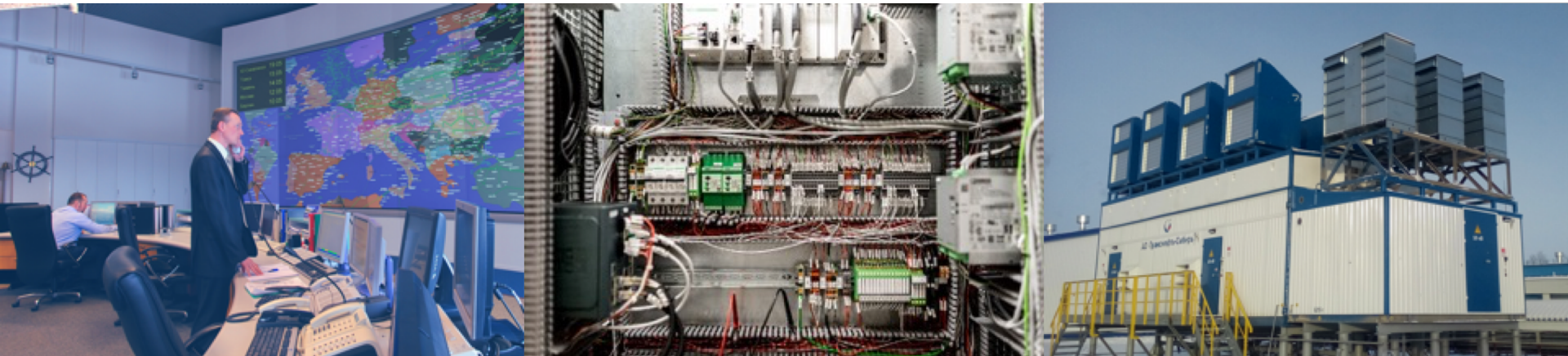


Group of Companies

SCADTECH

Capability Statements



- **The establishment of unique competitive solutions in automation, supervisory control and data acquisition**
- **The application of modern methods of project management, management of risks and enterprises**
- **Highly qualified team**
- **Establishment and development of deliveries using the chain of the reliable suppliers**
- **Regional location and specialization of the group of enterprises**
- **Turn-key solutions**



■ **1999 – the establishment of the company ROSSCATAVTO Ltd.**

The production of the catalyst converters, catalyst collectors, the systems of exhaust gases discharge, catalytic silencers.

■ **2010 – the set up of the SCAD tech company**

Representative offices of the European companies: Continental Emitec GmbH, FEV GmbH, Eldor Corporation, Siemens AG. Main goal - the promotion of the products for these companies at the Russian market.

■ **2012 – the launch of the new direction – Oil and Gas**

Process control systems and automatic fire-fighting systems for companies in the oil and gas industry.

