

InVision

Complete solution for medical image management





Bildteknik – the medical image engineering company

We integrate medical audio, video, monitoring, and imaging from any equipment or modality, including X-ray, endoscopy, and ultrasound, in order to simplify high-quality image management for hospitals.

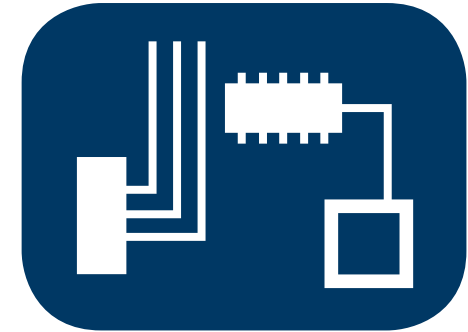
With solutions that work with any make, brand, or model of medical imaging equipment, we offer truly vendor-neutral integration in high definition. Our systems are seamlessly connected with other hospital IT systems such as picture archiving and communication system (PACS), electronic health record (EHR), radiology and hospital information system (RIS and HIS).

Serving all branches of the hospital – including operating rooms, catheter labs, and radiology departments – our systems add comprehensive functionality to capture, display, record, archive, store and review medical images. We enable medical professionals to distribute images and to interact with colleagues, collaborators, students and other audiences anywhere.

Our ready-to-use systems can serve as a platform to create complex custom-made installations. We deliver the complete solution, including our proprietary software together with all the necessary hardware, and we provide service and support over time for maximum reliability.

Bildteknik is head quartered in Lund, Sweden, with local service in Europe and Asia. The company is ISO 13485 certified with Intertek as the notified body, and all of our products are classified as medical devices.

Made in Sweden since 2009.



