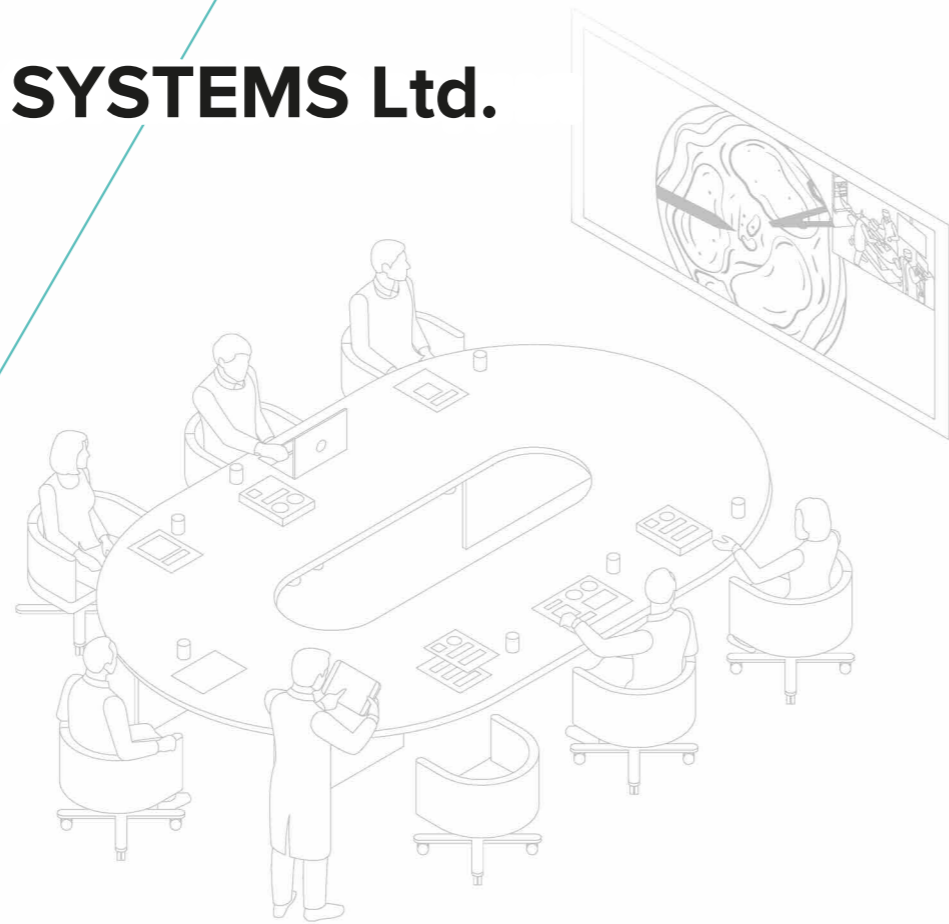# MVS

VEGA

Solutions for documentation, telemedicine, workflow support and automation in clinics

MEDICAL VISUAL SYSTEMS Ltd.

Our mission

To create innovative solutions that help to preserve, share and enrich the art of surgery

