

SONY

live production

Capture every detail with professional
solutions for education, corporate,
events, studios and outside broadcast
www.pro.sony.eu





Professional live production solutions

Flexibility is a core focus of Sony’s range of live production solutions. All the products have been developed to combat the common constraints faced by anyone working in the live production market, such as space limitations or different venue infrastructures.

New technologies are changing the way we cover live productions. A step-change in quality has opened up 4K live capture to the market, allowing incredible cinematic quality and innovative ways of enjoying your favourite content. 3D advances bring another dimension to the viewing experience. And IP technologies are being harnessed for new and affordable ways of capturing and distributing content.

Whatever your market, Sony’s solutions are cutting-edge and yet incredibly cost-effective. They have all been designed first and foremost with your needs in mind.

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4K

live production

“ New technologies such as 4K Ultra HD enable us to deliver sharper images, better sound, deeper expression and emotion capturing all the action on the pitch and connecting football fans with the game in a way we have never seen before. **”**

Niclas Ericson,
Director, FIFA TV



Live 4K Ultra HDTV production available now

4K live production is now readily available to professionals. Sony has also developed key products, systems and workflows, from shooting to viewing, with its 4K live production solutions.

Outstanding 4K live content brings a new level of reality to audiences

Since June 2013, following the major 4K live production trial at the FIFA Confederations Cup in Brazil, Sony has led several test shootings in different fields of application including sports, concerts, fashion and studio events.

The Sony/FIFA trial was conducted at the Estadio Mineiro in Belo Horizonte, one of six stadiums used in the 2013 football tournament, utilising the world's first purpose-built 4K mobile production unit supplied by the leading UK-based company Telegenic. Since then, the 4K equipment has become available to everyone wanting to create 4K live content.

By fully exploiting and improving the latest advanced 4K technologies, Sony continues to improve the delivery of true-to-life reality, emotion and excitement, helping audiences to feel as if they're really there.

Handling four times the data with 4K

4K live brings its own challenges. When it comes to the nitty-gritty of shooting in 4K, there are additional practical considerations to factor in compared to an HD shoot, not least of which is how to ensure 4K camera channels can feed into the OB vehicle without causing too many headaches. With 4K, each camera channel uses up four inputs

compared to a single input for HD, which increases the number of connections to the router, switcher and monitors. Also, 4K records four times as much data as HD, so you have to handle a lot more data and use the latest compression technologies, such as XAVC.

Marrying market-beating live production expertise with 4K innovation

Sony's 4K live camera system employs the PMW-F55 along with other major Sony 4K live production solutions. This includes the PWS-4400 multi-port video server, which is capable of 4K and HD recording, utilising the XAVC video format. It also requires the use of an MVS Series multi-format production switcher, capable of real-time 4K signal processing.

When 30-inch 4K LCD monitors and 4K SXRD projectors are added, Sony can provide all the components necessary for building a complete 4K live production solution.

This new system not only delivers 4K resolution images, it brings new capabilities to HD productions. The use of a 4K live camera system allows for slow motion HD capture and replay at up to 240 fps. Newly developed 4K Stitching Software coordinates two 4K cameras to cover an entire playing field, enabling dynamic extraction of HD images from any part of the field. Using Telestrator Software, various graphics and player data can also be added as an HD cutout.



3D

live production

“ Having worked with Sony to bring the exhilaration of Wimbledon to the world in stunning 3D, we're excited to be taking the production one step further this year, with both 3D broadcast and 4K shooting. ”

Mick Desmond,
Commercial Director,
The All England Lawn Tennis Club

3D
world
Created by Sony

Leading the way in 3D technologies

Sony can provide you with an entire 3D production workflow, offering everything you need to create a practical, efficient 3D production operation, in TV studios, outside broadcast trucks and even in stadiums and venues with their own live production facilities.

The demands of 3D live

3D live production, like any live work, is always demanding. The kit has to work first time, every time. But making 3D production function with the flawless efficiency demanded by live broadcasting is a huge challenge.

Practical 3D production workflows

Sony's 3D production solutions work transparently for engineers, directors and producers, letting them use their existing skills while they learn their 3D craft. Retaining existing efficient workflows, Sony can upgrade studios and outside broadcast facilities to 3D, making 3D production as natural as working with conventional video.

3D cameras, monitors and switchers

Sony's top-quality broadcast cameras can be rigged in 3D pairs for convenient live operation. The cutting-edge MPE-200 image processor is able to run a variety of applications that make 3D production easier, including MPES-3D01 software which corrects

stereo source misalignment in real time, optimising and protecting the quality of live stereo images.

In the production gallery, Sony's professional 3D monitors work with circular polarisation for the optimum 3D experience. While the MVS-8000X vision mixer handles dual stereoscopic signals as if they were a single source, keeping operational control almost identical to those in a 2D workflow.

Creating 3D live systems

To make it as easy as possible to work in 3D, the Instant 3D Production System (i3DPS) is a turnkey system designed to allow broadcasters to assess the technology and capture 3D material with minimum capital outlay. There are various options available from a complete turnkey fly-away system, to purchasing the key 3D components forming the heart of the system.

Sony will also work with you to create bespoke 3D solutions. We have the knowledge and in-depth practical experience to help at every stage; from concept to commissioning to construction.

Find out more at www.pro.sony.eu/livebroadcast



IP

live production

IP technology delivers production efficiencies and lower system costs

Sony has developed real-time IP production technology to deliver better efficiency and lower system costs in live productions.

IP technology in the broadcast world

Real-time IP production technology integrates IP network technology and HD-SDI, the standard for HD video transmission. It enables video, audio, reference signals and control data to be transmitted between devices using a single network cable. Multiple high-resolution video and audio, including HD and 4K, can be synchronously

transmitted to multiple points and the source video can be switched smoothly with no switching noise, resulting in a dramatic improvement in the efficiency of video transmission between the field and the broadcast station.

Meeting the challenges of moving data

Conventionally, numerous cables are required to transmit HD video from remote locations such as live production sites. Video and audio streams also often need to be sent over large distances, from stadium to broadcast HQ, or between production bases.

Furthermore, the volume of information transferred by 4K high-resolution video production is four times that of HD, meaning that as 4K production starts gearing up, four times as many cables are going to be necessary to move content around. When both the input and output directions are taken into account, up to eight times as much cabling is required for 4K in comparison to HD production.

IP in live production

By utilising standard IP technology, the remote production environment can be drastically simplified compared to a conventional system that uses coaxial cables. Another advantage of using IP technology is its flexibility.

Sony's NXL-IP55 live production unit enables multiple video data streams to be transmitted over an IP Local Area Network (LAN). The unit allows you to make a point-to-point IP transmission of four HD video signals, with 10 audio channels, eight GPIO and six Tally channels.

The system maintains broadcast quality Full HD video over the IP network, equivalent to the picture quality of the HSC-300R/RF cameras.

Sony is also developing the future of IP technology, with interface modules and management software that will enable SD, HD and 4K transmissions over standard IP networks, supporting multicast capabilities. This will enable you to rethink the ways you build your broadcast infrastructure, drastically reducing the number of cables, offering increased flexibility in routing the signals and scaling the size of the systems. Using standard IP technology, it will also help to reduce initial investment costs and integration complexity, and future-proof your system.

“ It's very promising to see that you can have three or four cameras going through one IP link and take everything back on the other side. It's not just video signals, but data, intercom, everything you might need. It can save you a lot of cable and it can save you a lot of transport if the production crew is sitting in a fixed location, and it's only the cameramen that are still out there at the venue. **”**

Ronald Meyvisch,
New Technology Officer,
Euro Media Group



education

Educating the next generation of professionals

As Sony is the leading supplier of the live production market, it is vitally important for students to be trained with Sony broadcast products. The reality of the industry they will enter after graduation requires knowledge of the operational features and working practices of Sony equipment. At the same time, schools and colleges have limited budgets to invest in professional standard kit.

