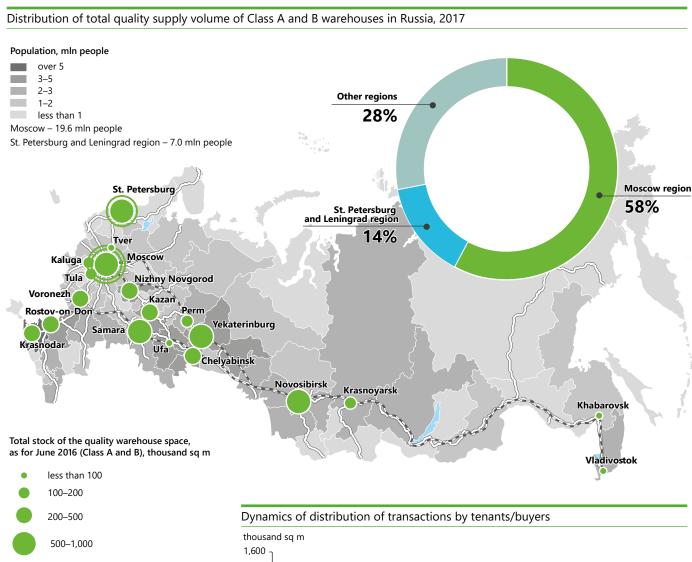
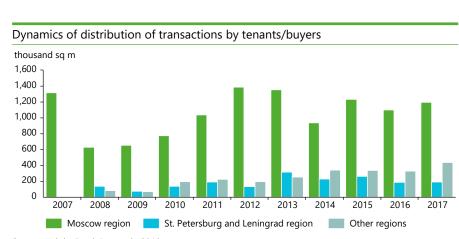


WAREHOUSE MARKET REPORT. RUSSIA

The total quality warehouse stock of Russia reached about 23 million sq m in 2017, where 58% or 13.4 million sq m were located in the Moscow region, 14%, or 3.2 million sq m – in St. Petersburg and the Leningrad region, and 28% or 6.4 million sq m in the regions of Russia.





Source: Knight Frank Research, 2018

1,000-7,000

over 7,000

Federal highways

Trans-Siberian Railway

and South Ural course







Vladislav Ryabov Regional director, Industrial, Warehouses and Land, Knight Frank, Russia and CIS

"2017 was more dynamic to deliver new properties to the regions of Russia than 2016. However, the old Soviet-built facilities still dominated in the supply structure of the regions of Russia despite the growth of construction volumes. New properties are mostly built for the end use, and I believe this vector of development will prevail in the regional warehouse real estate market. As in the previous years, in 2017 the leading position in the demand structure was held by food retailers, who were the main customers of built-to-suit projects with multi-temperature chambers, and they boosted their activity not only in cities with population over a million people, but also in small cities. According to our estimates, the volumes of delivery and transactions of the regional warehouse market in 2018 will exceed the indicator of the year 2017, and the structure of demand will remain unchanged".

Supply

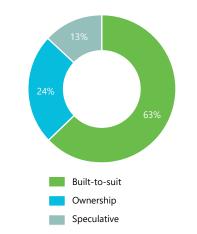
Over 350,000 sq m of quality warehouse space was put into operation in the regions of Russia in 2017 (excluding the Moscow region, St. Petersburg and the Leningrad region), which was 27.7% higher than the delivery rate for 2016. The largest volume of warehouse space was completed in Yekaterinburg - about 61,000 sq m and about 50,000 sq m in Vladivostok. 87% of the total volume of properties delivered in 2017 was built for end users both in builtto-suit format and with the involvement of the general contractor, the remaining 13% were built speculatively. The largest speculative projects, completed in 2017, were the second phase of the Dockland warehouse complex in Tula with an area of about 21,000 sq m and the fourth phase in the Aviapolis Yankovsky logistics complex in Vladivostok with an area of about 25,000 sq m. Some of the largest facilities built for the end users in 2017 were the distribution centres of the following federal retail chains: X5 Retail Group in Yekaterinburg and Auchan in Samara with an area of about 35,000 sq m each; Magnit in Murmansk and Kirov with an area of about 33,000 sq m each.

Significantly, developers did not announce the entry of large speculative projects on the market despite the increased demand for quality warehouse property in the regions of Russia, but they signed contracts for the construction of warehouses in builtto-suit format or with the involvement of the general contractor.

There was a limited supply of quality warehouse units in most regions of Russia following the results of 2017. The vacancy share (excluding the Moscow region, St. Petersburg and the Leningrad region) was 4.4% or 280,000 sq m in absolute terms by the end of 2017.

