Project logistics

FESCO offers turnkey project transportation of bulky and heavyweight cargoes: from receipt at the manufacturing plant to lifting into the mounting position at the destination point. Transportation is fully compliant with the regulatory requirements for transit of cargo along the route, including border crossings.

FESCO's business priorities include expanding the portfolio of contracts signed with large customers and increasing the share of the market for transportation of heavyweight and oversize cargoes.

Project logistics results in 2024:
↖ more than 350 thousand tonnes of project cargo were transported;
↖ the maximum weight of delivered cargo reached 1,250 tonnes; its delivery was performed with a full range of services, including loading and securing on specialised vessels in Chinese ports, transshipment at a port, and transportation by tug-barge units along the river;
↖ new types of work were performed to relocate a drilling fluids plant in Sakhalin;
↖ batches of oversized equipment weighing a total of over 100 thousand tonnes were transported from China to De Kastri and Ust-Luga, as well as from Vladivostok to Kamchatka and Chukotka by the Company's own fleet for the needs of developing projects;

↖ the Company continued managing the cargo terminal of the Akkuyu Nuclear Power Plant under construction in Turkey: over 20 thousand tonnes of oversized and heavyweight equipment were delivered to the construction site, with the maximum weight of delivered equipment standing at 250 tonnes;
↖ a number of projects were implemented to move and lift heavyweight and oversized cargo into mounting position, assemble and start up process lines at facilities under construction (a total of over 3 thousand tonnes of equipment was assembled at various key facilities).

Bunkering

FESCO provides a full range of oil product services: from fuel purchase and its handling at the Company's petroleum tank farm to transfer to the tanks of transport vessels at the ports of the Primorye Territory (in particular Vladivostok, Nakhodka, and Vostochny). As a fuel agent, FESCO arranges the supply of oil products to its fleet at foreign ports and renders centralised oil product logistics support to its own companies across Russia. Oil products are purchased from Russian producers and delivered to the destination as well as from regional suppliers and distribution companies and delivered to vessels or land facilities.

In 2024, the Company rendered bunkering services primarily to its own companies.

> By the end of 2024, bunkering volumes grew by 22% YoY to 185 thousand tonnes due to a fleet increase and expanded geography of FESCO vessels' operation.

Key operating indicators of the bunkering complex, kt

Indicator	2021	2022	2023	2024	YoY change, % 2024/2023
Bunkering volumes	63	98	151	185	22

Source: Company data

Digitalisation

In 2024, FESCO continued active work on its digital services seeking to develop and support the Group's production assets, and to streamline the Company's operations.

300 employees

working for FESCO's IT unit

The main centres of expertise are located in Moscow and Vladivostok, with IT offices in 18 cities nationwide. We are setting up competence and business support centres in FSU nations (Kazakhstan, Uzbekistan, and Belarus) and in our offices overseas. Collectively, these IT units manage and support upwards of 80 information systems for FESCO Group's almost 7 thousand employees.

A key workstream in 2024 was our project to develop and put into commercial operation FESCO Management System (FMS) – an information system automating the Company's unique business processes. The solution is based on a local platform. It helps automate production operations in the long term.

In 2024, we implemented an action plan to integrate FESCO into Rosatom. FESCO's IT provided tools and solutions facilitating integration of Group businesses' operations into Rosatom's basic processes. At the same time, we took key steps to align our digitalisation-related strategic plans and approaches. FESCO now shares a number of Rosatom's uniform policies and regulations:
↖ a uniform technology policy;
↖ uniform industry guidelines on managing IT architecture and integration;
↖ industry-wide guidelines on standardising IT products;
↖ uniform industry-wide guidelines on integrating information systems;
↖ an access levels management policy.

The measures we took enabled us to align approaches to target development of digital services at FESCO and Rosatom.

A special focus is made on continuity of the Group's operations as regards import substitution matters. FESCO is now guided by Rosatom's uniform import substitution roadmap.