IN-HOUSE MANUFACTURING
in St. Petersburg

THE RUSSIAN MARKET LEADER
Smart operating rooms

IN-HOUSE DEVELOPMENT
own software

EXPERIENCE IN MEDICINE
more than 10 years

OUR TEAM
more than 130 employees

DEALER NETWORK
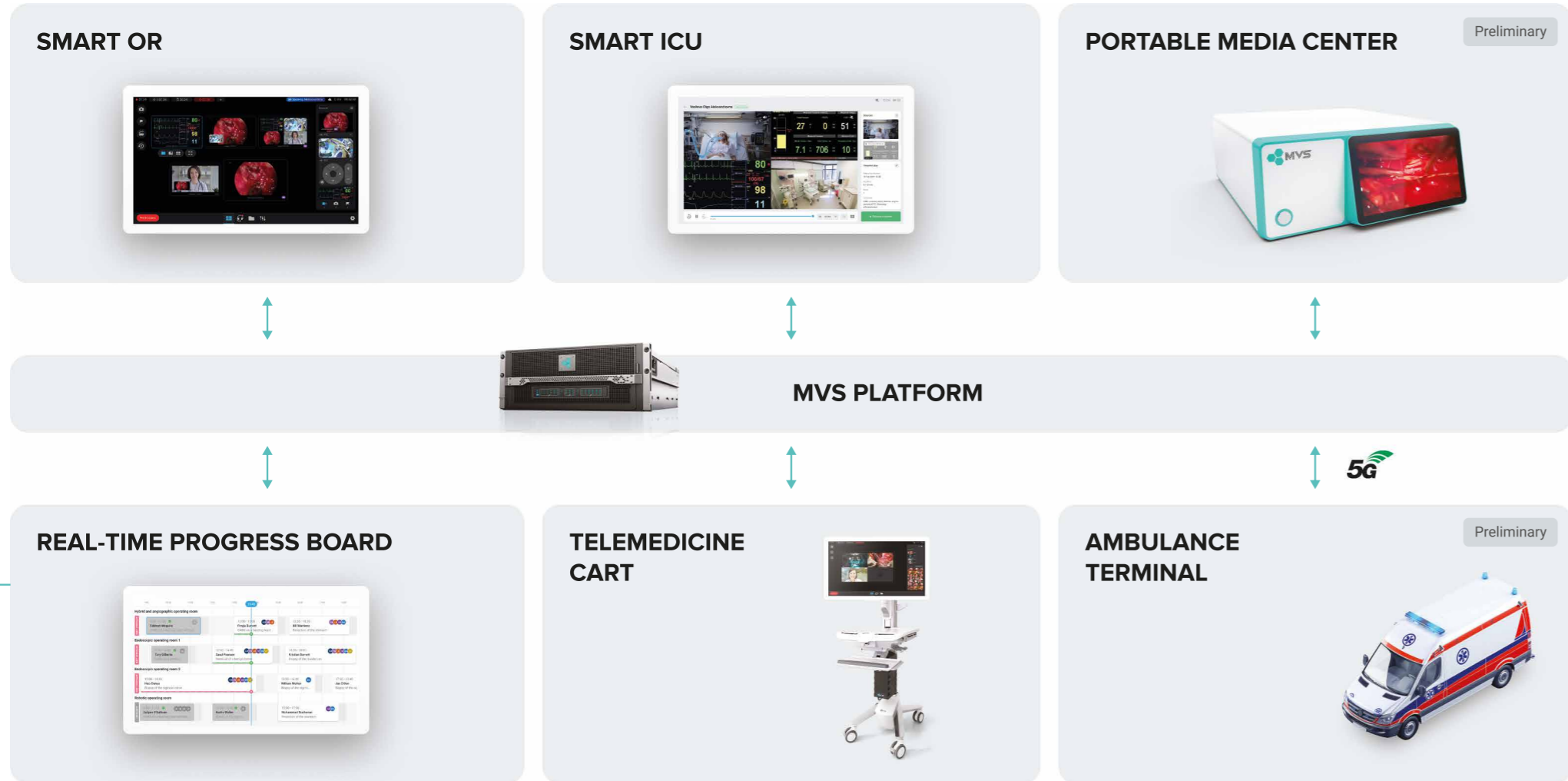in the Russian Federation, the Republic of Kazakhstan and the Republic of Belarus

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170+ operating rooms 40 hospitals 20 cities

Cancer Center

Endoscopic Urology Center

Kaliningrad

Scientific and Practical Center for **Surgery, Transplantology and Hematology**

Minsk *Showroom*

④

⑨ St. Petersburg *Showroom*

⑧ Moscow *Showroom*

② Tula

Perm

Nizhnevartovsk

Yakutsk

Saratov

Volgograd

Samara

Astrakhan

Grozny

Regional Clinical Hospital for 1100 beds

24 operating rooms

② Novosibirsk

Krasnoyarsk

Chita

Khabarovsk

Barnaul

Private Medical Center

Perinatal Center

Federal Center for **Traumatology, Orthopedics and Endoprosthetics**

Federal **Cardiology** Center

MVS solutions

SMART OR

SMART ICU

PORTABLE MEDIA CENTER

Preliminary

MVS PLATFORM

5G

REAL-TIME PROGRESS BOARD

TELEMEDICINE CART

AMBULANCE TERMINAL

Preliminary

Everything is extremely functional, everything is logical, everything is well thought out. Functionality that is used 100%. Ergonomics is amazing, too. I believe this should be promoted as the standard for the entire country. I am absolutely thrilled!

Eduard Galliamov
Honored Doctor of the Russian Federation, MD, Professor

It took us quite a while to choose a solution to have the operating rooms in our clinic integrated, and in the end we opted for a product by a domestic manufacturer, the MVS Company, and we have never regretted it!

Sergey Popov
Chief Doctor St. Luke Clinical Hospital

This is a European-level solution, all our wishes have been taken into account. I am impressed with the high quality of the work done. Everyone will feel comfortable working here: medical staff, surgeons, support personnel, engineers, medical technicians.

