



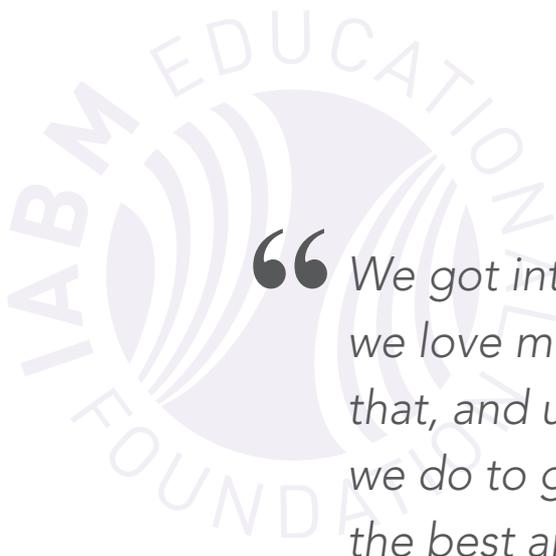
Engineering the Future



*Tackling skill shortages in
broadcast & media technology*

in association with





“ We got into this industry because we love media. We need to take that, and use that passion for what we do to go out and make sure that the best and the brightest want to come into our industry. We need to provide them with a mechanism to come into this industry, and we need to ensure they are rewarded and engaged once they do. ”

Summit chair, Niall Duffy

Engineering the Future

Tom McGann Memorial Summit 2014

Introduction

The 2014 Tom McGann Memorial Summit took place in Geneva in late November 2014 in association with the European Broadcasting Union (EBU). Its aim was to convene all sides of the broadcasting industry to tackle technical skills shortages and to determine the future needs for engineering staff resources and how they might be met.

Summit delegates came from across the technology supply chain and from a total of eleven European countries. They included broadcasters, their product and service suppliers, and representatives from training academies, relevant academic institutions and students interested in a career in broadcast and media technology. This unique delegate mix enabled the summit to consider issues from secondary education through recruitment, retention and continuing professional development. Inevitably, these issues were also shaped to take account of changing technology, new business models and economic realities.

The outcome is an industry wide call to action supported by an initial series of related pledges which will drive things forward.

Research

In preparation for the summit, the IABM Educational Foundation commissioned research which identified significant technical skills shortages and their causes. The shortages were a consequence of many things, including significant reductions in training provision, dramatic shifts in technology, failure to attract new engineering talent and a lack of clear career paths and professional development for technical staff.

The situation was exacerbated by the fact that career opportunities elsewhere were often seen as more attractive, and the broadcast sector was not effectively promoted as an option.

The transition away from bespoke hardware to software-enabled products and networks also means there is a continuing need for crossover training and development. In particular, the current ageing population of broadcast engineers needs to develop skills in IT architecture and other technologies if they are to act as mentors and role models for new entrants to the industry.

Broadcasting has many unique engineering challenges and there is a risk that expertise developed over generations will be lost if it is not captured and transferred.

Attracting talented people

The chair of the summit, Niall Duffy, Head of IT & Workflow Solutions at Sony Professional Solutions Europe, said "The reason that Google or Amazon seem to be attractive to young people is because they are better at communicating with them, and better at co-operating with others in their industry. That is the learning point, not necessarily a concern that they are paying more."

Delegates thought that the real pinch point is at the very beginning of the chain. Young people of school age who have an interest in technology may see the IT and social media businesses as more attractive and more relevant to them than broadcasting. It was felt that the solution lies in making it clear to young people that there are real, engaging and exciting careers in broadcast engineering. To access those careers, young people must be guided towards the right subjects and disciplines which will allow them to thrive in their university studies, and go on to become attractive recruits into the best jobs in the broadcasting industry.

As one leading broadcaster put it, "We have to go and face them with our challenges. Show them that we have real engineering issues. There is development to do and it is not a standardised development, so you can put your skills and talent into really interesting projects. If they can see what problems we have, I am sure we can persuade people to join us."



Tom McGann and broadcast engineering



The Tom McGann Memorial Summit is a new initiative from the IABM Educational Foundation, the charitable body supported by the IABM, the trade organisation for technology suppliers in the broadcast industry.

Tom McGann spent his career in the broadcasting industry. He was one of the founders of the IABM, driving forward the interests of technologists in the industry as well as its commercial status. During his time at the IABM he played a pivotal role in the movement to transform IBC into the truly international, annual convention we know today.

The aim of the Tom McGann Memorial Summit is to bring together all sides of the industry to analyse the requirements for engineering and technical talent in the future, and to determine how that talent can best be attracted, developed and retained. The intention is that the event will take place in different parts of the world, stimulating the debate and promoting the industry as a challenging and satisfying place to work.

Staff retention

Where once the bespoke nature of broadcast technology meant that engineers stayed in the industry, today's entrants have strong IT skills which are much more portable. Audio and video is now increasingly ubiquitous so expertise is in short supply.

Broadcasters and technology suppliers have to compete with IT companies – the likes of HP, Apple and Facebook. Budget constraints in our industry make it unlikely that broadcasters will be able to outbid them for the best staff. The solution must lie in rewarding engineers through recognition of their talents and skills, and by providing satisfying and challenging careers.

