we could put the camera in positions where a film camera would never have fit, so it's truly

ground-breaking. We set up a monitor on location to review the rushes each day and without fail a small mob would cluster around and simply gawp. Stunning."

[www.impactimage.co.uk](http://www.impactimage.co.uk)

## Avid set to manage ITN news

Newsroom system replaces Quantel model

By Fergal Ringrose

**News operation**

ITN has reached an outline agreement with Avid to provide a new media management system for ITN's news and programme production departments. This will replace a Quantel production system installed in 1999.

The Avid system will enable all newsroom staff to process and edit from the desktop and will be capable of storing more content than ITN's current digital system, which is now over seven years old. ITN will use a combination of hardware and software products from Avid including Unity ISIS

storage, Interplay media asset management (launched at NAB) and NewsCutters for desktop and craft editing throughout ITV News and Channel 4 News.

ITN will also build a new high definition Avid system in ITN Factual and Visual Voodoo, its programme production units, to replace older Avid equipment. The new set-up will feature four Media Composers connected together by a Unity, allowing all edit suites to be connected with each other.

Keith Cass, director of Technology at ITN said, "ITN chose the new Avid system after having carefully assessed that this technology could scale both tech-

nically and functionally to meet the requirements of ITN across all areas of our businesses. We have also been immensely impressed with the use of Avid in ITV Regional News operations and look forward to integrating our Avid system with their own operations."

ITN plans to roll out the new Avid system in the newsrooms over the next 12 months with Channel 4 News expected to complete the transfer to Avid in the early part of 2007. Over the next two to three years ITN expects to extend the roll out of the new system to include its multimedia and image library departments, ITN On and ITN Source.

## IBC sports new award

**IBC Preview**

The Sport Video Group (SVG), an organisation dedicated to helping the sports production community advance sports content creation and distribution, will host its first IBC Sport Industry Reception in association with IBC on September 9, 2006, from 6-8pm at the Business Club Lounge in the RAI Lower Auditorium.

The invitation-only event will provide sport broadcast and production professionals with their first opportunity to network and meet in the most convenient location during Europe's broadcast convention.

The event will celebrate the recent successful HD broadcast of the 2006 FIFA World Cup that was co-ordinated by Host Broadcast Services (HBS).

"Sport production is the driving force behind the transition to high-definition TV around the globe, and the SVG is pleased to honour the achievements of HBS for their work in producing the 2006 FIFA World Cup," said SVG Editorial Director Ken Kerschbaumer. "IBC is the perfect venue to present this award as it is where the leading international sport broadcasters are assembled at a single time, in a single place."

Sport industry professionals that are attending IBC and want to learn how to attend the invitation-only reception should contact Andrew Lippe, Sport Video Group event registration co-ordinator, at [Andrew@sportsvideo.org](mailto:Andrew@sportsvideo.org). For more information on the Sport Video Group please contact Ken Kerschbaumer, Sport Video Group editorial director at [kenkersch@sportsvideo.org](mailto:kenkersch@sportsvideo.org)

[www.sportsvideogroup.org](http://www.sportsvideogroup.org)



**It repeats and repeats:** ProTelevision Technologies has released a new digital repeater for gap filler applications. The PT 2090 repeater, optimised for DVB-T/H, uses digital signal processing from input to output. This concept ensures optimum signal quality within the operation range (30-954MHz) and allows for integration of digital nonlinearity pre-correction. The range of features includes agile input/output frequency, squelch, automatic/manual gain control and variable max-gain limiter for safe ISO channel operation. Echo cancellation and adaptive pre-correction will be offered as options.

[www.protelevision.com](http://www.protelevision.com)

## Electronic HD waveform

EV develops mixed monitor

By Fergal Ringrose

**Signal analysis**

How do you monitor the quality of your video? The EV4181 from Electronic Visuals is a multiple input waveform monitor that will automatically detect and display almost any broadcast standard of video signal whether in HD or SD, digital or analogue. It has

been designed to be very easy to operate and indicates clearly the selected functions.

One useful feature is the LCD dot matrix display, which indicates the incoming line rate and frame/field frequency for example 720p at 50Hz and also indicates which line is displayed when using the line select function. EV asked customers, engineers and systems integrators what

they really wanted from an HD waveform monitor. Based on these requirements EV's design considerations were for installations with a mix of HD and SD signals in either digital or analogue, where essential information can easily be ascertained on a conventional display format. The EV4181 can display as YUV, RGB, bowtie or vectors, and has up to x50 horizontal magnification, with linearity and low pass filtering available. What goes in and what comes out? The EV4181-HD has two SDI and a set of analogue component inputs.

[www.electronic-visuals.com](http://www.electronic-visuals.com)

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# Camera prices under EU threat?

