



THE LOGISTICS AUTOMATION  
STANDARD



# Solvo.WMS for production warehouses (including food and beverage)

Solvo.WMS –  
precision management technologies

## Your obstacles

- Lack of transparency in warehouse operations;
- Wasteful usage of warehouse space;
- Wasteful usage of warehouse equipment;
- Problems with record keeping in the area of "Production" – "Warehouse";
- Existence of mis-picks and overweight loads;
- Expiration of perishable goods;
- Problems with goods planning for chains (with consideration of the expiration date and time in transit);
- Absence of control at every stage of warehousing;
- Manual quality control performed by shop floor workers;
- And many others...



## Our solution: **SOLVO.WMS** for production warehouses

« ...our goal was to unify the processes and technological operations on all Baltika warehouses. This was only possible to achieve with a single robust WMS. When choosing the right software, we first took into account its quality and reliability. We decided on software that was developed by a Russian company. What set this program apart from the rest is its price/value ratio plus the manufacturer provides full assistance and support for the WMS warranty and post-warranty periods. ...We are beyond satisfied with the system, which is running at our warehouses... »

### **Evgenyi Polomoshnov,**

*Head of the warehouse management department, Baltika, Russia's largest Breweries (part of Carlsberg Group)*

### You receive the following capabilities:

- Eliminate "excess" manpower;
- Improve personnel productivity by 25-30%;
- Eliminate problems related with mis-picks and overweight loads.

### Among some of the problems, which are resolved by "Solvo.WMS," are:

- Increase in productivity by 25-30%;
- Significant reduction in write-offs of finished goods;
- Compliance with FEFO, shipping with consideration of the RSL by client category;
- 100% control of warehouse personnel activity;
- Improve data accuracy at the warehouse up to 98-100%
- Maintaining lot records;
- Decrease in mis-picks and overweight loads by 60-70%;
- Optimization of warehouse personnel – workers are motivated to achieve results, obsolete positions such as "controllers" are eliminated;
- Decrease in empty equipment runs.

## Success Stories

2013



2013



2013



2012



2012



## REAL-TIME CONTROL

The scale of system implementation can vary depending on customer demand:

- **basic level** — the management system based on paper task-lists
- **fully-functional** management system that operates in real time using radio terminals and barcode technology, equipment positioning systems, and other means of automation.

**SOLVO works closely with some of the world's leading and most recognized companies in providing clients with the latest and most advanced data terminals:**



## EQUIPMENT INTEGRATION

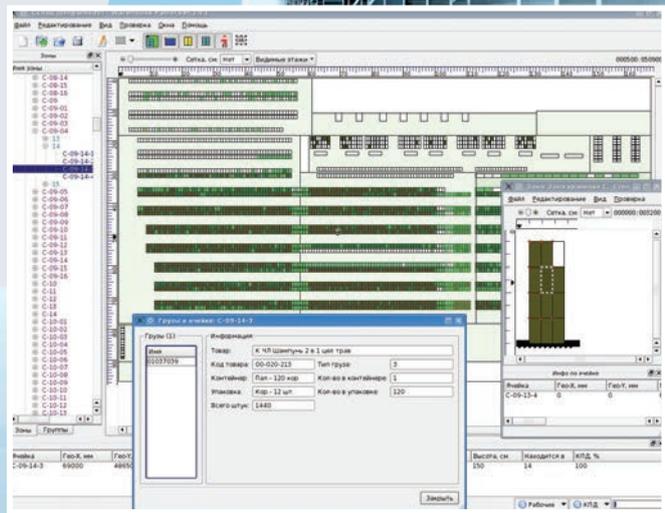


## INTEGRATION EXAMPLES:

### "LEBEDYANSKYI" WAREHOUSE

Automatic load receiving in Solvo.WMS is carried out using data from the system made by the Italian company, Elettric 80, which operates the equipment at the end of the production line. This system also sends information about finished goods and the movement of ready-made pallets at the final stage of production.

