### SONY

# **IBC 2015 Pocket Guide**

PSE Media Solutions Marketing

### **Content (links for direct access)**

# Live Production

XVS-8000 **BPU-4500 PWS-4500** HDC-4300 HXC-P70 **HDCE-100** HDC-25xx Series **HDC-xxxR** Series **ICP-X7000 MVS-7000X PWS-4400 PWA-RTC1 AWS-750 BRC-H900** SRG-360SHE SRG-300SE SRG-300/PoE BRC-Z330/PoE

#### Camcorders

PXW-X70 HXR-NX100 PXW-FS5 PXW-FS7 PXW-X320 PXW-X320 PXW-X500 HDVF-EL20/-EL30 XAVC Workflow PWS-100RX1 PMW-PZ1

Alpha A7S A7R Mark 2 RX10M2 RX100M4 CLM-FHD5

#### **Cine** <u>PMW-F5/55 + CBK-55BK</u> <u>F65</u>

#### Monitors

BVM-X300 PVM-A250/A170 LMD-A240/A220/A170

#### Audio

DWX-N Series UWP-D Series

#### HDR Sonaps ODA Navigator Recording Media Catalyst Ci



## **Live Production**

### **IP** Live

Video/Audio mapping SMPTE ST 2022-6 Essence Independant Mapping (Sony) ante/AES67	Compression SMPTE RDD34 LLVC	SMPTE ST 2059	
High Availability SMPTE 2022-7 Application (LSM) redundancy PTP redundancy Frame boundary awareness FEC(Sony)	Security for Live production	Clean Video Switching Destination timed switching	Networked Media Interface +
Device Management Workgroups Managing production settings by device configuration list	Device Management Control Networked Device Conttol Protocol(Sony) SMPTE ST 2071 (Future)	Device Management Device Discovery Refers to SIP (Session Initiation Protocol) architecture	IP Live System Manager + COTS IP Switch Fabric
Network Management Switch Configuration VLAN NETCONF (SDN) System Design Tool	Network Management Bandwidth Reservation DiffServ RFC 2474	<b>RESTful API</b> <u>&amp; Plug-in SDK</u> Control API for 3 <sup>rd</sup> party application Flexible to add new device to be controlled.	

## **IP Live System Manager and SDI-IP Converter**

### **PWS-100NM1 - IP LIVE SYSTEM MANAGER STATION**

- Matrix Config. & Cross-point Switching, Network management, device management
- API For Alliance Partners, Integration with events  $2^{\text{Imagine}} L S B$

### NXL-FR318 - SIGNAL PROCESSING UNIT

- Rack mountable frame for Networked Media Interface Converter boards
- 18 slots, Redundant PSU, 3RU

### NXLK-IP40F - SDI-IP CONVERTER BOARD (HD/4K)

- Convert SDI from/to Networked Media Interface for SD, HD and 4K
- Built-in Frame Synchronizer
- 10G SFP+ x2 to support Hitless Failover



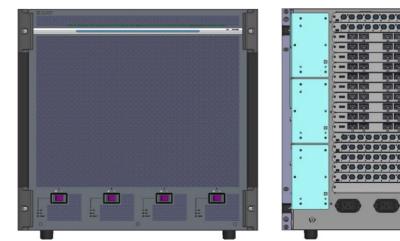




## **Key Reminder on IP Live Strategy**

- Business efficiency by COTS over Networked Media Interface
  - Scalability and flexibility
- **Beyond definition** by Networked Media Interface
  - SD/HD/4K and beyond!
- Open standard support
  - SMPTE 2022, SMPTE 2059 PTP
  - Low Latency Video Codec for IP Live: now open codec from SMPTE / RDD-34
- Interoperability with our partners over Networked Media Interface
  - Application
  - **Device discovery** to connect all the Networked Media Interface devices.
- Network management by SDN

Product	XVS-8000 Multi-Format-Switcher	
Target market	Broadcast Service Providers, Broadcasters, OB Vans	
Availability	January 2016	
List price € (EU T2 pricing)	Depend on Configuration (same level as MVS-8000X)	
Category	RBC	





Top features	Customer Benefits
Flexible I/O for SDI and IT-Interfaces	<ul> <li>Futures proof invest due to exchangeable Interfaces for a smooth transition between existing SDI- and coming next IT-Infrastructure.</li> </ul>
Improved internal Clip-Store (Frame-Memory)	<ul> <li>Advanced Production-Prospects because of more Frame-Memory Capacity, more Channels and a non-volatile SSD</li> </ul>
Extended options regarding I/O's, Formats and ME's	<ul> <li>Prepared for performance intensive Production in 1080/50P, 4K and 8K or HD/4K parallel Production</li> </ul>
True Multi-Viewer Channels	Price reduction due to internal Multiviewer
User Friendly Operation GUI	<ul> <li>Intuitive operation philosophy (GUI) to minimize Training needs and secure production quality</li> </ul>

### **XVS-8000 – New Switcher Processor**

			XVS-80	000X
Frame Size		10RU		
		4K	HD	
ME	Standard		5ME*	5ME
		Split		10ME
Input			40	160**
Output	Assignable + FC		12+4FC	48+16FC
	Multi Viewer		2ch	2ch
Keyer/ME <resizer></resizer>	Standard		2Key	8Key
	Split			4Key
DSK				4
3D DME			1ch***	4ch

\* 4M/E + 2xDSK configuration is also available.

\*\* Number of Input will be half when IP IO option is used in 3G. \*\*\* Non-linear effect is not available I 4K.



Product	BPU-4500
Target market	Broadcast Service Providers, Broadcasters
Availability	January 2016
List price € (EU T2 pricing)	€ 30,000 (Tentative)
Category	RBC





Top features	Customer Benefits
Networked Media Interface adopted	<ul> <li>Direct NMI connection by 10Gb (SFP+) to skip HD-SDI/IP converter box. 2 NMI outputs of 4K, 1 NMI output of HD → each output has redundancy</li> <li>Hybrid System capable SDI &amp; IP (NMI)</li> </ul>
Slim and full BPU features	<ul> <li>2U (H) x 19 inch rack mount (W).</li> <li>Same features as BPU-4000.         <ul> <li>-4K/UGD and HD output simultaneously.</li> <li>-up to 4K 2x* / HD 8x slow</li> <li>-HDR* (S-Log3/S-Log2/709) and</li> <li>Wide Color Space (BT2020/S-Gamut**/ S-Gamut3.Cine**/709)</li></ul></li></ul>
Same Optional Software	<ul> <li>SZC-2001 (HD Cut out SW)) for Permanent/Monthly/Weekly</li> <li>SZC-4002 (HFR option SW) for Permanent/Monthly/Weekly</li> </ul>

Product	PWS-4500
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	End Dec. 2015 (Target)
List price € (EU T2 pricing)	From 55k€ Basic Configuration
Category	RBC



#### Top features

#### **Customer Benefits**

#### Same Features as PWS-4400 plus...

More flexible Server-Configuration	<ul> <li>Flexible Server configuration regarding Channels, License (Format) and Interfaces to reduce the price and be prepared for future expansions</li> </ul>
Selectable SDI and/or Network Media Interfaces	<ul> <li>Forward-looking Server-System for the SDI to IP transition period because the customer can chose between conventional SDI I/O's (as standard) and future proof Network Media Interfaces</li> </ul>
Additional File-Sharing –Function (Standard)	<ul> <li>New standard 10G-Network I/F to monitor and share files between the Server like EVS XNET for better and faster file transfer</li> </ul>
Redundant Power Supply as standard	More security in case of power lost during a Production

### Important note: There is no Upgrade plan to converts existing PWS-4400 into PWS-4500

Product	HDC-4300 new feature
Target market	Broadcast Service Providers, Broadcasters
Availability	Since Jun/2015
List price € (EU T2 pricing)	€ 50,000 (Firmware FOC – Installation depend on support contract)
Category	RBC



Top features	Customer Benefits
4K/UHD 2x slowmotion and 4K/UHD High Dynamic Range Available with <b>next Firmware version in OCT/E</b>	<ul> <li>4K/UHD 2x slowmotion become available from BPU as far as both SZC-4001 (4K option SW) and SZC-4002 (HFR option SW) installed.</li> </ul>
	<ul> <li>HDR S-Log3 become available from BPU on top of S-Log2, 709 in Gamma curve as well as Matrix selection with Wide colour space BT2020 and 709.</li> </ul>
The world's first three 2/3-inch 4K resolution image devices and newly designed prism adopted	<ul> <li>Flexible production in 4K and HD and Super slow motion up to 8x by one camera platform.</li> </ul>
	<ul> <li>No-compromise, cover a standard HD/UHD TV production to Cinema-look picture production with HDR and Wide -Colour-Space in live operation.</li> </ul>
Seamless integration with existing workflows	<ul> <li>No need for investment in additional accessories, keeping costs and inventory down. Fully compatible with a wide range of existing products and workflows. BPU, HDCU, HDVF, HDLA, MVS switcher and PWS XAVC server.</li> </ul>
	<ul> <li>Operation is reassuringly familiar to operators and cameramen and no expensive re-training is required.</li> </ul>
4K and HFR optional Software	• Start with HD 1x/2x/3x as standard format at lower investment.
	<ul> <li>Future proof to go for the upgrade to 4K/UHD by the optional SW SZC-4001, and to HD HFR at 4x/6x/8x by the optional SW SZC-4002.</li> </ul>
	Permanent/Monthly/Weekly.

Product	HXC-P70
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	End Dec. 2015 (Target)
List price € (EU T2 pricing)	€ 17k TENTATIVE(w/o HXCU-FB70)
Category	RBC



Fiber transmission to HXCU-FB70

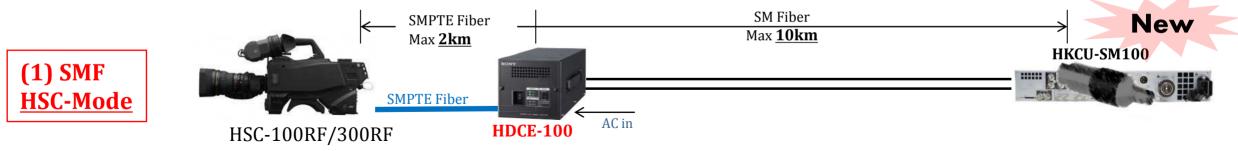
11 miles

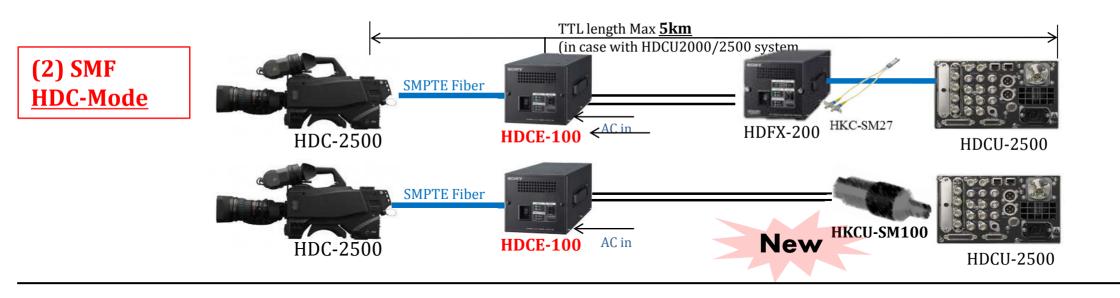
Top features	Customer Benefits	
PoV HD system camera with 2/3"-CMOS "EXMOR" (3x) sensors (full HD resolution)	<ul> <li>All B4-mount lenses can be utilized (standard mount in the broadcast industry)</li> <li>High quality HD signal due to full HD CMOS sensors (1 sensor per RGB color) with high sensitivity and low noise performance.</li> </ul>	
Integrated fibre transmission with NEUTRIK optical ConDuo connectors to HXCU-FB70 fiber CCU. Single mode fiber transmission is also possible (up to 10km/ stand alone camera power supply)	<ul> <li>HXC-P70 can be used in remote places by full control and functionality of the camera head</li> <li>NEUTRIK ConDuo connectors are widely used in the industry and</li> <li>Change to single mode fiber for more cable length is easy</li> </ul>	
Chassis is same as current HDC-P1 model	<ul> <li>Very compact design and low power consumption</li> <li>Easy to mount on a camera crane or in remote areas</li> <li>High durability and reliability paired with advanced ergonimical features and connectivity</li> </ul>	
Compatibility to HXCU-FB70	<ul> <li>HXC-P70 and HXC-D70 (with TA-FB70) models can compatibly be used with the same CCU.</li> <li>The HXCU-FB70 provides all necessary interfaces for broadcast applications.</li> <li>Camera menu control can be done from HXCU-FB70</li> </ul>	

