THE CONCEPT OF “FREIGHT VILLAGE” IN LOGISTICS DEVELOPMENT: EXPERIENCE FROM THE RUSSIAN FEDERATION

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In 2012 FREIGHT VILLAGE RU started development of the largest multimodal industrial-logistics centre in Russia in unique concept of ‘freight village’ – Freight Village Vorsino and Freight Village Rosva.

FREIGHT VILLAGE VORSINO (international format of freight village, 570 ha) located on the border of Moscow and Kaluga region as a part of Industrial Park Vorsino.

FREIGHT VILLAGE ROSVA (regional format of freight village, 64 ha) located on the border of Kaluga as a part of Industrial Park Rosva.

The Group offers warehouse and industrial facilities for rent and owner-occupation, industrial land for sale and delivers rail container terminal and customs services to the market, as well as developing large-scale industrial and residential projects.
FREIGHT VILLAGE VORSINO CONCEPT

**INDUSTRIAL–LOGISTIC INFRASTRUCTURE**
- Rail terminal
- Customs terminal
- Airport

**SERVICE INFRASTRUCTURE**
- Offices of property management and facility management companies, retail zone, hostels

**INDUSTRIAL–LOGISTIC INFRASTRUCTURE**
- Industrial zone

**INFRASTRUCTURE OF ADDED VALUE**
- Rail container terminal, customs terminal and bonded warehouses, repair and maintenance container services, truck stops, transport companies

**TRANSPORT INFRASTRUCTURE**
- Multimodal logistic terminal: auto, air and rail transportation
FREIGHT VILLAGE LOCATION IN MOSCOW AREA

Freight Village Vorsino – large-scale multi-modal industrial-logistics cluster of nationwide significance

- Optimal distance to the New Moscow
- Transit to other regions of the Central Federal District

<table>
<thead>
<tr>
<th>Distance</th>
<th>Time</th>
<th>Destination</th>
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<tbody>
<tr>
<td>67 km</td>
<td>40 min</td>
<td>to MKAD</td>
</tr>
<tr>
<td>40 km</td>
<td>25 min</td>
<td>to A-107</td>
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<tr>
<td>3 km</td>
<td>5 min</td>
<td>to A-108</td>
</tr>
<tr>
<td>40 km</td>
<td>30 min</td>
<td>to M-1 Moscow-Minsk</td>
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</tbody>
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- 3 km to new TsKAD section
- 45 km to Vnukovo airport
- Vorsino railway station – onsite Bekasovo marshal yard – 25 km

Moscow cargo hubs
- (Paveletskaya, Oktyabrskaya, Butyrskaya, Rizhskaya, Ryazanskaya, Kurskaya, Kievskaya, Smolenskaya)

Federal cargo hubs

www.freightvillage.ru
CONTAINER ROUTES VIA VORSINO

Sea Shipping
Delivery time: 50 days
Distance: 22 000 km

Far East Route
Delivery time: 35 days
Distance: 11 000 km

New Silk Route
Delivery time: 14 days
Distance: 7 750 km
FREIGHT VILLAGE RU TODAY

One of the largest operators of container handling in Moscow transport knot

Total rail container turnover volume, TEUs

CAGR +58.3%

Railway container import volume, TEUs

CAGR +84%

Railway container export volume, TEUs

CAGR +296.6%
The Russian container market will grow 5.8% per year in average from 2018 to 2023. The Moscow transport knot in separate is expected to grow 5.2% per year.
The population growth is correlated with the largest cities GDP growth

- The world population is approximately 7.6 billion people
- There is 10% of the world’s population living in the 50 largest cities
- More than half of world’s GDP is produced by the largest cities
- The average population density in the megapolises is 6 thousand people per square km.
- The Moscow population is 11% of the whole Russian population
- Moscow share in Russian GDP is 26%
- The Moscow population density is 4 thousand people per sq km

The new tendencies of the agglomerations development are being formed
Megapolis development requires implementation of new technologies into logistics system

Key tendencies

- Movement of the industries, centers of consumption and entertainment to the suburbs of the cities
- Development of the industrial and logistics parks (new types of the joint infrastructures)
- Turn to the comfortable public transport development
- Formation of the comfortable and environmental city infrastructure
- Application of the new ‘smart’ technologies of the cities management
ITALY
- More than 25 freight villages
- More than 1,000 transport companies – residents
- 38,000 people employed

GERMANY
- More than 30 freight villages
- Integration into the joint network
- Outside the cities
- Situated on the cross-points of the main transport routes
FREIGHT VILLAGES PERSPECTIVES
The Freight Villages network on the territory of the Russian Federation

Main business development directions

1. Vorsino terminal capacity increase up to 250 000 TEUs
2. Far east dry ports development
3. Ural region dry ports development
4. Siberia dry ports development
5. Digital logistics development
7. The expansion of Freight Village’s own container operator (Logbox) activity and geography.
THE SATELLITE HUB

SMART TERMINAL
- Cross-docking for light-duty trucks
- Warehousing

SHATTLS («regular container trains»)
- Regular daily schedule irrespective the fallibility of the train
- The train length is suitable for the stations inside the city
- Back delivery of the empty containers to the hub

FREIGHT VILLAGE // DRY PORT
- Customs operations, bonded warehouse
- Sort of containers by destination
- Container load/unload
- Train formation
THE CURRENT MODEL OF TRANSPORT-LOGISTICS MARKET PARTICIPANTS COOPERATION

Cargo-owner

Forwarder (3PL/4PL/5PL)

Forwarder (3PL/4PL/5PL)

Carrier (2PL)
THE PERSPECTIVE MODEL OF TRANSPORT-LOGISTICS MARKET PARTICIPANTS COOPERATION

Digital logistics platform

GPS/ГЛОНАСС

ГВЦ

Monitoring services

Cargo-owner

Forwarders (3PL/4PL/5PL)

Carriers (2PL)
DIGITAL LOGISTICS PLATFORM IS ABLE TO:

- Automate the logistics business processes, analyze the consumer behavior and offer the optimal decisions for the flows organization.
- Take into account the specific of auto, rail, water and avia types of transport, the peculiarities of cargo handling at the ports and terminals, warehousing, government relation.
- Provide the cooperation during the freight transfer orders fulfillment, including the exchange of the legislation significant digital docs.
- Accumulate, structure and analyze the large volume of data, forecast the future occasions and minimize the risks for the participants of the logistics processes.
- Optimize the operation of transport, terminal and warehouse assets, increasing its profitability and reducing the delivery cost.
The digital logistics platform will provide the optimal logistics and manage the distributive warehouses with the minimum amount of staff – the *digital warehouse*

- **Search of the optimal routes using the technologies of machine learning** (the route, considering the terminal points, stuffing, type of property, container runoff, geographical effectiveness and so on)
- **Interfaces for the forwarders** and the clients
- **Integration** with the governmental informational and supply chain management systems of the clients
- **Digital document circulation**
- **Cooperation with the customs**
- **Management of the cargo deliveries** dry port – warehouse, warehouse – destination point

- **Infrastructure and staff expenditures minimization** on the terminals by creating smart loaders using the Computer Vision technologies
- **Management of the inner warehouse** logistics and fulfillment
- **Digital warehouse** – digital copy of the warehouse with more than 40 parameters of the technical condition
Aspects of Freight Villages’ sustainable development:

- standardization of the terminal-logistics processes worldwide;
- definition of the freight villages, transport-logistics centers, container terminals and the difference between it;
- the unified legal and regulatory framework on the national and international levels, establishing the relations between the participants of the terminal processes.
THANKS FOR YOU ATTENTION!

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