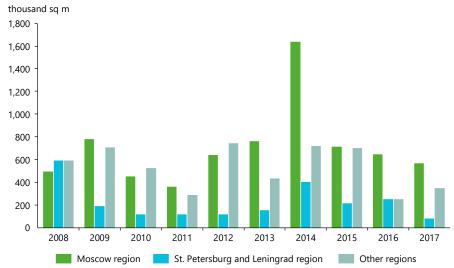
The largest vacancy rates were in Kaluga -38.4%, in Tula - 11.4% and in Rostovon-Don - 8.8%. However, despite the high percentage, the amount of vacant warehouse space was low in absolute terms. The smallest share of vacant warehouse space was observed in Krasnodar - 0.5%, in Omsk - 0.5% and in Vladivostok, where there were no vacant premises by the end of 2017.

Distribution of new delivery volume in regions of Russia by type, 2017 (excl. the Moscow region, St. Petersburg and the Leningrad region)



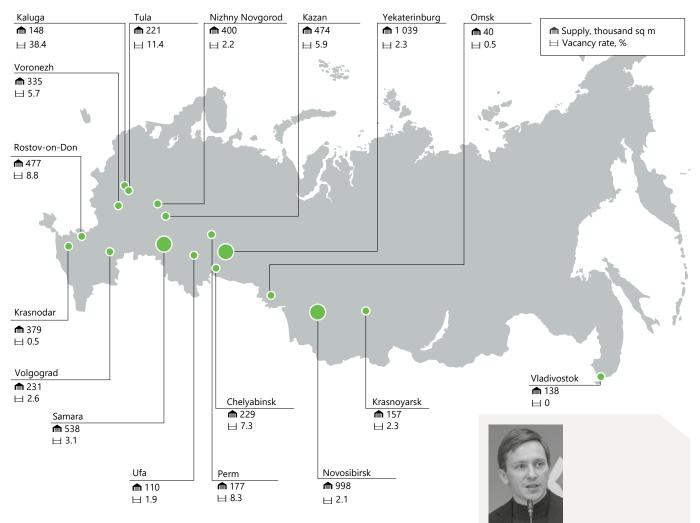
Source: Knight Frank Research, 2018

Dynamics of growth of quality warehouse space



Source: Knight Frank Research, 2018

Supply and vacancy rate



Source: Knight Frank Research, 2018

The largest warehouse complexes delivered in the regions of Russia in 2017

City	Title	Total area, sq m			
Yekaterinburg	Yekaterinburg distribution centre (X5 Retail Group)	38,000			
Samara	Pridorozhny logistics complex, building 6 (Auchan)	33,800			
Murmansk	Magnit distribution centre	33,000			
Kirov	Magnit distribution centre	32,680			
Tyumen	X5 Retail Group distribution centre	26,000			
Vladivostok	Aviapolis Yankovsky logistics complex, phase 4	25,700			
Ufa	Sigma logistics complex (building of X5 Retail Group)	25,000			
Vladivostok	Aviapolis Yankovsky logistics complex, phase 5	24,200			
Perm	X5 Retail Group distribution centre	23,800			
Tula	Dockland warehouse complex, phase 2	21,000			
Novosibirsk	X5 Retail Group distribution centre	17,000			
Yekaterinburg	PNK Park Kosulino (X5 Retail Group)	13,690			
Source: Knight Fran	Source: Knight Frank Research, 2018				

At Dockland we pay a lot of attention to design, and I'm sure that the professional approach to design pays off on multiple

occasions.

Victor Vorobiev, shareholder of Dockland LLC

KF: Does the design of the warehouse affect its technical characteristics?

V. V.: Such tool as design is rarely used professionally in industrial real estate, and this gives a significant competitive advantage to those companies that invest in it. It is important to understand that design is not only how the object looks, but also how it functions. When a client, employee, or business partner gets acquainted with your complex, the first thing he does is unconsciously assess the aesthetic appeal and the conceptual design of the building, while deciding whether he wants to lease this facility or work in this space.

Demand

Over 440,000 sq m of warehouse space was leased and purchased as a result of 2017 in the regions of Russia (excluding the Moscow region, St. Petersburg and the Leningrad region), which was almost 25% higher against 2016. The largest volume of transactions was concluded in Yekaterinburg – about 125,000 sq m and in Novosibirsk – about 51,000 sq m.

About 67% (or 296,000 sq m) of the total volume of regional lease and purchase transactions of 2017 was concluded in completed facilities, up by 37.5% over the same indicator for 2016. The average transaction volume was 6,000 sq m, which was equivalent to the average volume of transactions of 2016. The number of new lease transactions in completed facilities in 2017 grew by 30% against 2016. The remaining 33% of the total volume of regional transactions in 2017, or 144,000 sq m was concluded for the construction in the built-to-suit format or with the involvement of the general contractor.