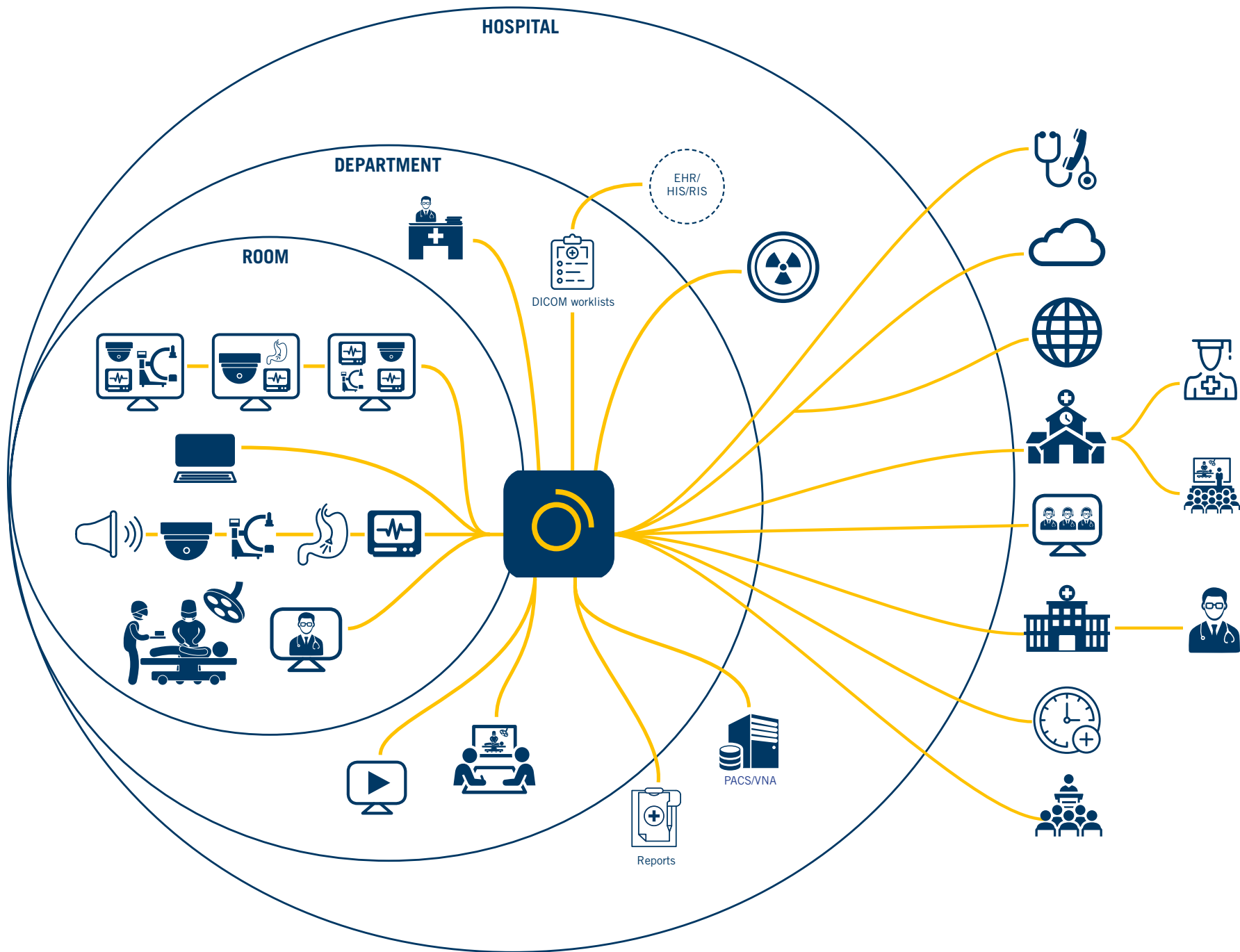
HARDWARE



SOFTWARE



INSTALLATION & SERVICE



InVision - the complete solution

InVision is a complete solution for medical image management for any imaging, monitoring, video and audio in hospitals.

Total integration, truly vendor-neutral

InVision provides total integration, meaning all types of signal sources and imaging modalities with all sorts of hospital IT systems. The integration is truly vendor-neutral, meaning that InVision can integrate any make or model from any supplier.

Ready-to-use with scalability

As it includes all software and hardware needed, InVision is a ready to-use system that is installed and serviced by us over time. Thanks to its scalability, InVision can also serve as a platform for custom-made installations.

Comprehensive functionality

Featuring comprehensive functionality that can be tailored to suit your needs, InVision works like a routing engine for displaying at choice. In addition, InVision can capture and record – ad hoc or continuously – to act as the hospital's black box. If needed, InVision can serve as a local PACS through its archiving function and expandable data storage. Plus, InVision is a proficient DICOM viewer for the review of recorded or stored material.

Optimal collaboration

InVision facilitates optimal collaboration and creates connectivity between procedure rooms, departments and hospitals. Images can quickly be shared with colleagues without compromising patient data safety. Medical video conferences in full HD can be held within the department as well as with the remote multi-disciplinary team. Furthermore, InVision can be used for virtual lectures by broadcasting from the procedure room to students in an auditorium or to medical congresses. Also enabling remote presence, InVision allows inviting a remote proctor for specialist training, as well as a doctor on call or medical experts in emergency situations.

Hospital-wide applications

InVision has standard configurations for use both in operating rooms and catheter labs. It is also intended for use in radiology departments, endoscopy suites, emergency rooms, intensive care units and other departments performing image guided procedures. The system is ideal for new projects as well as retrofits.

InVision is a medical device manufactured under ISO 13485. Running installations are present in several countries including Sweden, United Kingdom, United Arab Emirates and India.