Cost-effective and consistent range of equipment

Sony has developed a range of entry-level equipment that is designed specifically for the education market. From cameras to switchers to audio, the kit delivers a fantastic level of quality at the most cost-effective prices.

All Sony equipment, from the entry-level model upwards, have a consistent, clear modus operandi, so if you learn on one model, the features and controls are easily understood on another.

Sony has also developed its Education Program for Universities and Media Colleges, to support them in the purchase of broadcast products, as well as knowledge sharing.

Key products



BRC-Z700 & BRC-Z330

Affordable SD/HD Robotic cameras and 1/3-inch CMOS CCD sensor SD / HD robotic camera



HXC-D70

Affordable three 2/3-inch Exmor CMOS sensors SD / HD studio camera



AWS-750

AnyCast Touch portable Live content producer



MVS-3000A

Affordable compact SD / HD video switcher



PVM-A250 & PVM-A170

TRIMASTER EL™ OLED slim, lightweight high grade picture monitors with wide viewing angle



DWZ-M70 & DWZ-B70HL

Digital wireless audio packages using 2.4GHz ISM band with high quality digital sound

Case study

Liverpool John Moores University

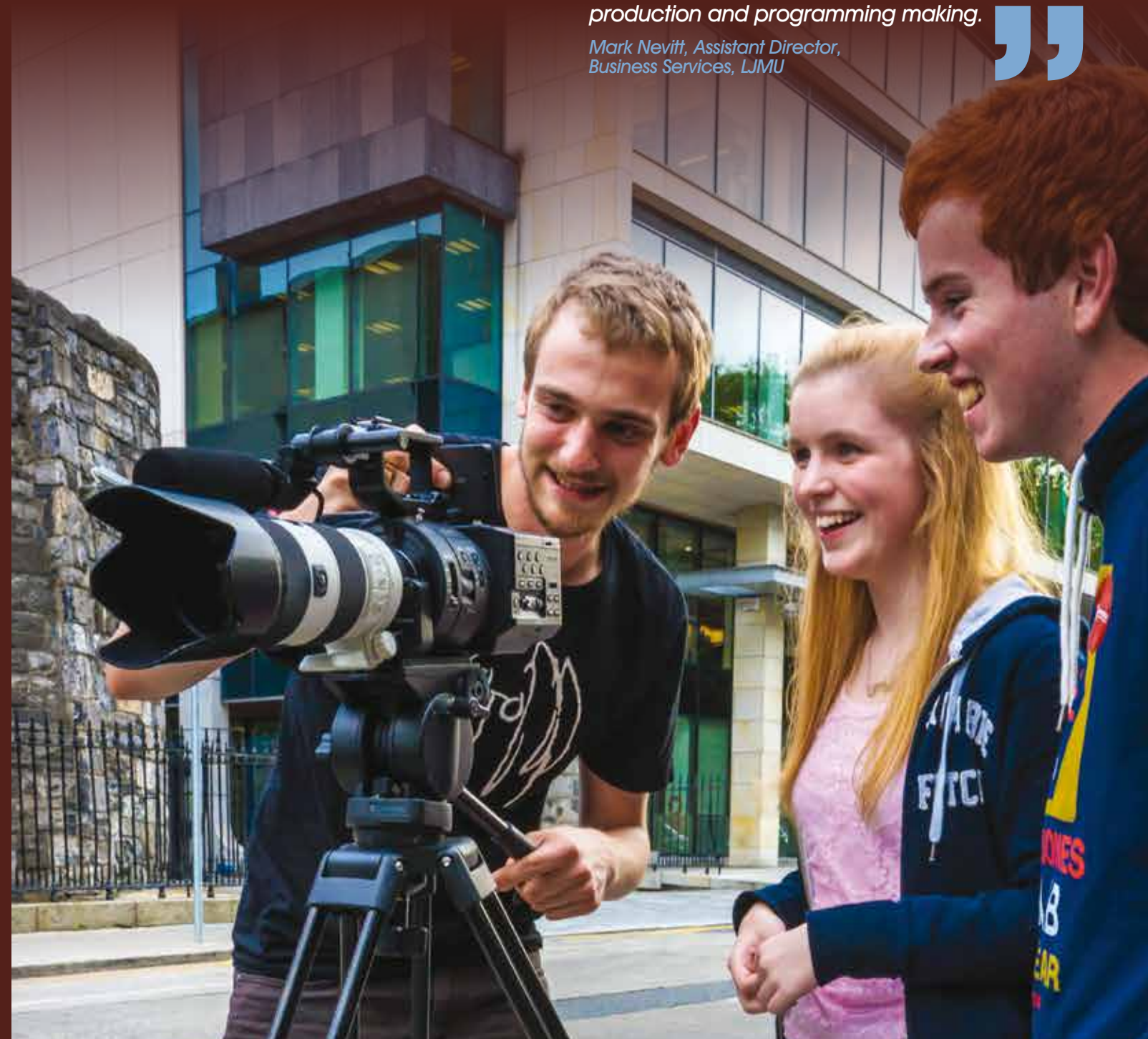
Liverpool John Moores University (LJMU) in the UK built a £37.6m studio facility to home its well-known Liverpool Screen School. The facilities include two studios – a main TV studio and a smaller studio designed for news – plus four voice/audio recording booths, a fully equipped radio studio with green room, control rooms, edit suites and offices.

Sony Professional Services worked with consultancy Drama by Design on the project, which included the design and specification of all the technical systems.

As LJMU Assistant Director, Business Services, Mark Nevitt recalls: "Our aim was to create the best possible work environment for students entering the media industry. This wasn't a set of teaching rooms – it was a working space well equipped for training the next generation of filmmakers, journalists, camera technicians, production and studio managers."

"Sony's proposal was fantastic. The company clearly understood what we wanted – a flexible space that gave students the opportunity to experience real news production and programming making."

Mark Nevitt, Assistant Director, Business Services, LJMU



corporate

Live broadcasting for companies, councils, churches and other institutions

From public meetings to new product announcements: nothing beats the immediacy of live video for communicating with the public, your staff or members right across your company or organisation. But the cost and complexity of building what's effectively your own in-house TV station can be off-putting. Equipment needs to be easy-to-use, reliable and cost-effective.

Complete capture solutions

Sony has developed a complete corporate capture solution that makes live video production refreshingly accessible and affordable. Sony has a range of affordable camera options, including the BRC Series PTZ remote cameras. With feeds captured, mixed and streamed with the compact all-in-one AWS-750 live content producer, it has never been easier to create professional video content. Sony also offers solutions that use standard IT infrastructure to transmit video and audio on a single Gigabit Ethernet link. These simplify the set-up and distribution of real time broadcast signals and allow your teams to focus on the production itself, without any compromise.

Key products



SRG-300SE

Affordable SD/HD Robotic cameras



BRC-Z330

1/3-inch CMOS CCD sensor SD / HD robotic camera



AWS-750

AnyCast Touch portable live content producer



NXL-IP55

IP live production unit



LMD-A240 LMD-A220 LMD-A170 & LMD-941W

High-grade LCD monitors



DWZ-M70 & DWZ-B70HL

Digital wireless audio packages using 2.4GHz ISM band with high quality digital sound

Case study

GlobalConnect

GlobalConnect – Denmark's leading alternative provider of efficient secure data networking and housing solutions – created the world's smallest OB van, using a Piaggio Ape 50 van. The compact vehicle has been dubbed OB Van Kenobi.

The OB van was devised to help GlobalConnect establish a portable television studio. GlobalConnect collaborated with Sony specialist dealer esee Media Technology a/s., an expert in the compression of advanced media systems. Together with Global Connect and Sony Nordic, esee designed a mobile unit that comprised of a six camera HD OB solution.



OB Van Kenobi is equipped with a Sony AWS-750 AnyCast production solution and six Sony BRC-Z330 HD PTZ cameras. If necessary, it can be upscaled to use a total of eight HD cameras. In addition, the van has four wireless receivers and four matching transmitters; and for each camera there is a dedicated monitor. To fulfil GlobalConnect's requirements, the OB van is also equipped with a separate preview and program screen. For convenience, the OB van's equipment can be dismantled for use elsewhere: for instance, at the new permanent studio that esee is also building for GlobalConnect.