Nikolay Grekhovodov
Chief Maintenance Manager, Federal Center for Cardiovascular Surgery (Khabarovsk)

Integrated operating room

- Ergonomic solution for the comfort of surgeons and surgical teams
- Enhancing the OR efficiency
- Safety and security for doctors and patients

OR integrated operating room
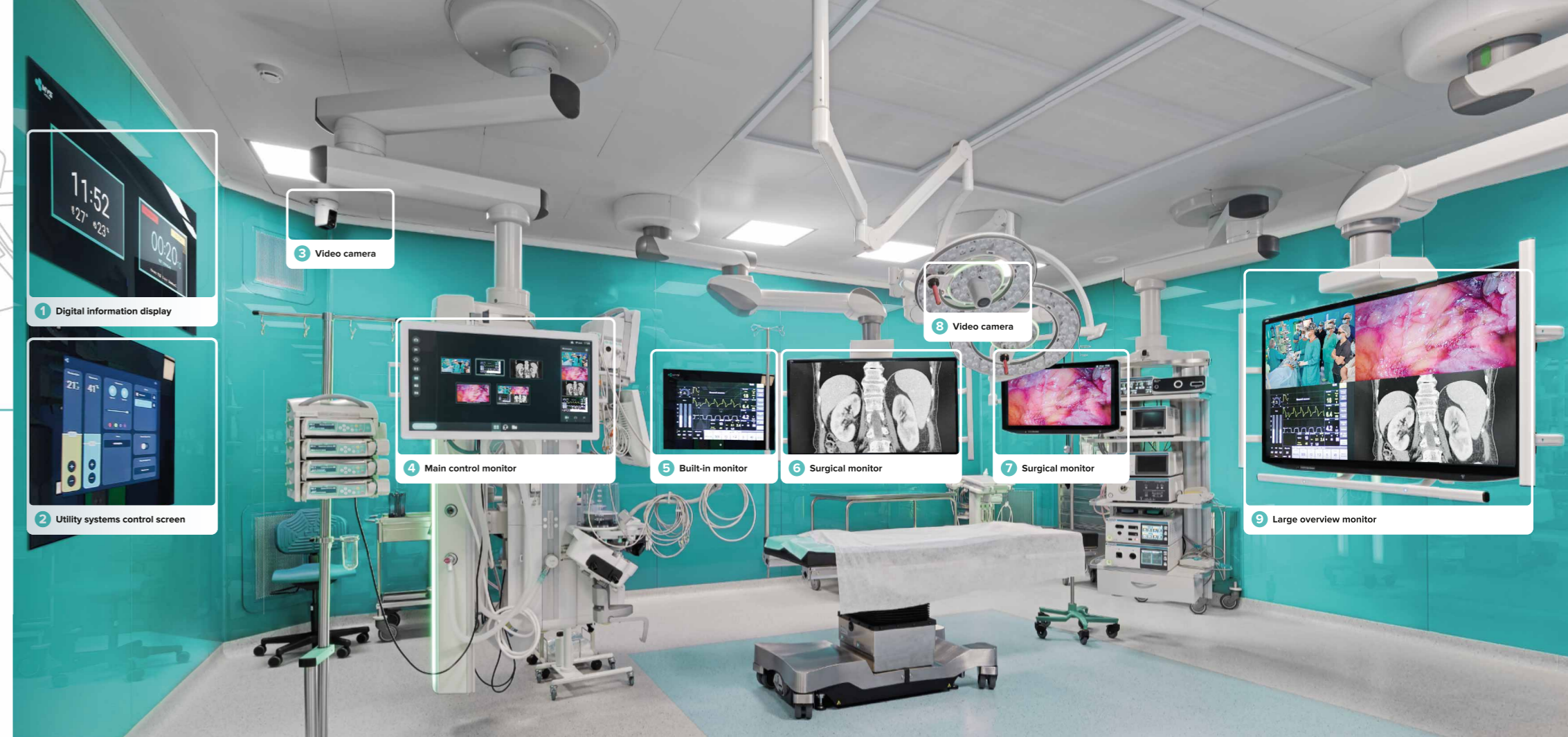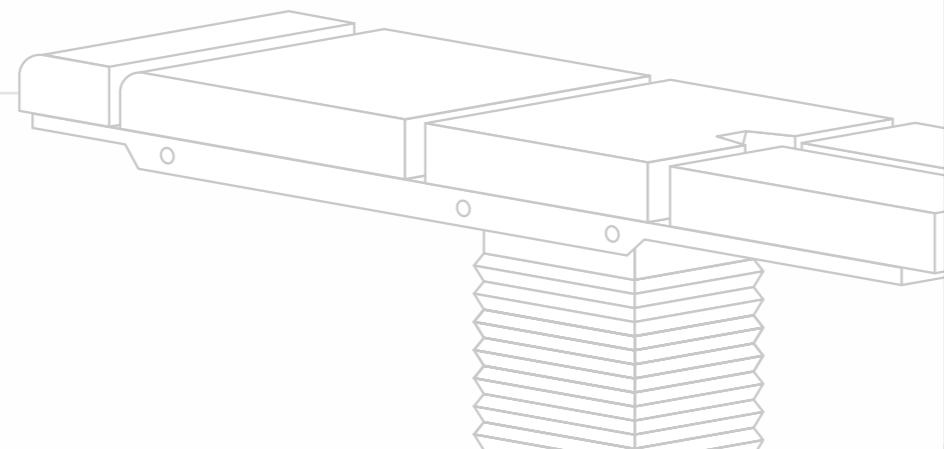
1 Digital information display