David Fox' lead story in July issue (and on our TVB-E electronic newsletter) elicited considerable response from readers. No-one likes to see sharp practice in the market – either from manufacturers who might consider dumping product in the EU market, or indeed from companies who would seek to take advantage of possibly over-protective EU trade rulings. As reader Dave Craddock puts it below, 'I am fully in favour of anti-dumping regulations but they should not be confused with competitive trade and product quality versus actual costs of manufacture'. Quite so. We're happy to hear further from the manufacturers or others involved in discussions as these latest proceedings unfold. – *Fergal Ringrose*



JVC UK has sent out a letter to its customers concerning the Anti-Dumping proceeding AD510/R395 – which could become one of the big talking points on the show floor at IBC2006

## To the Editor

### Anti-Dumping proceedings

Sir,

I recently received a letter from JVC in the UK concerning the Anti-Dumping proceeding AD510/R395, regarding the import into the EU of Japanese manufactured 'Broadcast Television Cameras'. The proceedings are being brought by the Thomson Grass Valley Company in France. [Ed Note: See David Fox' p1 article in July issue, in TVB-E newsletter July 20, and also downloadable at [www.tvbeurope.com](http://www.tvbeurope.com)]

For your information I have been an independent consultant to the broadcast industry since 1988 and have worked in the radio and television industry since 1960 in numerous areas from TV station studio and transmitter operations and maintenance, to technical management, sales and project management, etc, in Australia, New Zealand, Hong Kong and the UK covering project in many parts of the world.

I installed, operated and maintained my first colour television cameras in Australia in 1963 whilst working for EMI Broadcast in Sydney NSW, and have since worked for American, Canadian, and UK companies, up to the level of managing director. The largest projects I have handled included the building and design of the International Broadcast Centres for NBC New York in Seoul 1988, Barcelona in 1992, and the rebuilding of the Bosnian Television Network after the war of 1995. I feel I am therefore qualified to comment on this subject.

I should say that I am fully in favour of anti-dumping regulations but they should not be confused with competitive trade and

product quality versus actual costs of manufacture. The JVC document makes many good points but it does not of course give any real facts concerning either Japanese manufacturing process or those of EU manufacturing.

I would suggest that what is required to show to the EU and the broadcast industry generally, that pricing is fair, is a robust investigation – not by an EU official but by someone in the broadcasting industry appointed by the EU making unannounced visits to all of the camera manufacturers who will be affected by any anti-dumping rules, that looks at the following points:

What are the actual prices paid by broadcasters in Japan, the EU and the US (if that is where Thomson Grass Valley is manufacturing their EU cameras?). Published list prices do not really mean anything; the price the customer pays is what matters.

What are the cost prices of the various cameras that are involved in this investigation? By this I mean the cost of all components and manufacturing labour, but not profit or research and development.

When the costs are known then reasonable factors can be used for R&D, warranty, company overhead, after sales service, manufacturing of spare parts plus such things as costs involved in supporting exhibitions, and advertising. And last but not least a reasonable profit.

All of the companies concerned should agree to unannounced visits, by a named person, who should be accompanied by a translator who preferably also has some sort of engineering training.

The appointed person and anyone who accompanies should be totally independent from any of the companies involved and should be prepared to sign a Non Disclosure Agreement. If this is not acceptable to any company or should they withhold requested information then the EU is entitled to assume that company is dumping and act accordingly.

**Dave Craddock, TCS International, Hampshire, UK**

## To the Editor

### Badge-engineered by Sony?

Sir,

I was interested to read the article by David Fox on Grass Valley's request for an anti-dumping levy.

As you know, Grass Valley was formally Thomson. And a few years ago I heard through a company about Sony Broadcast Europe complaining that they were having to pay a levy (on what ever the cameras were at the time – HD I think) and they were being undercut by their own cameras, badge-engineered to Thomson in Japan. They had to pay no levy.

I am not sure about the veracity of this story, but it would sure make a good one if you could get to the bottom of it. Check how much of

Thomson cameras are Thomson. Otherwise they should pay a surcharge. Not on the badges of course!

**Philip Budden, PICTORION das werk GmbH, Munich**

**David Fox replies:** As far as I know, Sony never made HD cameras that were re-badged by Thomson. I believe that the only cameras it sourced from Sony were Betacam camcorders – or possibly even just the Betacam dockable recorders, which it fitted onto its own cameras. Camcorders were not subject to the levy – which applied to studio cameras and to cameras that could be docked. The recording units didn't have a levy applied to them.

There may have been cases where a broadcaster was buying Thomson cameras and also wanted camcorders as part of the package and Thomson either sold it some of its hybrid Thomson/Sony Betacam dockables or rebadged Betacam or Digital Betacam (which was never available in a docking unit) camcorders – as Thomson never made its own camcorders.

NEWS  
IN BRIEF**SMG's Custom Quay**

SMG, owner of broadcaster stv, has chosen Custom Consoles furniture for a large-scale studio installation. The contract forms part of a major investment in new technology at SMG's recently-completed headquarters in Glasgow's Pacific Quay. The new master control room and transmission suite at SMG are a mirror-image design, separated from each other by a glass wall. Each incorporates a single-operator curved-L-shaped Module-R desk in front of Christie rear-projection monitor displays. Equipment storage cabinets are located at each end of both desks. Production gallery 1 houses a 5m wide Module-R desk accommodating vision controller, control assistant, director, production assistant and producer. A vision mixer is recessed in front of the director. The Irish-based sports channel Setanta also has facilities within SMG, including two edit suites and a playout area. The edit suites have been furnished with a Module-R desk and two Media Desks. [www.customconsoles.co.uk](http://www.customconsoles.co.uk)

