sitronics GROUP

SITRONICS INDUSTRIA

Unified infosystem for cross-functional tasks within operational control, robust strategic planning and asset management

Sitronics Group

Sitronics Group is a diversified ICT holding with comprehensive experience and expertise in digital solutions for public and multiple industries.

The expertise and project experience of Sitronics Group allow to provide a full amount of services from IT consulting, integration to overall infrastructure development and implementation and technical support.

Sitronics Group cooperates with the leading Russian companies and has partnership with the largest IT vendors and companies around the world.

ACHIEVEMENTS

№ 1

IT company in distribution in 2023, RAEX

топ 6

Russian IT companies in 2023, RAEX

> 20 лет

in the IT technology market

> 400

Hardware and software partners

> 2 500

highly-qualified subject-matter experts

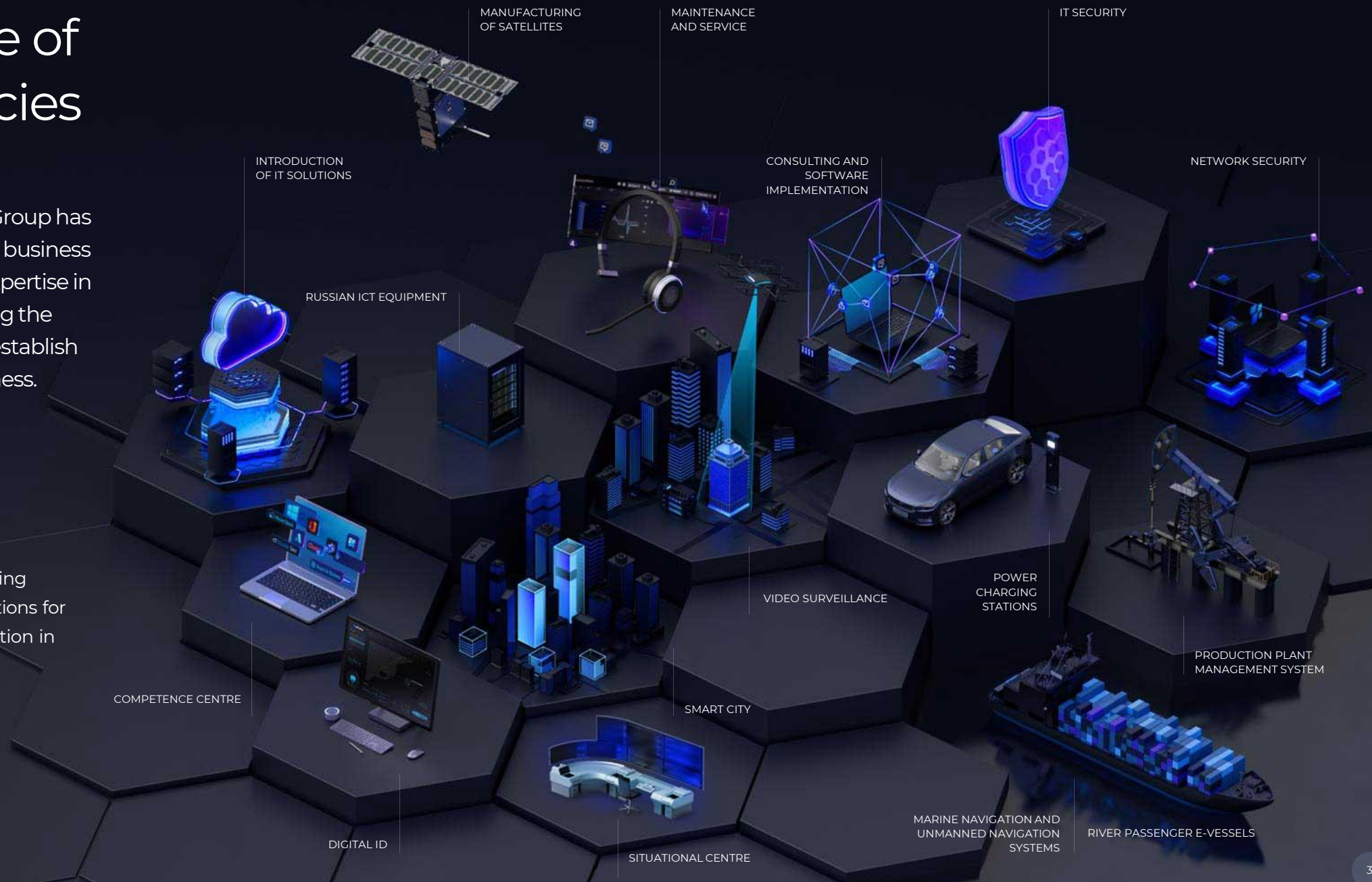
№ 2

крупнейший игрок рынка видеонаблюдения 2023, CNews Analytics

Wide range of competencies

Over the years, Sitronics Group has significantly diversified its business areas and increased its expertise in various industries, allowing the company to confidently establish itself as a diversified business.

Vertically integrated ICT holding offering comprehensive solutions for multi-level digital transformation in industrial and public sectors.