Product	HDCE-100Camera Extension AdaptHKCU-SM100Single Mode Fiber Convertion		HDCE-100 SONY
Target market	Broadcast Service Providers, Broadcas	sters, OB Vans	
Availability	Already shipping		
List price € (EU T2 pricing)	HDCE-100: 2,780.00€ HKCU-SM100: 1,600.00€		CABLE ALARM OPEN SHORT
Category	RBC		CAMERA EXTENSION ADAPTOR HKCU-SM100
Top features		Customer Benefit	S
	ex <u>S</u> ingle <u>M</u> ode <u>F</u> iber cable to connect to Camera by 1x SMPTE fibre cable with	(e.g. golf, car-racing	<b>longer cable extensions</b> (up to 10km) to cover even <b>remote areas</b> g, skiing) g available and inexpensive
(B) SMF Mode for H (C) Power Supply to	SC-100RF/-300RF models	<ul> <li>Ideal product for re</li> </ul>	oly used for a wide variety of applications (see next slide) ental houses as it can flexibly used for many cameras and customers oplication can be used w/o HDCU (saves costs)
HKCU-SM100 provid optical fiber	les the conversion from SMF to SMPTE		se a converter from <b>third party manufacturer</b> the overall functionality within the HDCE-100 system
Dimensions: 145x12 Weight: 4.0kg (1/3 of 19 inch width			e-by-side into a 19"-rack <b>(=minimal space consumption)</b> Il weight to OB vans HDCU-2500/-2000
HDCE-100/PK packa with price advantag	ige available (HDCE-100+HKCU-SM100) je	<ul> <li>Price advantage for system cameras</li> </ul>	or customers who want to use single mode fiber transmisson on our

SONY 13 Beyond Definition - IBC 2015

## **HDCE-100 - Applications**







Product	HDC-25xx Series
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	Already shipping
List price € (EU T2 pricing)	37k€ ~ 50k€ (depending on model, w/o HDCU)
Category	RBC



HDC-2500 HDC-2570 HDC-2400DF HDC-2400 HDCU-2000 HDCU-2500

Top features	Customer Benefits
2/3"-POWER HAD FX CCD (3-CCD) system camera with native HD resolution (1920x1080) and multiple frame rates (some frame rates are optional depending on the model)	<ul> <li>High performance HD signal at CCU output /high sensitivity with noise-free pictures</li> <li>Future proof investment due to multiple frame rate support (1080i/P, 720P, 1080PsF, 2xSIoMo, 1080-RGB-12-bit)</li> </ul>
SMPTE Fibre transmission with high bandwidth (3 Gbps) from camera to CCU with a cable extension of max. 4km (incl. Power to camera) Digital triax transmission (HDC-2570 model).	<ul> <li>No signal compression over fiber cable</li> <li>Long cable extensions possible for sport productions (e.g. ski- or car racing, golf)</li> <li>3G bandwidth allows to transmit 2 camera signals over one single fiber line (1080i)</li> <li>Triax transmission model (=HKC-TR27 side cover factory installed)</li> </ul>
Single piece camera chassis with "exchangeable carbon side cover technology"	<ul> <li>Low camera head weight with perfect weight balance on the shoulder</li> <li>Air flow inside the camera is optimized (low heat/ high durability)</li> <li>Changing the transmission system is very easy by exchanging the side cover (HKC-FB20 for fiber, HKC-TR27 for digital triax or wireless transmission by 3<sup>rd</sup> party integration)</li> </ul>
Ethernet trunk line	<ul> <li>IP sinals can be transmitted between camera head and CCU</li> <li>IP signals can be used to control external devices (e.g. robotic heads)</li> </ul>
Advanced Matrix control (User Matrix, Preset Matrix, Adaptive Matrix, Multi Matrix functions provided)	<ul> <li>The camera can easily be matched to any other camera on the market</li> <li>High quality color reproduction even under critical lighting conditions (e.g. LED light)</li> </ul>

Product	HSC-xxxR Series
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	Already available
List price € (EU T2 pricing)	19k€ ~ 25k€ (depending on camera type)
Category	RBC



Top features	Customer Benefits
2/3"-POWER HAD FX CCD (3-CCD) system camera with native HD resolution (1920x1080) supporting the main broadcast frame rates of 1080i and 720P (1080PsF as option)	<ul> <li>Ideal camera for main stream broadcast applications</li> <li>Same CCD sensors as employed in HDC-2500-series, so a high performance picture quality is assured with perfect color matching to the HDC-camera range</li> <li>1080PsF option is available to support film-like shooting (drama, commercials)</li> </ul>
HSC-100R and HSC-300R models share the same chassis, specifications and key-features. Both models are available with digital fibre or digital triax transmission. HSC-300R models : Servo Dual-Filter Wheels, HDLA support	<ul> <li>Customer can select the transmission mode he wants to use w/o any compromise in picture quality (both use digital transmission)</li> <li>Digital triax transmission with very small delay (below 1 Field)</li> <li>HSC-300R model tailored for OB van productions where remote filter operation and large lens support is required</li> </ul>
Both models share the same CCU model (HSCU-300F/HSC- 300T) and keep full cross compatibility to the previous HXC- 100/HSC-300 camera range	<ul> <li>HSCU-300F/-300T offers the ability to operate in a huge system controlled by MSU (HZCU-MC3 option to be installed).</li> <li>Ideal for rental market as cross compatibility to previous camera generation is assured.</li> </ul>
Same command protocol as used in all Sony broadcast cameras (700-command protocol) Same viewfinder interface than used on HDC-series	<ul> <li>All Sony RCP and MSU models can compatibly used to control the camera</li> <li>No training for Sony operators required</li> <li>Wide choice of RCP and MSU models to meet all budget and operational requirements</li> <li>High quality viewfinders can be used, wide choice of different models</li> </ul>

SONY 16 Beyond Definition - IBC 2015

Product	ICP-X7000 (Version 1.1)
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	Now On Air @AMP/NRK/SWR
List price € (EU T2 pricing)	Depend on Configuration
Category	RBC



Top features	Customer Benefits
Flexible panel configuration	<ol> <li>Modular panel – different modules and peripherals</li> <li>Network connections ( POE)</li> <li>Mounting Row by Row for flexible layout</li> </ol>
Increase MVS operability	<ol> <li>OLED-display and RGB XPT-buttons</li> <li>More OLED display for comprehensive operation</li> <li>New LCD-button for better status recognition and accuracy</li> </ol>
More assignable functions	<ol> <li>New XPT-Pad for more customization and quick operation</li> <li>Up to 14 pages with Jump function</li> </ol>

Product	MVS-7000X (Version 12.60)
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	Now
List price € (EU T2 pricing)	Depend on Configuration
Category	RBC



Top features	Comments
Input Color Correction	<ol> <li>32 inputs corrected simultaneously</li> <li>Only with new hardware Sn° 20001 and higher (Jan2014)</li> <li>Same limitation as 6500/3000 series</li> </ol>
Up/Down Conversion 1080i to 1080p	<ol> <li>Output possible only with new hardware Sn°20001 and higher ( Jan2014)</li> </ol>
Level A supported	<ol> <li>New FPGA version V12.60LA</li> <li>Format Selection 1080P (level A)</li> <li>In this FPGA version, SD format not available</li> </ol>

Product	PWS-4400 (Software Version 1.4)
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	Available now
List price € (EU T2 pricing)	From 70k€ List Price
Category	RBC



Top features	Customer Benefits	
Up to 8-HD Ports plus Dual Panel Operation	<ul> <li>Expanded I/O configuration and dual Panel operation allows the customers to control 6 Camera inputs to be controlled by to operators</li> </ul>	
4K/HD simultaneous recording	<ul> <li>HD Files can be created simultaneously to the 4K-Signal without losing a 2<sup>nd</sup> REC- Channel. This is perfect for 4K/HD parallel Production.</li> </ul>	
Advanced HFR Formats	• For flexibility regarding HFR recording. The System now supports 2x,3x,4x, 6x and 8x HD and 2x 4K. Additional to that you can realize HFR and Normal Speed REC in parallel	
Preview / Program Control Function	Several improved Editing and Operation function.  The Server can import <b>Audio-File which can be used as Background</b> for Play-Out	
Audio File (WAV-File) Import	<ul> <li>Live-Zoom can be done without creating a clip to improve the workflow.</li> <li>Due to the selectable PRM/PVW-Outputs the operator can now edit the next scene on</li> </ul>	
HD-Live-Cut-Out	one OUT - while the second OUT is still "on-Air"	
New MPEG-2 transcoder Software (PWA-MGW1B) for the Media-Gateway-Workstation (MGW)	<ul> <li>More Format flexibility via the new Software-License which can be used on the MGW to transcode between XAVC HD MXF &lt;-&gt; XDCAM MPEG (50Mbps/4:2:2) and archive/load material to/from some external media or forward content into an external NAS</li> </ul>	

Product	PWA-RTC1
Target market	Broadcast Service Providers, Broadcasters, OB Vans
Availability	End Sep. 2015 (Target)
List price € (EU T2 pricing)	1200€ (Stand alone Software)
Category	RBC



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Top features	Customer Benefits
Easy Software-Application to control the PWS-Server	<ul> <li>Coast effective Application to control the PWS-Server without the need to invest into PWS-100PR1 and PWSK-4403</li> </ul>
A/V-Status indicator	<ul> <li>Incoming Signals could be easily checked to secure and improve A/V-Quality</li> </ul>
Simple and intuitive GUI for ISO REC/PB	User-friendly GUI to control up to eight REC/PB-Channels
Simple Clip-Management	<ul> <li>Price attractive Application to manage the files without the need to invest into PWS- 100MG1</li> <li>Easy File Transfer to archive Material onto removable media or transfer Clips into a external NAS (for NLE)</li> </ul>

#### Please note: You can also order a Pre-Installed Version with a PWS100-Workstation (PWS-100RC1)

Product	Anycast Touch AWS-750 soft 2.00
Target market	Corporate, Government, Educational, Events management companies
Availability	Now
List price € (EU T2 pricing)	f.o.c.
Category	ОМР



Top features	Customer Benefits
Streaming function update	<ol> <li>Flexible Setting</li> <li>1280x720 HD Streaming</li> <li>Support streaming service &amp; server / Google API, Wowza Media Server</li> </ol>
Camera Control function update	<ol> <li>VISCA Over IP / simple cabling</li> <li>RM-IP10 / Up to 5 controlers in one network</li> <li>Auto Tracking SD Video support</li> <li>Auto Tracking algorithm improvement to be robust</li> </ol>
Media Player function update	<ol> <li>Repeat Playback</li> <li>Start &amp; End Point Setting</li> </ol>

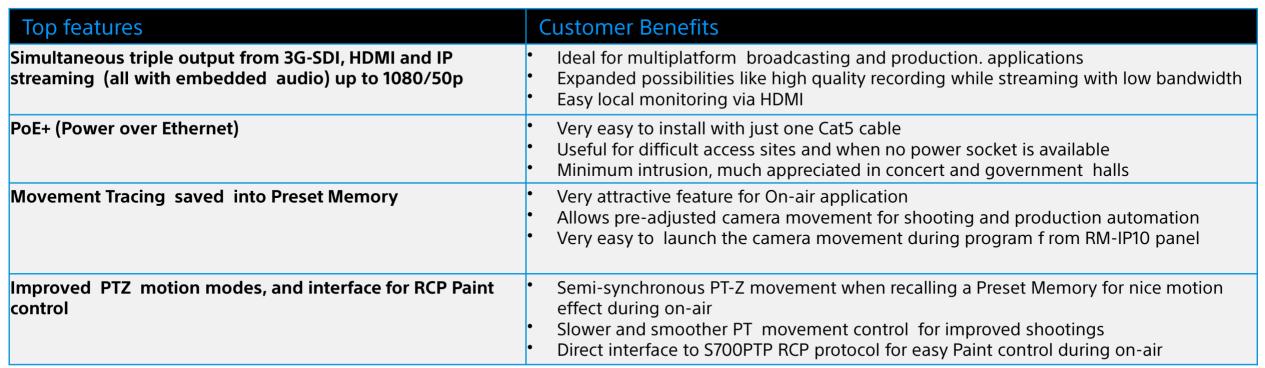
Product	V2.0 (Firmware Update) for BRC-H900
Target market	Surveillance, Corporate Market, Live Broadcasters
Availability	End Oct. 2015 (Target)
List price € (EU T2 pricing)	f.o.c.
Category	ОМР



Top features	Customer Benefits
The new Firmware version V2.0 will be available for all BRC- H900 cameras on a free of charge basis from end of October 2015	<ul> <li>All BRC-H900 cameras in the market can benefit from the feature upgrade w/o cost</li> <li>BRC-H900 is a future proof investment and the additional feature set tailors the camera for live broadcast applications</li> </ul>
New additional PT-Z Motion Mode	<ul> <li>Nice combined PT and Z automatic movements when changing from one Preset Memory to another, much more suitable for On-air applications. Zoom movement will start after PT movement finish</li> </ul>
Flange back adjustment via camera menu	<ul> <li>Flange back can now be adjusted from the camera menu, so will not be necessary to send the camera to Sony Service for fixing.</li> </ul>
Expansion of PAINT functions (Black Balance now included)	<ul> <li>For broadcast applications the available paint features were very limited in the past. Now will be possible to adjust R BLACK/B Black and run Auto Black Balance from the RM-IP10, so this camera becomes even more attractive to broadcasters.</li> </ul>
Additional PRESET Memory Mode	<ul> <li>A new mode for the Preset Memories allows to save only Camera Positions while maintaining the actual camera paint values. So, when changing from one preset to another, only camera position will change, not the white balance, etc</li> </ul>
Slow Pan/Tilt Mode	<ul> <li>Additional slow pan/tilt operation is now possible which makes this camera even more attractive for on-air live camera movements</li> </ul>