IMAGING



MONITORING



VIDEO



AUDIO

Equipment of any type

InVision integrates imaging, monitoring, video and audio. For example, we have integrated these types of devices:

Endoscopy units

FFR, IVUS and OCT in various combinations

Microscopes

OR lights

Overview/surveillance cameras

Pacemaker programmers

Surgical robots

Vital signs

X-ray machines

Equipment of any make and model

InVision offers truly vendor-neutral integration, integrating any make or model from any supplier. For example, we have integrated devices from:

Abbott

Boston Scientific

Canon Medical Systems

Dr. Mach

Eizo

GE Healthcare

Intuitive (daVinci Surgery)

Karl Storz

Medtronic

NDS

Olympus

Ortivus

Pentax Medical

Philips Healthcare

Richard Wolf

Siemens Healthineers

Simeon Medical

Sony

St. Jude Medical

Stryker

Swemac

Toshiba

Volcano

Zeiss



PACS



HIS/RIS



EHR

IT systems of all sorts

InVision integrates seamlessly with many hospital IT systems, such as PACS, HIS/RIS and EHR. This means that InVision can receive and use DICOM worklists, save to PACS and open files that are stored in the PACS system. For example, InVision has been integrated with the following PACS systems:

AGFA enterprise imaging 8.0 PACS system

FujiFilm Synapse PACS system

Sectra enterprise imaging PACS system



ROUTING ENGINE



BLACK BOX



LOCAL PACS



DICOM VIEWER

Comprehensive functionality

Routing engine

Similar to a routing engine, InVision captures imaging, monitoring, video and audio signals, enabling routing of images for displaying at choice.

Black box

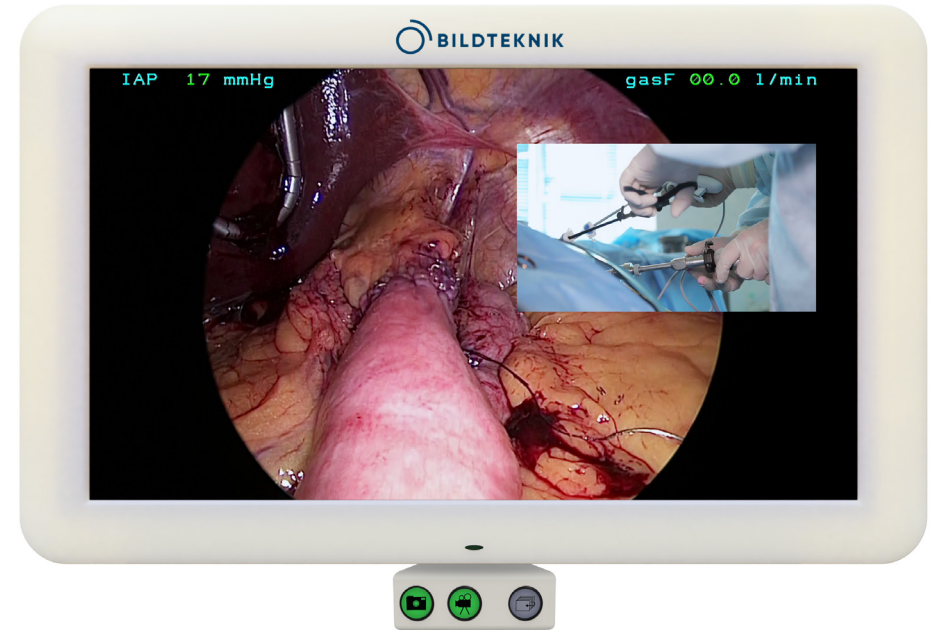
InVision can act as the hospital's black box by capturing and recording, ad hoc or continuously.

Local PACS

Through its archiving function and expandable data storage, InVision can serve as a local PACS if needed.

DICOM viewer

Bringing the functionality of a DICOM viewer, InVision can be used to review recorded or stored material.



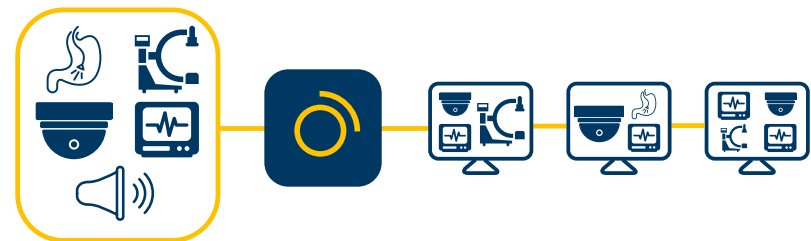
Route and display

By routing live images to any monitor in the room and using pre-configurable layouts, InVision consolidates multiple live image sources. The synchronized images can be viewed before, during and after a medical procedure at any integrated workstation.

