



October 9, 2024

## Digital technologies

Large-scale efforts have been carried out to implement digital technologies, automate production processes, and improve management efficiency. Modern information systems have been gradually introduced across industry enterprises to create a unified digital management environment, centralize data analysis, and optimize business processes.

A digitalization action program was developed at JSC "Uzkimiyosanoat" and its network enterprises. All IT programs were integrated into a single system, and "Analytical Centers" equipped with modern technical infrastructure were established to analyze financial and production indicators.

At JSC "Navoiyazot", JSC "Maxam-Chirchiq", JSC "Ammofos-Maxam", JSC "Dehkanabad Potash Plant", LLC "Qizilqum Phosphorite Complex", and JV LLC "Kungrad Soda Plant", systems for financial planning, contract execution, treasury payments, procurement, trade operations, and compliance control were digitalized based on the "1C" software platform.

As a result of implementing these modules, the following opportunities were created:

- business plans and procurement limits for enterprises were established, with automated monitoring to ensure compliance throughout the year;
- all stages of procurement documentation preparation, collection, approval, and execution were digitalized;
- restrictions were introduced on additional procurement of products not included in business plans or already accounted for in warehouses;
- financial and compliance inspections, exchange trading procedures, and bank payment operations were integrated based on documents generated through the procurement module;
- a unified system was established for announcing finished product lots on exchange trading platforms, automatically obtaining sales contracts, monitoring fertilizer deliveries to warehouses, and controlling shipments to customers.

To collect and analyze industry data, an integrated business analytics information system (Dashboard) was developed. This system enables analysis of warehouse turnover, accounts payable and receivable, imported and exported products, cash flow, investment projects, financial models, energy consumption, tax liabilities, and cultivated land areas across all enterprises.

Integration work with databases of 21 ministries and agencies was fully completed for collecting and monitoring industry-related information. To improve data reliability and automate business processes, integration was established with the Commodity Exchange, Electronic Cooperation Portal, XT-xarid, Uzsanoatqurilishbank, Asakabank, Agrobank, UzGazTrade, Transgaz, Hududgaz, Regional Electric Networks, Water Supply systems, Railways, Customs Committee, Tax Committee, Ministry of Agriculture, electronic invoice operators, and databases of chemical industry enterprises.

In particular:

- investment project data are received from the Ministry of Investments, Industry and Trade;
- online monitoring of exchange trading results has been established with JSC “Uzbek Commodity Exchange”, JSC “Hayot Birja”, and LLC “Digital Transformation Center”;
- banking operation history and cash flow data are obtained through the systems of Uz sanoatqurilishbank, Agrobank, and Asakabank;
- online customs data on imported and exported chemical products are received from the Customs Committee;
- information on farmers, cultivated land areas, and crop yields is obtained from the Ministry of Agriculture’s “CropAgro” information system;
- online monitoring of central energy resource metering systems has been organized through JSC “Hududgazta’minot”, JSC “Uztransgaz”, JSC “UzGazTrade”, and JSC “Regional Electric Networks”;
- integration with the systems of JSC “Uzbekiston Temir Yollari” enables monitoring of chemical product transportation and wagon locations.

Additionally, data from Automated Process Control Systems (APCS) were integrated into the Analytical Center screens, including 46 systems of JSC “Ferganaazot”, 31 systems of JSC “Navoiyazot”, 2 systems each of JSC “Maxam-Chirchiq”, JSC “Ammofos-Maxam”, JSC “Dehkanabad Potash Plant”, 3 systems of LLC “Qizilqum Phosphorite Complex”, and 2 systems of JV LLC “Kungrad Soda Plant”. The capability for online monitoring of video surveillance cameras in all production workshops was also created.

To digitalize the activities of authorized warehouses, the “My Warehouse” platform and mobile applications for equipment were developed. This system provides functionality for tracking deliveries of manufactured products to warehouses, monitoring lots purchased through exchange trading, managing real-time product inflow and outflow data, and planning required product volumes. An automated invoice generation feature was also introduced for warehouse representatives. Currently, nearly 2,000 daily inbound and outbound warehouse operations are carried out through this system.

All surveillance cameras installed at authorized warehouses storing finished products were connected to the Analytical Center.

Based on the data from the “Analytical Center” system, artificial intelligence models were developed, an AI-powered chatbot was created for communication, model training activities were completed, and the system was fully launched into operation.

An automatic notification system was introduced within the “Analytical Center” for monitoring delivery of products to authorized warehouses, sales of mineral fertilizers through exchange trading, timely collection of products by customers, and automatic alerts regarding changes in warehouse stock balances.

A “Financial Model” module was launched to enable analysis and forecasting of the financial condition of industry enterprises.

**source:**

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<https://new.uzkimyosanoat.uz/en/digital>