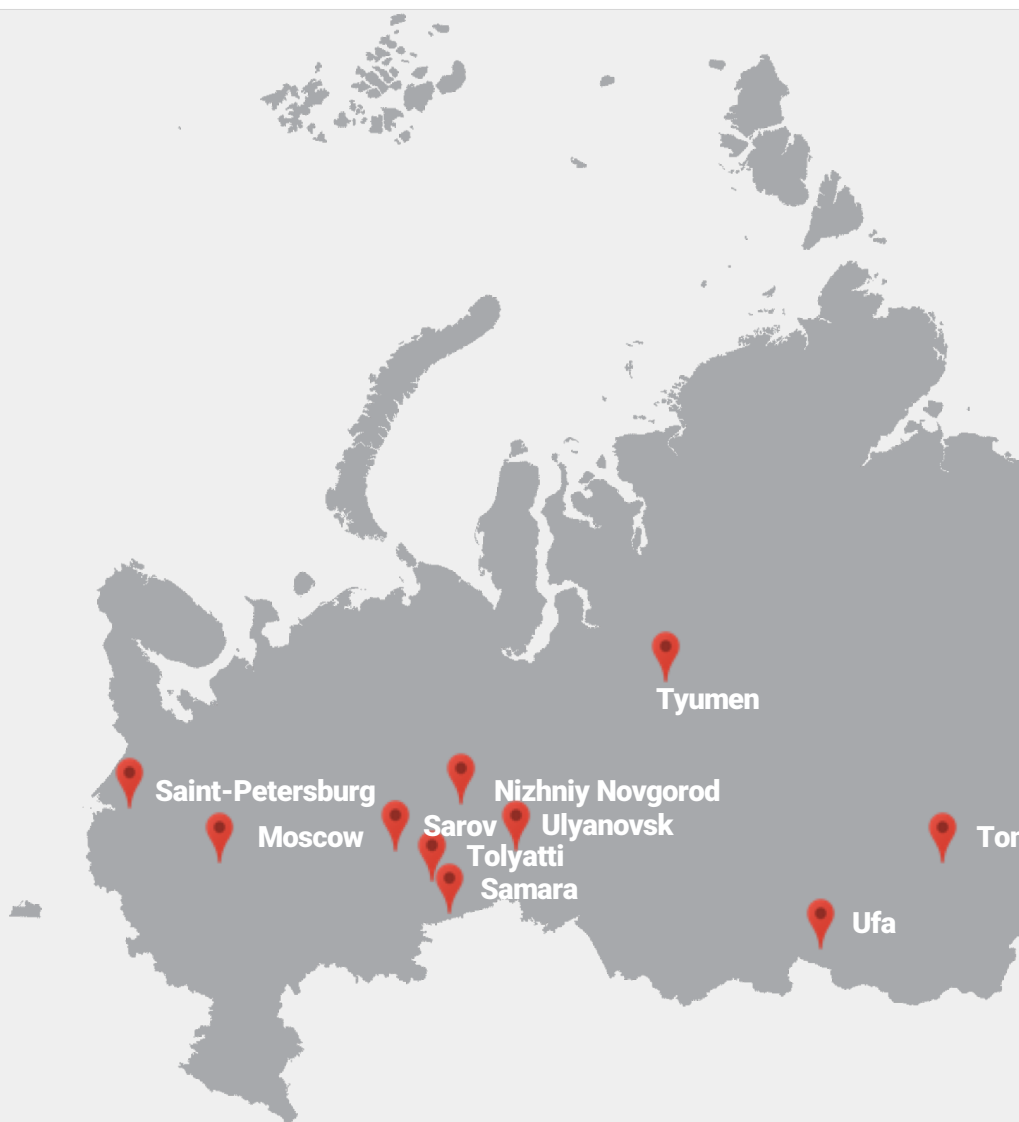
■ **December, 2013 – establishment of ASK Engineering Ltd.**

Process control systems projects and telemechanics projects (microprocessor systems, PCS, line telemechanics systems) in the pipeline transportation industry, SCADA systems.

■ **January, 2015 – establishment of the branch office of SCAD tech in Tolyatti**

- Production of block containers
- Production of instrument racks
- Production of telemechanic cabinets

- **August, 2015 – the establishment of the branch office of SCAD tech in Ufa**
 - Process control systems
 - Automated systems for commercial and technical accounting of power consumption
 - SCADA
- **November, 2015 – the establishment of the branch offices of SCAD tech in Nizhniy Novgorod and Tomsk**
- **2016 – establishment of NexusSystems Ltd., establishment of the branch office of SCAD tech in Samara. The set up of large-scale restructuring of production sites**
- **2017 – consolidation of the automobile business into one structure – TechnoKom Ltd. The establishment of the branch office in Tyumen**
- **2018 – the establishment of the branch office of SCAD tech in Khabarovsk and Saint-Petersburg**



Head office

SCAD tech Company: Moscow

Branch offices

- **SCAD tech Company:** Nizhniy Novgorod, Ulyanovsk, Samara, Tolyatti, Ufa, Tyumen, Tomsk, Khabarovsk
- **ASK Engineering Ltd:** Sarov, Saint-Petersburg.

