# Smart Imaging Solutions for hospitals

Adapt. Evolve. Connect. With NUCLeUS™.

**For the best experience, view this interactive brochure with Adobe Acrobat**

# SONY

# Included in this brochure

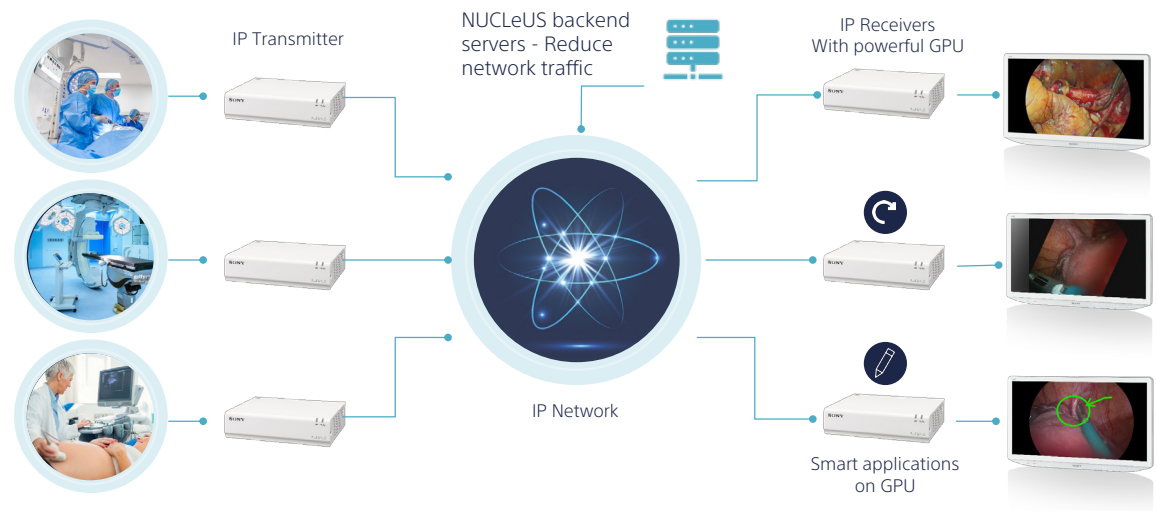# Introducing Sony NUCLeUS™

Your competitive advantages  〉

An upgradable platform  〉

The customised approach  〉

# NUCLeUS transforms digital imaging workflows

At Sony, we create complete imaging workflows – from lens to display. Sony's smart IP imaging platform NUCLeUS transforms hospital imaging workflows, supporting clinical teams at all stages of planning, performing, recording, editing, distributing and archiving videos and still images of surgical procedures. Using an intuitive touchscreen, high-resolution images from virtually any source in the Operating Room or Interventional Room can be routed to any destination, either inside the OR or another location – including doctors' offices and consulting rooms, training suites and lecture theatres. Teaching and real-time consultation with colleagues is enriched by bi-directional telestration, offering a shared workspace where all participants can make real-time annotations on a shared video and discuss as a team via audio conferencing.

IP Transmitter

NUCLeUS backend servers - Reduce network traffic

IP Receivers With powerful GPU

IP Network

Smart applications on GPU

# With Sony smart imaging solutions you can -

Increase staff productivity

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Maximise cost efficiency

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Secure data quality, availability and safety

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Enhance opportunities for training and education

>

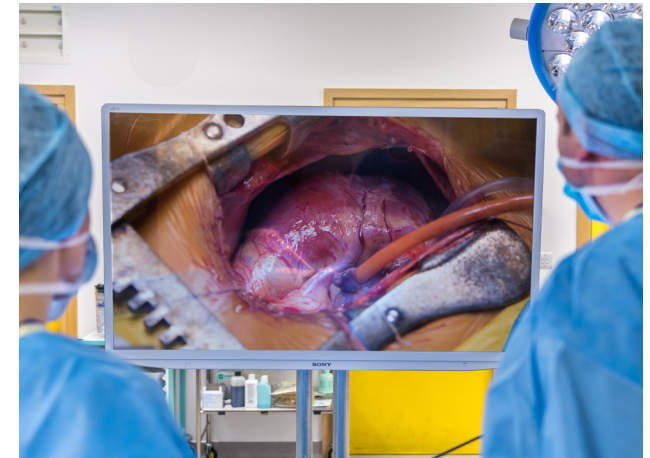Reduce operating cost with an upgradable platform