Simple functionality such as the three-button unit allows easy switching between connected modalities and layouts. The three button unit can also be used to start/stop recording and take snapshots of the monitor.

Automatic source recognition means that images appear instantly on monitors across the procedure room when modalities are connected, making it easy to handle mobile equipment.

As InVision is a tailor-made solution, it works with any pre-existing or new monitor of your choice.



Capture and record

As InVision is seamlessly integrated to HIS/RIS and EHR, the system receives and uses DICOM modality worklists but also allows registration of unscheduled patients. Patient information validation, such as social security number validation, is possible and customizable to suit local needs.

InVision captures and consolidates multiple live image sources through synchronized recording, to document medical cases, create educational material, analyse difficult procedures or facilitate debriefing.

Recording with InVision can be automatic, manual, ad hoc or continuous. Customization for automatic recording is possible, for example when crash alarm is triggered or the X-ray pedal is pressed.

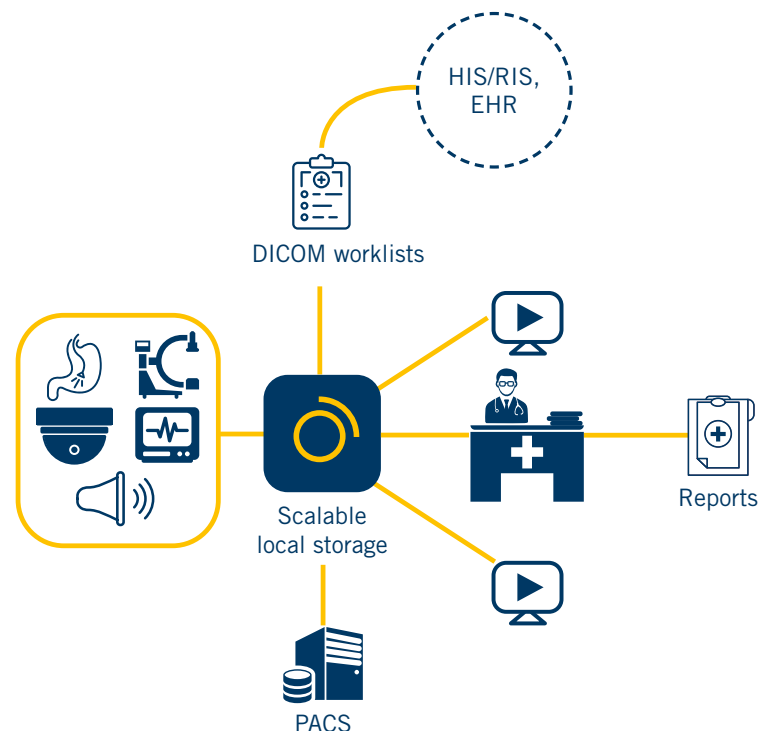
Replay and review

Recorded sources can be replayed in original resolution with adjustable frame rate, contrast and brightness.

Use InVision to open DICOM images, video and audio stored in PACS or the local storage to sort cases, review images, add annotations and create reports on any connected workstation.

Archive and store

All recorded material is saved on a scalable local storage and can optionally be sent to PACS. InVision integrates and consolidates PACS archives from different equipment suppliers, enabling DICOM file management.



Optimal collaboration

InVision creates connectivity and facilitates optimal collaboration between colleagues, students, medical experts, departments and hospitals through safe sharing of images and patient data.

Virtual medical conferencing for remote consultations, second opinions and MDT/patient review meetings in lossless image quality is made possible with InVision.

High-quality live medical images and bi-directional audio can be distributed to conference rooms, lectures and congresses inside or outside the hospital.

In addition, the system permits doctors on call and other medical experts to be remotely present in the procedure room for training or support in emergency situations.





