

All in a Single View: Cardiac Center in Luxembourg relies on Efficient, User-Friendly Surgical Panel with intuitive Software

✕ Medical display enables minimally invasive work in the hybrid OR

INCCI, the Luxembourg Cardiac Hospital, has had one of the world's most modern hybrid ORs since 2016. Installing radiography systems directly in the surgical suite makes minimally invasive operations possible, for example the implantation of cardiac valves. A good radiographic representation is necessary, as is therefore good image quality. To keep this essential procedure state of the art, INCCI relies on a complete solution from EIZO, and has installed the SP2-24-49 Surgical Panel together with the company's CuratOR Caliop control software. This simplifies the fast selection of various image materials and the handling of patient data during surgery. It also supports efficient image management, video conferences, and communication with radiography robots, as well as the PACS/RIS system used on site to add patients using a DICOM worklist. The SP2-24-49 is a hygienic and secure solution for the highly complex operations at INCCI.



“We specialize in treating valvular defects and vascular diseases near the heart, revascularization of cardiac vessels, and cardiac resynchronization therapy using active device systems,” explained Alexander Schmidt, hybrid OR technician at INCCI. “In recent years, many common surgical procedures in this area have developed into minimally invasive methods or interventional therapies. This was made possible in large part due to the capabilities of today's medical imaging systems in hybrid operating rooms.”

Previously, patients had to be treated in the cardiovascular laboratory, which was problematic from a hygienic standpoint. It is much easier to avoid complications in the hybrid OR thanks to the integrated radiography systems.



The SP2-24-49 supports all work in the new Hybrid OR and in the control room. The installed EIZO 4MP 30" monitors are controlled by a Large Monitor Manager. Communication between the Cockpit and operating room, is always guaranteed by an intercom system with microphone and the EIZO system. The surgical panel in the hybrid OR is part of the CuratOR product family, and consists of two different displays: a 24" screen as the workplace for the hybrid OR technician or OR nurse, where OR documentation can be prepared or other network systems accessed, and a 49" screen as an observation station, to which a radiography system can also be connected. At INCCI's request a touchpad and normal keyboard were not incorporated; instead, a wireless keyboard was implemented, for a more flexible mode of operation.





✗ Faster switching between image sources and ideal interface depth

In the INCCI, the SP2-24-49 is used primarily for endoscopic interventions, and has proven itself with its fast changes between image sources. Thanks to the installed EIZO CuratOR Caliop software, handling is very easy. “For example, if a physician cannot discern something well enough and requires an echocardiographic image, all it takes is a single click and he sees it on the monitor,” explained Schmidt. “Previously, one always had to turn at the table and search the respective device in order to view it on the monitor. The EIZO Surgical Panel collects everything in a single display and manages it easily.”

Another benefit of the SP2-24-49 is the interface depth, which enables problem-free linking with all systems installed in the hybrid OR. There is an angiography system with robotic arms and two large 60” EIZO screens that are directly integrated into the system. Complying with radiation protection is extremely important. And incoming signals from supply units of another provider have to be taken into account as well. EIZO processes all data reliably and thereby ensures the communication between the screens and devices within the hybrid OR.

✗ Intuitive Operation with EIZO Caliop Software

The CuratOR Caliop control software installed with the SP2-24-49 integrates numerous possible applications: for example, video routing, patient management, and data observation and storage. “The user interface is modular in design and therefore easy for every user to operate,” said Paul Fiedler, Project Manager at EIZO. “The individual modules are laid out based on the usual workflows in the OR. The name is entered and immediately the patient’s medical record is displayed, then the video routing can be set and recorded. These data can be assigned directly to the patient and saved in the hospital information system.”

Software from another provider is still in use in another room of the INCCI, but it is by comparison subject to higher maintenance costs, the reaction times are longer, and handling is more cumbersome. There, for example, you first have to search for the patient number and enter it,” said Schmidt. “The Caliop interface, in contrast provides user-friendly menu guidance. The icons are clearly defined and training is not required in order to use them. Operation is child’s play. With our old software, complicated settings had to be made first, and still there was nothing on screen or there was no signal. Searching for the cause was always extremely time consuming. To date this has not happened with Caliop, enabling us to focus on the surgery.”

“If I have a problem handling the SP2-24-49, I call EIZO and it is either corrected directly online or, if this is not possible, an appointment is made so that the repair can take place on site. To date only one image display error has occurred. It was corrected immediately in the course of the day.”



Alexander Schmidt - Hybrid OR technician at INCCI

✗ Simple Maintenance thanks to Online Service and the Trunk Principle

Hybrid OR down time is particularly cost intensive. The value of a minute of operational time is between 35 and 70 euros, It is for this reason that short reaction times are a critical part of maintenance contracts. Thanks to cooperation with a local technical engineering company, EIZO provides this fast, full service. This includes annual maintenance, as well as any required spare parts, and support. “If I have a problem handling the SP2-24-49, I call EIZO and it is either corrected directly online or, if this is not possible, an appointment is made so that the repair can take place on site,” explained Schmidt. “To date only one image display error has occurred. It was corrected immediately in the course of the day.” Of course, EIZO has remote access to the Surgical Panel, but for data security reasons the access always has to be confirmed by the hospital, and hospital personnel have individual passwords for the patient data.

“During maintenance, our trunk principle ensures fast and uncomplicated access to the panel’s technology while simultaneously guaranteeing the highest hygienic standards,” explained Fiedler. “Because the entire construction is recessed into the glass wall without edges, particles of dirt cannot be deposited around the border, and cleaning is possible in keeping with the highest hospital guidelines.” The front of the SP2-24-49 consists of a glass and steel frame construction, in the middle of which the display sits on a glass strip. It is secured from below with two invisible fasteners. After a short jolt, a glass lifter can lift the pane of glass upward, like the trunk of a car, enabled by two gas springs on the sides. The installed components on the display below the pane of glass can also be maintained easily on a tilting sub-construction.

Thanks to the seamless cooperation and good relations between INCCI and EIZO, there are already plans to renovate other OR rooms. There, the Luxembourg cardiac hospital will rely in the future on individual and open systems with new EIZO wall consoles.

✕ **More information:**

www.eizo-or.com

www.incci.lu