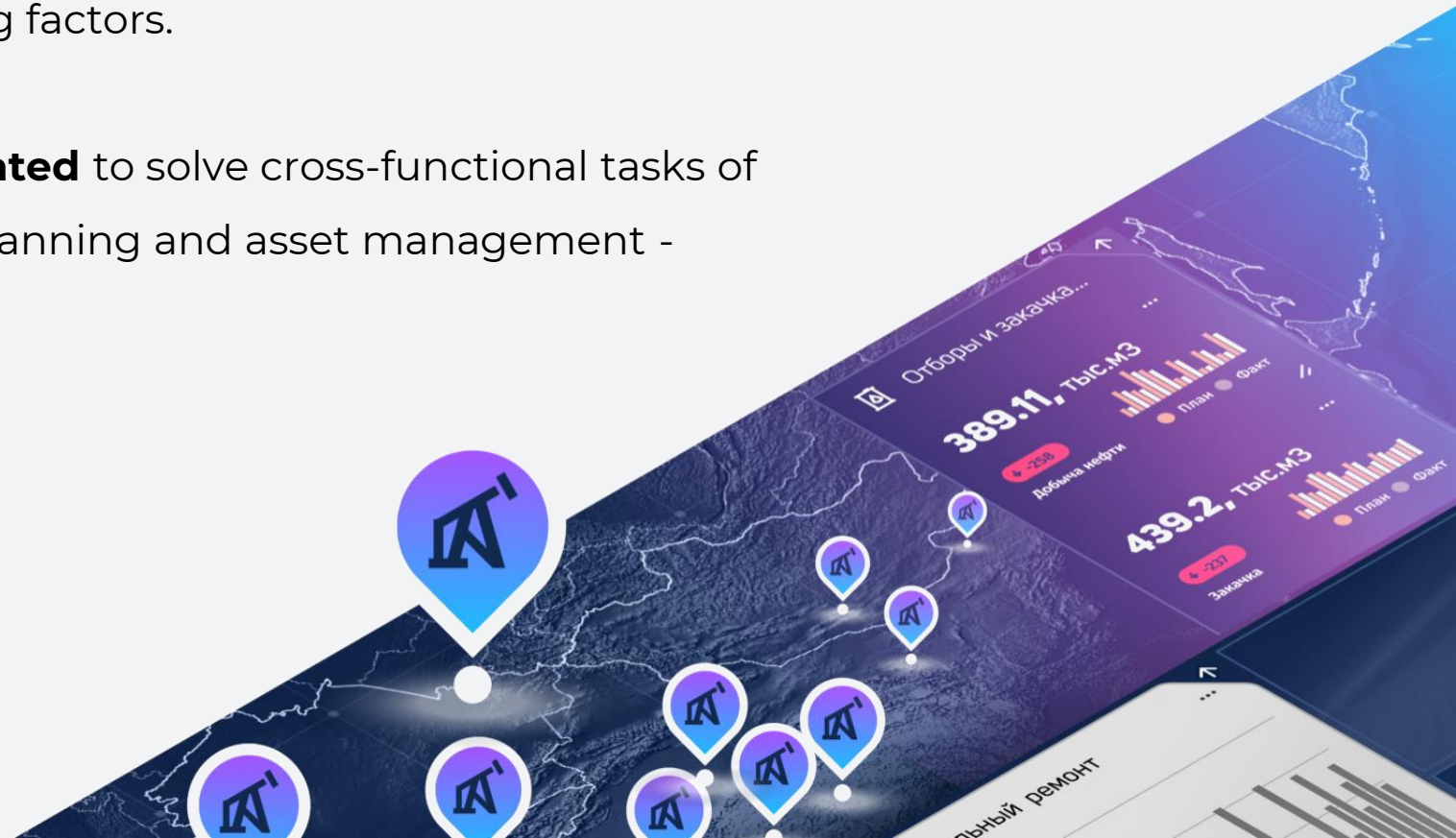


Sitronics Industria

Oil and gas operations are based on the integrated decision-making, it shall be swift and continuous and shall consider data from different information systems, separate divisions taking into account multiple limiting factors.

A unified information system has been created to solve cross-functional tasks of operational control, operational & strategic planning and asset management - **Sitronics Industria.**

From Latin 'industria'

