

# NaywerOS





## HERITAGE OF INNOVATION

INMED logo, both in its classic and modern form, is a symbol of our brand, combining style and the highest quality. Recognized worldwide, it reflects our commitment to innovation and our contribution to improving global standards. Each product and service means striving for excellence, which shapes the future of medical sector.

Our heritage – the foundation of our identity – is extremely important to us. With respect for the past and passion for the future, we are constantly creating new, exciting chapters in the history of INMED.





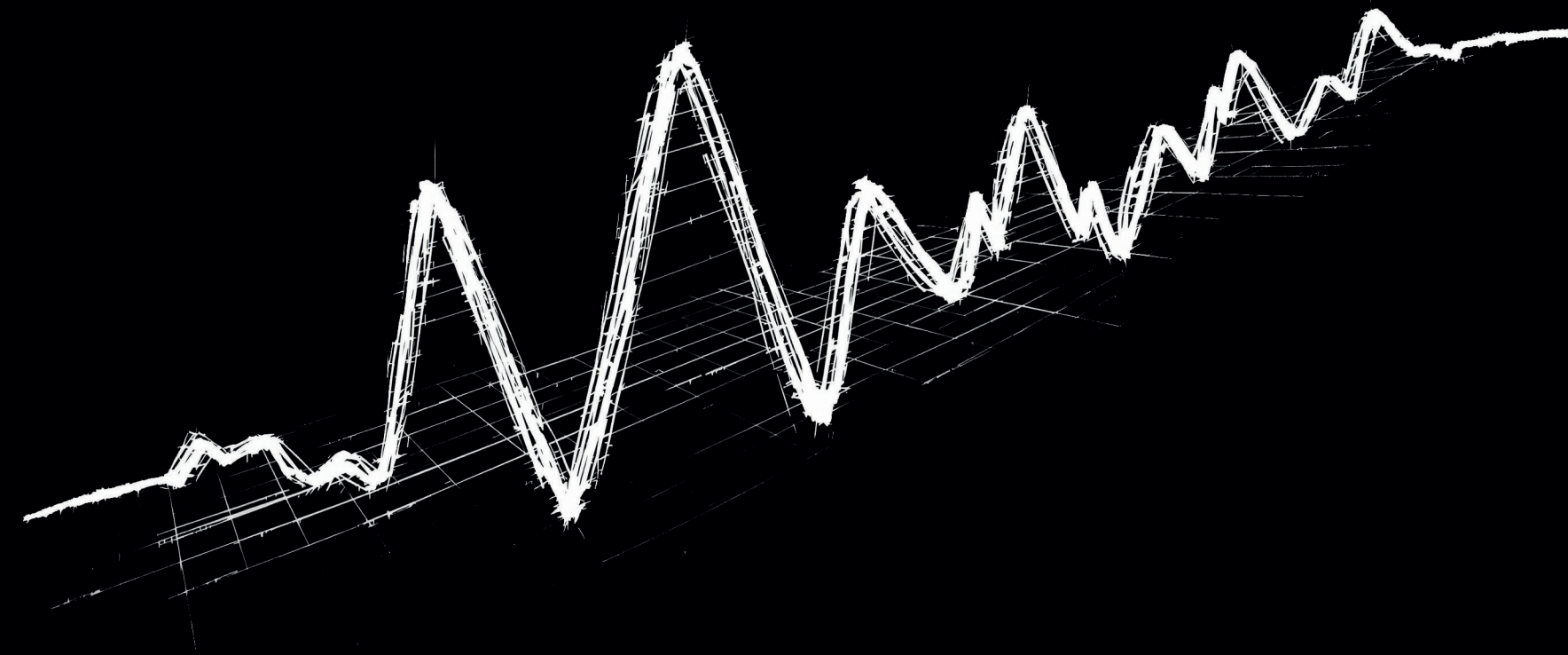
## FACTORY

INMED factory is located in Kępice, next to Wrocław. Using over 5000 m<sup>2</sup> production, storage and office space, more than 100 employees come here every day to create hundreds of products for our customers worldwide. INMED is a friendly place – both for employees and the environment. We use renewable energy sources and strive to balance technology with nature. There is also a pond in our premises that attracts birds resting on its banks what also reflect the core value of harmony with environment and ensures comfort and peace of mind for our employees.