Group enterprises

- **ASK Engineering Ltd:** Nizhniy Novgorod
- **NexusSystems Ltd.:** Ufa
- **TechnoKom Ltd.:** Tolyatti
- **TechnoKom Ltd.:** Ulyanovsk

Oil and gas

- PCS for the oil and gas industry, including Automatic microprocessor-based system for pump station control
- Automatic fire extinguishing systems
- Automatic Dispatch Control Systems and Dispatcher Control Unified Systems for large geographically-distributed objects
- Central System of Emergency response
- Leak Detection Systems
- Automatic Control Systems (Pipeline Automatic Control and Automatic Control System for loading liquids)
- Pipeline state control systems (decision support)
- Pipeline simulation models
- Line telemetry systems
- Training simulators and testing grounds



Oil and gas

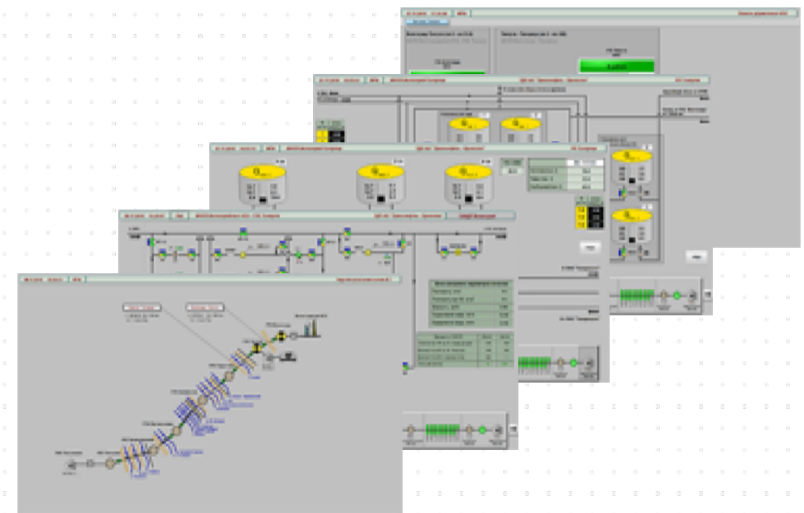
- Automated systems for commercial and technical accounting of power consumption
- Control and communication station unit
- Automated diesel engine power stations
- Variable- frequency converters
- Control and measuring instruments
- Control station shields 0.4 kV
- Complete transformer substations 6, 10 / 0.4 kV
- Packaged switchgears , 6-10 kV
- Automatic control current units
- Guaranteed Power Supply Systems
- Integrated Plants for Backup Power Supply



SIMATIC WinCC Open Architecture - is used successfully in various manufacturing sectors and infrastructures and is constantly improving.

The SCAD tech group of companies, as the premium partner of ETM company is directly involved in this process. Thanks to the achievements and competence the Group was awarded the status of OEM-partner of ETM company.

SCAD tech created **Dispatcher Control Unified System** based on WinCC OA platform for a pipeline system length of over 50,000 kilometers. The replication of this system is under processing at full throttle. The System is capable of handling more than several million signals from different sensors, devices and gears in real time.



SCAD Pipeline Kit - is a new integrated solution for Pipeline Control and Monitoring based on WinCC OA platform.

Unique software package combines more than one system to help dispatchers and engineering staff have complete control over operating procedure:

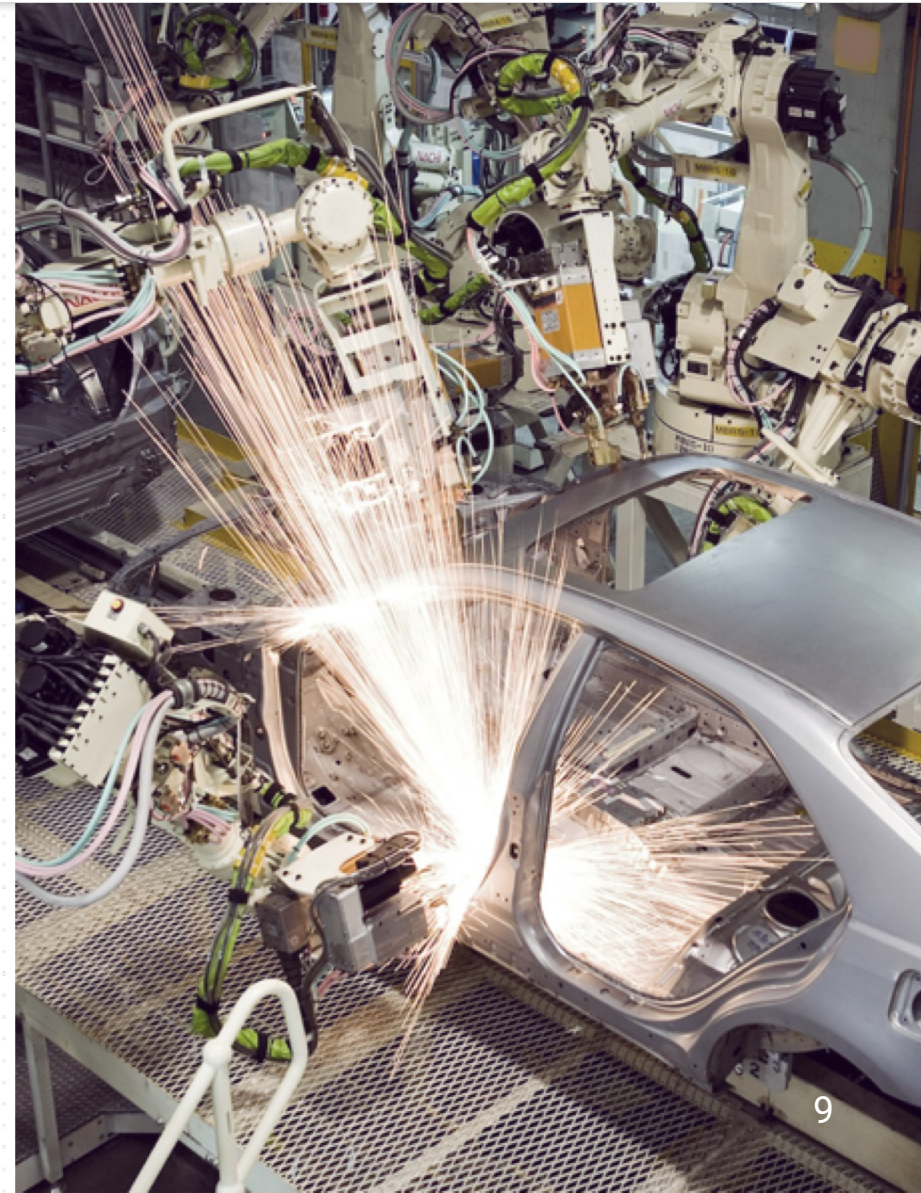
- SCADA
- Emergency Protection
- Leak Detection
- Simulation Model
- Training
- Automatic Control and etc.