Domino printer-applicators apply the labels with the load information. Solvo.WMS also serves as the host system for Ant.WCS SSI/Schaefer, operating an automated high-rise warehouse with a capacity for 50 thousand pallet units.



2012



2012



2011



2011



2010





# CASE STUDIES

## Baltika Brewery part of Carlsberg Group



### THE CHALLENGE

The implementation of Solvo.WMS at beverage warehouses began in March of 2003 at JSC "Vena" (now an affiliate of Baltika), which at that time, accommodated approximately 5,000 pallets. The client demanded full-scale automation of all warehouse business processes: receiving of goods with online notification for the ERP-system, putaway to storage in accordance with ABC-analysis, product shipping with strict adherence to FIFO rules, quality inspection load blockage, accounting delivery deadlines and much more – this is just a brief list of what the management system needed to accomplish.

### THE SOLUTION

The Solvo's industry-specific solution for production warehouses was developed in close cooperation with Baltika specialists and with complete understanding of all the specifics and technological processes at such a warehouse.

For example the receiving of goods with notification for the ERP-system in online mode is now performed automatically. The discharge of each pallet from the conveyor is recorded by an optical sensor. Based on the data about the active product lot, the type of beer, the number of cartons, the number of units in each pallet, and the bottling date can be easily determined. A unique code is created for the load, after which it is registered in the System. This data is sent to the ERP-system. An identifier label in the form of a barcode with reference information about the product is printed automatically for each pallet. The putaway of products to storage is performed in accordance with velocity markers (ABC-analysis). When allocating the goods coming into the warehouse, Solvo.WMS considers all the requirements to the following conditions: package characteristics, expiration date, sell by date, compatibility rules, and other parameters. Solvo.WMS will automatically find the storage locations for received loads and creates tasks for warehouse employees. Tasks are displayed on the RDT screen in the form of simple step-by-step commands for each individual worker.

A quality control feature was also developed: workers at the warehouse and the quality testing facility can temporarily suspend loading of selected lots or specific items at the warehouse. This can be performed automatically as well as manually. If a forklift driver is attempting to grab

### Background Information

- Leader of the Russian beer market with 39.7% market share;
- One of the largest consumer product companies in Russia;
- Breweries in 10 cities across Russia: St. Petersburg, Yaroslavl, Tula, Voronezh, Rostov-on-don, Samara, Chelyabinsk, Krasnoyarsk, Khabarovsk, Novosibirsk; plant in Azerbaijan;
- Total production capacity of all facilities comprises 5.2 million hectoliters per month;
- 98% sales location coverage in Russia;
- The Baltika brand is included in the top three most valuable brands in Russia and the number one in Europe by sales

a load that has been placed in quality control, the System will block this action, while during an attempt to transfer it within the warehouse, it will notify the driver that the load is not available for shipping.

### EACH NEW PROJECT IS A STEP FORWARD IN THE EVOLUTION OF THE SYSTEM

A total of eleven production warehouse were automated for Baltika during the period from 2003 to 2011. Each new project is another step forward in client customization features, user experience, warehouse equipment integration including automated lines, and the improvement of the system as a whole.

« Solvo.WMS considerably cuts down the probability of errors and idle-time periods. As a result, warehousing costs and efforts are reduced a great deal. »

**Nikolai Bystrov,**  
deputy head of warehouse operations, Baltika

## Success Stories

2010



2009



2009



2008



2008



# Krupskaya Confectionery Factory



## THE CHALLENGE

In 2009, the Krupskaya Confectionery Factory decided to rent warehouses and affiliate offices at the A-class warehousing complex, AKM Logistics in Shushary, Saint Petersburg, to optimize its operations.

At the beginning of 2009, Krupskaya's total warehousing space comprised 6300 sq. m and since July 2009 it increased to 12000 sq. m. This expansion was needed to cope with the factory's turnover growth as a result of the acquisition of such well-known confectionery brands as Azart and Pekar.