CONFERENCE



REMOTE CONSULTATION



SECOND OPINION



MDT/PATIENT REVIEW MEETING

Medical video conferencing

Whether to a nearby conference room, for remote consultations, second opinions or multi disciplinary team (MDT) meetings, virtual conferencing for sharing medical images is made possible with InVision. Images are shared in lossless quality.

In live case transmissions to conference rooms, students or colleagues can follow the live procedure without being present in the procedure room. The audience can ask questions and select what image source to display.

For MDT/patient review meetings, InVision features synchronized image review with shared playback control.







AUDITORIUM



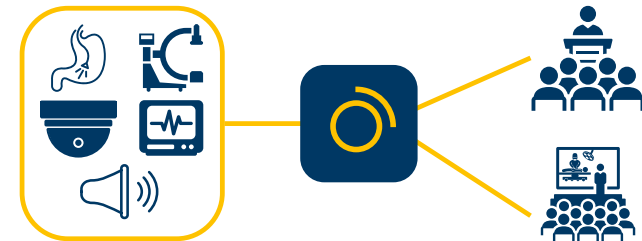
CONGRESS

Virtual lecture and live broadcasting

InVision distributes high-quality live medical images and bi-directional audio to collaborators inside or outside the hospital. This helps medical teams collaborate with team members in different locations.

The system also enables virtual lectures for teaching students or lecturing for peers, where the audience can select what image source to display and ask questions during the live procedure.

InVision features live broadcasting with encrypted, password protected transmission signals on dedicated cloud servers with guaranteed bandwidth.





E-PROCTOR



DOCTOR ON CALL

Remote presence

The InVision system permits doctors on call and other medical experts to be remotely present in the procedure room for training or support in emergency situations.

The remote party connects to the hospital procedure room, can view all connected image sources and control cameras. If needed, the e-proctor can even share desktop to show any relevant information during the session.