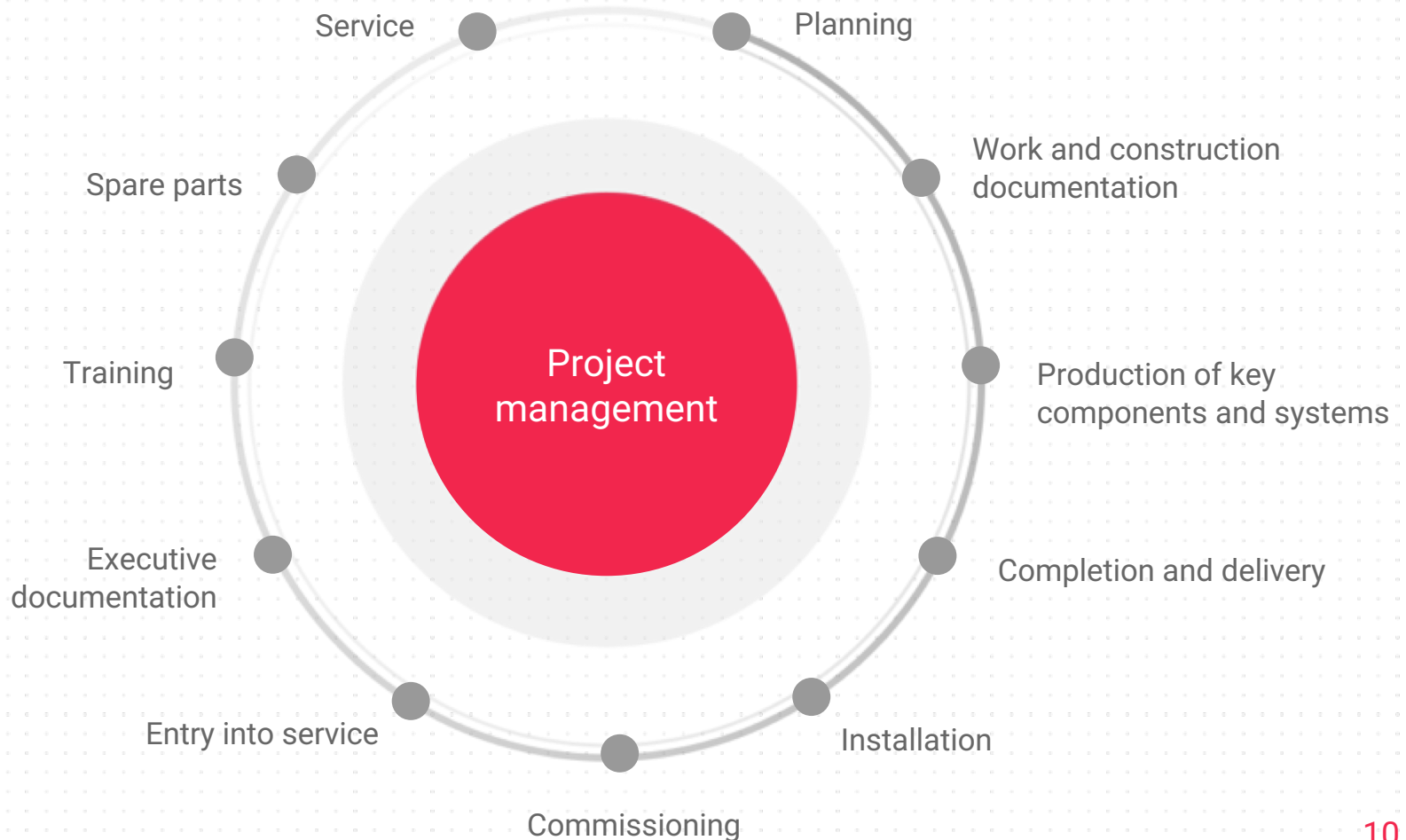
Automobile Industry

- Development and integration of exhaust gas after-treatment for diesel and gasoline engines
- Calculation and production of the SCR catalyst convertors for diesel engines
- Calculation and production of catalyst convertor with particular material filters for diesel engine
- Design, adaptation and calibration of the SCR system
- Customer support during the entire period of design and certification
- Design and integration of Engine Control module components
- Design of Engine Control module diagnostic system

* Certification in accordance with world's most current environmental standards (Euro5, Euro 6, Stage 4)



Turn-key Business Model



JSC SCAD tech

Established in: 2010

Location: Moscow, Tolyatti, Tomsk, Nizhniy
Novgorod, Ufa, Samara, Ulyanovsk, Tyumen,
Khabarovsk

Employees: 563

Main business areas

- Mathematical modeling of pipeline systems and simulators
- Automated systems for the site objects of oil and gas industry
- Systems of linear telemetry, block containers for monitoring, communication and control for oil and gas industry
- Automatic Dispatch Control Systems and Dispatcher Control Unified Systems
- Electrical machinery
- Control measuring devices



NexusSystems Ltd

Established in: 2016
Location: Ufa
Employees: 114

Main business areas

- Automated control and power consumption accounting systems
- Environmental control:
 - Seismic impact control systems
 - NS GEO earthquake-detection stations



ASK Engineering Ltd.