Business digitalisation projects

Customer's personal account

MY.FESCO customer's personal account is a self-service portal for our customers. Improvement of this service is the key priority of FESCO digitalisation. The main objective of the project is to provide a fully digital transportation service. Our efforts on portal improvement enabled us to implement one of the best and most feature-rich solutions in the market.

The personal account was piloted in 2017 and back then only supported requests for intermodal imports from Southeast Asia to Vladivostok and Moscow. Today, the personal account can be used to request any key transportation services from FIT and Dalreftrans, make contracts of ten types signed on paper or electronically, and receive accounting and transportation documents associated with any of FESCO Group's 19 legal entities.

In 2024, the growth of requests placed via the personal account continued:
- ↖ the number of requests via the personal account increased by 11.2%;
- ↖ the TEU equivalent of requests via the personal account grew by 10% YoY;
- ↖ over 4.2 thousand contracts were made via the personal account during the year.

Priority areas of personal account improvement in 2024:

- Dalreftrans requests filing via the personal account scaled up;
- FIT's container transportation calculator to facilitate the search for rates in the door-to-door format upgraded;
- contracts for VMTP facilitated;
- customer report on Dalreftrans requests developed;
- coverage of digitisation of door-to-door delivery calculations using a map location expanded;
- routes as part of the approval protocol for dangerous goods transportation extended;
- new authorisation system developed;
- functionality for instructions on handing over empty containers created;
- FIT's migration to a new production system facilitated.

Production systems

FIT LLC

In 2024, in its activities to support and develop production systems, FESCO focused on completion of the programme of projects to replace FIT's current production system.
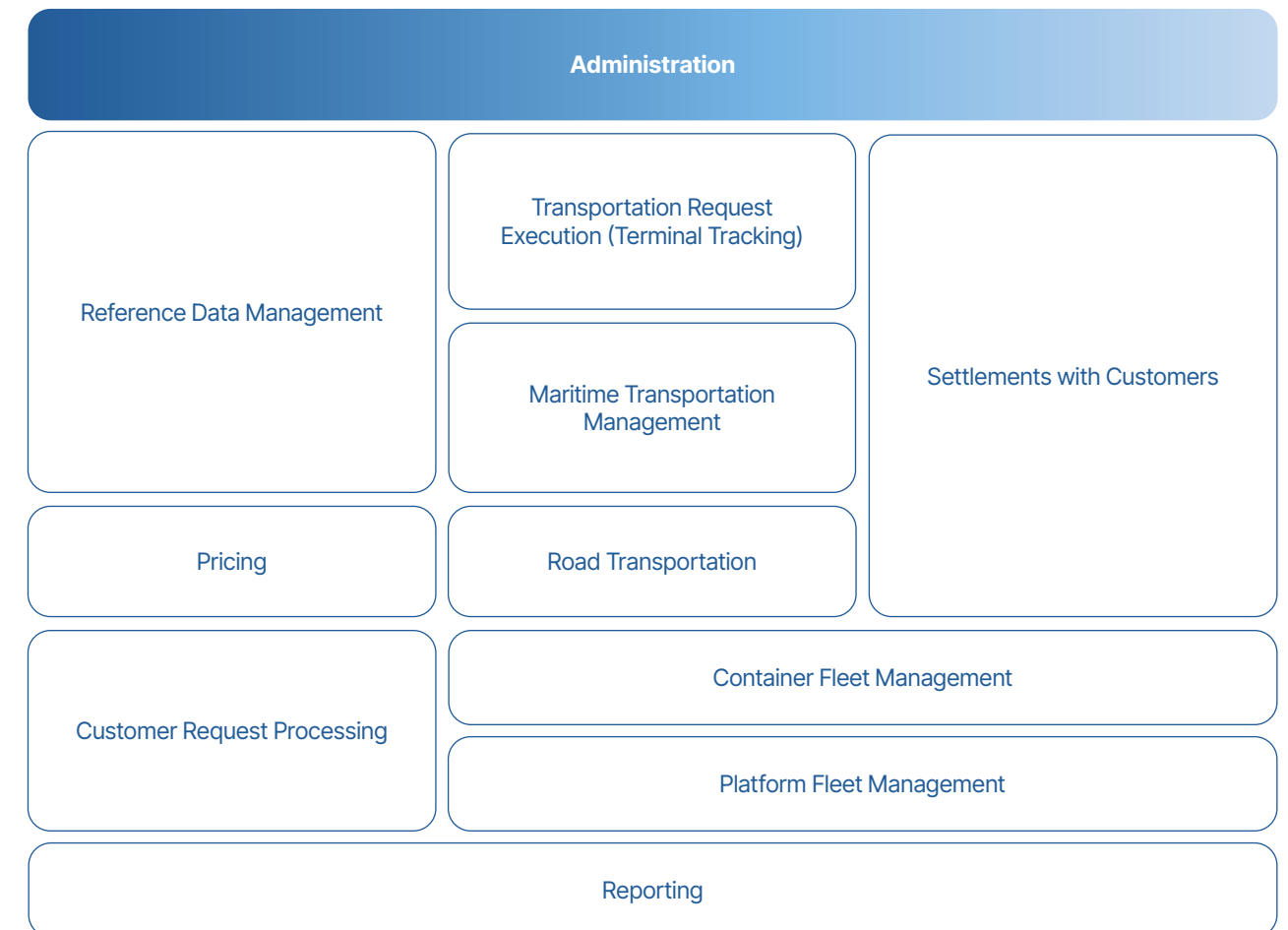
Launched in May 2022, the programme included a set of projects to create several modules of the would-be FESCO Management System (FMS):
- ↖ FMS.Transportation Management – the main module of the system, which automates the end-to-end customer service, from taking and processing requests to making settlements with customers and compiling production management reports;
- ↖ FMS.Dangerous Goods – transportation of dangerous goods, including preliminary coordination with all parties involved in transportation;
- ↖ FMS.Document Control – accounting for container expenses;
- ↖ FMS.Container Repair – a web portal to arrange for container repairs at terminals and depots, enabling selection of the best supplier based on repair time, cost, and quality;
- ↖ FMS.Cost Control Operations – collection and recognition of direct transportation costs, enabling the calculation of the actual cost and profit margin of transportation services.

