connectpoint

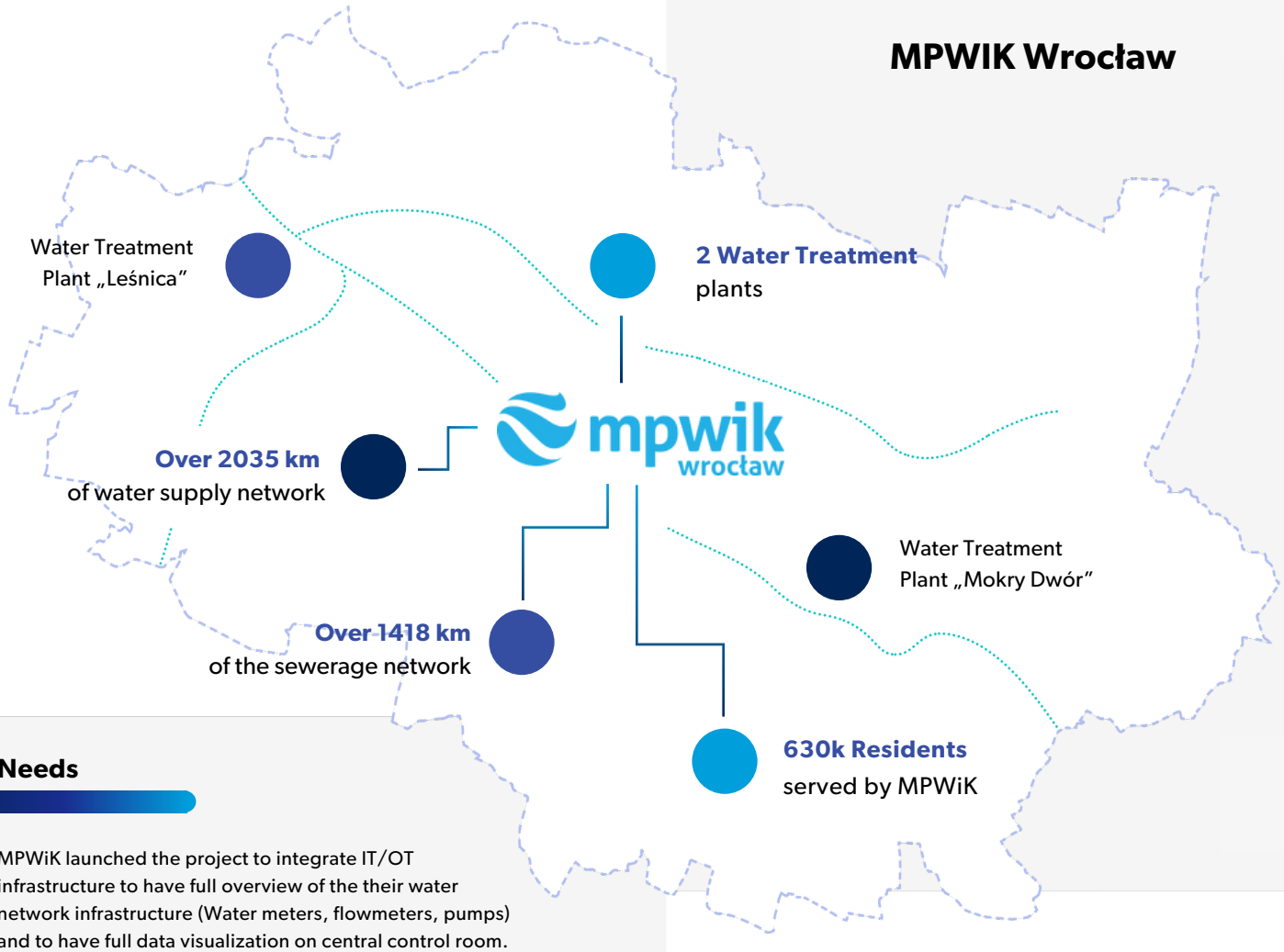
mpwik wrocław

ConnectPoint for MPWiK Wrocław

Building water supply management across Municipal Water and Sewerage Company

Miejskie Przedsiębiorstwo Wodociągów i Kanalizacji S.A. (MPWiK) in Wrocław is one of the largest municipal water and sewage companies in Poland. It has been operating since 1871.

MPWIK Wrocław



Needs

MPWiK launched the project to integrate IT/OT infrastructure to have full overview of the their water network infrastructure (Water meters, flowmeters, pumps) and to have full data visualization on central control room.

The main purpose of the project was:

- status of the network infrastructure in real-time,
- maintain proper pressure in the water supply network,
- react of any network elements and systems deviations,
- reduce the costs of network operations:
  - optimization of pumping stations operation and energy consumption,
  - more accurate planning the production and optimization of filling level in water reservoirs,
  - early detection of failures, shorten the time of failure removal and disaster recovery,
  - leakage detection and reductions,
- forecasting optimization.

Industry challenges

Climate change is causing increasingly frequent weather fluctuations: from droughts to floods. Water companies are forced to improve the efficiency of water resource management and to prepare for emergencies. A major challenge for these companies is their infrastructure, which has been developed since the 19th century.

ConnectPoint project approach

ConnectPoint as the experienced IT/OT System Integrator within Utility industry has been selected for this project by MPWiK.

In order to achieve the required functionalities of MPWiK, there was necessity to build Central Data Repository where all data from OT/IT systems are processed in real-time mode.

CDR was build based on the system OSIsoft PI that is the the leading software technology for collection, analysis, visualization of large amounts of time-series data from multiple sources and systems across all operations.



Functionalities delivered by ConnectPoint

Data from water production: visualization of water production data is made in the Tableau System. As part of the CDR implementation, existing reports are reconstructed based on CDR through Data Warehousing. CDR shares aggregated data sets to the Data Warehouse or directly to the Tableau tool.

Data from noise loggers are real time visualized on a dedicated dashboard using the OSIsoft PI's (Processbook, Coresight) visualization tools.

In addition to the indications for the individual measuring devices, dynamic objects are designed to indicate the deviations of the set ranges of allowable values.



Fixed assets model

Hierarchical structure of elements in Asset Framework technology reflecting the network.

Notification system

Allows to configure the mail notification that is called when a previously configured condition is met.

Analytical module

Provides the right tools for configuring formulas, enumeration fields or events based on asset framework data. PI Analysis will create an analytical model based on the principles provided by the Ordering Party (e.g division of measurements).

Meteorological data

A set of views showing data from weather stations and piezometers and gauges.

About ConnectPoint

ConnectPoint is an IT company that supports the process of digitalisation in industry, energy sector and public utility segment. It specialises in IT/OT and IoT integration and combine industry knowledge with expertise in the field of OT, Big Data, GIS, Business Intelligence and Machine Learning. It builds systems that allow for effective cooperation between Operations, IT and Business.