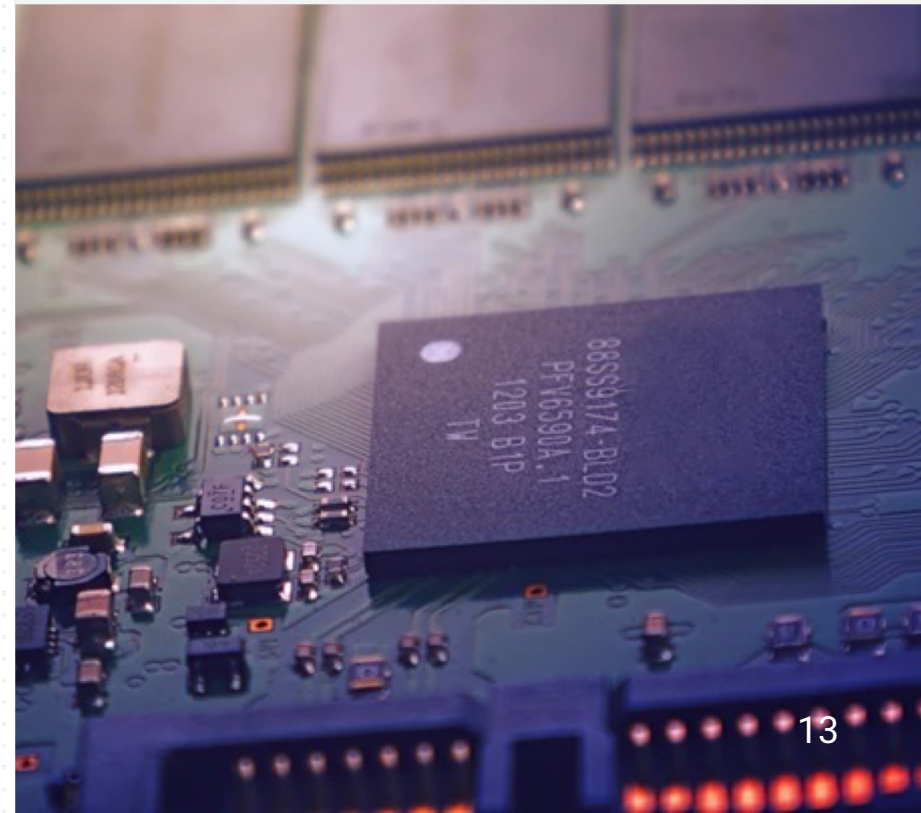
Established in: 2013

Location: Moscow, Nizhniy Novgorod, Samara,
Sarov.

Employees: 284

Main business areas

- Production, completion, installation, commissioning and service of the PCS through hardware-software complex and Siemens, Schneider Electric, ProSoft Systems and B&R software.
- Production of telemechanic systems
- Dispatcher Control Unified Systems