Product	SRG-360SHE	
Target market	HOW, Government, Education, Events, Webcast, realities	
Availability	EX-factory: E/Dec 2015	
List price € (EU T2 pricing)	US\$4.400 Tentative	
Category	UCB	





Product	SRG-300SE
Target market	HOW, Government, Education, Events, Webcast, realities
Availability	Now
List price € (EU T2 pricing)	3000€
Category	UCB



Top features	Customer Benefits
Up to 1080/50P output via 3G-SDI	<ul> <li>Allows simultaneous high quality recording /monitoring while effective bandwidth multi-streaming transmission, very useful in all type of events.</li> <li>Usable in multiple applications, so very versatile for rental companied.</li> </ul>
30x optical zoom (plus x12 digital), with up to 256 Preset Positions	<ul> <li>Huge zoom ratio, ideal for lecture theatres and big corporate boardrooms</li> <li>Reduce the number of cameras to be deployed ("one covers all")</li> <li>Possible to memorize a big number of positions (like in big audiences)</li> </ul>
IP Control and Streaming	<ul> <li>Very simple camera system configuration in Ethernet network</li> <li>Up to 112 cameras in a system with multiple remote panels. Perfect for applications like big multicamera systems in reality shows or big events.</li> <li>Cheap and easy control from a simple PC</li> </ul>
View-DR for extreme contrasted scenes	<ul> <li>Can help to identify details in highlight and very dark areas simultaneously</li> <li>Allows to use shoots that would have been discarded before due to burned areas in the highlights</li> </ul>

Product	SRG-300/PoE
Target market	HOW, Government, Education, Events
Availability	Now
List price € (EU T2 pricing)	2790€
Category	UCB



Top features	Customer Benefits
Up to 1080/50P supported via HDMI	<ul> <li>Very precise and smooth capture of movements thanks to progressive scan and output</li> <li>Easy and cheap monitoring via HDMI interface</li> </ul>
30x optical zoom (plus x12 digital), and View-DR for Extreme contrast scenes	<ul> <li>Huge zoom ratio, ideal for lecture theatres and big corporate boardrooms</li> <li>Reduce the number of cameras to be deployed ("one covers all")</li> <li>Possible to memorize a big number of positions (like in big audiences),</li> <li>Get details in highlights and dark areas, specially useful in halls and rooms with unwanted or uncontrolled light sources.</li> </ul>
Visca over IP Control	<ul> <li>Very simple camera system configuration in Ethernet network</li> <li>Up to 112 cameras in a system with multiple RM-IP10 remote panels. Perfect for applications like big multicamera systems in reality shows or big events.</li> </ul>
PoE solution with SoundControl RC5-S30	<ul> <li>Very easy and simple installation by using just one Cat5 cable for video and power transmission</li> <li>Expand installation possibilities by reducing the number of elements required on-site</li> </ul>

Product	BRC-Z330/PoE
Target market	Small studios, HOW, Government, Education, Events
Availability	Now
List price € (EU T2 pricing)	3177€
Category	ОМР





Top features	Customer Benefits
Compact size with very wide pan mechanism (±175°)	<ul> <li>Minimize number of equipment by covering a very wide area.</li> <li>Ideal in non-intrusive applications like government halls, opera and auditoriums.</li> </ul>
Gen-lock input (HD tri-level or SD black-burst accepted)	<ul> <li>Can be integrated in Live productions and referenced with external genlock signal.</li> <li>Minimum system delay since no need of frame synchronizer on the switcher</li> </ul>
Visca over IP Control	<ul> <li>Very simple camera system configuration in Ethernet network</li> <li>Up to 112 cameras in a system with multiple RM-IP10 remote panels. Perfect for applications like big multicamera systems in reality shows or big events.</li> </ul>
PoE solution with SoundControl RC2-HDS	<ul> <li>Very easy and simple installation by using just one Cat5 cable for video and power transmission</li> <li>Packs with BRC-H900, BRC-Z700 and BRC-Z330 (in /IP and /SDI config) and with BRC-H700/SDI being prepared to be launched soon</li> </ul>



## Camcorders

Product	PXW-X70 v2.0 + 4K
Target market	Event videographer, ENG and journalists, bloggers, education, corporate, live music
Availability	Available
List price € (EU T2 pricing)	2313€ (camera), 488€ (4K upgrade), FOC (v2.0)
Category	OMP





Top features (NEW FIRMWARE)	Customer Benefits
Network functions: Streaming + FTP	<ul> <li>Wireless transmission for FTP full quality files: easy contents transfer</li> <li>Direct broadcasting from camera head: conferences, surveillance, events</li> </ul>
Proxy recording	<ul> <li>Smaller quality takes for pre-editing: flexible time-saving workflow</li> </ul>
4K (QFHD) available via CBKZ-X70FX	<ul> <li>Upgrade can be purchased to obtain full sensor resolution at 60 Mbps for added value in every user take, with low weight files and no need for additional equipment nor dedicated media</li> </ul>

## 240 4K upgrades sold to date

(as of September 2<sup>nd</sup> 2015)

Product	HXR-NX100
Target market	Online, Education, Corporate, Live Event, Entry level ENG
Availability	End October 2015
List price € (EU T2 pricing)	1819€
Category	ОМР



Top features	Customer Benefits
20 Mp 1″ Exmor R CMOS sensor	<ul> <li>High sensitivity for dark environments keeping low noise</li> <li>Depth of field proper for both fictional and reality shootings</li> </ul>
3 independent manual lens rings	• For professional's comfort: when coming from prior pro models, migration is easy
Up to 48x zoom (optical + Clear Image + Digital Extender)	<ul> <li>Clear Image Zoom technology available for long range takes with best quality</li> <li>29 mm for angular takes: even in tight spaces, no angular adaptor is needed</li> </ul>
XAVC-S codec, 50 Mbps + AVCHD + DV	Takes can be recorded at a professional broadcast bitrate
4-positions ND filter	<ul> <li>No need to close iris and change DoF to keep light under control</li> <li>All takes can have the same aesthetics/bokeh</li> </ul>

Product	PXW-FS5
Target market	Weddings, online video, corporate, music video
Availability	Dec 2015 (Target)
List price € (EU T2 pricing)	5853€ (FS5), 6364€ (FS5K) tentative
Category	ОМР



### Embargoed until 11<sup>th</sup> September

Top features	Customer Benefits
Super 35 mm 4K sensor	<ul> <li>Gorgeous image with shallow Depth of Field</li> <li>Great sensitivity, nice for low-light shooting</li> <li>All signal available even in highly contrasted environments (indoor+outdoor, window)</li> </ul>
Variable ND filter	Allows to keep same aesthetics (DoF) independently of the light, with no overexposure
Up to 240 fps in Full HD resolution	<ul> <li>Added value thanks to S35 + super slow motion.</li> <li>8 seconds burst for recording events that can have happened "in the immediate past"</li> </ul>
Best ergonomics	<ul> <li>Small body with multi-position rotatable grip: several shooting positions</li> <li>Magnesium body that keeps weight under 1 kg (body): user's arm won't be tired</li> </ul>
E-mount: almost ANY lens can be used via adaptor	<ul> <li>Users can save lots of money by re-using their lenses (typically EF) on this new camera</li> <li>Even Super16 mm lenses can be used without vignetting, via Center Scan Mode</li> </ul>
Multi-interface shoe	<ul> <li>MI shoe available for audio and other accessories</li> <li>UWP-D receiver can be used with SMAD-P3 for wireless audio</li> <li>HVL-LBPC torch</li> </ul>

## **Comparison: FS5 vs FS7 vs FS700**

### **PXW-FS7**: "RUN & GUN"

- XQD x2
- SDI x2
- Continuous 180 fps (Full HD)

### PXW-FS5: "GRAB & SHOOT"

QFHD XAVC-L 30p

HD XAVC-I

- SD x2
- SDI x1
- 240 fps 8-seconds burst (Full HD)
- NEX-FS700:
- SD x1 + HXR-FMU128
- SDI x1
- 240 fps 8-seconds burst (Full HD), continuous with IFR5+R5

- QFHD XAVC-I and XAVC-L 60p
- HD XAVC-L and XAVC-I
- MPEG-2 HD
- 4K FS RAW output (with XDCA) AV
- Extension unit (with XDCA)
- ProRes HD (with XDCA)
- Test and DC OUT (with XDCA)
- Genlock IN (with XDCA)
- TC IN/OUT (with XDCA)





- AVCHD
- 4K FS RAW output (with IFR5+R5)



Product	PXW-FS7 Firmware Ver 3.0
Target market	Documentary & Broadcast
Availability	Within 2015
List price € (EU T2 pricing)	FOC via pro.sony.eu
Category	OMP



Top features	Customer Benefits
Support for "2K Full" and "2K Center" Scan mode	<ul> <li>Direct use of S16mm lenses (via 3<sup>rd</sup> party adapter)</li> <li>2k Center Scan mode can be used to double the focal length of a lens. Less lenses which needs to be carried with</li> <li>Only 2/3 F-Stop lost by using 3<sup>rd</sup> party adapters and standard 2/3" lenses</li> </ul>
Support for adjusting the Focus Magnification area position	<ul> <li>Checking the focus even outside the middle of the screen without moving the camera</li> </ul>
Support of "Noise Suppression" feature in CineEl mode	<ul> <li>Possibility to reduce visible Noise while shooting dark scenes</li> </ul>
Support of "Interval Recording" function	Great for stop motion and time lapse shots

Product	PXW-X320
Target market	Regional BCs, Local TV stations, Corporate Production
Availability	UK Tech ex.factory since Aug. 2015
List price € (EU T2 pricing)	11.500€ (incl. Lens,Viewfinder & Stereo Mic. )
Category	RBC





Chosen by Atresmedia, Spain. 50x PXW-X320+ CBK-WA101

Top features	Customer Benefits
<ul> <li>½" CMOS Exmor sensor, 3D Noise Reduction, 60dB, F12 sensitivity (50i)</li> <li>Built-in flash band reducer, ALAC H+V</li> <li>Optimized balance on shoulder – light weight on right arm</li> <li>Quarter Full HD LCD viewfinder</li> <li>16x5.8 Fujinon AF zoom lens provided as standard</li> </ul>	<ul> <li>Sony unique 1/2 " sensor</li> <li>Low budget alternative to PMW-400K</li> <li>Best price/quality in shoulder camcorder market</li> <li>Professional broadcast ergonomics and robustness</li> <li>Fast and accurate HD focus</li> </ul>
<ul> <li>XAVC Intra + Long GoP &amp; all legacy recording formats :</li> <li>MPEG2 HD422(50Mbps)</li> <li>MPEG2 HD420(35Mbps)</li> <li>SD : MPEG2 IMX-50, DVCAM (25 Mbps)</li> </ul>	<ul> <li>Smooth migration to next generation codec</li> <li>Use most efficient SD or HD codecs today and</li> <li>Switch over to XAVC next generation HD42210bits codec WF when ready</li> </ul>
<ul> <li>Wireless adapter hot mount: CBK-WA101 ready</li> <li>Ultra-fast workflow with File Transfer (FTP push) or Live Streaming</li> </ul>	<ul> <li>Easy clip-on of wireless adapter</li> <li>FTP push, Non QoS &amp; Sony QoS live streaming to PWS-100RX1         (QoS=Quality of Service)</li> </ul>
• Support CA-TX70 Digital Triax or CA-FB70 Fiber adapter (CBK-CE01 option required).	Most affordable live production camera system + Recorder

Product	PXW-X500 V2.04 Firmware Update	
Target market	High-end Broadcast, Magazines, News & Sports	
Availability	August 2015 (on Sharepoint, not yet on Global Sony Sites !)	
List price € (EU T2 pricing)	Firmware FOC	
Category	RBC	





#### More than 100 units in use

V2.04 Top features ( = V2.03 + improvements )	Customer Benefits
<ul> <li>Faster boot-up &amp; REC Stop/Start reaction</li> <li>Picture Cache available</li> </ul>	<ul> <li>Don't miss any take in news/sports operations</li> </ul>
<ul> <li>PXWK-501 (Apple ProRes 422) &amp; PXWK-502 (Avid DNxHD) license keys are supported</li> </ul>	More post-production flexibility for Apple FCP and AVID MC/NC users
User files and Reference files save/recall	Cameraman easy setup and confidence
Digital Extender x2, x3, x4 available	Powerful extender with no sensitivity loss for News
Slot select from left side assign buttons	<ul> <li>Fast media exchange for News /SNG operations</li> </ul>
Roadmap to V3.0 firmware (October 2015 release)	More Features = More workflow flexibility

Product	PXW-X500 V3.0 Firmware	roadmap
Target market	High-end Broadcast, Magazines, News & Sports	
Availability	October end 2015	( no beta version at IBC)
List price € (EU T2 pricing)	Firmware FOC	
Category	RBC	