As a result of 2017, the share of retailers, which historically formed the largest demand in the regions of Russia, reached more than 76% of the demand structure. The largest transaction of this segment was the lease of about 46,000 sq m in the Yuzhnouralsky warehouse complex in Chelyabinsk by Detsky Mir company. The warehouse complex with a total area of about 82,000 sq m was put into operation in 2015. The largest built-to-suit transactions of 2017 in the retail segment was the signing by the federal retail chain Auchan of contracts for the construction of facilities with an area of about 35,000 sq m within the Prigorodny warehouse complex in Samara and 30,000 sq m in the PNK Park Kosulino in Yekaterinburg. Two major transactions for the construction of own facilities with the involvement of the general contractor were signed by A Plus Development, which would build distribution centres for the federal retail chains Monetka in Yekaterinburg and Nefteyugansk with an area of about 34,000 sq m and 25,000 sq m, respectively. The delivery of these properties was planned for 2018.

The second place in the structure of demand in the regions of Russia in 2017 (about 9%) was occupied by the segment

Dynamics of distribution of transactions by tenants/buyers



Source: Knight Frank Research, 2018



Vyacheslav Zelepuga, commercial director of A Plus Development

KF: Please, tell us about the design features of the facilities built/currently under construction for the end users.

V. Z.: Today, the vast majority of projects for the construction of warehouse complexes in all regions of Russia are implemented in built-to-suit format. Therefore, all warehouse facilities are different, each is built for the technology of a particular customer and is unique in some way. This is reflected in layout concepts, the working height of the project, the floor loading, column grid, and so on.

KF: What problems do you face when building warehouses in the regions of Russia?

V. Z.: There are a number of factors that impose restrictions on the construction of warehouse facilities in the regions – climatic conditions, the season of construction works, and the remoteness of the facility from major cities, from where it is necessary to deliver construction materials. For example, the acceptable delivery distance (economically feasible) of reinforced concrete is 300 km, metal structures – 500 km. Exceeding these parameters leads to a significant rise in the project cost.

There are also some difficulties with attracting skilled labour for reasonable money in the regions, especially for the installation of engineering systems. At our facilities, we perform the installation of engineering systems almost entirely by ourselves, we send our own specialists from St. Petersburg and Moscow. This is more effective than attracting local specialists from the perspective of quality and cost of work, even including expenses for flights, accommodation and travelling allowance.

WAREHOUSE MARKET REPORT. RUSSIA

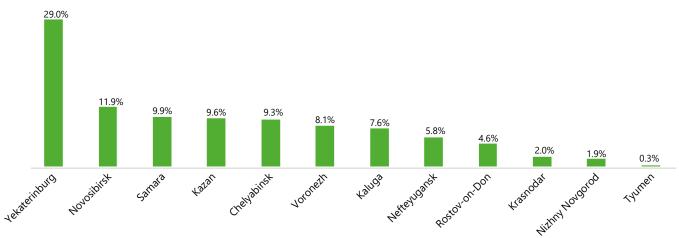
2017 59.3% 8.1% 15.0% 17.6% 2016 63.1% 19.8% 17.1% 2015 69.8% 2.3% 21.7% 6.2%

of logistics operators. The largest transaction of this segment was the purchase of about 36,000 sq m in the industrial park Freight Village Kaluga by Karl Schmidt Spedition.

The share of production companies in the structure of demand amounted to about 5.5% in 2017, which was equivalent to 23,800 sq m in absolute terms, and the share of distributors was 4.6% or 20,000 sq m in absolute terms.

Source: Knight Frank Research, 2018

Distribution of transactions in regions of Russia, 2017



Source: Knight Frank Research, 2018

The largest transactions in the regions of Russia in 2017

City	Tenant	Company sector	Property/location	Class	Total area, sq m	Transaction type
Chelyabinsk	Detsky Mir	Retail	Yuzhnouralsky warehouse complex	Α	46,060	Lease
Kaluga	KSS	Transport and Logistics	Freight Village Kaluga	Α	35,630	Sale
Samara	Auchan	Retail	Pridorozhny warehouse complex	Α	35,310	BTS lease
Yekaterinburg	Monetka	Retail	A Plus Development	Α	34,000	BTS sale
Yekaterinburg	Auchan	Retail	PNK Park Kosulino	Α	30,000	BTS lease
Nefteyugansk	Monetka	Retail	A Plus Development	Α	25,000	BTS sale
Novosibirsk	Tarkett	Manufacturing	PNK Park Tolmachevo	Α	7,500	Lease
Yekaterinburg	Wildberries	Online-retail	Petrovsky 2 warehouse complex	Α	5,790	Lease
Krasnodar	OZON	Online-retail	A2 Krasnodar warehouse complex	Α	5,030	Lease

Source: Knight Frank Research, 2018





Andrey Artamonov, DNS Development, Aviapolis Yankovsky

KF: Please, tell us about the demand for quality real estate in Vladivostok - the profile of tenants/buyers, are there any BTS transactions, what is the most requested size of units?