According to the factory's CEOs, efficient logistics processes are one of the key factors to operating a successful business, which is precisely why Solvo.WMS was selected for their new warehouse.

## THE SOLUTION

The project for the Solvo.WMS deployment at the Krupskaya Confectionery Factory began on June 1, 2009. The main tasks of the system included strict product expiration date control and the reduction in the number of errors made by warehousing workers.

By October 19, 2009, the equipment mounting and configuring works were completed and the Solvo.WMS system was launched at the warehouse. In addition, the warehouse workers underwent a special training program. Since then, the entire system went live and was put into commercial operation.

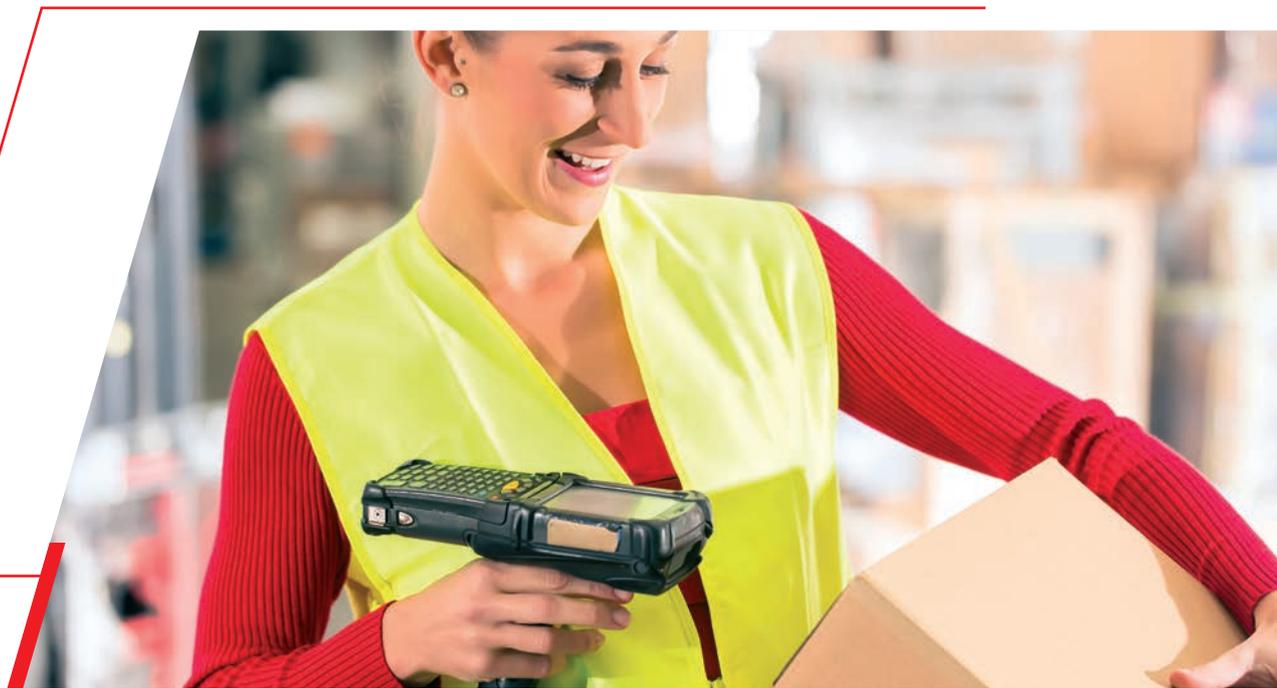
## IMPLEMENTATION SPECIFICS

The factory's finished goods warehouse is used to store over 1000 SKU of several brands, such as Krupskaya, Azart, Pekar, Sladko. To make the warehouse an efficient link in the factory's supply chain including manufacturing and distribution processes, it was necessary to ensure maximum speed of product search and placement as well as high accuracy in order pickup operations. Solvo.WMS demonstrated exactly this when performing these tasks.