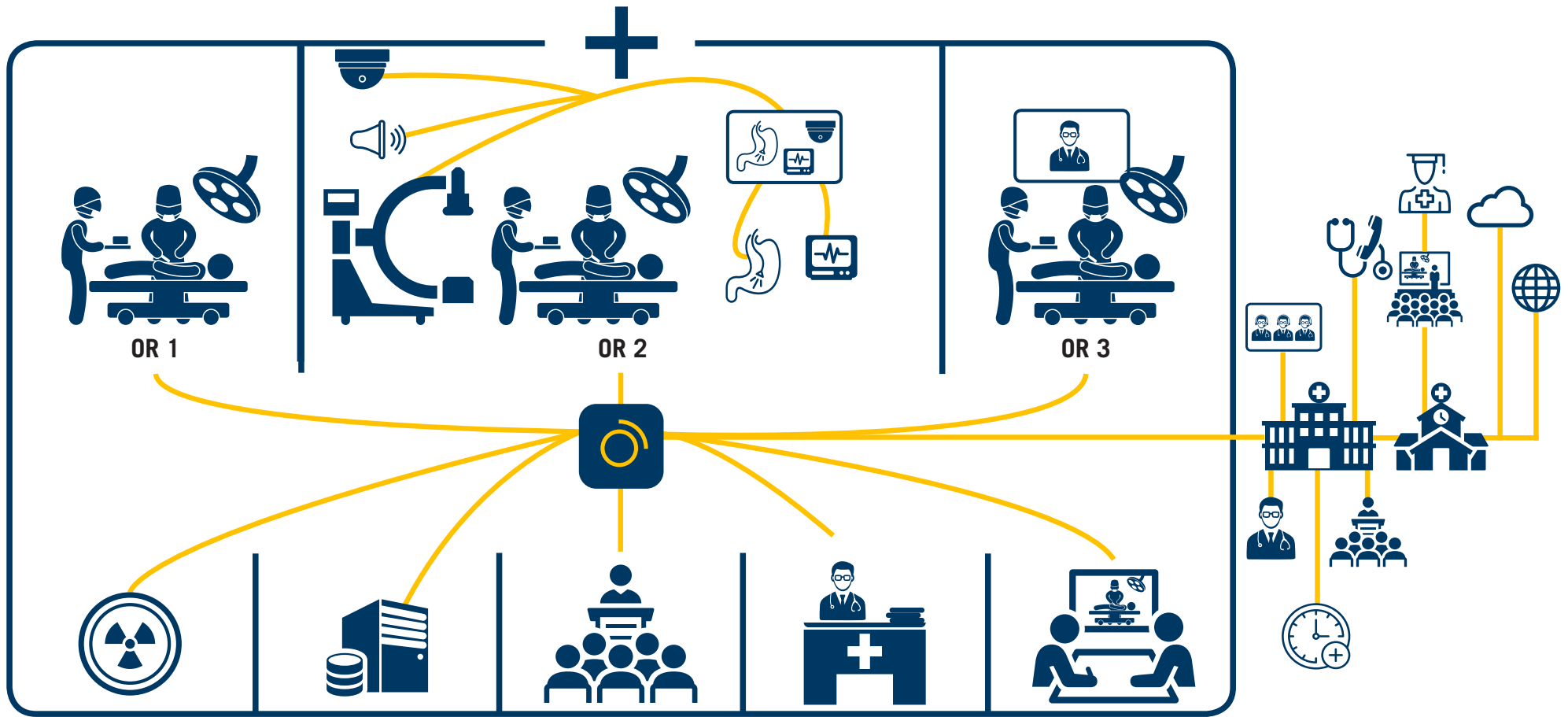
InVision for the operating room

For the operating room, InVision represents a turn-key, vendor independent enterprise solution with complete image management functionality and integrations inside and outside the operating room.

Integrate for example endoscopy, vital signs and overview cameras for secure documentation of multiple, synchronized images. InVision offers full connectivity with HIS/RIS, EHR as well as DICOM management and the possibility to view images before, during and after a procedure.

The system allows flexible and scalable installations for the entire hospital, including any or all operating rooms, across departments or even between hospitals, building on a common installation structure.

With InVision in place, moving equipment between rooms or adding new devices is easy, while collaboration to share knowledge and expertise is facilitated through proprietary streaming.



