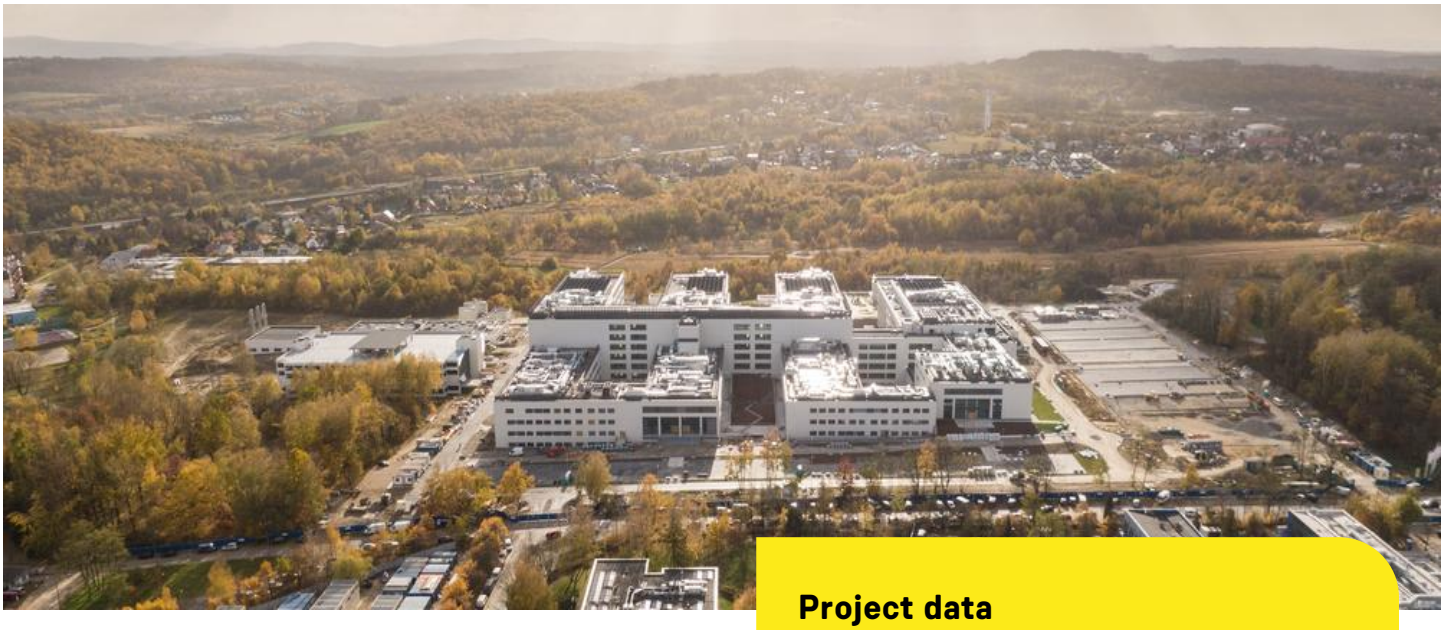

PROGRESS: 100% - COMPLETED
POLAND

A NEW HOME FOR CLINICAL RESEARCH

Krakow-Prokocim University Hospital

Text: Łukasz Gombarczyk

In Krakow, PORR – in a consortium with VAMED and WARBUD – built one of Europe's largest university hospitals in only 50 months.

The hospital offers space for 925 beds, 24 operating theatres, 27 specialist clinics, and 69 departments and laboratories. It will also feature an auditorium for 250 people, two lecture halls for 50 people, and numerous seminar rooms. The hospital already complies with the Polish energy efficiency requirements of 2021.