The factory has a very big product variety including over 1000 SKU from different manufacturers, such as Krupskaya, Azart, Pekar, Sladko, etc. In order to make warehousing operations a more efficient link in the factory's supply chain, which ties together production and distribution, a solution was needed that would allow to quickly pick and ship out products while handling order with the highest precision. Solvo.WMS proved its value many times over. The system's algorithms for warehousing optimization, bar coding operations and radio terminal operations resulted in a drastic reduction in costs and sped up warehouse operations. Moreover, Solvo.WMS was seamlessly integrated with Microsoft Dynamics Nav to automate all operations, including distribution.

## RESULTS

Solvo.WMS allowed the Krupskaya Confectionery Factory to quickly and seamlessly manage all technological processes at the warehouse. Order processing times were reduced considerably; the order compilation process accelerated while errors were virtually eliminated. The quality of warehouse customers' service improved because error-based product returns were reduced substantially while warehouse personnel found new incentives for improving their performance.



2007

2007

2006

2005

2003

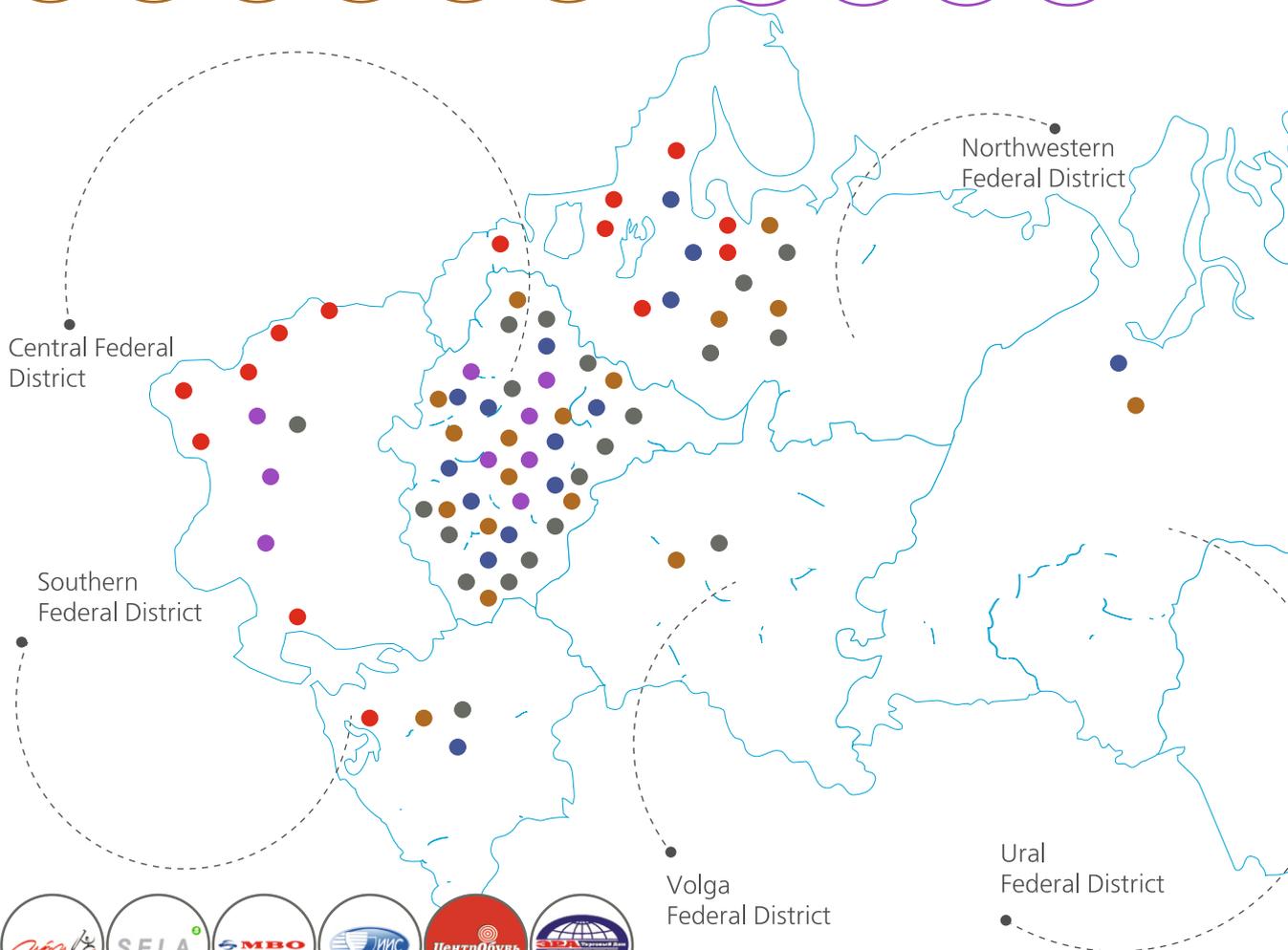


## Why Solvo.WMS?

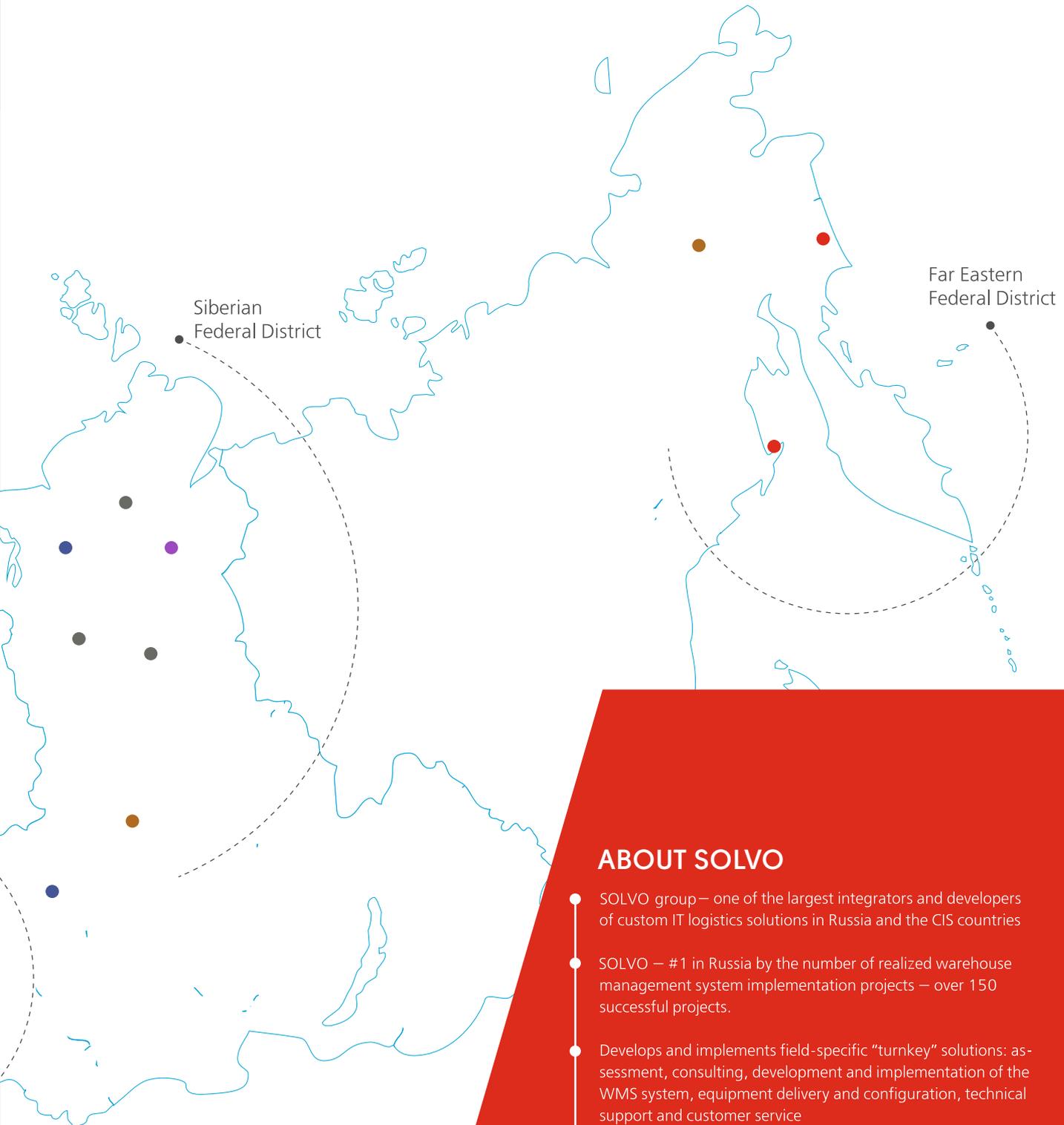


« The high level of activity at the production warehouse demands an ergonomically designed and highly resilient WMS. It is this resilience, which sets Solvo.WMS apart from many competing solutions. Nevertheless, its main advantage is its effectiveness, which was certainly proven more than once in at least a dozen projects – from finished goods warehouses for major breweries such as Baltika to auto parts warehouses. »