The FMS programme was implemented not only to replace FIT's current production system but also to provide a uniform digital solution based on the Russian universal platform 1C:Enterprise 8.

2023 saw the launch into commercial use of the modules for dangerous goods, document control, container repair and cost control operations. In 2024, we successfully completed the project to create the main module of FMS.Transportation Management, integrating it with the functional modules.

FMS.Transportation Management

Administration		
Reference Data Management	Transportation Request Execution (Terminal Tracking)	Settlements with Customers
	Maritime Transportation Management	
Pricing	Road Transportation	
Customer Request Processing	Container Fleet Management	
	Platform Fleet Management	
Reporting		

While developing and introducing the FMS.Transportation Management module, we completed the following key tasks:
- ↖ business processes to organise, plan and execute transportation, and customer relations processes (over 300 business processes all in all) standardised and streamlined;
- ↖ single digital space created for interaction of business units within FIT and with the Group's other companies to exercise related functions (currently the system has over 500 active users);
- ↖ a fail-safe microservice architecture developed, based on a local technological platform, which enhances performance of key operations and eliminates sanctions risk exposure.

With the FMS programme implemented, we now have a system unique for the domestic market for management of intermodal container transportation and LCL transportation, as good as its western equivalents.

In 2025, we expect further development of the FMS system, which is planned to become a foundation for developing digital services not only for FIT but also for the Group's other companies.

FESCO BelTrans

The Company's growth and launch of new businesses revealed the need to automate activities of the new companies in a quick and efficient manner. FESCO opted for proprietary IT solutions already implemented in the Group. This allowed to bring down automation time and offer solutions factoring into the specifics and requirements of the companies. In 2024, based on such solutions, we completed a project for our Belarusian subsidiary, FESCO BelTrans:
- ↖ intermodal transportation of containers to/from Belarus;
- ↖ automated billing and financial paperwork.