**Sky Digital Unlimited**

Three more channels on Sky's digital platform have standardised on IdeasUnlimited.tv for automated compliance recording. Racing UK, Racing World and the Jewellery Channel are installing ContentProbe to retain all transmitted content for 90 days in accordance with Ofcom regulations. Highflyer Productions, the location and studio production partner for Racing UK and Racing World (Sky EPG 432 & 433) now uses the dual channel version of ContentProbe to eliminate storage on 540 bulky super-VHS tapes. Racing UK is the dedicated horseracing channel owned by 30 top UK racecourses, and its sister channel, Racing World, broadcasts international racing. "Compliance recording is a necessary evil that consumes time, energy and storage space when conducted manually using VHS tapes," said IdeasUnlimited.tv MD Glyn Powell-Evans. "When automated using the ContentProbe compliance recorder, it is simply an essential operation that just happens without operators having to worry about it." [www.ideasunlimited.tv](http://www.ideasunlimited.tv)

# If content is king, MAM is the throne

## Guest Opinion

**By Zafer Ipekci, Metus Technology**  
Millions and millions of video shoots are stored and kept secure for possible re-use in the future. Every passing day deposits an increased volume of content into our hands. For different reasons people want to keep all these things for as long as they can in a secure and indexed environment where they can find what they want easily.

Film, Betacam, optical disks, digital tapes and hard drives are used to archive video content. Of course most of these environments come with different types of problems. Media gets corrupted over time; it is hard to find specific parts of the content; there are difficulties in stacking; it takes time to retrieve what is demanded; and retransferring the content to new media is painful.

For all these reasons media asset management has become more important in today's facilities. New technologies are helping manufacturers combine different types of IT products together to form affordable and flexible MAM systems.



Asset Viewer application from Metus Library V2.0

Beyond archiving, a bunch of different operations are being integrated in the MAM systems nowadays. Transcoding, quality analysis, content delivery, versioning and playlist creation are some of the extra features that MAM systems offer.

Metus Digital Media Systems is developing easy to use applications to meet the needs of the industry. Metus Library V2.0 was released last year. The aim of the company is to have a product that can be used in all markets related to media.

Metus Library has the features a MAM solution should offer such as storyboards, proxies, categories, requests, tape library support, ILM, distributed server architecture, versioning, security

and customisable metadata. Of course all applications have their specific features to focus on specific areas and attract customers. Image-matching, secure tunneling, transcoding and a wide range of supported formats put Metus Library in a strong position. From media monitoring companies to TV stations, lots of organisations need MAM solutions even though they don't know that yet.

TCP/IP is a good standard to access all kinds of devices in facilities. The number of devices that can be controlled through a web browser is growing day by day. Although control pages can be integrated in automation and MAM solutions, XML support is very important to enable developers to integrate all kind of controls in a single interface.

In time we think that media asset management will evolve into asset management that can manage various devices. And it will be even more critical for broadcasting. The most important thing to check before deciding on a MAM solution is the way it operates, its flexibility, and its collaboration with different manufacturers. More flexible products will cover more operations within a single application.

We are building a common media platform of the future for all media-related companies. Selecting the right MAM and archiving solution shows how much you care about your content. If you are not even considering MAM, ignorance is a virtue!



**Weimar gets digital TV:** In support of Germany's digital TV switch-over, Radio Frequency Systems (RFS) designed and installed a broadband panel antenna/combiner system for the rural German city of Weimar. The RFS system is a component of a 12-programme/three-channel DTV solution provided by one of Europe's major broadcast infrastructure groups. The combined terrestrial broadcast system provides DTV coverage to metropolitan Weimar and its surrounds.

With a transmission power capability of 30kW, the four-level, four-sided RFS PVP vertically polarised panel array provides broadband DTV coverage to Weimar and environs. A three-channel balanced coaxial combiner (CA3P200E) – upgradeable to six channels – enables the RF combining of the three 8MHz channels, each of which comprises a multiplex of four programmes. The RF link between the transmitter and the antenna is achieved using RFS HELIFLEX coaxial transmission line. [www.rfsworld.com](http://www.rfsworld.com)

## People on the move

Baraka Post Production recently poached **Matt Hall**, Blue's head of Offline to join Baraka's facilities in Soho's Greek Street. **David Cox**, Joint MD of Baraka said, "Along with **David Freeman** I would rate Matt as one of the best all-round editors in London."

Two new employees will reinforce the activities of BFE Studio und Medien Systeme. **Norbert Paefgen** will act as the new sales director, located in Mainz. Business Development Manager **Brian Whittaker** is looking after the English market. Whittaker previously worked for Louth Automation (now Harris), Megahertz and Studer Revox.

Vitec's intercom arm Clear-Com has appointed **Gregg Daly** as worldwide strategic business development manager. Reporting directly to new Managing Director **Matt Danilowicz**, former BBC Technology head of sales Daly is based at headquarters in Cambridge.

**Tracy Thomas** has joined the Evolutions/Nats team as business development manager. Thomas previously spent time at The Facility and at Frontline.

**Arthur Johnsen** has been appointed as Filmlight's sales manager for the UK and Ireland.

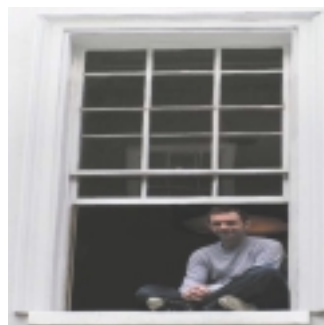
Johnsen spent the past 10 years with Thomson/Grass Valley with responsibility for UK Spirit sales and was previously instrumental in the foundation and direction of VTR.

