Summary

The paper presents changes in production processes after the application of the IIoT Nazca 4.0 platform. First, the history of the creation of the proprietary IIoT platform and the assumptions adopted for its creation are presented.

The diagrams show the main parts of the platform with a description of the concept of its operation. The leaders in the field of automation in the world have their own IIoT platforms in their offer. The capabilities of platforms from manufacturers such as Siemens, ABB, Schneider Electric, Mitsubishi, Seebo, and their functionalities were compared.

This allowed for the identification of possible innovations of the Nazca platform, which was also presented in the paper.

The most important part of the work is the description of the work of the proprietary IIoT Nazca 4.0 platform.

It presents a construction scheme and method of operation, and then identifies three implementations in various industries.

The work presents the implementation in the automotive sector at the VW plant in Poznań, the industry robotization sector at the Kuka Training Center in Tychy and in the medical sector at the EHTIC laboratories - European HealthTech Innovation Center in Zabrze. Each of the presented implementations is of a different nature and required an individual approach to the implementation process.

At the end of the work, the conclusions were summarized, considering national programs supporting the implementation of the idea of "Industry 4.0":

- support for Industry 4.0 areas by the Ministry of Development and Technology,
- Responsible Development Plan,
- Long-term National Development Strategy "Poland 2030".

In terms of assessing the digital maturity of factories, the Nazca 4.0 platform was summarized in accordance with the standardized ADMA methodology in the seven areas of transformation.

It was indicated where the NAZCA 4.0 platform can improve individual areas of enterprises and how it affects processes in the enterprise.

The work ends with a description of further works that are planned to be performed to increase the functionality of the IIoT Nazca 4.0 platform.

During industrial implementations, processes of digital transformation of the organization were taken into account. It was indicated where the NAZCA 4.0 platform can improve individual areas of enterprises and how it affects processes in the enterprise. The work ends with the description of further work planned to be performed in order to increase the functionality of the IIoT Nazca 4.0 platform.