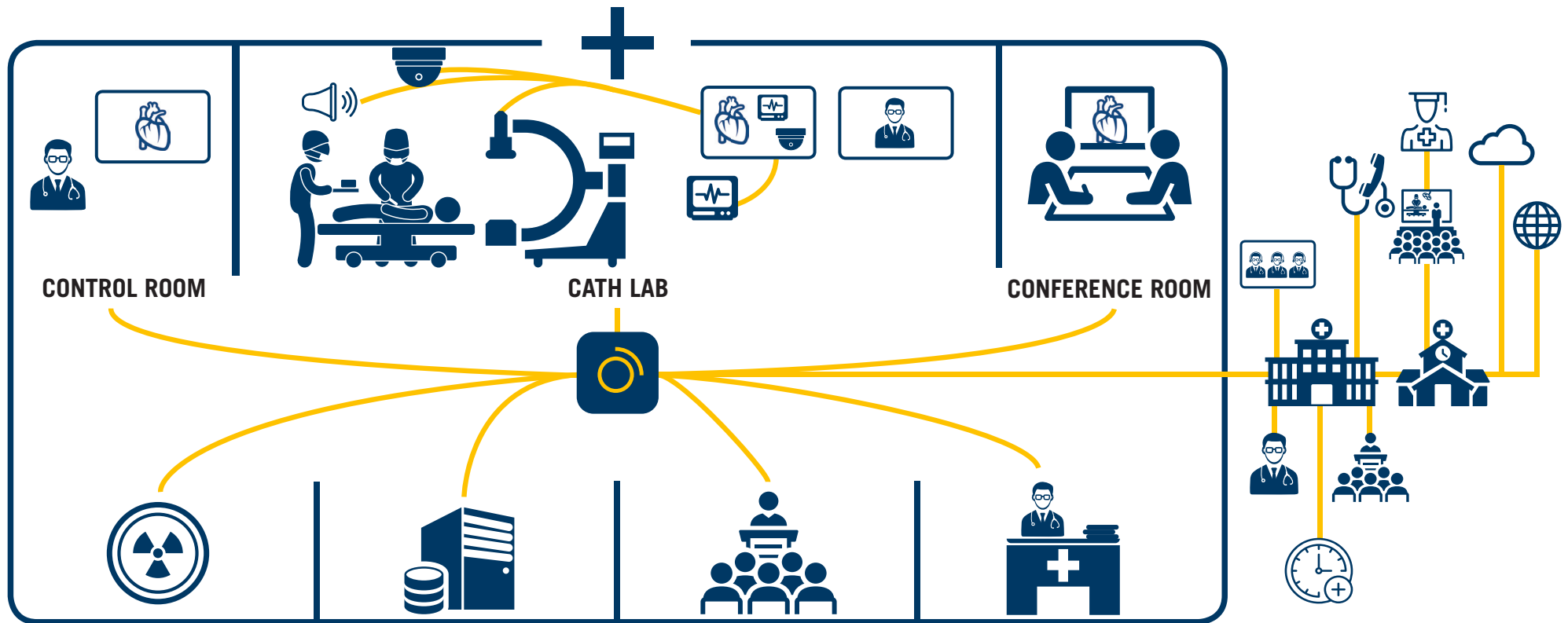
InVision for the cath lab

For the cath lab, InVision represents a turn-key, vendor independent enterprise solution with complete image management functionality and integrations inside and outside the cath lab.

Integrate for example intra-vascular imaging, fluoroscopy and overview cameras for secure documentation of multiple, synchronized images. InVision offers full connectivity with HIS/RIS, EHR as well as DICOM management, improving procedural preparation while making it easy to add new equipment.

InVision allows flexible and scalable installations for the entire hospital, including any or all cath labs, across departments or even between hospitals, building on a common installation structure.

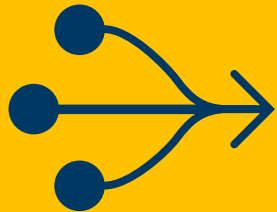
With InVision in place, images can be viewed before, during and after a procedure. The system creates imaging convenience through consolidation of multiple image sources. At the same time, advanced teaching capabilities inside and outside the hospital are enabled through external connectivity such as proprietary streaming.



Service and support - example

	Level 1	Level 2
One preventative maintenance visit per year	✓	✓
Unlimited phone support within working hours	✓	✓
Service ticket response within one working day (telephone or remote access)	✓	✓
Remote access engineer within two working days (where remote access has been made available)	✓	✓
Delivery of spare parts kept in stock within 24 hours		✓
On site engineer within 3-10 working days (if required and depending on location)		✓
Parts and labor included		✓
Free software upgrades for duration of contract	✓	✓

Technical details in brief



- Any type of modality providing standard video interfaces
- Any I/O, e.g. scope buttons, foot switches etc.
- Multiple DICOM worklists



- Route live sources:
 - Input: 8 x DVI-D
 - Output: 8 x DVI-D
- Resolution: up to 1920x1200
- Layouts: multi-window layout, quad, PIP, PAP



- 1-4 channels, synchronized, separated and combined
- Connections: DVI and HD-SDI
- Video resolution: any format up to 1920x1080 @ 30 FPS
- Simultaneous audio recording
- Local storage – up to 256 TB
- Enterprise storage – hosted by hospital
- Export to PACS



- Two way audio
- Two way video (full HD)
- Share desktop
- Remote control of PTZ camera

Contact details

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Bildtechnik is the medical image engineering company. We offer vendor-neutral integration of medical audio, video and imaging. Our solutions range from ready-to-use systems to custom-made installations. We deliver the complete solution with comprehensive functionality. Our customers are in the operating room, the catheter lab or the radiology department. We are ISO 13485 certified and all of our products are medical devices. Made in Sweden since 2009.