>

# NUCLeUS – designed to be an upgradeable platform

**Flexible integration with any workflow – whether its Full HD, 4K and even 3D.**

**Maximise image quality. NUCLeUS can be deployed on both standard network cabling or fibre infrastructure with virtually no visible difference in image quality.**

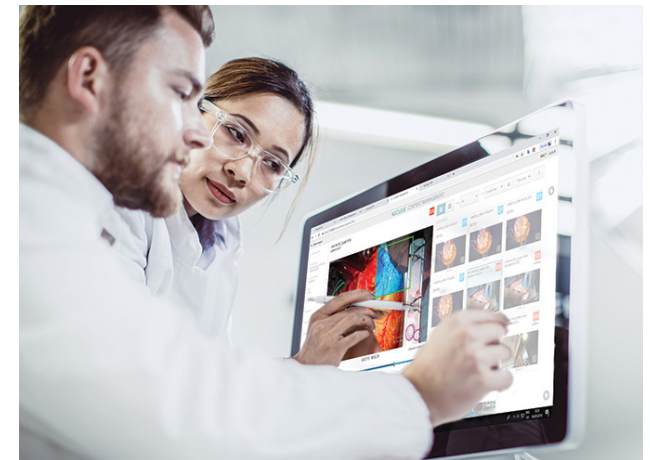**Convert HD resolution video content into 4K ultra high definition image quality.**

# NUCLeUS – the customised approach



**Designed to be customisable, NUCLeUS is equally at home in the OR, an interventional room or in an ICU.**



**Open API's simplify integration with modality manufacturers' controllers and other hospital systems.**



**A growing range of smart applications allow users to add powerful video processing features as needed.**

# NUCLeUS supports a wide range of workflows

| | 4K<br>Surgical imaging | 3D<br>Surgical imaging | FHD<br>Surgical imaging |
|---|---|---|---|
| **Capture** | SRG-X120<br><br>SRG-X400 | | MCC-1000MD<br><br>MCC-500MD |
| **Share** | | NUCLeUS | |
| **Display** | LMD-X550MD<br><br>LMD-X310MD<br><br>LMD-X2705MD<br><br>LMD-X3200MD<br><br>BRAVIA Professional Displays | LMD-X550MT<br><br>LMD-X310MT | LMD-2735MD<br><br>LMD-2435MD |
| **Still Image Documentation** | UP-DR80MD | | UP-DR80MD |

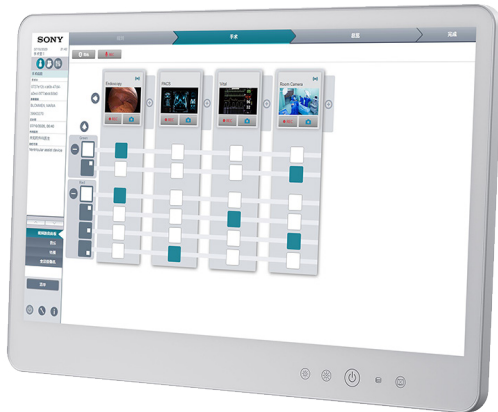**KEY:** <u>PRODUCT</u> = Link to website    ⧉ = Quick View

# NUCLeUS streamlines surgical workflows at UZ Leuven

NUCLeUS is the video-over-IP platform that lets surgeons and clinical staff route virtually any live video source to any screen in the Operating Room, or record content for sharing. It's being used to enhance ergonomics and team cooperation in nearly a hundred ORs and treatment rooms at one of Belgium's leading university hospitals.