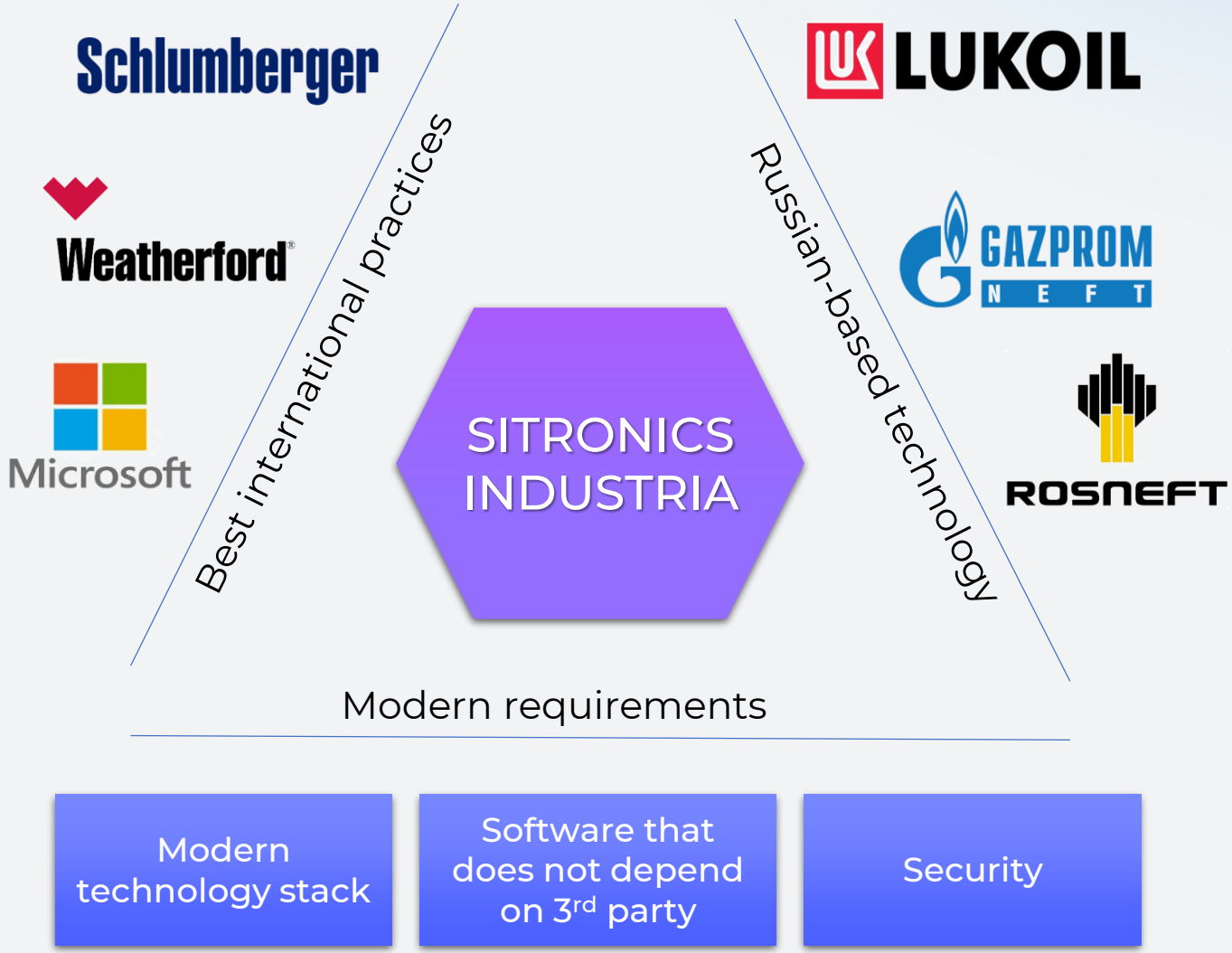


SITRONICS INDUSTRIA

- ✓ In development since 2021
- ✓ Based on the best international practices and experience of employees at Russian oil&gas companies

Our goals:

1) To create a modern solution available for both vertically integrated oil companies and medium and small production companies
2) Create a solid info-space for solving cross-functional tasks of subdivisions, eliminating clustering of functional blocks
3) Provide company's management with timely and reliable data for making critical and day-to-day decisions



Sitronics Industria Overview

- **SITRONICS INDUSTRIA** is an information and analytical system that forms a unified environment that integrates all information systems, data, physical objects, technological and business processes to organize the workflow of the Customer's cross-functional teams.
- **SITRONICS INDUSTRIA** includes a platform for data service, data collection, normalization and structuring from various sources in automatic mode, as well as a digital oilfield system with special modules to it, which will provide cross-functional communication for the integration of the main areas within the Upstream block.
- **SITRONICS INDUSTRIA** can be used by oil and gas production managers who will be able to quickly manage the asset based on historical and real-time operational data.

Unique features of our proposal

- Ability to integrate different information systems
- Calculation modules using different types of data from disparate systems
- Ability to flexibly adapt the solution to the customer's needs
- Integration with the other company's products - Sitronics GIS, cloud solutions, data servers, private computer networks

INDUSTRIA Key Features

1. **Comprehensive analysis** of the current situation at the development site, achieved by integrating regularly updated data from various sources
2. Successful **planning of new wells put in production and geotechnical studies**, reducing the risk of reaching constraints on the surface network
3. **High-quality management** of the well park and surface network due to operational factor analysis of deviations from the optimal parameters of the systems
4. **Efficient planning of production volume** taking into account field operations and specified parameters of the field development project
