



An Eye on IBC

By Sara Waddington, Managing Editor, SCTE

We review this year's IBC conference and exhibition in Amsterdam and chronicle the reactions of SCTE's IBC bursary winners.

From a record attendance to the first standing ovation for an award winner, IBC2016 in Amsterdam this September was a great success. The headline attendance (not registration) figure for IBC2016 was 55,796 people from over 160 countries across the six days of the conference and exhibition.

IBC is a key annual event for professionals engaged in the creation, management and delivery of entertainment and news content worldwide. It combines a highly respected and peer-reviewed conference with an exhibition that provides

more than 1,800 leading suppliers of the latest electronic media technology with strong networking opportunities.

The exhibition featured over 1,800 exhibitors, including 249 companies at their first IBC. One important addition to the feature areas in the exhibition was the IBC IP Interoperability Zone, an initiative to push forward open standards in new connectivity. Supported by AIMS and the IABM and working with AES, AMWA, the EBU, SMPTE and VSF, IBC created a dedicated exhibit which demonstrated verified technical



Above: In the halls at IBC



Above: The IBC conference

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progress in IP interoperability and featured the award-winning VRT-EBU LiveIP studio, which was used for IBCTV's production at this year's show.

The conference in focus

Reflecting the state of the industry, the conference took transformation as its theme. That was also reflected in the IBC Leaders' Summit, the behind-closed-doors programme for 150 C-level Executives. The conference programme was reorganised this year to provide a clearer, more readily navigated structure and a focus on the content value chain. Across the five days, 435 speakers took part in more than 100 sessions.

The IBC Best Conference Paper Award is presented to the authors of the paper which presents important new research in a clear and engaging way. This year, it went to Erik Stare of Teracom in Stockholm, Dr. Jordi Giménez of Universitat Politècnica de València in Spain and Dr. Peter Klenner of Panasonic Europe, based in Frankfurt, for their paper 'WIB – a new system concept for digital terrestrial television'.

"Our choice this year was for a paper which tackles a subject some may have thought close to end of life, but actually revitalises the whole subject of terrestrial broadcasting," said Dr. Nick Lodge, Chair, IBC Technical Papers' Committee. "What these researchers propose is a way to achieve higher

digital bandwidth, an incredibly efficient use of spectrum and a huge reduction in power consumption. This is genuinely ground-breaking work, turning conventional wisdom on its head – a very exciting paper indeed."

One of the most popular conference sessions featured Ang Lee discussing, and demonstrating, how he has employed remarkable technology to create a strong sense of engagement in his new movie, Billy Lynn's Long Halftime Walk. Specially created for IBC, the clip from the forthcoming movie was projected at 120 frames per second in 4K 3D, using Christie's 6P laser projection and Dolby Atmos.

IBC awards

Ang Lee was also the recipient this year of IBC's highest award, the International Honour for Excellence. The audience also saw the most unusual acceptance speech yet at an IBC Awards Ceremony. NASA received the Judges' Prize, and IBC was thanked in a special message from astronaut Kate Rubins in the International Space Station.

The LiveIP Studio project took the award for content creation, with trophies presented both to the EBU and the host of the project, Flemish broadcaster VRT. The judges admired the way the project had taken a practical approach to using IP for live production, involving a large number of vendors and solving the interoperability issues.

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The IBC Awards ceremony

Two of the entries in content management were around reality television. Endemol Shine Germany took the trophy for its production management on Wild Island, which split the post between the location – two islands off the coast of central America – and the company's base in Cologne.



Above: Film director, Ang Lee, was the recipient this year of IBC's highest award, the International Honour for Excellence

The trophy for content delivery was awarded to BT Sport. It launched an Ultra HD channel last year, and the audience at the IBC Awards ceremony was treated to some stunning 4k sports footage on its screen.

The Auditorium was once again converted into the IBC Big Screen and, as well as the awards and Ang Lee's keynote presentation, it was also the venue for two hugely popular movie screenings, both using Dolby Vision HDR and Dolby Atmos. These were The Jungle Book in 3D courtesy of the Walt Disney Company and the harrowing 19th century saga, The Revenant, provided by 20th Century Fox.

"The continuing success of IBC is down to the hard work of a lot of people, staging an event that is relevant and engaging across the whole of our transforming industry," concluded Michael Crimp, IBC CEO. "We continue to evolve, and I am confident that next year's IBC – our 50th anniversary edition – will be even better. I look forward to welcoming you back to Amsterdam from **14 to 19 September 2017.**"

SCTE bursary winners at IBC

This year, four lucky SCTE members were the recipients of SCTE's IBC bursary (flights and hotel paid for by the SCTE and



Above: To recognise the significance of a centenary, SMPTE was presented with an IBC Special Award

conference entry provided by IBC). They outline their experiences of IBC below and, if any SCTE members have not yet applied for an SCTE bursary in 2017, then their thoughts and comments may encourage other members to apply next year.



Sean Godfrey
Principal Engineer, Access Engineering, Virgin Media, UK.