**Application:**  NUCLeUS
**Location:**  University Hospitals
**Country:**  Belgium

"The modern OR is a busy place, with a lot going on," says Professor Erwin Bellon, IT Manager Multimedia & Telematics at UZ Leuven. "There is a lot of equipment – endoscopy, patient monitoring, ultrasound and more – each typically with its own dedicated screen. As a surgeon operating in a relatively confined space, you have to be like a contortionist sometimes, constantly turning your head and changing position to look at all these different screens. With NUCLeUS it's so much easier for the surgeon to see any image they need – whether it's radiology, vital signs or whatever – on a nearby monitor."

Professor Erwin Bellon,
IT Manager Multimedia & Telematics

## NUCLeUS smart Digital OR platform

**34**
ORs covered for routing & capture operation

**91**
ORs and exam rooms covered for imaging/ video capture

**5**
sites covered

**120**
receiver modules

**180**
transmitting modules

Connecting sites
**80km** away
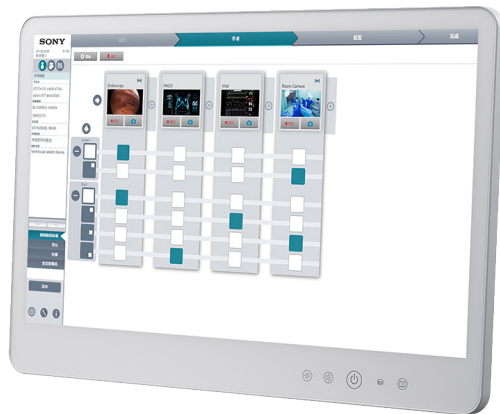
**Read full case study**  ❯

# Enhancing surgical workflows in the OR at Alder Hey Children's Hospital

One of the world's most technologically advanced children's hospitals, Alder Hey in the Park in Liverpool has partnered with Sony to build a powerful and easy to use hospital-wide IP video network. High Definition surgical footage can be shared to screens in thirteen integrated Operating Rooms – or shared with surgeons and students anywhere on campus.

**Application:** NUCLeUS
**Location:** Alder Hey Children's Hospital
**Country:** UK

"...we realised a networked approach was much more powerful. Everything's so much cleaner to have data flowing back to a server and integrated with your electronic patient records."

Dr Iain Hennessey,
Clinical Director of Innovation at Alder Hey

**Read full case study**  ▷

## Smart Solutions at Alder Hey Children's Hospital

**13**
ORs covered for routing & capture operation

**40**
4K BRAVIAs providing enhanced information system in the Atrium
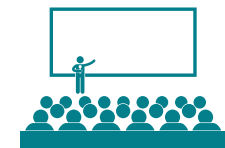
**26**
Smart integrated surgical monitors

1st Digital Aquarium outside Japan used for patient distraction
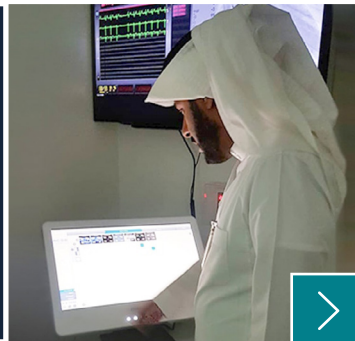
Large lecture room solution

# Customer Stories



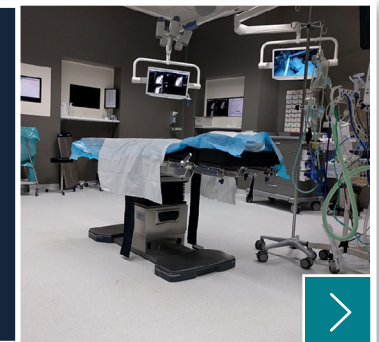Karolinska University Hospital enhances their surgical imaging workflows with NUCLeUS™



King Saud Medical City streams cath lab content with NUCLeUS™



Video streaming transforms teaching at Alder Hey



St Jansdal Hospital streamlines operating room workflow efficiency with NUCLeUS™

For more information about Smart Imaging Solutions, get in touch with our Healthcare Solutions Team.

**Contact us**

**SONY**