**Paul Ledgard** has been appointed international sales manager for Geevs broadcast servers and Lightworks editors. **Jonathan Peacock** returns to Gee Broadcast to manage UK sales. Peacock previously worked at Quantel and at Sony.

**Rudolph (Rudy) Niznansky** has joined Harris Broadcast as manager of Videotek file-based test and measurement products. Niznansky will be responsible for development of measurement solutions for server-based environments.

Systems integrator Megahertz Broadcast has appointed **Bernad Kaltenschnee** to the position of sales manager for Eastern Europe and French speaking Africa. Kaltenschnee has previously worked for Bosch, Philips and Hitachi Denshi.

Metro has announced the appointment of **Danny Whybrow** as managing director of its Broadcast Facilities Division, reporting to **Peter Wright**, Group CEO. Whybrow joins Metro from Blue Post Production where he was also managing director.



Matt Hall, Baraka

Pixel Power is expanding its international sales effort with the recruitment of **Francois Cavalade** as regional sales manager. With broad experience of the broadcast industry following spells at Omneon, Quantel, SintecMedia and Getris Images, Cavalade takes responsibility for sales in France, southern Europe and South Africa.

Pro-Bel recently appointed **Adrian Scott** as director and chief marketing officer. Scott has held the positions of VP of marketing (EMEA) for Avid's newsroom subsidiary iNews and director of marketing for Autocue. Pro-Bel recently announced its intention to stage an Initial Public Offering (IPO) later in 2006. This follows an MBO from the Chyron Corporation in 2003, and the acquisition of infrastructure company Vistek in 2005. **Dave Collins**, with Pro-Bel for

18 years, has been promoted to chief engineer.

S4M has strengthened its sales team with the appointment of **Torsten Kriening** and **Michael Henkel**. Both are specialists in the broadcast/IT sector. ScheduALL has made a significant addition to its development team with the appointment of **Corey B Ginsberg** as the director of software development — for products including ScheduLINK and NewsPLAN. In France, **Jean-François Rémondin** has joined SGT as partner development manager. This new position contributes to SGT's ambition to increase its reseller network, especially in Europe.

Soho Editors has confirmed the appointments of **Jamie McCallister** and **Pete Shaw** to the senior management team. McCallister, who has 10 years experience working at Apple UK's HQ, takes on the role of director of Training worldwide. Unit Post has boosted its technical team with the recruitment of **Tim Burton** as technical manager who, along with **James Willett**, joins from Clear Cut Pictures.

TV One has announced the appointment of **Jon Hubery** as a new field sales executive for TV One Europe. Responsible for maintaining and developing new business within the North of England, Wales, Scotland and Northern Ireland, Hubery joins during a strong growth period at TV One.

# A new agenda for the chief engineer

Why the CTO must become an agent of change

By David Fox



Agenda setters: Tom Wragg, Keith Nicholas, Tiffany Hall and Chris Howe at the recent Broadcast Live conference in London. "We are facing explosive change in technology, but are we really facing that much change in working practices?" asked Howe

## Conference analysis

The role of the chief engineer is changing. Their title is just as likely to be chief technology officer, and their brief has extended far beyond making sure that bits of equipment work together. In many broadcasters, the effects of technology decisions are so great that they are rarely left to one person.

"Technology is now at the forefront of senior management considerations," said Tiffany Hall, controller of technology, BBC Nations and Regions. There are now more conversations about new technology among senior management at the BBC than at any time since she joined.

She believes that the key role of the CTO now is to act as a translator between the business and technology sides of the organisation. "You have to have a vision of the future, spot opportunities, explain them and shape them into projects," she said. "Now, the CTO or chief engineer should be an agent of change."

"As a chief engineer or CTO, you have to be very proactive in

informing the business strategy and spend a lot of time ensuring that the business is going in the right direction," said Chris Howe, CTO, Red Bee Media.

"We are facing explosive change in technology, but are we really facing that much change in working practices? We are still making programmes in much the same way that we did 40 years ago," pointed out Tom Wragg, managing director, Media Asset Capital.

Most of the change in broadcasting has been driven by technology. There has been a proliferation of channels, devices and platforms, as well as of formats and standards, leaving the biggest issue facing broadcasters as the need to counter fragmentation of audiences, said Howe.

He believes that convergence has finally become a reality, with broadcast, telecoms and IT coming together, which he feels raises "big technical and standards issues" and will bring continual change in technology and operating systems. "It affects the whole enterprise and beyond. We are part of a bigger, integrated

ecosystem and we have to manage our technology and services that way."

## Encouraging innovation

"There is both a proliferation and consolidation of relevant suppliers," said Hall, with some of the new suppliers emerging from unexpected places. "I wouldn't have thought that the BBC would need to have a strategic relationship with Google, but now we do."

"We need to create an environment where innovation can flourish," she added, but this means getting the balance between anarchy and control right. "If it is too controlled, then nothing will happen, but if you don't have some control, standards will suffer."

"It really is a changing role for the CTO, as it is for everybody in the industry," said Keith Nicholas, director, broadcast operations, Disney, who is seeing the biggest change in the industry that he has experienced in his 33 years.