5. **Fast cross-functional analysis** of challenging and promising areas through universal data access and visualization with “one window approach”

1st Stage Key Modules of the System

Digital Oil Field

Dynamic object model of infrastructure, real-time data collection, processing, storage, validation and analysis, visualization and mapping for optimal asset management purposes.

Integrated Planning

Creation of a unified planning environment to consolidate the plans of various departments, including the drilling plan, field development project and geotechnical activities.

Daily Production Report

Collection and monitoring of well production data in a unified information space.

Well Technical Regimes and Calculation of Production Schedule

Monitoring and optimization of well technical regimes in the field taking into account the constraints model. Calculation of production schedule based on geological and engineering operations and constraints.

Risk Management

Monitoring and management of operational risks based on historical data and predictive analysis.

Target Functionality of Industria in Upstream Segment

PROSPECTING	EXPLORATION	RESERVOIR ENGINEERING	DRILLING	INFRASTRUCTURE ENGINEERING	PRODUCTION MANAGEMENT AND MONITORING
SITRONICS INDUSTRIA					
Assessment of prospective fields	Exploration activities	Reservoir development monitoring	Engineering and drilling wells	Modelling technological processes	Preparing and analyzing production data
Basin modelling	Geophysical activities	Integrated modelling	Drilling services	Hydraulic modelling	Potential estimation and flooding optimization
Seismics	Geomodelling	Reservoir fluid composition survey	Geomechanics modelling	Energy systems modelling	Production modelling, planning and forecasting
	Calculation and audit of reserves	Hydrodynamic modelling	Core digital analysis	Timing and network planning	Functional and integrated planning
		Hydraulic fracturing	Petrophysical modelling	Cost engineering	Fulfilment, dispatching and monitoring
		Hydrodynamic surveys			Robust analysis and actuals accounting
		Hydrogeology			Modelling well interventions and workovers
		PVT modelling			Calculating downhole equipment
					Monitoring and controlling technological processes