## MONITORING SYSTEM FOR MEDICAL GAS PIPELINE



We are proud to present to you Naywer system – medical gas monitoring system – a comprehensive solution combining advanced NaywerOS software with exclusively selected components such as sensors, analysers, specific Naywer servers, monitoring cameras, NaywerAI intelligent agents and NaywerCloud data clouds.

It is one of the most advanced IT tools for managing medical gas installation. Naywer system is designed to support personnel responsible for daily operation and monitoring of medical gases in hospitals. Thanks to the integration of modern technologies, it not only provides full control over installation but also enables intelligent data analysis, what is a guarantee of maximum patient safety and operational reliability.





# Naywer Ecosystem

The system integrates a wide range of devices and components creating an advanced environment for managing the technical infrastructure of medical gases. The solutions are based on a state-of-the-art LAN infrastructure that uses a variety of transmission media such as copper cables, fibre optics and wireless networks.

Naywer system supports devices that communicate using both open protocols and individual or encrypted protocols.

Key functionalities of the system include comprehensive monitoring of medical gases, including: medical gas plants, hospital zones, video monitoring, environmental sensors.

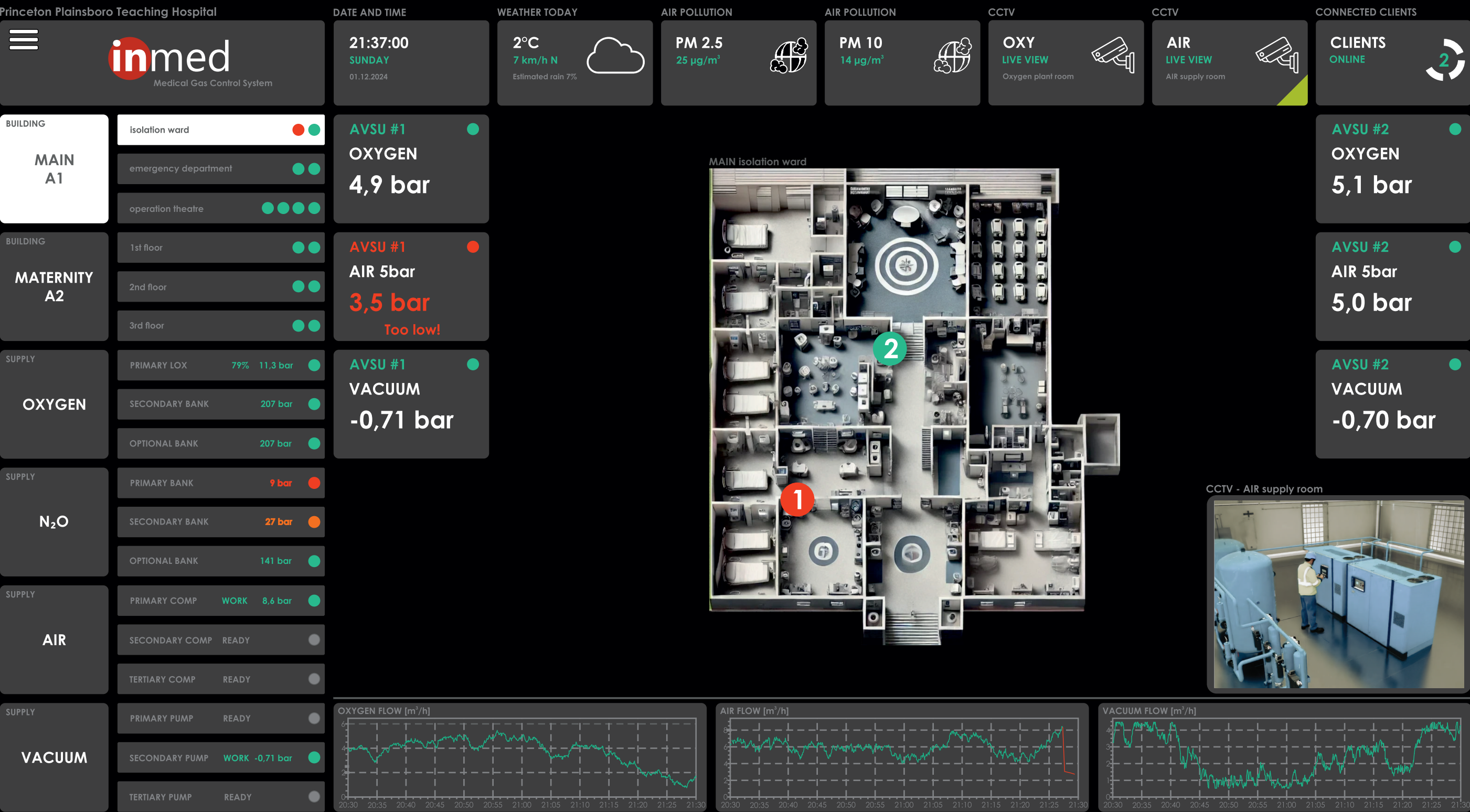
All data is stored locally on the customer's server, guaranteeing full control and information security. In addition, the system offers Remote Support functionality, enabling remote diagnostics, maintenance and technical support.