The skills shortage is a critical factor for both broadcasters and the vendors who service the industry. It is essential to find ways of selling broadcast engineering as a lifetime opportunity and then match that with career pathways that are both attractive and enduring.

Working together

Each university represented at the summit reported 100% success in placing graduates in good jobs. They also agreed that each of them could take twice as many students if only they could find the right applicants. Everyone agreed that their challenge was to attract the right students, motivated to work in the industry, and with sufficient skills to be able to sustain detailed studies in mathematics and computer science as well as broadcast engineering.

Broadcasters and product companies participating in the summit felt that the universities were providing the right type of syllabus and balance of studies. What was needed was closer collaboration between employers, industry bodies and academic institutions. The whole of the industry needed to work together to present the opportunities to potential recruits in a joined up manner.

Industry placements, work experience and internships are a key part of this. So is the need to work with schools and colleges to showcase the industry and to encourage young people to select the right subjects for future study.

As convergence between broadcast, IT and telecoms changes the character of the industry, the need for crossover training is ever more important. The summit recognised that in-service training needed to match real-world needs, and be tailored

to individuals wherever possible. With training budgets tighter than ever, the need to recognise attainment through certification was seen as an essential element in continuing professional development.

The IABM Educational Foundation's Broadcast and Media Technology Certification Scheme provides a basis for industry-wide recognition of individual attainment.

Call for action

If the brightest and best talent is to be attracted and retained, the initiative must come from the very top. Chief engineers and CTOs need to demonstrate their pride in their industry and secure its future by actively welcoming and motivating potential recruits.

The establishment in the industry – bodies like IABM, IABM Educational Foundation, EBU and others – have a co-ordinating role, but success will come when the CTO of a company can stand in front of a group of potential students and describe what the engineer of the future will be tackling and what they can achieve.

Small companies can be as active in this as the largest multi-national. Vendors and broadcasters also have an equal role to play. It is only when all sides come together that the industry can demonstrate the variety of roles, challenges and opportunities available.

During and immediately following the summit, a number of organisations made pledges on how they can drive things forward. These are welcome signs of an industry that has recognised a major threat to its future, and is taking positive steps forward.

For further information see:

www.iabmfoundation.org

www.theiabm.org • www.ebu.ch

www.ebu.ch/about/academy

www.iabmacademy.org

www.bbc.co.uk/academy/technology

Pledges

Pledge 1 – Access to learning events resources

The BBC has agreed to make available up to 12 online events, viewable on demand via YouTube, each year. These events look at cutting edge technology challenges facing the broadcast industry. Recent examples include:

- ultra-high definition television (IABM and BBC event)
- restoring archives (SMPTE and BBC event)
- loudness (IPS and BBC event)
- lean analytics (Product Tank and BBC event)

This pledge will provide embeddable resources for schools, universities and employment advisors, as well as continuing professional development for engineering and technology staff and trainees at all levels.

Pledge 2 – Access to online resources

The BBC, as part of the Digital Agenda for Europe initiative, will remove geo-blocking from the BBC website academy section on all training and development material. This opens access to about 1000 videos, 500 blog posts and 1700 articles from career profiles for school leavers to data analytics for industry specialists.

As part of this pledge, the BBC also undertakes to create more than 20 placements each year in BBC Research & Development.

Pledge 3 – “A day in the life of a broadcast engineer”

The IABM has agreed in principle to develop a programme to encourage and support member companies hosting school or university students. The objective is to allow the student to shadow an engineer, one-to-one, in the company for a day. The programme aims to:

- secure as many one day visits as possible, across a wide range of company and product types, and geographical regions
- encourage students to experience the working environment of a typical engineer, improving visibility of the range of jobs available and thereby encouraging students to consider their own career in the industry

Pledge 4 – “Adopt a school”

The IABM has agreed in principle to develop a programme which encourages and supports member companies to “adopt” a local school. The programme will boost engagement between the company and the staff and pupils at the school, building awareness of the broadcast technology industry as a career option.

Pledge 5 – Technology careers resource centre

The IABM Educational Foundation has agreed in principle to develop a reference centre of printed, online and social media educational resources in the broadcast technology industry. These resources will be made available to partner organisations to support their own commitments and programmes. Resources can be supplied to, and co-branded with, the relevant partner organisation as appropriate.

Pledge 6 – Technical placement co-ordination service

Southampton Solent University has agreed to work with the IABM to pilot an internship and placement co-ordination service, to connect employers and students. As well as broadening the available pool of placements, the programme will also explore how a wider international scheme might be organised, administered and resourced.

Pledge 7 – Broadcast technology university forum

Ten universities and colleges have already agreed to create an international liaison group hosted by the IABM to ensure excellent information exchange about industry trends and requirements, and related educational and student issues.

Pledge 8 – Crossover training

The IABM Training Academy has commissioned the development of an online programme to provide crossover training. This will help broadcast engineers understand the technical issues in transitioning to an IP, file-based architecture.

Pledge 9 – ISO accredited skills certification

The IABM Educational Foundation has agreed to further develop the policies and processes associated with its Certified Broadcast and Media Technologist scheme, to ensure wider recognition through accreditation to ISO standard 17024.





The IABM Educational Foundation
is a registered charity committed
to advancing engineering skills in
broadcasting and media technology
on a global basis

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