"Through our subsidiary company GigaConnect, we are linked to every event location or stadium using our 10 Gigabit network; and we are experiencing an increasing interest in OB productions close to our fibre points," said Birger Hauge, Head of Public Affairs at GlobalConnect.

“Live production has never been simpler, more flexible – or more cost-effective.”



live events

Solutions for live event coverage

Live events coverage ranges from concerts and political conferences to festivals and theatres. All demand high quality coverage, allowing for live broadcasting and future DVD and Blu-ray sales. Setting up the infrastructure to handle a live event, operating it and keeping control of your content can be incredibly hard for organisers and service providers who might have multiple demands already placed on them for an event. What is needed is equipment and solutions that are easy to set up and operate, future-proof, cost-effective and of high quality.

Taking the strain out of live coverage

Whether you are an event organiser, service provider or rental company, Sony has developed cost-effective solutions that allow you to create stunning production values for a live event broadcast. Equipment such as the AWS-750 live content producer makes it easy and cost-effective to live mix and distribute content, while high quality portable and remote cameras give you the ability to create affordable multi-camera set-ups. Whatever your live event needs, Sony has easy-to-use solutions to deliver for your customers.

Key products



BRC-Z700 & BRC-H900P

Three CMOS sensors HD and Full HD robotic cameras



HSC-100R/RF

Three 2/3-inch Power HAD FX CCD sensors portable HD / SD camera for digital triax or fibre operation



AWS-750

Anycast Touch portable live content producer



MVS-3000A

Affordable compact SD / HD video switcher



PVM-A250 & PVM-A170

TRIMASTER EL™ OLED slim, lightweight high grade picture monitors with wide viewing angle



DWX Digital Wireless Series

Digital Wireless microphone system with WiDIF-HP codec & Cross Remote function, using UHF frequency range

Case study

Berlin Philharmonic Orchestra

The recent refit of Berliner Philharmoniker's Philharmonie concert hall saw the introduction of Sony HDC-P1 full remote cameras with broadcast lenses on pan-tilt heads, and several PMW-500 shoulder mounted camcorders.

Full 1920 x 1080 50i images are sent in XDCAM HD at 50Mb/s via fibre-optic cable to the studio, which houses a Sony MVS-3000 vision mixer integrated together with a Sony IXS-6600 routing matrix.

As Christoph Franke, Creative Director and Head of Production at the Berliner Philharmoniker, explains, the MVS-3000 mixer is a key part of the orchestra's

ability to deliver live HD broadcasts to its customers.

"The big attraction for us was that it's a Sony mixer, which was very important," says Franke. "We knew that the MVS-3000 would be high quality and reliable, and easy and intuitive to use, as all the Sony vision mixers are. Ease of use is essential for us, because the MVS-3000 is mainly used not by technically trained vision mixers but by the musically trained video directors who cut the programmes during concerts."

"We knew that the MVS-3000 would be high quality and reliable, and easy and intuitive to use, as all the Sony vision mixers are."

Christoph Franke, Creative Director and Head of Production at the Berliner Philharmoniker



studios

Creating commanding studio production environments

A production studio is often the content hub for any broadcaster, acting as the shop window for a channel. It usually requires multipurpose flexibility, as much automation as possible and an excellent return on investment over the long term. Whether you want to produce in HD or 4K, the studio infrastructure and key solutions must be able to manage your demands.

Flexible studio solutions

Sony's new standard-type live HD production system delivers a high cost to performance ratio and a flexible system configuration, and is suitable for a wide range of production work. The HSC-300R/RF and HSC-100R/RF studio cameras implement Sony's unique signal-processing technologies, while delivering even better image quality together with new support for optical fibre transmission systems. And Sony's MVS-3000A switcher delivers significantly stronger functionality than earlier models, at a reasonable price.

For 4K production, the MVS-8000X and MVS-7000X both have the option to handle 4K signalling, providing a long-term solution for studio switching for broadcasters.

Sony routing, monitoring solutions and extensive broadcast infrastructure solutions make it a great partner for helping create high quality and flexible studio spaces.

Key products



BRC-H900P

Three 1/2-inch type Exmor CMOS sensor all-in-one Full HD robotic camera



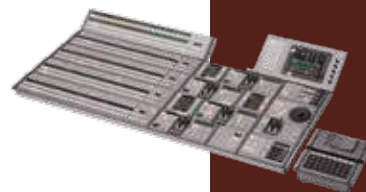
HSC-100R/RF & HSC-300R/RF

2/3-inch HD/SD Portable Studio Camera with 1.5G Digital Triax or 1.5G Optical Fiber Interface



HDC-1700 & HDC-2400

2/3-inch HD/SD Portable Studio Camera with 3G Optical Fiber Interface and 3G Digital Triax adapters available



MVS Series

Range of flexible HD / SD video switchers with 2 to 6 M/E



PVM-A250 & PVM-A170

TRIMASTER EL™ OLED slim, lightweight high grade picture monitors with wide viewing angle



DWX Digital Wireless Series

Digital Wireless microphone system with WiDiF-HP codec & Cross Remote function, using UHF frequency range



IP Live Technology

The future of broadcast infrastructures using IP Technology

Case study

BT Sport

Sony supplied its latest High Definition camera and support equipment for the BT Sport facility located at Queen Elizabeth II Park in London. Supplied through BT's lead partnership with Timeline Television, Sony provided three Sony MVS-7000X vision mixers, five MVS-3000 vision mixers, 15 HDC-2400 studio cameras, as well as the latest Sony TRIMASTER EL™ OLED monitors across the three studios at the facility. Sony worked in close partnership with Megahertz, systems integrator on the project, and the BT Sport project team to design and implement the robust technical solution at the facility.

Jamie Hindhaugh, Chief Operating Officer of BT Sport said: "At the core of our new studios build is a spirit of collaboration that brings the best of industry – and sometimes competitors – working together toward a common aim: to make the BT Sport studios a world-class hub for the best ideas and talent. We believe talent attracts talent and our partnership with Sony as a partner has helped us to foster that mind-set."

“ We believe talent attracts talent and our partnership with Sony as a partner has helped us to foster that mind-set. ”

*Jamie Hindhaugh,
Chief Operating Officer, BT Sport*



outside broadcast

Ultra reliability and flexibility on the road

Whether you need help in designing and building a reliable OB vehicle, or sourcing the equipment inside, you want to work with people who know your market and understand what you require.

Experience and cutting edge solutions

Sony has years of experience working with broadcasters and outside broadcast suppliers throughout the world. It designs, builds and partners many firms in the OB market. It has also created world-beating technologies for live outside broadcast production, whether it is HD or the latest 4K Ultra HD live. Above all, Sony solutions are built to be robust, reliable and flexible to meet the needs of the most demanding live outside broadcast events.

Key products



HSC-300R/RF

Three 2/3-inch Power HAD FX CCD sensors portable HD / SD camera for digital triax or fibre operation and large lens options



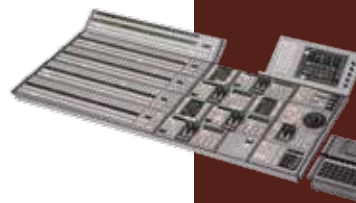
HDC-1700, HDC-2400 & HDC-2500

2/3-inch HD/SD Portable Studio Camera with 3G Optical Fiber Interface and 3G Digital Triax adapters available. HDC-2500 series offer a carbon fibre body and 2x speed acquisition capability



HDC-3300R

3x speed progressive slow motion camera



MVS Series

Range of flexible HD / SD video switchers with 2 to 6 M/E



BVM-F250A & BVM-F170A

TRIMASTER EL™ OLED reference monitors with wide viewing angle



PWS-4400

HD/4K Recording & Playback server with flexible 4x I/O's using latest XAVC codec



IP Live Technology

The future of broadcast infrastructures using IP technology



DWX Digital Wireless Series

Digital Wireless microphone system with WIDIF-HP codec & Cross Remote function, using UHF frequency range

Case study

DiBi Technology

Specialist AV and lighting company, DiBi Technology, selected Sony to build its first OB truck, as it moves into live production. Working closely with systems integrator CRV Sistemi, Sony was chosen to provide cutting edge technology for the truck, as well as managing the project. The vehicle is being used in the live production of major entertainment and sporting events, including Italian football league matches.