Stage 1:

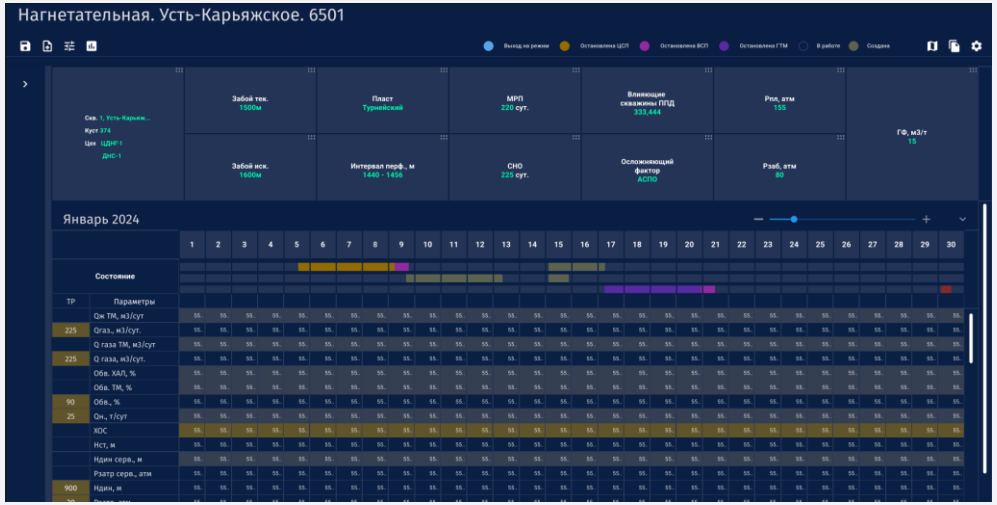
- acquisition and storage data
- digital field
- e-grid
- integrated planning
- risk management

- target functions

Daily Production Report

Daily Production Report is a software module aimed at improving the level of information support and efficiency of oil production and field operation processes by:

- forming a unified information space
- developing tools for making engineering decisions
- improving the tools of operational control



Major Module Functions

DATA COLLECTION

Enabling the most complete gathering of data from various related systems of the Customer with automatic verification of the data uploaded to the system (telematics, telemetry, GDIS, laboratory analyses)

ENTRY AND APPROVAL

Manual input and saving of data for generating and approving the current and monthly well operation mode

QUALITY CONTROL

Automatic data quality control for obtaining the most verified information (telemetry data filtering, calculated indicators, data verification, aggregation by hierarchy levels)

REPORT SERVICE

Generating operational production reports by selected parameters, as well as monthly operational reports. Import/Export from/to Excel

PARAMETER CALCULATION

Calculating current bottom hole pressure and well potential using the company's adapted methodology

VISUALISATION

Visualizing the well design, surface and underground equipment

Integrated Planning

Goals of integrated planning

- Unified integrated planning environment
- KPI Management
- Organizing and implementing planned activities

Business effect

- Cutting man-hours on planning
- Optimizing resources for Integrated Planning implementation
- Minimizing downtime losses by combining activities
- Implementing extra activities with aim to increase production
- Fulfilment of production targets
- Reduction of Customer's NPT

Integrated planning is a process that combines the planning processes of various functions both inside and outside the company into a single system.

Functional plans within the integrated plan

Risk Management Module

Trends built on the basis of objective information create a basis for making managerial decisions and for continuous improvement of production processes at the production plant.