Much of this is because broadcaster business models are changing. "There are people who say that

linear appointment-television is approaching the end of its life cycle," he added. But, while he believes that "there will always be people who want to sit back and be entertained," broadcasters will have to support all sorts of IP, VoD and handheld devices to reach and retain new consumers.

In 1999, Disney invested more than \$1million in an Avid Symphony suite. Last year it became too old to upgrade, so it was replaced with a \$150,000 system, which can be written off over 18 months or two years. "Now, putting a channel on air has become a commodity," said Nicholas. Although transmitting to handhelds and over broadband isn't so simple, he believes that it will be within a couple of years.

Disney is big and covers so many areas of business (cruise lines, theme parks, broadcasting, hotels, book and music publishing, etc) that there is no single CTO. Instead, it has a "virtual CTO of people from all areas in a media technology board".

The BBC has recently adopted a similar virtual CTO group under John Varney to try to coordinate all of its different areas, added Hall.

Another problem, said Nicholas, is of having to take decisions at the last minute, because funding for a project is often not made available until, say, four months before launch. To help overcome this, it has to work closely with suppliers, to keep on top of what is available.

Broadcasters are becoming more reliant on software, and therefore the suppliers, said Howe, but they need to make sure their architecture is flexible, and uses very open standards. "Middleware is critical for the new technology environment, so you can interface more easily," he added. The performance and security of IP networks are also critical. "You have to keep control over the key elements of your business." You also need to be clear about APIs and boundaries, so that everything can interface with each other.

"Broadcaster influence over suppliers is diminishing, as manufacturers now see a bigger market outside of broadcast," said Wragg.

"The industry is already benefiting from prosumer products coming into the market, such as Final Cut Pro or HDV (which may not be so good for HD, but makes a fantastic SD camera)," said Nicholas. Broadcasters are also benefiting from students coming into the industry who have used FCP and similar systems, whereas they wouldn't have been able to use more expensive systems until they were already working in the industry.

## HD future

"We have to put in architecture that is standards independent," said Howe. "You put in as much generic architecture as you can, to allow easier progression to HD and new standards." He also advises broadcasters "to automate as many processes as possible, so you just manage the exceptions." He points out that Japan is already creating 2k and 4k infrastructures for the next stage of HD, so broadcasters need to look at HD as less of a destination and more of just another step on the road.

For HD, the BBC is looking at less traditional purchasing models, such as leasing instead of buying and using more open and flexible systems, said Hall.

For Disney, whose subsidiary Buena Vista International is the world's biggest media distributor, HD has some advantages, but isn't commercially viable yet. "HD costs more in production and post, but makes it easier to go into new markets as you don't need to do standards conversion, you just downconvert," said Nicholas.

"It's quite difficult now to buy hardware that is not HD ready, so, as we change plant or upgrade, we buy HD compatible equipment. But, we have no real commercial reason to go HD yet," he said. "We expect to see HD become cost neutral compared to SD in a couple of years, but for some things like duplication it's already there."

# Frequencies for Europe

## Spectrum allocation

What are the ramifications of the recent GE-06 Agreement on European spectrum allocation leading up to analogue switch-off? Analysis by **Natalie Mouyal**, DigiTAG

One-hundred and one national administrations from Europe, Africa and Asia have recently agreed a new plan regulating frequency usage in the VHF and UHF bands. The Geneva 2006 (GE-06) Agreement not only establishes how frequencies will be used in an all-digital broadcast environment, but also in the transition period leading up to analogue switch-off.

In an all-digital environment, GE-06 takes into account the frequencies countries need for the transmission of DVB-T and T-DAB services in Band III (174-230MHz) and Bands IV/V (470-862MHz). Generally, countries have been allocated 3 T-DAB and 1 DVB-T coverage layers, in Band III and 7-8 DVB-T layers in Bands IV/V.

The very high proportion of country frequency requirements that have been met is a measure of the overall success of GE-06. Band III accounted for 93% of requirements satisfied while in Bands IV/V, 98% of requirements were satisfied. In Europe, only four countries (Cyprus, Portugal, Spain and Turkey) had less than 100% of their requirements fulfilled.

GE-06 sets June 17, 2015 as the date when the so-called transition period ends. After this date, countries will no longer need to protect the analogue services of neighbouring countries and can freely begin using the frequencies assigned to them for digital services. While it is possible to implement the digital plan during the transition period, doing so requires the agreement of neighbouring

countries that may be affected by such an implementation.

The end of the transition period does not necessarily signify that analogue switch-off will take place throughout a given country. It does, however, mean that analogue services will no longer be protected or available along the borders. Hence, it could serve as an impetus to switching off analogue services throughout a given country.

The additional date of 2020 has been set for the end of the transition period in some African and Arab countries for analogue services in Band III.

Flexibility is an integral part of GE-06. National administrations can make modifications to GE-06 so long as they have the agreement of neighbouring countries that could be affected. It is also possible, under certain conditions, to operate services on a non-interference and non-protection basis.

In the preparations leading up to GE-06, national administrations had the additional freedom to submit their frequency requirements as allotments. This meant that they did not need to detail the number of transmitters in a given area but rather could supply information on the type of network for the area and its defined boundary.