#### More than 100 units in use

Top new features	Customer Benefits
• Faster Power-On , Character display on VF & Menu Access	Better reactivity in news operations
4G LTE and CBK-WA02 (5Ghz) dongles support	SONY high quality QoS Live streaming to PWS-100RX1
• Remote Control from Network RX Station (bit rate set, rate indic,GPS)	<ul> <li>Stress less, Cameraman stay focused on the action</li> </ul>
6Mbps (1280 x 720), Proxy File Recording added	Listening to VOC and Market feedback
Proxy file trimming by Content Browser Mobile	<ul> <li>Bandwidth efficiency , push news highlights only</li> </ul>
Interval Recording & seamless playback adjacent clips	More creativity & better usability
GPS data recording on SD card Proxy File & Log File	<ul> <li>More Features = More workflow flexibility - click here to download.</li> </ul>

Product	HDVF-EL20/-EL30
Target market	F65, High-end Broadcast, Magazines, Live production.
Availability	December 2015
List price € (EU T2 pricing)	5.5K Euro / 7.5K Euro (tentative)
Category	RBC



Top features	Customer Benefits
0.7-inch full HD (1920x1080) Organic Light Emitting Diode (OLED)	Eco friendly, CRT like picture motion
High contrast, no LCD delay, Blur free,	<ul> <li>High Dynamic range , always in focus , ultimate Resolution</li> </ul>
HDVF 20pin Analog HD viewfinder Interface	<ul> <li>Replaces HDVF-20A, HDVF-200, HDVF-C35W, HDVF-C30W / WR</li> <li>Compatible with HDC, HSC, F65 cameras &amp; HDW, PDW, PXW-X500 camcorders</li> </ul>
2 Assignable buttons including HiEYE view	Flexibility and long distance viewing
• 3.5-inch Quarter HD (960 x 540) sub-LCD panel (HDVF-EL30)	All in One : VF wide eyepiece & LCD monitoring
• Tally & Camera number display on LCD (HDVF-EL30)	On set simple & easy setup of multi camera system

## **XAVC WF Support : NLE Partners and Sony SW Products**

			XAVC Intra			XAVC Long GOP (4:2:2) 10 bit		XAVC Long GOP (4:2:0) 8bit		
	Software Products		Decode		Encode		Dec	Enc	Dec	Enc
			4K	HD	<b>4</b> K	HD	HD	HD	QFH D	QFHD
Adobe	Premiere Pro CC (native)	Adobe	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	H1 FY15	$\checkmark$	H1 FY15
Grass valley	EDIUS PRO 7	Grass Valley	~	~	~	~	~	~	~	~
	Media Composer 7.0.4/ 8.3.1 By XAVC Plug-in (PDZK-MA2 v3.40)	Sony	~	✓	~	~	<ul> <li>✓</li> </ul>	~	~	July 2015
	FCP-X (native) w/ ProVideo Format v2.0	Apple	$\checkmark$	$\checkmark$			<b>~</b>		H1 FY15	
FCP-X 10.1	Calibrated {Q}	Calibrated Software	$\checkmark$	✓						
	Vegas Pro 13	SCS	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$
CONTENT	Content Browser v2.3	Sony	$\checkmark$	✓			$\checkmark$		$\checkmark$	
RAW	RAW Viewer v2.2	Sony	$\checkmark$	$\checkmark$	$\checkmark$	$\checkmark$				
<b>(a)</b>	Catalyst Browse v1.2 Catalyst Prepare v2.0 Catalyst Edit v1.0	Sony	~	~	~	~	✓	~	~	~
NS Series	XPRI NS <mark>(Standalone)</mark>	Sony		Q2 FY15		FY15	Q2 FY15	FY15		

· For future plans, subject to change depending on manufacturer's final confirmation.

## Wireless Adapter & Camcorder XAVC Proxy file operation

Importing XAVC Proxy is available for the major NLEs listed below.

XAVC Proxy file operation on major NLEs

	Software Products	Version	Import	Timecode Handing	Proxy-HiRes Relink *3
	Avid Media Composer <sup>*1</sup>	7.0.4	$\checkmark$	$\checkmark$	FY15 2H
Adobe	Adobe Premiere Pro CC	2014	$\checkmark$	$\checkmark$	$\checkmark$
	Apple Final Cut Pro X	10.1.1	~	$\checkmark$	Study
grass valley	Grass valley EDIUS PRO	7.31	$\checkmark$	$\checkmark$	Study
and Self-An-	Sony Creative Software Vegas Pro	13	>	$\checkmark$	$\checkmark$
NS Sories	XPRI NS (stand alone)	By Option for 5.4.2	2Q FY15	2Q FY15	2Q FY15
Media Backbone Sonaps	Sonaps	By Option for 5.4.2	<b>~</b>	$\checkmark$	$\checkmark$

\*1) Works with QuickTime AMA Plugin Version 1.3 (natively installed with Media Composer)
\*2) Start Timecode can only be handled on these NLEs.

\*3) Can relink proxies with Hi-Res files generated on following camcorders and deck: PXW-X500/X200/X180, PMW-500/400/300/200/160/150/50.

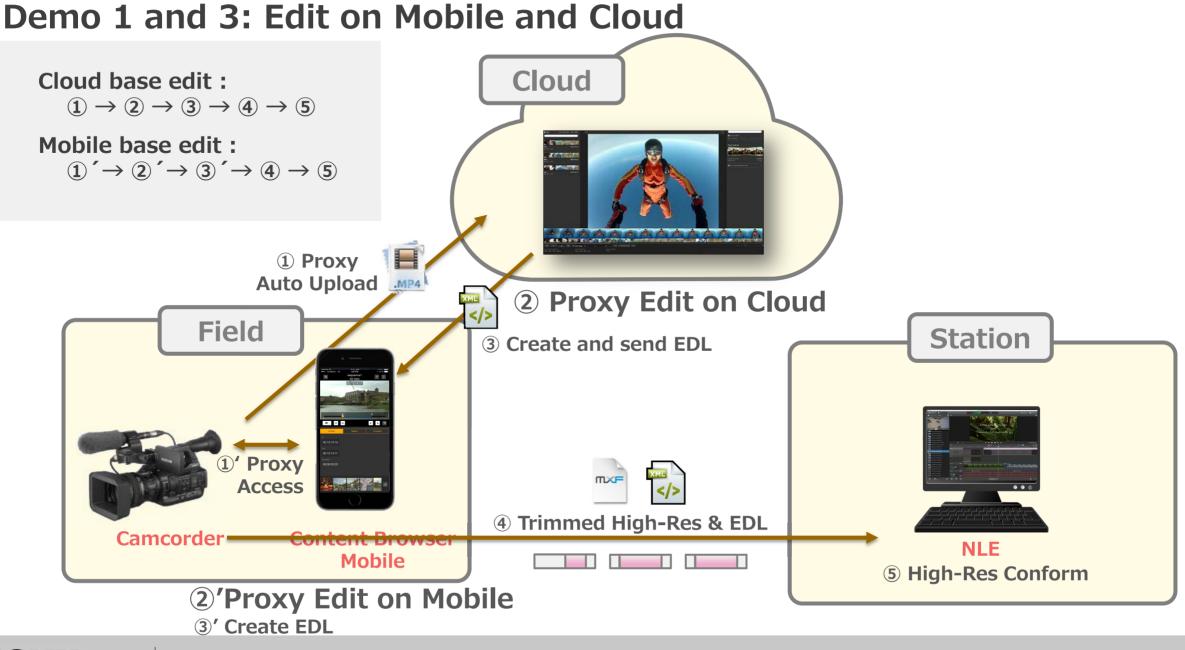
Product	PWS-100RX1
Target market	Broadcast, Local TV, Web, Newspapers & Magazines
Availability	July 2015
List price € (EU T2 pricing)	7.700€
Category	RBC



Packet Loss 10%

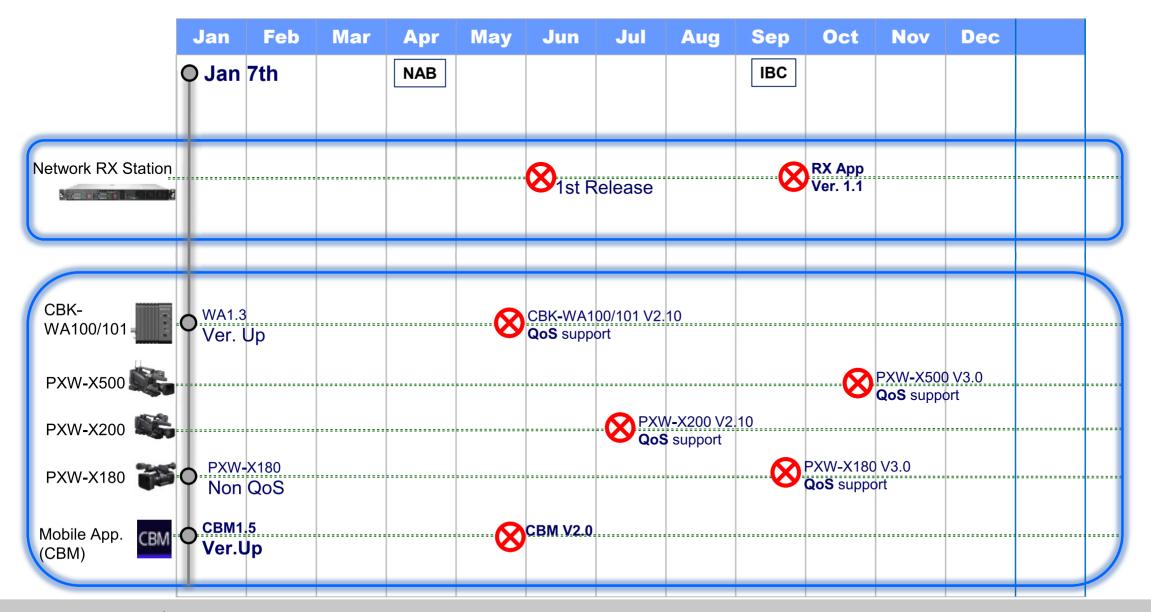
QoS OFF

Top features	Customer Benefits
<ul> <li>Single LAN, WLAN or 4G dongle operations</li> <li>Respects EU regulation radiation levels</li> </ul>	<ul> <li>Easy to attach to every camera in your fleet, new or old.</li> <li>Low-cost alternative to TVU, Live-U, bonding solutions, etc.</li> <li>Light and ergonomics: no backpack</li> </ul>
<ul> <li>Enables Sony QoS technology, combining:</li> <li>ARQ: Automatic Repeat Request</li> <li>ARC: Adaptive Rate Control</li> <li>FEC: Forward Error Correction</li> </ul>	<ul> <li>Sony QoS = Sony <u>unique</u> technology</li> <li>High Picture (H264 codec) quality even in a challenged network bandwidth</li> <li>Demo video: <u>here</u></li> </ul>
<ul> <li>User Interface available: Display TX online/offline status Control streaming bitrate/latency</li> <li>1x user interface monitors up to 10 incoming streams /RX Station</li> <li>Multiple PWS-100RX1 can be connected to a master RX Station</li> </ul>	<ul> <li>User-friendly and easy to manage operation</li> <li>One man operation = single operator can control many streams from station</li> <li>(future roadmap): single operator will control transmitter parameters</li> </ul>
<ul> <li>Up to 2x stream outputs (2<sup>nd</sup> via optional license key)</li> <li>4x assignable SDI outputs per PWS-100RX1</li> </ul>	More flexibility in system integration and daily news operations



SONY 40 Beyond Definition - IBC 2015

## 2015 Roadmap



Product	Product PMW-PZ1		SONY 4K MARE NO. 4	
Target market	Cinematography, Broadcast, Corporate			
Availability	June 2015			
List price € (EU T2 pricing)	3300€			
Category	OMP			
Top features		Customer Benef	fits	
<ul> <li>Playback 4K and HD content from SXS memory card or from <u>SSD</u> external drive via USB:</li> <li>on the PMW-PZ1 itself (small display)</li> <li>output to a professional monitor or consumer TV</li> <li>output to digital signage or projectors</li> </ul>		<ul> <li>Save time - immediate playback and check of 4K content on location</li> <li>No need for content format rework before playback</li> <li>No need to use the camera as a player</li> </ul>		
Playback "Full 4K" @ 50/P60P " (4096 x 2160)		<ul> <li>Unique on the market – for accurate picture rendering</li> </ul>		
Copy content from SxS/XQD/SD cards directly to external drive (HDD, SSD)		<ul> <li>Easy Copy and Back up Process         <ul> <li>content back up without any other device needed</li> <li>Safe: verify function available before copying to avoid any copy error</li> </ul> </li> </ul>		
<ul> <li>Multi-format Capability in 4K and HD</li> <li>Playback a variety of formats including XAVC Intra, XAVC Long, XAVC S-Long*, MPEG HD422* and MPEG HD* (*Requires firmware upgrade, fall 2015)</li> <li>Inputs/outputs for easy connections, intuitive interface</li> <li>Various media: SxS, XQD/SD (with adapter) and external HDD/SSD Drive</li> </ul>		<ul> <li>Connectivity operation.</li> </ul>	and inter-operability with other devices to enable quick and easy	



## Alpha

Product	Alpha 7S (ILCE-7S Kits)
Target market	online video, freelancers, B-/C- cam
Availability	Now
List price € (EU T2 pricing)	€2,188 / €2,267 / €2,673
Category	ОМР