VMTP

For five consecutive years, the Commercial Port of Vladivostok (VMTP) has maintained its leadership in container handling in Russia. VMTP digitalisation drive focuses on expediting cargo handling and organising electronic communication with customers through a single point of contact. Seamless integration of the port's ecosystem with regulators facilitates electronic coordination and cargo release from the port.

In 2024, VMTP's port management system was honoured with another award, for Proprietary Innovation of the Year, of the **Business Flagships: Evolution, Responsibility, Resilience – 2024** all-Russian contest run by the Russian Union of Industrialists and Entrepreneurs (RSPP).

In 2024, VMTP launched a new process, digital mooring of ships, which helps to:
- plan vessel approach online;
- do digital vessel mooring, taking into account dimensions and weights;
- get online access to information on each vessel in VMTP, including the vessel size, mooring berth number, and number of containers on the vessel.

Customer service

In 2024, new electronic services were added to the VMTP personal account, ensuring transparency and promptness of the cargo operations:
- integrated services;
- warehouse inspection documents;
- customs inspection documents;
- electronic requests for imports receipt;
- tracking outgoing railcars;
- billing for shifting slots.

Internal digitalisation

Control over cash flows of foreign companies

In 2024, FESCO rolled out its methodologies, practices and digital tools of control over cash flows of the Group's foreign companies, including not only those in the CIS but also those in China. As part of a large-scale project for foreign companies, we organised a multi-language integrated information space and a toolkit for budget control and treasury operations used

LCL cargo warehouse

In 2024, the LCL cargo warehouse was automated, which helped to:
- digitalise all containerisation/decontainerisation operations and those of compiling individual lots in real time;
- use a mobile tablet for cargo search, inventory, receipt, and dispatch;
- automate customs operations, such as inspection, release, and drawing up customs certificates;
- introduce digital topology of the LCL cargo warehouse;
- automate cargo labelling and reduce the time it takes from 20 to 0 minutes;
- reduce the time for LCL cargo request approval from 36 to 3 hours.

Electronic waybills

Electronic waybills were introduced in the terminal operating system, with their integration into the government information system of electronic transportation documents.

Automated workplaces were developed and introduced for healthcare specialists, staff training centre, and dockers in charge of waybill records. Integration with filling stations was made for fuelling vehicles.

Electronic waybills helped to half the port service labour input and to simplify records management. Electronic waybills contain data on the check-ups of drivers and technical condition of transport. This solution ensures compliance with statutory requirements, controls drivers' work hours and condition of vehicles, mitigating the risk of errors and fines. Electronic waybills confirm fuel expenses for tax reports. They are also used for VMTP payroll purposes.

by the Group as a standard, subject to those companies' specifics and needs. The project covers 19 companies of the Group. Thanks to the project, the Group strengthened control over cash flows, making them transparent and predictable.

In addition, FESCO implemented a project to replace accounting and taxation software at its Chinese subsidiaries, promoting uniform accounting standards and tools. The new product is integrated into the Group's IT landscape, which ensures seamless automation of consolidated reporting in the overseas segment.

Data Office

In 2024, we continued developing Data Office aimed at exercising a uniform and effective approach to using data for analytics.

The corporate data platform for analytics was modified:
- Arenadata DB, a specialised system of database management, was deployed. Its solutions for automation, monitoring and fine-tuning drive up to a double increase in performance in processing analytical requests, while the cost of support goes down by 30%;
- a unified mechanism of streaming integration of data from source systems based on the Change Data Capture principle was developed, allowing for report generation with a minimum difference as compared with the source.

It is a solid foundation for building up-to-date data-driven products, and unlocks the potential of the Group's end-to-end analytics development, using artificial intelligence technology, among other things.