Software

We have been continuously developing our original medical gas monitoring system – NaywerOS – combining innovative design with unprecedented compatibility. This system goes beyond standards, boosting the monitoring of parameters such as pressure and flow to an entirely new level.

Continuous monitoring, analysis, and trends shaping enable intelligent detection of potential faults before they become issues. With advanced AI agents, our system not only reports existing failures but also predicts anomalies that may lead to malfunctions. This is technology that not only reacts but also prevents, making medical gas installation more reliable than ever before.



BUILDING

MAIN  
A1

isolation ward

●●

emergency department

●●

operation theatre

●●●●

BUILDING

MATERNITY  
A2

1st floor

●●

2nd floor

●●

3rd floor

●●

SUPPLY

OXYGEN

PRIMARY LOX

79%

11,3 bar

●

SECONDARY BANK

207 bar

●

OPTIONAL BANK

207 bar

●

SUPPLY

N<sub>2</sub>O

PRIMARY BANK

9 bar

●

SECONDARY BANK

27 bar

●

OPTIONAL BANK

141 bar

●

SUPPLY

AIR

PRIMARY COMP

WORK

8,6 bar

●

SECONDARY COMP

READY

●

TERTIARY COMP

READY

●

SUPPLY

VACUUM

PRIMARY PUMP

READY

●

SECONDARY PUMP

WORK

-0,71 bar

●

TERTIARY PUMP

READY

●

AVSU #1

OXYGEN

4,9 bar

●

AVSU #1

AIR 5bar

3,5 bar

Too low!

●

AVSU #1

VACUUM

-0,71 bar

●

AVSU #2

OXYGEN

5,1 bar

●

AVSU #2

AIR 5bar

5,0 bar

●

AVSU #2

VACUUM

-0,70 bar

●

MAIN isolation ward

CCTV - AIR supply room

OXYGEN FLOW [m³/h]

AIR FLOW [m³/h]

VACUUM FLOW [m³/h]





## Implementation

The first step toward the successful implementation of the Naywer system is identifying your needs and developing the appropriate network infrastructure. As part of cooperation, our specialists will conduct an in-depth analysis of your existing infrastructure and the devices to be monitored.

After verification, we will take actions tailored to your requirements. The implementation can be carried out remotely or, if necessary, we will provide recommendations for network modifications.