Top features	Customer Benefits
Ultra high sensitivity up to ISO 409600	<ul> <li>Ultra high sensitivity, nice for low-light shooting: Up to ISO 409600</li> <li>12MP Full Frame sensor with gorgeous shallow Depth of Field</li> <li>Fast Response: High-speed readout 3.5 times faster than α7R</li> </ul>
4K movie recording (external recorder required)	<ul> <li>World's first full-frame sensor capable of full pixel read-out without pixel binning</li> <li>4K (QFHD) HDMI video output while utilising the full width of the sensor</li> </ul>
XAVC S codec and other professional features	<ul> <li>XAVC S codec for internal recording</li> <li>Slog-2 gamma</li> </ul>
E-mount: almost ANY lens can be used via adaptor	<ul> <li>A short flange distance means almost any lens can be mounted on the A7S using an adaptor. A wide range of lenses from native E-mount to PL mount can be used to shoot on this camera</li> </ul>

Product	Alpha 7R Mark 2
Target market	online video, Corporate
Availability	ТВС
List price € (EU T2 pricing)	
Category	Only available in consumer category



NEW

Top features	Customer Benefits
World's First Back-Illuminated 35mm Full-Frame Sensor* * Among digital cameras with a full-frame image sensor. As of June 2015 press release, based on Sony research.	<ul> <li>High Resolution: 42.4 effective MP</li> <li>Gorgeous image with shallow Depth of Field</li> <li>High sensitivity, nice for low-light shooting: Up to ISO 102400*</li> <li>Fast Response: High-speed readout 3.5 times faster than α7R</li> </ul>
Fast Hybrid AF upgraded to 399 focal plane phase-detection AF points	• Highest number of phase-detection AF points at 399, and widest coverage of 45% of the image area, in the world: Up to 40% faster AF speed compared to $\alpha$ 7R
5-axis image stabilization optimized for 42.4 megapixels full- frame sensor	<ul> <li>Compatibility with wide-ranging mountable lenses.</li> <li>Compensation effect is equivalent to using a 4.5-step* faster shutter speed</li> </ul>
Internal 4K movie recording features full pixel readout without pixel binning	<ul> <li>Collects information from approx. 1.8x as many pixels as required for 4K movies</li> <li>The world's first** camera to offer 4K movie recording in full-frame format</li> </ul>
E-mount: almost ANY lens can be used via adaptor	<ul> <li>Users can save lots of money by re-using their lenses (typically EF) on this new camera</li> <li>Even Super16 mm lenses can be used without vignetting, via Center Scan Mode</li> </ul>

\*\* Among digital cameras with a full-frame image sensor. As of June 2015 press release, based on Sony research.

\* With expanded ISO range. Only for shooting still images.

### A7S vs A7RM2



	α7S	α7R II	
Sensor size	35mm Full Size Exmor CMOS	35mm Full Size Exmor R CMOS	
Gross pixels	12.4M	42.4M	
Lens mount	E Mount	E Mount	
ISO	<b>409600</b> (expanded)	102400 (expanded)	
Codec	XAVC S, AVCHD, MP4	XAVC S, AVCHD, MP4	
4K internal Rec	External	QFHD30P (100Mbps XAVC-S)	
FHD slow	(1280x720 120fps)	(1280x720 120fps)	
Full pixel readout (FF mode)	Yes	No	
Full pixel readout (S35 mode)	Yes	Yes	
Log	S-log 2	S-log 2	
In-body Image stabilization	No	5 axis	
HDMI output	Yes	Yes	
Rec Media	MS/SD card(1)	MS/SD card(1)	
EVF	OLED XGA(1024×768)	OLED XGA(1024×768)	
Weight	0.45kg	0.58kg	

Product	RX10M2
Target market	online video, freelancers, B-/C- cam
Availability	ТВС
Price €	€1,599 inc VAT (street price)
Category	Only available in consumer category



Top features	Customer Benefits
Internal 4K (QFHD) movie recording	<ul> <li>World's first 1-inch stacked CMOS back-illuminated sensor with DRAM made internal 4K recording with full pixel read-out without pixel binning (i.e. stunning image quality) possible. This small package is perfect when shooting in tight space, or as a walk- around B-cam.</li> </ul>
Super slow motion up to 1000fps	<ul> <li>World's first 1-inch stacked CMOS back-illuminated sensor with DRAM also made super slow motion recording possible in this small package. Slow motion Full HD quality is available at 240fps, and super slow motion up to 1000fps is also available at lower quality. This compact camera can be used as a special cam just for slow motion.</li> </ul>
24-200mm F2.8 Carl Zeiss lens	• With 24-200mm range at maximum fixed F2.8 throughout the zoom range, this camera is extremely versatile for a wide range of shooting situations.
S-log2 gamma	• S-log2 gamma made it possible to capture at maximum dynamic range and it is easier to grade together with footages from other cameras.

Product	RX100M4
Target market	online video, freelancers, B-/C- cam
Availability	ТВС
Price €	€1,149 inc VAT (street price)
Category	Only available in consumer category



Top features	Customer Benefits
Internal 4K (QFHD) movie recording	<ul> <li>World's first 1-inch stacked CMOS back-illuminated sensor with DRAM made internal 4K recording with full pixel read-out without pixel binning (i.e. stunning image quality) possible. This small package is perfect when shooting in tight space, or as a walk- around B-cam, or even on a gimbal.</li> </ul>
Super slow motion up to 1000fps	<ul> <li>World's first 1-inch stacked CMOS back-illuminated sensor with DRAM also made super slow motion recording possible in this small package. Slow motion Full HD quality is available at 240fps, and super slow motion up to 1000fps is also available at lower quality. This compact camera can be used as a special cam just for slow motion.</li> </ul>
S-log2 gamma	<ul> <li>S-log2 gamma made it possible to capture at maximum dynamic range and it is easier to grade together with footages from other cameras.</li> </ul>

Product	CLM-FHD5
Target market	online video, freelancers
Availability	NOW
Price €	€699 inc VAT (street price)
Category	Only available in consumer category



Top features	Customer Benefits
Compact 5″ Full-HD monitor	<ul> <li>Full HD resolution for crisp images, enabling precise focus check</li> </ul>
A wide range of shooting assistance functions	<ul> <li>3x or 6x magnification for focus check</li> <li>Peaking</li> <li>False color for checking exposure</li> <li>S-log display assist: To display S-log image with brightness and contrast close to regular shooting mode</li> </ul>
Various power source	<ul> <li>Takes a wide range of power source: AC-PW10AM, NP-FW50, NP-FM500H, NP-FV50, NP- FV70, NP-FV100A</li> </ul>



## HDR

## High Dynamic Range (HDR) .....

• HDR provides,

... Brighter highlights, deeper blacks, richer colours

## Why is HDR a hot subject at IBC?

First HDR movies and TV shows completed

First live broadcast trials completed

TVs with higher dynamic range are here

More life-like pictures

# Cameras are in widespread use

HDR



First post production workflows are here

Grading monitor is here

Standards for mastering and delivery are appearing

## Why are we so excited about HDR?

#### Sony's strength

More life-like pictures

#### CineAlta

Cameras are in widespread use

#### **Using Sony HDC-4300**

**Using CineAlta** 

First live broadcast trials completed

First HDR movies and

TV shows completed

#### Sony Bravia with X-tended Dynamic Range Pro™

TVs with higher dynamic range are here

HDR



First post production workflows are here

#### **BVM-X300**

Grading monitor is here

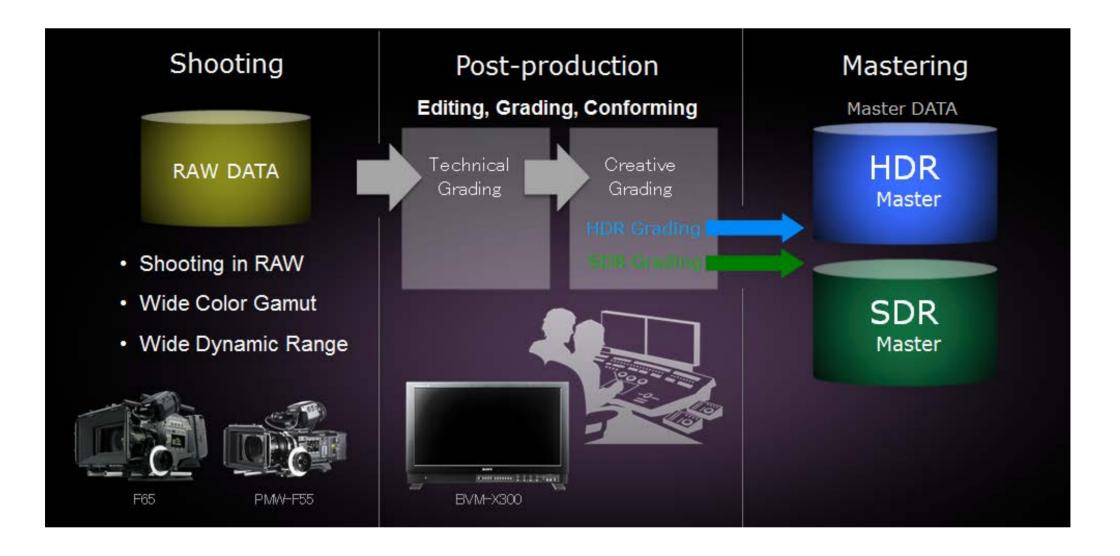
#### **Sony participation**

Standards for mastering and delivery are appearing

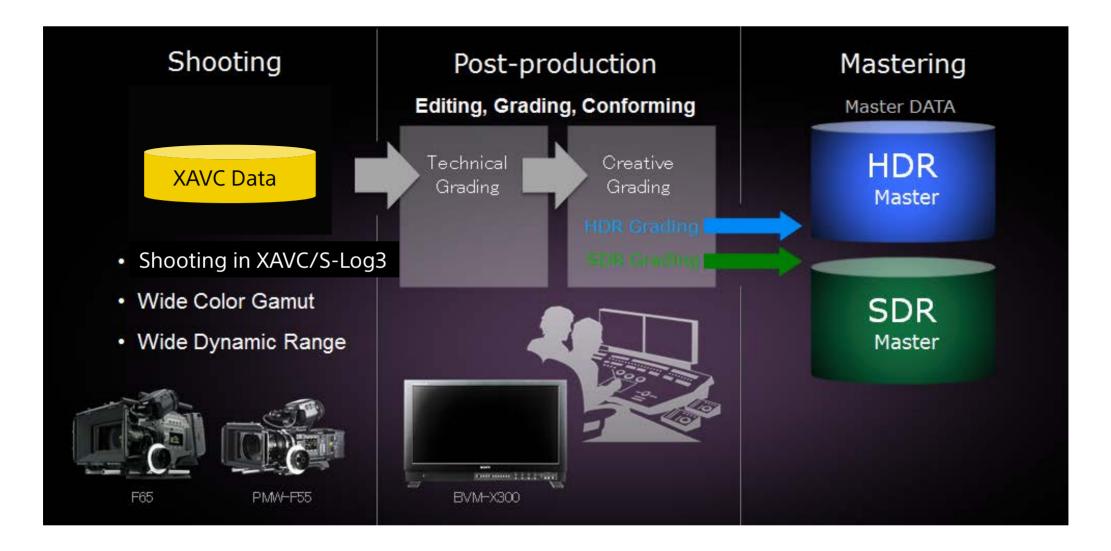
#### **Sony + Alliance Partners**

## HDR Production with Sony – Drama/Movies (RAW)

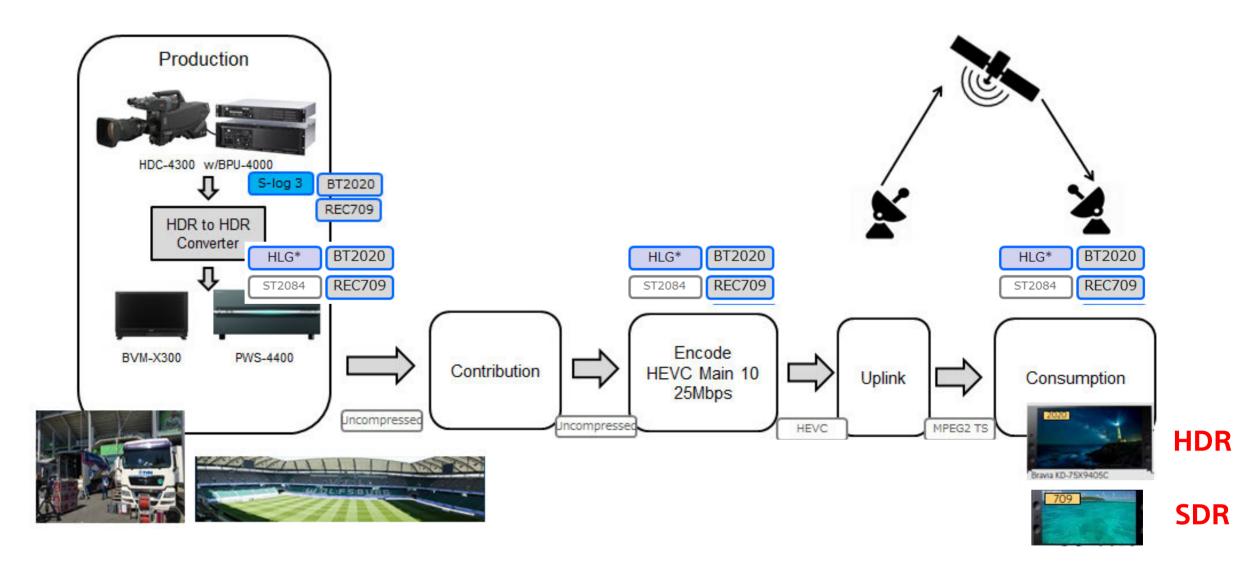
**On the Stand!** 



## HDR Production with Sony – Drama/Movies (XAVC) On the Stand!



## World's First: HDR Live Trial with Sky Germany



## Conclusions

- Sony's HDR production/post production tools support <u>end-to-end HDR production</u>
- We <u>support the choice</u> of EOTF ... ST 2084 and Hybrid Log-Gamma
- We recommend <u>XAVC/S-Log3</u> for <u>acquisition</u> and for the <u>Production Master</u> (or <u>16-bit RAW</u>, then convert to <u>XAVC/S-Log3</u> as the <u>Production Master</u>)
  - And customer then chooses ST 2084 or HLG for the HDR Master
- For live, use <u>S-Log3</u> in the camera. We will provide real time HDR to HDR conversion.
- <u>Hybrid Log-Gamma</u> is a straightforward solution for those working in live and has an advantage of good backwards compatibility with SDR displays.