- Improved **efficiency** and **stability** of the production **process** by **minimizing NPT** and avoiding **catastrophic events**
- **Early detection and prevention** of unpredictable emergency situations (including through early risk detection and transparency of the risk management process)
- Qualitative **protection of the company's reputation** on the external and internal (for its own employees) circuits, including through optimization of work with contractors, organizations and suppliers
- **Compliance with regulatory requirements** ensured by adjusting internal risk management requirements
- **The quality of decision-making** is improved on the basis of **objective** statistical information
- Improved **business processes** in the organization by increasing the number of **successful projects** and enhancing **financial performance**

Incident

RISK

1. **Recording** the event in the database

2. **Classification and investigation** as well as collecting necessary information and assigning responsible persons

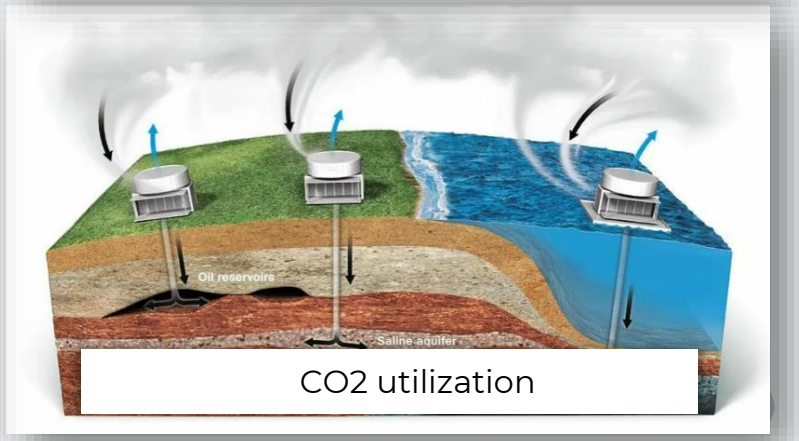
3. **Damage assessment** (actual and potential based on **initial and root cause** of the event)

4. **Remedial Action Plan** with measures for **eliminating** the outcome and preventing repeated event

5. **Optimization** of business processes

Industria Applications

The system is mainly used to provide cross-functional links for the integration of the main areas of the Upstream block at oil and gas production companies in Russia and other countries. INDUSTRIA platform is expected be used for entering related markets of IT systems for key industries .



Expected Outcome and improvements of implementation

Well Drilling Costs

Reduction of 1 meter of drilling cost by optimizing operational and management processes.

Oil Production

Increase in production due to reduction of NPT, reduction of drilling time, downtime, optimization of repair and emergency operations.

Cost per Ton of Crude Oil Produced

Reducing the cost per ton of oil produced by optimizing capital construction costs and reducing electricity consumption.

Timing of Well Workovers

Reduction of workover times by accelerating processes and introducing end-to-end control.

Management Costs

Reduction of management costs by accelerating optimal decision-making and reducing the time required to prepare reports.

Return of on Assets Investment

Increased return on production by implementing scenario-based project development, probabilistic calculations and forecasts. Increase in asset value.