Automated reporting and artificial intelligence

2024 results:
- over 90% of all reports previously generated by a foreign BI system were moved to Visiology, a new domestic platform;
- over 30 new analytical reports were created;
- HR Assist tool was developed – the first service driven by generative AI to support recruiters which is fully deployed within the Group, resulting in lower recruitment costs, with a 14.2% decrease per vacancy on average;
- a project was started to create an automated system to predict the remaining container availability and so streamline the management of the Group's assets.

Digital services for FESCO employees

In 2024, FESCO successfully completed a project to digitise the process of familiarisation of executives and employees with regulatory and administrative documents, and internal guidelines.

Key factors that facilitated a swift rollout included:
- electronic HR workflow seamlessly operating since 2023;
- methodological procedures available;
- high level of automation from the outset.

It was decided to automate the process of familiarisation and signing with an enhanced encrypted non-certified digital signature used in the electronic HR workflow. This is how we integrated the process into the current framework of the HR services. The process covers the companies that have migrated to the electronic HR workflow.

Project outcomes:
- 100% of FESCO employees are covered by the project;
- familiarisation grew by 80% as compared to familiarisation with hard copies;
- over 100 thousand pages of familiarisation with regulatory and administrative documents were circulated electronically within four months since the launch of the project;
- process participants and labour inputs were reduced to one person for the entire scope.

Digital infrastructure

Anti-sanctions measures

In 2024, FESCO continued efforts to counteract sanctions, along with infrastructure projects. The Company implemented a number of solutions that support its smooth operation in the current circumstances:
- bidding held and work started to move the corporate portal and the cloud data storage to Bitrix24, a Russian platform;
- pilot operation of a Russian backup system launched;
- migration to IVA, a Russian video conferencing system, prepared and technically implemented;
- commercial testing of SD-WAN-based network equipment by the Russian manufacturer BI.ZONE started;
- over 530 system units, 800 displays, and 600 laptops made in Russia procured and put into operation.

Import substitution

In 2024, we started a project to develop an import substitution roadmap. The audit stage is completed, pilot-testing projects are in progress. Efforts include piloting projects in these areas:
- IT infrastructure;
- IS infrastructure (information security);
- system software;
- standard automated workplace (office software);
- automated engineering process control system;
- telecommunication systems;
- business applications.

As part of the import substitution programme, FESCO's IT employees visited factories producing Russian equipment, such as Inferit, Kvadra, Parus Electro, and Svyaz Engineering.

Development of branches and offices

FESCO is vigorously expanding, not only by establishing new offices but also by revamping existing ones:
- new offices were opened in Kaliningrad and Khimki (Moscow Region);
- networks in Novosibirsk and Vladivostok were upgraded;
- an additional office in Moscow joined the scope.

Novosibirsk terminal upgrade

A LED display was installed at the container terminal in Novosibirsk for showing information to newly arriving container chassis drivers. The display shows the following data:
- vehicle number;
- operation (loading or unloading);
- handling zone number;
- directions to the handling zone;
- number of the container to be handled.

The installation of an additional display is a modern approach to informing container chassis drivers arriving at the terminal:
- it helps them to find their way around the terminal to get to the handling zone they need, with indication arrows;
- terminal employees can see how many vehicles are serviced at the terminal, broken down by loading/unloading operation;
- it helps to provide drivers with additional information, e.g., about the remaining time slots for the next calendar day.

FESCO's IT infrastructure upgrade and fleet IT support

With an eye on bolstering competitive edges and advancing fleet digitalisation, FESCO proceeded with its fleet IT infrastructure upgrade. Accomplishments to date:
- laying a modern communication network for quick information exchange between computers on different decks (storeys) at FESCO's vessels nearing completion;
- all critical gaps in IT support of vessels filled; all operations part of the scheduled maintenance programme now;
- a cloud storage created for immediate exchange of documents between the land and the vessel crews;
- all vessels provided with high-speed coastal (up to 50 km range) 4G-multirouter internet access and unlimited VSAT satellite internet access, with an automated switch-over depending on the coverage area;
- systems to monitor the condition of PCs and computer network online from ashore attuned and launched;
- special software for IT audit of steamers developed and introduced;
- launch of a system to test crews for alcohol in progress; the system supports automatic face recognition, sending statistics to the data centre, and also warning responsible officers on shore about any incidents detected;
- a training class in St Petersburg prepared and equipped for regular training of the Western region ship crews.