## **F-Series Cameras**

Product	PMW-F5/55 + CBK-55BK	
Target market	Cinematographers, Rental Companies & Broadcast Stations	
Availability	now	
List price € (EU T2 pricing)	PMW-F5/CBK-55BK List Price EU: 17,500	PMW-F55/CBK-55BK List Price EU: 31,000
Category	RBC	



Top features	Customer Benefits
All F5/55 features are still usable	<ul> <li>By using the CBK-55BK NO feature/ function will be dropped. Even RAW recording is still available</li> <li>Keeps the flexibility of the F5/55 and combines this with the well known usability of a traditional shoulder camcorder</li> </ul>
Unique dock and sliding mechanism	<ul> <li>By just 3 steps the F5/55 can be attached to the CBK-55BK to become a solid and proper shoulder camcorder</li> <li>The shoulder support and the movable function block provides best shoulder balance support and keep the easy access to the most important functions</li> </ul>
Easy & Fast access to most needed function	<ul> <li>Important functions like AWB, Rec, Assign Buttons, Gain to get same usability as traditional 2/3" Camcorder</li> </ul>
Support for Wireless Audio Receiver	<ul> <li>Direct usage of Sony's Wireless Audio receiver with Full control via the Camera Menu</li> <li>Easy Access to Audio section as it is at traditional 2/3" Shoulder Camcorders</li> </ul>

Product	PMW-F5/55 Firmware Ver 7.0
Target market	Digital Cinematography, Rental Companies, DoPs and Broadcast Stations
Availability	January 2016
List price € (EU T2 pricing)	FOC via pro.sony.eu
Category	RBC



Top features	Customer Benefits
Quick Menu	<ul> <li>Fast Access to most important menu functions via Subpanel display</li> <li>Camera Assistant or Cameramen can operate the camera much faster like they are doing with other cinematography cameras</li> <li>Most important functions will get quick access via 6 dedicated pages</li> </ul>
XAVC 4K/QFHD (50p/60p) + MPEG50(50i/60i) Simul. Recording*	<ul> <li>Keep the 4K/QFHD recording for future usage and use the MPEG50 directly today. Ideal solution for broadcast stations, etc who are producing HD content today in MPEG50 (50i/60i)</li> </ul>
BT.R2020 colour space in Custom mode	<ul> <li>New standardized colour space for broadcast UHD productions</li> <li>No conversion from S-Gamut needed if the final production should be for TV playback</li> </ul>

Update

Product	PMW-F5/55 Firmware Ver 7.0
Target market	Digital Cinematography, Rental Companies, DoPs and Broadcast Stations
Availability	January 2016
List price € (EU T2 pricing)	free of charge via pro.sony.eu
Category	RBC



Update



Monit	toring	MLUT	
	S-Gam	ut3.Cine/SL	.og3
	SxS XA	AVC HD P	
4K	MPEG2	2 Proxy	Off
Over 60FPS 2K Center			
View	finder	Others	6
	4K enter	SxS XA 4K MPEG2	S-Gamut3.Cine/SL SxS XAVC HD P 4K MPEG2 Proxy enter

GUI image "Project page"

Access via "Option" Key

Product	F65 incl. CBK-65EL
Target market	Digital Cinematography, Rental Companies, DoPs
Availability	now
List price € (EU T2 pricing)	
Category	RBC



Top features	Customer Benefits
20MP, 8K CMOS Sensor combined with a Mechanical Shutter and built in ND filter	<ul> <li>Superb picture quality and best skintone reproduction</li> <li>No Rolling Shutter artefacts</li> <li>Widest colour gamut for capturing colours even wider than Rec.2020</li> </ul>
16bit RAW Recording supporting 120fps in 4K resolution	<ul> <li>RAW SQ recording on SR Memory which can be debayered up to 8K resolution with new SRDM solution</li> <li>Highest recording resolution, dynamic range and colour space for perfect HDR Productions</li> <li>Slow Motion up to 60fps in 8K and up to 120fps in 4K resolution</li> </ul>
Enhanced LUT Management, Support of ACES Proxy Workflow and ASC-CDL Support	<ul> <li>Different LUT's for each Output. For example: DP can see a different LUT compared to Director, etc</li> </ul>
Control via iPad F65 Remote application	Full F65 control via iPad including Live View and Colour processing



## **Monitors**

### **Key Products Message**

**BVM-X300** - The ultimate 4K reference monitor & future proof with HDR

• No real competition, unique sales opportunities !!

**PVM/LMD-A series** - User friendly and consistent line-up with OLED/LCD

- Customer's choice between Quality vs Price.
- Unique user features set with v1.1

### Auto White adjustment software - Easy to use, peace of mind

- Common with all Sony monitors\*
- Compatible with 10 vendors colour probes

\* Except entry level LMD 10 series

Product	BVM-X300 TRIMASTER EL™ 30-inch 4K OLED reference monitor	
Target market	Post production, Onset cinema, live production,	
Availability	Now	
List price € (EU T2 pricing)	€ 30,000	
Category	RBC	





Top features	Advantages	Benefits
Most advanced 4K OLED monitor for critical reference monitoring	Sony OLED panel exclusively made for professionals with TRIMASTER EL engine ensuring the ultimate picture performance and consistency.	Ultimate picture performance: - Quality, consistency, stability, repeatability
Full 4K (4096x2160) resolution 2K/HD format supported	Can display both Ultra HD and 4K resolution in native mode. Display 2K/Full HD resolution full screen on the 4K panel.	Wide scope of applications
Wide colour space reproduction	DCI-P3 compliant_S-GAMUT3 cine and S-GAMUT3	Support Cinema and Broadcast content creation
High Dynamic Range mode	2.4(HDR), S-log2, S-log3, SMPTE ST.2084	Enhance creativity for content creators. More natural images in the highlights.

Product		70 TRIMASTER EL™ _ED picture monitor		ľ
Target market	Live production, po Broadcast and B&I	ost production, Onset cinema, Field,	PROPER	
Availability	Available			
List price € (EU T2 pricing)	PVM-A250: €4,850 PVM-A170: €3,535		sor	vy Danis obstana Janis
Category	RAV			
Top features		Advantages		Benefits
Compact design		Lighter, smaller and slim 40% weight versus previous line-up		Lightweight, co
Optimized low video-latency		Less than 0.5 field !!		Maintain audic system enviror
Input versatility		3G-SDI (x2) I/O, HDMI (x1), composite (x1).		Most common
Waveform, Vector Scope and Audio level meter		Vector scope, line and field waveform with zoom function and 8 audio channel display.		Convenient for of signal.
Camera focus function		Colour edges to help camera focus operation.		Fast camera F
Optional protection kit and Yoke-Mount capability (LMD-A170)		Glass and corner protections. Screw holes for Yoke mounting.		Safer usage a User convenie
Additional +20 features with V1.10		New added features such as: Camera metadata, 2K display, Dual-Link mode, User Preset, Password protection, AWB adjustment, Picture & Picture display modes, etc.		Variety of new production, Po infrastructure
Other features		Assignable function keys, Time code display, C Aspect ratio & safety area markers, serial and DC power operation		High degree o

### TRIMASTER EL



Top features	Advantages	Benefits
Compact design	Lighter, smaller and slim 40% weight versus previous line-up	Lightweight, compact and robust – Cost savings!
Optimized low video-latency	Less than 0.5 field !!	Maintain audio lip sync. Minimise video delay in system environment.
Input versatility	3G-SDI (x2) I/O, HDMI (x1), composite (x1).	Most common video inputs and formats.
Waveform, Vector Scope and Audio level meter	Vector scope, line and field waveform with zoom function and 8 audio channel display.	Convenient for field monitoring and quick analysis of signal.
Camera focus function	Colour edges to help camera focus operation.	Fast camera Focus adjustment
Optional protection kit and Yoke-Mount capability (LMD-A170)	Glass and corner protections. Screw holes for Yoke mounting.	Safer usage against scratches and impact. User convenience for OnSet cinema applications.
Additional +20 features with V1.10	New added features such as: Camera metadata, 2K display, Dual-Link mode, User Preset, Password protection, AWB adjustment, Picture & Picture display modes, etc.	Variety of new features dedicated for OnSet, Live production, Post production and large system infrastructure
Other features	Assignable function keys, Time code display, On screen Tally, Aspect ratio & safety area markers, serial and parallel remote, DC power operation	High degree of flexibility for user operation.

Product	LMD-A240/A2 High grade LC	20/A170 CD picture monitor			
Target market	Live production post production Onset cinema Field				
Availability	Available				
List price € (EU T2 pricing)	LMD-A240: €3,290 LMD-A220: €2,970		SONY	SONY SONY CARD SONY	
Category	OMP				
Top features		Advantages		Benefits	
Compact design		Lighter, smaller and slim 40% weight vers	us previous line-up	Lightweight, compact and robust – Cost savings!	
Optimized low vid	leo-latency	Less than 0.5 field !!		Maintain audio lip sync. Minimise video delay in system environment.	
Input versatility		3G-SDI (x2) I/O, HDMI (x1), composite (x1)		Most common video inputs and formats.	
Waveform, Vector level meter	r Scope and Audio	Vector scope, line and field waveform with z audio channel display.	oom function and 8	Convenient for field monitoring and quick analysis of signal.	
Camera focus fun	nction	Colour edges to help camera focus operation	n.	Fast camera Focus adjustment	
Optional protectio capability (LMD-A	n kit and Yoke-Mount (170)	Glass and corner protections. Screw holes for Yoke mounting.		Safer usage against scratches and impact. User convenience for OnSet cinema applications.	
Additional +20 features with V1.10		New added features such as: Camera metadata, 2K display, Dual-Link mode, User Preset, Password protection, AWB adjustment, Picture & Picture display modes, etc.		Variety of new features dedicated for OnSet, Live production, Post production and large system infrastructure	
Other features		Assignable function keys, Dynamic IMD, Tir screen Tally, Aspect ratio & safety area mar parallel remote, DC power operation		High degree of flexibility for user operation.	