## Digital dividend

Traditionally, frequencies in Bands III and IV/V have been reserved for broadcasters to provide analogue television services. But because services delivered using digital technology make more efficient use of the spectrum than the equivalent services delivered using analogue technology, the move to an all-digital broadcast environment could ultimately make frequencies available for additional services.

GE-06 has already made use of the digital dividend in its allocation of frequencies for T-DAB and DVB-T

services. With all-digital services, viewers will be able to access an increased number of DVB-T and T-DAB services and enhanced services such as DVB-H or HDTV.

While the dividend is currently allocated for T-DAB and DVB-T services, the plan does permit assigned frequencies (digital entries) to be used for other broadcasting systems so long as they do not require more protection or cause more interference than is allowed in GE-06. However debate remains whether it will be

trading and flexible usage to average between €8-9 billion per year. While government revenue would only be generated when spectrum rights are initially sold, additional revenue could be possible from the taxes on further sales.

However, any implementation of a market-led approach must provide satisfactory safeguards to prevent unintended consequences such as interference.

Interference, especially with digital technology, risks affecting the reliable availability of a given service and thus making it less appealing to potential users. Intentional interference could become an economic tool to deliberately devalue the worth of the spectrum.

provision of pan-European services. In a recently announced consultation, it has advocated a single regime for spectrum management. During the negotiations leading up to GE-06, the Commission called on its member states to set aside a harmonised frequency band throughout Europe for the provision of new services. However, such a request was beyond the scope of the negotiations.

## Next steps

The flexibility provided by GE-06 may lead to debate on the best uses and allocation of frequencies in Bands III and IV/V. What services will be offered and will it be possible to introduce non-broadcast services? How will frequencies be



European vision: 'Any implementation of a market-led approach must provide satisfactory safeguards to prevent unintended consequences such as interference'

possible to introduce non-broadcast services in Bands III and IV/V.

Should frequencies be available for new services, including broadcast services, national administrations will need to determine how they will be allocated. According to the European Commission, a market-led approach to spectrum management would allow for greater spectrum efficiency and enable governments to generate new income. It estimates that the net gain from spectrum

There remains a question about the type of spectrum rights that can be traded given the current legislative variations in Europe. While some countries issue frequency licences to multiplex operators who can manage the number of services within a given frequency channel, other countries allocate frequency licences directly to broadcasters for a given service.

Other such variations has led the European Commission to call for a coordinated spectrum policy for the

allocated and is a market-led approach to spectrum management advisable? National administrations will need to provide answers to these questions — or provide the European Commission with the tools to do so.

*DigiTAG will host a mini-conference at IBC2006, titled 'Smart Use of Spectrum', on Saturday September 9 at 9:00am in Room A of the Rai.*

George Jarrett talked to the EBU's Phil Laven about HD, mobile TV and MHP

# Bit rates for broadcasters

Over the nine years that Phil Laven has been director of the EBU's technical department, only one issue has caught him by surprise. It was the IPR debacle — the submarine patents — that has threatened to sink DVB-MHP six years into its voyage.

And since DVB World in Dublin last March, Laven has been exchanging heavyweight letters and sharp emails with the patent pool licensors' facilitator Hélène Jay, Via Licensing's European director of business development, in a bid to win the day for common sense on behalf of the EBU's 74 active members in 54 nations.

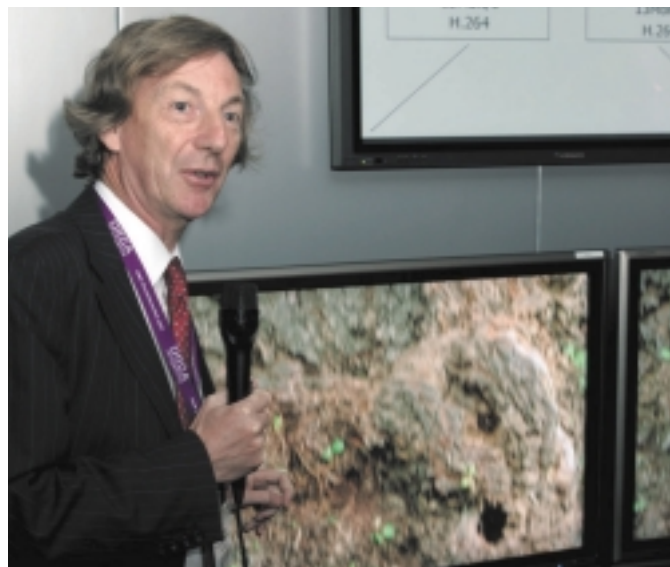
At one point (May 11) it nearly withdrew Recommendation R106 favouring DVB-MHP, but a last gasp offer of revised licensing terms from Via provided the encouragement to force a further, third set of revisions in the second week of July. Is the blinking all over?

"The third set of terms are substantially improved on the previous set, and people are thinking about whether they are acceptable or not. My guess is we will not now withdraw Recommendation R106," he says. "There is a much bigger issue. In the past the DVB Project didn't pay much attention to the IPR issues, they were left to the membership's honesty and commitment.

"There is an issue of now saying, 'OK, we've had a bit of a mess over DVB-MHP due to submarine patents,' because there is now the concern that it could happen again, with DVB-H of DVB-S2. Nobody realised that a submarine would come along so devastatingly late," he adds.

People will have noted that MHP has been effectively been recalled, like a product from supermarket shelves, so it can be re-invented minus any IPR liabilities.