David Bianciffiori, Managing Director, DiBi Technology commented: "As a new entrant to the Outside

Broadcast market, it was crucial that we began our journey with the highest quality technology possible. Sony's experience and heritage within this industry, combined with its successful long-term partnership with CRV Sistemi, made it the natural choice to help us develop in this arena."

The products installed in the truck include 24 HDC-1700, HDCU-25000 and HDC-3300R (Super Motion) cameras. Uniting the production workflow is Sony's MVS-8000X switcher – featuring a double control panel.



"As a new entrant to the Outside Broadcast market, it was crucial that we began our journey with the highest quality technology possible."

David Bianciffiori,
Managing Director, DiBi Technology



Studio
Cameras

PTZ Cameras



Professional
Audio



Production
Switchers



Servers and
Recording



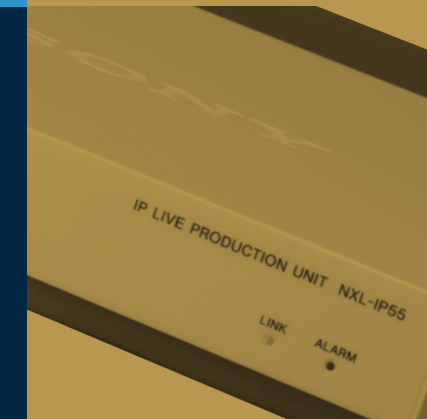
Sony Solutions

Sony is the only company that can offer such a wide range of solutions for live production. We are constantly innovating with new technologies to improve our world-class range of cameras, switchers, monitors, recording devices and distribution systems. You can find everything you need to create and run a professional live production, backed by the quality assurance you expect from Sony.

Professional
Monitors



IP Transmission



PTZ cameras

“With high-speed and extremely smooth pan/tilt movement, BRC Series cameras can follow the quick, spontaneous flow of sports action.”

Small and cost-effective cameras for a wide range of remote applications

The BRC Series of robotic cameras provide very cost effective operations and integration thanks to their very small size and silent and easy-to-operate Pan/Tilt/Zoom mechanisms. The cameras are ideal for a wide range of applications, whether it is corporate, council, auditorium, houses of worship, education, sports, events, reality TV shows, or remote studios. The range offers a wide choice of high quality configurations to fit any budget and operational needs.

Key products



BRC-H900

Three 1/2-inch type Exmor CMOS sensor all-in-one Full HD robotic camera

- HD / SD recordings: 1080/59.94i/50i, 720/59.94p/50p, NTSC/PAL
- Minimum illumination 4 lx (50IRE, F1.9, +24 dB), plus 14x optical zoom lens and advanced colour adjustment
- IP control option, plus video outputs: HD/SD-SDI, Component RGB and Composite Y/C

HD



BRC-H700

Three 1/3-inch IT CCD sensors all-in-one HD robotic camera

- HD recordings: 1080/59.94i/50i
- Minimum illumination 6 lx (50IRE, F1.6, +24 dB), plus 12x optical zoom lens and 4x digital zoom
- Video outputs: HD/SD-SDI (option) and Component RGB

HD



BRC-Z700

Three 1/4-inch ClearVid CMOS CCD sensors HD / SD robotic camera

- HD / SD recordings: 1080/59.94i/50i, NTSC/PAL
- Minimum illumination 6 lx (50IRE, F1.6, +24 dB), plus 20x optical zoom lens and 4x digital zoom
- Video outputs: HD/SD-SDI, Component RGB and Composite Y/C
- IP control option, plus video outputs: HD/SD-SDI, Component RGB and Composite Y/C

HD

Key products

Find your local Sony Specialist at www.pro.sony.eu/spss



BRC-Z330

1/3-inch CMOS CCD sensor HD / SD robotic camera

- HD / SD recordings: 1080/59.94i/50i, 720/59.94p/50p, NTSC/PAL
- Minimum illumination 6 lx (50IRE, F1.6, +24 dB), plus 18x optical zoom lens and 4x digital zoom
- Video outputs: HD/SD-SDI, Component RGB and Composite Y/C
- IP control option, plus video outputs: HD/SD-SDI, Component RGB and Composite Y/C

HD



SRG-300SE/HE

1/2.8-inch Full HD CMOS Exmor Sensor HD Progressive robotic Camera with IP Streaming function

- HD 1080/50p, 25p & 1080/50i & 720/50p, 25p
- 30x Zoom, ViewDR Technology and IP Control as standard
- IP Video Streaming Included
- 3G-SDI output (SE model) or HDMI output (HE model)



BRC-300P

Three 1/4-inch 7-type Advanced CCD sensors all-in-one SD-robotic compact camera

- SD recordings: NTSC (BRC-300) or PAL (BRC-300P)
- Minimum illumination 7 lx (25IRE, F1.6, +18 dB), plus 12x optical zoom and 4x digital zoom
- Video output: Composite Y/C (NTSC or PAL)

“Remotely controlled by the RM-BR300, BRC Series cameras easily capture all of the actions at council meetings or trials. Each camera provides simple, streamlined operation by offering multiple presets which pre-define PTZ positions.”



studio cameras

“What I like about the Sony slow motion camera is its robustness – plus the fact that it’s flexible. The HDC-3300R can be quickly reconfigured to shoot normal speed footage alongside slow motion video when required.”

Tony Cahalane, Managing Director, NEP Cymru

High-performance cameras for every acquisition job

With thousands of studio cameras in operation every day across Europe and beyond, Sony leads the way in providing reliable and high-performing tools for capturing live and recorded content. Sony’s flagship HDC Series has been accepted as a worldwide standard with its excellent picture quality realised by cutting-edge technologies. For even higher levels of creativity, Sony offers the HDC-3300R triple-speed acquisition Super Motion camera and a Point-of-View (POV)-style HD camera, the HDC-P1.

With their innovative high performance, advanced operability, compatibility of all accessories across the range and field-proven high reliability, the HDC Series is a stunning acquisition tool for a broad range of HD production applications.

Key products



HXC-D70

Exmor
CMOS sensor

Affordable three 2/3-inch Exmor CMOS sensors HD / SD studio camera with viewfinder

- Multi-format operation, including 1080/50i and 720/50p, plus SD down-conversion
- Digital HD multi-core technology integrates with CCU
- Support fiber (CA-FB70) and digital triax (CA-TX70) adaptors



HSC-100R/RF & HSC-300R/RF

Power HAD FX

Three 2/3-inch Power HAD FX CCD sensors portable HD / SD camera for digital triax or fibre operation, plus large lens options (HSC-300R/RF)

- HSC-100R/300R with digital triax and HSC-100RF/300RF with 1.5 Gbps optical fibre technology
- Multi-format operation, including 1080/29.97PsF/25PsF/50i/59.94i and 720/50p/59.94p, plus SD down-conversion
- High quality 16-bit A/D conversion and DSP LSI



HDC-P1

Power HAD FX

Three 2/3-inch Power HAD FX CCD sensors Full HD compact POV system camera with HD-SDI output

- Compact and lightweight design, ideal for 3D rigs
- Multi-format operation, including 1080/50i/59.94i and 720/50p/59.94p
- 14-bit A/D conversion, DSP LSI and ND/CC dual optical servo filters
- 1080/25PsF and 1080/50P formats available (option)



HDC-1700

Power HAD FX

Three 2/3-inch Full HD Power HAD FX CCD multi-format HD / SD portable system camera with large lens options