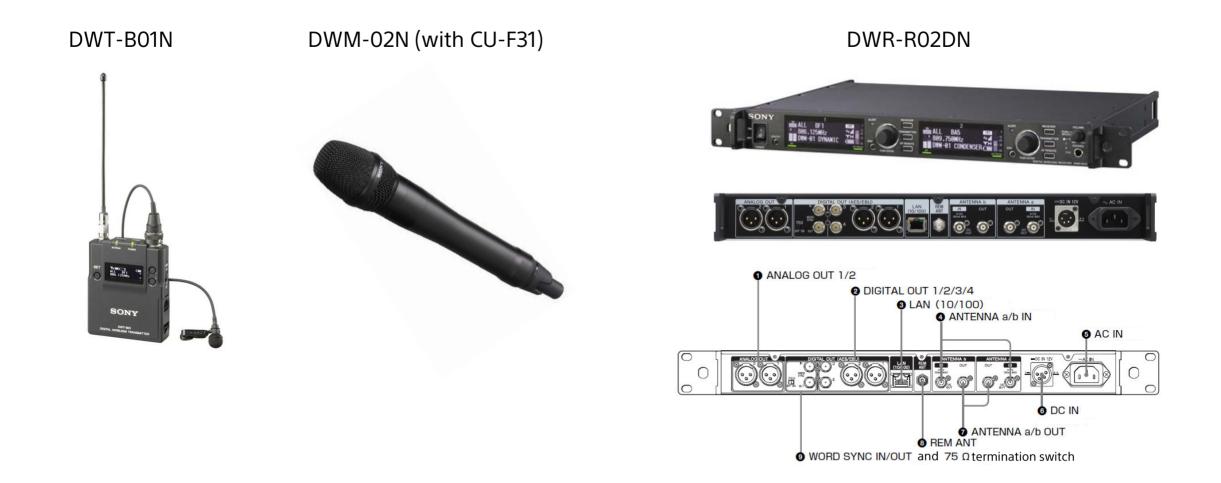
## Audio

Product	DWX N Series
Target market	Fixed installation, studio & touring sound
Availability	October 2015 (Target)
List price € (EU T2 pricing)	Model dependant
Category	ΟΑΡ



Top features	Customer Benefits
Shorter audio latency	The new system provides higher quality sound with a 96kHz sampling rate A/D converter and very low audio latency of 1.5 msec (analog out) / 2.5 msec (digital out).
High Quality Sound	High-quality 24-bit digital audio in a specific frequency bandwidth. Utilising the Sony original codec the system delivers a wide dynamic range of more than 106 dB, a wide frequency response of 20 Hz to 22kHz, and an excellent transient response.
More reliable RF transmission	Highly stable wireless transmission that is extremely tolerant to unwanted interference. The system transmits and receives digitally modulated and encrypted data to minimize the risk of interception, providing highly secure transmission and reception.
Wideband receiver	The new receiver operates with a wide bandwidth from 470 MHz to 710 MHz*. This frequency range covers 34 countries in Europe and also frequency ranges worldwide.
Wireless Studio 4.2	Allows you to monitor and control the digital wireless system via a network. The system can be accessed from up to six computers and allows you to set-up and initialise installation with up to 82 channels

### Updated models...



## **Wireless Studio 4.2 features**

- Device monitoring
- Channel plan advisor for easy set-up of a mixed system
- Status recorder to control RF strength
- Error logging function
- Device control function
- Recalling stored settings and monitoring information
- Pairing-assist function
- Save and analyse functions for signal environment timelines
- Spectrum Analyser
- Group control setting function

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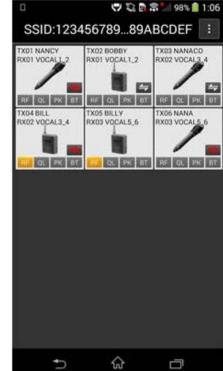


### **Wireless Studio Mobile**

Wireless Studio Mobile is an application that allows you to monitor or operate DWX series\* via a Wi-Fi router on your smartphone or tablet.

The app is now available on iOS or Android platform.\*\*





\*Compatible models: DWR-R01D, DWR-R02D and DWR-R02DN

\*\*Wireless Studio Mobile supported OS: iOS Ver.8.0 or later and Android Ver.4.1 or later. Operation is not guaranteed on all smartphones.

Product	UWP-D Series		
Target market	ENG, Corporate, Broadcast, Rental		
Availability	Now		
List price € (EU T2 pricing)	UWP-D11 €625	UWP-D12 €625	UWP-D16 €809
Category	OAP		



Top features	Customer Benefits
Three packs available	UWP-D11 : Belt-pack transmitter pack UWP-D12 : Handheld microphone pack UWP-D16 : Belt-pack & Plug-on transmitter pack
Up to 72MHz bandwidth per channel	33 TV channels across Europe, with 2880 individual channels to select from
Clear channel scan	Detects next free and available wireless transmission channel
Infra-red synchronisation	Transmitter (belt-pack, hand-held or plug-on) syncs to receiver over IR the chosen transmission channel
True diversity receiver	Two receiver sections and a comparison circuit constantly pulls the one with the best signal to give drop-out free transmission
Micro USB powering	Remote powering if needed and charging possible when using rechargeable batteries

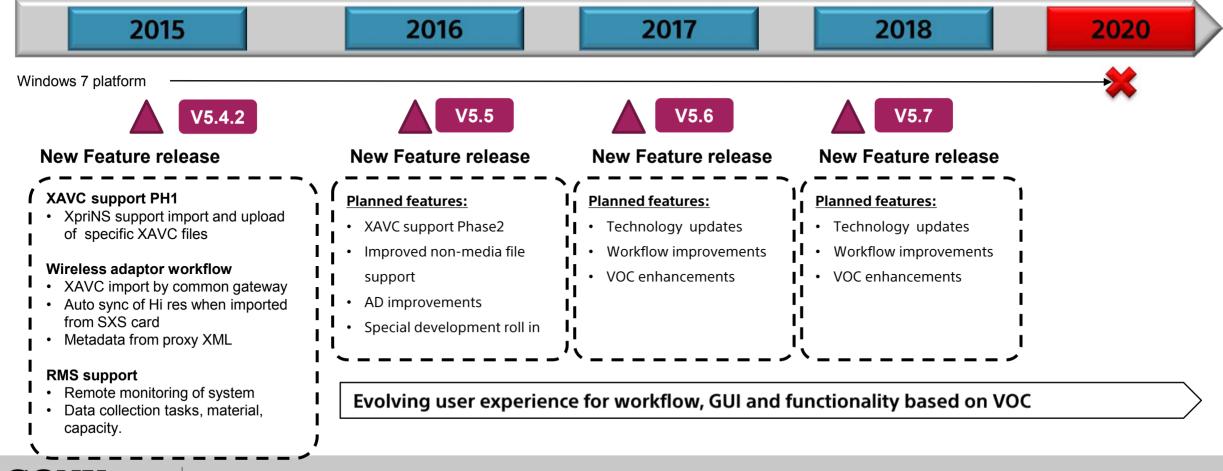


### Sonaps

### More good news... we can be confident in the years ahead

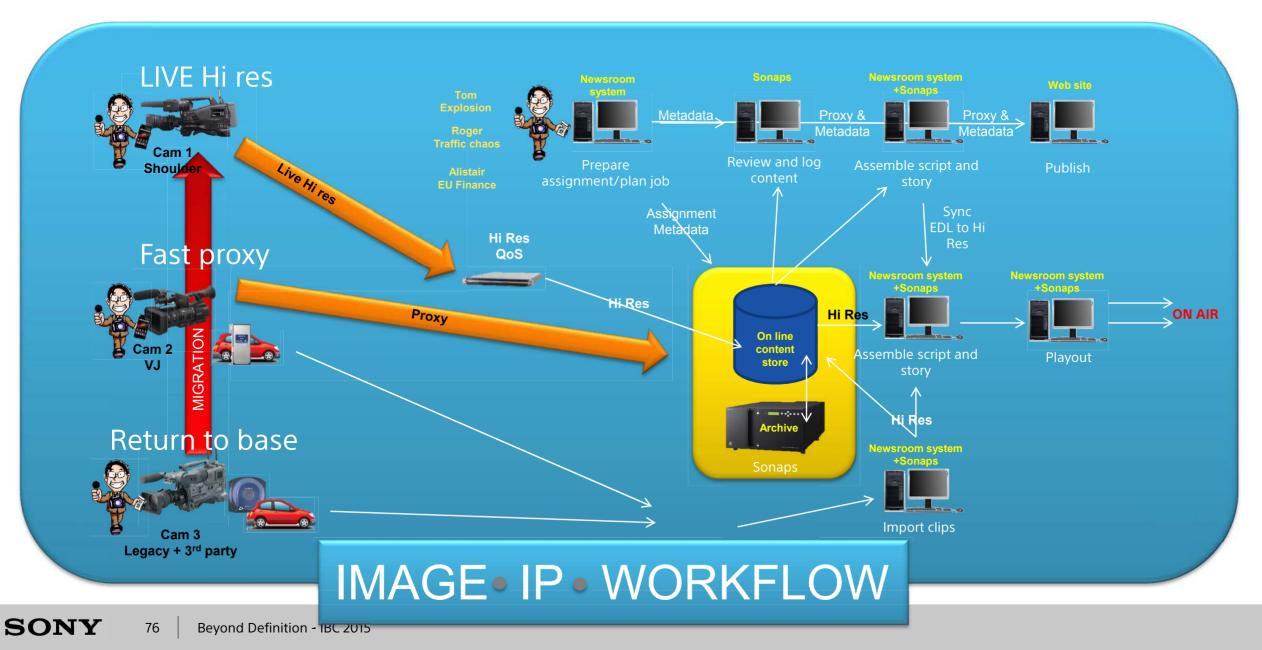
New Sonaps releases are planned in FY16 and FY17 with support to 2020.

There is a clear roadmap for V5.5, V5.6 and V5.7.



SONY 75 Beyond Definition - IBC 2015

#### IBC Booth demo – it's all about the workflow





## **ODA and Navigator**

#### **ODA Key Message – Its SOOOOO much more affordable**



Real World Library = €44k list → €27.8k List L30M + 2x D77F + 30x 1.5TB Media

### And with the new Media Navigator Clients can get a fully blown Content Management Layer for 2.5K, saving 000's as you don't always need an HSM

# **Optical Disk Archive (ODA)**

Solution	ODA drives and Libraries
Target market	Broadcasters / Post and Production / National Video Archives/ Production Companies
Availability	Shipping, Drive from 6k Libraries from 20k



Key Messages	Customer benefits	Key Points
<ul> <li>Optical Disk Based Storage Format</li> <li>Highly robust with Long life span of 50 years</li> <li>Target Markets include</li> <li>Disaster Recovery as ODA is 2<sup>nd</sup> Technology source,</li> <li>Mastering Workflows (Replacing HDCAM SR)</li> <li>Nearline Archives as we are "Faster than LTO, Cheaper than HD"</li> <li>New aggressive Media pricing (75% cheaper than 1.5 years ago)</li> </ul>	<ul> <li>Long backward compatibility - No forced Migration costs like LTO</li> <li>Drives are Easy to handle, Plug and Play and Copy just like a Hard disk</li> <li>Content can be viewed directly off Disks , no need for time consuming restore like LTO</li> <li>Despite "Theoretical" Performance advantage of LTO we can restore a 1 Hour HD programme faster than LTO</li> </ul>	<ul> <li>Non Contact storage format unlike LTO</li> <li>Excellent Random Access times compared to LTO</li> <li>Wide range of Middleware (HSM) partners support our hardware</li> <li>Good interoperability between Library and Drive, you can just remove a cartridge from a library and read the data directly in a drive.</li> <li>Much more robust compared to Hard drives</li> <li>Consumes far less energy compared to Raid solutions</li> </ul>

# Tape Digitising Server (TDS)

Solution	Tape Digitizing Server
Target market	All Content Owners with Large Library of Video tapes/
Availability + Price	Shipping , From 16k Euro List



Key Messages	Customer benefits	Key Points
<ul> <li>Turnkey Tape Ingest appliance</li> <li>Direct Integration with ODA or Networked Storage</li> <li>Has Built in QC</li> <li>New SR Option at IBC 2015</li> </ul>	<ul> <li>One-Box, Plug&amp;Play, Simple to use solution</li> <li>Up to 4 Ports can be controlled separately and at the same time to enable maximum throughput and efficiency</li> <li>Direct Integration to ODA Drives - Making it simple and cheap to create and Manage a Digital Archive</li> <li>Quality Checking functionality to ensure client digitizes tapes in the best condition</li> <li>Multi codec support - XAVC, MPEG2 HD422/420, IMX30/40/50, (SSTP, ProRes and Avid DNX are on Roadmap)</li> <li>SR Native support (Previewed at IBC 2015)</li> </ul>	<ul> <li>PWS - TD100</li> <li>Flexible operation: 2IN/2OUT, 3IN/1OUT, 4IN/0OUT</li> <li>On-board storage 150 hours at XDCAM50 (5TB)</li> <li>Direct connection to ODA Drives</li> <li>Concurrent Proxy generation</li> <li>Flexible digitization workflow configuration</li> <li>PWS- TD300</li> </ul>

**Media Navigator Key Message** 

### This really is a **MAM for every MAN** This is a Ground breaking Product **Price/Performance is unrivalled** Built on a proven Platform **this is not V1** This is from a **Major Manufacturer** This is part of Sony's Overall shift towards **more Solutions Business**

# "Navigator" – MiniMAM

Solution	Entry Level MAM
Target market	One Man Productions/Regional Broadcasters/Post Production Houses
Availability	Sept 2015 (IBC)



Key Messages	Customer benefits	Key Points
<ul> <li>Entry Level MAM Solution</li> <li>Pricing from 2.5k Euro</li> <li>Based on Same GUI as MBC "Navigator"</li> <li>SD, HD and 4k Resolutions supported</li> <li>Targeting 1 man production teams, small workgroups in Broadcasters</li> <li>Other segments including Corporates, High end education</li> </ul>	<ul> <li>Low cost but Fully Featured MAM</li> <li>Scalable from 1 to 50 users</li> <li>End to End Workflow</li> <li>Software and Turnkey Solutions Provided</li> <li>Excellent Workflow Flexibility with Customisable "Media Agent"</li> <li>Proven Platform (Built from MBC Navigator)</li> </ul>	<ul> <li>Good integration with NLEs inc Avid, Apple, Adobe</li> <li>Supports Wide Rage of Formats and File Types including NON Sony Formats</li> <li>"Mac and PC support</li> <li>Scalability depends on Server and Storage Performance</li> <li>Built in Transcoding Engine (FFMPEG Library)</li> <li>Tight integration with ODA for Archiving</li> <li>No need for Expensive HSM software for ODA Library</li> <li>Ci" Integration for Review and Approve Workflows</li> </ul>



## **Recording Media**

Product	HDD RAID drives (dual 3.5 inch HDD) 4TB/6TB
Target market	Film (4K users, mainly PH/PPH) / Photo / Music
Availability	Nov 2015
List price € (EU T2 pricing)	ТВС
Category	RME