3 Video camera

8 Video camera

2 Utility systems control screen

4 Main control monitor

5 Built-in monitor

6 Surgical monitor

7 Surgical monitor

9 Large overview monitor

BEFORE THE SURGERY

Tracking of surgeries on the smart online board and **notifying** the medical personnel when the OR and the patient are ready.

Broadcasting video streams to the monitors in the corridor and to any computer within the hospital.

2 4 **Customizing the OR environment** (lights, temperature, humidity) and creating presets to save time.

4 - 7 9 **Access and visualization** of the PACS, MIS, LIS and other required information on the monitors inside the operating room to provide better comprehension of the case.

4 **Start documenting** the surgery from different integrated information sources by pressing a single button.

4 The option to **quickly start** an urgent surgery or select a scheduled one.

DURING THE SURGERY

4 - 7 9 **Routing video sources** (endoscope, microscope, ultrasound, C-arm, etc.) across monitors.

4 Possibility to **rewind** video and review the captured frames while recording in progress.

4 **Teleconsultations with peers** using two-way videoconferencing.

9 **Resident physicians can watch** the surgery on a monitor away from the operating table.

4 **Videoconferencing** with the possibility to broadcast all the available sources to the hospital conference room or to an external location.
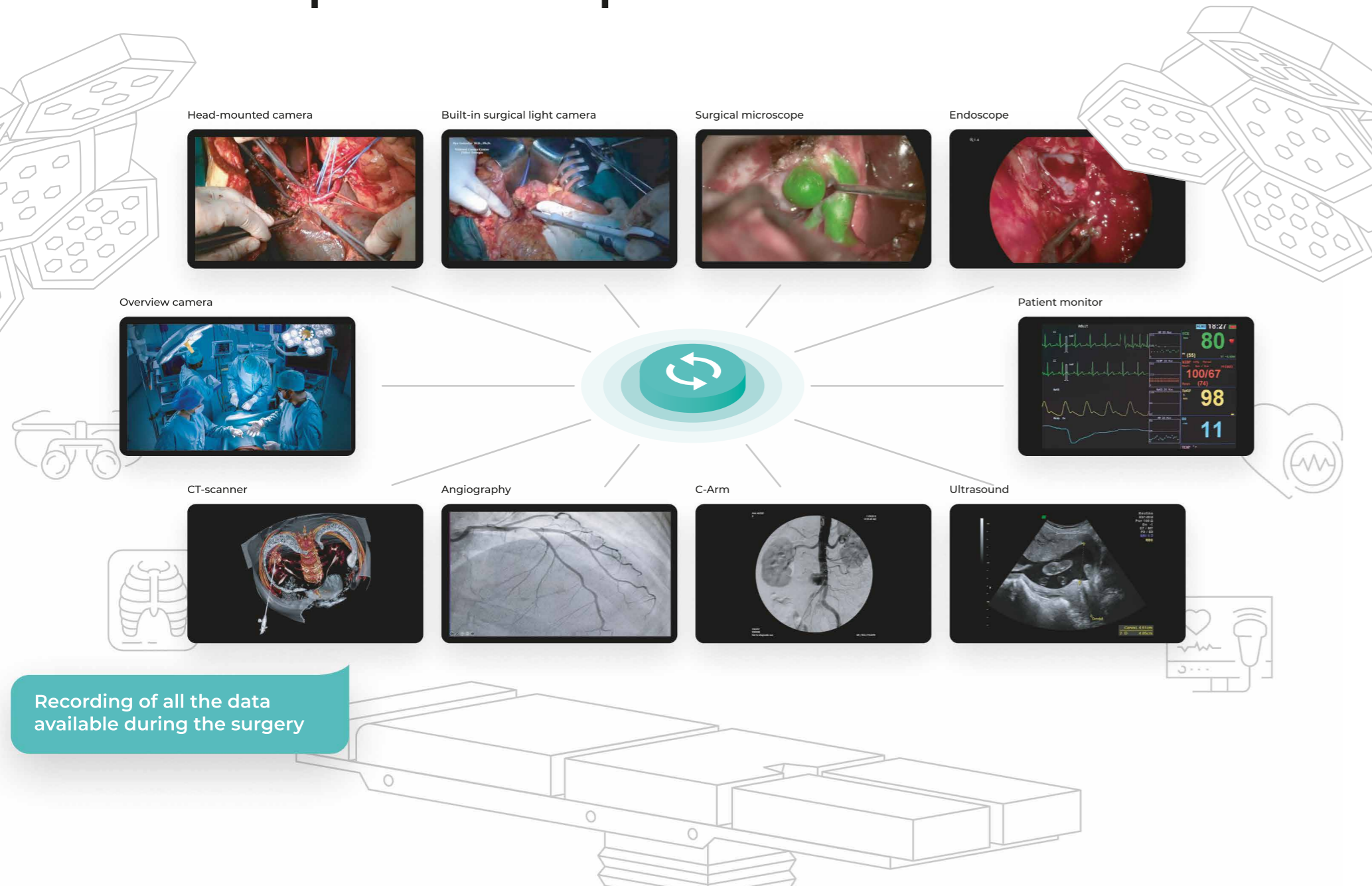
4 Taking snapshots and short video clips to **quickly export the key events of the surgery**.