A. A.: There is a demand for quality warehouse property, and 100% occupancy of our complex can serve as a confirmation.

Of course, the question of the price to lease such real estate is still open, since the construction of such complexes in our local market is a novelty and tenants have nothing to compare it with.

The profile of tenants' activities is diverse, and it is difficult to single out the prevailing

specializations of our clients. Tenants store alcohol, food, household appliances, shoes, etc. One of the companies organized tea production in one of our production and warehouse buildings (packaging factory).

KF: Do you have plans for the construction of new phases?

A. A.: CThe average size of leased area in our complex is 6,000 sq m. In 2017, we successfully built our pilot project in builtto-suit format - Class A warehouse with an area of 20,000 sq m. It is this scheme of cooperation between us and the tenant that will be a priority in the further development of our complex.



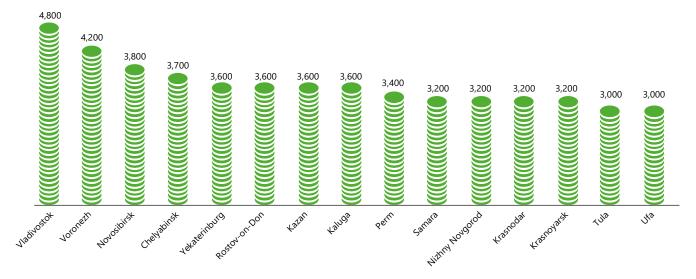
Commercial terms

The average asking rental rate for Class A warehouse space of the regions of Russia was 3,500 RUB/sq m/year, excl. VAT, operating expenses and utility payments. However, the rental rate exceeded the market average in the regions where there was a shortage of quality supply. The highest rents were recorded in Vladivostok -4,800 RUB/sq m/year, the lowest - in Tula and Ufa - 3,000 RUB/sq m/year.

The average lease term of the regional market was 3 years in 2017, the amount of operating expenses was at the level of 800–1,000 RUB/sq m/year excluding VAT.

In 2017, the asking price for a built-tosuit project from 10,000 sq m was at the level of 35,000-40,000 RUB/sq m excluding VAT. Significantly, the construction cost of a warehouse complex in the regions of Russia exceeded the construction cost in the capital region. This was primarily due to increased costs for transportation of building materials, the need to look for the skilled construction teams, etc.

Asking rental rates for Class A warehouses in 2017, RUB/sq m/year



^{*} Asking rental rate for Class A excl. VAT, operating expenses and utility payments. Source: Knight Frank Research, 2018

Forecast

According to forecasts of Knight Frank analysts, the volume of new construction in the regions of Russia (excluding the Moscow region, St. Petersburg and the Leningrad region) in 2018 will exceed the indicator of 2017 and may reach about 500,000 sq m. Interestingly, the bulk of the warehouse space to be put into operation in 2018 will be completed in built-to-suit format or with the involvement of the general contractor on its own land. It is too early to talk about the saturation of the regional market with Class A warehouses despite the increasing volume of new

construction and the growing demand for quality warehouse property. The main share in the supply structure in the regions of Russia is still occupied by old buildings of the times of Soviet construction, re-equipped for warehouses.

The vacancy rate will remain low in 2018, due to the fact that most facilities will be delivered in built-to-suit format or for the end use.

In 2018, the average Class A rental rates of the regions of Russia will be at the level of 3,500 rub./sq m/year, excluding VAT,

operating expenses and utility payments. Rental rates may vary upward or downward depending on the region, the volume of leased space, lease term and other commercial conditions.

There will be no significant changes in the demand structure in 2018. The main share will be formed by retail companies that will continue to build up their presence both in cities with a million population and in cities with a population of 250–500 thousand people.

The largest warehouse projects planned for delivery in 2018

City	Property	Area, sq m
Yekaterinburg	Rolsy warehouse complex, phase 3	50,000
Yekaterinburg	Monetka distribution centre	34,000
Novosibirsk	Sibirskiy warehouse complex	34,000
Yekaterinburg	Auchan distribution centre	30,000
Nefteyugansk	Monetka distribution centre	25,000
Petrozavodsk	X5 Retail Group distribution centre	25,000
Kazan	ETM distribution centre	22,000

Source: Knight Frank Research, 2018

PNK Park Kosulino, Sverdlovsk distr., 14 km from EKAD

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