- 3Gbps optical fiber transmission
- Multi-format operation, including 1080/50i/59.94i/23.98p*/24p*/25p*/29.97p* and 720/50p/59.94p, plus SD down-conversion
- 16-bit A/D conversion, DSP LSI and dual optical servo filters option**

* Requires optional HZC-PSF20 ** Requires optional HKC-DF20

Key products

Find your local Sony Specialist at www.pro.sony.eu/spss



HDC-2400 & HDC-2500

Power HAD FX

Three 2/3-inch Full HD Progressive CCD 3G multi-format HD system camera with large lens and double-speed options

- 3 Gbps optical fibre transmission
- Multi-format operation, including 1080/50i/59.94i/24p*/25p*/29.97p*/50p**59.94p** and 720/50p/59.94p, plus SD down-conversion and double speed options***
- 16-bit A/D conversion, DSP LSI and ND single optical servo filter

* HDC-2400 requires optional HZC-PSF20 ** HDC-2400 requires optional HZC-PRV20 *** HDC-2400 requires optional HZC-DFR20



HDC-2570

Power HAD FX

Three 2/3-inch Full HD Progressive CCD multi-format HD portable system camera with large lens options

- 50p Digital Triax
- Multi-format operation, including 1080/50p*/59.94p*/100i**/119.88i**/ 50i/59.94i and 720/50p/59.94p
- Double speed acquisition options**

* Requires optional HZC-PRV20 ** Requires optional HZC-DFR20



HDC-3300R

HDVS

Three 2/3-inch Full HD Progressive CCD HD Super Motion multi-format HD system camera with large lens options

- 10 Gbps optical fibre transmission
- 3x progressive HD signal output with excellent flicker reduction as well as normal speed Full HD operation and SD down-conversion
- 16-bit A/D conversion and DSP LSI



PMW-F55 + CA-4000

4K

Super 35mm 4K CMOS sensor CineAlta camera for 4K and HD Live Production

- Live capture of 4K/UHD images up to 60fps and in HD Slowmotion up to 360fps
- CA-4000 camera adaptor sends 4K output over SMPTE fibre cable and supports system operations (intercom, tally, return)
- Integrates fully with existing HD infrastructure and provides simultaneous HD output (with BPU-4000 baseband processor unit)



PMW-F65 + CA-4000

4K

Super 35mm 8K CMOS sensor CineAlta camera for 4K Live Production and 4K slowmotion

- Live capture of 4K/UHD images up to 120fps
- CA-4000 camera adaptor sends 4K output over SMPTE fibre cable and supports system operations (intercom, tally, return)
- Integrates fully with existing HD infrastructure and provides simultaneous HD output (with BPU-4000 baseband processor unit)

“As far as the OB is concerned, the feed from the F55 is the same as a broadcast camera so it slots into the same OB workflow, it’s just a lot more data. Camera control units de-bayer the image from the F55 and provide the 4K output, and do all the auto colour tweaks.”

production switchers

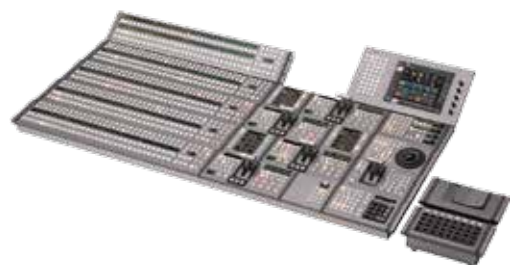
“Over the years, Sony's switchers have been widely accepted by many users and have acquired an extraordinary reputation for distinguished features and long-term reliability.”

Consistent operability across a powerful range of switchers

Sony's switcher line-up is the result of years of development and understanding of the daily demands of live operations. Sony's MVS Series of switchers share a common architecture, with the same control panels and peripherals, so if you want to upgrade to the latest processor, you can utilise your existing infrastructure. Operators are faced with a consistent user interface, which is able to cover any type of application.

The switchers also offer a huge degree of flexibility, both in terms of the panel and the mainframe. With incredible reliability, the range combines the ultimate multi-format quality combined with significant return on investment.

Key products



MVS-8000X

4K

3G flexible 4K/HD/SD video switcher with up to 5M/E

- 2-5 M/E configuration / 8 keyers per M/E bank
- Up to 164 inputs / 68 outputs
- Up to 8 (external) DME channels

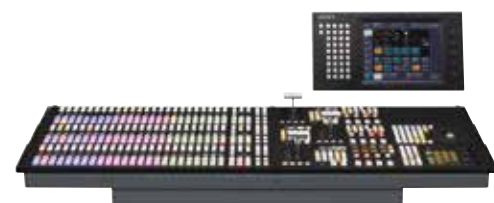


MVS-7000X

4K

Mid Range, 3G flexible 4K/HD/SD video switcher with up to 6M/E

- 1-6 M/E configuration / 8 keyers per M/E bank
- Up to 80 inputs / 48 outputs
- Up to 4 (internal) / 8 (internal + external) DME channels



MVS-6530

Mid-range HD / SD video switcher with 3 M/E

- 3 M/E configuration / 8 keyers on PP row
- 48 inputs / 32 outputs
- Optional 2 channel DME and 8 channel format conversion

Key products

Find your local Sony Specialist at www.pro.sony.eu/spss



MVS-3000A

Affordable compact SD / HD video switcher

- 2 M/E configuration / 4 keyers per M/E bank
- 32 inputs / 16 outputs
- Optional 2 channel DME and 8 channel format conversion



MCS-8M

2D / 3D compact SD / HD audio and video switcher

- Integrated M/E, key and aux mix functions
- 8 inputs / 4 outputs
- DME channel and 3D mode



AWS-750

Anycast Touch portable live content producer

- Ultra-portable and easy-to-use all-in-one live production solution
- Intuitive double touch-screen operation
- Video switcher, encoder, recorder, audio mixer, titler and remote camera controller

“We're trying to standardise with the MVS-8000X switcher in our big vans across the board. It makes it easier to move media and clips around and it's also easier from an operational point of view. When a vision mixer walks in the door, he knows the equipment and how it works and how we've configured it.”

Johan Chandler, Head of Outside Broadcast, SuperSport



servers & recording

Another important area of development is Sony's SR MASTER recording format's 3D capability, which is also coming of age. Now we have the 3D capability of the SR-R1000 storage unit, which can handle 2D, 3D, 1080p and 4K – all in one unit.

Efficient robust storage solutions for recording everything from HD to 4K and 3D

With 60 years experience of video recording, Sony is the recognised leader in developing reliable, robust and cost-effective recording solutions for critical live and other events. The PWS-4400 is the latest multi-port video server capable of handling both HD and 4K content. Using the efficient XAVC format, the server is a crucial link in the complete live 4K production chain. The SR-R1000 SR MASTER memory storage unit also handles 4K and HD, alongside 2K and 3D video, while the XDS-PD2000 and XDS-PD1000 XDCAM decks provide impressive storage capacity and compatibility with all XDCAM and XDCAM EX file formats.

Key products



XDS-PD2000 / XDS-PD1000

XDCAM deck / IT servers

- Internal storage: 512 GB Solid State Drive (XDS-PD200) 1 TB Hard Disk Drive (XDS-PD1000 and XDS-1000)
- Two SxS memory slots and Professional Disc drive, supports all SxS card types, including Memory Stick and SDHC cards, using MEAD adaptors, plus all XDCAM Professional Disc models including Single Layer, Dual Layer, Triple Layer and Quad Layer discs
- Supports all XDCAM and XDCAM EX file formats
- XAVC Support (option) for XDS-PD2000 only

XDCAM XAVC



PMW-1000

Compact HD/SD SxS memory recording deck

- Two SxS ExpressCard™ memory card slots and jog/shuttle control
- SD/HD-SDI interfaces plus HDMI interface
- Records XDCAM HD422 and HD420, plus XAVC HD recordings and SD playback

XDCAM XAVC

Key products

Find your local Sony Specialist at www.pro.sony.eu/spss



PDW-HD1550

Professional Disc recorder/player

- Supports XDCAM HD422 codec formats for recording and playback
- Up/down format convertor, plus cross conversion
- Linear editing option

XDCAM



PDW-HD1200

Professional Disc recorder/player

- Records interlaced only
- Playbacks interlace & progressive except 24p and 720 : 50p/60p
- Up/down format convertor
- Linear editing and SD as standard

XDCAM



PWS-4400

XAVC multi port AV storage unit

- XAVC video format can record 4K 50p/59.94p 600 Mbps and HD
- 2 TB internal storage standard (up to 8 TB as an option)
- Up to 360fps HD Slowmotion playback

XAVC 4K

The PWS-4400 multi-port video server is suitable for both 4K and HD productions. It records 4K and HD content using as many as four 4K channels through the efficient XAVC video format. For 4K workflows, the unit generates a 4K XAVC file that can be handled easily in non-linear editing systems.



professional audio

“We opted for what our research showed to be the best digital wireless system currently available. The Sony DWX is a powerful, reliable and future-proof microphone system that makes it possible to achieve a new level of quality and versatility.”