NEW

Top features	Customer Benefits
Efficient video data transfer in the field	<ul> <li>Ease of transport (built in handle)</li> <li>Quality, reliability in addition to high speed/large capacity</li> </ul>
Available in <b>4TB &amp; 6TB</b>	<ul> <li>Dual I/F : 1x USB 3.0 port, 2x TBT2 ports</li> <li>RAID : RAID 0 (Striping), RAID 1 (Mirroring) , JBOD</li> <li>Shock resistance thanks to built-in dampers</li> <li>Tri-products solution : with SxS card, US30, UT100</li> </ul>
High Transfer speed <b>up to 440 MB/s in Raid 0 mode</b>	<ul> <li>High transfer speed optimises workflow efficiency, allowing filmmakers to quickly store large, data-intensive 4K video files.</li> <li>Approx. 50 minutes to transfer a 1 TB file</li> </ul>
Customer Service	<ul> <li>3 years warranty</li> <li>File rescue &amp; analysis report upon request</li> </ul>

Product	SxS PRO+ 256GB
Target market	Production, Cinema
Availability	Oct 2015
List price € (EU T2 pricing)	Approx. 1700€ (TBC)
Category	RME



Top features	Customer Benefits
Highly durable media with excellent reputation => worldwide sales over 400,000 units	<ul> <li>Total confidence</li> <li>strength, quality and reliability</li> </ul>
New capacity of <b>256GB</b>	<ul> <li>Up to 480 minutes of MPEG 422 30p (50Mbps)</li> <li>Up to 40 minutes of XAVC 4K 60P (600Mbps)</li> </ul>
High transfer speed <b>up to 3.5Gbps (440MB/s)</b>	<ul> <li>High transfer speed optimises workflow efficiency, allowing filmmakers to quickly share large, data-intensive 4K video files.</li> </ul>
exFAT pre-formatted	Quick start-up with PMW-F55 or F5

Product	SBAC-UT100, ultra-fast SxS card reader	
Target market	Broadcasters, Production companies, freelancers	
Availability	now	
List price € (EU T2 pricing)	607 euros	



Top features	Customer Benefits
<ul> <li>Thunderbolt 2 for Mac &amp; USB3.0 for Mac/Win</li> <li>Daisy chain connection up to 6 units (12 SxS cards!)</li> <li>DC Power input required</li> <li>High-speed ingest: 400 MB/s</li> <li>Ingest a 30 min MPEG2 HD422 50Mbps file in 28sec</li> <li>Ingest a 32GB SxS-1 in 1min 20sec</li> </ul>	<ul> <li>✓ Ultra-fast ingest</li> <li>✓ Light and compact</li> <li>✓ Flexibility of interfaces</li> </ul>

Product	MMU (Memory Management Utility)
Target market	Broadcasters, Production companies, freelancers
Availability	now
List price € (EU T2 pricing)	FOC

Drive	SONY	Back Up Format	
Comment RewrItil	Series Sx5 PRO+ Model Name SBP-128B Free space 133.3 GB Latest Media Info. 10/31/2104 C Registered date 10/31/2104 C File system UDF Available Rec. Time 267 min Rec. Mode H0422LSOML Rewriting Life 100%	1     Image: Constraint of the second s	Browse Browse e. Start
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Top features	Customer Benefits
<ul> <li>Media Management tool for SxS cards:</li> <li>Simultaneous content back-up to three destinations</li> <li>SxS Memory Card information display</li> <li>Media Formatting</li> <li>SxS Memory Card Library</li> </ul>	$\checkmark$ Easy platform to manage SxS usage and content.



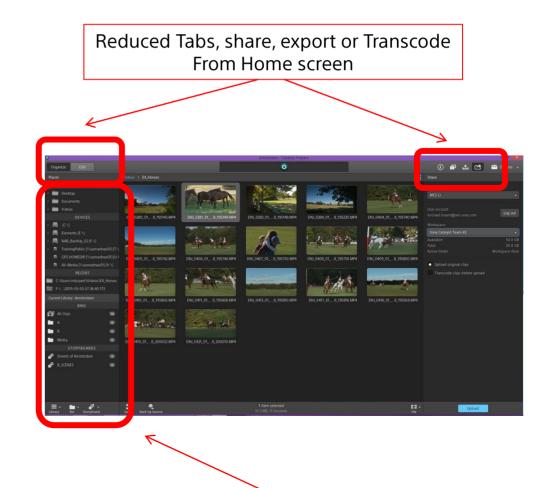
## **Catalyst and Ci**

### Catalyst – What's New

- Announcing new up-dates
  - Catalyst Prepare

Catalyst Production Suite

- Catalyst Edit
- Improved UI based on VOC feedback
  - No import needed to transcode clips
  - Export EDL to Adobe, Avid & FCP
  - Tree view of clips like Windows Explorer
- Integration Media Navigator & Ci
- Subscription pricing model
- User studies & Examples Sport and in-field productions



Tree View

### Selling Ci: Give just enough information

- **Sony is leading** the cloud workflow revolution
- We ingest, transcode, store and distribute at scale
- We've ingested **100,000's of hours** of content
- We **power linear broadcast** workflows
- Stop building expensive infrastructures Sony built a massively scalable media platform that you can pay for as you need it
- Our Solutions team would love to help you extend your operations with the power and scalability of Ci

Product	Sony Ci Workspaces
Target market	Broadcast – News Field Personnel
Availability	Now
List price € (EU T2 pricing)	€ 1,000/per month base price
Category	REMOTE CAPTURE / FROM FIELD TO FACILITY



Top features	Customer Benefits
Target Customer: News Field ReportersExample Customer: Weather Channel, WSVN, WHDH, ITN Productions, Yahoo Productions	<ul> <li>Benefits:</li> <li>1. Cheaper than Satellite</li> <li>2. Faster than driving back to station</li> <li>3. Enables more field reporters to be working without OB Trucks</li> </ul>
What: Upload field segments from anywhere, download into station/studio	What does it replace: Physical delivery, Satellite delivery
<ul> <li>How:</li> <li>1. Shoot on location</li> <li>2. (Optional: Edit on location)</li> <li>3. Upload to Ci</li> <li>4. Station auto-notified of uploaded content</li> <li>5. Download files at the station</li> </ul>	<b>Upcoming Improvements:</b> Edit-Ready Proxies – Ci auto-creates proxies in station's edit format. Saves time and money! Ready sometime in Q2.

Product	Sony Ci Workspaces	
Target market	Any Video Production	
Availability	Now	
List price € (EU T2 pricing)	€ 1,000/per month base price	
Category	REMOTE COLLABORATION	



Top features	Customer Benefits
Target Customer: Any video productionExample Customer: BBC Comedy, Raycom Media, Tennis Channel, Weather Channel, ITN Productions, Yahoo Productions, Crackle Productions, Bacon Productions	<ul> <li>Benefits:</li> <li>1. Cheaper and easier than Satellite or FedEx</li> <li>2. Eliminates geographic constraints</li> <li>3. Fast turnaround on feedback</li> </ul>
What: Upload footage, Review and comment online, Import time code based comments into NLE.	What does it replace: Expensive dailies solutions for simple requirements, consumer grade dropbox experience
<ul> <li>How:</li> <li>1. Shoot on location</li> <li>2. Upload to Ci</li> <li>3. Create VideoReview Session</li> <li>4. Import comments to NLE in post</li> </ul>	Upcoming Improvements: TBD – add audio track to video review session

Product	Sony Ci Workspaces		INPROUTD THE
Target market	market Stations, Creative Marketing groups, Studios, Ad Agencies		ALL
Availability	Now		
List price € (EU T2 pricing)	€ 1,000/per month base price		
Category	CENTRAL REPOSITORY & SIMPLE DISTRIBUTION FOR COMMON FILES		
Top features		Customer Benefi	ts
Target Customers: Stations, Creative Marketing groups, Studios, Ad AgenciesExample Customers: PMM, SCA, SPE (Multiple Departments), ITN Productions, Yahoo Productions		<ol> <li>Faster than ship</li> <li>Faster, more re</li> </ol>	asier than Satellite oping physical media iable than FTP ndant long term storage at each location
What: Upload promos, episodes, graphics, etc. share between stations/regions/departments/customers/vendors/etc.		What does it replace Expensive/Isolated/	ce: More complex DAM solutions
	tified and download m MediaBoxes	Upcoming Improve Improved search ca	

Product	Sony Ci Workspaces	
Target market	Education/Universities, Film Festivals	
Availability	Now	
List price € (EU T2 pricing)	€ 1,000/per month base price to K's of € per month	
Category	CLASSROOM REVIEW/CONTENT SUBMISSION	



Top features	Customer Benefits
<b>Target Customers:</b> Education/Universities, Film Festivals	<ul> <li>Benefits:</li> <li>1. Simple, convenient way to provide accurate time code based feedback to students.</li> </ul>
<b>Example Customers:</b> Full Sail, USC, Locarno Film Festival	2. Students can easily participate in the conversation
What: Upload professional video submissions to secure/private location, Review online with interactive communication	What does it replace: Physical delivery, dropbox, watching video out of band and providing disjointed notes via unstructured email/phone.
<ul> <li>How:</li> <li>1. Upload student videos</li> <li>2. Professor uses VideoReview to provide timecode based feedback</li> </ul>	<b>Upcoming Improvements:</b> Considering SAML integration for Single Sign-On and integration to existing user authentication/authorization

Product	Sony Ci Platform
Target market	Station Groups
Availability	Now; depending on integration needs & partners
List price € (EU T2 pricing)	€ 1,000/per month base price to K's of € per month
Category	CLASSROOM REVIEW/CONTENT SUBMISSION



Top features	Customer Benefits
Target Customers: Station GroupsExample Customers: PMM, Gannett PoC	<ul> <li>Benefits:</li> <li>1. Integration to streamline existing workflows</li> <li>2. Provides a Centralized Ingest Point</li> <li>3. Offers normalization &amp; transcode to fit into workflows</li> <li>4. Allows for distribution out to Station Nodes, which utilizing visibility of content at the Workspace level</li> </ul>
What: Central ingest point, normalization and distribution	What does it replace: Plugging together combinations of workflow orchestration, manual activities, and centralization of content visibility for access by distributed station nodes.
<ul> <li>How:</li> <li>1. Initial Station Node Preps Content</li> <li>2. Station uploads content to Ci, programmatic</li> <li>3. Other Station Nodes notified of new content</li> <li>4. Stations review content, select what they want</li> <li>5. Content downloaded, programmatically</li> <li>6. Schedule content</li> </ul>	Upcoming Improvements: Depends on the opportunities and types of workflow integration

Product	Sony Ci Platform
Target market	Anyone with Large Media Applications
Availability	Now
List price € (EU T2 pricing)	€ 1,000/per month base price to K's of € per month
Category	DAM Portal & Offsite Cloud Archive



Top features	Customer Benefits
Target Customers: Anyone with Large Media ApplicationsExample Customers: Sony Pictures Runner, Sony Pictures Cineshare	<ul> <li>Benefits:</li> <li>1. Scalable ingest &amp; storage with existing or new applications</li> <li>2. Ability to have proxies, leverage related elements to source files</li> <li>3. Can manage the visibility of content in own apps/portals, while getting a scalable architecture</li> <li>4. Leverage long-term archival storage for reduced costs &amp; greater availability</li> </ul>
What: Central ingest point, normalization and distribution	What does it replace: No longer a need for storage to be contained to local servers or data centers; Can utilize a scalable architecture, while focusing delivering to internal requirements and reduce costly storage options.
<ul> <li>How:</li> <li>1. Utilize Ci REST APIs for asset registration</li> <li>2. Upload from Aspera Node to Aspera Node</li> <li>3. Use Ci generated proxies for playback</li> <li>4. Build app/portal to internal specification</li> </ul>	Upcoming Improvements: Depends on the opportunities and types of workflow integration

Product	Sony Ci Platform	
Target market	Companies with B2B, B2C or B2E Media Apps & existing Portals	
Availability	Now	
List price € (EU T2 pricing)	€ 1,000/per month base price to K's of € per month	
Category	Scalable Application & Portal Integration	



Top features	Customer Benefits
Target Customers: Companies with B2B, B2C or B2E Media Apps & existing PortalsExample Customers: Sporting Innovations, American Archive, Locarno Film Festival	<ol> <li>Benefits:         <ol> <li>Scalable ingest &amp; storage with existing or new applications</li> <li>Ability to access Workspaces and manage own Network Account</li> <li>Utilize Ci REST APIs as simple way to build integrations for uploading, managing, proxy generation, CDN for streaming &amp; downloading content.</li> </ol> </li> <li>Can manage the visibility of content in own apps/portals, while getting a scalable architecture</li> </ol>
What: Central ingest point, normalization and distribution	What does it replace: Minimizes needs for local storage or app servers to manage parts of the application capabilities; Reduces CapEx costs and convert to more OpEx approaches with potential of managing those costs and delivering integration
<ul> <li>How:</li> <li>1. Use Ci REST APIs for upload/folder/file management</li> <li>2. Possibly leverage Ci Proxies &amp; CDN for playback</li> <li>3. Utilize combination of own apps &amp; Workspaces</li> </ul>	<b>Upcoming Improvements:</b> Depends on the opportunities and types of application integration & delivery