VMTP production machinery IT systems upgrade

- A set of IT equipment for wheeled production vehicles developed and introduced, allowing for uninterrupted operation in the terminal information systems (ensuring seamless backup and switch-over), and also automated connection to production information resources with a corporate pass. By now, over 80 wheeled vehicles have been equipped with this IT solution. The project was developed and implemented, and the equipment installed, by FESCO's in-house IT staff;
- 11 new handling cranes at VMTP furnished with sets of IT equipment and radio communication systems.

Development of infrastructure systems and digital projects

- the first stage of engineering systems upgrade programme at the in-house data centre in Vladivostok was completed. The bulk of the obsolete cooling equipment was replaced, with its effective life exceeding ten years and no further maintenance possible. Russian equipment and technology were used in the upgrade. The preparation of the project, planning and technical support at the execution stage were done by FESCO's IT employees;
- the first stage of the project to equip the administrative building of the Stroyopttorg terminal in Khabarovsk with up-to-date monitoring and access control systems completed. It enhanced the facility's security and provided the security officers with internal access control tools;
- a system of automated access to VMTP's administrative building launched into commercial operation, using video content analysis and port employees' biometrics. Most of the in-house administrative staff use this system to enter/exit the building. The launch of the system almost halved the time it takes an employee to pass the checkpoint.

> **FESCO actively developed, maintained and upgraded equipment while also creating new jobs. In 2024, nearly 1 thousand workplaces were set up and around 160 thousand queries to the technical support service regarding infrastructure and information systems were processed. The average user satisfaction score is 4.96 out of 5.**

Cybersecurity

In 2024, there were ever increasing computer attacks against the Russian information infrastructure facilities.

The involvement in the hacker attacks of unfriendly countries' intelligence agencies explains why they are so targeted and massed. The malevolence against FESCO's corporate network in 2024 is characterised not only by a higher number of attacks (network attacks and virus attacks grew YoY 1.6 times and 3.3 times, respectively) but also by stronger impact on the information infrastructure. The most powerful cyberattacks against FESCO's IT infrastructure took place in January and October 2024. In 2024, FESCO's cybersecurity experts submitted 456 reports on external malevolent attacks against the corporate network to the National Coordination Centre for Computer Incidents of the Russian Federal Security Service.

Mitigation of cyber risks needs enhancing of network security. To that end, in 2024, we had two tests of FESCO's corporate network for resilience against internet break-ins through modelling malefactor actions. In cooperation with the Federal Security Service Primorye Region Department, we analysed how well protected the Far Eastern segment of the IT infrastructure is. The deficiencies identified were used as a basis for the protection debottlenecking plan. A new effective Russian service to promptly identify vulnerabilities was added to the range of tools used by the Information Security Department.

Pursuant to Federal Law No. 187-FZ On the Security of the Critical Information Infrastructure of the Russian Federation dated 26 July 2017, in 2024 we started a large-scale project to classify pieces of the critical information infrastructure in FESCO Group's key transportation companies. We reviewed critical business processes and respective information systems. In cooperation with Russia's Federal Service for Technical and Export Control, we assess the materiality of critical information infrastructure pieces. The project is set for completion in 2025.

With a view to increasing the level of import independence from foreign information security solutions, we did pilot testing of Russian solutions seeking to:
- control actions of privileged users;
- ensure protection against targeted attacks using unknown malware;
- label, uniqualise, and code electronic documents to assign different access levels to users based on sensitivity labels;
- create distributed deception platforms for hackers.

> In 2024, we successfully introduced Russian information security systems to:
> - prevent leaks of sensitive information from FESCO's corporate network;
> - provide automated training to FESCO employees to develop their immunity to phishing attacks.

The new solutions expand the range of the Information Security Department's tools and ensure better protection of FESCO Transportation Group's information resources from damage.