4 **Timers and stopwatches** with the start and stop time captured in the video stream.

4 Text markers to **quickly find marked events** in the recorded video.

2 4 **Control of the connected equipment** from any touch screen and alarm notifications.

Synchronous recording of all video sources with subsequent archiving.

AFTER THE SURGERY

4 Completion of documentation and **automatic uploading** of data to the central video archive of the clinic.

Sending data about performed surgery to **HIS**.

1 - 9 **Safe and simple disinfection** of integrated OR components thanks to design solutions.

Access to the surgery archive to analyze challenging cases as well as for advanced and corrective training.

Video editing and export of selected segments.

Generating surgical **reports**.

Ability to use the video archive to **protect** the medical staff and the patient in controversial cases.

**Streamline surgical workflow** basing on the collected data.

Complete data capture and documentation

Head-mounted camera

Built-in surgical light camera

Surgical microscope

Endoscope

Overview camera

Patient monitor

CT-scanner

Angiography

C-Arm

Ultrasound

Recording of all the data available during the surgery

Central surgical video archive

Data from the terminals is uploaded and stored in the central archive of the clinic

PLATFORM
central surgical
video archive
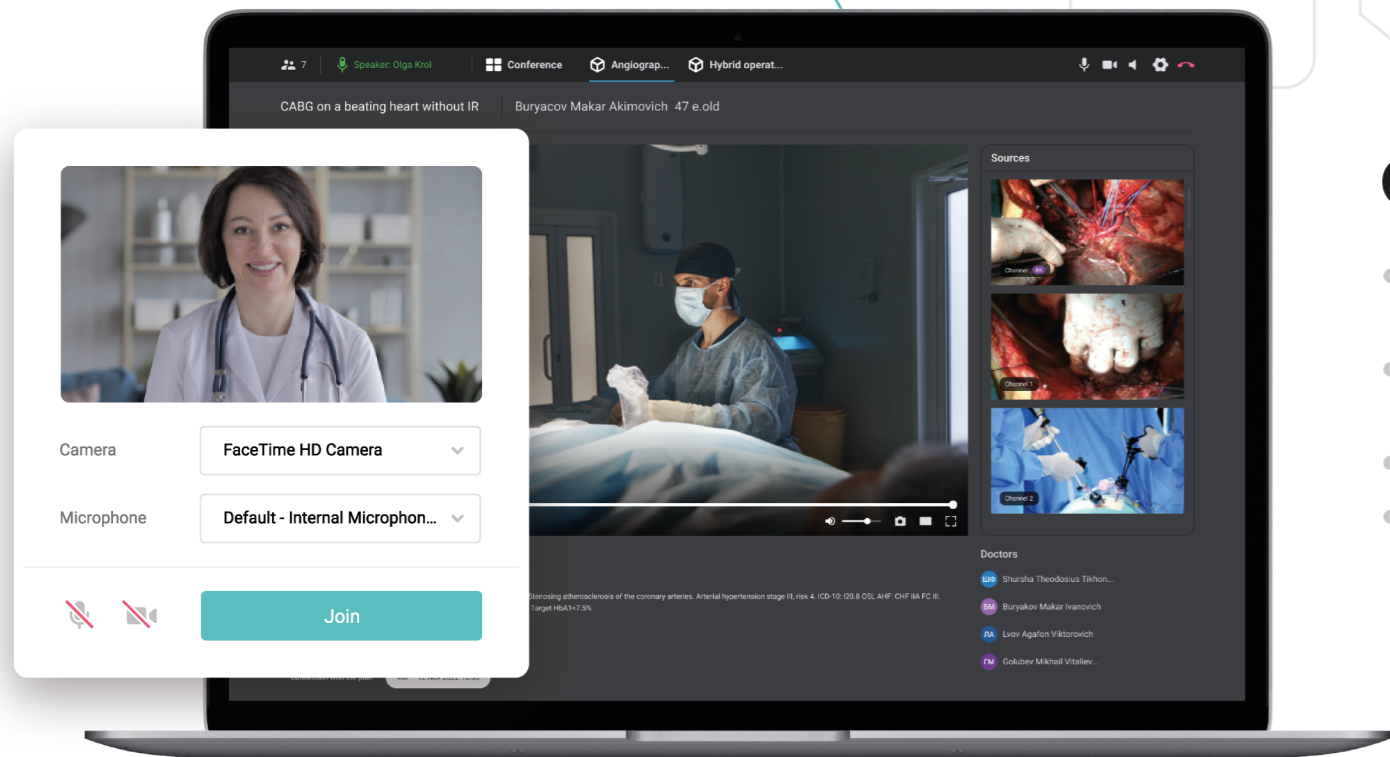
OR telemedicine