Reading last year's bursary winner reports in November's issue of Broadband Journal, I felt compelled to submit an application to the SCTE for this year's IBC exhibition in Amsterdam. Thankfully, I was one of the four lucky winners. Firstly, a big thanks to the SCTE team for giving me the opportunity to attend the 5-day

event, arranging silver passes, lovely nearby accommodation and for making us all most welcome throughout the event.

I'd last attended the event way back in the mid '90s and knew a bit of pre-planning was in order. Once registered on the IBC website, you can add exhibitors to your personal profile, arrange meetings in advance and plan the presentations to attend, rather than leaving everything until you turn up and being somewhat overwhelmed. The personalised floor plan download proved most useful.

An early Friday morning flight from Birmingham and a two-stop train journey from Schiphol airport to the RAI Exhibition centre were straightforward, as somehow I'd missed the availability of the dedicated shuttle buses. After a few redirects



Left: SCTE Exec members on the Partnership Village booth at IBC

to the many busy Registration desks, I presented my QR code and received a handy IBC bag and welcome pack, plus an invitation to the IBC party on the first evening and a complimentary Travelcard for buses and trams to use around Amsterdam during my stay.

Now covering fourteen halls, plus further outdoor areas with "the beach" and its busy bar alongside the canal and the latest OB trucks out front, and with around 55,500 visitors descending on the city, it was the sheer scale of the event that struck me most. Bringing together the players in TV, Telcos, IT and beyond, the event dictated that shoes and plenty of walking were in order.

After meeting the SCTE team up at the SCTE Partners Village, I picked up a floorplan for when my Ipad battery ran out (tip: don't forget your travel adaptor). Day one was spent visiting stands on my favourites' list to get my bearings.

Halls are helpfully laid out by theme: Creation, Management and Delivery. IBC is a great showcase for everything 'broadcast' and having previously worked in TV production before my cable days, I found plenty to see and bring me up to speed on, with the mass move to IP now for content/production as well as distribution. Virtual Reality/AR was evidently gaining momentum now with lots of companies, and it was very interesting from a personal viewpoint to sit in on a couple of demos by Adobe to understand a bit more about how VR/ 360 videos are shot and edited by stitching multiviews together, before being published for headset use or on social media/YouTube etc.

It was quite an eye-opener visiting existing suppliers to our own company to realise how much wider their range of products and services span beyond those that we may just know as engineers. There were other random stands where exhibitors explained previous dealings or trials with our company that, again, we'd never normally know about, and gave me some new insights into my own company. By the time of the IBC Olympics-themed party at 6:30pm, I was ready for a few drinks and some welcome food with the SCTE team. A short tram ride (remember: clock in and out) took us down to the hotel for a much needed recharge of batteries.

On day two, I joined another VM colleague and bursary winner, Steve. Saturday included a look around the latest camera, lighting vision switching and data storage products with tape long consigned to Sony's museum-type displays. Bridge Technologies demonstrated its latest add-ons for VBC/probes, its impressive Remote Data Wall and SDI to IP products, and kindly invited us to one of its evening canal tours on the Sunday evening. Liberty Global's stand was a chance to see some of our partner companies' customer offerings.



Above: Technology in Action session

To break up the walking, there were some thought-provoking talks in the Content Everywhere and Technology in Action sections. One discussed the move of distribution and now production to an IP base, speeding up the delivery of new content and the need for traditional expertise to adapt to the new skills now required. Issues over the aligning of standards to deliver the envisaged interoperability are still being addressed. Another talk on OTT niche sports for delivery gave examples of obstacles encountered and changing business models, depending upon target markets, and showed that the 'one size fits all' approach no longer applies. Any talks that were missed were able to be viewed on screens around the halls or on the IBC website. The entire event was linked with an on-site IP-based production centre, using separate IP studio, control rooms etc. spread over the site, to show and capture everything going on, on "IBCTV".

An evening in the City hopping on the no.4 tram to experience the sights, sounds and aromas of Amsterdam had to be included as part of the overall IBC experience.

You can add exhibitors to your personal profile, arrange meetings in advance and plan the presentations to attend.

Virtual Reality/AR was evidently gaining momentum now with lots of companies.

A later start on Sunday took us to Cisco's impressive stand for a Proactive Network Maintenance demo, and Tivo showed us the next version of Hydra stb UI which got a big "thumbs up". The "Hackfest" competition was interesting to keep up with over the weekend, with several teams having just 36 hours to devise innovative ways of improving the future for either living room entertainment, the education/classroom experience or viewers engagement in sports, with the final big prize winners using facial recognition to feedback to tutors in real-time whether students are coping or struggling with topics being taught.



On day four, I took in demos by Agama technologies on its end-to-end monitoring and assurance solutions which was the first opportunity I'd had to actually see it in action.

The SCTE Benelux lecture meeting in the Forum Lounge Theatre covered interesting topics around The IP Invasion, including Globtel discussing how it can extend access networks wirelessly to rural areas. Axon's CTO opined on making the best moves from SDI to Ethernet from a broadcaster's requirements and evolving standards, and LGI's Director of DOCSIS Engineering gave an insight into the access network evolution strategy to 2020. The evening saw the SCTE team and its bursary winners enjoy a fantastic meal at The Oceania restaurant, close to the RAI.