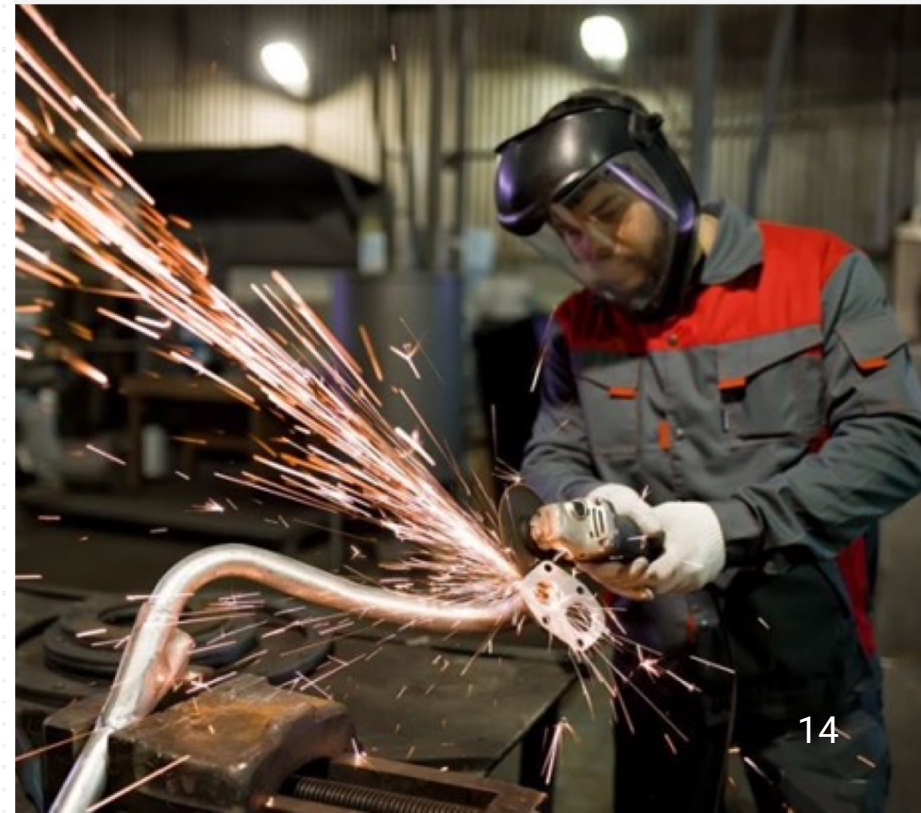


TehnoKom Ltd.

Established in: 1999
Location: Tolyatti, Ulyanovsk
Employees: 182
Plant area: 7 000 sqm
Production capacity: up to 1 mln items per year

Main business areas

- Catalytic convertors
- Close-coupled catalysts
- Exhaust gas after-treatment systems
- Mufflers-catalysts



SCAD tech, JSC, branch office, Tolyatti

Established in: 1999
Employees: 241

- Production of control and communication station units
- Production of instrument racks
- Production of Process Control System boards
- Electrical machinery production

SCAD tech, JSC, branch office, Ufa

Established in: 2015 r.
Employees: 130

- PCS
- Automated systems for commercial and technical accounting of power consumption
- Central System of Emergency Response and Automatic Dispatch Control System / Dispatcher Control Unified Systems
- Simulators

Production site, Ulyanovsk

Established in: 2001
Employees: 182

- Production of station unit type products



PCS of oil pumping stations under construction (OPS) of Transneft (new ones, as well as the ones under modernization)

More than 95 systems of Automation and Fire Extinguishing on oil pumping stations, tank farms, loading racks are manufactured and set into operation

■ **2013**

OPS №11, 15, 19 on the section of ESPO-1, OPS Ternovka, Nizhneudinskaya, Grachi (6 OPS in all)

■ **2014**

OPS №17 on the section of ESPO 1, B.Chernigovka, Peschanokopshaya, Yazykovo, Krymskaya, Pokrovskaya, Medvedskaya, Sukhodolnaya, Kalejkino, Muslumovo, Lysva, Pokrovskaya, Krasnoarmeyskaya, Subhankulovo (14 OPS in all)

■

2015 — 22 of the 49 Oil pump stations are produced by SCAD tech Group

OPS №3, 6, 9 on the section of ESPO-1, Main oil pumping station-1 and OPS-2 in the Kuyumba-Taishet section, OPS-2 and 4 in the Yuzhnii Balyk section, Krasnoarmeyskaya, Krasnoleninskaya, Sosnovka, Katysh, Yurgamish, Pohvistnevo, Komsomolets, Nikulino, Priboj, Starolikeevo-4, Zalesje, Stepankovo, Yaroslavl and Yaroslavl-2, Kirishi (22 OPS in all)

■

2016

OPS-2 Yuzhnii Balyk LODS, OPS Rybnaya-1, OPS-1 Uvat LODS, TPS Salavat LODS, OPS Efimovka, OPS Kuzmichi - 2, OPS Samara-1, OPS Lobkovo, Starolikeevo LODS, automation system of Volgogradskii refinery and others.

■

2017

OPS 3,6 and 9 of ESPO-2, OPS Subhankulovo, Andzhero-Sydzzhinskaya LODS, Volodarskaya-1 LODS, Main oil pumping station Tinguta, Solnechnogorskaya LS, Nagornaya LS.

2018

OPS «Samara-2», LODS «Barabinskaya», OPS «Uhta-1», OPS «Nevskaya», OPS-2 LODS «Starolikeevo», OPS «Borodaevka-2», OPS «Nizhnevartovskaya», TPPS-3 LODS «Yaroslavl»
OPS №2, 5 and 7 on the section of ESPO main pipeline.