*Maik Voß, Head of the Sound Department,
Maxim Gorki Theatre*

Superior digital sound quality and multi-channel operation

Created for use in live events and in broadcast TV studios, the DWX range seamlessly brings UHF wireless microphone technology into the digital domain. DWX is the no-compromise, ultimate quality choice, whatever your gig.

DWX

DIGITAL WIRELESS

The DWX range offers world-leading digital microphone expertise, including the superb new WiDiFHP codec, which captures the subtlety of analogue, but adds the advantages of an all-digital architecture. The DWX range marks the beginning of a new era in live stage and broadcast audio equipment – not just because it's all-digital, but because this user-focused technology comes in the smallest, lightest and most ergonomic packages available.

Key products



DWR-R02D

2 channel rackmount digital wireless receiver

- Superb quality 24-bit/48kHz sampling digital audio
- Simultaneous multi-channel operation
- Unlimited number of simultaneous channels (500kHz spacing)
- Remote control of transmitter functions from the receiver
- Full control over cross-remote via Wireless Studio software
- 1U-size rack-mountable design



DWT-B01/E

Belt-pack digital wireless transmitter

- Superb audio quality by using 24bit/48kHz high class AD - convertor
- Simultaneous multi-channel operation
- Lightweight and rugged design (magnesium 125g incl. batteries)
- Switchable mic or line input level and adjustable attenuator
- Accommodates various types of battery
- Digital low-cut filter
- Selectable RF output power (1/10/50 mW)
- Up to 72MHz bandwidth



DWM-02

Handheld digital wireless microphone

- Superb audio quality by using 24bit/48kHz high class AD - convertor
- Simultaneous multi-channel operation
- Three interchangeable heads and third party support
- Robust 31.3mm/pitch 0.1mm threading interchangeable mechanism for quick change*
- Remote control of transmitter functions from the receiver
- Selectable RF output power (1/10/50 mW)
- Digital low-cut filter
- Up to 72MHz bandwidth

*Shure mount, over 50 capsules from various manufacturers will work on the DWM-02

Cross Remote WiDiF-HP

Find your local Sony Specialist at www.pro.sony.eu/spss

Epic digital wireless technology, amazingly affordable

With 24-bit digital audio, you get high sound quality with reliable RF transmission, utilising unique transmission technology, using 2.4GHz ISM band, developed by Sony.

A version for you

The DWZ Series offers high quality sound combined with Sony's renowned digital wireless reliability in a simple to set-up-and-use design. The interchangeable microphone head mechanism on the ZTX-M01 and ZTC-M02RC handhelds are designed for using third-party capsules and the Intelligent Feedback reducer means you can eliminate any unwanted acoustic feedback.



DWZ-B70HL

Digital wireless Lavalier microphone set for presenters and vocalists

- ZTX-B02 RC belt-pack transmitter
- ZRX-HR70 half-rack receiver
- ECM-LZ1UBMP Lavalier microphone and ECM-HZ1UBMP headset microphone supplied
- Supplied accessories: microphone holder clip (x1), cord clip (x1), belt clip (x1), AC adaptor (x1), antenna (x2)



DWZ-M70

Digital wireless set for presenters and vocalists

- ZTX-M02RC handheld microphone
- ZRX-HR70 half-rack receiver
- Supplied accessories: microphone holder clip (x1), AC adaptor (x1), antenna (x2)



professional monitors

Selecting Sony to provide the TRIMASTER EL screens was an easy choice when considering their sustainability potential, contrast ratio and black level.

Dave Nijmeijers, CTO, DutchView

Stunning reference broadcast and professional monitors

Sony is a unique provider in the world offering the best class technology OLED for professional monitors. As the market leader for 30 years in the broadcast industry, you can trust what you see thanks to the unique technologies behind our LCD and OLED panels.

TRIMASTER EL™

Superb colour reproduction and wider viewing angles

Sony's professional TRIMASTER EL™ OLED monitor line has expanded from master monitors to picture monitors since its first launch in 2011. The TRIMASTER EL technology and Sony's uniquely developed OLED panel superbly reproduces accurate blacks and colours, and features exceptional dynamic range and outstanding motion response to enable the most accurate picture evaluation in the industry.

The latest models incorporate wider viewing angles, dramatically reducing the colour shift compared to previous models and enabling more efficient group monitoring.

Key products



LMD-A240, LMD-A220 LMD-A170 & LMD-941W

24-inch, 22-inch, 17-inch and 9-inch Full HD high grade LCD monitors with wide viewing angle

- High performance LCD panel with ChromaTRU™ colour matching technology
- 10-bit signal processing engine for stunning colour management
- Versatile inputs: 2x 3G/HD/SD-SDI inputs, 1x HDMI and 1x composite
- Low power consumption in a light & slim chassis



LMD-1510W, LMD-1530W & LMD-2110W

15.6, 15.3 and 21.5-inch entry-level LCD monitors

- 21.5 inch Full HD resolution
- Cost effective production monitors with professional video inputs.
- Basic production features set and HDMI input for entry-level applications



LMD-2451TD/LMD-4251TD

24-inch and 42-inch 3D high grade LCD monitors

- High performance LCD panel with ChromaTRU™ colour matching technology
- 10-bit signal processing engine for highly accurate colour management
- Multiple 3D signal analysis

Key products

Find your local Sony Specialist at www.pro.sony.eu/spss



PVM-X300

30-inch TRIMASTER 4K™ high grade LCD monitor

- 10-bit signal processing engine for stunning colour management
- Ideal for Onset, live production and editing applications
- Optional SxS player for dailies review of 4K contents

TRIMASTER 4K



PVM-A250, PVM-A170 & PVM-741

25-inch and 17-inch TRIMASTER EL™ OLED slim, lightweight high grade picture monitors with wide viewing angle

- Stunning OLED performance with Super Top Emission technology 10-bit RGB panels
- 10-bit signal processing engine for highly accurate colour management
- Slim and lightweight, easy to carry
- Low power consumption

TRIMASTER EL



BVM-F250A & BVM-F170A

24.5-inch and 16.5-inch TRIMASTER EL™ OLED reference monitors with wide viewing angle

- Strictly controlled tolerance OLED with Super Top Emission technology 10-bit RGB panels
- 12-bit signal processing engine for precise colour management and smooth accurate gamma performance
- Versatile inputs: 2x 3G/HD/SD-SDI inputs, 1x HDMI, 1x display port and 4x option ports

TRIMASTER EL



BVM-E250A & BVM-E170A

24.5-inch and 16.5-inch TRIMASTER EL™ OLED critical reference monitors with wide viewing angle

- Highest-performance OLED with Super Top Emission technology 10-bit RGB panels
- 12-bit signal processing engine for precise colour management and smooth gamma performance
- Digital Cinema 2K input plus 3D analysis option

TRIMASTER EL

Sony's OLED monitors are able to provide the most realistic colours and image quality ever seen in an outside broadcast vehicle.