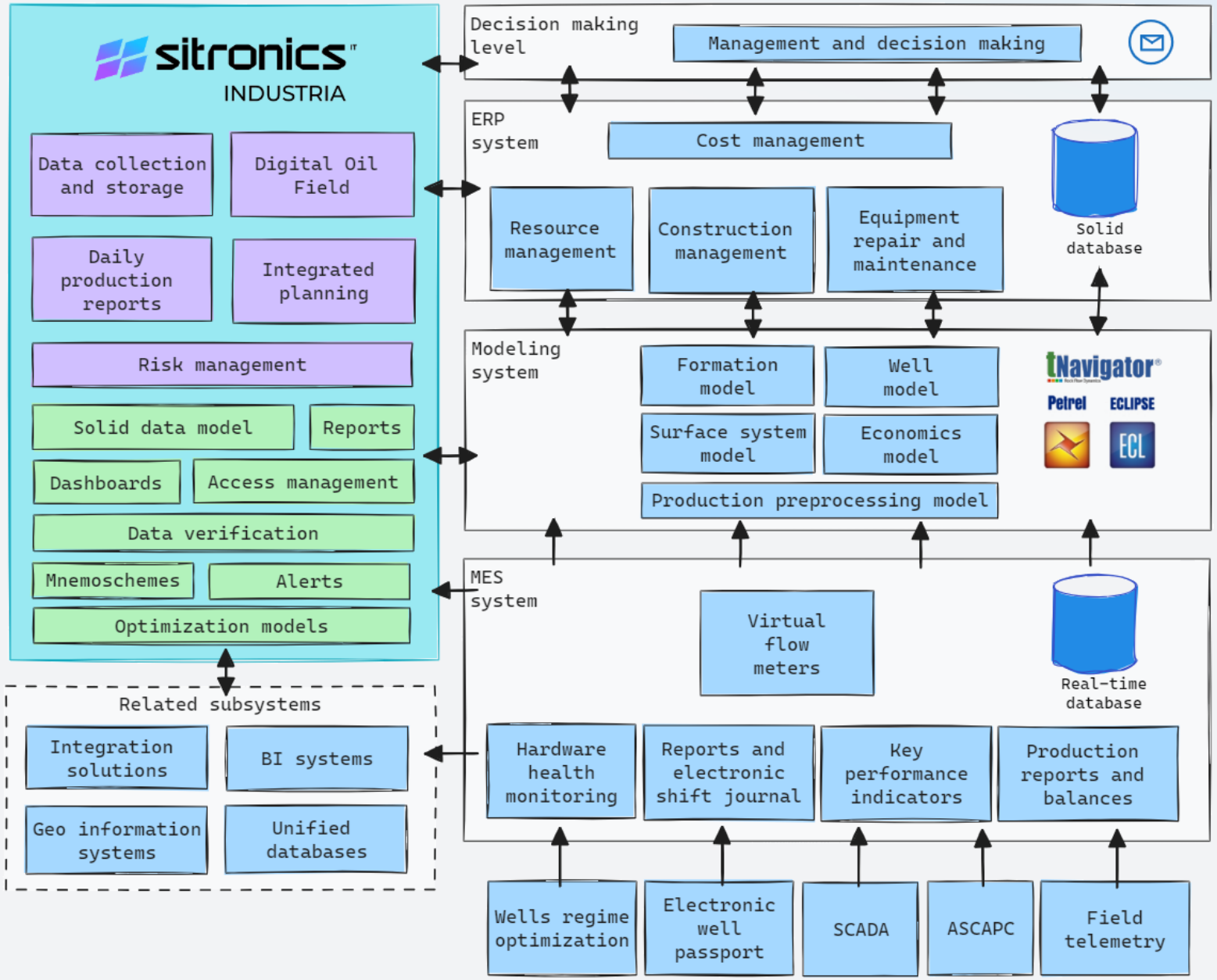
Efficient Planning

Reducing time for planning, increasing the precision of short-term and long-term planning.

At the current stage of readiness, the effects of implementation are:

- Reduction of reports preparation time
- Reduction in the number of manual operations
- Elimination of manual input duplication
- Standardisation of operational calculations

Industria place in IT infrastructure of production unit



Prospected Customers of INDUSTRIA

LUKOIL Uzbekistan Operating Company LLC

Task:
Well operation model adaptation and calculation of the most accurate production profile at the current value of wellhead pressures, creation of a system to implement the calculation in a user-friendly application interface.