By providing the project, we will at the same time recommend updates or replacements of devices that require to be upgraded, ensuring complete support. The implementation process has been designed to be as comfortable and hassle-free as possible. Your network will be thoroughly checked by both our experts and specialized applications with AI agents that will perform advanced efficiency and quality tests. NaywerOS implementation is a fast and convenient process that shall take into account both your existing infrastructure and individual users' needs.





### Three Steps to Excellence

Our offer is divided into three clear stages, ensuring comprehensive support and perfection in managing medical gas infrastructure.

**The first stage** involves the remote installation of the monitoring system on your devices. Our specialists will handle the entire process, ensuring smooth implementation and integration of the system with your existing infrastructure.

**The second stage** includes secure and remote system management, scheduled meetings, faults monitoring and software updates. This ensures your infrastructure remains not only fully functional but also constantly suited to the latest standards.

**The third stage** gives the option to supply dedicated equipment, such as network infrastructure devices, cameras, environmental sensors and detectors, as well as advanced monitoring equipment for quality, concentration, pressure and flow of gases. Our aim is to provide the most advanced and complementary services that do not require your technical expertise.



# Technical Specification of the System

NaywerOS system is one of the most advanced solutions for monitoring of medical gas installation. It combines devices from various manufacturers and applies cutting-edge technologies, as AI, for detecting any irregularities, system incidents analysis, as well as provides advanced tools for data archiving.

**Implementation of the system**

- 1. Technical Documentation Analysis: Implementation begins from providing by the user network infrastructure design and technical specifications of devices to be monitored, including communication protocols.
- 2. Interface Customization: The user interface is designed based on 2D or 3D building layouts, enabling complete customization to match the customer's infrastructure.
- 3. Data Security: System login is protected by two-factor authentication (2FA) and operates on web-based servers, ensuring the highest level of protection against unauthorized access.

**System Functionalities**

**Medical Gas Parameters:**

- Pressure of various gas types (in compliance with HTM and ISO 7396 standards) with alarm thresholds and notification systems (SMS, e-mail, user terminals).
- Flow and consumption of gases, with historical records, trend graphs, and billing options for statistical or financial purposes.
- Liquid and gas levels in various types of tanks, including alarms and sensor failure notifications.

**Monitoring of medical supply units:**

- Information on the current gas source supplying the installation.
- Status and consumption of dryers, temperatures, and overheating in compressors, oxygen concentrators, and vacuum plants.

**Environmental Monitoring:**

- Information on dew point and gas concentrations (O<sub>2</sub>, N<sub>2</sub>) in rooms.
- Motion detection and images from cameras.
- Monitoring of temperature, humidity, PM particle content, and TVOC levels in the atmosphere.
- Anomaly signaling in the environment with the ability to generate signals for ventilation control systems.

**Alarm Systems:**





















- Integrated alarms and notifications of potential failures.
- Automatic signals to external control systems, e.g. for valve closures or activation of electromagnetic locks.

**Advanced Data Analysis:**

- AI-based monitoring of parameters trends and identifying potential failure points.
- Dynamic analysis and risk prediction to maintain system operation continuity.

# Choose the Package for Yourself

With our tiered offering, all you have to do is choose the right package for yourself and we will take care of the rest.

Service Packages	ESSENTIAL	PROFESSIONAL	ULTIMATE
Client infrastructure analysis			
Drafting network infrastructure guidelines			
Online implementation of NaywerOS system			
System management, updates, online meetings			
LAN network infrastructure design			
Supply of network devices: switches, servers, gateways, converters			
Supply of devices for monitoring environmental parameters: gas sensors, gas and smoke detectors			
Supply of cameras			
Supply of SMS/email gateways			
Supply of devices for monitoring gases, pressure, flow and valve status			
Data storage in NaywerCloud			
NaywerAI Support Agents			



First Edition (20250123PL)

Wrocław, 2025  
Prepared by: DC

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