Day five was a noticeably quieter last day and much easier to get around to talk to people, taking the opportunity to discuss PNM with Skyline and check out the latest in Dataminer's orchestration, dashboards and DOCSIS 3.1 capabilities. I took a final look around the OB trucks outside with stunning 4K/ HDR rigs, and some very impressive slide-out workspaces, before returning to SCTE base for lunch, thanks and goodbyes to Bev and the team.

All in all, a great opportunity for me to attend IBC and I would certainly recommend applying for an SCTE bursary, in particular for anyone who normally wouldn't get the chance to go.



Xhevdet Shala
Network Planning Engineer, IPKO
Telecommunications LLC, Kosovo

I was one of the winners of the SCTE bursary programme for IBC 2016 in Amsterdam. I would like to point out that this was one of my best experiences.

IBC was very well organized and the event was a tremendous opportunity for me to get in touch with various people in industry as well as learn about the latest trends in telecoms and video.



Above: Xhevdet Shala, IPKO

Halls are helpfully laid out by theme: Creation, Management and Delivery.

The SCTE Benelux lecture meeting, with its theme of 'The IP Invasion taking over our distribution networks', was really rich in terms of the content and subjects which were discussed. It was interesting to uncover trends in next-generation telecommunications platforms as well as Ethernet taking over the future backbone on live broadcast industry and ways to adapt to it.

In general, it was a great professional and social experience! I would like to thank the SCTE for its bursary opportunity and for hosting me at the bursary winner dinner in Amsterdam.



Dhurata Prapashtica
Telecoms Engineer, IPKO
Telecommunications, Kosovo

First of all, I would like to thank the SCTE for choosing me as a bursary winner. I really enjoyed IBC - it was a great experience for me! It was also the first time that I had ever attended an exhibition and conference outside my country. I really appreciated the chance to visit IBC 2016 and see the technology that I have read about in action for the first time.

The 5-day exhibition was enough time for me to visit fifteen halls and watch some of the conference sessions. There was so much to see and to learn, getting in touch with vendors and industry professionals as well as seeing the products displayed. I found the Feature Areas, which tied into the IBC conference running alongside the exhibition, very interesting.

The Future Zone was very popular when I explored the show - exhibitors were displaying cutting-edge prototypes and projects, 8KTV, fun VR headsets and holographic displays which were stunning. I really enjoyed the time I spent at IBC. It was a great experience for me - all moments for me were "wow" moments. I would especially like to thank Beverley for being so kind to us and taking care of us during the show.



Stephen Harding
Senior Engineer, Virgin Media, UK

I work for Keith Holland in Virgin Media, assisting him to type approve new test equipment, maintain our existing test equipment and keep in contact with our suppliers. This year, I applied to the SCTE for a bursary to enable me to attend the IBC exhibition in Amsterdam. This covers all travel, accommodation and entrance to the IBC exhibition/conference.

I spent some time planning before setting off on my trip as there were over 1700 companies attending from around the world across the various halls of the show. The IBC app was an essential tool to help with keeping a log of who you wished to visit and where you had already been. The map on the app was also pretty handy for navigation.

I was interested to see the latest technology involved in the creation and delivery of entertainment as well as the technologies involved in monitoring the quality of streams. Safe to say that I was not disappointed with the scale and effort that the manufacturers who attend the IBC exhibition put into their booths. You could try your hand at being a cameraman with the latest 4k cameras - once everything was recorded, you could visit the Adobe booth and see the many techniques for video manipulation and some incredible effects as well as seeing how the IKEA "Come Home to Play" advert was created.

I attended many guest speaker sessions which were held on various booths as you walked around. One of the hot topics was the discussion around the transfer over to IP for the entire broadcast path from video camera to customer premises equipment. There were many demonstrations of the latest technologies. When I visited the ARRIS booth, the E6000 CMTS was on show with a download speed via a cable modem of 1500 Megabits/second and an upload of 314 Megabits/second. The outdoor broadcasting HGVs, outdoor broadcasting vans and an electric helicopter fitted with a 4K camera were also on display.

Skyline Communications and Cisco spent time taking me through Proactive Network Maintenance (PNM) solutions. These enable targeted fault resolution before any cable customers see a degradation of services. Several booths were targeting an improved WiFi experience inside the home



Above: IBC Future Zone

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as this is a common complaint from customers. Intel had an interesting feature on its latest WiFi chip, WAV500, which promises extended reach inside customer properties for an improved customer experience.

The SCTE Benelux Lecture featured speakers discussing "The IP Invasion Taking Over Distribution Networks". It looks like an interesting few years in the cable industry as we make the transition to a purely IP delivery of content.

IBC really was an amazing exhibition where I gained vast amounts of knowledge on image recording, manipulation and

broadcasting. It certainly opened my eyes to the vast amount of work and technology that goes on behind the scenes.

Thank you to the entire SCTE team for making me so welcome and I would encourage everyone to apply for one of the many bursaries available. They really are valuable experiences.



CONTACT

For more information, visit ibc.org. SCTE members can apply for an IBC bursary by emailing 300 words on why you should receive the bursary to office@thescte.eu