Project data

Employer	Jagiellonien-Universität – Collegium Medicum
Contractor	ARGE WARBUD S.A., PORR S.A., VAMED Standortentwicklung und Engineering GmbH & Co KG
Architect	INDUSTRIA PROJECT Sp. z. o.o., WARBUD S.A.
Project type	Building construction . health care facility
Project scope	Planning and construction of the university hospital, including the associated infrastructure and the technical items
Order volume	846.7 million PLN (198.9 million euros)
Construction start	01/2015
Construction end	05/2019

Overview

Plans to build a university hospital in Krakow date back to the 1950s. At that time, the management of the Jagiellonian University decided to build a new campus in Prokocim. However, it was only in 2013 that university senate finally gave the go-ahead for the construction of the new hospital. The call for tenders took place in July 2013, and the contract was awarded to a consortium consisting of PORR, VAMED, and WARBUD. While PORR and WARBUD were responsible for the construction of the hospital, VAMED was responsible for the delivery and installation of the medical equipment.

Medical mega-complex

After a comprehensive planning and preparation phase, the construction work started in June 2015. The multi-story parking garage area was first completed followed by the main building of the hospital. The main building consists of nine interconnected segments that provide space for 925 beds, 24 operating theatres, 27 specialist clinics, 69 departments and laboratories, an auditorium for 250 people, two lecture theatres, and numerous seminar rooms. The hospital complex is supplemented by several auxiliary buildings and infrastructure facilities such as a power supply station, a helicopter landing pad, a sewage treatment plant, a medical gas decompression plant, a kitchen, and a laundry shop.

Initial plans for a university hospital in Krakow were made back in the 1950s, but it was not until 2013 that the university senate gave the go-ahead for the project to begin. Source: PORR

IN ORDER TO COMPLY WITH THE ENERGY EFFICIENCY GUIDELINES THAT WILL BE APPLICABLE IN POLAND FROM 2021, THE EXTERIOR WALLS WERE INSULATED MORE THAN IS CURRENTLY THE CASE IN POLAND.

Łukasz Gombarczyk
Project head, PORR S.A.

In order to comply with the energy efficiency guidelines that will be applicable in Poland from 2021, the exterior walls were insulated more than is currently the case in Poland. In addition, windows and facades with a higher degree of thermal insulation were installed. A solar system for direct hot water supply was also installed on the roof.

After completion of the infrastructure, deliveries of medical equipment started in July 2018. After the installation was completed in December 2018, the acceptance of the building could begin. In May 2019, the final acceptance protocol was signed, and the building was handed over to the end user.

In order to increase the building's energy efficiency, a solar system was installed on the roof to heat water. Source: PORR

A PNEUMATIC POSTAL SYSTEM WITH 56 STATIONS ALLOWS THE RAPID TRANSPORT OF BLOOD SAMPLES, MEDICATIONS, OR DOCUMENTS THROUGHOUT THE HOSPITAL.

Łukasz Gombarczyk
Project head, PORR S.A.

Multi-functional facility

The new University Hospital in Krakow-Prokocim was designed and built to fulfil several strategic functions. The hospital serves the training of medical specialists and clinical research but also offers the best diagnostic and treatment options.

In order for the hospital to fulfil its intended functions, it was equipped with state-of-the-art facilities and systems. These include a central control panel in the operating theatres, which gives employees access to key control and information elements – from lighting, ventilation, and temperature to access to the patient database. An audio-visual system also enables the transmission of images and sound from the operating theatres to every room in the hospital, especially the auditorium, the lecture theatres, and the seminar rooms.

Thanks to a pneumatic postal system with 56 stations, blood samples, medications, or documents can be quickly transported throughout the entire hospital. A real-time localisation system (RTLS) is used to identify and monitor the whereabouts of patients. The wireless RTLS tags are attached to the wrists of patients. Their location can then be determined via RTLS wireless access points. In the event of an emergency, the patient can also immediately contact the medical staff via the tag.

Conclusion

The planning and construction of the Krakow-Prokocim University Hospital was an exciting challenge for PORR. Thanks to the excellent cooperation among the consortium partners, the high requirements of the client were fulfilled, and the project – including all medical equipment – was handed over in May 2019.

State-of-the-art medical equipment enables the best possible patient care. Source: PORR

Technical data

230,000m³
Excavation

43
Lifts

Gross floor area	108,395m²
Site area	152.800m²
Parking spaces	1,259
Asphalt	22,542m² (roads), 5.990m² (walkways)
Steel used	8,200t
Facade area	44,000m2