Tuncay Ozkan, General Manager of Ozkan Productions, Turkey

IP transmission

IP technology points the way to the replacement of SDI

With IP becoming a common used technology in the broadcast domain and bandwidth availability increasing every day, it is now a reality that IP links can reliably carry video and audio content securely over long distances. IP also allows for the use of less cabling, with multiple video streams able to be carried simultaneously.

With a real understanding of the real time necessities of broadcast users as well as strong experience in IP technologies, Sony has developed IP solutions that offer the flexibility of IT interfaces with the security and responsiveness of traditional SDI.

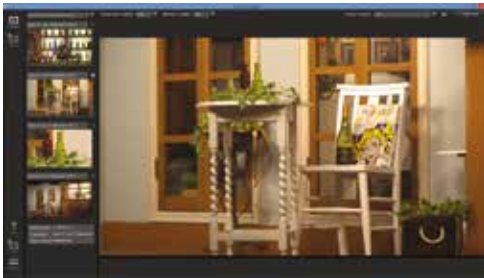
Key products



NXL-IP55

Compact IP live production unit

- Multi-channel video and audio transmission via a 1 Gbps link
- Handles up to four HD-SDI video sources (three downstream and one upstream, or two downstream and two upstream)
- Up to ten channels of audio + intercom (up to eight upstream signals), plus three red and three green selectable tally light signals, and eight GPIO channels



IP Live Manager

PC based software to configure and monitor video feeds of NXL-IP55

- Enables control and configuration of multiple NXL-IP55 live production units over an IP Network
- Monitor multiple video streams on the same screen while transmitting
- Easily change routes and presents of NXL-IP55 units

“With Sony’s NXL-IP55 we have greater flexibility for live footage going into and out of The London Studios and greater bandwidth for HD content.”

Kevin Morrison, Technical Projects Manager, ITN

Key products

Find your local Sony Specialist at www.pro.sony.eu/spss



IP Live Technology

Sony Real Time live production technology

- Real Time Video, Audio, Control, Tally transmission over IP
- Network Synchronization and Seamless video Switching
- Sony Open technology and Alliance Partners Program



SDI to IP Live Converter enable IP Based Live production infrastructures and Remote Production

Signal Processing Unit to receive SDI-IP Converter Boards

- For SDI to IP and IP to SDI conversion of SD to 4K Video and Audio
- Benefit from Sony’s IP Live Technology: Reliability, Flexibility and Interoperability
- Multi Resolution, Easy to Expand, Redundant Network Management, Connect to Standard IT Equipment

“The NXL-IP55 solution has allowed us to virtually bring our studios together as if they were side-by-side. We can now broadcast live content from any of our regional offices and be confident the picture will be of the highest quality. It has simplified our daily operation and is saving us precious money and resources.”

Miljenko Logozar, CTO and COO, Al Jazeera Balkans

PrimeSupport

For more on PrimeSupport visit www.sony.co.uk/pro/primesupport

Or contacts us directly on PSEContractDesign@eu.sony.com

Service and support for your products

PrimeSupport and PrimeSupport+ provide a service and support level superior to that covered in your statutory warranty to deliver true peace of mind.



PrimeSupport

Sony warrants that products will be free from defects for 2 years from the date of purchase. Under this warranty, in case of a defect, you can return the product to the place of purchase where it will be repaired through our Sony central repair centre.



PrimeSupport+

If you require even more comprehensive after-sales support to protect your investment, you can upgrade from one of our standard PrimeSupport packages to a PrimeSupport Plus agreement, ensuring the ultimate service support for your Sony equipment.

Protect your investment

When purchasing any Professional product from Sony you can be confident that it will provide many years of top performance within your business. However, for the 'mission critical' pieces of equipment that form an integral part of your daily business, we are proud to offer you a level of backing with PrimeSupport Plus. Tailored through a selection of options, PrimeSupport Plus guarantees peace of mind and ensures your product is up and running as soon as possible.

Tailored Support

You may wish to tailor your support beyond the measures detailed above. Typically for large solutions or roll-outs, Tailored Support might include:

- Access to either the multi-lingual helpdesk or specialist contract admin support during working or extended hours
- Remote monitoring and diagnostics of products to speed up repair times and maximise up-time
- Module / complete product exchange, typically from our contact dedicated spares warehouse in order to both speed up repairs and maximise up-time on critical products
- An annual scheduled preventative maintenance visit including software upgrades
- On-site support from our engineers to your specific service level agreements
- Pre-paid labour packs allowing you access to engineer support on an ad hoc basis



PrimeSupport+ Extension agreements are also available

PrimeSupport Helpdesk (Multilingual)

- Repair & Logistics
- Advanced Replacement & Logistics
- Repair, Loan unit & Logistics
- Extend the contract duration

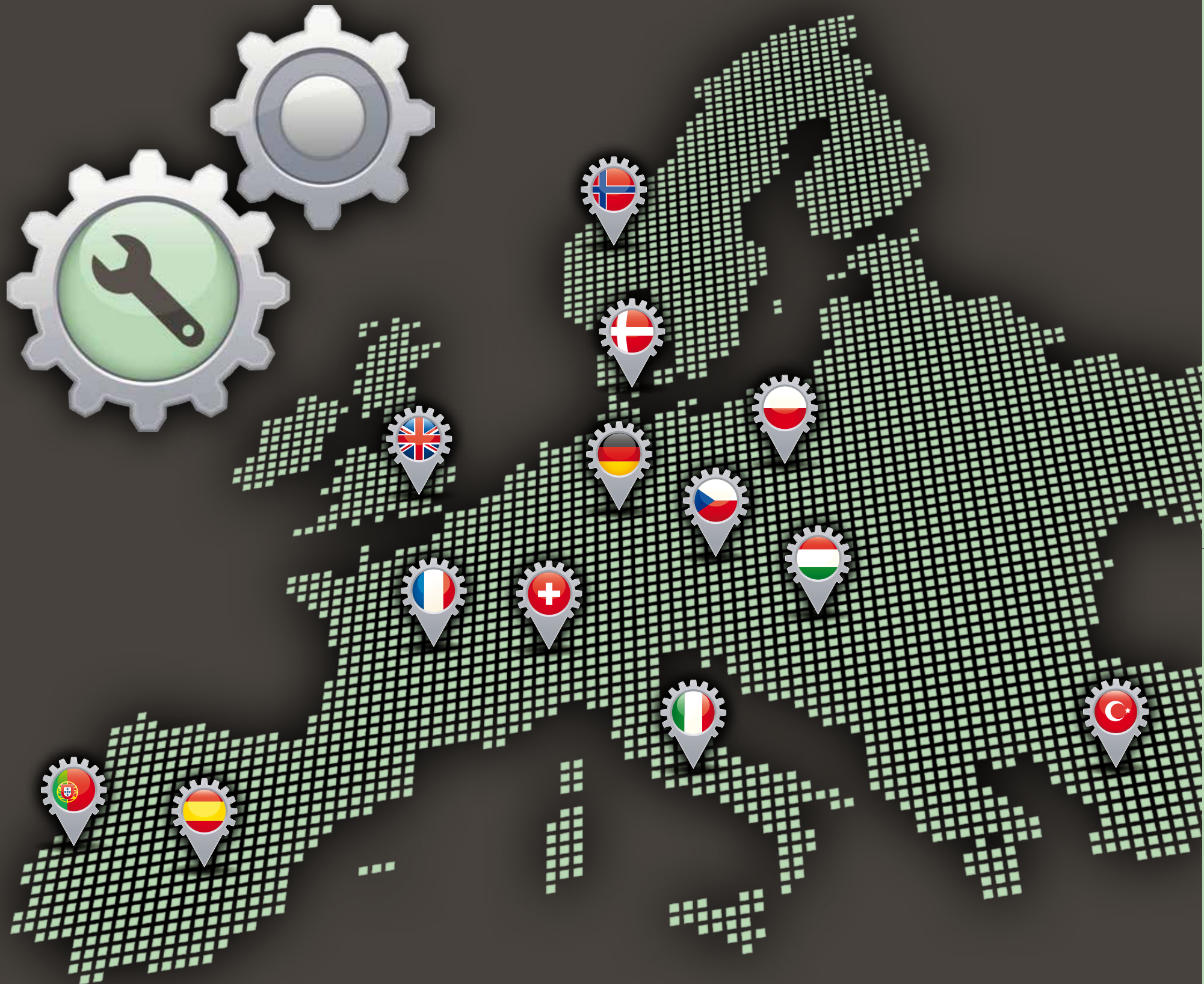
Contact your dealer or account manager for further information.