"That is one of the things going on in parallel. The purpose of the renewed call for patents on MHP is to identify what patents there are. The concerns about submarine patents apply to any technology that is about. MHP is just the tip of the iceberg," says Laven.



Laven presenting side-by-side 1080i/720p demo at IBC2005: This coming IBC "will be the first time we have done side-by-side comparisons of 1080p with 720p and 1080i. There will be three screens showing the same material. This time all three formats will be compressed at various bit rates applicable to consumers"

"It is depressing when you get household name companies behaving in a predatory way. It raises a much bigger issue about how the DVB works. It always passes standardisation projects onto ETSI, and ETSI members have to declare patents," he adds. "I looked at its website and there were six patents — four declared by Nokia and one each by Microsoft and Philips. The Philips one was not declared until February, but it was granted in 1998."

## A very attractive time

Broadcasters will be thinking about two main developments right now; the transition from standard into high definition; and exploiting cross-platform opportunities with their content. Many years ago, with the Americans gloating that Europe had missed the HD boat, Laven told them he would not mind missing the Titanic.

"Ten years on, HDTV is definitely real in Europe. It is no longer something engineers worry about. It's in the shops, it's attractive, and we know it's going to work. It's now a question of the transition, and

rather like the move from black and white to colour a lot of new equipment is needed," he says.

"In the early years, free-to-air broadcasters can't see any return. Pay-TV people will hope eventually that adds revenue will exceed costs. We were so right in Europe to delay. We now have the better technology (than the US) and we have now got affordable flat panels in the shops, as well as vital things like MPEG-4 AVC," he adds. "Europe can do it at a very attractive time."

Many EBU members have fully advanced plans for implementing HDTV services, and right now, as the BBC is setting the example, a significant amount of investment is going into the production of content, making today's transition nothing like the jump to colour from black and white.

"HD requires a new transmission channel. The issues are the cost and when you start your services, and what proportion of your output will be HD. It cannot be 10%, so it's a question of timing," Laven says.

"Some broadcasters are running their HD services at high bit

rates — 19-20Mbps — using MPEG-4 AVC. The bit rates being used are very high, because in an experiment you want to make sure the pictures look good," he says. "But the differences are quite shocking. Some broadcasters are not using a sufficient bit rate, and others are squeezing the bit rates."

Laven was making this comment from the privileged position of having seen all the HD coverage of the World Cup finals. At IBC the EBU will be giving visitors a real first in terms of HD picture quality assessments.

"It will be the first time we have done side-by-side comparisons of 1080p with 720p and 1080i. There will be three screens showing the same material. This time all three formats will be compressed at various bit rates applicable to consumers," he says.

"First tests of 1080p suggest it doesn't require much more bandwidth than 1080i, and with some picture material 1080p looks better than 1080i. IBC visitors will be looking at 3x picture height — it will not be related to screen size. This is a very fair reference, and if you get closer any HD is good enough," he adds.

What about those cross platform ambitions? Many broadcasters seem to think they can simulcast their services to mobile TV users, and surely they are in for some rude shocks?

"One of the things about the World Cup was that it was shot in HD and framed for HD, so there

There is an expectation amongst the public that mobile phones work everywhere. There will be the expectation that mobile TV works everywhere. It will be very expensive to achieve.

"Perhaps the one-to-many application is just a sweetener for an on-demand fee side of the business. The real money is to be made via on-demand services delivered through 3G. It can only be done with a 3G network. We may have a problem in the short term delivering broadcast services, because the transmitter network costs are an issue," he continued.

## The EBU position

Another thing that happened back at DVB World was Laven's suggestion that perhaps the time had come for the EBU to suspend its neutrality sometimes. What did he mean?

"It is one of the fundamental tenets of EC speak — we must be technologically neutral. The difficulty comes when you come to spectrum allocations," he says.

He had in mind that different nations might want to use spectrum at L Band to deliver different services (like DVB-H against DAB). Harmony in the satellite market could be wiped out if each country lets the market decide.

"You would get a sub-optimal satellite plan. If countries do different things, the spectrum will not be harmonised. Harmonisation in this case

## "We have to come up with a new way of presenting metadata [for IBC]. We have got to move it away from the purely nerdish people"

were different pans and cuts. This emphasises the problems of cross platform, because some viewers perceived a lack of action. If it were re-packaged, what would you want? HD viewed on a tiny screen won't work at all," Laven says.

"Trials out there include some simulcast, but the biggest issue is the business model. Free stuff is no good. The telcos want to charge for services. If I were a telco I would say I can see a modest income from cities and towns, but the whole country's transmitter networks are dense and expensive," he adds. "Networks today work well, and they have to because if they lose their signal people get irritated.

is also crucial to manufacturers," he adds. "There would be a real mess, so perhaps the issue of technical neutrality is a good principle. But why not promote DVB-H in Europe?"

Apart from the 1080p quality preview, the EBU has other surprises for IBC. "We have big metadata news. Too many broadcasters ignore those sorts of issues, but metadata is the glue that makes it all work in an IT world," says Laven. "We have to come up with a new way of presenting it. We have got to move it away from the purely nerdish people, so you just see the interfaces."