Pressure Control Unit on the entire length of ESPO oil-trunk pipeline.

Leak detection system, Decision support system, Mode control system, Algorithm development

- **2012**
Leak detection system for the pipeline Purpe – Samotlor, Transneft
- **2012–2013**
Algorithm and mode development for safe control of KTK pipeline system under extension and construction of new sites.
- **2013**
Leak detection system for OPP Komsomolskiy, OPS, Rosneft
- **2012–2015**
Simulation system for pipeline controller, ESPO-2
- **2015**
Leak detection system for Zapolyarye-Purpe pipeline system, Leak detection system for MN Urengoi – Holmogory, Leak detection system for MN Parabel-Anzhero-Sudzhensk
- **2012–2016**
Decision support systems with a leakage checking function, ESPO-2, Transneft
- **2016**
Leak detection system for MN Tihorets-Novorossiisk-1, 2, 3,
Leak detection system for MPP Almetjevsk - Kuibyshev, Nikolaevsk-Samara-2

References

Oil and gas

SCADTECH

■ 2017 -2018

Testing simulators for operators, East Siberia Pacific Ocean Pipeline SCADA, ESPO-2

Leak Detection Systems for different sections of the oil-trunk pipeline with the total length of more than 3 000 km.

The objects of Line telemetry

- **2015**
More than 200 telemetry cabinets and connected construction works on 11 linear sections with the total length of more than 1500 km
- **2016 - 2017**
The production of linear telemetry boards within the framework of complex projects SA continues
- **2015 - 2018**
During this period 225 control and communication station units with linear telemetry boards were supplied at oil-trunk pipelines.

Objects of Central System of Emergency response

- **2015**
7 objects on 3 OTP (trunk pipelines)
- **2016**
Contracts on the large section of pipeline under the project Sever-15 were signed
- **2017**
The establishment of automated centralized protect system for more than 10 OPS in process.
- **2018**
5 OPS and 3 large sections of oil-trunk pipelines were equipped with Emergency protection systems.

Dispatcher Control Unified Systems at two trunk pipelines

- **2016**
The pilot project with the new WinCC OA software is under construction, the contract on the section of the pipeline of Sever-1 project is signed.
- **2017**
Replication of projects on United dispatch control system on VVMN, Druzhba, PMN, Baltika
- **2018**
The two-years projects of Dispatcher Control Systems for the largest oil-trunk pipelines Far East, Central Siberia, Privilga and Western Siberia were launched.

15 – total number of Dispatcher Control Unified System objects of Transneft.
10 of them are being designed by SCAD tech Group.

69 000 km of oil-trunk pipeline will be managed by Dispatcher Control Unified System

Power distribution projects

2013–2014

- Main distribution switch board (10kv) for the Compressor pump station Erzovka, based on medium voltage cells with air isolation
- Main distribution switch board (10 kv) for OPS Novovelichkovskaya on the basis of medium voltage cells with gas-insulated isolation (Transneft's first use of the cells with gas-insulated isolation)
- LV-cabinets for OPS-4A and OPS 5A of Caspian Pipeline Consortium
- OPS-2 of the pipeline system Zapoliarje-PURPE on JSC Nefteprovod, delivery of 8DJH cells, Sivacon S8 and Geafol transformers

2015

Delivery of more than 1200 products of different equipment (control switch board, transformer board station, main distribution switch board, transformers and etc.) for more than 100 objects of the Transneft system (OPS, tank farms, liquid bulk berths, buildings and structures of general purposes and etc.)

2016–2017

The contracts on delivery of more than 1000 units of different kinds of electro-technical elements for more than 40 OST were signed. The launch of own production of diesel power station, UPS, control switch board, transformer station, convertor and other products.

2018

Contracts for delivery of more than 700 units of various electrical products for more than 25 OST were signed. The quantity of own serial production extends. Such products as Guaranteed Power Supply Systems, Integrated Plants for Backup Power Supply and Control station shields are developed and put into production.

Business partners

SCADTECH



Clients

SCADTECH



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