AV Media Modular Options are available	Switchers*	Cameras*	Monitors*	Optical Disc Archive*
Initial Setup & Configuration Specialised engineer on site for a day	⊙	⊙	⊙	
Technical Engineering Support Advanced Technical Helpdesk Mon-Fri: 09.00-21.00 hrs (CET)	⊙	⊙	⊙	⊙
Extended Technical Engineering Support Advanced Technical Helpdesk Mon-Sun: 09.00-21.00 hrs (CET) 365 days a year	⊙	⊙	⊙	
Software & Preventative Maintenance Annual site visit	⊙	⊙	⊙	
Express Parts	⊙			
Priority repair including loan unit		⊙	⊙	⊙
Priority repair (parts included)		⊙	⊙	
On-site Engineering Engineer onsite for a day	⊙	⊙	⊙	⊙

*See specific product page on: www.pro.sony.eu/primesupport

engineering team



Dedicated team of Sony service engineers across Europe

Sony has a dedicated team of service engineers all around Europe, offering the largest support platform for broadcast products available.

The engineering team offers:

- Bespoke PrimeSupport packages created by a team of 6 contract designers
- Delivery of on-site support through approximately 60 field engineers across Europe
- Repairs carried out at Sony Pencoed (UK), Sony Alsace (FR) and network of Authorised Service Centres
- European Helpdesk with eight Technicians: 00 800 7669 0000 covering French, German, English, Spanish, Italian

Thanks to the engineering team, customers can access a whole range of tailored support linked to their level of PrimeSupport packages. These include: direct phone calls to Sony Specialists; extended hours support on weekdays and weekends; and next-day spare parts shipment.

For more on PrimeSupport visit www.pro.sony.eu/primesupport



authorised service

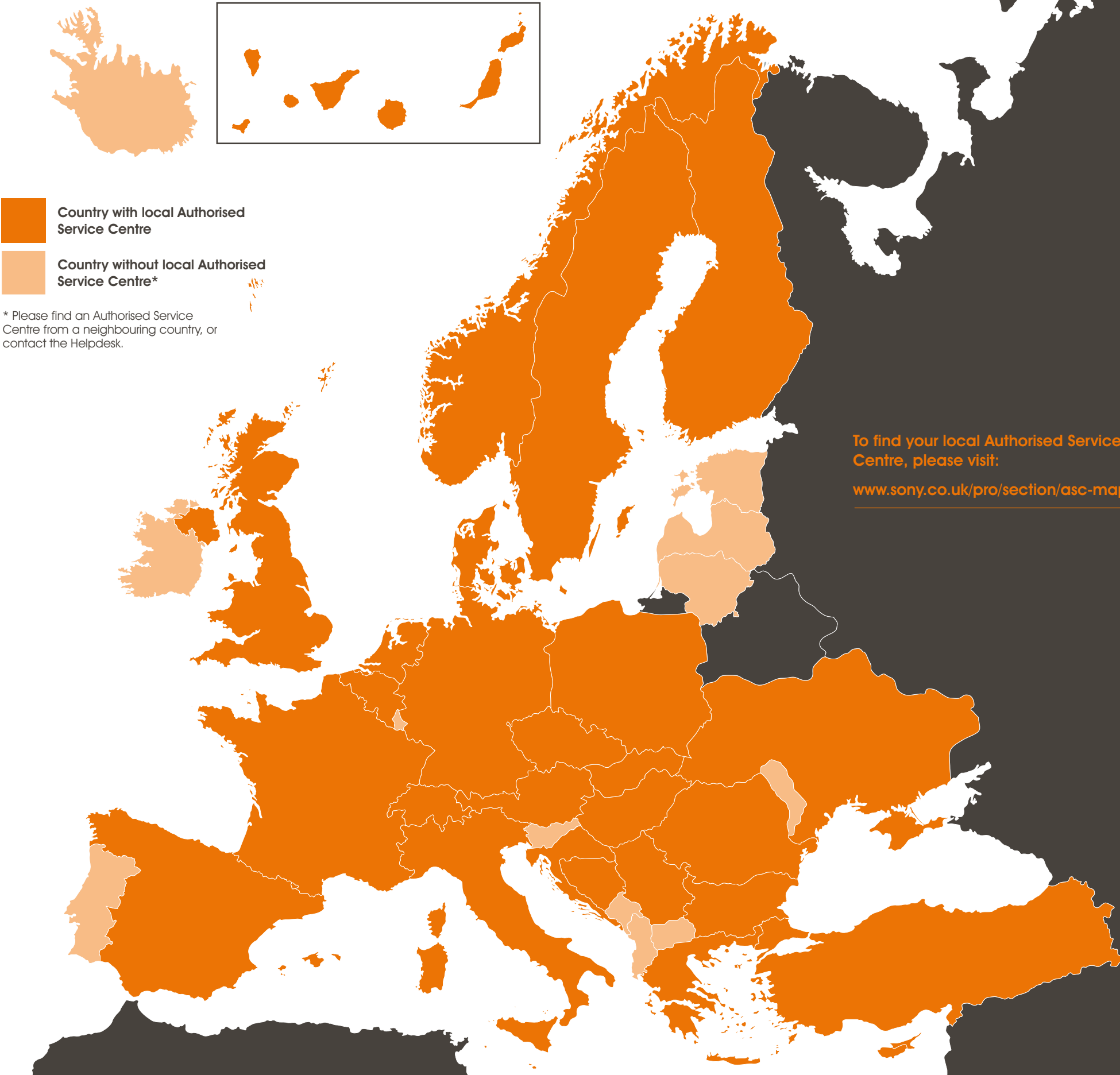
centres

Authorised Service Centres for professional products

With a well-established network of independent Authorised Service Centres across Europe, Sony provides customers with fast access to professional product support. Authorised service partners are trained, managed and supported by Sony so customers can expect the best possible service including rapid response and unrivalled technical expertise for complete peace of mind.

Countries with local Authorised Service Centres:

- | | | |
|--|---|--|
|  Austria |  Greece |  Turkey |
|  Belgium |  Hungary |  UK |
|  Bosnia & Herzegovina |  Italy | |
|  Bulgaria |  Netherlands | |
|  Canary Islands |  Norway | |
|  Croatia |  Poland | |
|  Cyprus |  Romania | |
|  Czech Republic |  Serbia | |
|  Denmark |  Slovakia | |
|  Finland |  Spain | |
|  France |  Sweden | |
|  Germany |  Switzerland | |



training team

Education and knowledge from the Training Team

The Training Team is dedicated to accelerating the skills, education and knowledge of broadcast professionals through the provision of quality, cost-effective training in local language.

Our courses can be tailored to suit the customer's needs whether face-to-face or via e-Learning. Our e-Learning platform is called The Knowledge Portal. This e-Learning platform is designed to increase our dealers' and end-user customers' knowledge about Broadcast, Professional and Business Solutions from Sony.

The Training Team also offers on-site, face-to-face training with talented Independent Certified Experts (ICE) currently working in the industry. ICEs share their hands-on experience bringing Sony's customers up to speed on best practice in production both pre and post, all in local language.

Our ICEs also support Sony by running masterclasses and seminars. Whether an international blue chip company, a small local business or an individual, the Training Team can help identify the customer's training needs and will provide the training expertise required. All at a time and place to suit the customer.

Register for free access to training at:

www.pro.sony.eu/training 



For full features visit www.pro.sony.eu

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HCT_LIVE_PRODUCTION_CATALOGUE_J2491_UK_28/08/2014

SONY