**Vladimir Nikitin,**  
*leading expert in production warehouses, head of sales, SOLVO*



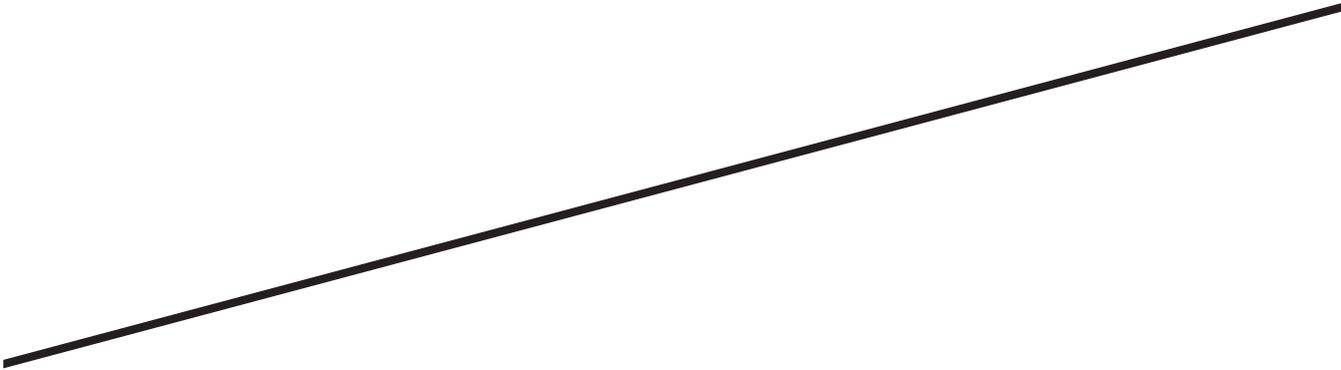
- Pharmacy
- Manufacturing
- Distribution
- 3 PL
- Container Terminals



## ABOUT SOLVO

- SOLVO group – one of the largest integrators and developers of custom IT logistics solutions in Russia and the CIS countries
- SOLVO – #1 in Russia by the number of realized warehouse management system implementation projects – over 150 successful projects.
- Develops and implements field-specific “turnkey” solutions: assessment, consulting, development and implementation of the WMS system, equipment delivery and configuration, technical support and customer service
- Multilevel 24/7/365 technical support including free updates, hotline, invitations to annual client conferences
- Logistics consulting services
- Client audit assistance





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