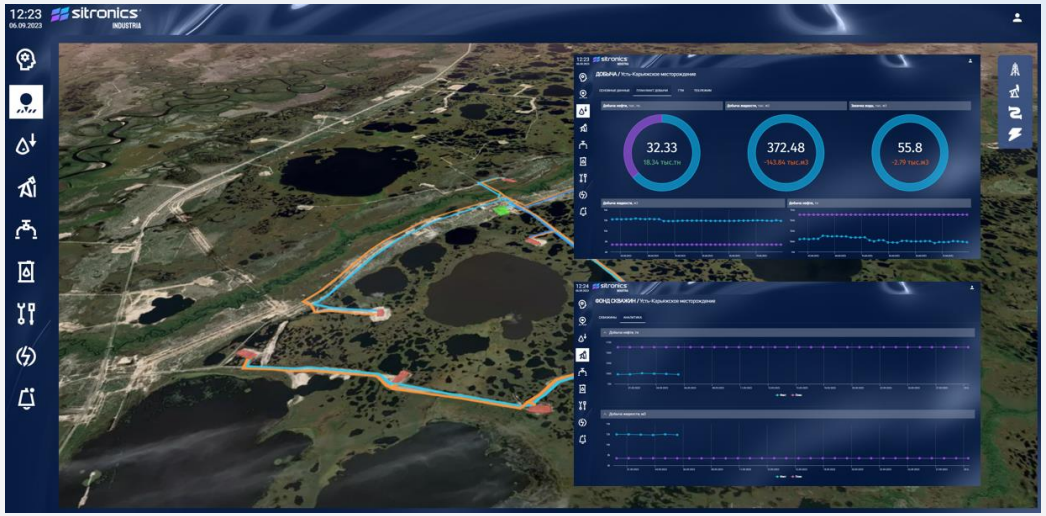
March 2024 Status:
Approval of co-operation terms.

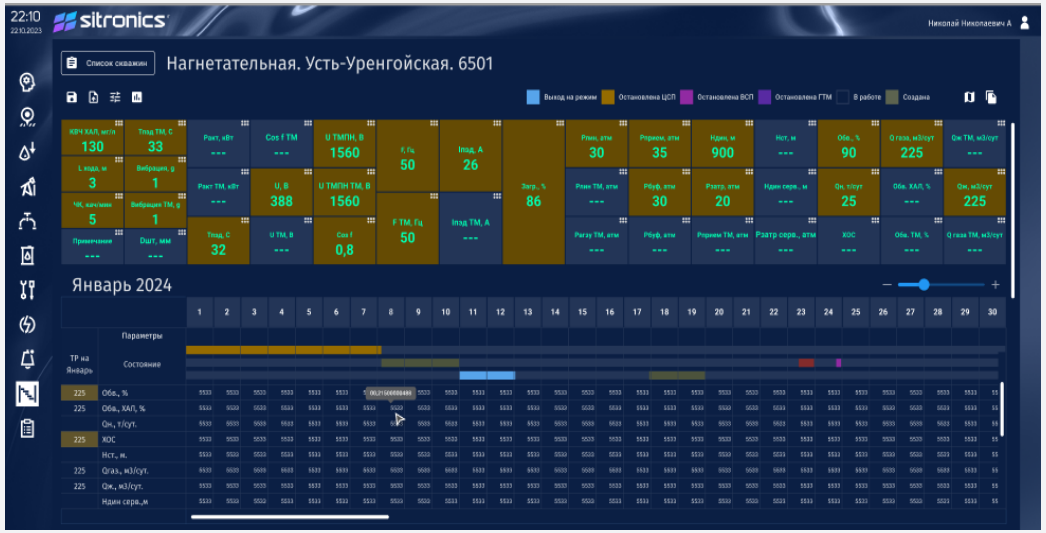
NOVATEK PJSC

Task:
Development of a BI system with integration of digital twin field data, customizable user dashboards, daily production report, integrated planning and risk management.

March 2024 Status:
Developing the system’s demo version.

Industria system interface screens





Integrated Solution by SITRONICS

- Purchase and subscription services (SaaS, PaaS)
- Deployment on existing infrastructure/new or in the cloud
- Integrated IT platform for fuel and energy companies
- Comprehensive IT solution: servers, virtualisation solutions, secure corporate networks, proprietary satellite data

Closed loop networks

- Secure enterprise network
- Urban and mobile communications
- Trunked radio communication
- Employee geopositioning
- Industrial Internet of Things

Server solutions

- Rack servers based on x86 architecture
- Elbrus-based servers
- Data storage servers
- Network controllers
- Computing infrastructure, virtual environments and cloud platforms
- Engineering systems
- Data transmission networks
- Automated dispatching and control systems

Satellite data

- Own constellation of satellites in orbit
- Cartographic data
- Provision of AIS data
- Satellite IOT
- Territory monitoring
- Geoinformation systems

Thank you for your attention!

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