- Two-way video communication with the OR from anywhere in the world
- Streaming from all active sources is available to the conference participants
- Invitations via secure external links
- Recording of the conferences along with the surgery

Centralized devices control

- Intuitive customization of the operating room workspace
- Control of utilities and medical equipment
- Customized presets
- Alarms and events documentation

Patient history

Quick access to archive data via browser or touchscreen

Intuitive player

Synchronous playback of multiple video sources in a user-friendly interface
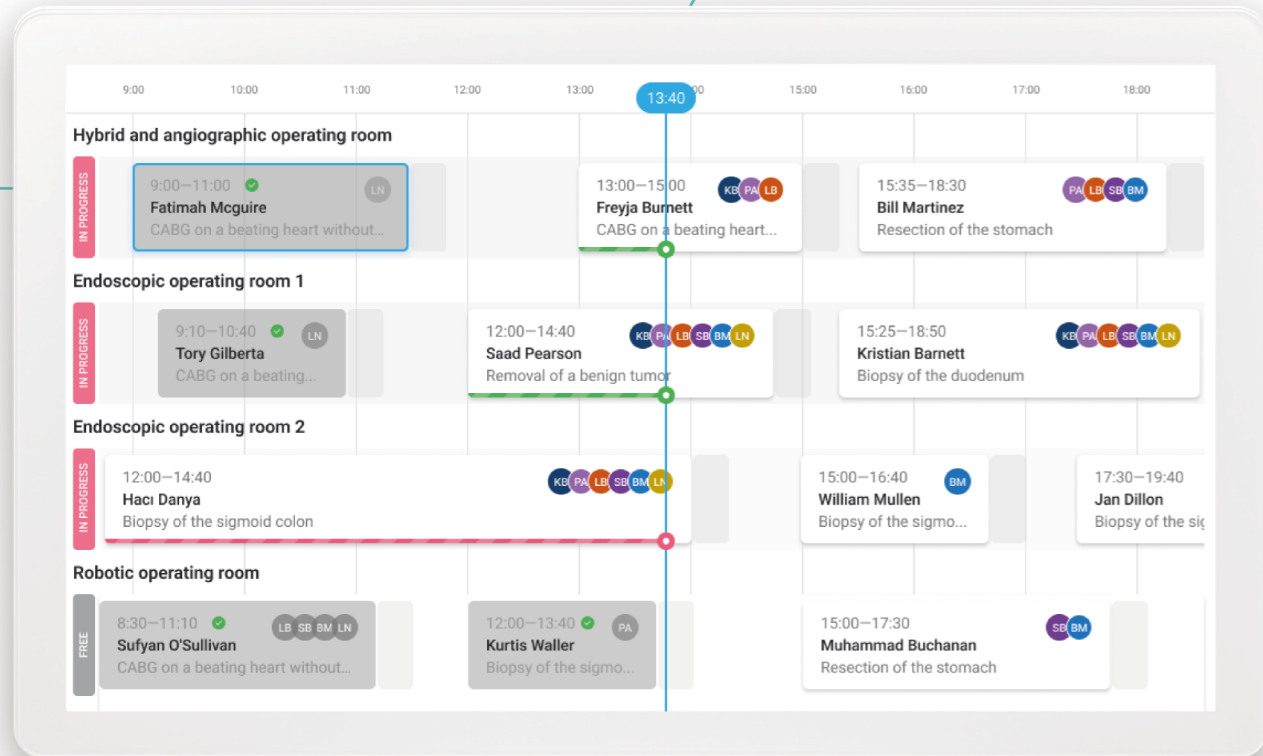
Surgeries progress monitoring

- Clean visual overview of all planned and ongoing surgeries
- Real-time coordination
- Easy scheduling and rescheduling of surgeries