Another big deal for the EBU is its membership of the European Mobile Broadcasting Council, which held its first plenary meeting in Brussels on July 11. The other founding members are The Broadcast Mobile Convergence Forum, The Digital Interoperability Forum, and the GSM Europe. The EMBC is open to any stakeholder who is interested in introducing mobile broadcasting.

Responding to EC Commissioner Reding's call for the industry to develop recommendations for the introduction of mobile broadcasting in Europe, it will be creating a roadmap, starting with three initial work streams. These are come under the headings of spectrum, technology and issues related to the EU regulatory regime.

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# Never trust a network

Change in the business is driving change in the technology solutions the business wants

## EBU Seminar Review

According to Technical Director Phil Laven, five years ago most of the topics on this year's agenda for the EBU Network Technology seminar at EBU headquarters in Geneva were not even on the radar for consideration: "We're going through huge technology changes, and that change is so dramatic, the EBU has broadened the scope of our technical committees to deal with it," he said.

The seminar, titled 'Your Panic-Free Guide to Future Networks', may have studiously avoided the panic, but it's clear there are substantial issues to resolve before broadcasting's move to the IT-centric network environment can be considered a done deal.

Rhys Lewis, chief enterprise architect, technology group at the BBC and chairman of the EBU Network Technology Management Committee, outlined why the problems were being faced.

"We live in a universe of telecom companies, internet players, broadcasters and publishers merging or partnering, with users connecting, interconnecting and exchanging blogs, podcasts and their own content. Broadcasters are having more and more to feed people with on-demand material via networks," he said, quoting BBC Director General Mark Thompson's belief that broadcasting would transition to on-demand within the next 10 years.

As a result there are key issues around establishing standards, formats, defining quality of service, giving access to accurate metadata to be able to find the content itself and especially in identifying material. There are also the issues managing rights and controlling systems. Not to mention the non-technical aspects of new business models and opportunities, and the necessary control of quality and authentication.

However, there were examples at the EBU seminar of broadcasters resolving some of these problems.



SVT presentation at the EBU, in which John Glimberg remotely controlled a news broadcast back in Sweden

In the session on network management and control, there was an impressive live demonstration by John Glimberg, senior systems engineer at SVT, remote controlling a newscast in Sweden via the internet. Glimberg showed he could search for news items on the Stockholm Central Archive, held on a data tape library, and retrieved one extract featuring Margaret Thatcher that he inserted into the rundown of the regional Sundsvall station. The video file of the 1982 news item was copied and played on the show within minutes. Dragging a news item from the Stockholm rundown into the Sundsvall one meant the video file was immediately copied 400km to Sundsvall and played on the show.

Glimberg also demonstrated switching from one camera to another one during the newscast, and was able to control other equipment as well as revising and modifying the rundown order.

SVT calls its system 'Easy control' and there are 10 Easy control rooms throughout Sweden, handled from Stockholm by only five people. All the equipment is online and remotely monitored.

On site, just one person handles the feeding in of material to the centre. Web-based interfaces common

to all the outlying sites and the centre make the process simpler, and the next stage is to digitise SVT's entire archive going back to the 1950s.

Anders Nyberg, senior transmission engineer at SVT, talked about the strategy behind the choice of technology for linking the regional centres, which rested on the fact more than 80% of material was sent in non realtime, so the use of file transfer for recorded material prevailed over the need for realtime contribution circuits.

Nyberg showed how the Swedish broadcaster's file-based network for its 24-hour news channel handled contribution between the centre and its outlying regions across Sweden. In 1999 SVT launched a news channel with regional contributions. Output is recorded on a server at each location, and later automatically file-transferred to the national centre in Stockholm. Rather than maintain an expensive separate network for live contribution links, the project was developed to provide one common technology for all communications, DVB over IP and the use of existing Ethernet/IP-based infrastructure.

A three level WAN network using SDH was provided by the Swedish Railway company, made up of a dark fibre 2.5Gbps core ring, connecting the three main

centres, with a main router in each and gigabit ethernet interfacing with the centre IT infrastructure. There is also a 155Mbps SDH double metropolitan ring, managed, covering nine regional centres, and a point-to-point 34Mbps SDH rural link connecting 15 small rural offices to the nearest regional production centre.

Having apparently solved the problems of implementing IT in a broadcast operation, Glimberg pointed out it was actually easier to recruit systems engineers now. "Since using existing IT standards for TV production, it's made it easier to find people — since there are more IT than broadcast engineers. It's one of the benefits of using IT standards," he said.

## Surviving attacks

Security of networks was an important issue raised at the seminar, and Andy Leigh, head of information security strategy at the BBC, stated that basically, when it comes to the security of IT networks, TCP/IP is insecure.

He outlined the simple principles of good security: "Never trust a network. So, it doesn't matter that TCP/IP is insecure... if you design your system properly, you will not trust the network anyway.

"Authenticate everything and everyone. Make sure every access is uniquely identified and authenticated. Build systems to survive attacks, ensuring systems are well-designed and patches are kept up to date, as is the software and operating system. Ensure no unnecessary ports are open, and don't share resources unless you have to," he said.

However he warned that all this is still a completely alien concept to many of the people making production and broadcast systems or equipment. "They are not yet ready for the world of attacks as in the IT world," he said. "Broadcasters must agree amongst themselves which security standards they can adopt."

[www.ebu.ch](http://www.ebu.ch)  
[www.svt.se](http://www.svt.se)