Integration with information systems

Data exchange with HIS, PACS and other information systems using the HL7, DICOM, and FHIR protocols
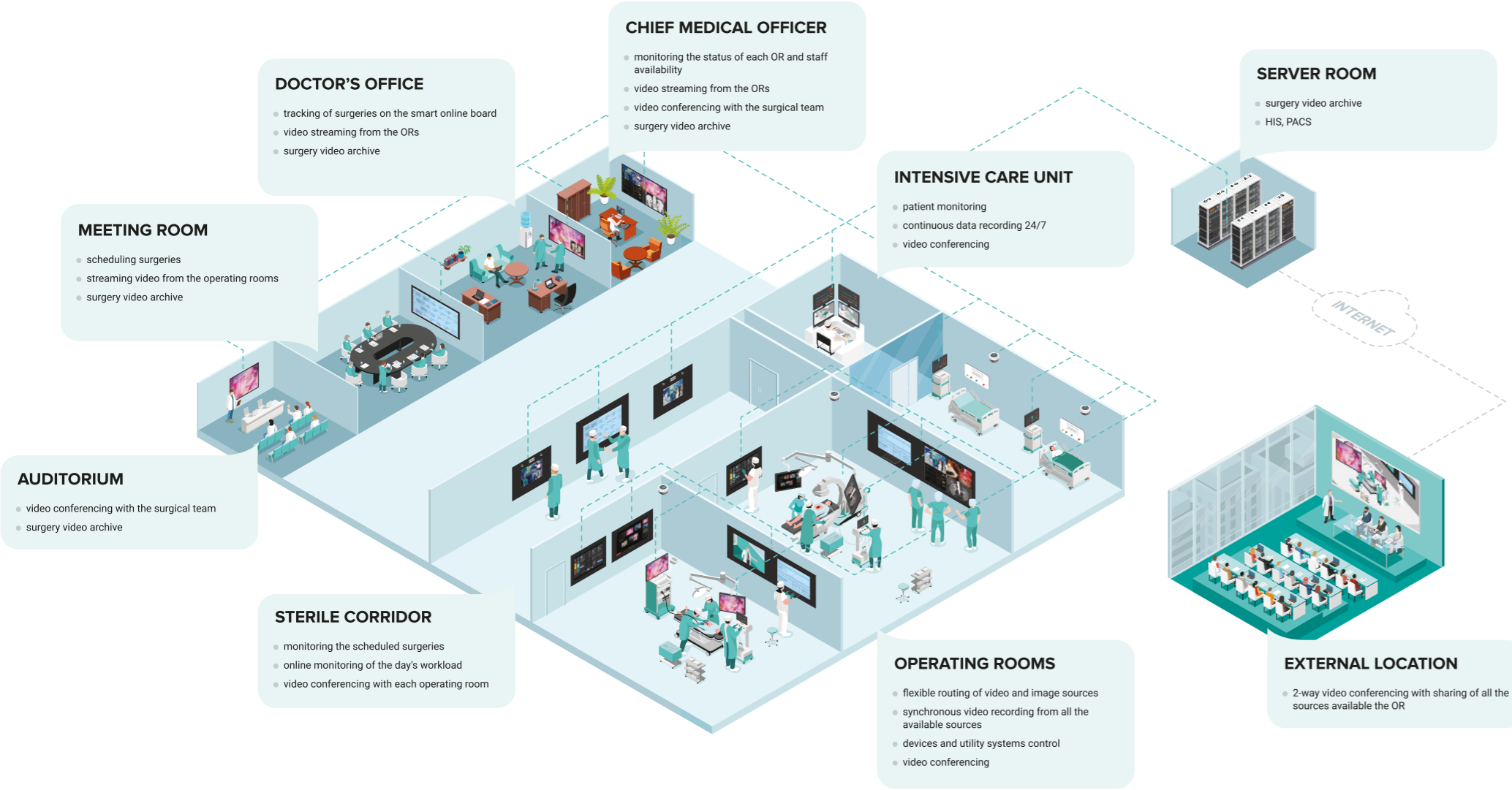
Smart intensive care unit

- Continuous data recording 24/7
- Interactive nurse's station
- Quick access to patient's history
- Two-way video conferencing
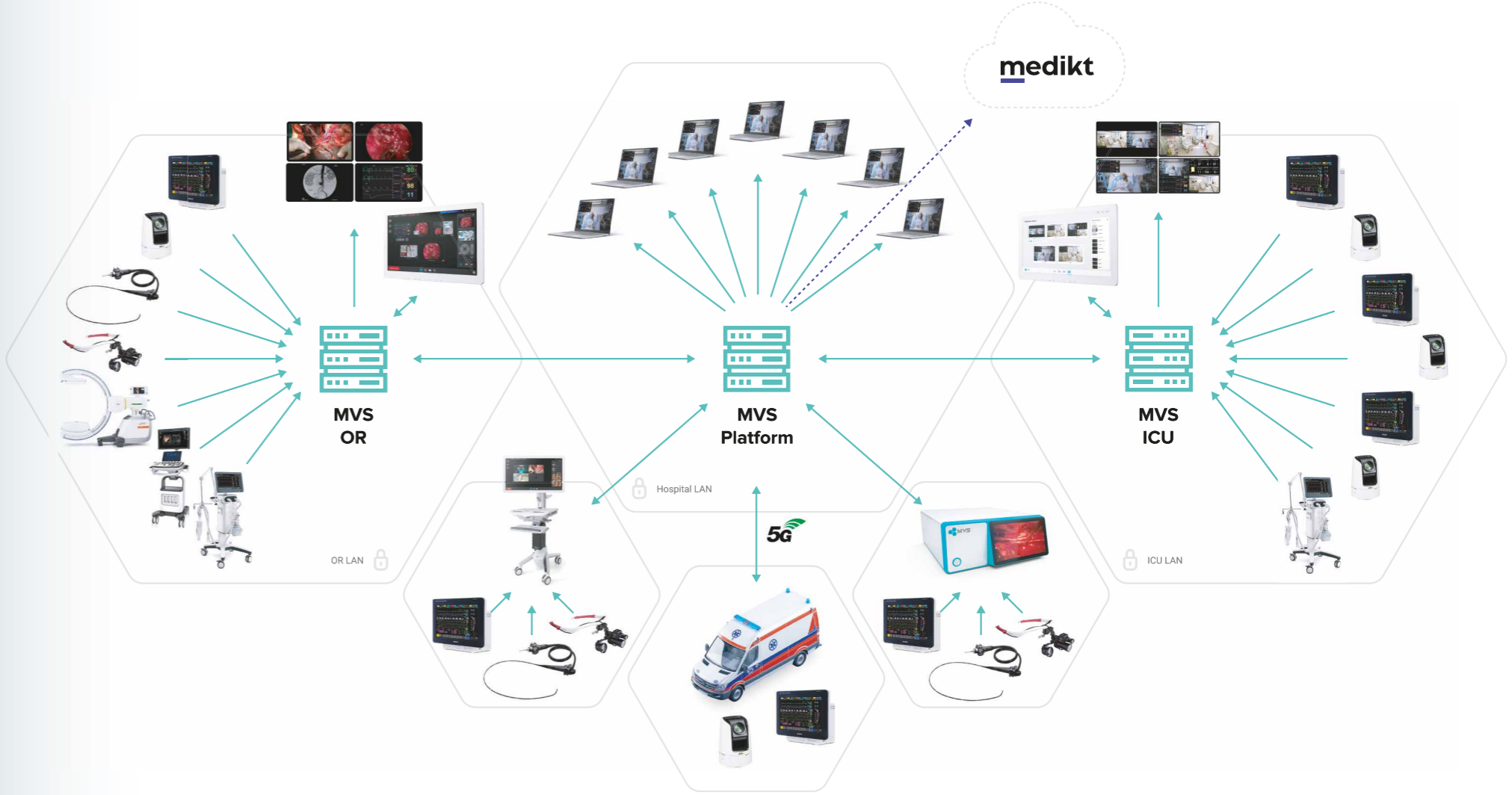- Integration with hospital information systems

Telemedicine cart

- Simultaneous recording and streaming of up to 4 video sources
- Two-way video teleconsultations
- Synchronization of recordings with central archive of the clinic

Clinical information environment

MEETING ROOM
- scheduling surgeries
- streaming video from the operating rooms
- surgery video archive

DOCTOR'S OFFICE
- tracking of surgeries on the smart online board
- video streaming from the ORs
- surgery video archive

CHIEF MEDICAL OFFICER
- monitoring the status of each OR and staff availability
- video streaming from the ORs
- video conferencing with the surgical team
- surgery video archive

INTENSIVE CARE UNIT
- patient monitoring
- continuous data recording 24/7
- video conferencing

SERVER ROOM
- surgery video archive
- HIS, PACS

INTERNET

AUDITORIUM
- video conferencing with the surgical team
- surgery video archive

STERILE CORRIDOR
- monitoring the scheduled surgeries
- online monitoring of the day's workload
- video conferencing with each operating room

OPERATING ROOMS
- flexible routing of video and image sources
- synchronous video recording from all the available sources
- devices and utility systems control
- video conferencing

EXTERNAL LOCATION
- 2-way video conferencing with sharing of all the sources available the OR

System interaction

medikt

MVS OR

MVS Platform

MVS ICU

Hospital LAN

OR LAN

ICU LAN

5G

Showrooms

ST. PETERSBURG
Levashovskiy Avenue, 12

MOSCOW
Vernadskiy Avenue,96

MINSK
Krasnaya Street, 13

SMART OPERATING ROOM

TELEMEDICINE

FUNDS AND GRANTS